CROSS RIVER PARTNERSHIP

SMARTER GREENER LOGISTICS

UNPACKING LONDON'S FREIGHT FLOWS:

Mapping Key Routes for Road Freight

– Full Report

Information of freight flows across Greater London, including three borough case studies.

January 2025

steer

CROSS RIVER PARTNERSHIP

Delivering London's Future Together

30 Years

Department for Environment Food & Rural Affairs

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1.0 - Introduction

Cross River Partnership

Cross River Partnership (CRP) is a partnership delivering environmental, economic, and community-focused projects. CRP's vision is to address sustainability challenges collaboratively in London and beyond. By supporting innovative pilots and projects, CRP creates a testbed for ideas that could improve life for those who live and work in the city.

CRP's **Smarter Greener Logistics** (SGL) programme is a Defra-funded project led by Westminster City Council in collaboration with 23 project partners. It aims to minimise the impact of freight on noise, air quality, traffic and pavement space in London by making improvements across 14 London boroughs and two London Business Improvement Districts (BIDs).

Purpose of this Report

CRP has commissioned **Steer** to produce this report, consolidating a range of datasets and evidence regarding freight movements across Greater London in response to 17 key research questions.

The aim is that this document will be used to provide context and underpin future decisions for pilots and projects by consolidating information in an accessible format. The final section contains recommendations and next steps that could support the advancement of sustainable freight issues across the city.

Freight and Logistics in London

Freight and logistics are essential to the smooth running of London, playing a critical role in ensuring that residents and businesses have access to the goods and materials they need.

From supporting construction projects to delivering parcels directly to doorsteps, the sector underpins the city's economy and daily life.

London is a net importer of freight, with the majority entering the city via road or port. Freight travels by rail, maritime routes (through the Port of London and, in smaller volumes, upriver), and primarily by road. Across the UK, around 90% of freight is moved by road, using both heavy and light goods vehicles.

Significant progress has been made in the freight sector to address challenges such as air quality, noise, and safety. Industry initiatives, technological advancements, and collaborative efforts have already contributed to more efficient and sustainable logistics. By continuing to build on these successes, the sector can further support London's needs while balancing environmental and social considerations.

Freight data

There are a limited number of comprehensive sources of freight data, with Heavy Goods Vehicle movements being the most recorded, fewer sources available for Light Goods Vehicles, and very little for cargo bike movements. This study draws from analysis of Transport for London's (TfL's) London Highways Assignment Model (LoHAM), Department for Transport (DfT) Road Freight Statistics, Traffic Counts, and Van Statistics, as well as primary data collected via three corridor surveys. Many of the sources available do not disaggregate this data at a Greater London or borough-specific level, meaning national statistics have been relied on where more specific data could not be found.

DfT's Road Freight Statistics are collected by the department's three road freight surveys and cover only movements made by HGVs. **DfT's Van Statistics** are the results of the 2019-2020 van ownership and usage survey compiling data on over 19,900 vans driven by private and business keepers. Some, but not all, of these statistics are disaggregated regionally, meaning a mix of national and regional figures is used.

This study also used data from the **Business Register and Employment Survey**, which provides data on employees and places of work. This was used to identify the locations of premises working in freight-related fields.

TfL's London Highway Assignment Model (**LoHAM**) is a strategic model of vehicle movements across London. The underlying trip origin and destination data has been derived from aggregated and anonymised mobile phone data which is then adjusted to the observed vehicle counts on the road network. These are then forecast for future years using statistical analysis of historical trends. There are definitional differences between what constitutes a 'trip' for a goods vehicle between industries and also compared to personal travel and so the results presented should be used to infer the indicative spatial distribution of travel rather than provide commentary of precise absolute values.

This report uses LoHAM's 2026 hybrid model. It is also important to note that the LoHAM model was obtained under licence, with analysis and interpretation carried out by Steer, rather than TfL conducting the work directly.

Highway demand is forecast using **TfL's MoTiON** (Model of Travel in London), a multi-modal strategic transport modelling suite for London and the surrounding area. The model includes a step where mode shares are predicted, with the mode share responding to changes in various factors, including transport infrastructure, car ownership, car parking supply, and demographics.

The hybrid reference case model only includes committed and funded transport schemes and policies. Therefore, we would expect the highway mode shares to be higher than the Mayor's target, as achieving this would likely require additional measures currently in development to be implemented. The table to the right shows the daily mode shares forecast in MoTiON for the 2026 Hybrid Scenario for Greater London.

Mode	Total trips	Mode share
Active	7,474,900	32%
Car	7,309,800	31%
Public transport	8,537,500	37%
Total	23,322,200	100%

2.0 – Freight in London

Vehicles - Goods - Stakeholders - Consolidation

2.1 - Vehicles

The types of vehicles moving goods in London

Freight is moved on a diverse range of commercial vehicles, from cargo bikes to 40-tonne lorries. In the UK, a commercial vehicle is specifically designed to transport goods, objects, or equipment. Freight vehicles are classified into several categories, broadly: heavy goods vehicles (HGVs), light goods vehicles (LGVs), and other goods vehicles (OGVs).

Varying language is used to describe goods and vehicles. Some sources may use 'commercial' instead of 'goods'. The term 'ordinary goods vehicle' (1 and 2) may be used instead of 'heavy goods vehicle'. Less frequently, the term 'medium goods vehicle' describes vehicles weighing between 3,500 and 7,500kg.

DVSA vehicle type approvals provide some clarity: freight vehicles are primarily Category N, and trailers are Category O.

How light goods vehicles are categorised

Light goods vehicles are N1, weigh up to 3,500kg and can be driven by a holder of a standard category B driving license. There is currently a regulatory exemption covering electric vehicles to account for the additional weight of their batteries, meaning the upper weight limit for these vehicles is 4,250kg rather than 3,500kg. Light goods vehicles are typically vans ranging from short, light models of similar weight and size to passenger cars to large box or Luton vans at the top end of the weight category.

How heavy goods vehicles are categorised

Heavy goods vehicles are divided across N1 (3,500kg – 12,000kg) and N2 (exceeding 12,000kg). Some sources may use OGV1 and OGV2 to describe these. HGVs are further categorised based on the weight and number of axles. Vehicles above 44,000kg are considered abnormal loads and require additional safety measures (in the form of a Special Types General Order) to be driven on UK roads. The UK has also recently trialled and introduced 'longer-heavier vehicles'.

HGVs include the typical lorry, which can be rigid or articulated (artic), but they also include specialised vehicles such as refuse vehicles or cement mixers. For this study, we do not further subdivide HGVs.

As cargo bikes increase in presence and innovative models are deployed, there has been some uncertainty about classifications. Cargo bikes include a diverse range of models both electrically assisted and conventional. Currently, distinctions are drawn based on the nature of electric assistance provided – with only pedal-assisted electric models currently being legal without type approval. All cargo bikes, regardless of wheel arrangements and capacity, that meet the motor limits of the maximum power output of 250 watts and a limit of 15.5 mph fall into the classification as electric assist pedal cycles and are considered bicycles by the law.

LGVs are the most common commercial vehicle on London's roads

The majority of commercial vehicles on the network are LGVs**. DfT** traffic count data shows that LGVs make up 15% of vehicles counted, five times more than HGVs. However, DfT's Van statistics suggest that most of these are service vehicles rather than those making deliveries/collections.

DfT's Van Survey shows 205,207 vans in London from 2019 to 2020. Businesses kept 62% of these vehicles, and 38% were held privately. However, 75% of LGV vehicle miles in London were made by vehicles kept by businesses. SMMT (Society of Motor Manufacturers and Traders) data suggests that there were around 225,000 vans registered in London by the end of 2022.

The maps on the following page show LoHAM data of HGV and LGV movements as a percentage of total traffic. This shows that the distribution of these total counts is unevenly dispersed.

LGVs constitute upward of 20% of traffic on a large proportion of the major road network. In London, other than on the M25, HGVs do not make up more than 10% of total traffic on roads within Greater London. However, they constitute a higher number on many routes than the total 3%.

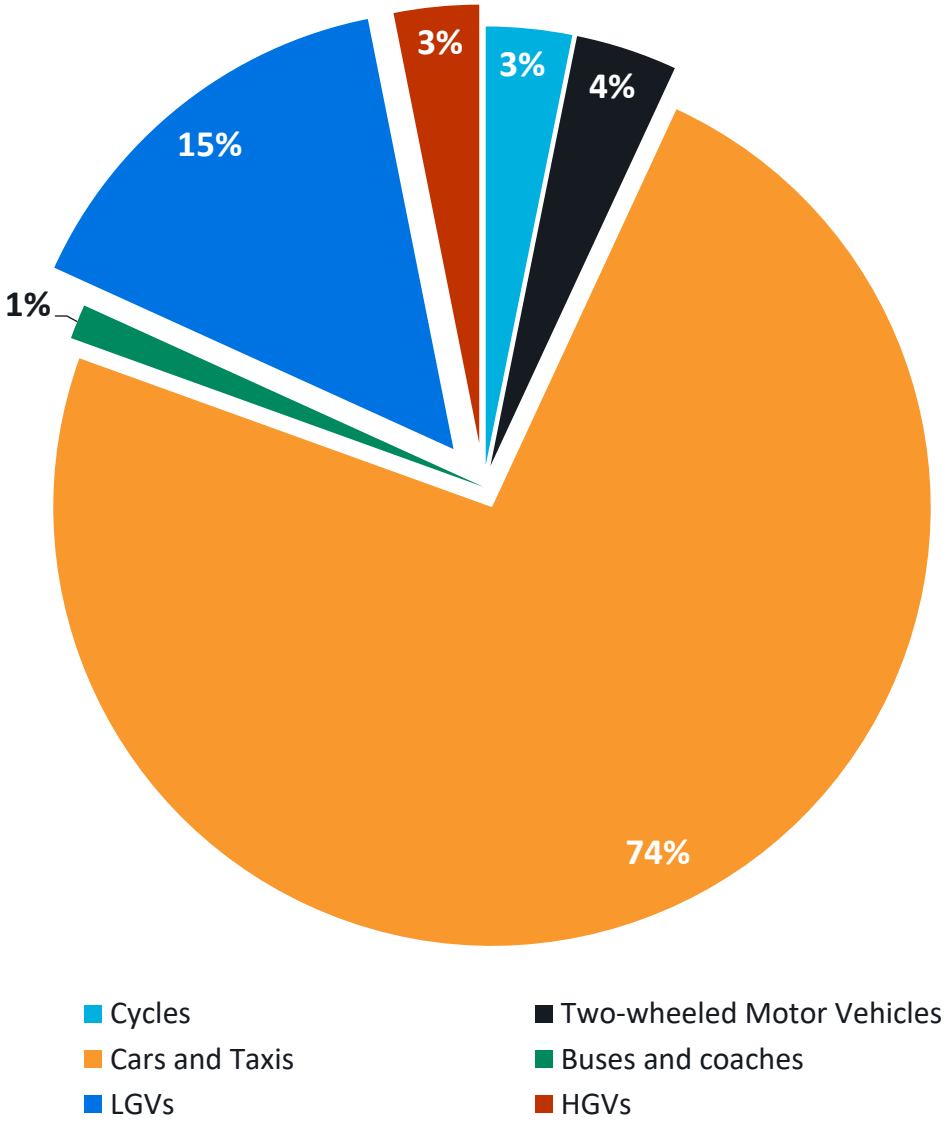


Figure 2.1: DfT traffic counts of all vehicles aggregated across all count sites in Greater London

LGVs make up 15% of traffic

205,207 LGVs/ vans in London between 2019 and 2020

75% of LGV miles were made by businesses

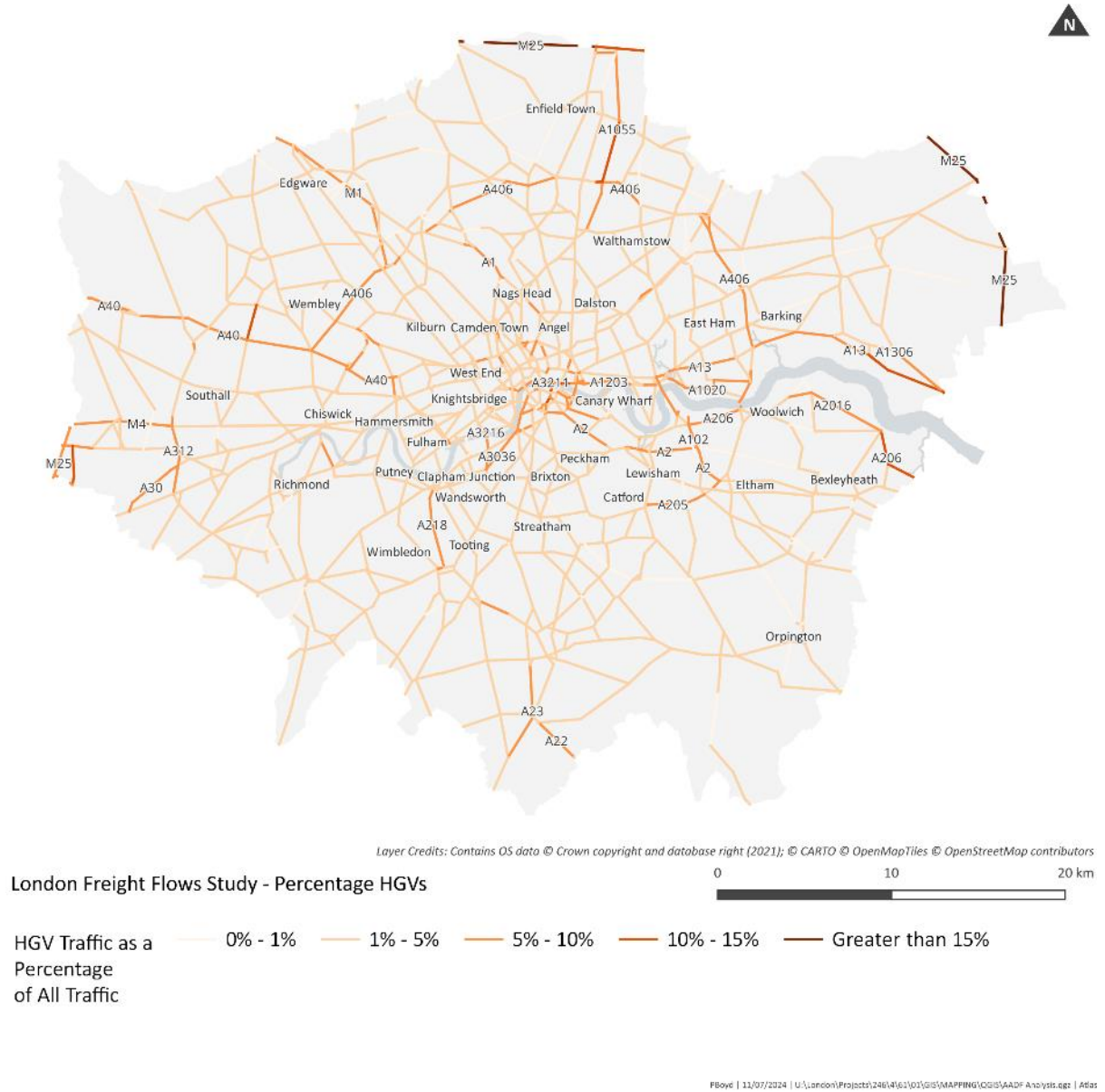


Figure 2.2: LGVs (left) and HGVs (right) as a percentage of total traffic on road links (DfT Traffic counts annual average daily flows 2023)

Low-emission vehicles such as cargo bikes or electric vans still constitute a minority amongst freight fleets

Where cargo bikes are more common

While growing in significance, cargo bikes still constitute a minority of freight movements. The highest count location peaks at 150 counts in 24 hours, compared with thousands of LGVs. However, recent research by Clean Cities suggests cargo bike use rose by 63% across London from 2022 to 2023, and TfL's cargo bike action plan suggests that 17% of van km could be replaced by cargo bikes by 2030.

The adjacent table shows the locations with the highest cargo bike counts during TfL's spring 2023 count. It appears likely that several of the highest counts may include pedicabs popular in tourist locations in the West End (Garrick Street, Bridge Street, Oxford Street).

Cargo bike count	Location
150	Garrick Street
149	London Bridge
125	Bridge Street
125	Clerkenwell Road (west)
124	Oxford Street (east)
123	Bishopsgate
120	New Bridge Street
119	Bloomsbury Way
114	Holborn
110	Royal Mint Street
104	South Parade
99	Farringdon Street
96	Tooley Street
95	Blackfriars Bridge
94	Lea Bridge Road
91	Chiswick High Road
89	Holloway Road
89	Moorgate
88	Charing Cross Road
88	Prince's Street
85	Theobald's Road
83	Upper Thames Street (west of Southwark Bridge)
81	Upper Thames Street (east of Southwark Bridge)
76	Paul Street
73	Aspley Way (at Hyde Park Corner)

Cargo bike count	Location
69	Temple
69	Tottenham Court Road (south)
69	Tooley Street (east)
66	Victoria Park (Bonner Hall bridge)
66	Farringdon Road (near station)
65	Newgate Street
65	Oxford Street (west)
64	Lowndes Street
63	Pitfield Street
63	Clapham Common
63	Regent Street
63	Petty France
62	V. Embankment (by Cleopatra's Needle)
62	Lower Thames Street
61	Whitechapel Road East
61	Strand
60	Mortimer Street
59	High Holborn
58	Wandsworth Common
58	Gracechurch Street
57	A. Embankment (south of Salamanca Street)
57	V. Embankment Derby Gt and W. minster Brdg)
56	King Street
56	College Road (south)
56	Claremont Square

Table 2.1: Showing top 25 count points for cargo bikes (TfL, Spring 2023)

Size of Cargo Bike and Low Emissions Fleets

Cargo bike fleet size in London

We have found that one major cargo bike operator is currently operating a fleet of **60 bikes in London**. Desktop research suggests other larger operators have similar-sized fleets of between **50 and 100 bikes**. With approximately **20 major cargo bike operators** in London, there could be a total fleet size of 1,000 to **2,000 bikes.** This does not include cycles used in-house by businesses or local authorities – such as Laundry Heap (with 25-40 bikes in 2023).

High cargo bike flows are primarily within central London. However, there are notable exceptions. High counts are found on C49 (South Parade, Acton) onto C9 (Chiswick High Road), Lea Bridge Road, and Holloway Road.

Low-emission LGV fleet size in London

While take-up has increased among major courier carriers, more widely, electric vans make up a small percentage of vans on the roads. **SMMT** data states that, in 2023, battery-electric **vans were 5.9% of new van sales**. The DfT's 2019-2020 van statistics found that 0.1% of privately kept vans and 0.3% of business-kept vans were ultra-low emission.

One leader in the electrification of van fleets is Royal Mail, with 5,000 electric vans – approximately 10% of their total fleet. Another leader, DPD, operates approximately 3,600 electric vans and aims to transition 40% of its van fleet to electric in 2024. Data on how these are distributed and the percentages operating within London is not readily available.

Estimated 1,000-2,000 cargo bikes in London

0.3% of business kept vans were ultra-low emission

5.9% of new vans were electric in 2023

Determinants of cargo bike success

A meta-analysis by Narayanan and Antoniou (2021) found that e-cargo bike usage is shaped by the following operational, vehicular, infrastructural, workforce, organisational, and policy determinants.

Operational: E-cargo is best suited to areas with dense population and commercial activity and operators with smaller catchment areas.

Vehicular: technical shortcomings, price, and user comfort were found to be the main determinants of uptake.

Infrastructural: better cycling infrastructure is related to increased viability for cargo bike operations. It also has advantageous street layouts that allow cycles to be shorter/quicker alternatives (e.g., narrow historical street layouts and motor vehicle restrictions).

Workforce: increasing age and income and lower educational level negatively influenced e-cargo willingness.

Organisational: especially suitable for the administrative sphere, including delivering letters/parcels under time pressure, medical services, and perishable deliveries.

Policy: a major influencing factor is the implementation of conventional vehicle access restrictions and increased parking costs.

These factors align with those identified by CRP and TfL as part of the Business Cargo Bike Guide:

- Upgrading cycle infrastructure to accommodate cargo bikes
- Access to rider training
- Increased density of micro hubs supporting cargo bikes
- Allocating more road space to facilitate faster cargo bike movements
- Improved awareness of cargo bikes

2.2 - Goods

The following section provides an overview of the goods being moved throughout Greater London

DfT Road Freight Statistics uses categories in the adjacent table when reporting freight data.

However, many of these commodities will have a minor presence in London due to the relatively limited amount of heavy industry taking place. We have simplified these commodities to create a list which may be more useful for understanding freight movements in London.

DfT Commodities
Agricultural products
Coal and lignite
Metal ore and other mining and quarrying
Food products, including beverages and tobacco
Textiles and textiles products, leather and leather products
Wood products
Coke and refined petroleum products
Chemical products
Glass, cement and other non-metallic mineral products
Metal products
Machinery and equipment
Transport equipment
Furniture and other manufactured goods
Waste related products
Mail and parcels
Empty containers, pallets and other packaging
Household and office removals and other non-market goods
Groupage
Unidentifiable goods
Other goods not elsewhere classified

Simplified key categories of goods moved in Greater London

Groupage

Groupage is the term for collected products for delivery in pallets and containers. This would include, for example, online retail products to be delivered to residential properties and stock transported for retail. The nature of this commodity means that it has already been consolidated and is, therefore, most suitable for de-consolidation and loading onto low-emission vehicles such as cargo bikes. Typically, this commodity would be transhipped between vehicles at a distribution centre/fulfilment centre.

Food and drink

Food and drink are a major contributor to freight movements. Food products are typically delivered on a just-in-time basis due to their shelf life. As well as the commonly seen branded HGVs making deliveries to supermarkets, London also has many smaller operators making deliveries to restaurants. This also includes the post-Covid rise in home deliveries of groceries.

Construction materials and equipment

Construction materials and equipment. This includes bulk construction materials such as aggregates, concrete, cement, or glass, as well as smaller-scale materials distributed through builders' merchants such as timber. It would also include more specialist movements. Many of these freight movements will enter the city via the Port of London and be moved via HGVs, with a very limited opportunity for using lower emission vehicles due to the size and weight of the goods being transported.

Waste

Waste. The GLA's London Environment Strategy (2018) states that London produces approximately seven million tonnes of waste from residential and commercial properties (2018). This is collected in HGVs and may be processed locally or transferred by road, river, or rail to final sites outside of London. However, a lot of waste is processed within the bounds of Greater London, and a decreasing amount is sent to landfills outside the city.

Quantities of goods moved in Greater London

Consolidated data on the precise totals and amounts of different commodities moved through London is not readily available. Data is available for HGV commodities at a national scale, but LGV movements, in particular, are not comprehensively recorded.

How vans are used in the UK

The **DfT's 2019-2020 Van Statistics** is the latest comprehensive survey of van keepership and purpose in the public domain. It is the first such survey conducted since 2009. Results show that across Britain the primary purpose of vans is for carrying equipment, tools, or materials as part of providing services. Only 16% of total registered vans are expressly dedicated to the delivery/collection of goods nationally. This is higher within London at 21% for all vans and 26% for those kept by businesses.

Figure 2.3: Van usage in Greater Britain (2019-2020 (DfT Van Statistics)

Only 16% of vans nationally and 21% in London are used for carrying freight

Vans used for the delivery and collection of goods

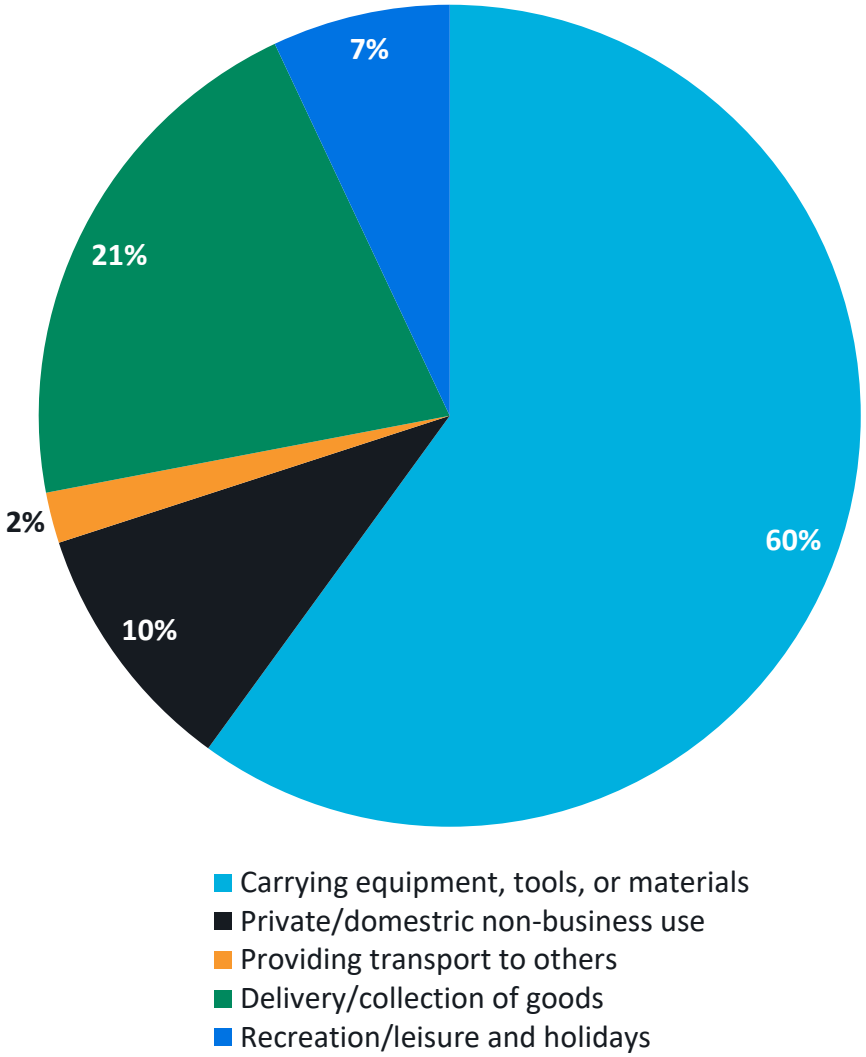
Vans conducting delivery/collection of goods have the highest average mileage (21,200 average miles per year), which means that vans used for this purpose constitute 24% of total van mileage. In London, 73,000 vans are kept privately (38%), and 122,000 are kept by businesses (62%).

Most goods for delivery or collection are likely to fall into the category of groupage. However, as much of this is likely to be distributed across a high number of operators collecting precise data is a challenge.

While total figures across all LGV deliveries are not accessible, research by the Thames Estuary Growth Board states that within the Courier, Express and Parcel (CEP) sector, 700 million parcels are delivered in London annually, with even higher volumes of letters also delivered.

Collection and delivery of goods constitutes 24% of total van mileage in Greater London

Figure 2.4: Van usage in London 2019-2020 (DfT Van Statistics)



The goods moved by HGVs in the UK

Across the UK, groupage (assembled smaller shipments) is the largest volume commodity moved, accounting for 23% of total goods lifted. As this data is only available on a national scale, these figures show that 'mining, quarrying, and metal ores' and 'glass, cement, and other non-metallic products' are among the most prominent. It should be assumed that these categories are not as prevalent in London's freight movements due to the negligible amount of heavy industry taking place.

DfT Road Freight Statistics show that 78 million tonnes were moved on HGVs in London in 2023. This translates to approximately 1.5 million tonnes per week. However, this is limited to HGV movements and, therefore, doesn't account for most Courier, Express and Parcel (CEP) movements that would take place on LGVs.

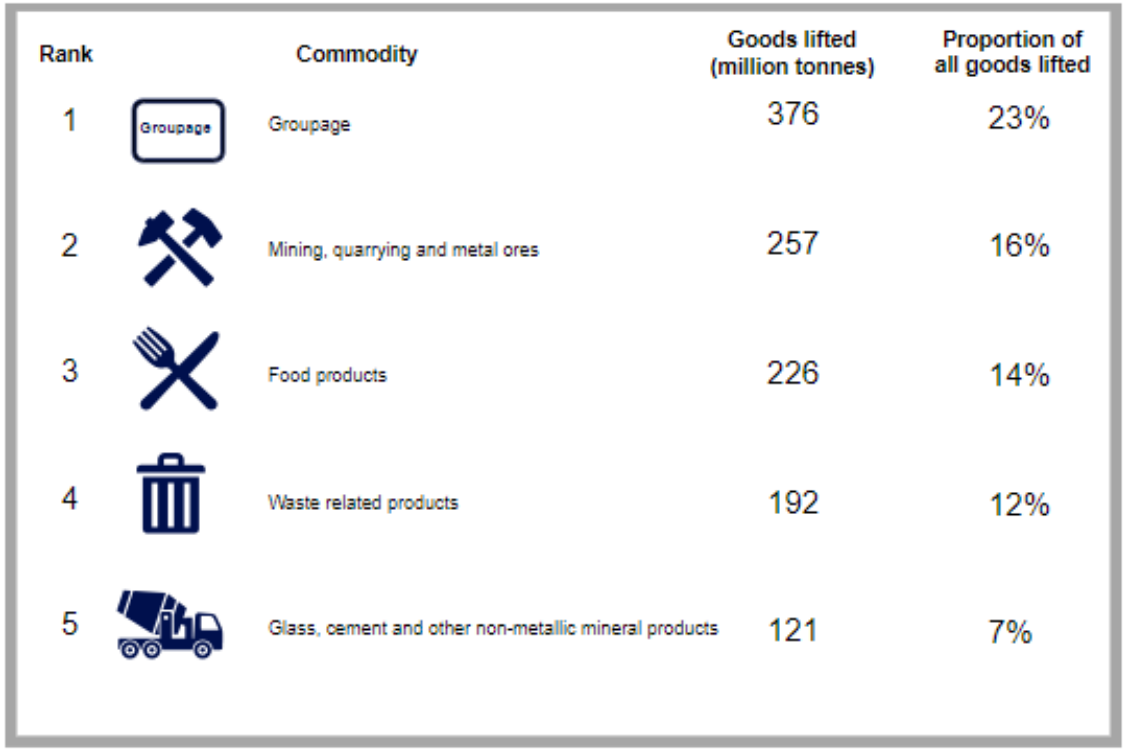


Figure 2.5: DfT road freight statistics (RFS0104)

Key stakeholders across select freight sectors

Courier, express, and parcels

The Great British Rail Transition Team's (GBRTT's) assessment of the courier, express and parcels (CEP) market found the following operators make up the majority of movements based on volumes: Royal Mail (27%), Amazon Logistics (12%) EVRI (12%), DPD (11%), DHL (8%), UPS (8%), Yodel (5%), TNT Express (FedEx) (4%), UK Mail (DHL) (2%), others (10%). These are national figures, and it is not possible to say whether London would significantly differ as a market from the research conducted.

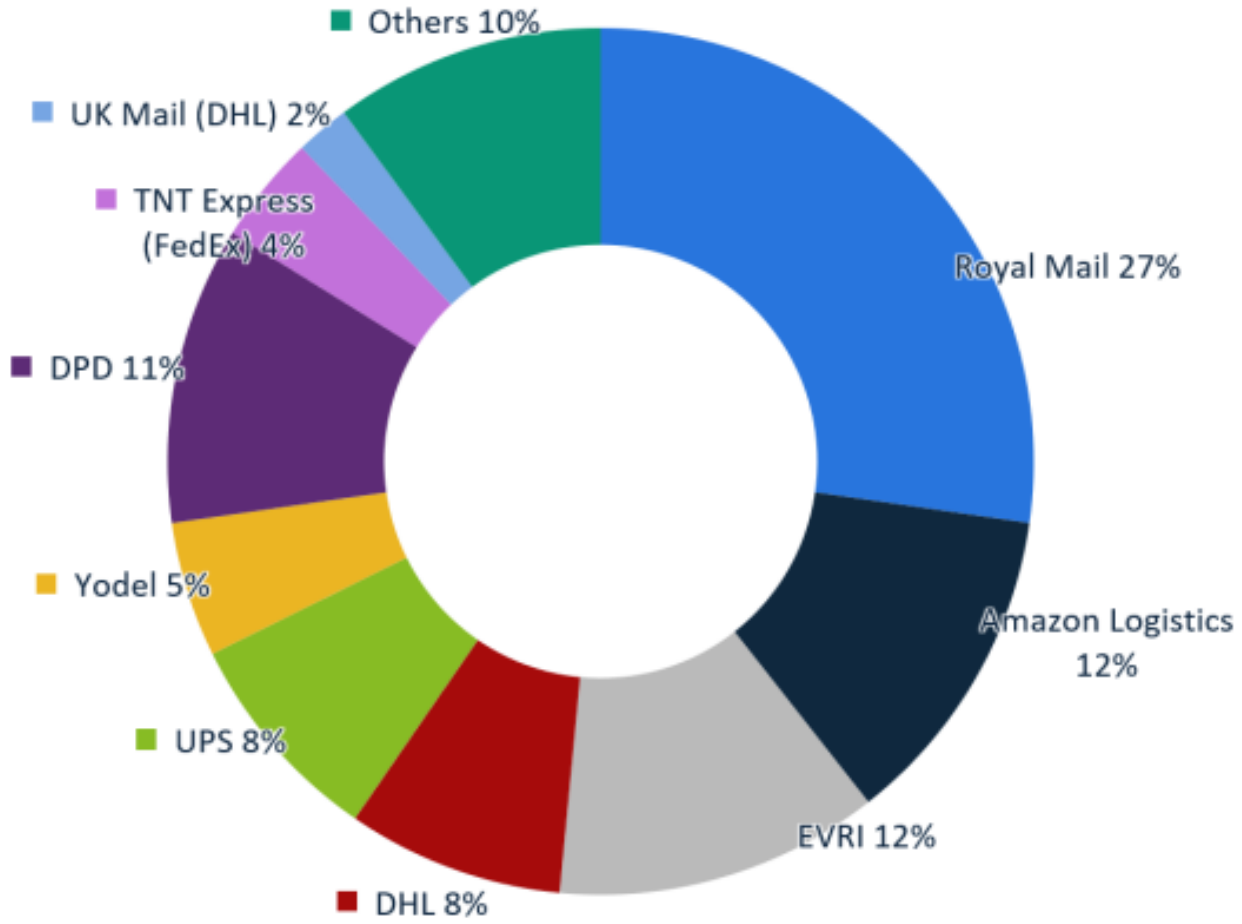


Figure 2.6: GBRTT estimated share of CEP market (UK volume in 2021)

Cargo bike deliveries

CRP has compiled a directory of cargo bike stakeholders as part of the Business Cargo Bike Guide. Key operators include Absolutely, CitySprint, Courier2, Delivery Mates, E-cargo bikes, Ecofleet, Finmile, Gophr, Greenmile Networks, Hived, Hugo's Eco Delivery, Mango Logistics, Moby, Pedal Me, Pedivan, Putney Pedals, Quiver, Stuart Delivery, Urb-it, XeroE, Zedify, Zhero Logistics. This is an emerging market; therefore, stakeholders are constantly developing and changing. Many larger operators will work with cargo bike operators to fulfil last-mile deliveries, especially in the courier, express, and parcels sector.

