Euston Area Plan: Transport Study 2022

2025 Update Version

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Introduction

This study provides a transport evidence base for the Euston Area Plan (EAP). It serves as an update to the previous Transport Study that supported the adopted 2015 EAP. Since 2015, growth scenarios for the EAP have been revised, including the number of potential homes and jobs that may be provided in the Opportunity Area. In 2021, strategic modelling was undertaken to assess the transport impacts of these revised growth scenarios, with an uplift of 3,072 homes and 32,888 jobs being adopted as a maximum development scenario for 2041. This study presents the findings of this modelling, and an analysis of existing transport provision and travel patterns.

Since this study was originally drafted in 2022, proposals for Euston have evolved further, which could impact the supporting transport requirements. The previous government's Network North announcements and the subsequent pause to HS2 works at Euston in 2023, mean that at present, the final station configuration and upper development limit are for now uncertain, although impacts in terms of travel demand uplifts are unlikely to exceed those previously identified in the modelling. For this reason, the previous Upper EAP development scenario has been adopted as a suitable worst-case scenario (in terms of demand for travel) for discussion throughout the study.

To supplement the conclusions of the main study as written in 2022, blue update boxes have been added throughout the study to provide detail on changes to the HS2 project and the wider Euston Masterplan Development as well as new transport and travel trends (such as those arising from the pandemic and the emergence of micromobility). Further information on what is meant by micromobility is detailed below.

Background

Policy Context

Chapter 2 provides background information on the key modelling assumptions and development scenarios considered in this study and an overview of the policy hierarchy that the EAP sits within. The Euston Area Plan must conform to the London Plan 2021, which designates Euston as one of 47 'Opportunity Areas[1]' (key locations with potential to accommodate new jobs, homes and infrastructure). Since the 2015 EAP, the Mayor has also published an ambitious Transport Strategy (the MTS[2]) and Vision Zero Action Plan[3] (which aims to reduce the number of deaths and serious injuries on London roads to zero by 2041). The 2018 MTS adopted new 'Healthy Streets' principles[4], which provide a holistic framework for transport planning that promotes a mode shift to walking and cycling, alongside air quality, health and placemaking improvements. The MTS also sets a pan-London target for 80% of all journeys in London to be made by walking, cycling and public transport (sustainable modes) by 2041. The expectation is that this would be higher in well-connected locations such as Euston, with a target of 95% for trips wholly within central London and 99% for trips between central and inner London[5]. Specific targets have been established for the EAP based on the outputs of the modelling, as further detailed below.

[1] GLA, n.d. London's Opportunity Areas
[2] Mayor of London, 2018. Mayor's Transport Strategy
[3] Transport for London, 2018. Vision Zero Action Plan
[4] Transport for London, 2017. Guide to the Healthy Streets Indicators
[5] Mayor of London, 2018. Mayor's Transport Strategy (Figure 57)

Euston Healthy Streets

This section of Chapter 2 provides an overview of TfL and Camden's joint Euston Healthy Streets programme. This programme has identified key transport issues and opportunities affecting Euston Road, Hampstead Road and Eversholt Street, culminating in a series of aspirational outcomes for the Euston area which have been summarised in the Euston Healthy Streets Vision[6]. The programme has been split into pre- and post-HS2 to reflect the current uncertainties, and the aspirations identified include making it easier to walk and cycle, reducing road danger, protecting and maintaining bus journey times and improving the environment, creating a high-quality transport interchange and meeting community needs. These aspirations have guided the evaluation of future transport requirements in this study.

Population and travel trends

Chapter 2 also briefly discusses key population and travel trends in Euston, Camden and London more widely. Notably, since Covid-19, there has been an increase walking and cycling trip rates. Motor traffic levels in Camden have also decreased since the pandemic, while car ownership in the wards covering the EAP boundary remains low.

Transport provision and travel patterns in Euston

Chapter 3 provides an overview of public transport, walking and cycling and highways infrastructure and current patterns of use.

Rail

Euston National Rail station is the tenth busiest station in Britain, serving 36.2m passengers in 2023/24[7]. Since the pandemic, rail demand recovery has been faster in off-peak periods than during peak periods. The arrival of HS2 and potential upgrade of the Network Rail Station may result in a significant increase in passenger numbers arriving in Euston.

Public Transport

The EAP area is very well connected, with some of the highest public transport accessibility levels in London. The most common mode of onward travel from Euston is the tube (Northern and Victoria lines). Whilst now under review since this document was originally drafted, London Underground upgrades currently anticipated as part of Euston's regeneration include a new underground link between Euston and Euston Square Stations, alongside new LU station entrances for both Euston and Euston Square stations. The HS2 project also needs to safeguard the potential to introduce Crossrail 2 in the future.

Bus facilities are also vitally important to Euston, which is served by 15 bus routes, many via the bus station. Pre-pandemic, buses made up 5% of onward travel and served approximately 25,000 passengers during a typical weekday. The bus station and associated network are anticipated to remain an important, accessible mode of transport that supports journeys to and from the station, alongside an interchange function and the local community. The current facility will need to be reconfigured to accommodate the regeneration of Euston and potential demand increases.

Active Travel

Euston is well-situated for onward walking and cycling journeys, with many key attractors within a 30-minute walking and cycling distance. Walking makes up 91% of onward journeys of under 1km. Traffic dominance, poor crossing and junction infrastructure, narrow footway widths, few segregated cycle paths and severance created by the station and Euston Road does however create an unattractive environment for walking and cycling. These issues need to be resolved given the significant uplift in pedestrians expected at Euston. Camden and TfL are already working to address this through schemes to upgrade

[6] TfL & London Borough of Camden, 2021. Our Vision for Euston Healthy Streets
[7] Railway Data, 2024. London Euston

active travel routes (such as the Wellbeing Walk) and improve junction safety on Euston Road. There are existing cycleways/ quietways present within the Euston Area and temporary cycle infrastructure on Hampstead Road, with the aim to provide something permanent.

Highways

Euston Road, Hampstead Road and Eversholt Street are key strategic routes around Euston, that provide an important connectivity function to the wider city. Motor vehicle congestion on these streets can create an unattractive active travel environment and pose a challenge to implementing sustainable transport infrastructure due to road capacity constraints. Euston Road is also anticipated to retain a key strategic function in relation to the movement of vehicles over the life of the EAP. Overall, the Euston Masterplan Development is expected to result in some motor-vehicle trip increases, which may need to be mitigated, but nothing significant due to the car free nature of the proposals.

Road Safety

Road safety on key roads surrounding Euston could be improved. In the last five years (May 2019 to May 2024) there was a total of 286 collisions involving all road users within the approximate boundary of the EAP. This includes two fatalities in 2020 and 44 serious injuries (see below for more detail). New speed limits of 20mph on Hampstead Road and Euston Road are contributing to road danger reductions on these highways. Further junction and pedestrian improvement projects led by TfL and Camden will also help to address accident hotspots on these highways.

Taxis and Private Hire Vehicles

Euston's taxi rank is currently operating out of the southeastern side of Euston Square gardens on a temporary basis, and it is expected to stay there until the delivery of HS2. Following on from this it will likely be consolidated into a single facility on the western side of the Euston Masterplan Development, although this is still be confirmed. The Western rank is still operating as a drop-off / pick-up point for Passengers with Reduced Mobility (PRM). There is also significant PHV activity in the area, with pick-up and drop-offs on Eversholt Street having a negative impact on traffic flow and potentially road safety. This will need to be addressed through comprehensive taxi and PHV management strategies when Euston is regenerated.