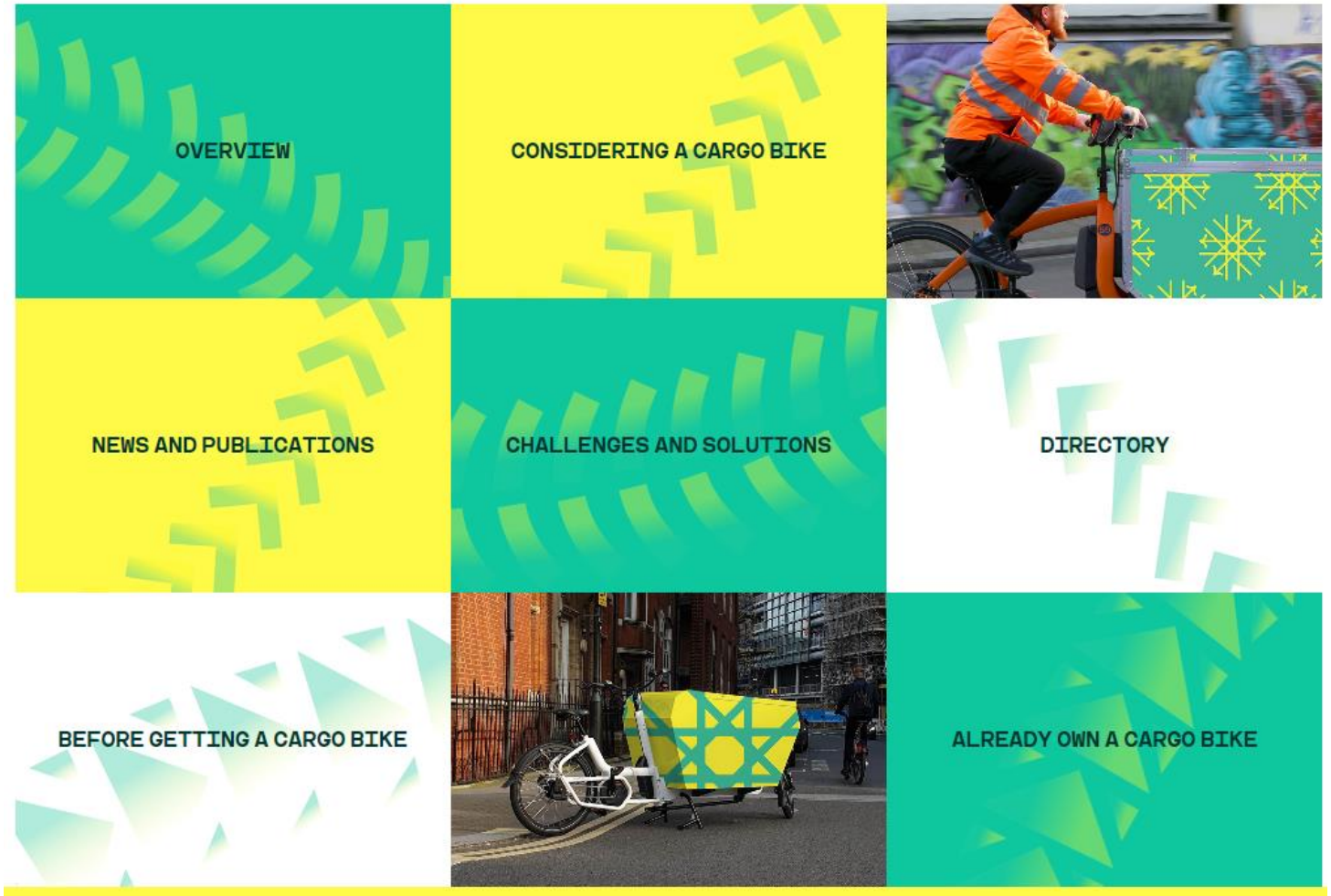


Figure 2.7: Screenshot of CRP's Business Cargo Bike Guide

Construction Industry – aggregates

The movement of aggregates for construction constitutes a significant source of the largest vehicles on London's roads. Key aggregates operators include Cemex, Tarmac, Hanson, and Day Aggregates. The storage facilities of these operators are often clustered and aligned with the historic wharves primarily concentrated on east London's riverside.

Cemex, Tarmac, Hanson, and Day Aggregates all have facilities on the eastern riverside in Greenwich, Newham, Barking & Dagenham, and Bexley. There is a London Aggregates Working Party which releases yearly monitoring reports. Stakeholders in this area also include the Port of London Authority and Thames Estuary Growth Board for understanding of river freight. Those delivering major construction projects such as Thames Tideway and major developers such as Barratt, British Land, Peabody, Galliard Homes, and the Canary Wharf Group.

Construction Industry – tools and materials

Retail to construction is a key generator of HGV and van movements. This involves selling materials and tools for construction, such as via builders' merchants. Whereas aggregates are exclusively delivered via HGVs, these materials may be delivered in a broader range of smaller vehicles, including collection by the consumer for transportation to the site.

Key players in this area include Travis Perkins (builder's merchants and home improvement retailer). Travis Perkins is the UK's largest builders' merchant. They operate approximately 3,500 vehicles across the UK, ranging from vans to HGVs. They have 200 sites across the southeast, 66 within the M25, including central locations in Southwark, Lambeth, Camden, and Hackney. Other significant operators in this sector include STARK Building Materials, Wolseley, Huws Gray, Highbourne Group, and MKM.

Food & Drink Sector

The food and drink sector is a major source of freight movements in London, ranging from HGV deliveries to supermarkets to home deliveries. Major operators include Wincanton, Ocado, Bidfood UK, Tesco Distribution (including a partnership with Booker), and Brakes.

The Brewery Logistics Group provides a collective voice for stakeholders involved in the supply of drinks in London. Smaller distributors play an important role in London's hospitality industry but are challenging to engage or account for and may be delivered to directly by suppliers. These operators could be engaged by working through local businesses.

Waste

Waste removal is a major source of HGVs in London. Many waste vehicles are operated on behalf of local authorities (e.g., Westminster has a fleet of 80 HGVs). The largest waste management operators are Veolia, Biffa, Suez, and Viridor.

Overview of major stakeholders across freight sectors in Greater London

Courier, Express, and Parcels

- Royal Mail
- Amazon
- EVRi
- DPD
- DHL
- UPS
- Yodel
- TNT Express (FedEx)
- UK Mail (DHL)

Food and drink

- Wincanton
- Ocado
- Bid Food
- Tesco Distribution
- Brakes
- Brewery Logistics Group

Construction materials and equipment

- Cemex
- Tarmac
- Hanson
- Day Aggregates
- London Aggregates - Working Party
- Thames Tideway
- Barratt
- British Land
- Peabody
- Galliard
- Canary Wharf Group

Waste

- Veolia
- Biffa
- Suez
- Viridor

2.4 – Consolidation & Distribution

Key concepts in consolidation and distribution

Freight movements are complex, but some common concepts help to understand the different ways and reasons goods are moved.

Goods moved may be **businesses-to-business** (B2B), **business-to-consumer** (B2C) or (less frequently) **consumer-to-consumer** (C2C). C2C goods movements will primarily be completed by a major courier, express, and parcel operator such as Royal Mail, DPD, or DHL, making use of their distribution network.

B2B and B2C goods movements may be conducted in-house or by a **third-party logistics** (3PL) provider. For example, the supermarket Sainsbury's works in partnership with 3PL operator Wincanton for the distribution of their produce, whereas John Lewis Partnership owns its own distribution network.

3PL operators provide a more comprehensive logistics package than road haulage operators, including the processing of goods at their distribution centres.

A just-in-time (JIT) supply chain moves materials at the point they are needed. This applies most commonly to the movement of perishables but is also used to reduce costs by minimising the amount of time goods are stored.

Types of warehousing and distribution sites

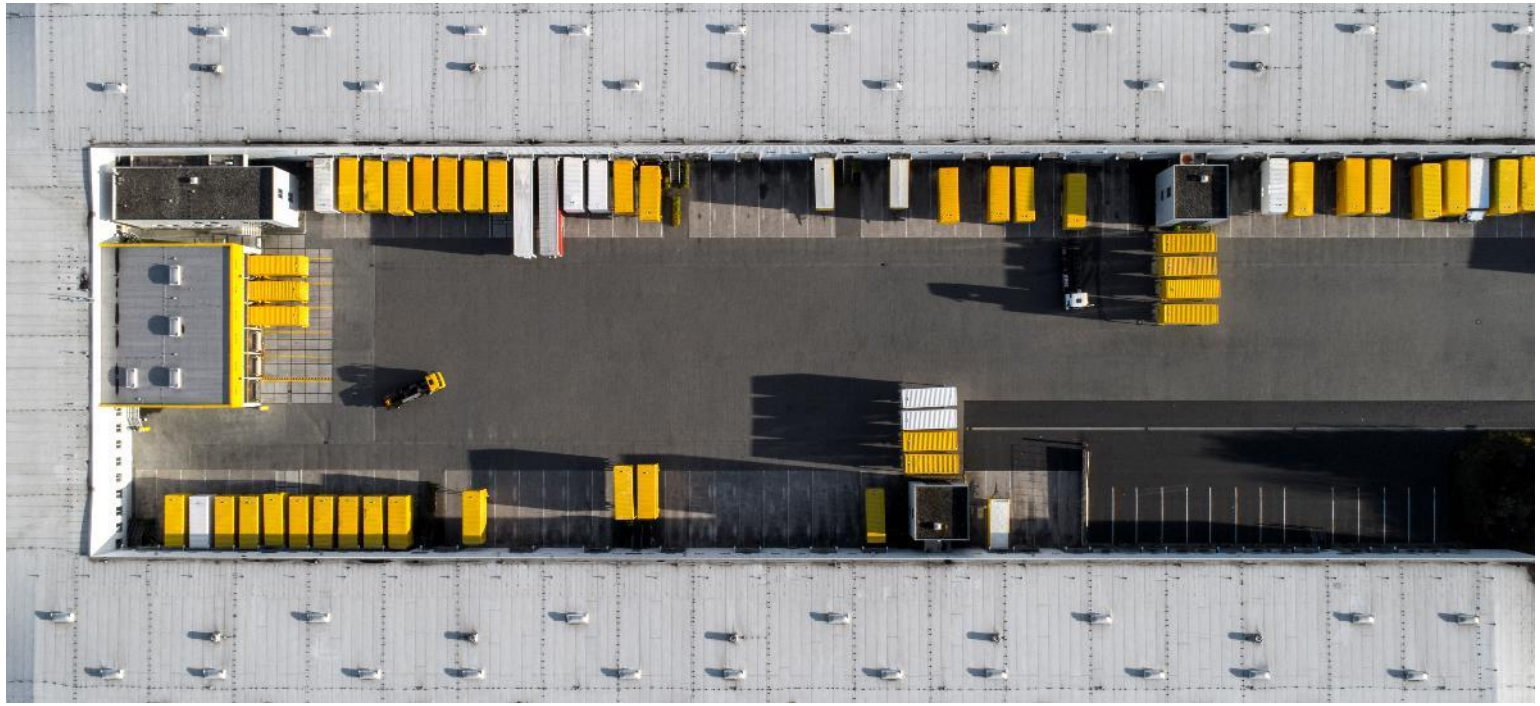
Warehousing and distribution: stakeholders may use different terminology, but the following are widely recognised terms for various types of distribution centres.

National distribution centres (NDC) are inventory-holding points for imported and nationally sourced goods. The goods are then redistributed to intermediary sites throughout the country in response to demand.

Regional distribution centres (RDC) will receive goods from NDCs or directly from suppliers. Goods with short lead times, such as those in JIT supply chains, may pass directly from the supplier to an RDC rather than an NDC. Those with very short lead times may be redistributed within 24 hours without passing through pallet racket systems. Goods leaving distribution centres are typically associated with retailers.

The growth of e-commerce has seen the increased prevalence of **fulfilment centres** in supply chains. These are distinct from RDCs in that they have an increased focus on preparing deliveries directly to consumers, including the selection and appropriate packaging of items ready for delivery. Goods may move to a distribution centre, consolidation hub, or direct-to-consumer from the fulfilment hub.

A **consolidation centre** is often located in close proximity to the area for delivery. These sites are used to bring together goods, usually from multiple suppliers, to be arranged for more efficient delivery. The Royal Mail refer to this as a Delivery Office. **Micro-logistics hubs** (or 'micro hubs') perform a similar role but on a very small scale and serve a limited geography. They are often associated with transhipment to cargo bikes.



First-mile, middle-mile, last-mile, and whole-mile

The terms **first-mile, middle-mile, last-mile, and whole-mile** describe freight movements. Any vehicle may be used for any of these stages, but a general rule is that the type of vehicle used gets smaller towards the end of the journey, i.e., HGVs will be used for the first mile, vans are used for the middle mile, and small vans or cargo bikes are used for the last mile.

First-mile is the initial delivery stage, during which goods are transported from the supplier to the NDC or RDC. First-mile is typically conducted on larger vehicles. However, it could be used to describe trips at any scale.

Middle-mile refers to the movement between the distribution centre and the place where customers purchase products. The middle-mile is most often conducted in bulk deliveries of 'groupage' as it is primarily movement between two facilities designed for the processing of high volumes of goods.

Last-mile refers to the final stage of the delivery at which the goods are transported to the consumer. This may be a journey between a fulfilment centre and the customer's doorstep.

Whole-mile describes a goods movement in which goods are delivered by one operator from the supplier directly to the consumer. This is more common at smaller scales and for more specialist items; for example, a restaurant may order produce directly from a particular farm. On a wider scale, this is a less common format for moving goods.

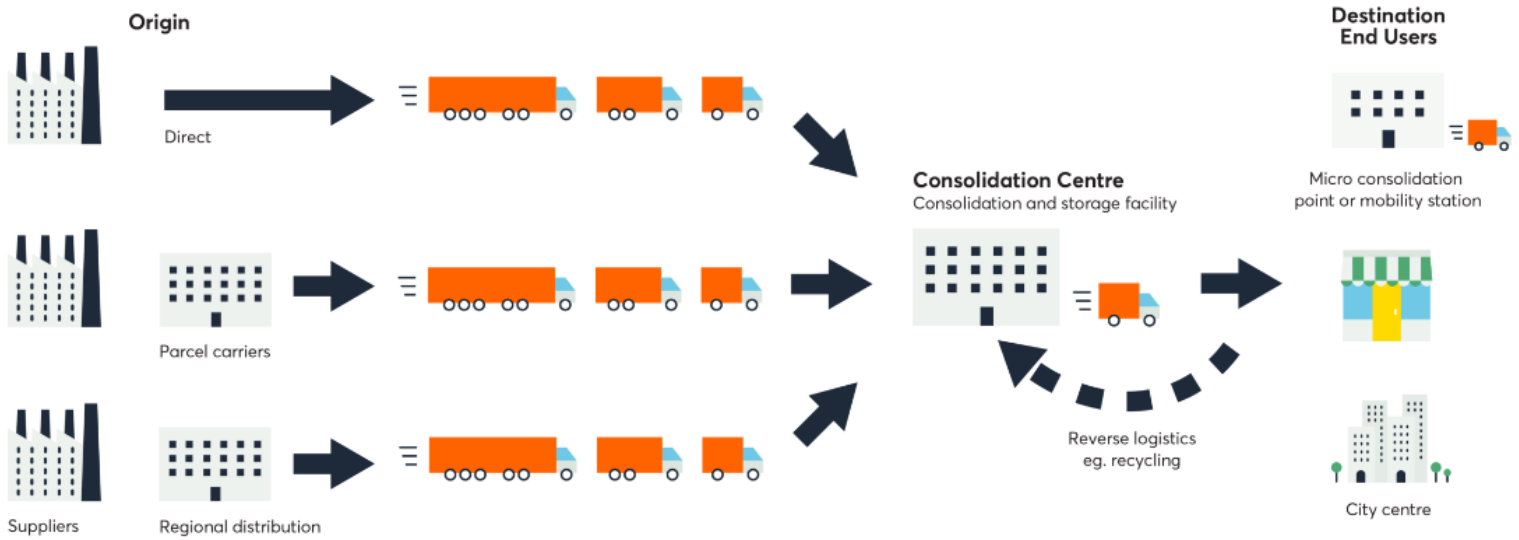


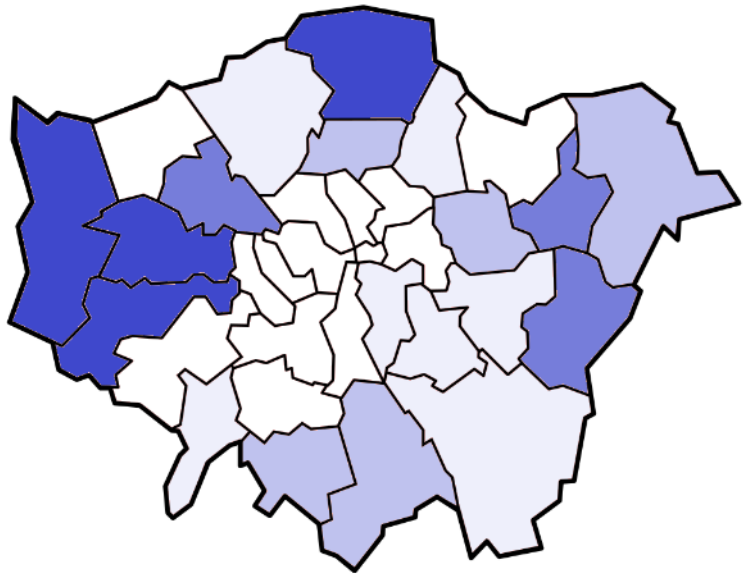
Figure 2.8: A model of distribution networks (*Centre for London: Worth the Weight, 2021*)

Distribution facilities in London

The adjacent table shows the distribution of warehousing land across London boroughs. The 12 inner London boroughs and the City of London Corporation have a combined warehousing land of **228 hectares,** roughly equivalent to the single borough with the highest quantity, **Hounslow, at 224.9 ha.**

Hounslow has the highest concentration and total amount of warehousing land, with 4% of the borough's total area dedicated to warehousing and logistics activities (10.6% of London's total).

Warehousing land is concentrated in the west, with Hounslow, Ealing, and Hillingdon containing 623.6 ha, 29.5% of Greater London's total of 2111.3 ha. Warehousing land is more prevalent north of the Thames, with 71.4% of land held in these boroughs. However, the opposite is seen within inner London boroughs, with 68.5% of warehousing land in inner boroughs concentrated in those south of the Thames (particularly Greenwich, Southwark, and Lewisham).



1/3 of London's warehousing land is concentrated in three boroughs: Hounslow, Ealing, and Hillingdon

71.4% of warehousing land in Greater London is north of The Thames

Local Authority	Warehousing land hectares (and density)
Hounslow	224.9 (4.0%)
Ealing	205.3 (3.7%)
Hillingdon	193.4 (1.7%)
Enfield	171.7 (2.1%)
Bexley	157.4 (2.4%)
Barking and Dagenham	144.4 (3.8%)
Brent	133.7 (3.1%)
Havering	112 (1.0%)
Sutton	78.8 (1.8%)
Newham	78 (2.0%)
Merton	73.5 (2.0%)
Haringey	72.3 (2.4%)
Croydon	60.4 (0.7%)
Greenwich	55.6 (1.1%)
Southwark	40.1 (1.3%)
Bromley	38.8 (0.3%)
Lewisham	32.5 (0.9%)
Kingston upon Thames	31.9 (0.9%)

Local Authority	Warehousing land hectares (and density)
Barnet	31.1 (0.4%)
Waltham Forest	30.6 (0.8%)
Harrow	26.3 (0.5%)
Hammer-smith and Fulham	21.3 (1.2%)
Wandsworth	18.2 (0.5%)
Camden	17.1 (0.8%)
Tower Hamlets	13 (0.6%)
Redbridge	12.8 (0.2%)
Islington	11.4 (0.8%)
Lambeth	9.8 (0.4%)
Hackney	6.6 (0.3%)
Richmond upon Thames	5.9 (0.1%)
Westminster	1.4 (0.1%)
Kensington and Chelsea	1.1 (0.1%)
City of London	0 (0%)

Figure 2.9: GLA Land use categorisations core industrial: warehouses with percentage of total borough size (mapped above categories: <30, 30-60, 60-120, 120-170 170+, hectares)

The market for warehousing land

Multiple sources suggest that the appetite for warehousing is reducing from Covid-era high points. **Figure 2.11** shows that the intention to purchase additional warehousing has reduced in 2024 to 15.2%. Savills' research of the logistics market in London and the South East, for units over 100,000 sq. ft, finds take-up has fallen 23%, and notes that limited availability of larger buildings across the M1 corridor may be to blame for this.

Stakeholder interview: Savills

We spoke with Kevin Mofid – Head of EMEA Logistics Research at Savill's about recent trends impacting logistics estate.

"Over the last 18 months, the heat has been taken out of the market. Take-up levels have fallen from their high points during the Covid-19 pandemic, so whilst occupier demand is currently muted, it's important to remember that property markets are always cyclical."

"In times of high demand and low supply, people start talking about more innovative solutions; that could be multi-storey warehousing."

"We need to think differently in London because the population is rising, we're going to lose more land to other uses, and currently, lots of warehousing is fundamentally in the wrong places. Industrial areas are still more aligned to the canal network than the road network."

"Occupiers prefer a more traditional warehouse. The main reason they would take on something more innovative is when vacancy rates are low or where legislation forces them to."

This suggests that the movement toward models of lower-emission freight and efficient distribution requires intervention from authorities.

	2023 (actual)	2024 (expected)	
Purchase additional warehousing and distribution premises	21.8%	↓	15.2%
Rent additional warehousing and distribution premises	21.4%	↓	15.0%
Relocate business premises	19.2%	↓	14.7%
Acquire another business	22.8%	↓	18.0%
Diversify the business	24.9%	↑	27.0%
Consolidate the business	23.4%	↑	24.5%

Source: Logistics Industry Survey 2023/24. Logistics UK, 2024

Figure 2.11: Logistics UK industry priorities (Logistics Industry survey)

Micro logistics hubs typically sit apart from the wider warehousing market due to their unique use case. A micro logistics hub (or just micro hub) is a small site that couriers use for their day-to-day deliveries as a place to receive, sort and then send deliveries to their destination by cargo bikes, walking porters, or a small electric van. They often serve a much smaller geography than most distribution centres.

CRP has conducted previous research on the determinants of micro logistics hubs and found that the appetite for such spaces is increasing as operations are evolving to fit the current supply chains and last-mile delivery demand. They are used by smaller operators who cannot afford larger warehousing sites nor have the operation size to use them.

Operators using micro logistics hubs primarily rent such spaces. These operators are often small, agile, and dynamic businesses and find that short-term leases suit them best. Offering spaces on shorter-term leases (between 6-12 months) significantly benefits couriers in establishing these hubs – and reduces the risks in trialling more innovative distribution models.

The additional processing, staff, and rental costs can mean that innovative micro hub models can struggle to compete with conventional delivery models. This is largely because conventional models have higher 'externalities' (i.e., additional costs such as the impact of pollution on health, that do not impact the costs of operation).

Authorities seeking to encourage sustainable deliveries and reduce vehicle movements by using micro hubs should consider a wider suite of measures that would account for these externalities and, therefore, make the use of micro hubs a more cost-competitive model.

London's freight clusters

Identifying key locations for warehousing in Greater London

This map shows the density of warehousing businesses as recorded in the Business Register and Employment Survey.

Many of these businesses may not be facilities for handling freight (they may be the headquarters or offices associated with managing warehousing businesses), hence the apparent density of warehousing businesses registered in central London.

Further desktop research has identified 36 freight-related clusters, filtering out those that are headquarters or management sites. These are concentrated around historic gateways into the city, such as the Thames and canal network, and more modern gateways, such as Heathrow.

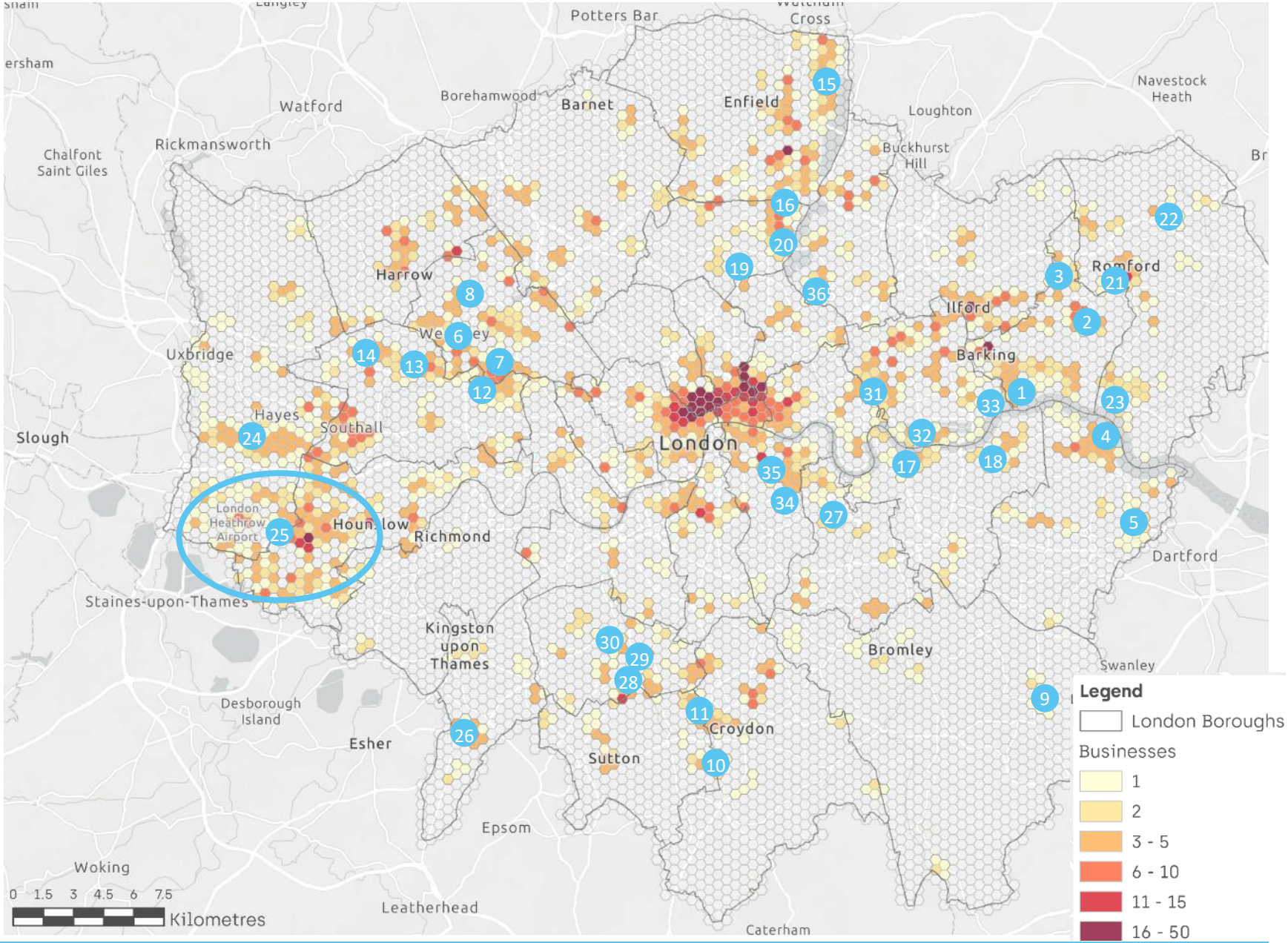


Figure 2.12: London freight clusters

London's freight clusters table (1 of 2)

Borough		Name	Location	Key road links	Size	Description	Key operators
Barking and Dagenham	1	Barking Riverside	Barking Riverside	A13	Very large	Heavy industry, largescale freight, aggregates, marine freight.	Amazon. UPS. Eddie Stobart.
	2	Mirravale Trading Estate	Salinas Lane, Chadwell Heath	A1112	Medium	Retail outlets, self-storage.	
	3	Heathway Trading Estate	Oxlow Lane, Dagenham	A1112. A1083.	Medium	Retail outlets, self-storage.	
Bexley	4	Belvedere Trading Estate	Belvedere Riverside	A2016. Eastern Way. A206	Large	Marine freight. Heavy industry. Major logistics depots. Online grocery distribution.	Asda distribution centre. Amazon "DBR1" site. Ocado. Lidl.
	5	Optima Park	Barnes Cray	A206	Medium	Construction and logistics	DPD. Parcel Force
Brent	6	Wembley Stadium Retail Park	Wembley	A406. M1	Large	Large retailers/wholesale. Large logistics depots.	Amazon distribution centres. Ikea.
	7	Park Royal	Northern section of Park Royal	A40. A406	Very large	Larg wholesale retailers. Logistics depots	DPD. Royal Mail. DHL
	8	East Lane Business Park	North Wembley	A4088.	Medium	Vehicle storage. Logistics. Construction retail	Amazon
Bromley	9	Orpington Business Park	St Mary Cray	A224	Medium	Retail. Builders' merchants. Tool hire. Services.	Amazon
Croydon	10	Spitfire Business Park (Purley Way)	South Croydon	A23. A232	Large	Retail park. Wholesale. Building merchants.	DHL. Amazon.
Croydon/Sutton	11	Purley Way	Croydon	A23. A232	Large	Large retailers. Logistics depots.	Amazon. Royal Mail. Ikea. DPD. GXO. UPS
Ealing	12	Park Royal	South section of Park Royal	A40. A406	Very large	Large wholesale retailers. Logistics depots	DPD. Royal Mail. DHL
	13	Perivale Business Park	Perivale	A40	Medium	Warehousing. Industry	Palletline
	14	Greenford Park	Greenford	A40	Large	Supermarket distribution. Retailers. Storage. Smaller depots.	Tesco. Sainsburys. Palletways. Royal Mail
Enfield	15	Brimsdown	North Enfield	A1055. A110	Large	Warehousing. Logistics. Factories. Food distribution	Amazon. DPD. Evri. Greggs
Enfield/Haringey	16	Meridian Trading Estate	Edmonton	A406. A1055	Large	Retail. Factories. Waste.	Evri. Lidl (distribution centre).
Greenwich	17	Charlton Business Park	Charlton riverside	A2. A206	Medium	Retail. Aggregates. Food distribution	Day Agrregates. Sainsburys distribution.
	18	West Thamesmead Business Park	Plumstead	Western Way. A206	Small	Retail. Smaller logistics operators.	

London's freight clusters table (2 of 2)

Borough		Name	Location	Key road links	Size	Description	Key operators
Haringey	19	Haringey Warehouse District	Finsbury Park	A503	Small	Retail. Wholesale.	
	20	Tottenham Hale Retail park	Tottenham Hale	A503. A10	Medium	Retail. Smaller logistics operators.	
Havering	21	Romford	Romford	A125. A12	Small	Retail. Logistics operators. Warehousing	Royal Mail
	22	Harold Hill	Harold Wood	A12	Small	Retail. Builders' merchants. Tool hire	
	23	Rainham Riverside	Rainham	A13	Large	Large freight. Marinefreight.	
Hillingdon	24	Stockley Park	Hayes	M4. The Parkway	Large	Logistics warheousing. Builders' merchants. Food distribution	Travis Perkins. DHL. DPD. Amazon. Tuffnells
Hillingdon/Hounslow	25	Heathrow	Airport	M4. M25. Great West Road.	Very large	Wide area of logistics warehousing surrounding Heathrow Airport	DPD. XPO. UPS. Evri. FedEx. Royal Mail.
Kingston upon Thames	26	Davis Road Industrial Estate	Chessington	A3	Small	Retail. Builders' merchants	
Lewisham	27	Elizabeth Industrial Park	Deptford	A2. A200	Medium	Smaller logistics depots/distribution centres. Waste. Vehicle storage	DHL.
Merton	28	Abbey Industrial Estate	Beddington Corner	A237	Large	Waste. Retail. Industry. Food production and distribution. Builders' merchants	Yodel. Hovis.
	29	Liongate Enterprise Park	Mitcham	A297	Medium	Builders' merchants. Waste.	Travis Perkins
	30	Merton Abbey	Merton	A24	Large	Self-storage. Depots. Retail.	Amazon. Ocado.
Newham	31	Canning Town	Canning Town	A13	Large	Heavy industry. Aggregates. Logistics.	Cemex. DPD. Amazon.
	32	Thames Wharf	Silvertown	N Woolwich Rd. A13	Large	Heavy industry. Marine freight. Aggregates.	Cemex. Keltbray. Tate & Lyle.
	33	Gemini Business Park	Beckton	A13. A1020.	Medium	Logisitics depots	Royal Mail. Parcel Froce. FedEx
Southwark	34	Kent Park Industrial Estate	South Bermondsey	A2	Medium	Waste. Retail. Builders' merchants	Southwark waste management
	35	Mandela Way	Bermondsey	A21. A201	Small	Smaller logistics depots	DPD. Yodel. Royal Mail. FedEx
Waltham Forest	36	Dorma Trading Park	Lea Bridge	A104	Medium	Mixed retail. Storage. Logistics. Food production/distribution.	Ocado. Zedify

The amount of goods moved by cargo bikes is unclear, but there are signs of growth

No reliable dataset shows the full extent of transhipment to low-emission vehicles such as cargo bikes. However, cargo bike counts, secondary data, and stakeholder engagement suggest it is still a small fraction of overall activity. This is despite recent research by Clean Cities suggesting this has risen by 63% in London 2022-2023.