Modelling Insights

Strategic modelling has shown that future travel patterns under the maximum EAP development scenario are expected to meet the EAP's target of over 90% of journeys being made by sustainable modes (walking, cycling and public transport). This sustainable mode share is expected to be even higher for trips made between Euston and other Central London and Inner London locations, in line with the Mayor's Transport Strategy Targets (see more detail on mode share targets below).

For trips between 2-10km, half of trips are made by rail and around a quarter by bus, while 10% are made by bike (lower than the EAP target of 15%). This means the EAP will need to promote initiatives to encourage a mode shift towards cycling for mid-distance journeys. For journeys over 10km, the vast majority (around 90%) would be made by rail (which includes the tube).

Modelling shows that some roads around the station, including Hampstead Road, will have a volume capacity ratio exceeding 99%. This is expected to primarily arise from existing congestion and background growth on roads around the Euston Masterplan Development rather than specifically from the EAP development itself which will be car free. The Metropolitan, Hammersmith & City, Circle and Victoria Lines may see greater passenger growth than buses, rail and the Northern Line. This may be due to the latter services (especially the tube) already being at capacity, with passengers 'crowded off' onto other options which become more attractive. Bus demand is expected to increase on some routes and additional services may be required.

The most dominant pedestrian desire lines in the Upper EAP modelling scenario are to the north (Camden Town), South (Bloomsbury) and East (King's Cross). Gordon Street and Upper Woburn place are forecast

to have particularly high footfall, while routing on Euston Road is likely to continue to dominate. This highlights the need to both improve walkability on Euston Road and to enhance and signpost alternative routes.

Key cycling desire lines in the Upper EAP modelling scenario are to the south (Bloomsbury and Fitzrovia), the southeast (Holborn / Clerkenwell) the east (King's Cross) and northeast (Islington).

New mobility

Planning and design will need to remain cognisant of and respond to new and emerging mobilities as they evolve during the development lifecycle of Euston. This may include but not be limited to, changes and likely increases in the availability and use of micro-mobility services (such as docked and dockless e-bikes and scooters), the introduction of autonomous vehicles, including private hire vehicles in London, home deliveries by bike and motorbike and advanced air mobility (drones).

Euston's Transport challenges and Opportunities

Following analysis of the existing transport provision, travel trends and modelling forecasts, Chapter 4 sets out 5 challenges and opportunity statements for the Euston Area:

1. Maximise benefits of Euston as a world-class, accessible transport interchange
2. Manage the performance of the highway network to protect essential journeys (including for freight users and bus passengers) and improve road safety for all users
3. Improve local connectivity and reduce severance
4. Improve the health of residents and commuters and facilitate travel by sustainable modes
5. Ensure the full integration of development and transport at the station

Based on the analysis provided, the existing Euston Healthy Streets Vision Outcomes are considered to sufficiently encompass the objectives emerging from this transport study. These outcomes have therefore been adopted for the Transport Strategy of the EAP, with the acknowledgement that future changes to the Euston Healthy Streets Vision Outcomes may need to be incorporated into future EAP updates. The outcomes include:

1. Places for walking
2. Connected cycling
3. Road danger reduction
4. Efficient use of street space
5. Improve the environment
6. Quality public transport
7. Enhancing customer service
8. Meeting the needs of the local community

Proposed Transport Interventions

Chapter 5 presents the transport interventions proposed for Euston by TfL and Camden through the Euston Healthy Streets Programme and those committed to through the HS2 project. These interventions are evaluated against the Mayor's Transport Strategy Targets, London Plan Opportunity Area objectives, Euston Healthy Streets outcomes and insights from the strategic transport modelling.

Euston Healthy Streets Schemes

TfL and Camden are currently investigating a range of potential schemes which could improve conditions for pedestrians, cyclists and bus users on key routes surrounding Euston Station. These include options to reallocate highway space to sustainable travel infrastructure and introducing junction safety and bus priority

improvements on Euston Road, Hampstead Road and Eversholt Street. Individual proposals will be tested to determine their acceptability though the Euston Healthy Streets workstream.

HS2 Commitments

Through the HS2 Act, a package of transport interventions has previously been secured for Euston and is summarised below. Although some of these are now subject to change due to cost pressures, nothing has yet been confirmed. As such, for the purpose of this Transport Study, previous assumptions around HS2's obligations at Euston remain. See Chapter 5 for a detailed description of features.

- **A new LU station entrance and ticket hall at Euston**
- **A new Euston Square LU station entrance and ticket hall located on Gordon Street** (includes the pedestrianisation of north Gordon Street between Endsleigh Gardens and Euston Road)
- **Euston Square Link** (An underpass under Euston Road connecting Euston and a potential new Euston Square Station entrance on Gordon Street.)
- **A new linear bus station** (which meets operational and passenger requirements, while enhancing the public realm and pedestrian and cycle permeability through the station campus)
- **A new 60 bay taxi rank plus private hire vehicle provision**
- **New and improved local crossings and connections** (including over-station connections, the deliverability of which is still uncertain).
- **New and additional cycle parking**
- **New and additional cycle hire docking stations** (this will now also require consideration of provision for micromobility, which has emerged as a new transport mode since the adoption of the 2015 EAP)
- **Safeguarding of the Crossrail 2 ticket hall and associated infrastructure**

Other improvements

Further improvements required to meet the transport challenges and demands identified in the study that would need to be delivered by Camden, TfL and or a combination of the other Euston Partners include the following:

- **Further walking and cycling improvements** (including improvements to the local street network identified as part of the Healthy Streets programme)
- **Consolidation Centre** (For the Euston Masterplan Development to reduce and mitigate the impact of freight trips)
- **Further bus improvements** (including additional capacity on individual bus routes where proven necessary due to the development and the introduction of bus priority measures where required)
- **Freight Delivery and Servicing Plans (DSP) for the station site**
- **Air Quality Improvement Measures** (TfL-led measures to supplement the ULEZ)

Next Steps

Given the uncertainties around the future station configuration, and the fact that modelling undertaken to date is considered a suitable representation of the worst-case scenario for Euston, in terms of the demand for travel, it is not considered appropriate or necessary for further modelling to be undertaken at this time. Future planning applications across the Euston campus will however need to be supported by their own detailed modelling, with updated assumptions to demonstrate their acceptability.

Further work, including highway modelling, will also be required as part of the Euston Healthy Streets programme, to test individual project proposals as they come forward. This will be needed to demonstrate acceptability and to ensure they do not have a detrimental impact on the network prior to implementation. Third party funding will also be required to deliver some of the schemes.

Any changes proposed by HS2 will also need to be subject to their own detailed modelling and analysis as required, to demonstrate acceptability and ensure that all infrastructure being delivered is suitably sized.

A series of next steps are summarised below and discussed further in Appendix C. The most appropriate ownership and delivery model for these steps will be agreed through discussions amongst Euston Partners.

1. Future planning applications for the site should include a detailed Transport Assessment, accompanied by relevant, up-to-date transport modelling, based on the most relevant assumptions at the time.
2. Any transport mitigation measures required to make the application acceptable in planning terms, should be negotiated through the planning process.
3. HS2 and Network Rail should update the modelling for train passenger demand once decisions on future platform numbers and train service patterns have been made
4. HS2 should undertake updated modelling to support any changes they propose to the committed transport infrastructure assumed to be delivered at Euston.
5. Further analysis should be undertaken as part of the Euston Healthy Streets workstream to identify what improvements should be delivered at the street level to support safe and efficient movement of pedestrians, cyclists and buses through the area in the short, medium and long term. Individual schemes being proposed for delivery should be supported by any modelling deemed necessary to demonstrate their acceptability. Further consideration for how these improvements will be funded is also needed.
6. A strategy to more effectively manage the movement and impacts of private hire vehicles in the area should be developed
7. Consideration should be given to developing sustainable freight and micromobility strategies for the Euston Campus and surrounding area
8. Consideration should be given to developing a more detailed funding and delivery strategy

1. Introduction

This report documents the findings of the Euston Area Plan (EAP) Strategic Transport Study undertaken by Transport for London (TfL) and partners, the London Borough of Camden. It represents an update to the previous Transport Study undertaken in support of the 2015 iteration of the EAP, which at the time considered the impact of an increase of between 2,800- 3,700 new homes and between 7,700 to 14,000 new jobs on the transport network. This document also presents the results of updated strategic modelling undertaken in 2021, to test the impacts of a revised growth scenario(s).

Box 1 2024/2025 Updates to the Transport Study

This document was originally drafted in 2022 and the development assumptions described and tested below were considered valid at the time. This document presents the conclusions of that work. Whilst some of these assumptions are now subject to change given the uncertainties surrounding HS2, we think this document remains valid as presenting a worst-case scenario in terms of the demand for travel to and from Euston. A supplementary addendum has been produced which should be read alongside this, setting out the changes which have occurred since this document was drafted and what that means for the development of the transport strategy for Euston. As such, whilst the level of development being considered may have changed from what is referenced below, it remains valid for the purpose of this document as the development quanta now being proposed is unlikely to exceed this. In some cases, additional detail to supplement information from the 2022 context has been added within the main study. Where this is the case, it has been included in separate boxes such as this one. See full list of update boxes below.

List of Study Update Boxes

Euston Area Plan Context

The EAP is a joint planning framework to guide development in the Euston area up to 2041; it will be adopted as part of Camden's planning policy framework and needs to be in conformity with the London Plan[8].

In recent years (pre-pandemic) London's population has been growing faster than previously anticipated, and there is significant pressure to deliver more homes and jobs, and to provide a high quality of life for all Londoners

Euston is identified as an Opportunity Area within the London Plan. This notes that the area has the capacity to support the delivery of up to 3,800 new homes and 15,000 new jobs by 2041. The GLA has recently published a 'pen portrait[9]' document for Euston, which will be used to inform the new London Plan, which is currently being developed.

Box 2 EAP Development assumptions following Network North announcements

Since the current London Plan (2021) was adopted the development aspirations for the area have changed and as such it was considered appropriate to test a range of development capacities within the Transport Study. Prior to the HS2 pause TfL, LB Camden and other stakeholders involved in the development of Euston agreed to test two growth scenarios in the transport models, i) a low growth scenario based on the development figures assessed as part of the 2015 EAP (3,800 homes and 15,000 jobs) and ii) a high growth scenario based on the aspirations of the Lendlease (development) masterplan. This assumed the delivery of c.33,000 new jobs and c.3,000 new homes. This level of development was identified for strategic modelling purposes only and was not intended to indicate the scale of development which might be considered acceptable in planning terms.

Although it is unlikely that this number of jobs and homes will be reached following the Government's Network North announcements, these assumptions are being retained as a "worst-case" scenario in terms of transport impacts. As such, the proposals which have been modelled as part of this study are considered to represent the 'worst-case scenario' in terms of the development impacts on the transport network.

Transport Study Purpose

The Transport Study sets out the transport vision for the Euston area. It provides an evidence base for the transport challenges and changes in travel demand that are expected to arise from new development, the arrival of HS2 in Euston, and the proposed upgrade of the existing Network Rail (NR) station. The Study identifies what transport measures need to be delivered in the short, medium and long-term to enable sustainable growth and to support existing communities in the area. The study forms part of a suite of reports that inform the updated EAP strategy for the area, which in turn will inform local and strategic policy. The study includes:

- An overview of the policy context, including the EAP's vision and objectives
- A baseline review of the current transport context
- Review of developments and infrastructure projects to be considered as part of the study, including infrastructure assumed to be being delivered by HS2

[8] GLA, 2021. The_london_plan_2021
[9] GLA, 2025. Opportunity Area Pen Portrait: Euston

- Assessment of the expected future transport situation based on different development scenarios, including discussion of modelling forecasts and potential mode share
- Mitigation measures to meet the additional demands put on the transport network
- A transport implementation and delivery plan to take these measures forward
- Conclusion and next steps

The Transport Study primarily focuses on the end-state scenario, but it should be acknowledged that Euston will undergo a significant period of disruption, and different measures may need to be implemented on an interim basis during the construction period to ensure the area can meet the needs of local residents alongside people travelling to and through the area.

2. Background

Transport modelling and scenario assumptions

The development of this Study has been informed by strategic transport modelling. This has allowed us to forecast the impact of different growth scenarios on the transport network, and to test the ability of potential new transport interventions to serve demand in a way that supports Good Growth.

An evidence base of future year (2041) challenges has been developed from a number of workstreams including:

- Highway and public transport modelling using TfL's suite of strategic transport demand models (MoTiON, LoHAM, Railplan, Cynemon)
- The Euston Healthy Streets Vision document

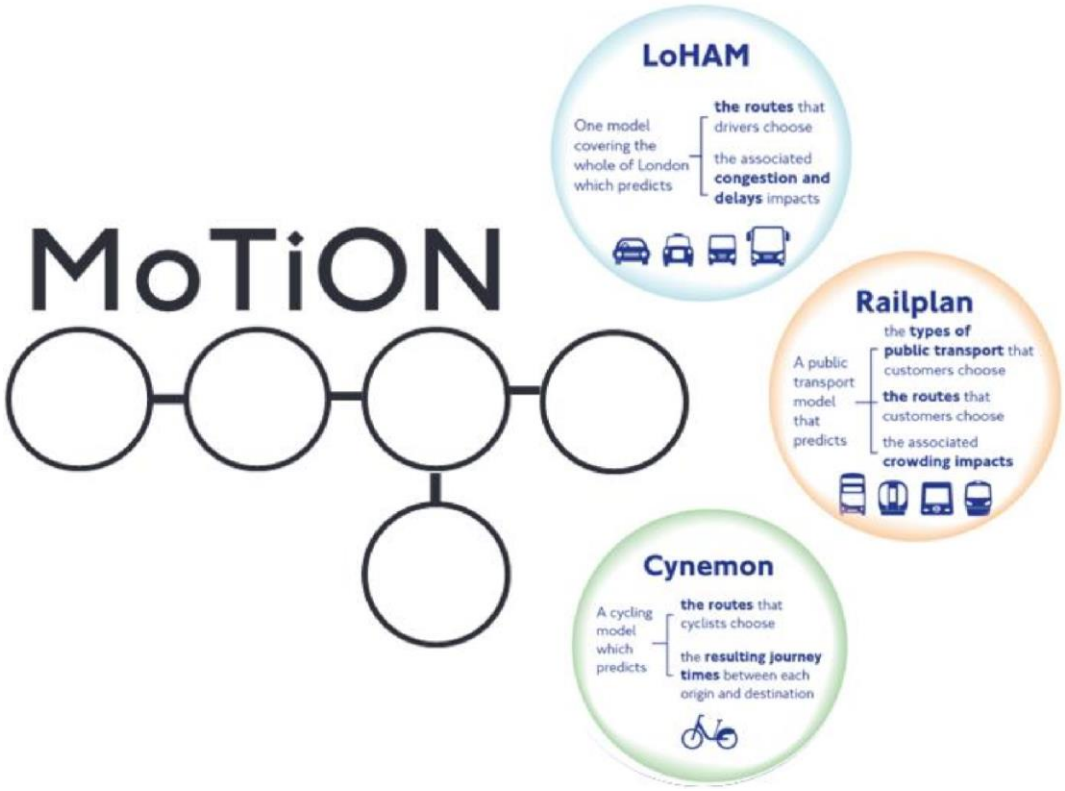
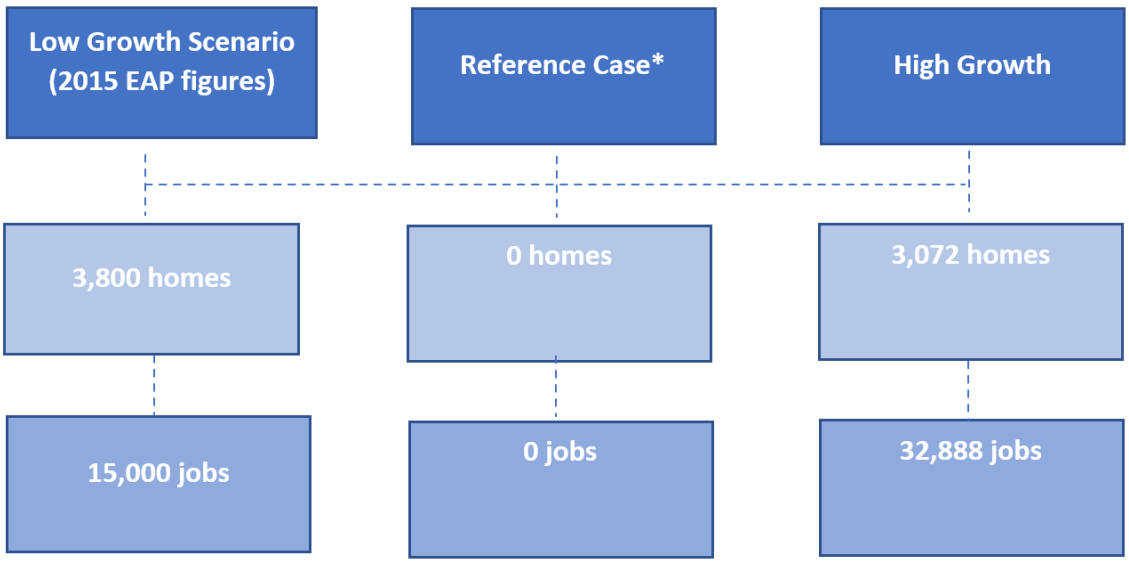