Larger 3PL operators such as DHL and Evri are investing in cargo bike fleets. In June 2024, Evri announced intentions of trebling their cargo bike fleet to 99 by the end of the year and then increasing it further to 3,000 within 10 years. Cargo bikes would be integrated into the existing distribution network of these 3PL operators.

Potential for growing the amount of goods moved by cargo bike

DfT's national road freight statistics show that 23% of goods moved on HGVs are 'groupage' – meaning collected goods for delivery. This category most readily lends itself to transhipment to cargo bike last-mile. Mail and parcels made up 1.8% of goods moved on HGVs, whereas glass, cement, and other non-metallic mineral products made up 4%.

TfL's cargo bike action plan estimates that 1-2% of van km could be replaced by cargo bikes by 2025 and 17% by 2030. This was estimated by applying determinant characteristics of place (e.g., employment density, levels of congestion, and cycle permeability).

Stakeholder Interview: Zedify

We spoke with cargo-bike operator Zedify to better understand the distribution network of cargo-bike operations.

Zedify is one of the largest cargo-bike operators in the UK and London. They handle thousands of deliveries each week across Greater London with their cargo bike-first service, using a fleet which is over 90% comprised of cargo bikes.

With Centre for London estimating 450 million parcels shipped in the capital in 2020, and reports showing that between 50 and 90% of city parcel delivery could be done using a cargo bike, there is a huge potential for a transition to cargo bikes for last mile deliveries from businesses like Zedify scaling.

Zedify works with partners to operate their middle mile, including parcel sortation. Sorted parcels are transported to their edge-of-city micro-hubs via HGVs, where they're then consolidated and delivered in the final part of their journey- to the doorstep- via cargo bike. With cities that have multiple hubs, inter-hub trunking takes place via electric van.

Zedify completes first-mile, last-mile, and whole-mile operations (parcels traveling from one location to another within one city); their service is currently expanding rapidly to cover the entirety of Greater London.

Figure 2.13: Boroughs with Zedify operating centres

3.0 – London Freight Flows

Origins, destinations, and routes for road freight

3.1 - Origins

Generators of freight into London

London is a net freight importer, meaning more goods move into the city than out of it. While LGV and HGV trip generation are complex and dispersed, three key sources of freight movements stand out: Heathrow Airport, the Port of London, and warehousing land to the northwest of London entering via the major road network.

The adjacent map shows the **network of major ports and corridors** carrying goods throughout the UK. The majority of UK freight passes through these ports (75%), meaning that, at a broader scale, London's freight flows are shaped by its connections to these. The wider Port of London is the UK's largest port, handling 12% of all tonnage (DfT port statistics, 2022). **Figure 3.3** on the following page shows terminals and main commodities handled at the Port of London. The A13, running parallel to the Thames, is the main corridor serving these terminals.

London's freight flows are also shaped by its connection to one of the UK's **major warehousing and industrial areas**, 'the golden triangle', in the Midlands. This means that corridors entering London from the north-west (the A40, M4, and M1) are some of the busiest with freight vehicles.

These major flows entering the city are likely to have a higher prevalence of HGVs than LGVs due to the types of goods being transported - bulk groupage on its middle mile between distribution centres entering via Heathrow and the Midlands, as well as construction materials which arrive via the Port of London.

Using Transport for London's (TfL) London Highway Assignment Model (LoHAM), we produced maps showing the origins and destinations of LGV and HGV trips within London. We have also used DfT Road Freight Statistics to map key routes and flows between London's regions (International Territorial Level 2).

Figure 3.1: Map of key national freight flows (UK Major Ports Group)

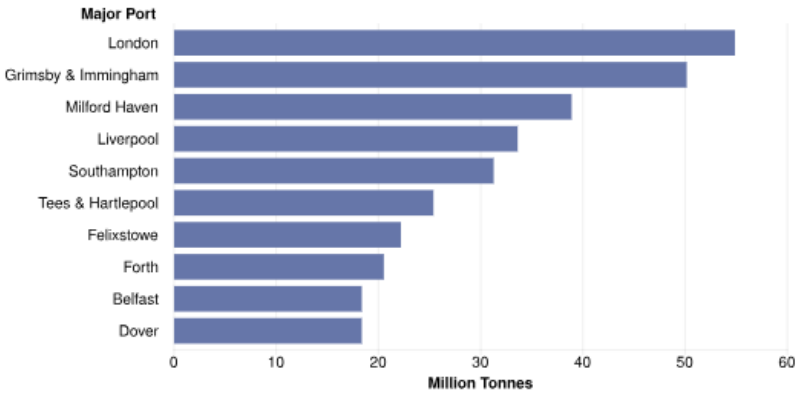


Figure 3.2: Port and domestic waterborne freight statistics showing tonnage via UK's major ports (DfT)

Location	Terminals	Main commodities handled	Page
1	Smugglers Way	Waste	
2	Pier Wharf	Sand and gravel	101
3	CEMEX Fulham	Aggregates	99
4	Cringle Dock	Waste	
5	Walbrook Wharf	Waste	
6	Brewery Wharf	Aggregates	105
7	Victoria Deep Water Terminal	Aggregates, sub-base-type 1 material and bottom furnace ash	101
8	Northumberland Wharf	Waste	
9	Thames Wharf	Aggregates and recycled materials	105
10	Dock Entrance Wharf	Aggregates	100
11	Angerstein Wharf	Aggregates	99
12	Murphy's Wharf	Aggregates	109
13	Riverside Wharf	Aggregates	109
14	Thames Refinery	Raw Sugar and edible oils	111
15	Alexanders Wharf	Scrap metal	100
16	Pinns Wharf	Scrap metal	107
17	Rippleway Wharf	Timber products and general cargoes	107
18	Docklands Wharf	Bulk cargoes	100
19	Thames Recycling Wharf	Recyclate and aggregates	111
20	CEMEX Dagenham	Aggregates	99
21	Stolthaven Dagenham	Petroleum products, lubricants, vegetable and edible oils, chemicals and agricultural products	95
22	No.1 Western Extension	Bulk cargoes - aggregates, salt and coal	100
23	Van Dalen UK	Metal recycling and dry bulk cargoes	111
24	Hanson Aggregates	Marine aggregates and type 1 phosphoric slag	101
25	Ford Motor Company	Motor vehicles and components	87
26	Belvedere EFW	Waste	
27	Pioneer Wharf	Aggregates	100
28	ADM Erith	Oilseed and vegetable oils	96
29	Conway Wharf	Aggregates	101
30	European Metal Recycling	Scrap metal	100
31	Esso Petroleum Company	Petroleum products	92
32	C RO Ports London Ltd	Motor vehicles, trailers, tanktainers, containers and swapbodies	85
33	Jurgens Jetty	Edible oils	94
34	Civil and Marine Jetty	Granulated slag and marine aggregates	101
35	Purfleet Aggregates	Marine aggregates	107
36	Littlebrook Power Station	General third party cargoes	94

Location	Terminals	Main commodities handled	Page
37	Thurrock Marine Terminal	Bulk cement and bulk powders, marine aggregates	109
38	Navigator Terminals	Petroleum products, chemicals, vegetable oils and liquid fertilisers	95
39	C RO Ports Dartford	Motor vehicles, trailers, tanktainers and containers	85
40	Johnson's Wharf	Marine aggregates	109
41	West Thurrock Jetty	Bulk powders	103
42	Nustar	Hydrocarbons	93
43	Northfleet Wharf	Aggregates	97
44	Seacon Terminals	Steel products, non-ferrous metals and forest products	90
45	Robins Wharf	Aggregates, coal, petroleum coke and bulk aggregate products	96
46	Brett Aggregates	Sea-dredged aggregates	97
47	42 Wharf	Bulk cement, bulk powders	109
48	Northfleet Terminal	Wood pulp	89
49	Red Lion Wharf	Aggregates and sub-base-type 1 material	107
50	Imperial Wharf	Bitumen and general cargo	101
51	Clubb's Marine Terminal	Sea-dredged aggregates	106
52	North Sea Terminal	Sea-dredged aggregates	97
53	London Gateway	Containers	87
54	Shell Haven Terminal	Aviation products	94
55	Thames Oil Port	Aviation products	
56	Oikos Storage	Petroleum products, aviation fuels, chemicals, lubricants, waxes, hard oils and other specialist products	93
57	Calor Gas Terminal	LPG	92
58	**Port of Tilbury**		
	Port of Tilbury London	Forest products, cereals, containers, motor vehicles, general and project cargoes	113
	CEMEX UK	Bulk cement	115
	Cefetra	Bulk Animal Feeds	115
	Denholm Handling Ltd	Plywood freight station	115
	European Metal Recycling	Scrap metals and bulk cargoes	115
	London City Bond	Tax warehousing	117
	Stanton Grove	Forest products and container handling	117
	Stema Shipping (UK)	Aggregates and sub-base-type 1 material	119
	The Logistics Terminal	Warehousing and port centric logistics	119
	Tilbury Cold Store Ltd	Chilled and frozen products	119

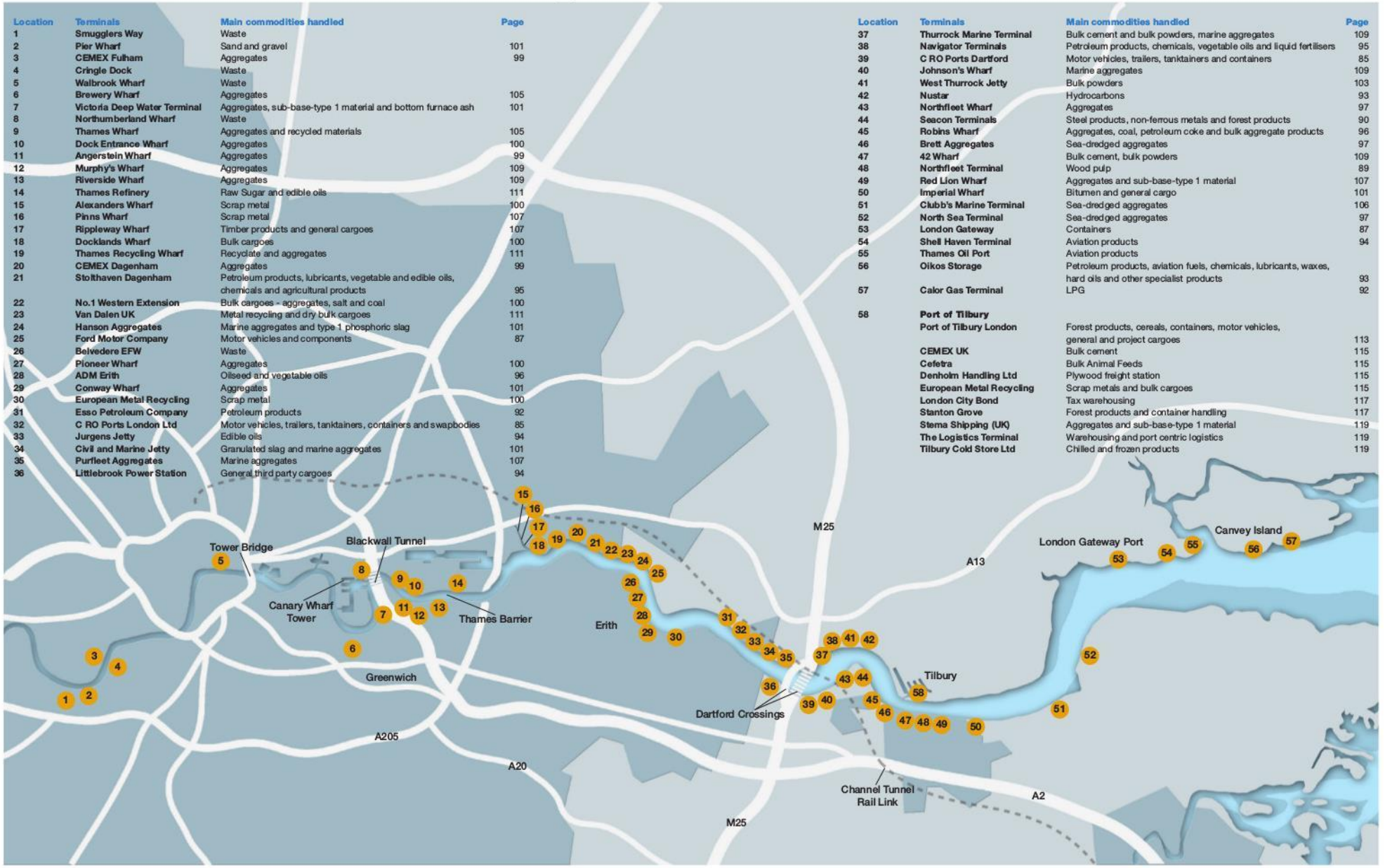


Figure 3.3: Port of London Authority terminal location map showing the terminals and main commodities handled via the Port of London. The A13 running parallel to the Thames is the main corridor serving these terminals (source: PLA Handbook)

Freight origins across London

LGV trip origins

LGV origins are broadly distributed, with most boroughs generating a moderate number of trips, as shown in the adjacent LoHAM map of 2026 LGV origins.

Unlike HGVs, many LGVs will be privately owned and operated by tradespeople and stored in residential areas. Around half of the vans will be making round trips locally (within 15 miles) originating from depots, on-street parking, or business parking.

Note that cells in northern Enfield show a very high number of freight movements. This is due to a known error in the LoHAM model impacting only these cells which causes an overestimation of these movements.

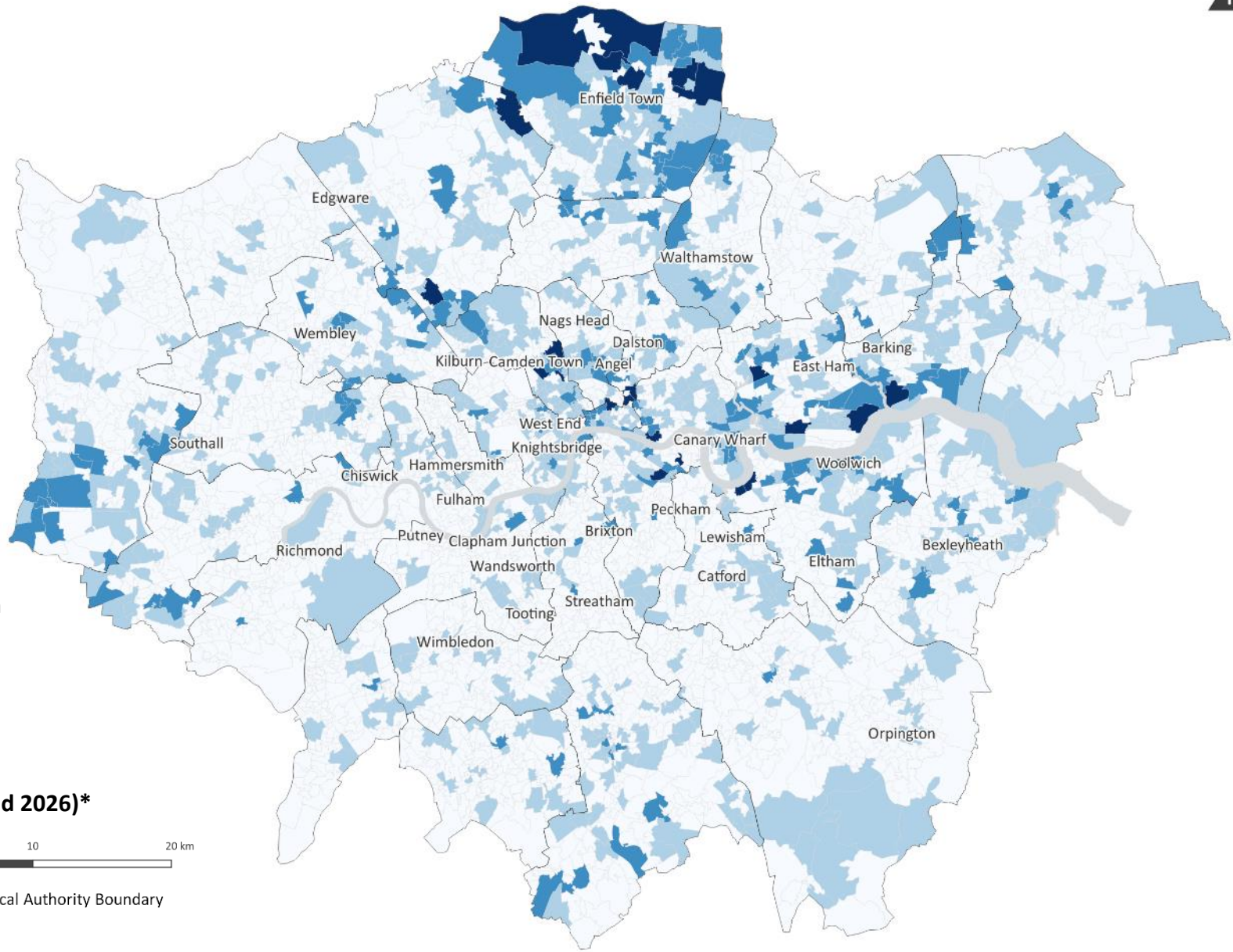


Figure 3.4: LGV trip origins in Greater London (TfL's LoHAM hybrid 2026)*

** Please note: LoHAM is a strategic model of vehicle movements across London (see page 6). Data on freight trips is limited so the results presented should be used to infer the indicative spatial distribution of travel. They are not designed to provide precise absolute values of vehicle movements.*

HGV movements between London's areas

Key routes differ between LGVs and HGVs. Key flows for HGVs are concentrated north of the river, entering the city in parallel with the Thames to the east and via the A40 in the west.

Figure 3.5 shows goods moved in tonne kilometres (the weight of goods carried by distance travelled) of UK-registered HGVs. It shows that most of the tonnage moving through the city does so through the north-west and east. Little tonnage enters the city via the south. This reflects the location of major trip originators within and outside of London – the 'golden triangle' of warehousing locations in the Midlands entering through the north-west, major freight clusters in this area, and Heathrow Airport.

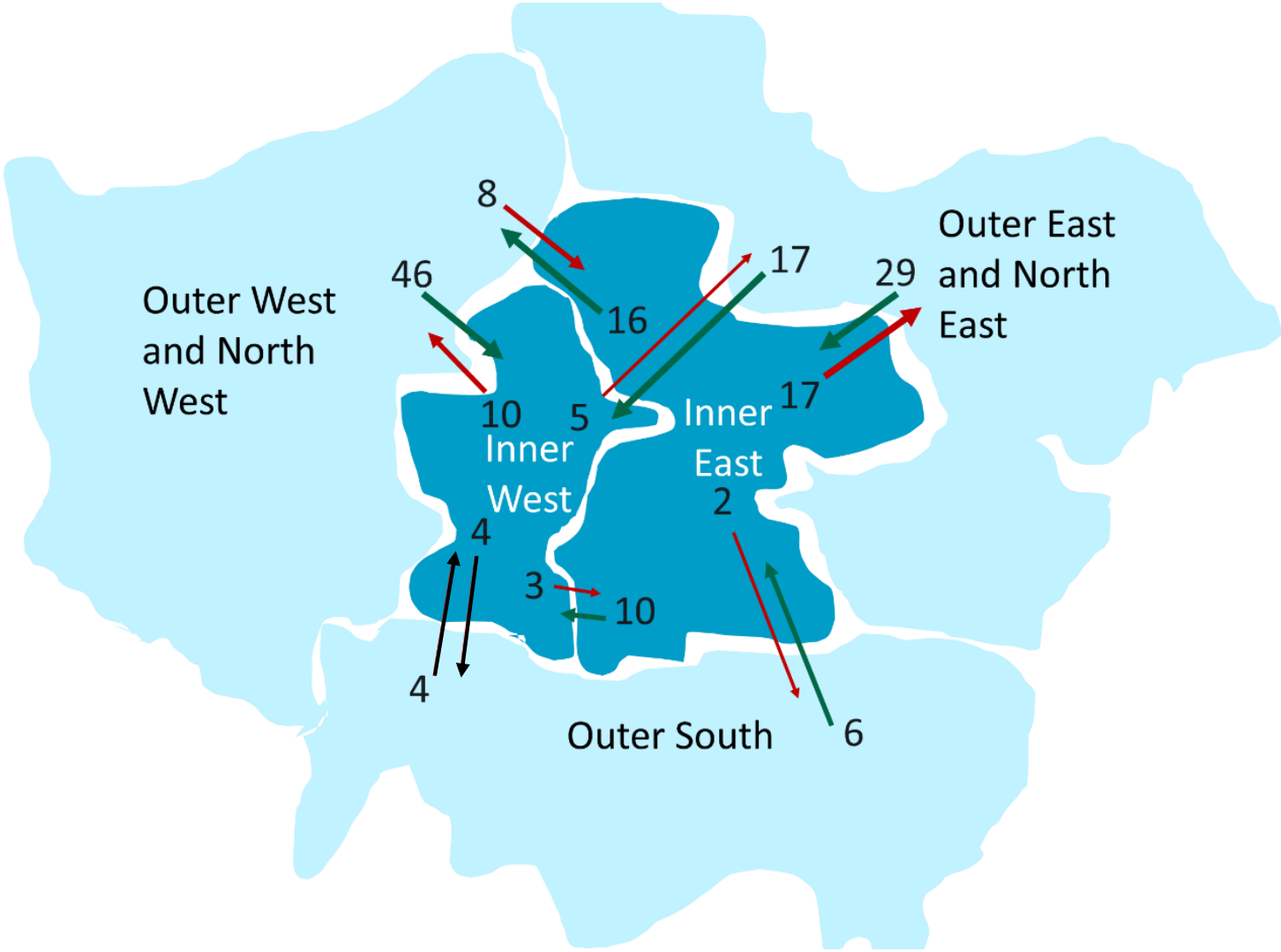


Figure 3.5: DfT goods moved by ITL2 region of origin and destination in tonne km.

Red and green arrows compare inbound and outbound flows, with red indicating lower volumes of goods and green representing higher volumes.

HGV trip origins

While LGV trip generation was broad and reasonably even, HGVs have a much more concentrated pattern, with three locations of more intense HGV trip generation: Enfield, Barking and Heathrow Airport. Most boroughs are the origin for no, or very few, HGV trips.

One likely contributor to the origin of HGV trips within Greater London is the import of construction materials, which can often only be moved by larger vehicles. The 2019 London Aggregates Monitoring Report found that the majority of aggregate sales pass through three wharves: Murphy's (Tarmac) – Greenwich; No 4 Jetty, (Hanson) – Dagenham; and Angerstein (Cemex) - Greenwich.

Figure 3.6: HGV trip origins (TfL's LoHAM hybrid 2026)*

** Please note: LoHAM is a strategic model of vehicle movements across London (see page 6). Data on freight trips is limited so the results presented should be used to infer the indicative spatial distribution of travel. They are not designed to provide precise absolute values of vehicle movements.*

Destinations of freight trips in London

LGV trip destinations

As was seen in the origins of LGV trips, the destinations of LGV trips are broadly distributed. A large amount of LGV destinations will be associated with the 54% of vans used to carry equipment/tools. Typical freight factors will not determine these destinations, as this service could be done in any property.

However, some patterns emerge: many of the key originators of LGV trips are also key destinations (Heathrow, upper Lea Valley, Barking & Dagenham Riverside). This could reflect the nature of these locations as sites for consolidation and handling goods before an onward journey. There is an expected correlation between destinations and key flows with relatively lower levels of both in the south of London.

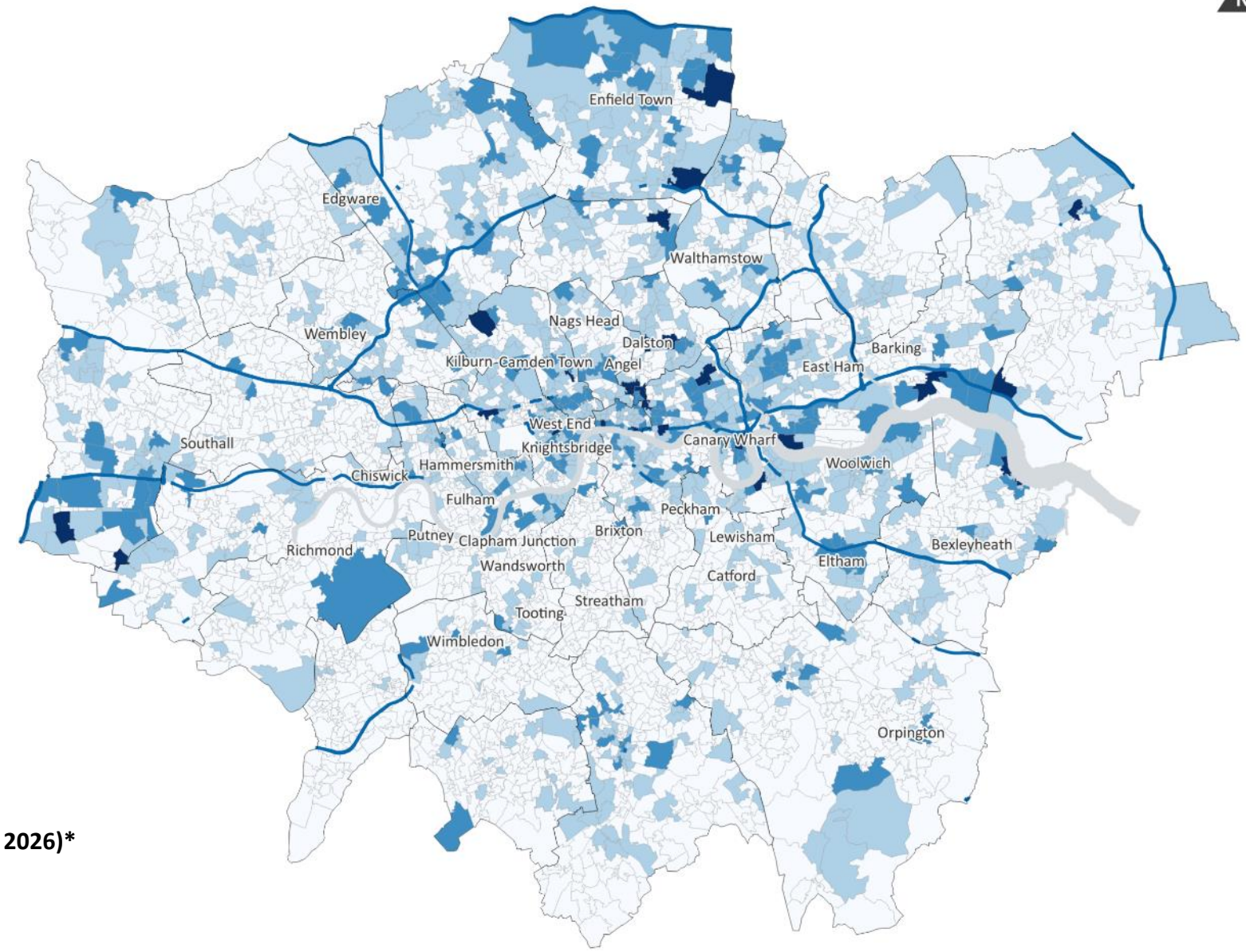


Figure 3.7: LGV trip destination and key flows (TfL, LoHAM hybrid 2026)*

** Please note: LoHAM is a strategic model of vehicle movements across London (see page 6). Data on freight trips is limited so the results presented should be used to infer the indicative spatial distribution of travel. They are not designed to provide precise absolute values of vehicle movements.*

HGV trip destinations

The adjacent map shows LoHAM data of HGV destinations and key flows. The most obvious high-density destinations align with key warehousing/industrial land. We have identified 36 clusters of warehousing activity across Greater London, mapped in **Figure 2.12.** The destinations for HGVs align with the Heathrow cluster, the Stockley Park cluster (Hillingdon), Barking Riverside, Rainham Riverside, and Brimsdown (Enfield). HGVs may be finishing trips in these destinations to unload goods at distribution centres for onward journeys by smaller trips, or they may be locations for handling heavier goods that can only be transported by larger vehicles.

Central London clusters may be associated with areas undergoing high levels of construction at the time of modelling.

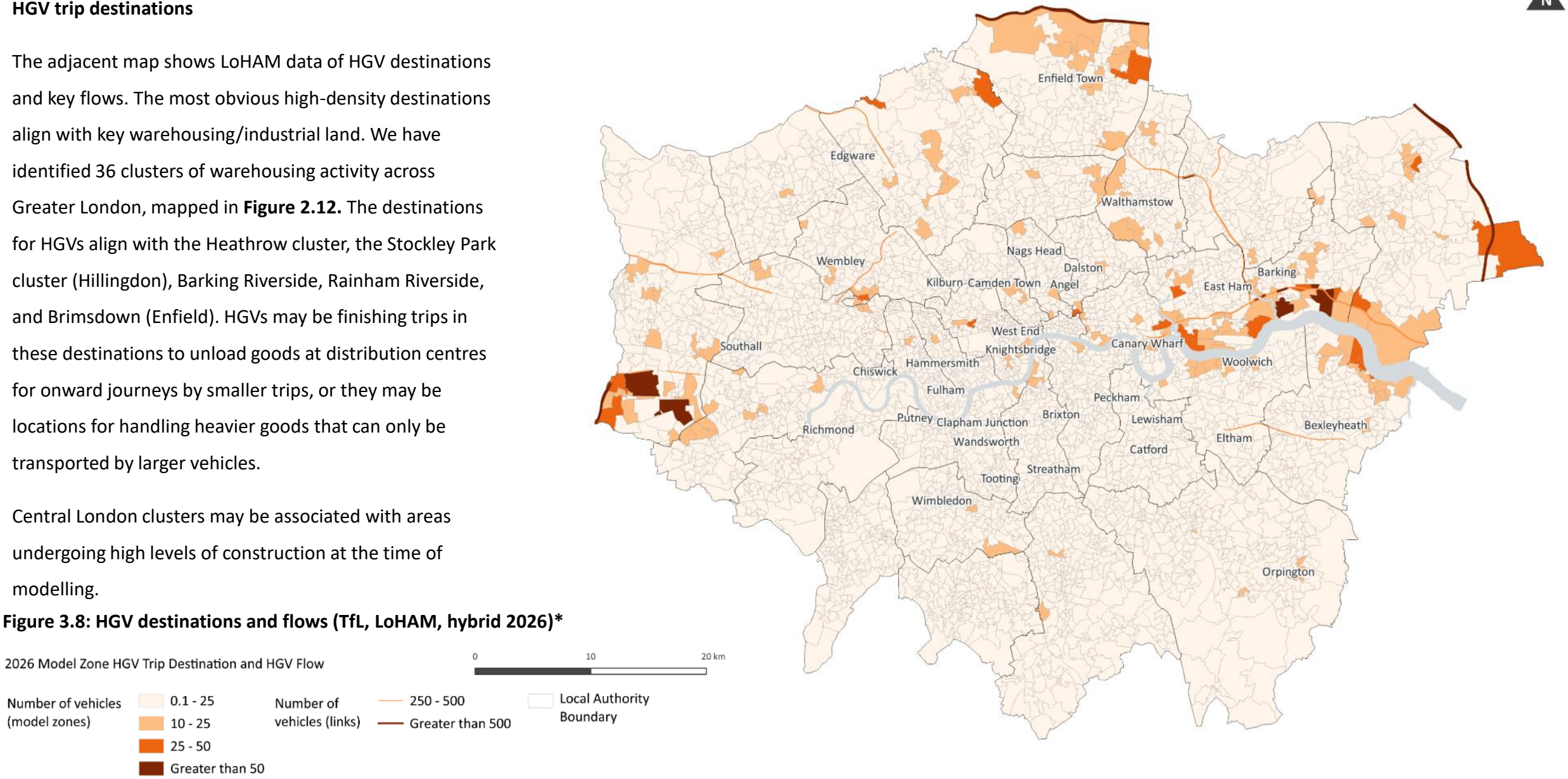


Figure 3.8: HGV destinations and flows (TfL, LoHAM, hybrid 2026)*

** Please note: LoHAM is a strategic model of vehicle movements across London (see page 6). Data on freight trips is limited so the results presented should be used to infer the indicative spatial distribution of travel. They are not designed to provide precise absolute values of vehicle movements.*

Stakeholders and areas receiving the goods

There is limited access to data directly showing the stakeholders ordering and receiving goods. Therefore, to understand key characteristics, we have assessed high-density destination areas in case study boroughs as reflected in TfL's LoHAM model. It should be noted that Van Survey data shows that only 21% of LGVs in London are used expressly for the delivery and collection of goods, with the majority associated with service trips.

Closer examination of trip LGV destinations

To understand LGV trip destinations further, we selected two boroughs to examine in closer detail.

In Hackney, high-density delivery areas are found in Dalston, Shoreditch, and central Hackney. These are commercial areas with a high density of businesses. Businesses in these areas are primarily service/hospitality and retail, with relatively small premises.

These are locations with medium-high residential density, except for Shoreditch, which has a low residential density. Similar trends are seen in neighbouring Islington, where Angel and King's Cross are key LGV destinations.

One key trend raised in our conversation with Savills is the possible decline in personal deliveries to offices in central London due to the rise in working from home.

In outer London boroughs, similar trends are seen. Central Croydon is a major destination for LGVs and has a similar business and residential density profile. Key institutions also align with higher-density LGV locations. Croydon University Hospital aligns with one of the highest-density locations for LGV destinations in the borough. Areas surrounding major warehousing clusters on Purley Way also show as high-density destinations.

In general, the density of commercial premises is a crucial determinant of LGV trip generation for both deliveries and service trips.

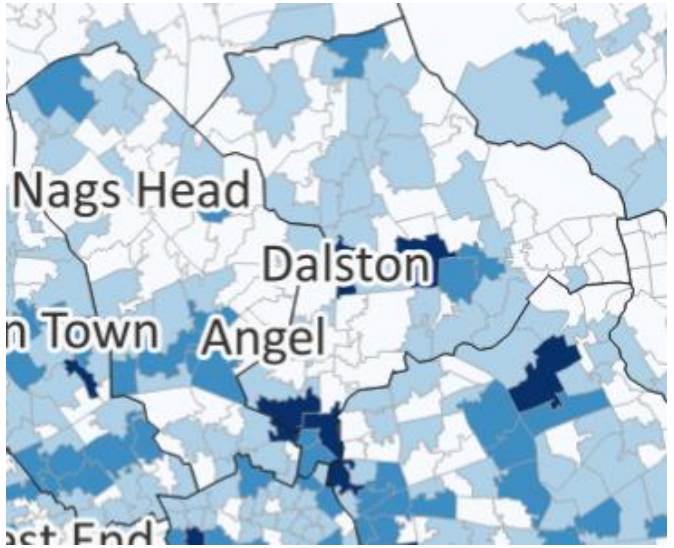


Figure 3.9: LoHAM LGV destinations, Hackney*

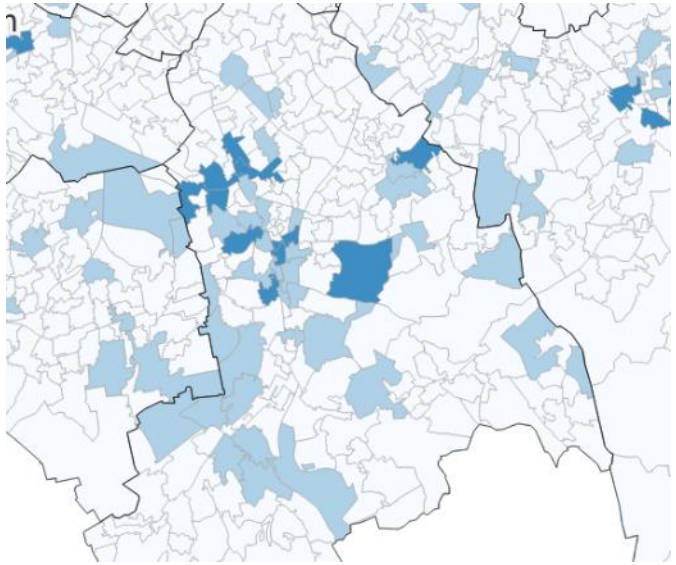


Figure 3.10: LoHAM LGV destinations, Croydon*

** Please note: LoHAM is a strategic model of vehicle movements across London (see page 6). Data on freight trips is limited so the results presented should be used to infer the indicative spatial distribution of travel. They are not designed to provide precise absolute values of vehicle movements.*

Key routes for moving goods throughout London

Key routes for HGVs

Figure 3.11 shows the key routes for HGVs throughout Greater London. The northern inner ring road has a higher flow of HGVs than its southern counterpart, partly reflecting its higher capacity. The east has more high-flow routes, especially the A13, connecting to the Port of London terminals. In the west, the A40 onto the A406 appears to be the primary route for HGVs, but routes toward Heathrow also have high levels.

This map also shows the high volume of HGV traffic on the M25, which is used by vehicles circumnavigating London. Most freight flows entering the city do so via the M25.

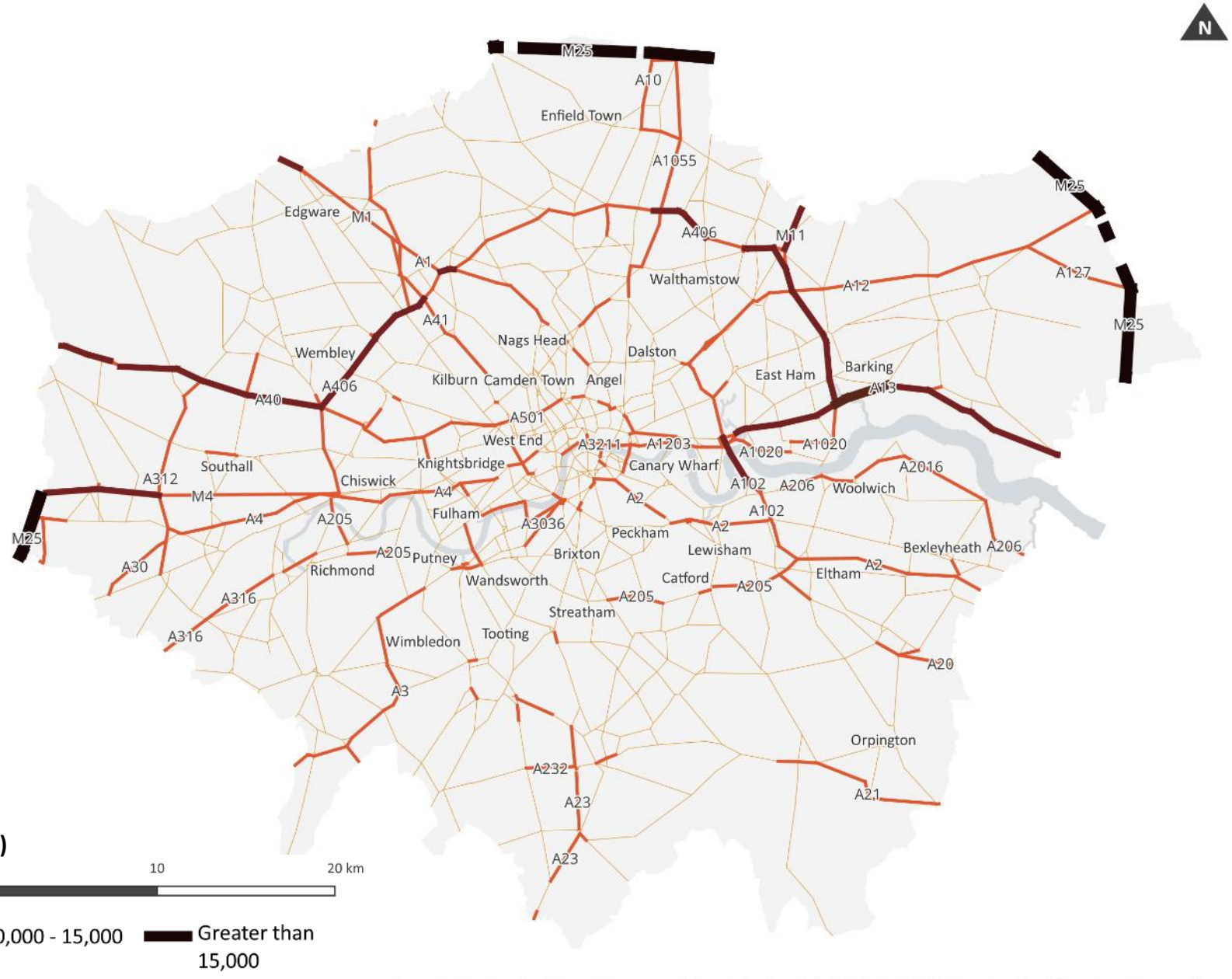


Figure 3.11: London HGV flows (DfT Annual Average Daily Flows – AADF)

London Freight Flows Study - HGV Average Annual Daily Flows (AADF)

Figure 3.12: HGV (4,5, and 6 axle vehicles), average annual daily flows – DfT counts

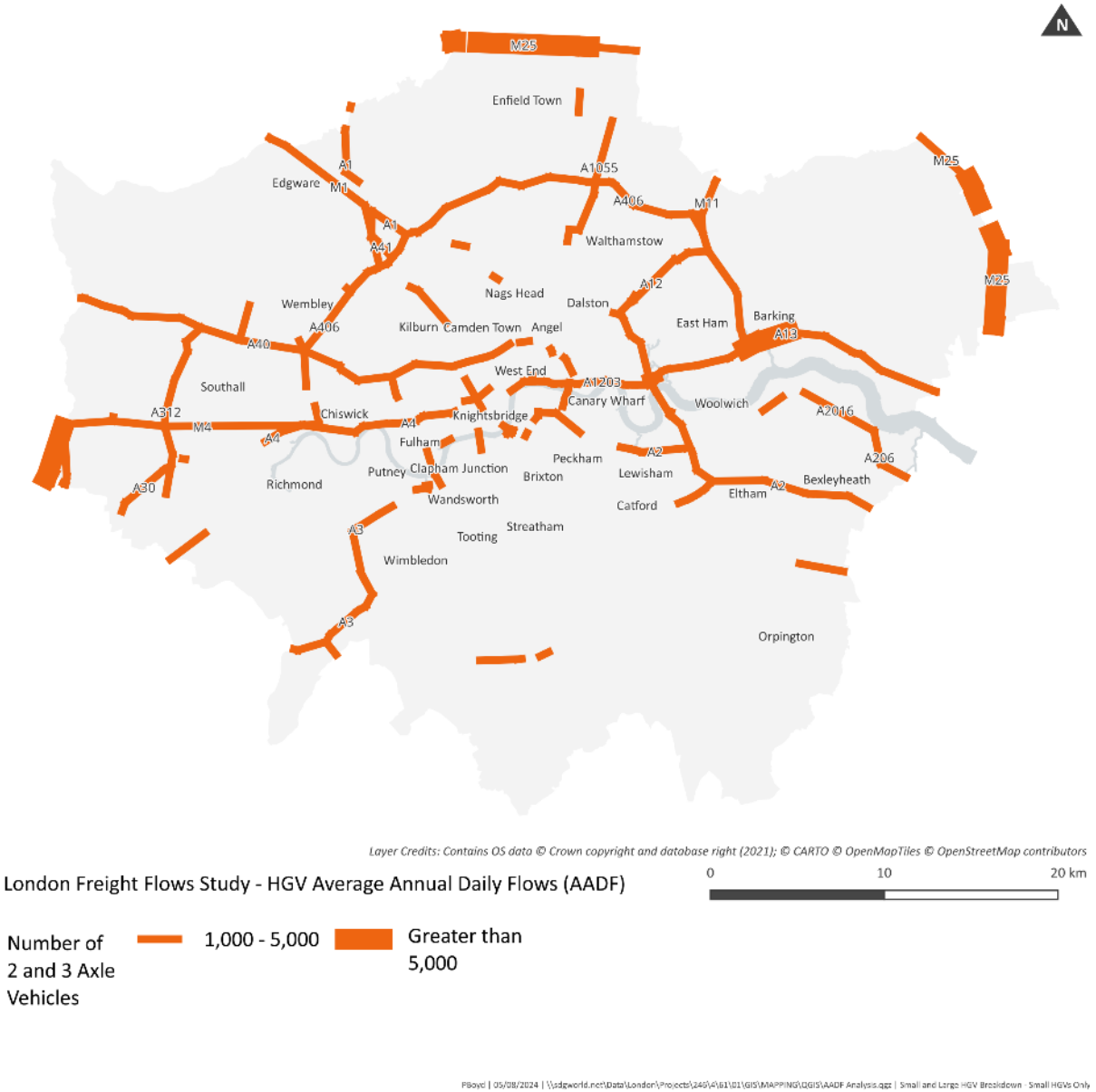


Figure 3.13: HGV (2 and 3 axle vehicles), average annual daily flows – DfT counts

Key routes for LGVs

Key LGV flows align with the major road network with heavy movements on the northern inner-ring road and the key corridors of the A40, A13, A2, and M4. However, LGV movements have a much denser network than HGVs, moving in greater volumes on less arterial roads.

This is reflective of the destinations and origins of LGV trips, which were more dispersed. LGVs make more frequent deliveries to residential addresses and businesses dispersed throughout the city, meaning a greater spread of key flows. Similarly, LGVs are more likely to be kept in residential areas. Overall, the movements of LGVs are more complex than HGVs, with a much wider number of origin and destination locations, purposes, and patterns.

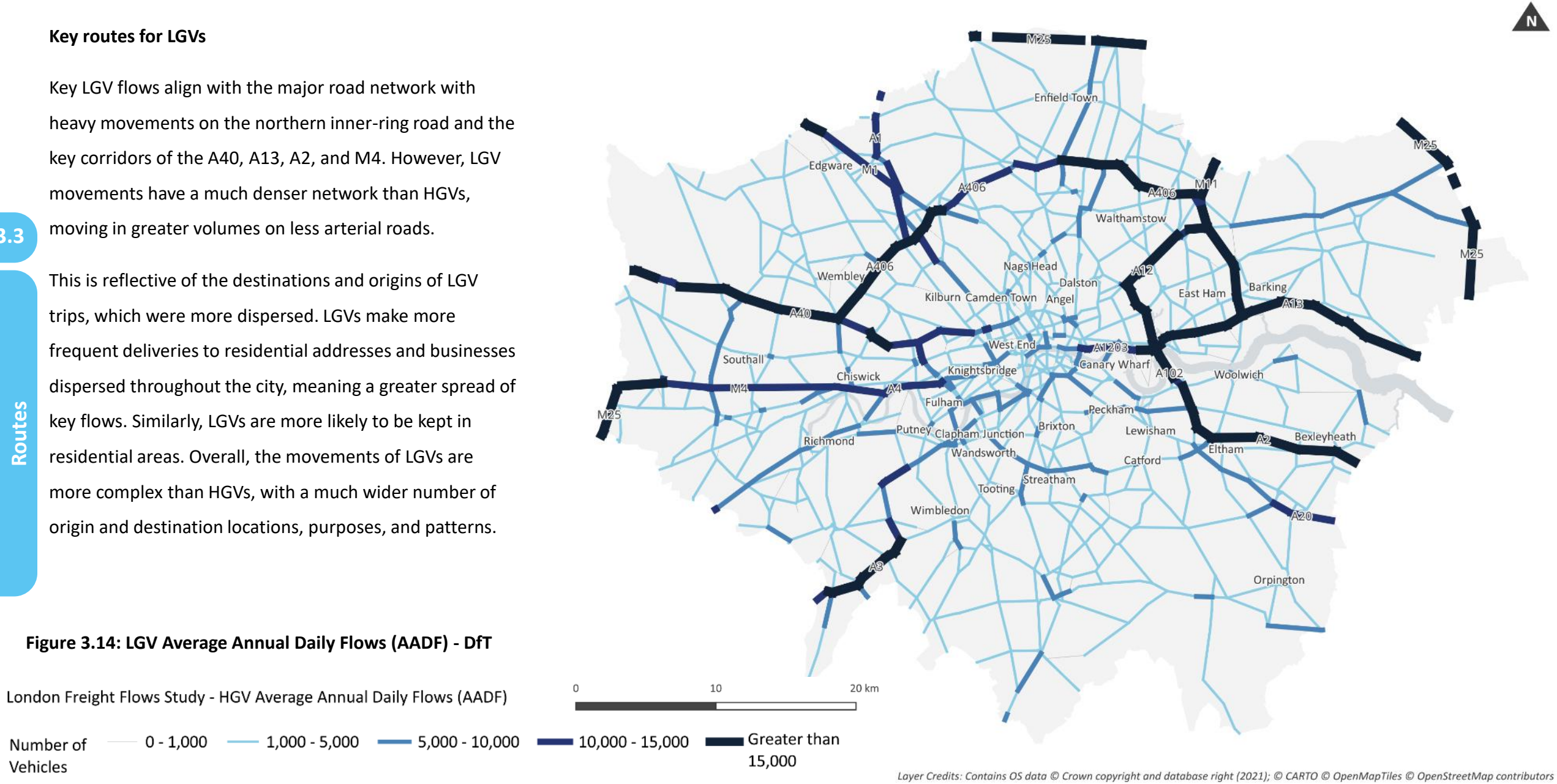


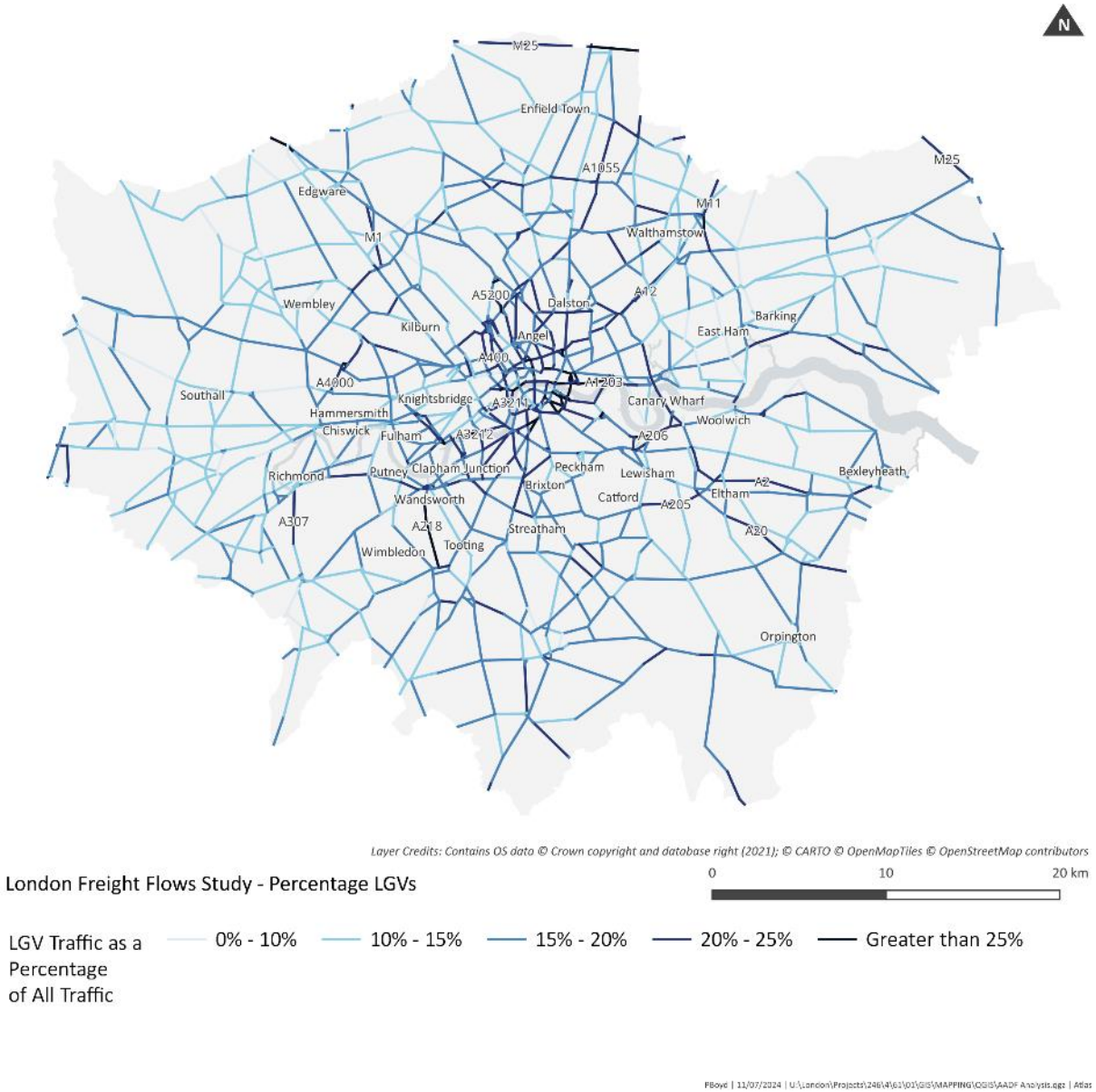
Figure 3.14: LGV Average Annual Daily Flows (AADF) - DfT

Major Road Network

Many of the roads highlighted are part of the major road network: M25, A13, A40 and M4. Understanding the major flows of commercial vehicles on these roads from a strategic perspective is essential. However, local authorities and stakeholders interested in the impact on public health may be more concerned with movements on minor roads which are not designed to handle larger vehicles and traffic volumes.

The maps on the following page show LGV and HGV movements as a percentage of total traffic on the road network. These maps may provide more insight into where commercial vehicles may have a more significant impact. HGVs are in the highest concentration on major roads, likely reflecting the stricter processes determining how these vehicles can be routed. While LGVs are also highly concentrated on major roads, large parts of central London have high proportions of these vehicles. This reflects the relatively low levels of private vehicles (cars) using central London to some extent. However, total counts show that much of the road network within the Congestion Zone has high total counts of LGVs of 1,000-5,000 vehicles per day.

Figure 3.15: Sections of LGV and HGV flow mapping (DfT Annual Average Daily Flows)



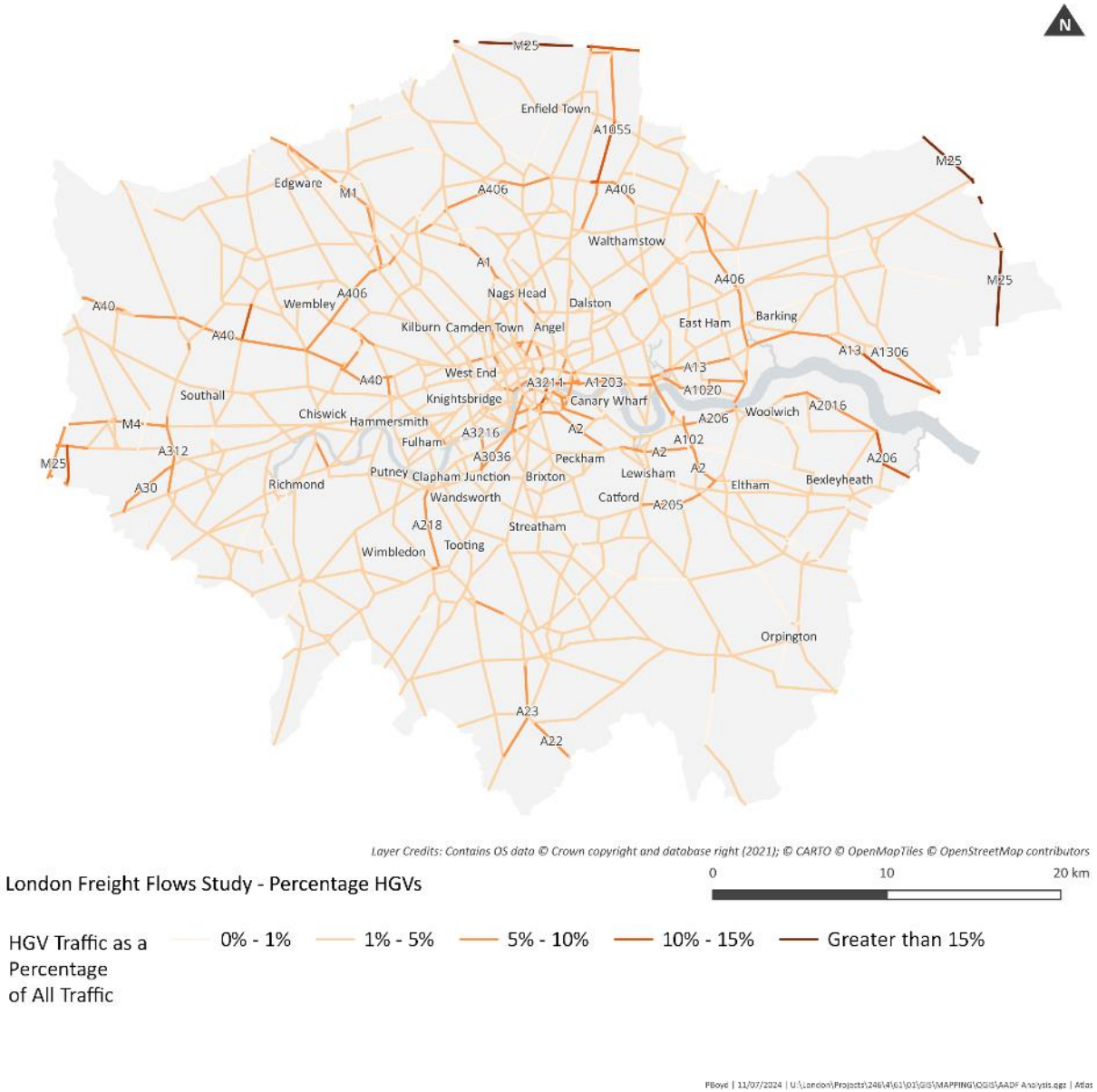


Figure 3.16: LGVs (left) and HGVs (right) as a percentage of total traffic on road links (DfT Traffic counts annual average daily flows 2023)

Travel patterns for LGVs

The DfT's 2019-2020 Van Statistics found that of surveyed van operators in London, 53% of trips were local (within 15 miles of where the van is based). This increased to 65% if vans were privately kept. These statistics also show that 59% of respondents travelled at least four days per week on local/rural roads, compared with 11% travelling at the same frequency on motorways.

The largest trip type for private and business-kept vans is a single calling point return to base trip, i.e., a single delivery to a drop-off location or customer address before returning to the location where it is stored, e.g., a distribution centre. 72% of privately kept van mileage meets this description, followed by 14% calling on multiple bases. Vans kept by businesses are more evenly distributed across travel patterns and constitute a much larger proportion of total van mileage.

Vans associated with delivery/collection of goods (avg. 18 stops) make, on average, 2.5-4 times as many stops as those used for recreation (4), carrying equipment (5), private use (5), and providing transport to others (7).

% Vans by range of journeys and keepership	Private	Business	All
Local (within 15 miles of where the van is based)	65%	46%	53%
Regional (within 50 miles of where the van is based)	26%	45%	37%
National (more than 50 miles of where the van is based, but still within the UK)	8%	9%	9%
International (within and outside the UK)	2%	1%	1%

Figure 3.17: DfT Van survey statistics showing van journey lengths

Travel pattern	Keepership status					
	Private			Business		
	Billion vehicle miles	Percentage	Average annual mileage (miles)	Billion vehicle miles	Percentage	Average annual mileage (miles)
Return to base after calling point (one calling point)	7.4	72%	6,905	15.0	45%	14,499
Return to base after each calling point (multiple calling points)	0.9	8%	10,797	4.6	14%	17,856
Multiple calling points before returning to base (one return to base)	1.5	14%	9,970	8.5	25%	20,131
Multiple calling points before returning to base (multiple returns to base)	0.5	5%	11,600	5.4	16%	24,103
Unknown	0.7	..	~	2.2	..	~
All	**11.0**	**100%**	**7,638**	**35.7**	**100%**	**24,536**

Figure 3.18: DfT Van survey statistics showing van travel patterns by keepership status

Key routes for cargo bikes

The adjacent map shows cargo cycle counts attributed to adjacent road links collected in TfL's Spring 2023 Active Travel Counts.

There is a significant overlap between high flows of cargo bikes and TfL's Cycleway network, with C6 (Blackfriars) and C4 (London Bridge) being routes with higher flows. However, there are notable exceptions. Clerkenwell Road has the fourth-highest cargo bike flow, yet it is not a Cycleway and has very limited dedicated cycling infrastructure. Similar cases in the top flows are Holborn (A40), Bishopsgate, Moorgate (A501), and Holloway Road.

Some correlations can be mapped to known cargo bike hubs, such as Zedify's hubs in Walthamstow (1) and Hoxton (2), Pedal Me near London Bridge (3), and Absolutely in Bloomsbury (4).

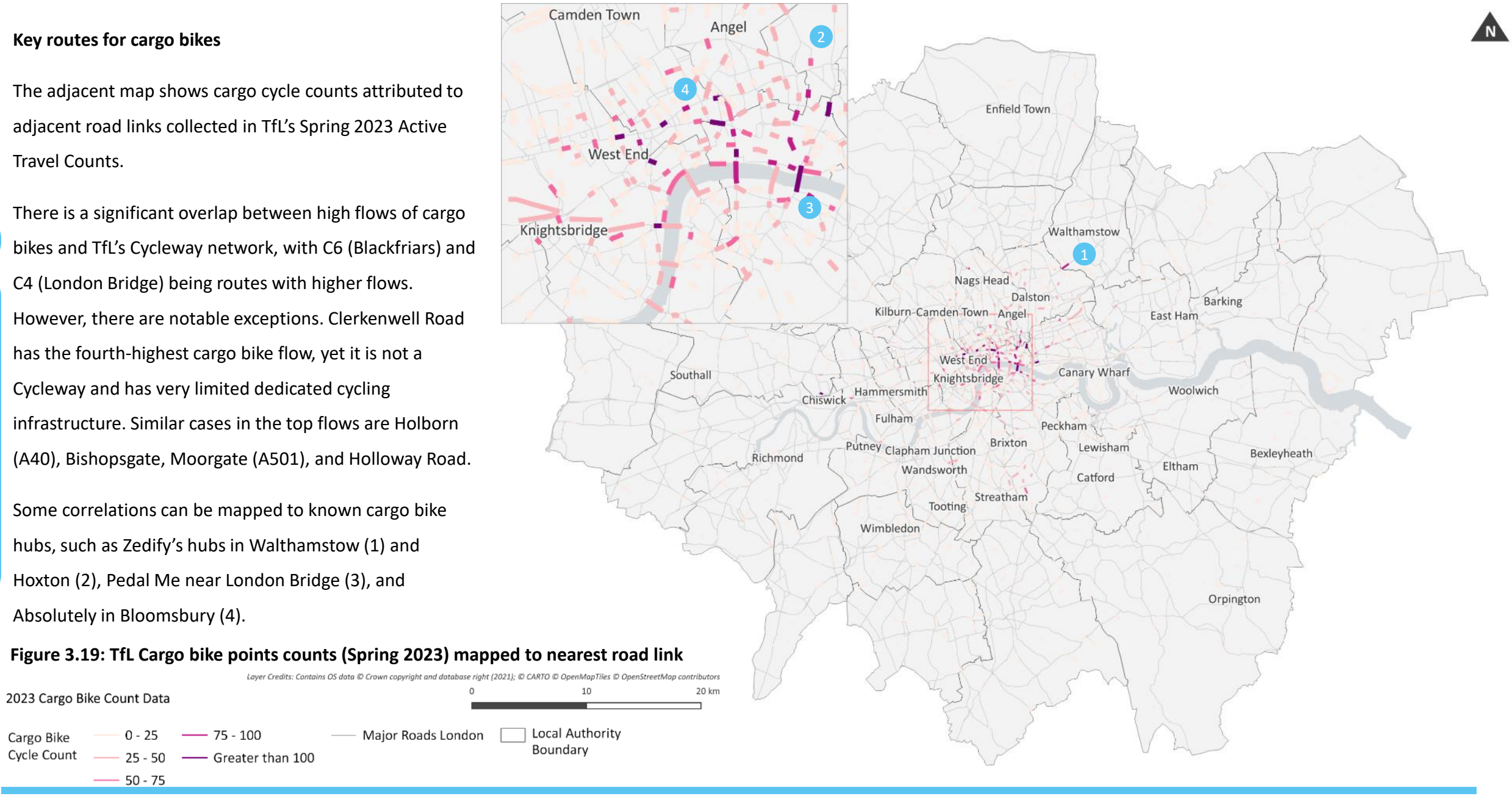
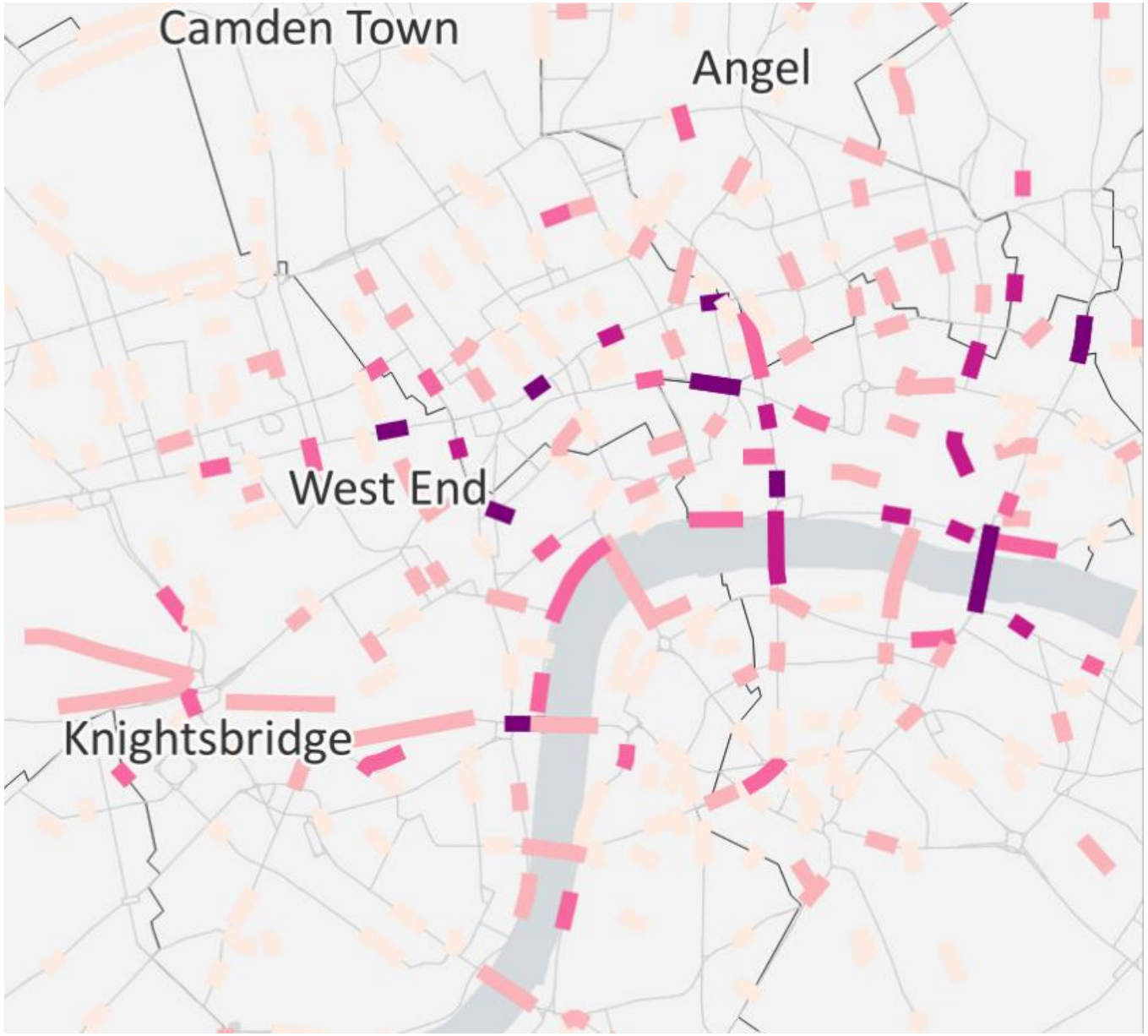


Figure 3.19: TfL Cargo bike points counts (Spring 2023) mapped to nearest road link



Cargo bike count	Location
150	Garrick Street
149	London Bridge
125	Bridge Street
125	Clerkenwell Road (west)
124	Oxford Street (east)
123	Bishopsgate
120	New Bridge Street
119	Bloomsbury Way
114	Holborn
110	Royal Mint Street
104	South Parade
99	Farringdon Street
96	Tooley Street
95	Blackfriars Bridge
94	Lea Bridge Road
91	Chiswick High Road
89	Holloway Road
89	Moorgate
88	Charing Cross Road
88	Prince's Street
85	Theobald's Road
83	Upper Thames Street (west of Southwark Bridge)
81	Upper Thames Street (east of Southwark Bridge)
76	Paul Street
73	Aspley Way (at Hyde Park Corner)

Figure 3.20: TfL Cargo bike points counts (Spring 2023) mapped to nearest road link – central London

3.4 - Commercial vehicle timings and patterns

The DfT's Van Survey records the adjacent patterns for the national activity of vans throughout the day. Those used for delivery/collection of goods peak earlier in the day and have begun to reduce in numbers by the evening peak, whereas those carrying equipment maintain a profile through the day more similar to a typical commuting pattern, with busy morning and evening periods.