Figure 1 TFL's Strategic Modelling Suite [10]

As discussed above, this Study considers a potential low and high growth scenario. These scenarios have been developed and agreed by TfL and Camden, with the high growth scenario considered to represent a realistic worst-case scenario in terms of the demand for travel which will be generated from the site. This was based on discussions at the time around the design of the station and what it would be viable/ feasible to build here, notwithstanding any planning constraints. The low growth scenario was considered an appropriate comparator given these development figures were already adopted policy in the 2015 EAP[11]. By modelling travel demand under low and high growth scenarios, it is possible to test the ability of public

[10] Transport for London website, n.d. Strategic transport models
[11] London Borough of Camden and Partners, 2015. Euston Area Plan, Adopted January 2015.

transport services and the strategic highway network to cater for increased demand. All scenarios were developed for modelling purposes only and weren't intended to demonstrate the acceptability or otherwise of any of the proposals in planning terms.



* Background growth included only

Figure 2 EAP Transport Study Growth Scenarios

Covid-19

For the purposes of the modelling exercise undertaken, the impact of the Covid pandemic on the demand for travel was not specifically tested. This is because the modelling is strategic in nature and aims to support a long-term policy position. As such, we are interested in what the potential worst-case scenario may be in terms of the transport impacts, so that suitable mitigation measures can be identified and tested.

Individual projects coming forward for planning consent may be required to test different planning assumptions, as in some scenarios having more recent forecasts will be considered important e.g. if they are being used to support infrastructure sizing etc. On this point it should be noted that whilst the EAP modelling started with our pre-pandemic forecasts, all of TfL's current forecasts now include a range of post-covid demand scenarios.

Policy Context

Mayor's Transport Strategy

Both the Mayor's Transport Strategy (MTS) and the London Plan set out a vision for Good Growth in London, a concept that proposes that plans for growth should improve the health and quality of life of all Londoners. Key transport themes of Good Growth include planning new developments in a way that reduces car dependency and encourages active travel in order to improve Londoners' health; increase access to opportunities by providing better public transport; and make the city a better place to live.

The MTS establishes four key principles for central London, which the Transport Study for Euston will seek to contribute towards:

- Steady reduction in car use and restricting traffic in some areas to provide better environments for walking and cycling

- Increase in walking, cycling and public transport use
- Buses prioritised to remain reliable
- Deliveries must be consolidated, rescheduled and switched to more efficient and sustainable vehicles, including more use of the Thames and rail

The MTS also states that gateway stations such as Euston must be welcoming and offer good-quality facilities for onward active, efficient, and sustainable travel.

Proposal 75

The Mayor, through TfL, will work to encourage the DfT to ensure the delivery of High Speed Two is complemented by Crossrail 2, new gateway stations at Euston and Old Oak Common and other improvements to London's transport system, ***so that people are able to reach their final destination efficiently and in a timely manner by public transport, cycling or walking***.

The MTS target mode shares for walking, cycling and public transport use in central and inner London are higher than the pan-London target of 80% of all trips to be made by walking, cycling or public transport (see below). The MTS also includes a target to reduce freight traffic in the central London morning peak by 10% on current levels by 2026. Specific targets for the EAP have been established as discussed further below.

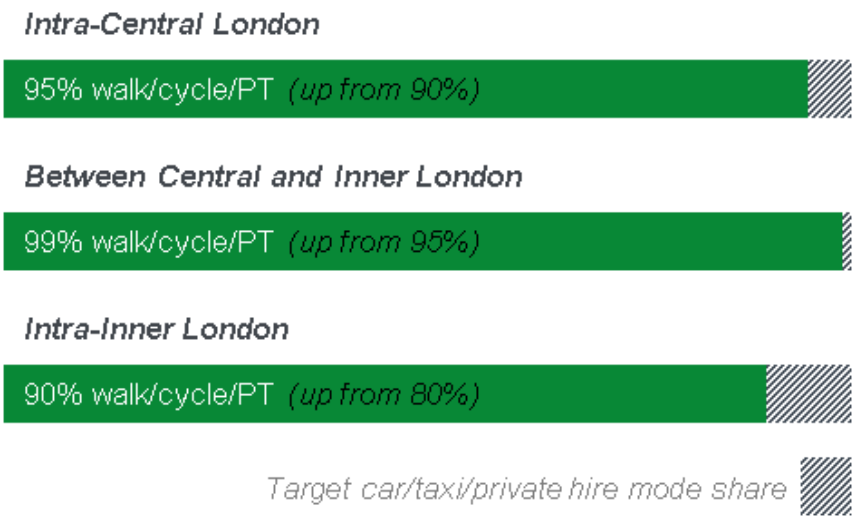


Figure 3 Mayor's Transport Strategy Sustainable Mode Share Targets[12]

The Healthy Streets approach

The mayor's 2018 Transport Strategy is the first transport strategy in the world to apply the Healthy Streets Approach[13] to the entire transport system of a city. The Healthy Streets Approach provides the framework for putting human health and experience at the heart of planning the city and is also aligned with Camden's Transport Strategy.

Good performance against each indicator means that individual streets are safe, accessible and appealing places to walk, cycle and spend time. Improvements against all the indicators across the city's streets will radically transform the day-to-day experience of living in London.