The adjacent graph shows vehicles' movement over the day as recorded using VivaCity sensors on Atlantic Road (Brixton). This data was averaged over three weeks in June 2022. Atlantic Road is a B-road adjacent to Brixton's main commercial centre.

It shows relatively low levels of HGV movements until 13:00, at which they almost completely cease. In the early morning, between 04:00 and 06:00, LGV movements are comparable to cars, before the latter drastically increases. LGV movements peak at 10:00 before steadily decreasing. Between 01:00-03:00, traffic is at less than 20% of peak demand for this location.

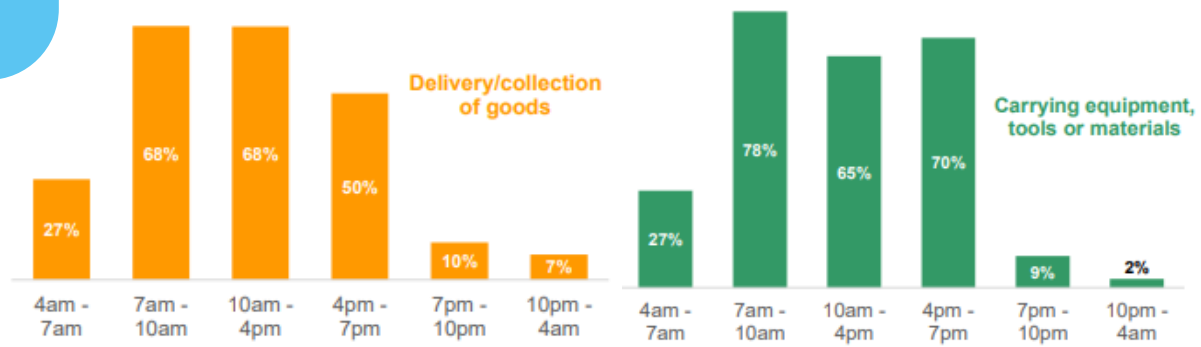


Figure 3.21: DfT Van Survey data showing van time of usage by purpose

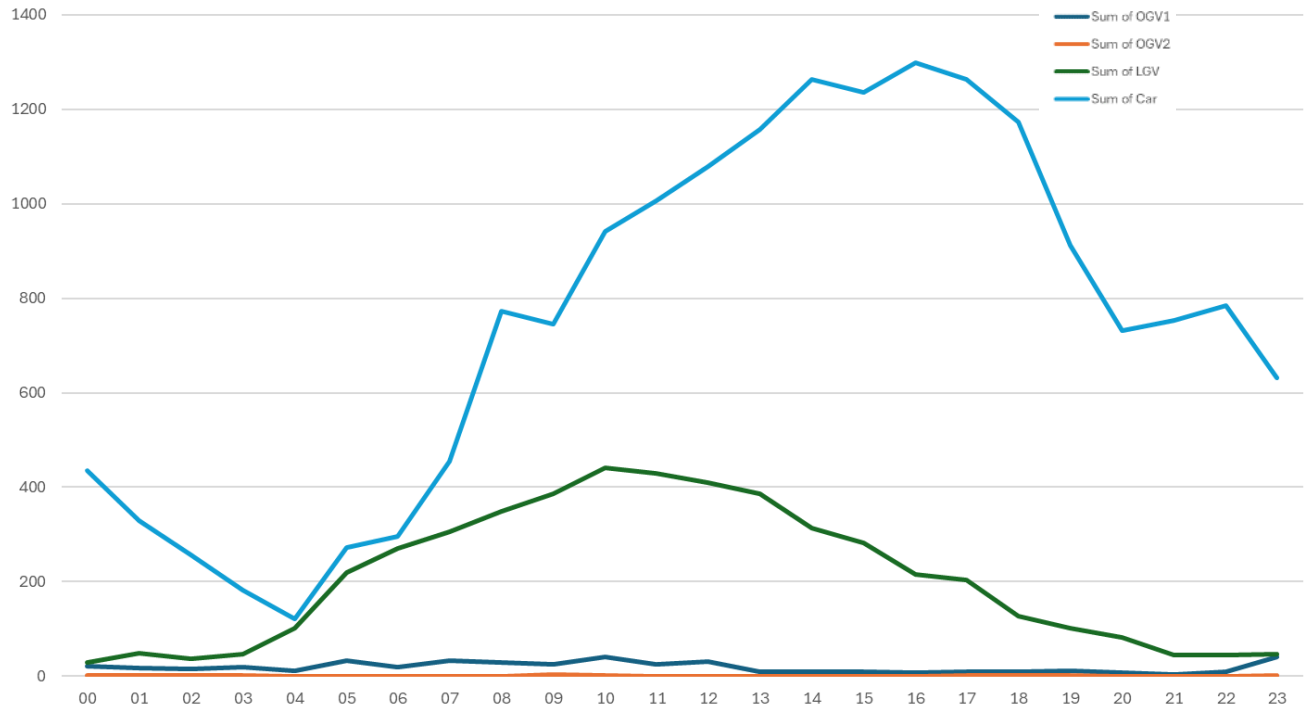


Figure 3.22: Atlantic Road (Brixton) LGV and HGV (as OGV1 and OGV2) and car counts by time of day

Traffic (including cars) is highest at this location at 14:00 with 1,586 vehicles recorded in this hour. At this time, LGVs constitute 19% of vehicles counted. LGVs account for their peak share of traffic between 04:00-06:00 at 41-46% and their lowest share of traffic between 21:00-23:00 at 5-6%.

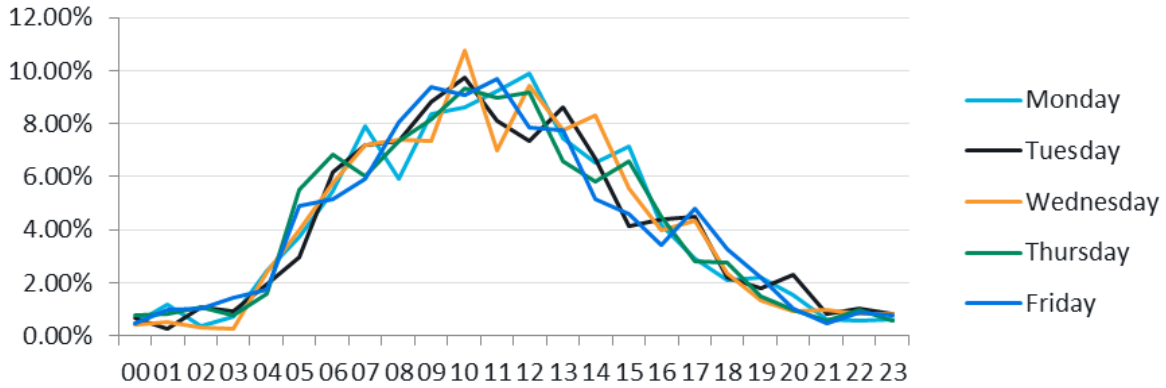


Figure 3.23: Atlantic Road (Brixton) LGV counts by time and day of week

The graph above shows the timings of LGVs by day of the week (averaged over three-weeks). While there are some variations, weekdays adhere to a similar pattern. The graph (right) shows total daily counts of LGVs and HGVs across this period showing the reduction in movements on weekends.

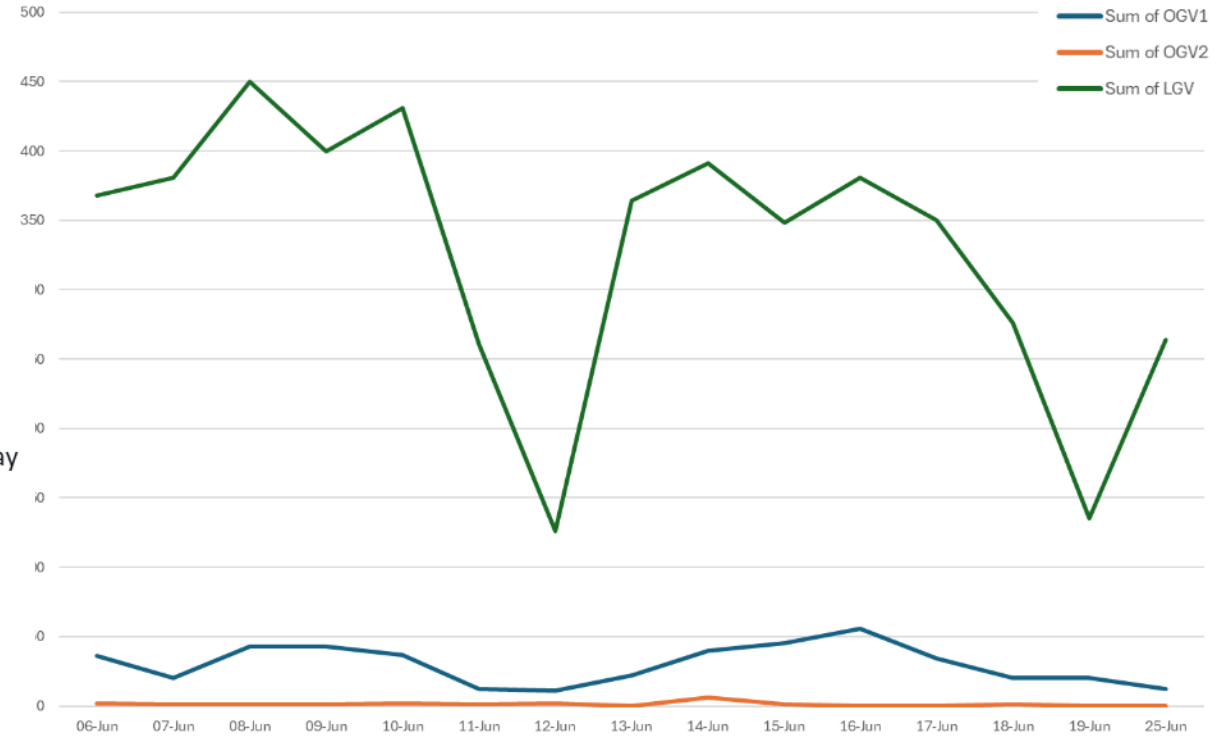


Figure 3.24: Atlantic Road (Brixton) LGV and HGV (as OGV1 and OGV2) counts, June 2022 – where 06 June is a Monday

The maps overleaf show the modelled 2026 distribution of LGV flows at AM-peak and inter-peak across Greater London. This shows that at this scale the key flows for LGVs are broadly the same at these two time periods, with the major road network especially the A13, A4, A40 and northern inner-ring road carrying large amounts of LGV traffic throughout the day.

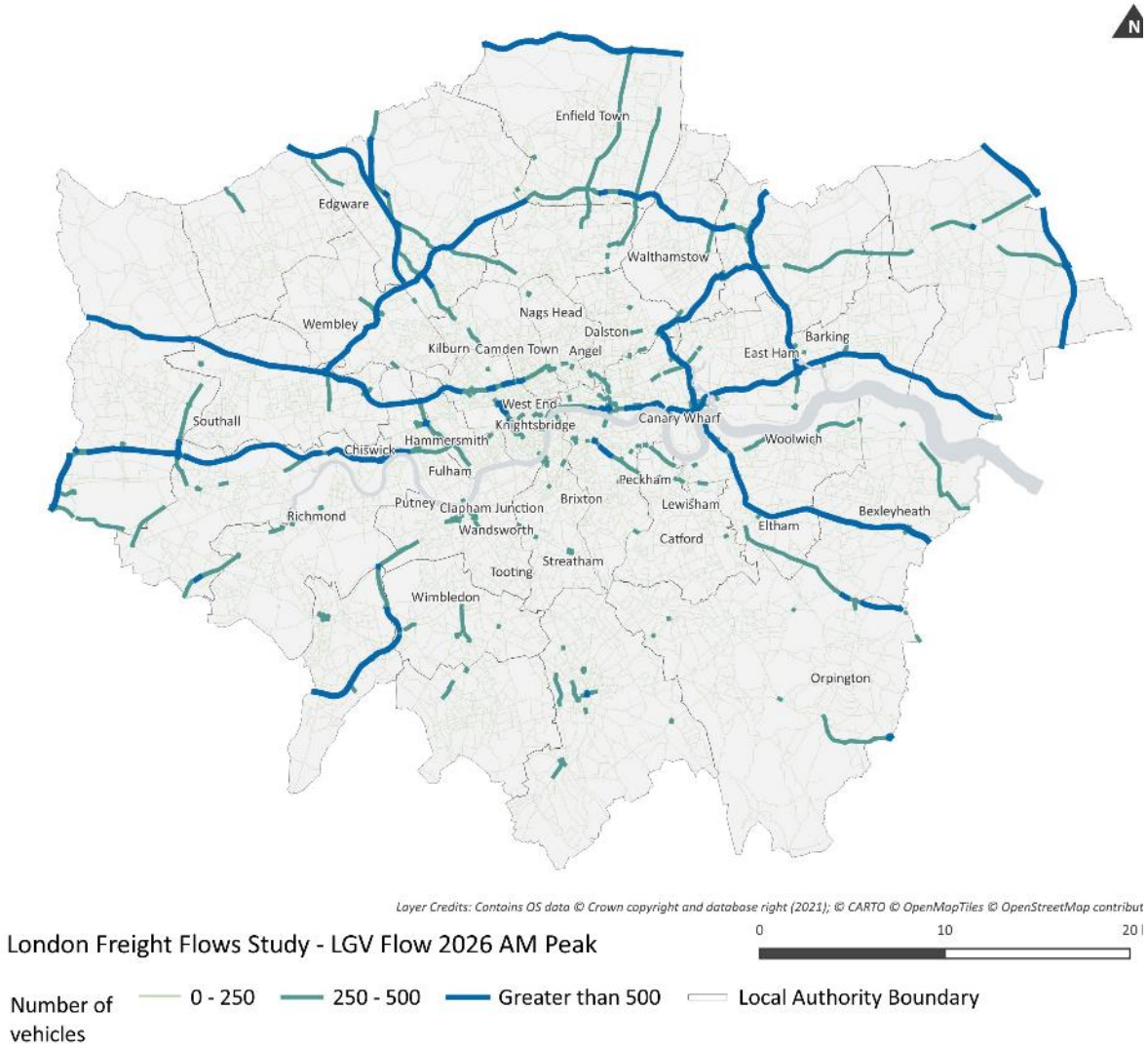


Figure 3.25: LoHAM data showing key LGV flows during AM peak (annual average)*

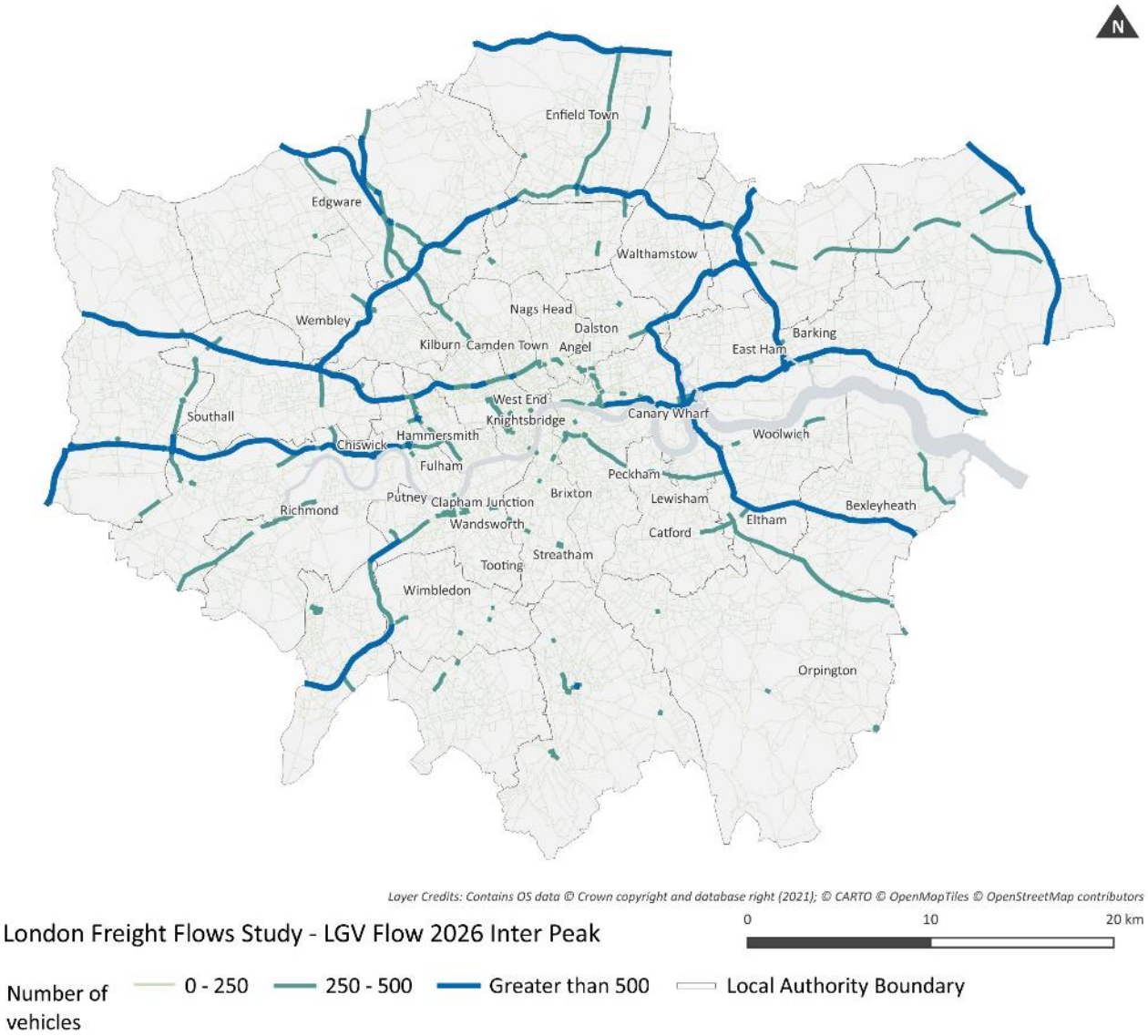


Figure 3.26: LoHAM data showing key LGV flows during inter-peak (annual average)*

** Please note: LoHAM is a strategic model of vehicle movements across London (see page 6). Data on freight trips is limited so the results presented should be used to infer the indicative spatial distribution of travel. They are not designed to provide precise absolute values of vehicle movements.*

4.0 – Impacts

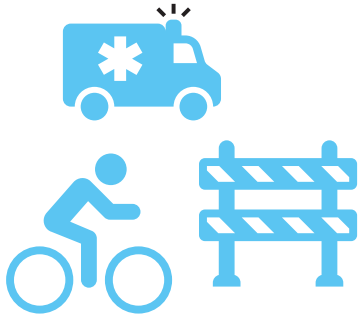
Air Quality – Human Health – Road Users and Traffic – Logistics/Operational Costs

Annual Freight Impacts Across Greater London

Vehicle distances

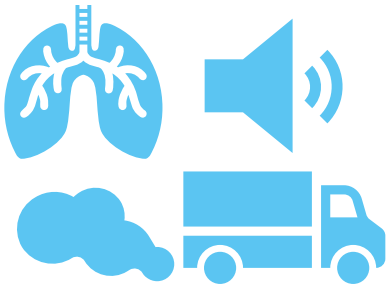
- **Around 190,000 km** travelled by HGVs
- **Around 112,00 km** assigned to LGVs primarily used for the delivery/collection of goods

Casualties



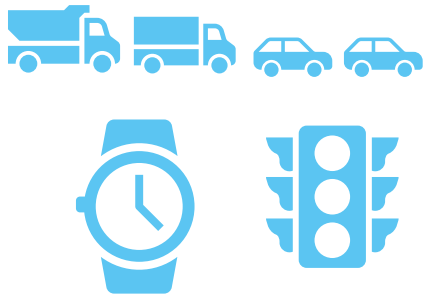
- **Around 1,400** casualties associated with freight movements
- Average value of prevention per casualty is around **£124,000**
- Traffic collisions cost a total of **£176 million** annually

Pollution and health



- **£53 million** in air pollution-related costs attributed to freight movements
- **£71 million** in noise pollution-related costs attributed to freight movements

Congestion



- **£500 million** of costs related to congestion attributed to freight vehicles
- **£539 million** in costs to the freight industry due to congestion

High-level estimates of freight impacts across Greater London

Again, it should be emphasised that freight is essential to the functioning of London. Commercial vehicles supply the city's restaurants, homes, hospitals, supermarkets, and schools. The contributions of freight to society, costs to the industry, and negative externalities have been estimated and measured many times at different scales previously, such as at the national scale, National Infrastructure Commission's Value of Freight (2019) and for London, Centre for London's *Worth the Weight (2021).*

We have made high-level assessments of the impacts of freight vehicles across Greater London using LoHAM Data (2026 hybrid scenario), DfT's Van Statistics, and the Transport Analysis Guidance (TAG) Databook. Figures have been calculated by using vehicle kilometres across vehicles as modelled in TfL's LoHAM with appraisal and modelling values in DfT's TAG Databook. This estimates the total costs of road freight movements in Greater London at £1.6 billion annually.

Vehicle Kilometres

- 3.9 million freight vehicle km travelled
- 189,241 km travelled by HGVs
- 111,678 km assigned to LGVs primarily used for the delivery/collection of goods

Air and Noise Pollution

	HGV	LGV
Greenhouse gases (tonnes)	0.0008	0.0002
NOx (tonnes)	0.000001	0.000001
PM10 (grams)	0.0106762	0.0068571
PM2.5 (grams)	0.0106762	0.0068571

- Using the above emissions per km, the total marginal external costs of road freight impacts on air quality totals £53 million annually.
- The estimated cost of noise pollution is estimated at £71 million annually.

Casualties

- 1,419 casualties associated with freight movements in London – derived by applying the London region share of all road casualties nationally to the number of road casualties associated with HGVs and LGVs nationally.
- The average value of prevention per casualty is £124,272 – average for all casualty severities, including (in addition to human costs) costs for lost output, medical and ambulance, police, insurance, administration and damage to property.
- The total cost of road traffic collisions is estimated at £176 million annually.

Congestion

- The estimated costs associated with freight's impact on congestion are £500 million due to journey time disbenefits on other road users.
- Congestion costs the freight industry approximately £539 million due to journey time disbenefits on freight vehicles.

Freight and public interaction

We have mapped the highest bands of LGV and HGV traffic flows (where these vehicles are above 20% of total traffic) against population density. This provides an overview of where freight may be having a higher impact. However, it should be noted that central London has a low population density but a high working population. Therefore, these maps do not fully show freight vehicles' interaction with the public.

Further studies should investigate the impact of LGV movements in northern Southwark/Lambeth, Islington, Hackney, Merton, and Hammersmith and Fulham, which all have high population density and proportions of LGV.

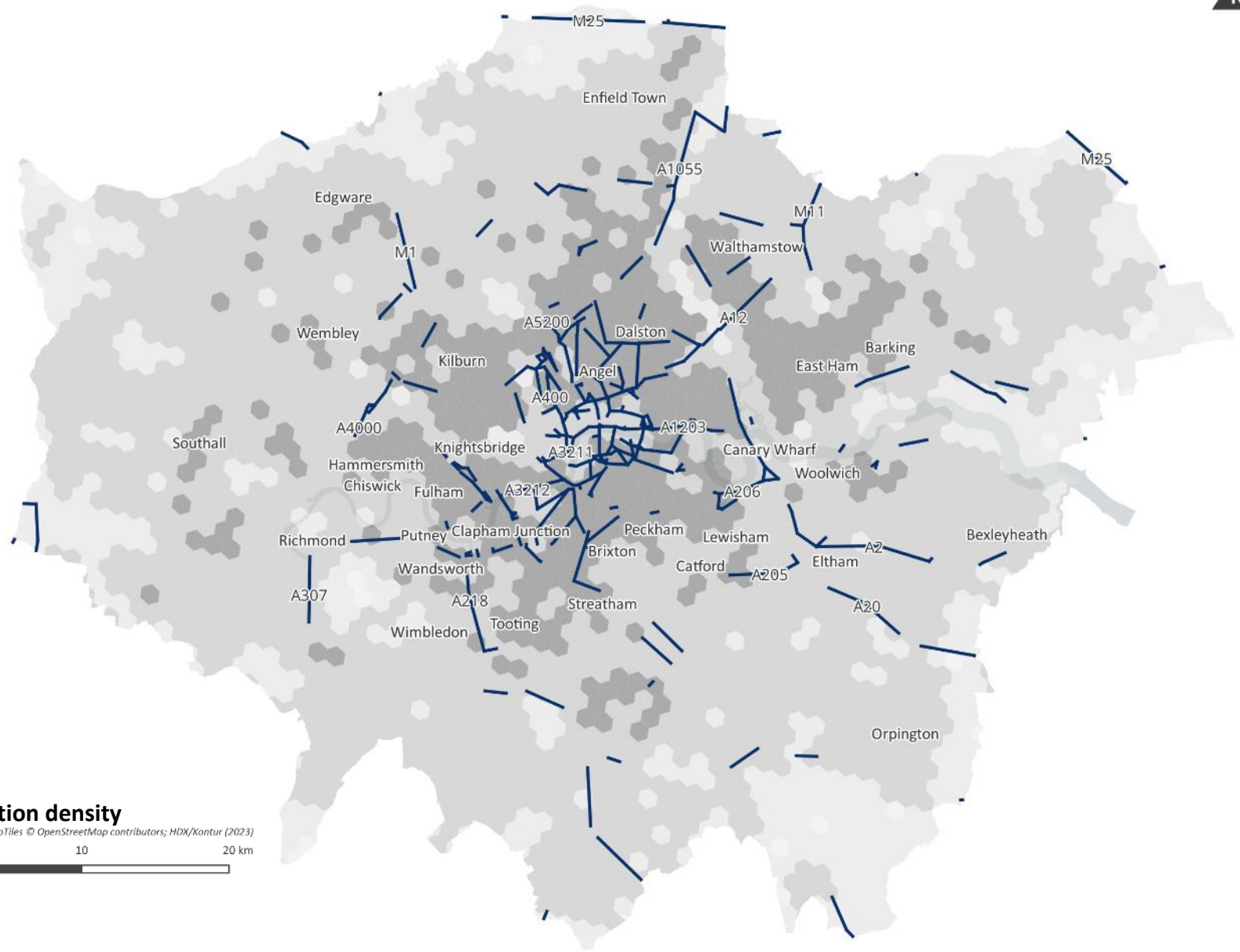


Figure 4.1: Flows where LGVs are over 20% of traffic and population density

The north of Lambeth and Southwark has a high proportion of LGV and HGV traffic, making up between 5-10% of traffic on most major roads in this area. The A3 between Borough Station and London Bridge is particularly high, with HGVs comprising over 10% of traffic, the only road with such high proportions in central London.

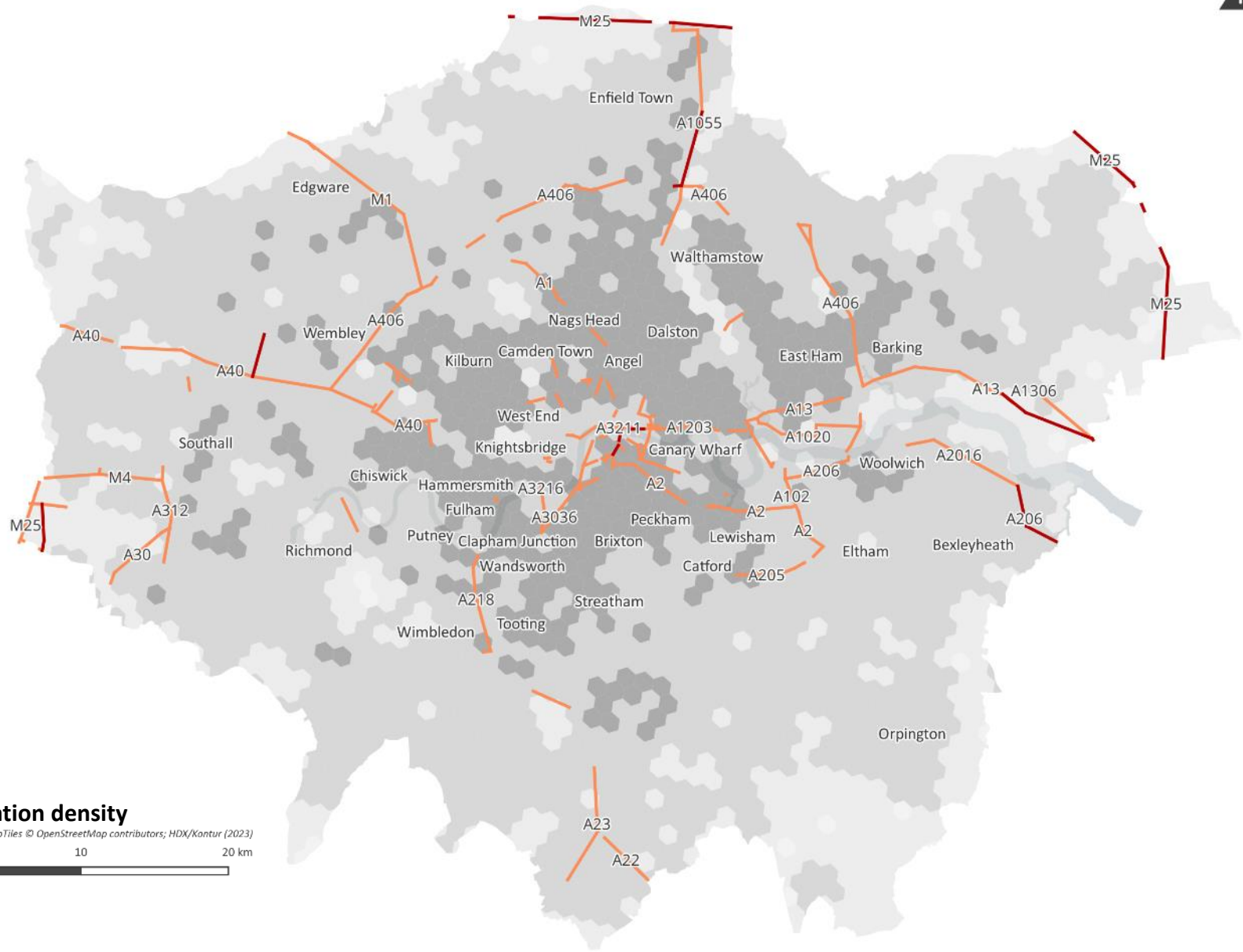


Figure 4.2: Flows where HGVs are over 20% of traffic and population density

London Freight Flows Study - HGV Average Annual Daily Flows (AADF)

0 10 20 km

HGV Traffic as a Percentage of All Traffic
- 5% - 10%
- Greater than 10%

Population Density (People per km²)
- 1 - 1,000
- 1,000 - 10,000
- Greater than 10,000

5.0 – Case Studies

LB Lambeth – LB Hackney – LB Ealing

5.0 – Case Studies

To provide further insight from the freight flow data gathered, we have conducted three case studies of London Boroughs:

- Lambeth
- Ealing
- Hackney

These boroughs differ significantly in their conditions and relation to major freight flows – Ealing sits across a major freight flow and hosts a large amount of warehousing land. Hackney and Lambeth, on the other hand, have relatively low levels of warehousing land.