[12] Mayor of London, 2018. Mayor's Transport Strategy (Figure 57)
[13] Transport for London, 2017. Healthy Streets for London

Figure 4 The Healthy Streets Approach (Source: Lucy Saunders)

Vision Zero

The MTS also sets out a goal for no one to be killed in or by a bus by 2030 and for all deaths and serious injuries from road collisions to be eliminated from London's Streets by 2041. The MTS related 'Vision Zero' action plan [14] sets out how TfL will achieve this goal, which is also supported by Camden's Transport Strategy.

Bus Action Plan

The Bus Action Plan (2022) sets out a new vision for London bus services to provide an inclusive, safe, customer experience with attractive journey times and a zero-carbon travel choice. The A501 is rated a core part of London's strategic bus network, with associated objectives to maintain and enhance operations including bus speeds and journey time reliability.

The London Plan 2021: Growth in Euston

The current London Plan (2021[15]) identifies the need to deliver 52,000 new homes per year over the next ten years to help address the housing crisis, with this figure set to increase to 88,000 new homes per year in the 'towards a new London Plan'[16] document. Euston currently forms one of the central London Opportunity Area's (OAs (see Figure 5)) and has been identified within the London Plan as having the capacity potential for up to 3,800 new homes and 15,000 new jobs by 2041. Changes to this are likely within the new London Plan, as the status of this (and all OA's) evolves over time. Further work is needed to understand what the current development capacities for Euston may be. Any changes to the current indicative capacities will be highlighted in the new London Plan.

[14] Transport for London, 2018. Vision Zero Action Plan
[15] GLA, 2021. The London Plan 2021
[16] GLA, 2025. Towards a new London Plan

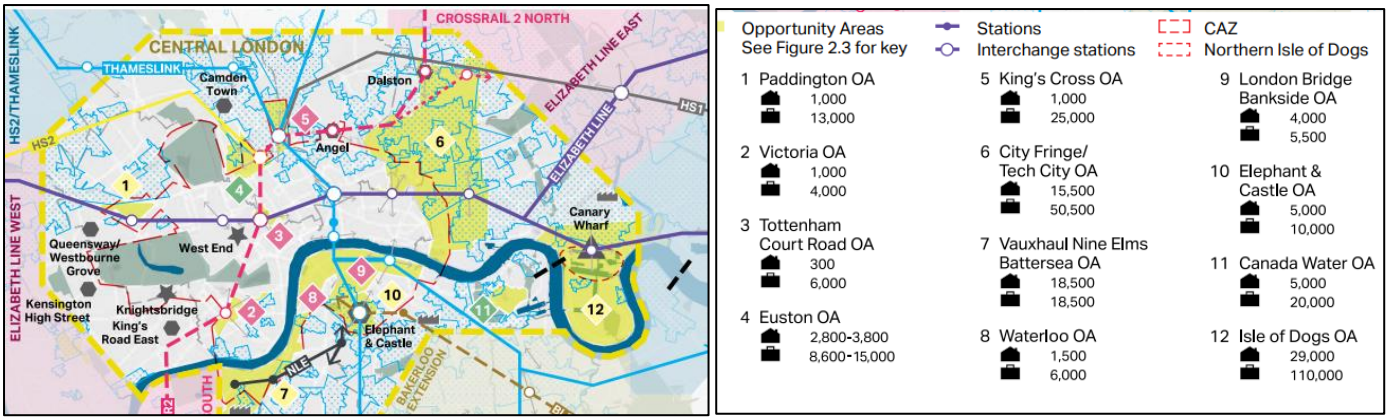


Figure 5 Central London Opportunity Areas [17]

Evolving Context

Since the EAP was originally adopted in 2015 there have been significant changes to our understanding of the local context:

- Most notably HS2 has gained Royal Assent (23rd February 2017) and plans for the new station are starting to take shape, although they are still subject to change following on from the 'Euston Pause' which commenced in March 2023.
- Lendlease were appointed as the Master Development Partner for the site in 2018 and have since been working on developing their Masterplan aspirations, with the assumption at the time this document was initially drafted being that the site had capacity for over 30,000 new jobs
- More recently, Network Rail has secured government funding to develop the business case for redeveloping the existing conventional station at Euston, although implementing any changes to the station currently remains unfunded.
- There have also been some significant changes to the policy context, with both Camden and the Mayor publishing revised transport strategies that are significantly more focused on supporting walking, cycling and buses. In addition, the Healthy Streets approach has been adopted, as has the council's Climate and Clean Air Action Plans. There has also been a new London Plan.
- Whilst not new, there is also the potential for a new Crossrail 2 station at Euston in the future and whilst the project is currently paused, provision for this must be safeguarded
- More recently, the Euston Housing Delivery Group has been established to help support i) the delivery thousands of new homes (including affordable housing) and ii) t the development of life sciences and the broader innovation district already present in the area. The EAP sits within this even though it covers a wider geographic scope.

Some of these changes will significantly increase the demand for travel in and around Euston and put additional pressure on surrounding streets in the area, including from vehicles carrying out waste collection, servicing and loading activities associated with the new development. New policies have been adopted to help manage similar changes more widely in Camden and London. The EAP boundary remains the same as before and is shown below:

[17] GLA, 2021. The London Plan 2021

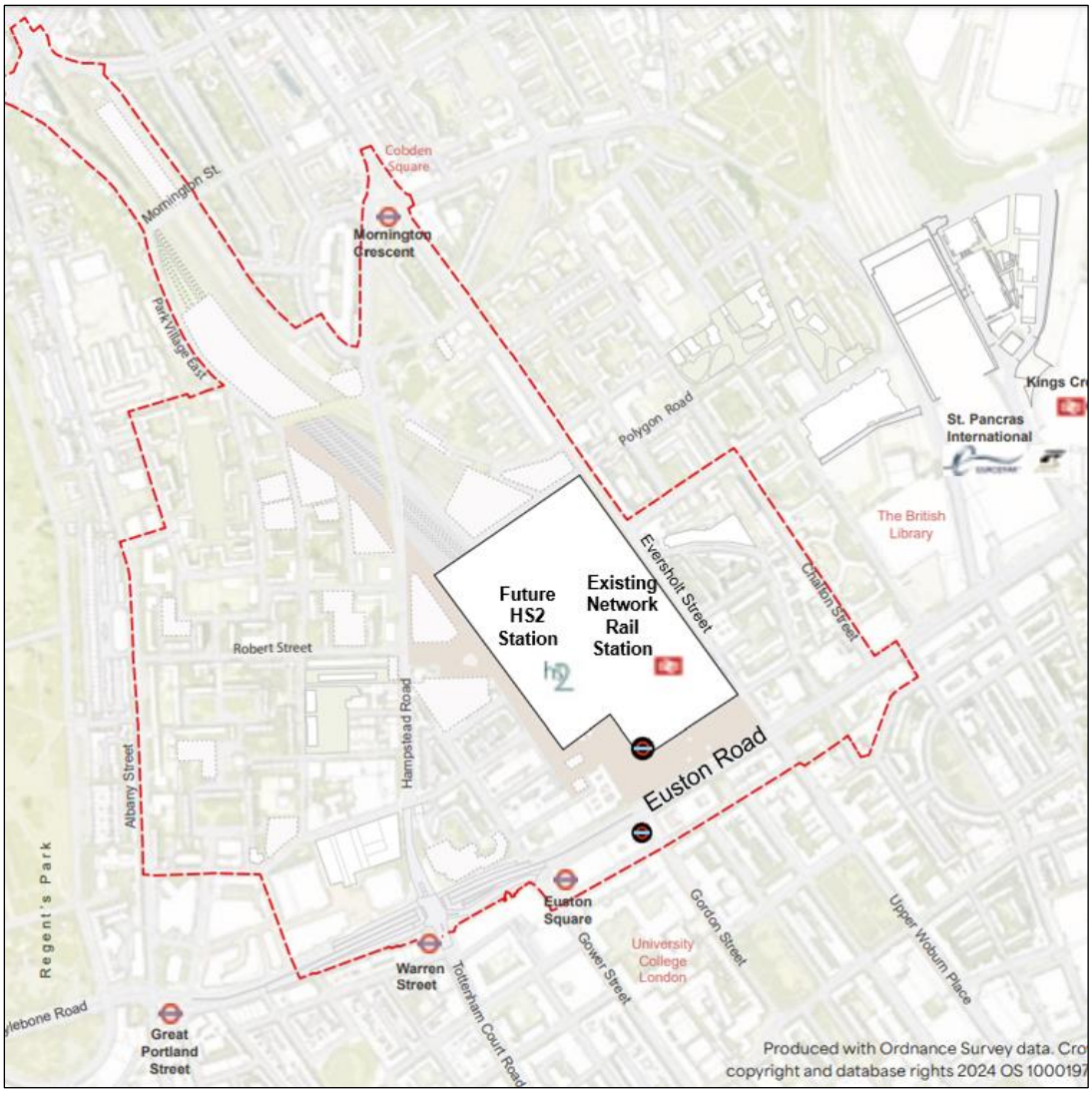


Figure 6 Euston Area Plan Boundary [18]

Euston Area Plan

The figure below illustrates where the Euston Area Plan and supporting studies, including this Transport Study sit within the planning policy hierarchy.

The Euston Area Plan forms part of Camden's Local Plan and sets policy objectives for transport in the Euston Area. Whilst not all of these remain feasible given he changes to the station being proposed, these objectives include:

1. New streets above the station and tracks
2. Improving the environment along Euston Road
3. Promoting sustainable travel
4. Enhancing existing public transport
5. Planning for future public transport

Mode Share targets

To support these objectives and those of the MTS, localised mode-share targets have been set. These are proposed alongside the targets established in the MTS (fig.57)[19], given Euston's location on the boundary of Central and Inner London trips. For journeys up to 2km, it is expected that over 90% would be made by

[18] London Borough of Camden, 2024. Help us shape the future of Euston
[19] Mayor of London, 2018. Mayor's Transport Strategy

sustainable modes, of which over 50% would be made by walking and cycling and the rest by public transport. It is expected that 95% of journeys to and from the station over 10km will be made by public transport.

These differ slightly from the MTS targets (although help support them), given Euston's location. This means that trips up to 2km made to and from Euston could fall into the Intra-Central London, Central-Inner London or Intra-Inner London categories, for which the MTS has different mode-share targets. The MTS targets referenced elsewhere for trips within central/ central- inner London would still apply.

Planning Policy Overview

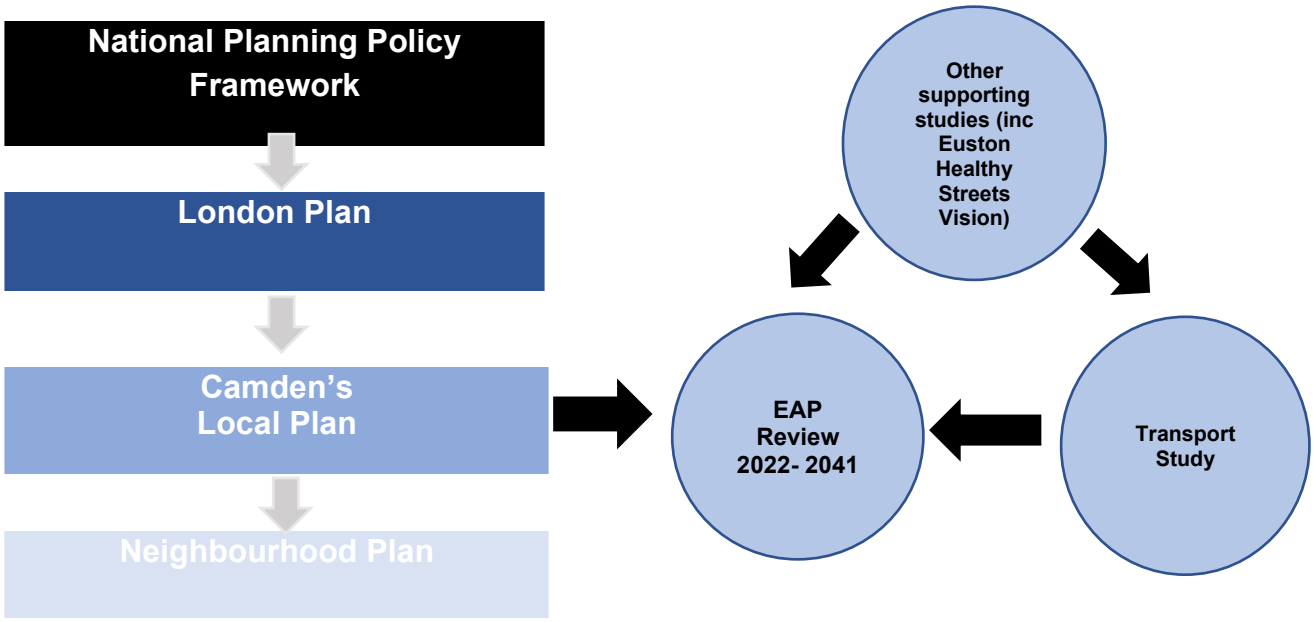


Figure 7 Planning Policy Framework Diagram

Camden Transport Strategy

The Euston Area Plan builds on Camden's borough-wide Transport Strategy, which acts as an enhanced Local Implementation Plan (LIP) responding to the Mayor's Transport Strategy and lasts up to 2041. As well as building on many of the Camden Transport Strategy Objectives, the EAP also adopts its road user hierarchy:

1. Pedestrians
2. Cyclists
3. Public transport/vehicles for people with a disability
4. Freight (including loading and unloading)
5. Taxis
6. Powered two-wheelers (motorcycles) and private cars

Camden has recently adopted a new delivery plan for the Transport Strategy for 2025-2028, with key schemes for the Euston Area including the following:

- Eversholt Street – short term pedestrian, accessibility and cycle upgrades
- Controlled Parking Zone Review of CAG-B (Somers Town) – trial extension of weekend hours
- Albany St – pedestrian, cycling and public realm scheme
- Upper Woburn Place – bus priority scheme
- Wellbeing Walk – Strategic alternative walking route south of Euston Road between St. Chad's Place and Gower Place

- Pancras Road – bus priority scheme
- Greening Phoenix Road – enhancement of the existing green link between Euston and King's Cross Stations
- Regent's Park Area – safe and healthy streets schemes across the neighbourhood, financed by the HS2 Road Safety Fund

Euston Healthy Streets

Vision and purpose

Transport for London and Camden Council have set up a joint workstream to identify options to improve the safety and attractiveness of the Euston area for all road users, but especially pedestrians, cyclists and bus passengers. The issues this project seeks to address are set out in detail in Chapter 3.

The Euston Healthy Streets programme is reviewing the streets surrounding Euston Station and identifying and delivering schemes that respond to current and future travel demands resulting from Euston's regeneration. Potential options being considered, subject to the necessary funding being identified, include:

- New and improved pedestrian crossings, including the introduction of straight- across crossings where possible
- Widened footways
- Improved wayfinding
- Improve pedestrian and cyclist experiences travelling along and across these corridors
- New segregated cycle ways and junction improvements in suitable locations
- New cycle parking hubs
- Public realm enhancements

It is also assumed that any proposals being bought forward for delivery would need to protect and maintain current bus journey times as a minimum.