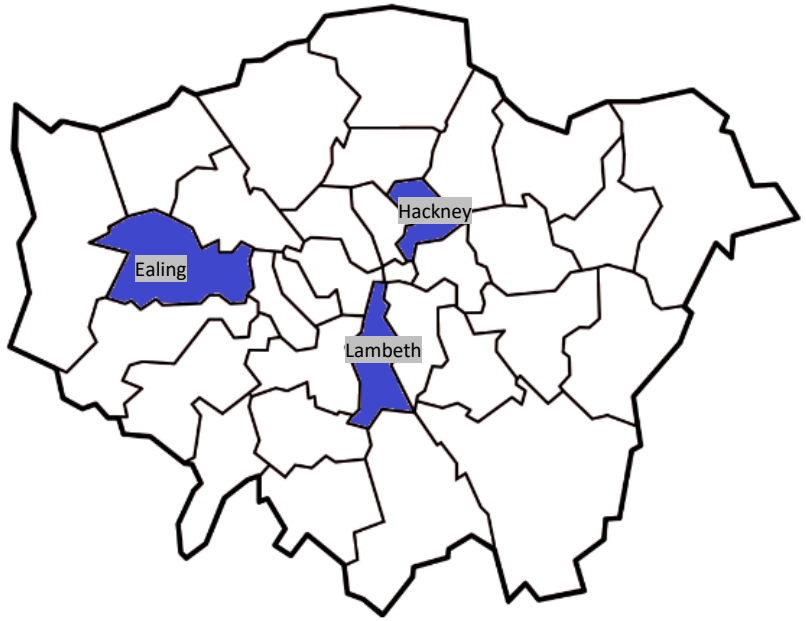
For each case study, we have further interrogated the LoHAM freight flow data, conducting further desktop research to infer possible causes and explanations of freight flows. We have produced more detailed maps of LGV flows to better capture the density of these movements at a more localised scale, and this has allowed us to identify some areas of focus.

We have also conducted a corridor survey in each borough to count commercial vehicles during the AM peak. This provided some further insights into the specific operators witnessed at these surveys.

We conducted additional tasks for Lambeth and Ealing. In Lambeth, we gathered information to inform decisions regarding a possible micro hub. Our research and engagement with operators suggested that this task should be informed by close collaboration with the potential operator.

Similarly, in Ealing, we conducted a drive-time analysis for three potential locations for a logistics hub to understand the connection of these sites to major local sites of freight trips. This data should be used to support conversations with potential users.

We have outlined some actions or areas for further investigation for each case study. Across all three case studies, it is clear that working across a broader region is necessary to address freight issues. Local authorities and other stakeholders may find some benefit in seeing these actions and considering how they may apply in different geographies or contexts.



5.1 – LB Lambeth

Lambeth Freight Flows Case Study

Case study structure:

- Introduction
- HGV origins, destinations, and flows in Lambeth
- LGV origins, destinations, and flows in Lambeth
- Warehousing land in Lambeth
- Corridor survey findings
- Micro-hub potential in Lambeth
- Action areas

Lambeth is a central borough south of the Thames with a population of 320,000. It is a long, thin borough with diverse types of neighbourhoods. The north of the borough falls within London's Central Activity Zone and is dense with cultural, commercial, and business activity, while the south of the borough is more suburban in nature. The north of the borough is strongly shaped by its proximity to London Waterloo, one of the busiest railway hubs in the country. The Waterloo and South Bank area received approximately 30 million visitors annually prior to the Covid-19 pandemic.

Outside of Waterloo and Southbank, the second largest economic area is Vauxhall, which also sits within the Central Activity Zone. Further town centres include Brixton, Streatham, Clapham High Street, Stockwell, and West Norwood/Tulse Hill. Smaller town centres are on Kennington Road, Loughborough Junction, and Vauxhall Street.

Lambeth is not a heavily industrialised local authority, and none of London's major warehousing areas are within its boundaries. Freight movements in the borough appear to be closely related to industrial areas to the south in Croydon and Sutton.

HGV origins and destinations in Lambeth

The south of London has overall lower freight movements than the north. However, LB Lambeth does have several high flows of HGVs passing through it or immediately adjacent to its boundaries: the South Bank (A3036) and the A2. When viewed as a percentage of total traffic, HGVs comprise a higher proportion on many roads north of the borough (falling within the Congestion Charge Zone).

There are few areas of noticeably higher concentration as origins or destinations for HGV trips within Lambeth, except for Kennington and the Albert Embankment. This may be linked to construction projects in this area. The low number of destinations for HGVs within Lambeth suggests that more vehicles may be passing through the borough. However, more research is needed to confirm this.

LoHAM data does not provide information regarding trip purposes. However, we have made assumptions based on the amount of construction known to be taking place in the borough and the low levels of other major industries.

It is assumed that HGV movements through Lambeth are likely to be primarily related to construction and, therefore, originate well beyond borough boundaries, such as at the Port of London wharves to the east of London. In addition to construction, many HGVs are likely to be associated with the removal of waste, meaning routing to local waste facilities should be investigated further.

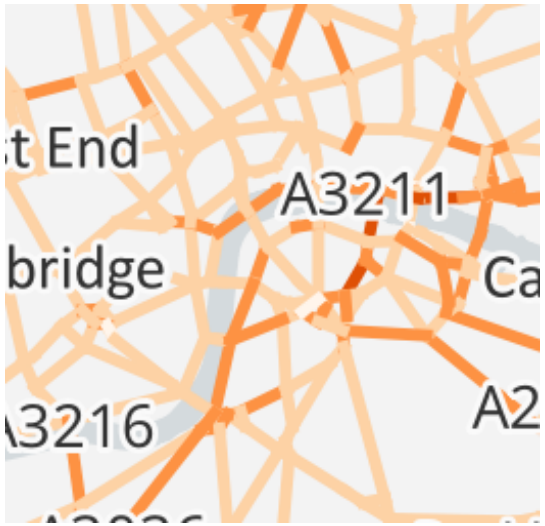


Figure 5.2: HGV flows as a percentage of traffic (DfT annual average daily flows)

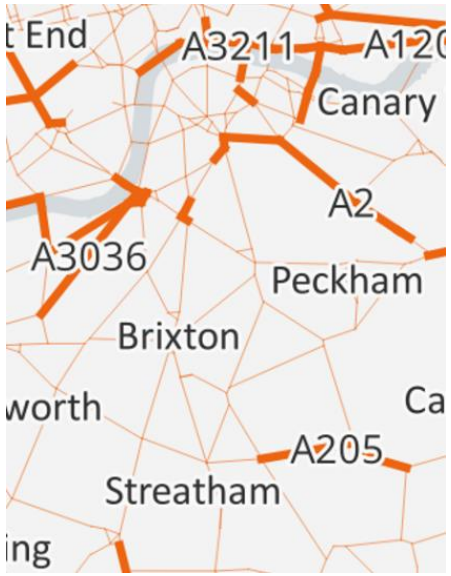


Figure 5.1: HGV flows (LoHAM 2026, hybrid)

Figure 5.3: HGV origins (left) and destinations (right) (LoHAM 2026, hybrid)

** Please note: LoHAM is a strategic model of vehicle movements across London (see page 6). Data on freight trips is limited so the results presented should be used to infer the indicative spatial distribution of travel. They are not designed to provide precise absolute values of vehicle movements.*

LGV origins and destinations in Lambeth

As is the case across Greater London, most commercial vehicle movements in Lambeth are LGVs with a relatively small number of HGV movements.

Key origins and destinations for LGVs include the areas surrounding Waterloo Station, King's College Hospital, central Brixton, and Kennington. These areas of high freight demand can be explained by the higher density of businesses and large institutions, such as the hospital, which generate high numbers of trips.

The nature of LoHAM data means LGV movements cannot be designated by purpose, meaning we cannot attribute data to either freight or servicing. However, Van Survey data shows that at a London-wide scale, 60% of van movements are related to service trips and 21% are related to delivery/collection of goods. Businesses and commercial spaces are more likely to have higher levels of both delivery and servicing trips.

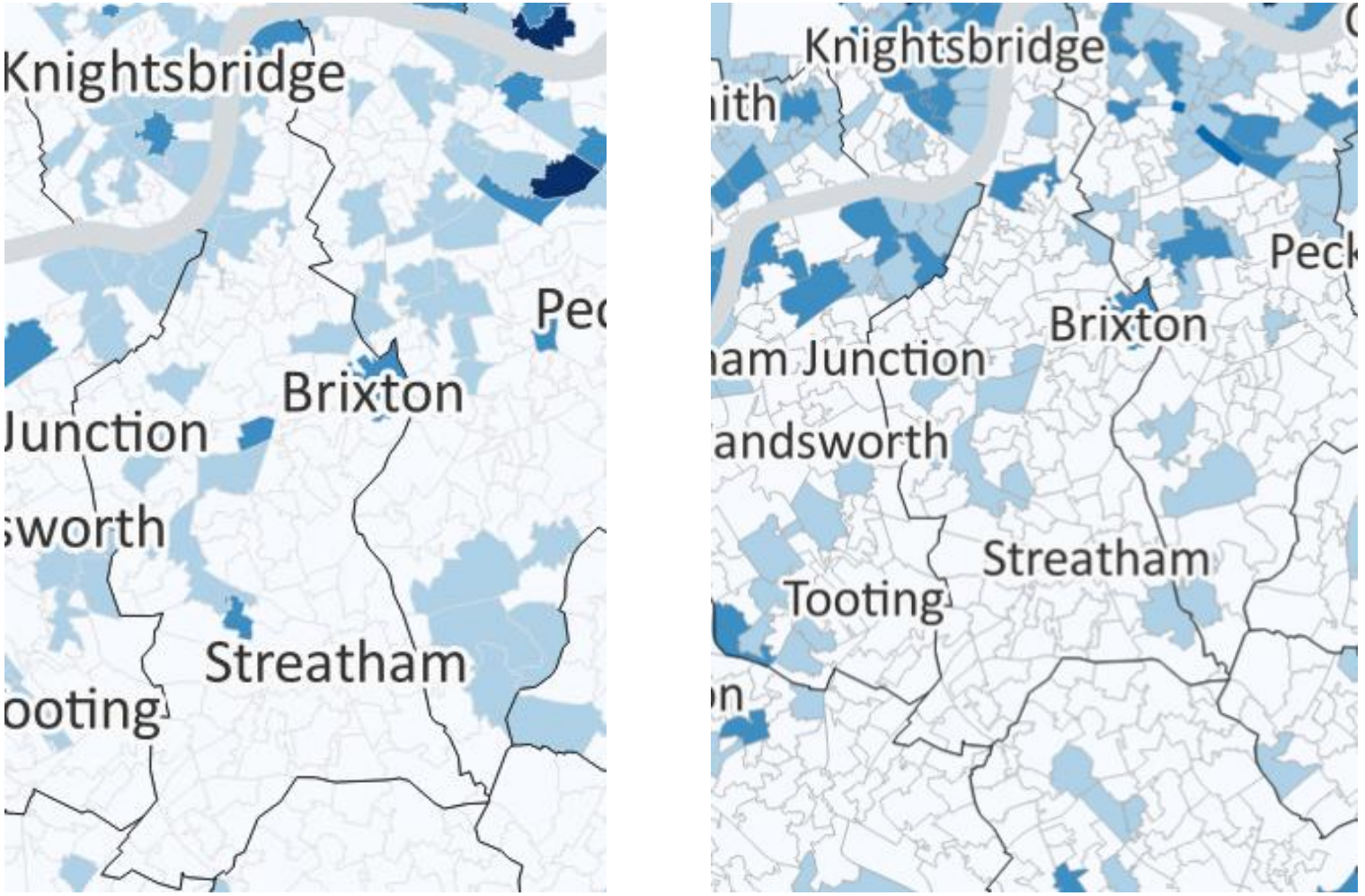


Figure 5.4: LGV origins (left) and destinations (right) (LoHAM 2026, hybrid)

** Please note: LoHAM is a strategic model of vehicle movements across London (see page 6). Data on freight trips is limited so the results presented should be used to infer the indicative spatial distribution of travel. They are not designed to provide precise absolute values of vehicle movements.*

LGV Flows in Lambeth

On a broader scale, none of London's busiest flows for LGV movements pass through Lambeth. However, the 2026 AM peak LGV data shows that most of the borough's main roads have high LGV traffic volumes. In particular, LGVs move through Lambeth in a north-south orientation with the A23 through Brixton, the A3 through Clapham, and the A3036 through Vauxhall, carrying volumes of LGVs between 100-500 LGVs per hour during the AM peak.

While the A205 carries similar volumes of LGV traffic, there are few other east-west oriented flows of similar volume north of it until Kennington. There are large areas with relatively low levels of LGV movements east of the A23, including Herne Hill and Tulse Hill, and between the A23 and A3, including much of Clapham and Brixton Hill.

Across London, the impact of freight movements on air quality has improved as vehicles have been brought into compliance with ULEZ.

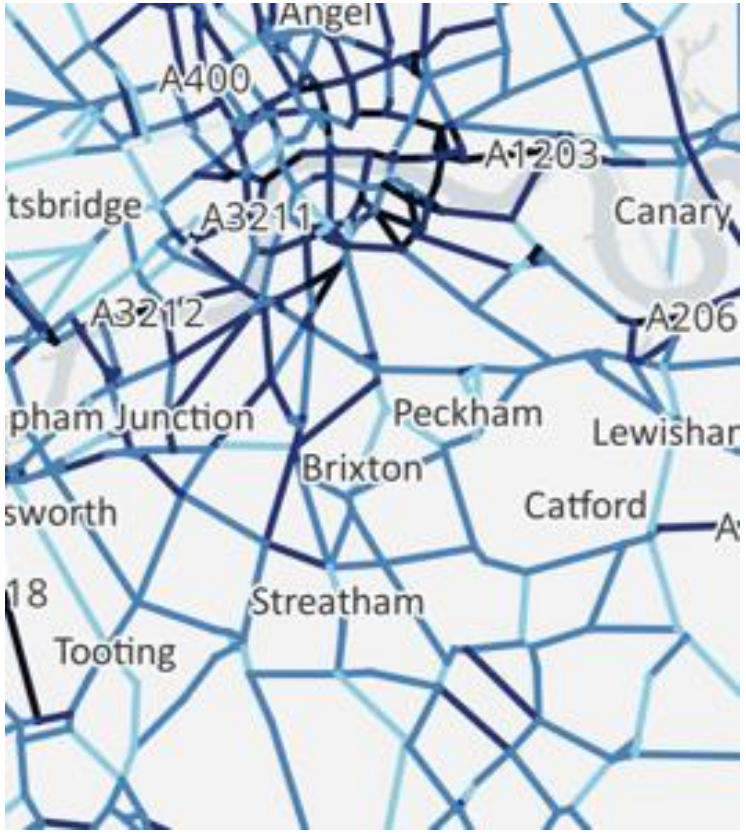


Figure 5.5: LGV flows as percentage of traffic (DfT annual average daily flows)

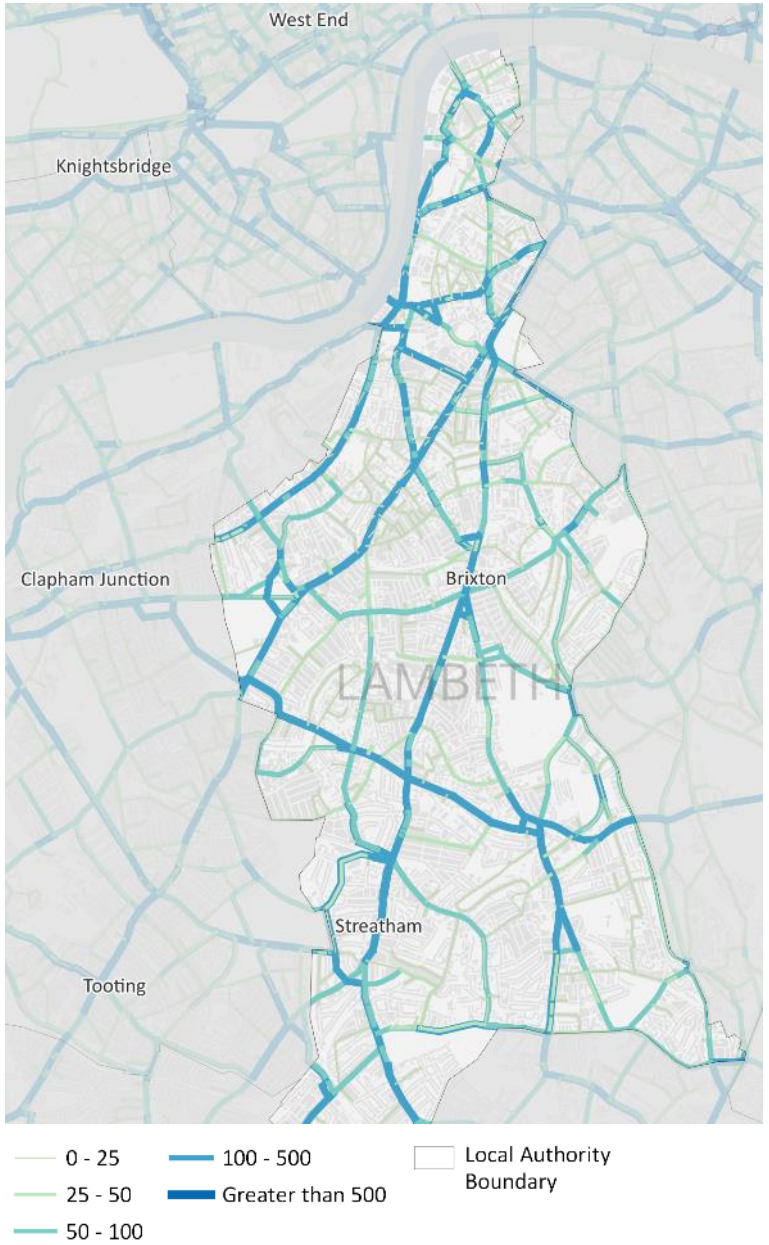


Figure 5.6: LGV flows (LoHAM 2026 hybrid)

** Please note: LoHAM is a strategic model of vehicle movements across London (see page 6). Data on freight trips is limited so the results presented should be used to infer the indicative spatial distribution of travel. They are not designed to provide precise absolute values of vehicle movements.*

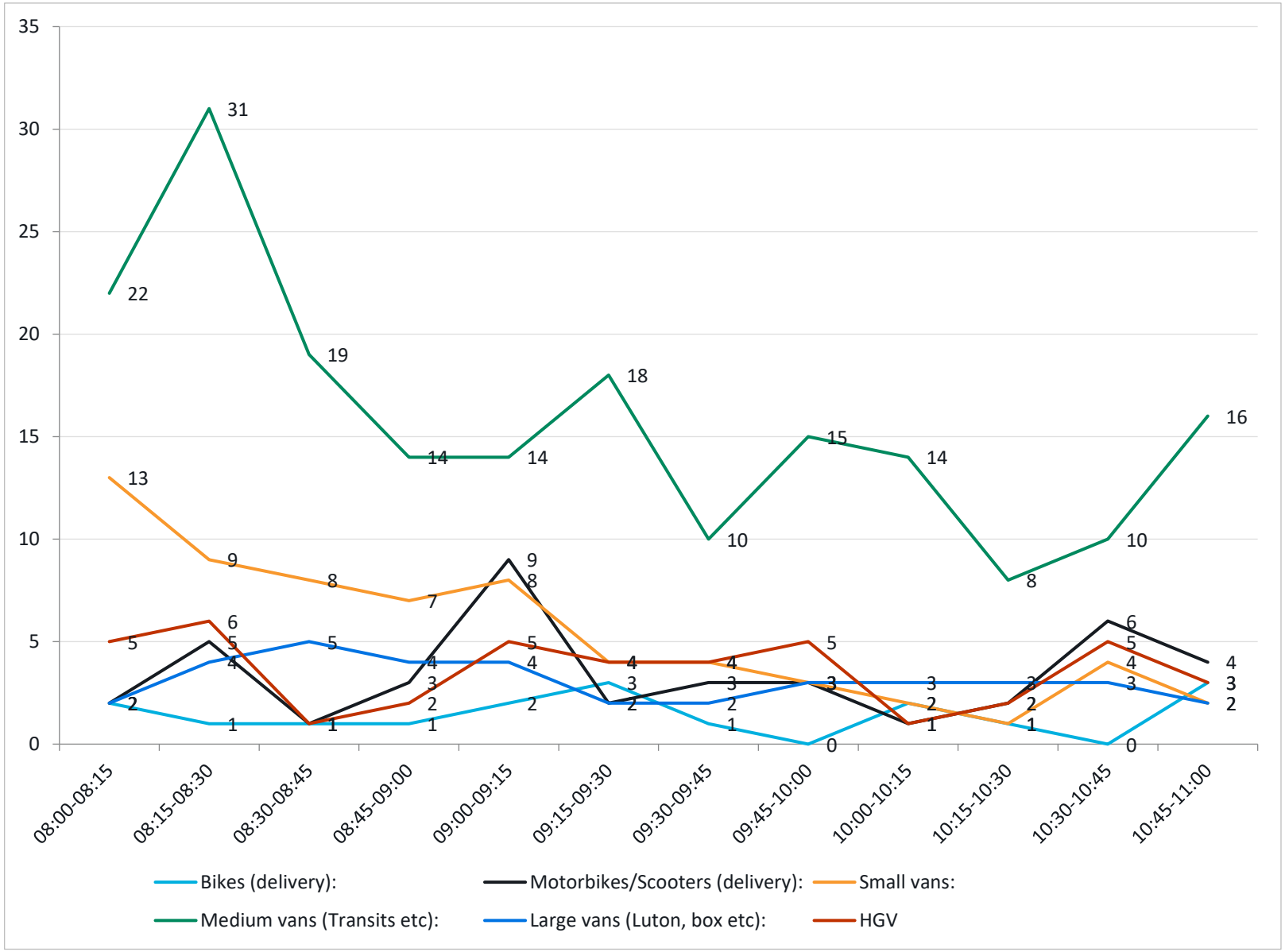
Corridor Survey Timing

We conducted an AM-peak corridor survey on Brixton Road north of the junction with the A2217 on Thursday, 1st August 2024. This location was selected as LoHAM data had shown that the A23 through Brixton is one of Lambeth's higher freight flow routes and has a high interaction with the public due to the concentration of commercial destinations.

The corridor study shows that LGVs greatly outnumber other freight vehicles on this corridor, particularly medium-sized vans. At this location, we recorded that LGV flows peaked at 08:15-08:30, which aligns with the timings collected in DfT's Van Survey. However, rates decreased at a higher rate than expected.

Surveyors were instructed to record counts of major 3PL operators where possible. Of total LGV movements, five were associated with major 3PL operators, specifically DPD and UPS. This suggests LGV movements in this area have diverse operators and purposes. However, many CEP operators contract drivers working in unbranded vans, which would not have been counted.

Figure 5.7: Lambeth corridor study timings of vehicle flows by type



Time:	Bikes (delivery):	Notes:	Motorbikes/ Scooters (delivery):	Notes:	Small vans:	Notes:	Medium vans (Transits etc):	Notes:	Large vans (Luton, box etc):	Notes:	HGV:	Other:
08:00-08:15	2	1 x Deliveroo, 1 x Just Eat	2		13		22		2		5	
08:15-08:30	1		5		9		31		4		6	includes 1 x refuse wagon
08:30-08:45	1	1 x Deliveroo	1		8		19		5		1	
08:45-09:00	1	1 x Deliveroo	3		7		14		4		2	includes 1 x refuse wagon
09:00-09:15	2		9		8		14		4		5	
09:15-09:30	3	includes 2 x Just Eat	2	includes 1 x Deliveroo	4		18	includes 1 x DPD	2		4	
09:30-09:45	1	1 x Just Eat	3		4		10	includes 1 x DPD & 1 x UPS	2		4	includes 1 x refuse wagon
09:45-10:00	0		3	includes 1 x Deliveroo	3		15	includes 1 x UPS	3		5	includes 1 x refuse wagon
10:00-10:15	2	includes 1 x Just Eat	1		2		14		3		1	
10:15-10:30	1		2		1		8	includes 1 x UPS	3	includes 1 x small refuse wagon	2	
10:30-10:45	0		6	includes 1 x Deliveroo, 1 x Uber Eats, 1 x Just Eat	4		10		3	includes 1 x small refuse wagon	5	
10:45-11:00	3	includes 1 x Just Eat, 1 x Uber Eats	4	includes 1 x Just Eat	2		16		2	includes 1 x small refuse wagon	3	includes 1 x refuse wagon

Warehousing Land in Lambeth

Our research did not locate any significant freight clusters sitting within LB Lambeth. However, BRES data analysis revealed some areas of focus within the borough. Further desktop research of these clusters did not reveal any major freight depots except the South Lambeth Royal Mail Delivery Office and West Norwood Key Industrial Business Area. The higher intensity cluster in the centre of Lambeth may likely be related to freight activity across the borough boundary in Nine Elms.

Further desktop research did not suggest that any of the major 3PL operators, construction industry, or food outlets have depots or distribution centres within Lambeth. The nearest major freight clusters are in Southwark: Kent Park Industrial Estate and Mandela Way. There are larger clusters to the south in Croydon, Merton, and Sutton, particularly Purley Way and adjacent clusters, which is one of south London's most extensive areas of freight activity.

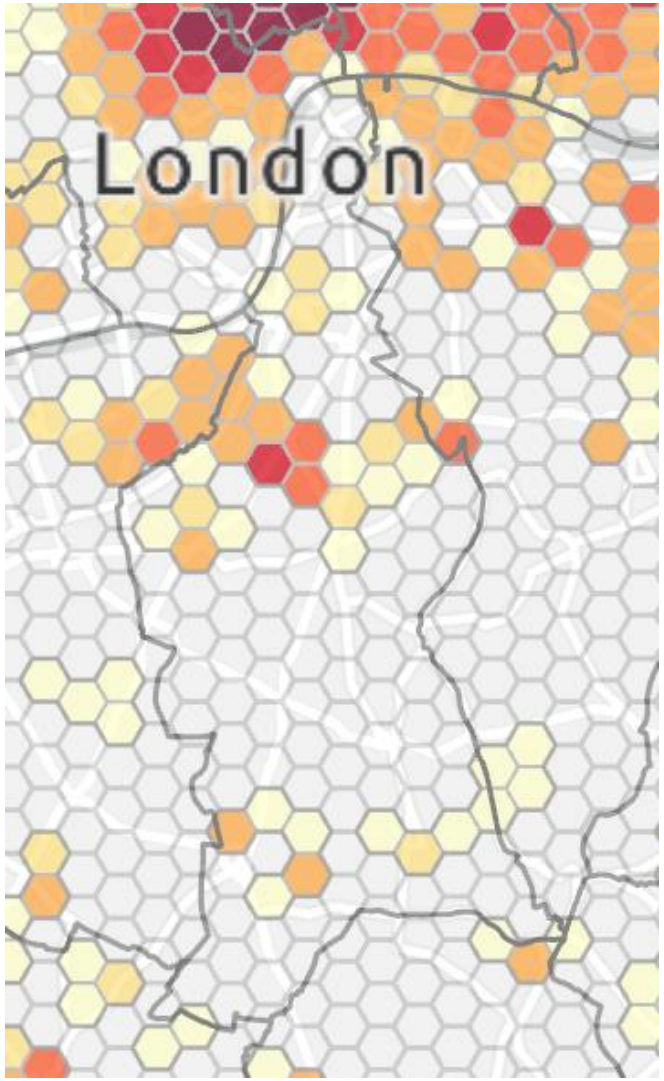


Figure 5.8: businesses associated with freight and warehousing (BRES)

Micro Hub Potential in Lambeth

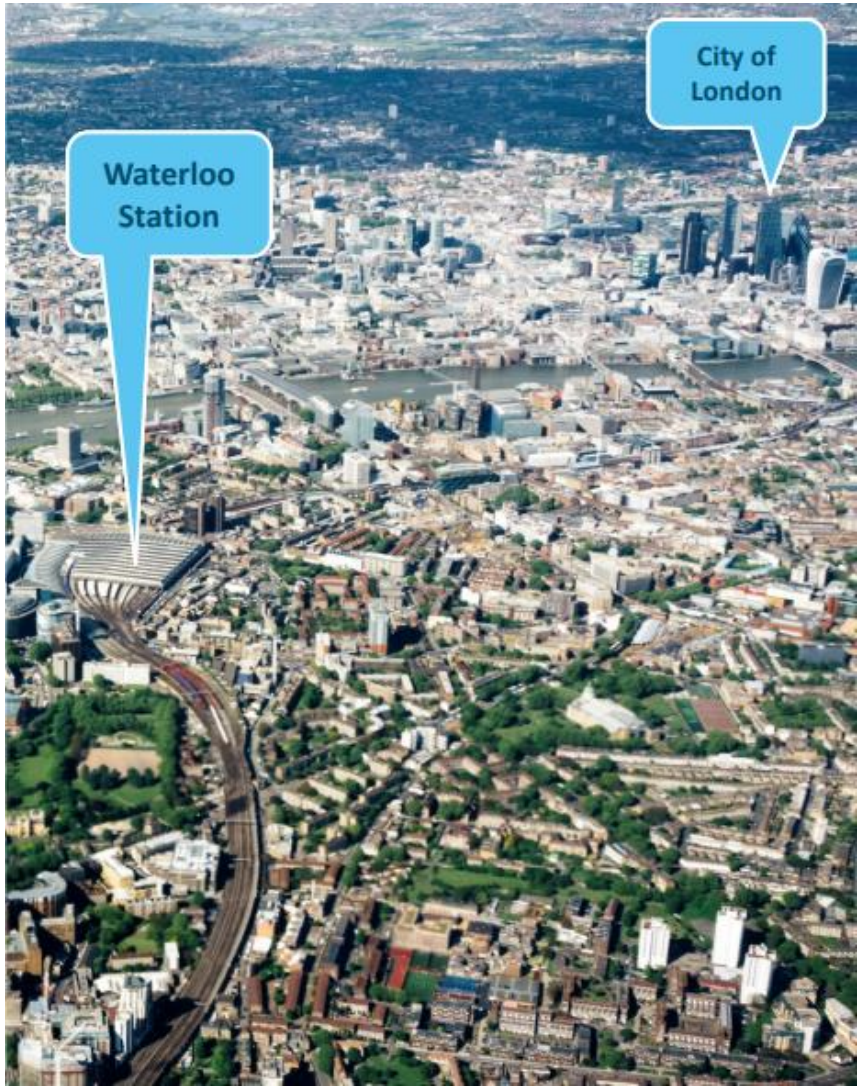
Data provided by leading logistics real estate services company, Savills, suggests the cost of logistics land across Greater London to average £8.3 million per acre – or £2,072 per square metre. “Grade A rents” for logistics land range from £100-400 per square metre. Most micro hubs would not be considered grade A land due to the small size of these facilities and the limitations these may bring. However, micro hubs serve a niche market that may have more specific demands and flexibility to use these sites better.

Conversations with operators suggest that authorities seeking to support the transition to delivery models using micro hubs and low-emission vehicles should focus on stakeholder engagement and supporting operators to connect with potential markets. Operators have told us that they could practically serve any area within London. Successful cargo bike operating centres are not necessarily in ‘perfect’ locations and Zedify currently serves central London from a main hub seven miles away.

Previous work by Cross River Partnership has identified the following as **key determinants** of a micro logistics hub:

- Adjacent to major road networks – in this case, the A23 or A205 are key flows.
- Height of 2m+ needed.
- Access over 14 hours from 6:00 onwards.
- Floorspace between 90-185 square meters.
- Shorter, more flexible contracts.
- Good level of security.

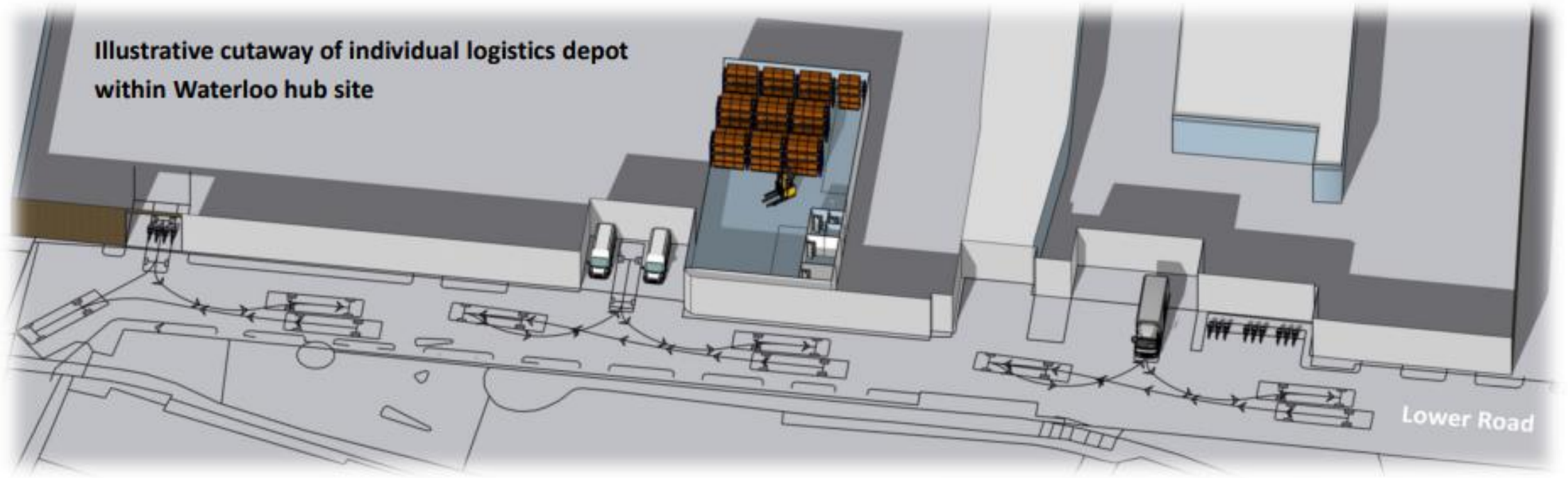
Our conversations with two cargo bike operators found that both their micro hubs operating cargo bike deliveries are served by HGVs, and we noted that access on one level with the ability to park a 7.5-tonne vehicle was important. However, this may only be necessary for some sites.