Figure 8 Euston Healthy Streets project scope[20]

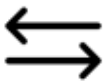
The forthcoming Euston Masterplan Development provides an opportunity to improve the environment in and around Euston by reducing traffic dominance and rebalancing the needs of road users. To ensure that there is one unifying approach to developing proposals and outcomes, recognising the level of ambition and the number of stakeholders involved in projects, LBC and TfL have developed a joint Vision[21] for the

[20] Transport for London and London Borough of Camden, 2021. Our Vision for Euston Healthy Streets
[21] London Borough of Camden, n.d. Euston Engagement Hub

three key roads in the Euston area (Euston Road, Hampstead Road, Eversholt Street) with vision statements developed for each of them. The key outcomes targeted by the vision are summarised in Table 1.

The Vision sets out the aspiration and scope of change for the area over the next 15 years and beyond and has been designed to be flexible in responding to changes in local circumstances. It will inform future highways projects by TfL and Camden Council, and the two authorities will advocate for other Euston Partners to consider them in their own projects, and any mitigation measures they propose which may be considered necessary to support the delivery of their schemes. Given all the contextual changes referenced in this document, there is an ambition to update the existing Vision document, and any future proposals coming forward should ensure they reflect the latest thinking and most current version of this document.

Table 1 Euston Healthy Streets Vision Outcomes[22]

Healthy Streets and People	
Walking 	**Places for walking:** deliver a high quality, safe and inclusive walking environment, remove existing barriers and prioritise pedestrian crossings and comfort. Support urban realm and place making opportunities.
Cycling 	**Connected cycling:** enable high quality, safe and well-connected cycle routes. Prioritising crossing points over the Euston Road that link into the existing and planned cycle networks. Ensure easier and safer east- west and north-south movements through the project area with good quality cycle infrastructure that links to the cycle network and key destinations.
	**Road Danger Reduction:** prioritise measures to reduce collisions, particularly those involving cyclists and pedestrians, in known hotspots considering future changes in street layouts.
	**Efficient use of street space:** reallocation of space / capacity from cars to support walking, cycling and public transport outcomes, fostering a positive perception of routes to maximise connectivity and support mode shift. Reduce adverse impacts of freight and service vehicles on street network in line with TfL's freight action plan, including considering more sustainable loading and servicing practices.
	**Improve the environment:** identify opportunities to deliver green infrastructure, improve air quality, reduce traffic noise, reduce private car use and prioritise sustainable modes of travel
Good public transport experience	
	**Quality Public Transport:** explore opportunities to improve, protect and maintain public transport, whilst balancing the need for quality pedestrian and cycling infrastructure, to encourage active travel
	**Enhancing customer service:** high quality, legible and accessible transport interchange between Euston and Kings Cross through bus, cycle and walking connectivity
Local Community	

[22] Transport for London and London Borough of Camden, 2021. Our Vision for Euston Healthy Streets

Meeting the needs of the Local Community: explore opportunities for removing existing barriers that disconnect the communities surrounding Euston Station and work with the Local Community to ensure their transport, movement and public realm needs and priorities are accounted for within the EHS proposals

Issues and Opportunities

Table 2 sets out the key issues and opportunities facing the key roads in Euston being considered through the Healthy Streets workstream. Development coming forward in the area will be expected to respond to this in order to build on and deliver the opportunities identified where feasible, and/ or to detail how they are intending to manage and mitigate the issues as part of their proposals.

Table 2 Issues and Opportunities on Key Routes

Summary	Issues	Opportunities
Walking 	• High levels of traffic dominance • Inadequate pedestrian crossing facilities (at some junctions, crossings are uncontrolled, or pedestrians have to cross in several stages) • Pedestrian severance arising from Euston Road and the existing Euston Station • Inadequate footway widths in some locations	• Create a network of high-quality, safe, and inclusive walking environments which connect local communities • Reduce air pollution and noise • Remove barriers to walking and incorporate greening measures • Urban realm improvement • TFL short and medium-term upgrades to pedestrian crossings • Pedestrianisation of Granby Terrace Bridge, with retention of cycle access and some maintenance access for Network Rail • Pedestrianisation of north Gordon Street between Euston Road and Endsleigh Gardens
Cycling 	• Insufficient permanent east-west and north-south connectivity • Insufficient cycle parking to encourage mode shift to cycling • Inadequate cycling facilities at signalised junctions • Severance arising from Euston Road and the existing Euston Station	• Create high-quality cycle network and improve safety • Provide permanent cycle infrastructure to support modal shift • Encourage more sustainable travel • Pedestrianisation of Granby Terrace Bridge, with retention of cycle access and Network Rail maintenance access
Road safety 	• Traffic dominated environment • Uncontrolled crossings for pedestrians and cyclists • Lack of permanent cycle infrastructure	• Introduce road safety measures • Reduce collisions and reduce barriers to sustainable travel i.e., perception of safety
Buses	• Current bus station operates well and is well located but requires improvement to i) passenger	• High quality bus interchange which supports onward journeys by sustainable modes

Summary	Issues	Opportunities
	waiting areas ii) staff welfare facilities and iii) permeability for pedestrians and cyclists • Congestion contributes to worsened bus journey times and reliability	• Support the role of buses in providing accessible, affordable public transport option in Euston • Protect and maintain bus journey time reliability
Freight 	• Freight flows are forecast to increase by over 20% between 2012 and 2041 on Euston Road • Servicing demands to increase due to development in the area	• Reduce adverse impacts of freight and service vehicles on street network in line TfL's freight action plan that aims to reduce the number of lorries and vans entering central London in the morning peak (07:00-10:00) by 10 per cent by 2026 • Manage and minimise impacts to improve air quality • Enable an uptake in more sustainable loading and servicing practices
Taxis and Private Hire Vehicles (PHVs) 	• High number of PHVs and observations of illegal stopping and parking	• Relocation of Euston taxi rank associated with HS2 provides opportunity to consider how taxis operate in the area • Recognise the role of taxis in providing accessible transport
Private cars 	• High levels of traffic dominance in the area • High dependency on use of private vehicles • Road transport emissions contribute to poor air quality	• Make sustainable travel alternatives more attractive and reduce car dependency • Explore traffic reduction measures

Travel Patterns

Travel in Camden and Euston

It has been long anticipated (pre-pandemic) that many parts of London's transport network, including Euston could expect to see increased crowding on public transport at peak times. This strengthens the case for investing in Healthy Streets projects that provide improved conditions for people to walk and cycle, with improved footway space and bus priority measures.

Box 3 Travel in Camden [23] [24]

In 2024, 87% of trips originating in Camden were made by sustainable and or active modes, with walking making up nearly half of all trips. Walking and cycling trip rates amongst residents are measured to be higher than for all trips originating in Camden. According to Camden's recent Transport Strategy Delivery

[23] Transport for London, 2024. Travel in London 2024 The travel behaviour of London residents based on the London Travel Demand Survey

[24] London Borough of Camden, 2024. Camden Transport Strategy Delivery Plan 2025-28 & Local Implementation Plan

Update (2025-2028), which draws on TfL data, walking mode share has increased from 42% of resident trips in 2017 to 50% in 2022, while the cycling mode share has increased from 3.6% to 6.7% in the same period. The sustainable mode share of trips originating in the borough is expected to rise to 88% by 2041 according to TFL's post-Covid higher growth scenario forecasts, while the Camden Transport Strategy targets a higher share of 93% by the same date. Meanwhile, overall motor traffic volumes on Camden's streets dropped by 15% between 2019 and 2023.