Waterloo Hub

LGV flow mapping shows a high amount of LGV movements moving north-south through the borough. Many of these are likely service trips to dense commercial areas in the Central Activity Zone. However, innovative consolidation approaches could significantly reduce the 21% of trips related to deliveries/collections. A micro hub could reduce LGV movements through the borough by providing a convenient location for storing vehicles and processing deliveries.

This hub would likely be served by an HGV, with onward deliveries made by cargo bike and electric van. This could significantly reduce congestion with a single, efficiently loaded HGV, replacing several vans (the payload of average vans ranges from 500-2,000kg, whereas HGV payloads start at 2,300kg for a 7.5-tonne vehicle). Waterloo provides the added benefit of solid connections by rail and river, which could further reduce the number of commercial vehicles on the road network.



Action Areas

Use destination mapping to focus support

Aim: reduce freight movements by targeting interventions to areas shown as frequent destinations

Where: Waterloo Station, King's College Hospital, central Brixton, and Kennington.

Consider area-wide support such as freight auditing, delivery and service plan support, and cargo bikes for more efficient movements.

Use HGV flows in infrastructure decisions for vulnerable road users

Aim: ensure HGVs move through the borough on safe routes

Where: A3 near The Oval, Vauxhall junction, A3204, Albert Embankment

Audit existing conditions for pedestrians and cyclists on roads with higher volumes of HGVs. Consider HGV movements when making cycle network decisions.

Collaborate with adjacent boroughs on freight issues

Aim: plan for freight across a geography that is more reflective of freight flows

Where: especially Merton and Croydon, but also Southwark, Wandsworth and Sutton

Lambeth has a very small amount of freight/warehousing land within its boundary. Therefore, tackling freight issues requires a strong collaboration with the origins of flows. There is a clear spine of LGV movements through the borough's centre connecting to warehousing land in Merton and Croydon. This report suggests organising a regular forum between these boroughs to tackle freight movements, likely including other neighbouring boroughs.

Further efforts to implement a new micro hub

Aim: increase the uptake of cargo bikes by supporting access to space, e.g., Waterloo Hub

Where: to be operator-led

This study aimed to provide a firm suggestion for the location of a new micro hub. Waterloo stands out as a strong location due to its location and rail links. However, working to connect cargo bike operators with markets may be more beneficial than an in-depth study of potential locations.

This report underscores the need to facilitate collaboration between operators and the market. This step is crucial and should allow conversations with operators to drive the location of the micro hub.

The Council can support this by ensuring that future potential sites are not lost to development and should ensure freight usage is considered in planning decisions.

Ealing Freight Flows Case Study

Case study structure:

- Introduction
- HGV origins, destinations, and flows in Ealing
- LGV origins, destinations, and flows in Ealing
- Corridor survey findings
- Freight Locations Assessment
- Action areas

Ealing has high levels of diversity with a mix of inner city and suburban neighbourhoods and over 170 languages spoken. There is also a significant difference in levels of affluence and deprivation between neighbourhoods within the borough.

Most of Ealing's industrial floor space is located within designated industrial land, with nearly two million square metres recorded in Ealing's Inclusive Economy Baseline report (2022). A key economic and industrial area for the borough is Park Royal in the north-east – which sits across the boundary with Brent. This is the main part of the Old Oak and Park Royal Development Corporation (OPDC), which hosts over 20,000 jobs. Across the rest of Ealing there are 43,500 jobs within designated industrial land (excluding the OPDC). In total there are 128,000 jobs in Ealing, meaning that those associated with industrial areas are a significant contribution. Designated industrial areas have seen some of the strongest job growth in Ealing in recent years.

The borough of Ealing comprises seven towns: Northolt, Southall, Hanwell, Greenford, Ealing, Acton, and Perivale. Four of these are defined by high levels of industrial land use: Southall, Greenford, Acton, and Perivale. Industrial use accounts for over 70% of commercial floor space in these areas.

Connection to Heathrow is vital for Ealing's economy, with 3,300 airport-related jobs and 350 businesses in activities dependent on this connection, as estimated in the Inclusive Economy Baseline report.

The A40 passes through the north of the borough, a major artery for passenger transport and freight, and the M4 passes to the south.

Ealing is near major freight locations and key flows. While most commercial vehicle movements are LGVs, HGVs have a strong presence.

HGV origins, destinations, and flows in Ealing

Several major flows for HGVs pass through or adjacent to Ealing – particularly the A40 and the A406. Park Royal and the Greenford Park freight clusters are particular origins and destinations for HGV trips within the borough. Freight passing through Ealing enters the city from warehousing land outside of Greater London as it moves towards Park Royal and Wembley. Mostly, HGV movements are made on appropriate routes for such vehicles. However, the high volume of large vehicles on the A406 will likely have a higher impact on the public, passing close to residential and commercial properties. The volume of HGVs on this route would increase the need for a safe alternative cycling route.

Figure 5.10: HGV flows (LoHAM 2026, hybid)

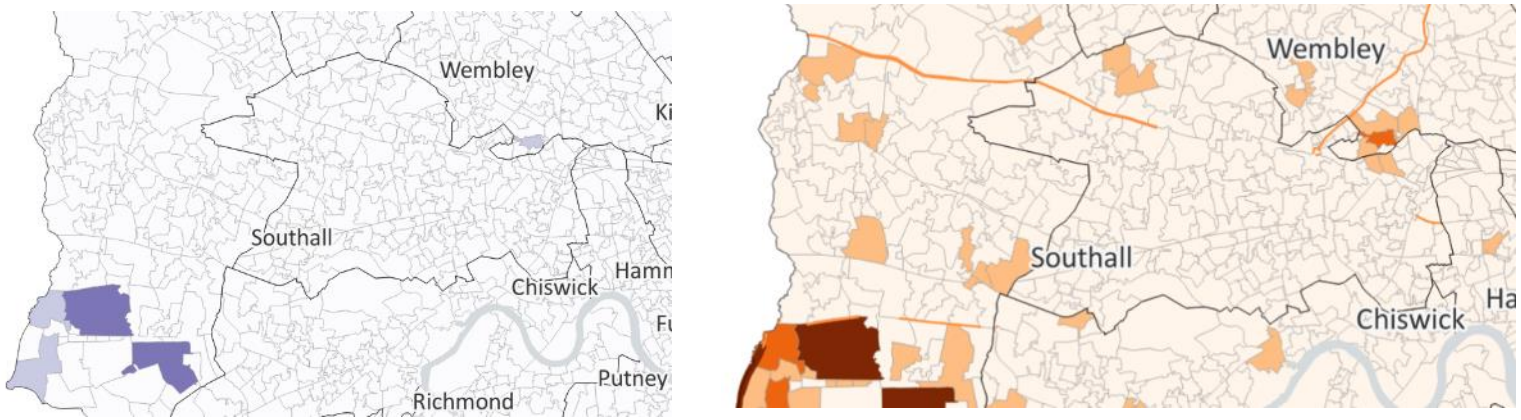


Figure 5.9: HGV origins (left) and destinations (right) (LoHAM 2026, hybrid)

** Please note: LoHAM is a strategic model of vehicle movements across London (see page 6). Data on freight trips is limited so the results presented should be used to infer the indicative spatial distribution of travel. They are not designed to provide precise absolute values of vehicle movements.*

LGV origins, destinations and flows in Ealing

LGV origins within the borough are mainly aligned with known freight clusters (Park Royal, Greenford Park, and Perivale). Compared to neighbouring boroughs, Ealing appears to have relatively few areas of high destination density of LGVs. However, large numbers pass through the borough via the major road network.

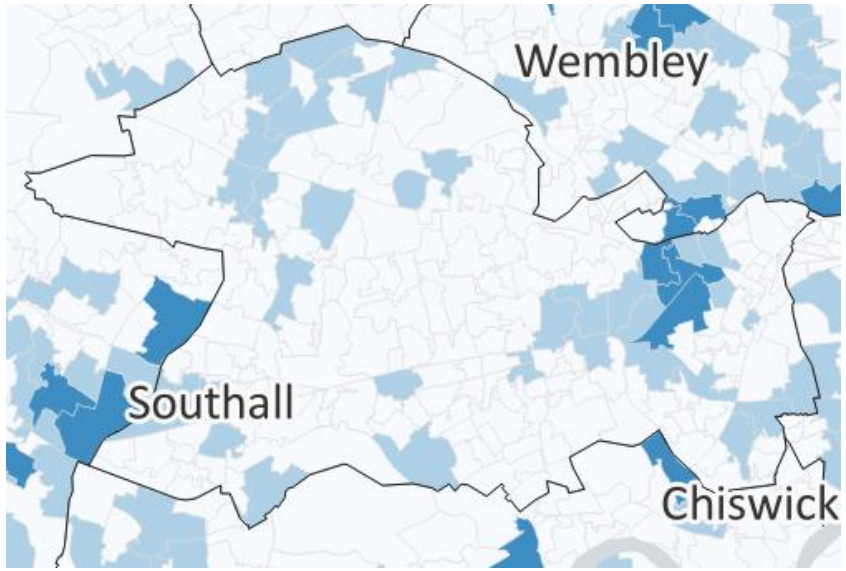


Figure 5.11: LGV origins in Ealing (LoHAM 2026, hybrid)

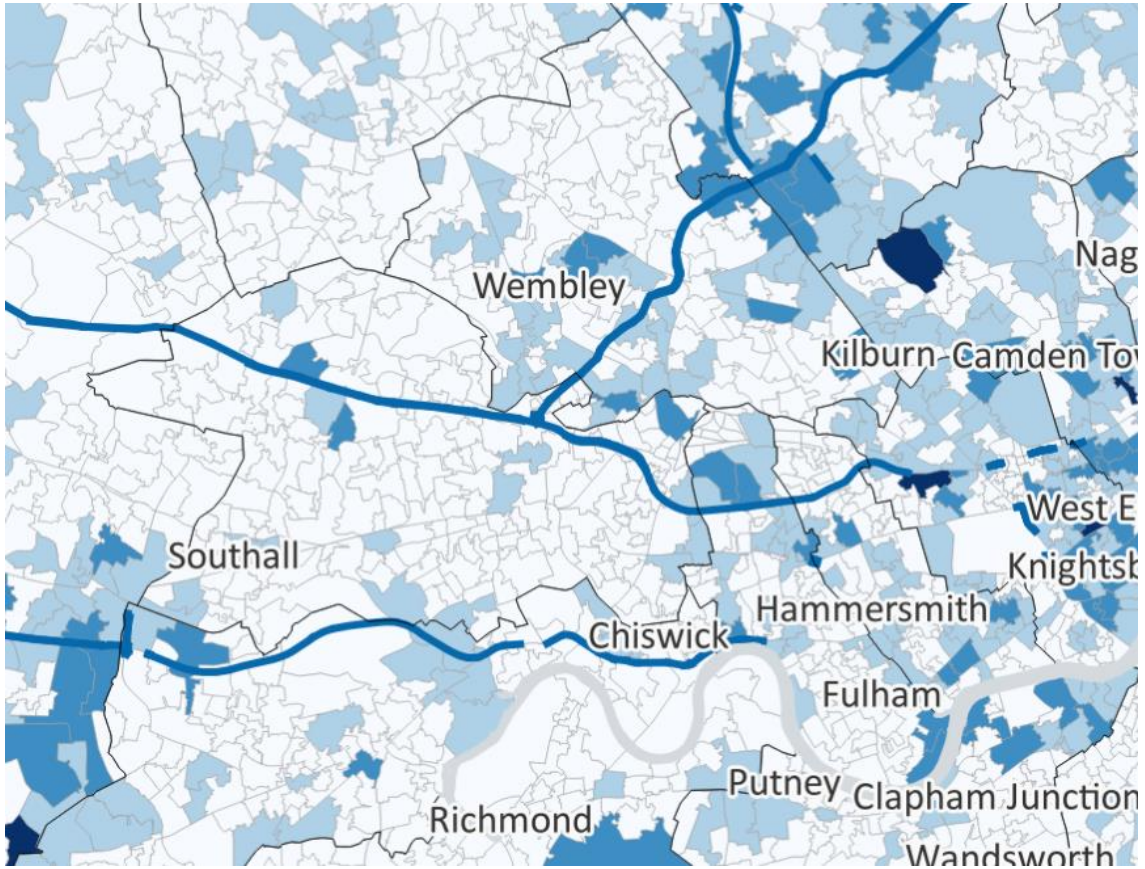


Figure 5.12: LGV destinations and key flows in Ealing (LoHAM 2026, hybrid)

** Please note: LoHAM is a strategic model of vehicle movements across London (see page 6). Data on freight trips is limited so the results presented should be used to infer the indicative spatial distribution of travel. They are not designed to provide precise absolute values of vehicle movements.*

LGV Flows in Ealing

Aside from the main flow of LGVs on the A40, there are several other key routes for LGVs moving through Ealing. These are primarily oriented north-south: A406 and Greenford Road. These movements are likely connecting freight clusters north of the A40 to Heathrow and the M4.

Figure 5.13: LGV flows in Ealing as a percentage of total traffic (DfT annual average daily flows)

Figure 5.14: LGV flows in Ealing (LoHAM 2026, hybrid)

** Please note: LoHAM is a strategic model of vehicle movements across London (see page 6). Data on freight trips is limited so the results presented should be used to infer the indicative spatial distribution of travel. They are not designed to provide precise absolute values of vehicle movements.*

Corridor Survey Timing

We conducted an AM-peak corridor survey on the New Broadway between junctions of the B455. This location was selected due to the freight traffic interaction with The Broadway's high-density commercial area.

The corridor study found medium-sized vans to be the most prevalent commercial vehicle activity on this link, but they also had high numbers of motorbike/scooter deliveries. Of the three corridor studies conducted, Ealing's had the highest number of HGV movements both in total counts and percentage of traffic at 45 (accounting for 13% of vehicles on Ealing's corridor).

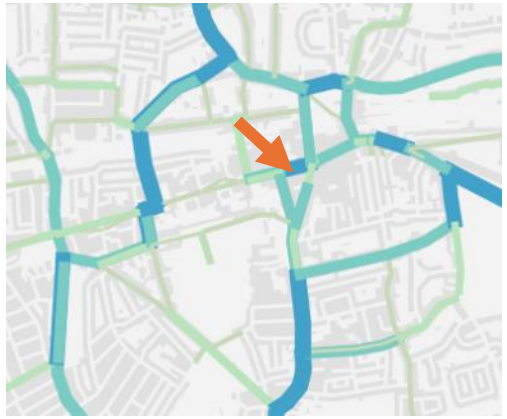
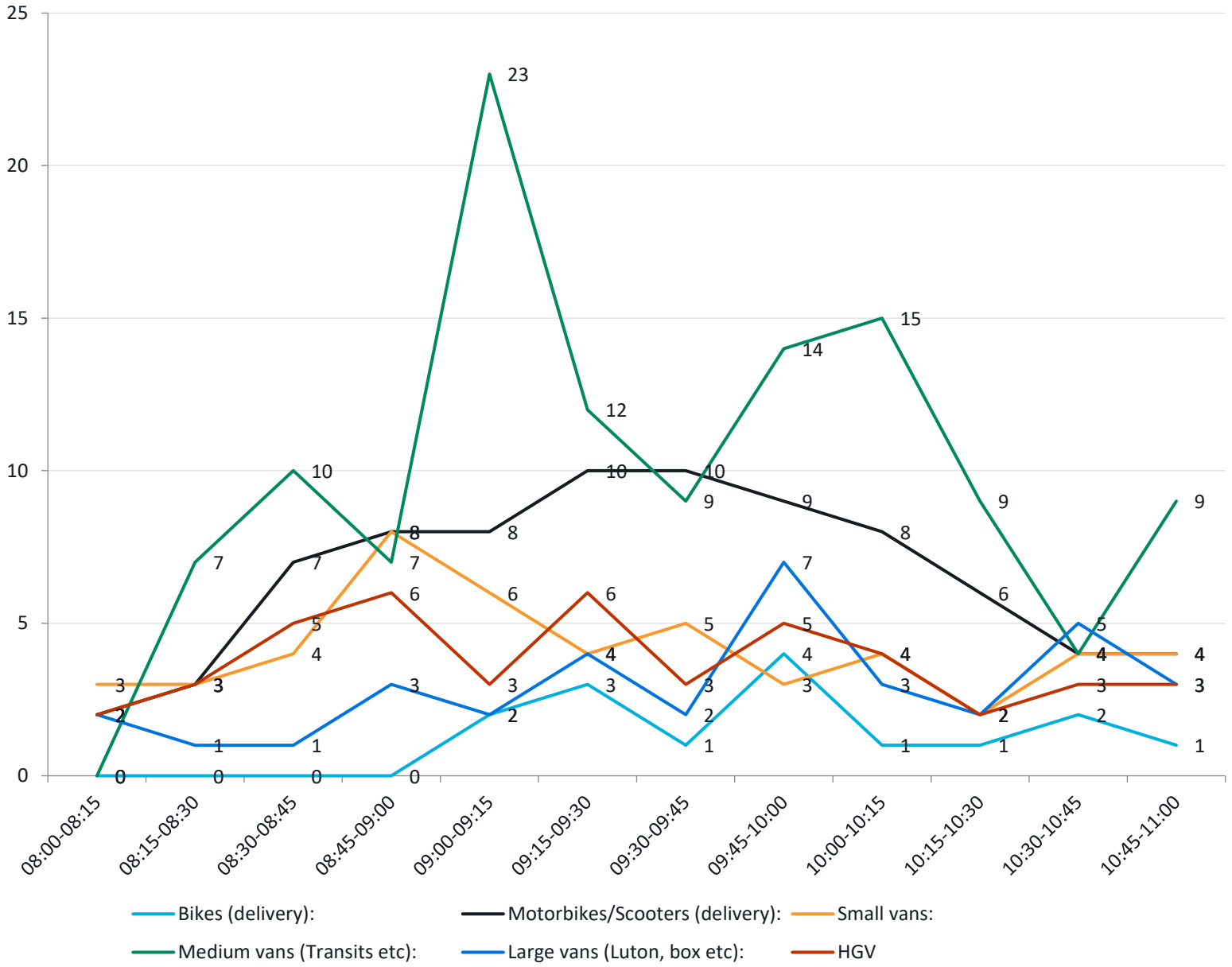


Figure 5.15: Ealing corridor study timings of vehicle flows by type



Time:	Bikes (delivery):	Notes:	Motorbikes/ Scooters (delivery):	Notes:	Small vans:	Notes:	Medium vans (Transits etc):	Notes:	Large vans (Luton, box etc):	Notes:	HGV:	Other:
08:00-08:15	0		2		3	includes 1 Royal Mail			2		2	
08:15-08:30	0		3		3		7		1		3	includes 1 x skip wagon
08:30-08:45	0		7		4		10	includes 1 Royal Mail	1		5	
08:45-09:00	0		8		8		7	includes 1 Royal Mail	3		6	includes 1 x refuse wagon
09:00-09:15	2	includes 1 x Deliveroo	8		6		23	includes 2 DPD	2		3	includes 1 x refuse wagon
09:15-09:30	3	3 x Deliveroo	10	includes 2 x Deliveroo	4		12	includes 2 DPD	4		6	includes 1 x digger carrier
09:30-09:45	1		10		5		9	includes 1 DPD	2		3	includes 1 x Parcel Force
09:45-10:00	4	3 x Just Eat, 1 x Uber Eats	9	includes 1 x Deliveroo, 1 x Just Eat	3	includes 1 Royal Mail	14	includes 2 DPD	7	includes 1 x UPS, 1 x Sainsburys	5	includes 1 x DPD & 2 x skip wagons
10:00-10:15	1	1 x Uber Eats	8	includes 1 x Deliveroo, 1 x Dominos, 1 x Just Eat	4	includes 1 Royal Mail	15		3		4	
10:15-10:30	1	1 x Deliveroo	6		2		9		2	includes 1 x Waitrose	2	
10:30-10:45	2	1 x Deliveroo, 1 x Just Eat	4		4		4		5	includes 1 x UPS, 1 x Sainsburys	3	
10:45-11:00	1	1 x Uber Eats	4	includes 1 x Deliveroo	4	includes 1 Royal Mail	9	includes 1 Royal Mail	3		3	includes 2 x refuse wagon

We conducted a drive-time analysis for three potential locations within Ealing to understand the coverage of a potential new last-mile hub. This hub would be to support low emission vehicles like cargo bikes serving the local area.

We selected three provisional locations throughout the borough based on factors including publicly owned land, proximity to freight destinations such as commercial areas, proximity to existing logistics estate, and access to major freight corridors. The three potential locations are:

- Springbridge multi-storey car park in Ealing Broadway - due to its adjacency to north-south LGV flows and Ealing's main commercial retail area.
- A location in the southern section of Park Royal because of its adjacency to the A40 and existing logistics estate.
- Greenford Broadway car park in Greenford – due to its adjacency to north-south LGV flows and the A4.

We conducted an analysis using the QGIS-based tool TravelTime to assess AM peak drive times to Heathrow Airport and the Western International Market. The Ealing Broadway site is the furthest from these locations, and Greenford Road has the closest access.

Origin	Destination	Journey Time (m)
Ealing Broadway Car Park	Heathrow Airport	27
	Western International Market	22
Park Royal	Heathrow Airport	22
	Western International Market	17
Greenford Broadway Car Park	Heathrow Airport	21
	Western International Market	16

We also calculated the catchment of residential and business properties within 10-, 20-, and 30-minute drive and cycle of each of these sites. This found that the Ealing Broadway site has the largest catchment by bicycle, with access to 33.4% of businesses and 32.8% of residential properties within the borough within a 10-minute cycle. However, all three sites can access over 90% of business and residential properties in the borough within 30 minutes.

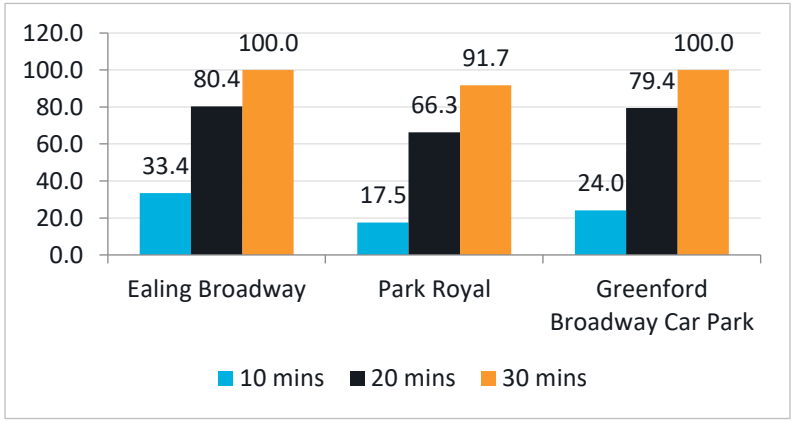
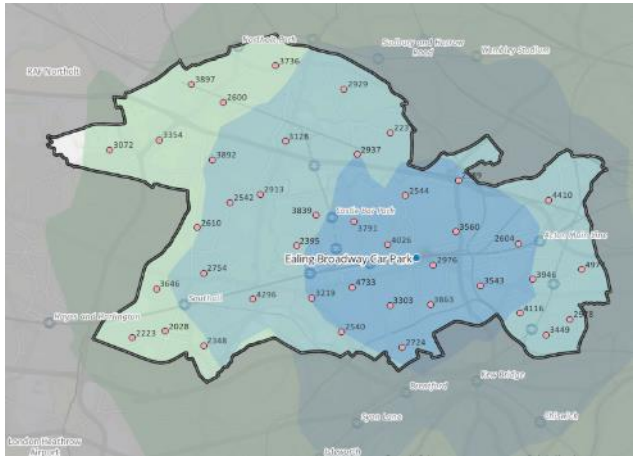


Figure 5.16: % population within cycle catchment of three sites examined and results mapped below for Ealing Broadway location



Cycle catchment

Location	Travel Time (m)	Number of Businneses	Proportion of Businesses (in Ealing)	Number of Residential Addresses	Proportion of Residential Addresses (in Ealing)
Ealing Broadway Car Park	10	5480	**33.4%**	43875	**32.8%**
	20	13195	**80.4%**	104147	**77.9%**
	30	16415	**100.0%**	133661	**100.0%**
Park Royal	10	2865	**17.5%**	31549	**23.6%**
	20	10890	**66.3%**	87750	**65.7%**
	30	15050	**91.7%**	122692	**91.8%**
Greenford Broadway Car Park	10	3945	**24.0%**	30801	**23.0%**
	20	13040	**79.4%**	103638	**77.5%**
	30	16415	**100.0%**	133661	**100.0%**

Driving catchment

Location	Travel Time (m)	Number of Businneses	Proportion of Businesses (in Ealing)	Number of Residential Addresses	Proportion of Residential Addresses (in Ealing)
Ealing Broadway Car Park	10	7005	**42.7%**	56595	**42.3%**
	20	16415	**100.0%**	133661	**100.0%**
	30	16415	**100.0%**	133661	**100.0%**
Park Royal	10	6235	**38.0%**	53504	**40.0%**
	20	16415	**100.0%**	87750	**65.7%**
	30	16415	**100.0%**	122692	**91.8%**
Greenford Broadway Car Park	10	8690	**52.9%**	71342	**53.4%**
	20	16415	**100.0%**	133661	**100.0%**
	30	16415	**100.0%**	133661	**100.0%**

Action Areas

Investigate conditions on A406

Aim: mitigate the impacts of the A406 on residents and road users

Where: A406

The A406 is the major flow for LGVs and HGVs and will likely continue to be. This increases the requirement for alternative parallel walking/cycling routes and close consideration of crossings to balance severance issues with impacts on congestion.

Further detailed studies into the impacts of freight movements on residents in this corridor are recommended.

Collaborate at a wider level on freight issues

Aim: plan for freight across a geography that is more reflective of freight flows

Where: especially Brent, Hounslow & Hillingdon, but London-wide

Ealing sits amidst a critical area for London's freight that spans adjacent boroughs Brent, Hounslow, and Hillingdon. A regular forum should be organised to plan freight issues across this area.

Boosting awareness across Greater London, especially with central London boroughs of their connection with Ealing through freight should be pursued. This could be raised via forums like The Local Government Technical Advisors Group.

Investigate means to direct north-south traffic toward The Pikeway

Aim: direct commercial traffic to an appropriately sized road

Where: borough-wide but especially the A406, Greenford Rd, and B455

Ealing suffers from flows moving north-south between the M4 and A40 and between warehousing clusters. These primarily travel on roads not sufficiently engineered for larger vehicles and traffic volumes (e.g., residential streets). The Pikeway is the best-suited route for commercial traffic moving north-south in the area, and therefore, continued efforts should be made to redirect vehicles to this route. This report would suggest conducting further thorough studies of these corridors.

Investigating the use of the A40 and the Pikeway as corridors for trips that could be made by public transport/alternative modes could improve journey times for necessary freight trips and, therefore, encourage vehicles onto more appropriate routes.

5.3 – LB Hackney

Hackney Freight Flows Case Study

Case study structure:

- Introduction
- HGV origins, destinations, and flows in Hackney
- LGV origins, destinations, and flows in Hackney
- Corridor survey findings
- Action areas

Hackney has lower levels of freight-related land and flows than many London boroughs. The key issue appears to be the presence of commercial vehicles on unsuitable or less suitable roads. This issue will likely require close collaboration with neighbouring boroughs to redirect flows to the major road network.

Hackney is a central London borough in the north-east. It has a population of approximately 260,000. Hackney is not a major freight location in Greater London and has relatively few major routes or freight estate clusters. The majority of Hackney is heavily residential, with few industrial areas.

Hackney does not have many large heavy industrial areas instead has more focus on professional services, retail and has a thriving creative economy with a large volume of studio space. There are over 14,000 businesses in Hackney, 90% of which are micro-businesses with fewer than 10 employees.

The City Fringe area (around Shoreditch and Old Street) is the biggest sub-economy in Hackney; in 2017, 43% of jobs were within this area. Other significant economic areas are Hackney Central/Mare Street, Dalston, Homerton, and Stamford Hill.

HGV origins, destinations, and flows in Hackney

Hackney has few major HGV flows passing through the borough, though it is close to several. The A12 passes through the east of the borough and carries high levels of HGV traffic. Similarly, the A503 and A501 follow the boundary or pass through the periphery of the borough and constitute major routes for HGVs.

There are few areas with high levels of HGV trip origin or destination within Hackney, the highest of both being Shoreditch. In the adjacent map, the dark orange lines indicate flows of over 1,000 vehicles, increasing to +15,000 indicated by the thickness of the line. These maps can be viewed in a broader context in the main body of the Freight Flows report.

Major HGV flows are defined as those with over 1,000 movements as part of Average Annual Daily Flows (AADF). The largest flows are shown in the thickest line on the adjacent map, where HGV movements are over 10,000. London-wide versions of these maps can be found in the freight flows section of the full London Freight Flows Report.

Figure 5.17: HGV flows (LoHAM 2026, hybrid)

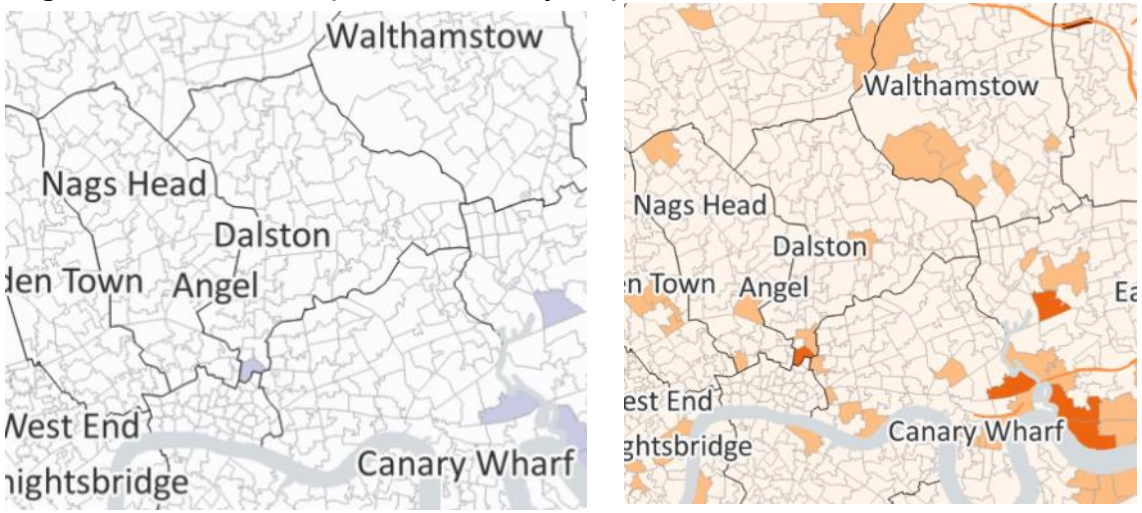


Figure 5.18: HGV origins (left) and destinations (right) (LoHAM 2026, hybrid)

** Please note: LoHAM is a strategic model of vehicle movements across London (see page 6). Data on freight trips is limited so the results presented should be used to infer the indicative spatial distribution of travel. They are not designed to provide precise absolute values of vehicle movements.*

LGV origins, destinations, and flows

As is the case across Greater London, most commercial vehicle movements in Hackney are LGVs, with a relatively small number of HGV movements.

Key origins and destinations for LGVs include the areas surrounding Hackney Central, Dalston Junction, and Shoreditch. The density of businesses in these areas accounts for these trips, with most LGVs serving these areas likely delivering stock to retail and hospitality businesses.

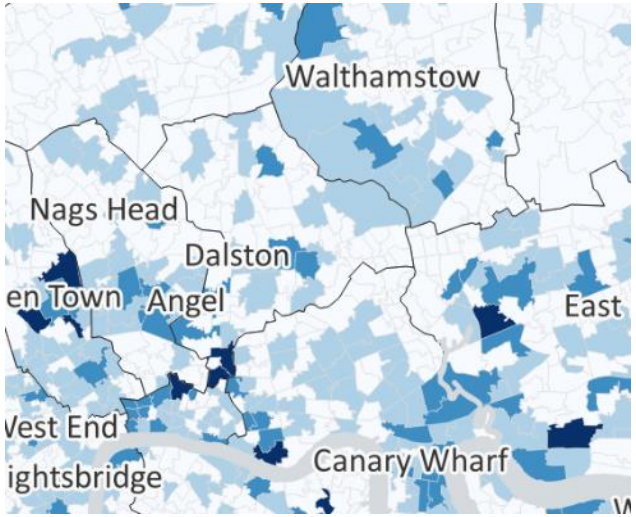


Figure 5.19: LGV origins in Hackney (LoHAM 2026, hybrid)

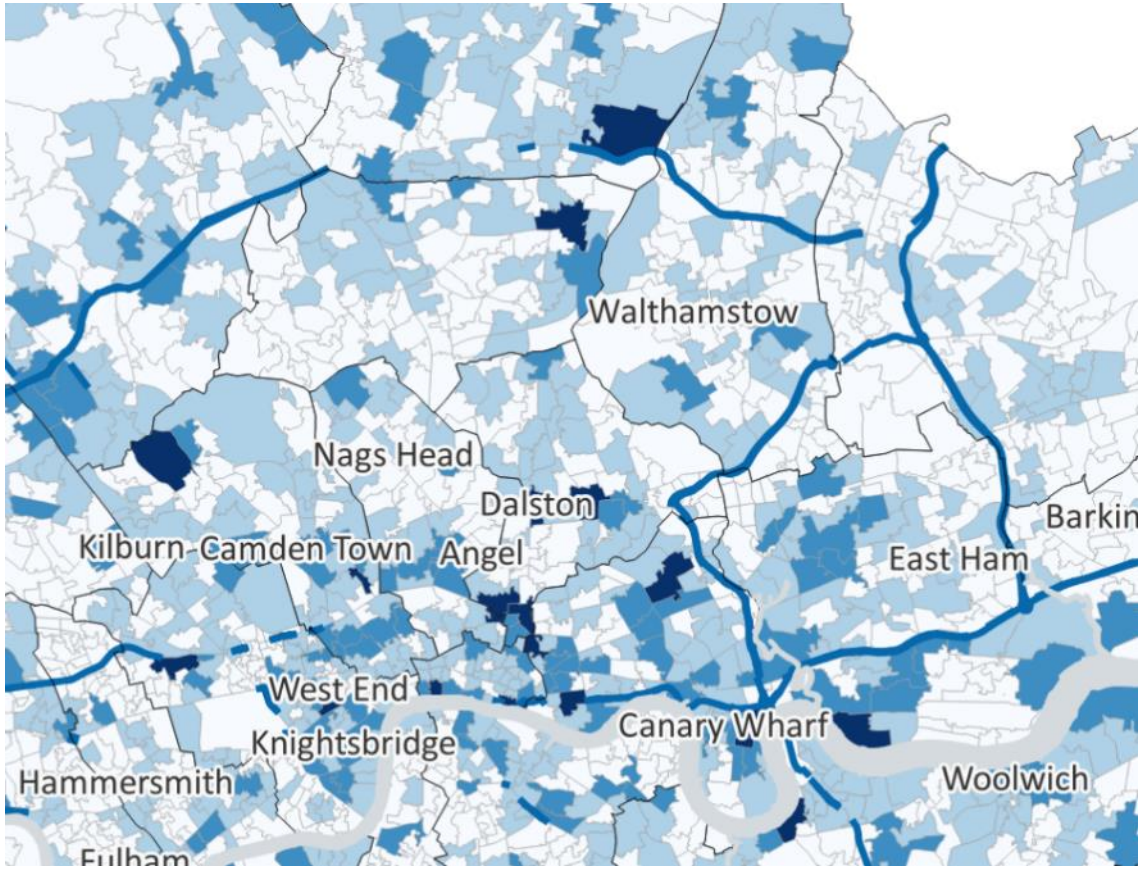


Figure 5.20: LGV destinations and key flows in Hackney (LoHAM 2026, hybrid)

** Please note: LoHAM is a strategic model of vehicle movements across London (see page 6). Data on freight trips is limited so the results presented should be used to infer the indicative spatial distribution of travel. They are not designed to provide precise absolute values of vehicle movements.*

LGV Flows in Hackney

LGV flows in the south of the borough appear to be east-west, flowing to/from the A12 junction at Hackney Wick. North of the borough, there is no direct east-west flow, and vehicles appear to be travelling north-south

Many smaller roads within Hackney carry moderately high levels of LGV traffic. Victoria Park Road (highlighted by the arrow), is one-way, meaning LGVs travelling on this road are likely using it to enter central London from the A12 during the morning peak. However, adjacent Cassland Road is one-way in the opposite direction, suggesting there is a similar AM peak flow counter to this onto the A12.

Figure 5.21: LGV flows in Hackney (LoHAM 2026, hybrid)

** Please note: LoHAM is a strategic model of vehicle movements across London (see page 6). Data on freight trips is limited so the results presented should be used to infer the indicative spatial distribution of travel. They are not designed to provide precise absolute values of vehicle movements.*

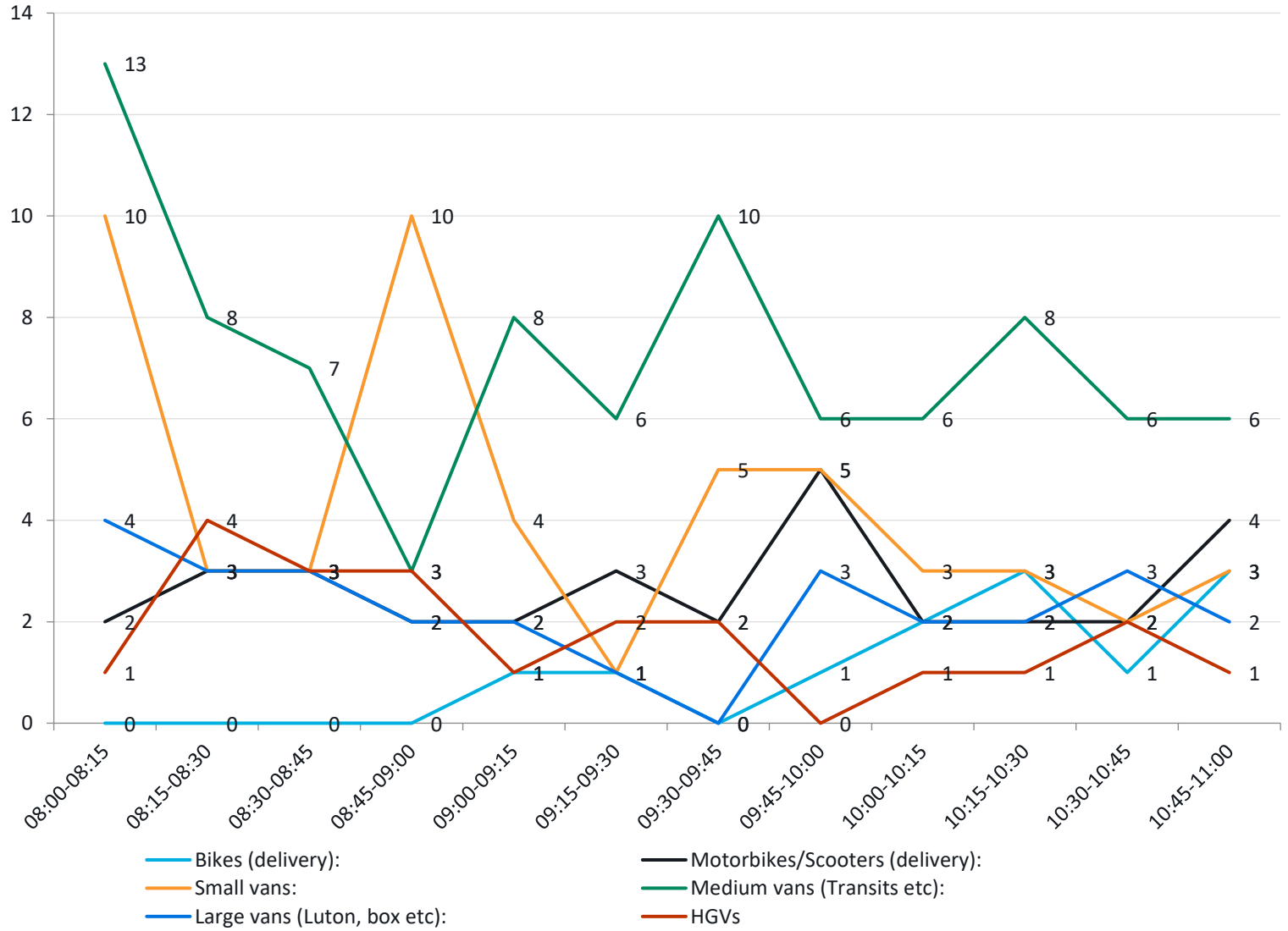
Corridor Survey Timing

We conducted an AM-peak corridor survey on the A10 between Dalston Junction and Dalston Kingsland stations on Tuesday, 30th July 2024. This location was selected as it is one of the borough's primary north-south corridors with a high concentration of business premises.

The corridor study showed relatively low levels of freight vehicles during this period. LGVs comprised most commercial vehicles and peaked early in the period surveyed. Medium vans were the most prevalent within this category and maintained so throughout. These findings, combined with the closer scale inspection of LGV movements in the borough, suggest that the A10 may not be the primary route for LGVs travelling north-south, with more vehicles travelling on the adjacent B108.

Of all LGV movements, six were associated with major 3PL operator DPD. Sainsbury's and Ocado vehicles were also recorded.

Figure 5.22: Hackney corridor study timings of vehicle flows by type



Time:	Bikes (delivery):	Notes:	Motorbikes/ Scooters (delivery):	Notes:	Small vans:	Notes:	Medium vans (Transits etc):	Notes:	Large vans (Luton, box etc):	Notes:	HGV:	Other:
08:00-08:15	0		2		10		13		4		1	
08:15-08:30	0		3		3		8		3		4	
08:30-08:45	0		3		3		7		3		3	
08:45-09:00	0		2	both Deliveroo	10		3		2		3	
09:00-09:15	1	Cargo-bike	2	1 Deliveroo	4		8	includes 1 DPD	2		1	
09:15-09:30	1		3	2 Deliveroo	1		6	includes 1 DPD, 1 Ocado	1		2	
09:30-09:45	0		2	both Deliveroo	5		10	includes 1 DPD	0		2	Highway maintenance vehicle
09:45-10:00	1		5	1 Deliveroo	5		6		3		0	
10:00-10:15	2	includes 1 x Deliveroo	2		3	includes 1 DPD	6		2		1	
10:15-10:30	3	includes 1 x Deliveroo	2	both Deliveroo	3		8		2	includes 1 Sainsburys	1	Refuse wagon
10:30-10:45	1		2		2		6	includes 1 DPD	3		2	Refuse wagon
10:45-11:00	3	includes 1 x Deliveroo	4	2 Deliveroo	3		6	includes 1 DPD	2	includes 1 Sainsburys	1	

Action Areas

Make efforts to protect available land for freight purposes

Aim: maximise limited available space for sustainable freight

Where: borough-wide

Hackney has very limited land available for freight purposes, which should be considered part of future developments. This could include encouraging mixed-use developments with freight elements, such as Travis Perkins' site in St Pancras, which combines freight usage with student accommodation.

Flexible and innovative use of public land and parking should be considered to make spaces for transferring goods to low-emission vehicles.

Collaborate at a wider level on freight issues

Aim: plan for freight across a geography that is more reflective of freight flows

Where: regionally, but especially impacting A12 junction to the central London corridor

There is a notable corridor of LGV movements between the A12 junction through the borough to central London (via Shoreditch). Few of the roads in this corridor are suitable for high traffic levels. Hackney should work with neighbouring boroughs to plan movements at a wider geography, ensuring appropriate assignment across corridors in this alignment.

The relatively low levels of warehousing land within Hackney means closer relationships with boroughs with higher amounts of logistics space would be beneficial.

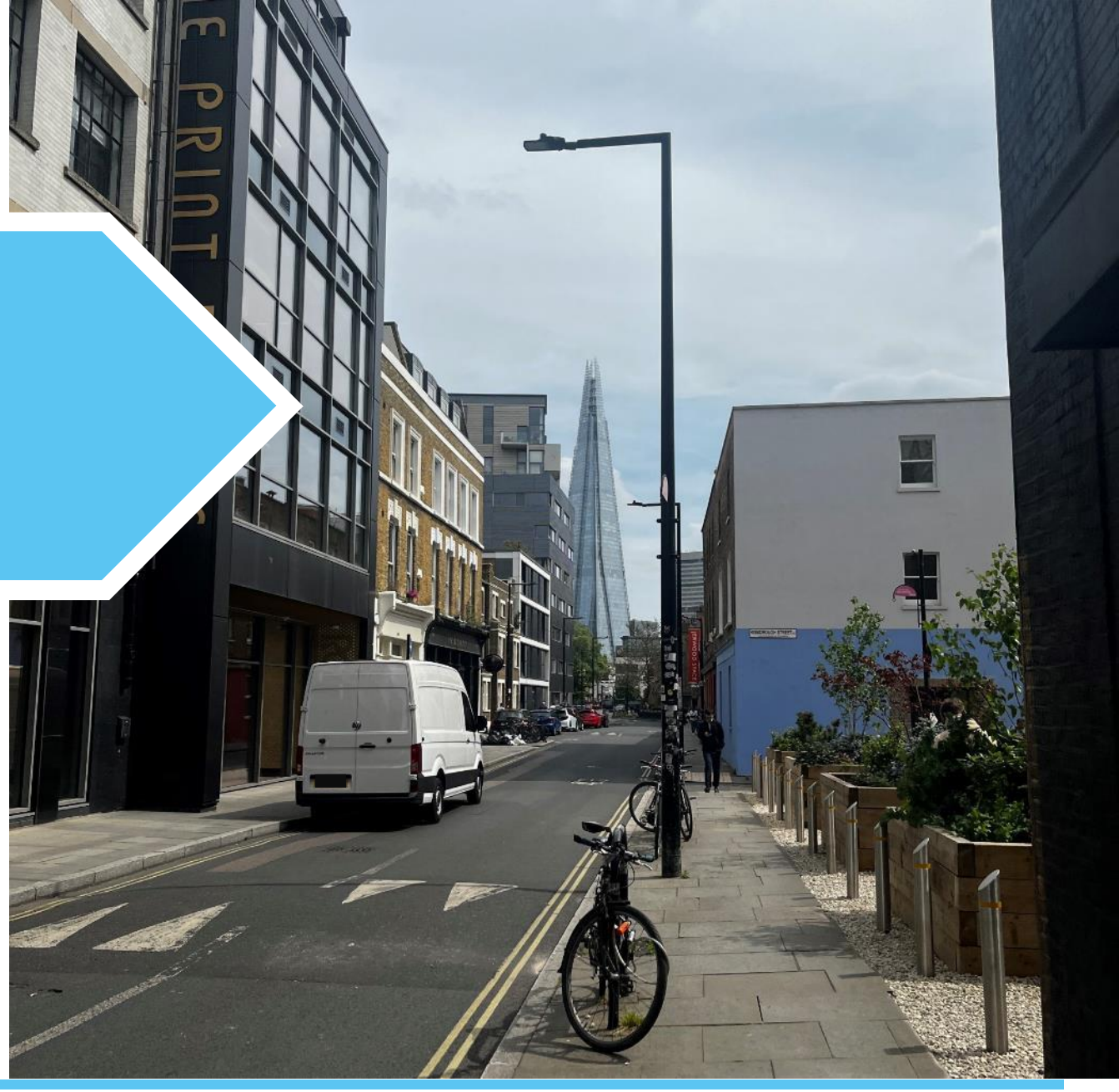
Investigate the use of smaller roads for freight by LGVs

Aim: ensure that freight is using appropriate routes, and that infrastructure is in place to support vulnerable road users

Where: Shacklewell Lane, Rectory Road, Queensbridge Road.

LGV route mapping shows that relatively minor roads are more heavily used in several instances than adjacent A-roads. A-roads are more appropriate for commercial vehicles as smaller roads may not have been designed to accommodate larger vehicle sizes or levels of traffic. Our corridor survey also found relatively low freight movements on the A10. Conditions on these roads and adjacent routes should be investigated to redirect traffic to appropriate routes and ensure sufficient infrastructure is in place to support the safe use and crossing of these roads.

6.0 – Next Steps



Next steps

The following section builds on the analysis to identify how freight issues could be taken forward across Greater London. It includes the following sections:

- Issues and Opportunities
- Recommended Actions
- Key Actions

6.1 – Issues and Opportunities

The key issues and opportunities identified for road freight

The following section identifies five key themes and associated issues and opportunities. These themes have been determined through freight flow analysis as prior research and experience with the freight industry. These themes are the most urgent issues to be resolved in line with common policy aims for the GLA and London boroughs.

The key themes identified are:

- Carbon emissions
- Congestion & efficiency
- Road safety
- Air quality and noise pollution
- Freight's role in the economy

	Issues	Opportunities
Carbon emissions	• On-road freight constitutes most freight movements, and this is highly likely to continue. Currently, freight vehicles are not decarbonising sufficiently to achieve decarbonisation aims. • HGVs are unlikely to be significantly decarbonised at scale for at least 10 years.	• London is leading the country in the transition to low-carbon vehicles, including cargo bikes – according to operators the whole city is sufficiently dense for coverage • There is an opportunity for goods to arrive near their final destination via the Port of London and major rail corridors. Experimental use of the Thames for river freight expands this catchment.
Congestion (& efficiency)	• Congestion increases costs for the movement of goods. These costs are often passed onto consumers or have other negative externalities. • Operators face challenges accessing sufficient parking and loading areas in London (Logistics UK told us this), which creates additional delays and costs for operators and consumers.	• Innovative technologies to improve the efficiency of the last-mile (often the costliest per mile part of a delivery) such as digital/bookable loading bays. • Cargo bikes offer efficiency benefits by avoiding measures impacting motor vehicles (e.g., modal filters, more direct routing, looser restrictions on parking/delivery locations).

	Issues	Opportunities
Road safety	• Commercial vehicles disproportionately impact vulnerable road users, with the likelihood of fatal or serious outcomes of collisions rising with vehicle weights • Large vehicles also create a deterrent to the greater rates of cycling and walking – hampering broader sustainability goals	• London's Direct Vision Standard/Progressive Safe System and the prevalence of the Fleet Operator Recognition Scheme have set consideration for road safety as the default in the city • Opportunity for the use of planning policy, Traffic Management Plans, and delivery and servicing plans to shape routes of most impactful vehicles on road safety to minimise impact
Air quality and noise pollution	• Freight vehicles contribute to air and noise pollution. Fleet electrification will reduce noise and air quality impacts but will not eliminate them. • Freight movements are more likely to impact deprived areas adjacent to major roads and industrial areas.	• Continued progress in improving vehicle emissions standards through ULEZ and best-practice schemes. However, it has been noted that regional-specific measures may lead to poor-emission vehicles being moved and negatively impacting other regions.
Freight's role in the economy	• Property values in London are exceptionally high – assigning land for freight usage may not be the most profitable use of land, limiting its availability. • Freight is primarily a private sector operation that uses public infrastructure, which means that awareness of its value and its specific needs in the context of infrastructure, skills and wider support can be low. • Freight trade associations have raised the issue of an existing skills shortage for drivers, technicians and logistics managers, which they suggest could get worse over time without appropriate support.	• High volumes of publicly owned land could be reviewed for freight usage – TfL is currently undertaking such work (TfL's Land for Logistics Programme). Opportunity for authorities to protect freight land such as London's Safeguarded Wharves. • There is a growing awareness of freight across public and private stakeholders with a solid opportunity to build on existing relationships to move further toward efficient and sustainable solutions. • Opportunity to protect land for freight use through the planning system, such as in the London Plan review (with further detail noted on page 97).

Recommended Actions

The following section outlines recommended actions against four key areas:

- Reduce carbon emissions from freight
- Manage freight's contribution to congestion
- Support industry best-practice
- Enable clean and efficient freight

These recommended action areas have been determined by the identified issues and opportunities, which have emerged from our analysis and experience of the freight industry. The actions have focused on areas in which CRP can lead or play a significant role in supporting, but to be implemented will require cross-sector action and partnership. This does not constitute an exhaustive action plan but has focused on where action is most impactful or immediate.

Reduce carbon emissions from freight

	Action	Aim	Next steps to implement the action	Delivery partners	Timescale
1	**Explore opportunities for increased intermodal flows** (more goods transported by rail or water in addition to road for a significant part of the journey)	Support mode shift from road to cleaner alternatives	• Understand current barriers to increased use of rail and water for freight flows in London. • Understand the capacity and capability of current infrastructure (i.e., at rail-connected land and wharves) for transporting and handling rail and waterborne freight.	• CRP • TfL • Network Rail • Thames and London Waterways Forum • PLA • Canal and River Trust • Thames Estuary Growth Board	The next steps can be delivered in the short-term for medium- and longer-term action
2	**Support an accelerated transition of London's van fleet to electric vehicles, particularly for servicing**	Support use of zero emissions modes	• Work with boroughs to understand the on-street provision of electric chargers for vans and how this relates to areas with higher-intensity servicing activity. • Work with boroughs, TfL and LoCITY to identify priority areas for further on-street provision of rapid chargers for vans. • Work with boroughs and the GLA to prioritise the use of electric fleet vehicles through procurement policies and practices.	• Boroughs • TfL • LoCITY	The next steps can be delivered in the short-term for medium- and longer-term action
3	**Reduce the need for vans to be driven as part of servicing activity**	Support use of zero emissions modes	• Work with boroughs to include planning conditions that require the provision of lockers at construction sites (for storing tools). • Work with boroughs to include planning conditions that require space for cargo bikes to be provided as part of new developments (to support using cargo bikes for servicing).	• Boroughs • TfL	The next steps can be delivered in the short-term for medium- and longer-term action

Key for timescales: Immediate = 0-3 months; Short-term = 3 months – 1 year; Medium term = 1-2 years; Longer term = 2 years+

Manage freight's contribution to congestion

	Action	Aim	Next steps to implement the action	Delivery partners	Timescale
1	**Support the use of new technology to enable smarter use of the kerbside**	Make smarter use of existing capacity to manage freight's contribution and exposure to congestion	• Collate evidence and case studies about using new and emerging kerbside management practices and disseminate them to the boroughs. • Continue work with kerbside management product providers to support further trials in priority locations in London. • Make use of learnings from trials to focus kerbside management trials and rollout in locations with high chance of take-up by operators.	• CRP • Boroughs • Business Improvement Districts (BIDs) • Kerbside management product providers • Logistics operators • TfL	1. Short-term 2. Ongoing
2	**Reduce "empty running" through development control**	Make better use of existing capacity to reduce the number of trips vehicles have to make	• Work with boroughs and TfL to identify appropriate mechanisms for requiring construction, then deliveries and servicing trips associated with new developments to improve vehicle utilisation (e.g., for most trips, making a delivery to include uplift, too).	• Boroughs • TfL	Short-term
3	**Design and implement a public awareness campaign to encourage people to choose more sustainable delivery options**	Reduce the volume of delivery trips associated with making personal deliveries	• Define the target audience/trial area for the campaign. • Design a campaign with a marketing and communications agency. • Evaluate the outcomes of the trial.	• CRP • Potentially boroughs (behaviour change teams) • TfL	The design element and trial can be delivered in the short term, and the evaluation in the medium term.

Key for timescales: Immediate = 0-3 months; Short-term = 3 months – 1 year; Medium term = 1-2 years; Longer term = 2 years+

Support industry best-practice

	Action	Aim	Next steps to implement the action	Delivery partners	Timescale
1	**Support the creation and development of a London-wide or Central London-focused group to support action to improve the impact of construction logistics activity**	To explore the full range of opportunities there are to make construction logistics activity in London cleaner and safer	• Work with TfL and previous members of the TfL-organised 'Construction Logistics Improvement Group' to understand the opportunities for a new group and the issues and opportunities that it should focus on. • This could also be achieved by placing more emphasis on construction at sessions of existing freight groups e.g. TfL Freight Forum and Central London Freight Quality Partnership.	• CRP • TfL • Construction Logistics and Community Safety (CLOCS) • Boroughs	Immediate
2	**Support the development of emissions and safety standards for LGVs by sole traders/SMEs beyond the legal minimum**	To improve the environmental and safety performance across London's LGV fleet	• Work with TfL to understand how Fleet Operator Recognition Scheme (FORS) can support smaller van operators, including sole traders and SMEs, in improving their environmental and safety performance. (*Note: 'FORS Assured' is pending final clearance)*	• TfL • FORS	Immediate
3	**Further investigate the presence of high volumes of HGVs and LGVs on less appropriate routes, cross-checking this with provision of infrastructure for vulnerable road users**	To reduce the potential for conflict between vulnerable road users and HGVs and LGVs	• Conduct further data analysis to identify locations in London where there is a conflict or potential conflict between vulnerable road users, HGVs, and LGVs. • Investigate the borough's intervention plans at locations with a high potential for conflict.	• Boroughs • TfL	1. Immediate 2. Short-term

Key for timescales: Immediate = 0-3 months; Short-term = 3 months – 1 year; Medium term = 1-2 years; Longer term = 2 years+

Enable clean and efficient freight

	Action	Aim	Next steps to implement the action	Delivery partners	Timescale
1	**Develop a guide for local authorities to support them to secure more land for logistics/distribution**	To support local authorities in increasing the supply of logistics land, to enable efficient freight operations	• Identify the different types of ways in which logistics land can be provided and a range of suitable case studies for each. • Develop the guide and promote it to local authorities.	• CRP • Boroughs (planning and transport planning/strategy teams) • Developers and landowners • Estate management companies	1. Immediate 2. Short-term
2	**Explore potential applications and the impact of new technology in the sustainable logistics sector**	To explore how new technology can be applied to improve the sustainability and efficiency of freight	• Identify the new technologies of interest and potential trial partners, e.g., the use of AI by logistics companies to optimise routes. • Explore how CRP could support a trial with the identified potential partners.	• CRP • Logistics companies/technology providers • Boroughs • TfL • BIDs • Developers and landowners • Estate management companies	1. Immediate 2. Short-term
3	**Understand the impact and effectiveness of the policies in the London Plan to support the provision of logistics land**	To understand potential future action by CRP to support increasing the supply of logistics land	• Discuss with GLA the ongoing implementation of Policy E4 Land for industry, logistics, and services to support London's economic function and Policy E7 Industrial intensification, co-location, and substitution and the success/challenges thereof. • Identify ways CRP could support future action to increase the supply of logistics land in London.	• Greater London Authority • CRP	1. Immediate 2. Short-term

Key for timescales: Immediate = 0-3 months; Short-term = 3 months – 1 year; Medium term = 1-2 years; Longer term = 2 years+

Enable clean and efficient freight

	Action	Aim	Next steps to implement the action	Delivery partners	Timescale
4	**Improve access to data to support decision-making and planning for freight**	To improve the availability and access to data to support effective planning for freight	• Work with TfL and DfT to explore opportunities for improving access to freight-related data, while acknowledging technical, procurement, and legal considerations. • Explore the possibility of CRP utilising operational data from one or two couriers/freight operators with whom it has strong relationships, to support further research and planning for freight. • Support discussions around the development of a London-wide freight data portal, working with TfL and other parties to assess feasibility, costs, and potential collaborations, with an emphasis on long-term feasibility. • Explore the potential for more detailed freight data collection at the London level with TfL and DfT, aligning with any current developments (e.g. National Freight Model and other projects) • Explore opportunities for TfL's MoTiON and LoHAM models with a focus on enhancing freight data inputs collaboratively	• TfL • Department for Transport • Couriers/freight operators • CRP	Medium term
5	**Explore with TfL and the boroughs the value of CRP developing, or co-developing "freight awareness" training to support better planning for freight**	To support better planning for freight	• Discuss with TfL and relevant groups the appetite for developing training and who should develop it if there is sufficient interest/need. • Conduct a training needs assessment to identify what training should be included and the format for its delivery.	• CRP • TfL • Boroughs • Potentially Transport Planning Society (TPS) • or Chartered Institute of Logistics and Transport (CILT)	1. Short-term 2. Short-term

Key for timescales: Immediate = 0-3 months; Short-term = 3 months – 1 year; Medium term = 1-2 years; Longer term = 2 years+

Key Actions

From the previous table of Recommended Actions, we have identified three to develop in further detail with a strong potential for deliverability and outcomes. Cross River Partnership should play a key role in taking these three actions forward:

- Develop a guide for local authorities to support them in securing more land for logistics and distribution purposes.
- Support the development of a Construction Logistics Improvement Group with a focused geography.
- Working with TfL and other parties to develop a London-wide freight data portal.

Develop a guide for local authorities to support them in securing more land for logistics/distribution

This action is the recommendation for CRP to develop a guide for local authorities to show how land can be secured for logistics/distribution purposes. It is intended that the guide focuses on examples of how more land for logistics can be provided in locations and circumstances in which there are other demands on the land available i.e., for residential or business use.

Context

There is a need for more logistics land in London to enable efficient logistics and more sustainable distribution models, but there is a shortage of suitable land and many competing, often higher value, demands for its use. There are policies in place through the London Plan to support local authorities to provide more land, but planners are not necessarily aware of those policies and their application. If more land could be provided, it would enable logistics operators to keep stem mileage as low as possible and provide suitable space for cross-docking and consolidation, supporting the use of zero and non-motorised modes for the last mile.

Content of the proposed guide

The proposed action is to develop a practical, case-study-based guide to show how local authorities have retained, enhanced and provided additional capacity for distribution through:

- Intensifying the use of existing industrial land (e.g., development of multi-storey schemes and the use of basements).
- Co-locating land to be used for distribution purposes with other land uses i.e., residential.
- Identifying a suitable substitute site for distribution, where the existing site is giving way to a new land use/occupier as part of planned development activity.
- The use of “meanwhile” spaces to support flexible use.
- Any other practice/approach to provide more land for logistics/distribution use in London.

The guide intends to showcase examples from London as far as possible, but suitable examples from the rest of the UK or abroad could be included too.

Delivery partners

The key delivery partners involved would be boroughs that have retained, enhanced and provided additional capacity for distribution. CRP should engage with those boroughs to identify what approaches were used and any lessons learned. It may be appropriate to engage with the Greater London Authority in the first instance to support the identification of suitable case study boroughs.

Next steps

The next step is to engage with the Greater London Authority and boroughs to start scoping the content of the guide.

Supporting action to improve the impact of construction logistics activity

This action is the recommendation for CRP to support action to improve the impact of construction logistics activity in London by convening a group of stakeholders to work in partnership on actions to improve the sustainability and safety of construction logistics activity.

Context

Construction activity in London is essential to the vitality of the economy and the success of the city as a place to live and visit. Most of London's freight is moved by road, and freight associated with construction activity is one of the main types of freight transported by HGV. Goods transported to support construction are often heavy and bulky and, therefore, have significant carbon emissions and negative impacts on air quality, noise, road safety and road conditions. Transport for London (TfL) previously coordinated a programme to manage and mitigate the impact of construction logistics activity in London. The programme was overseen by a group of industry stakeholders called the Construction Logistics Improvement Group (CLIG). CLIG comprised approximately 80 representatives from construction logistics clients, developers, operators, transport authorities and enforcement bodies.

TfL has not funded the Construction Logistics Improvement Group and associated work programme since the Covid-19 pandemic and associated pressures on TfL's finances. It is suggested that momentum and the knowledge of the need for action on construction logistics have been lost since CLIG's demise and that some form of a new forum for sharing good practices and identifying priority areas for action would be beneficial and welcomed by those working in this area.

A recommendation for a borough-to-borough network for sharing ideas, good practice, tools, evidence and learnings

The proposed action is for CRP to convene and coordinate a borough-to-borough network to share ideas, good practices, tools, evidence, and learnings on improving the impact of construction logistics activity. We propose that the network meets biannually, once in-person and once online. There could be an associated Teams channel or equivalent for ad hoc knowledge sharing and conversations between meetings.

Recognising that there is unlikely to be funding for an associated programme of work, we suggest that the group focus on identifying and disseminating good practices within the field.

Delivery partners

The key delivery partners for taking this recommendation forward would be TfL(who may be able to make a financial contribution to the group, though this would need to be explored), and the boroughs that are currently experiencing high volumes of construction activity. The City of London and the London Borough of Croydon were active and supportive of the Construction Logistics Improvement Group.

Next steps

We suggest that the next step is to explore with TfL and boroughs the appetite for reprising a knowledge sharing network on construction logistics in the format that has been described.

Working with TfL and other partners to develop a London-wide freight data portal

This action is the recommendation for CRP to lead or support work to develop a repository for data that supports planning and decision-making on freight in London.

Context

Limited freight data is available, and an even smaller amount is readily accessible to decision-makers. The data that is held often has associated costs to access or is held by commercial companies. Greater availability of data would support better identification of issues, designing of options, and understanding of the impacts of freight vehicles.

Local Authorities do not have the means to fully measure the impacts of road transport. A higher level of data would better support the case for requirements on developments and generators of freight trips to manage demand.

Developing a freight data portal

This would include making existing data held by TfL more accessible/affordable and exploring the possibility of making certain datasets open access. This would allow developers to more dynamically test alternative approaches and best plan freight traffic to their sites.

A key task is a comprehensive assessment of what data is "missing" and the greatest need. However, our analysis has already highlighted some immediate areas: van usage, goods moved,

Some potential data sources for further exploration include:

- Collection of new raw data. It is recommended that a London-specific equivalent of the DfT's Van Ownership and Usage Survey be conducted.
- Working with operators willing to share routing and delivery data.
- TfL's ULEZ data could be used to provide a greater level of granularity of the types of LGVs operating within London.
- Development controls and construction traffic management plans could provide a source of information on construction traffic if compiled across planning authorities.

Delivery partners

A key delivery partner for taking this recommendation forward would be TfL. Thames Estuary Growth Board have also previously shown interest in supporting the development of a more dynamic solution to freight data. There has also been significant demand for this amongst Local Authorities.

Significant contributions would also need to be made from operators who hold most of the data regarding goods moved. Sufficient incentives and assurances would be required to convince operators to make this data available.

Next steps

Compiling this data and developing a portal constitutes significant work, meaning securing funding for this programme is the crucial first step.

CROSS RIVER PARTNERSHIP

SMARTER GREENER LOGISTICS

Contact Information

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