According to census data, car ownership in the borough overall is low and has decreased by 22% between 2016 and 2022, the largest such reduction anywhere in London. Car ownership in the wards that cover Euston is low. In St Pancras and Somers Town Ward (to the east) only 27.2% of households have access to a car or van and in Regent's Park Ward (to the west), it is only 29.5%. In both cases this is lower than the Camden average of 36.4%, which itself is lower than the London average. In the wards to the south of Euston Road, access to a car or van is even lower – 22.7% in King's Cross Ward and 18.3% in Bloomsbury Ward.

The A501 (Euston Road) and A400 (Hampstead Road) are currently rated as a core part of London's strategic bus network, with associated objectives to maintain and enhance operations including bus speeds and journey time reliability. Hampstead Road has also been identified as having a high mode shift potential.

Existing Road Network Constraints

There is an existing need to improve conditions on Euston Road, Hampstead Road and Eversholt Street in line with MTS objectives. These corridors are currently traffic dominated, suffer from high levels of air pollution, noise, inadequate crossings and footway crowding (in places), resulting in a poor environment for pedestrians and cyclists. These issues are covered in more detail below. A more detailed analysis of the existing constraints on these streets is provided in the Euston Healthy Streets Vision[25]

Demographics

London's population in 2023 was estimated to be 8.9million, 1.6 per cent higher than in 2021 and 9 per cent higher than in 2011. This rate of growth was slower than between 2001 and 2011 (12 per cent). The changing structure of London's population, notably a shift towards an older average age could also have longer-term implications for travel demand given the different travel behaviours of different age groups.[26] More information on London's population trends can be found on the GLA's website.[27]

[25] London Borough of Camden & Transport for London, 2021. Our Vision for Euston Healthy Streets
[26] Transport for London, 2024. Travel in London 2024 The travel behaviour of London residents based on the London Travel Demand Survey
[27] GLA, n.d. Population Statistics and Analysis at the Greater London Authority

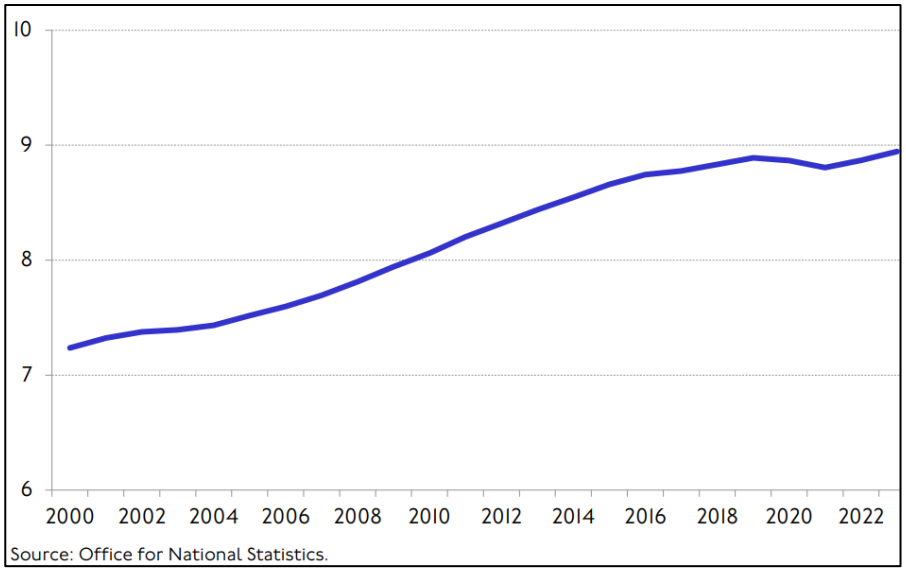


Figure 9 Long-term trend in London's resident population, 1990-2022[28]

Box 4 Post-pandemic population trends in Euston[29]

The post-pandemic population decline trend is relevant in Euston. According to mid-year ONS population estimates for 2022, there were approximately 17,000 people living in the Euston Area Plan study area. The number of residents within the study area represents approximately 8% of the population of the borough of Camden, which has an estimated population of 218,000. This is a decrease on pre-pandemic estimates of 23,400 residents in the Euston Area Plan area in 2019.

[28] Transport for London, 2024. Travel in London 2024 The travel behaviour of London residents based on the London Travel Demand Survey
[29] ONS, 2024. Population estimates for England and Wales: mid 2024

3. Existing transport provision and patterns of use

Existing public transport connections

Figure 10 shows the existing public transport network serving Euston. Euston is a major rail terminus served by a wide range of public transport services and is considered an important transport interchange. Euston is currently the 10th busiest railway station in Britain and the southern terminus of the West Coast Mainline, the busiest passenger route in Britain[30]. The rail station is currently served by four different train operators Avanti West Coast operating inter-city west coast services (which served 32.8 million passengers in 2023/24[31]), London Northwestern Railway operating regional and commuter services, London Overground operating local commuter services and the Caledonian Sleeper providing overnight services to Scotland.

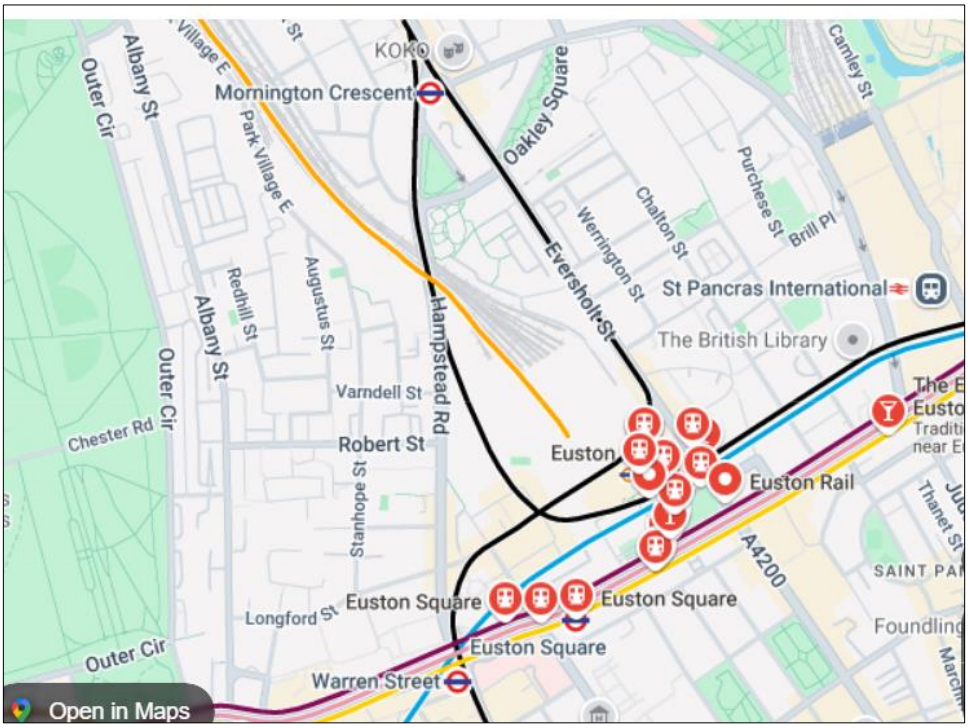


Figure 10 Existing public transport services in the Euston Opportunity Area [32]

In 2018 TfL undertook surveys at four central London Rail termini stations, including Euston[33], to gather important information on how these stations are used, and by how many people, this followed on from previous surveys undertaken in 2010.

Rail Travel

Key findings from this survey for rail passengers showed that peak arrivals at Euston National Rail station had risen by 40% since 2010, from 23,500 to 33,000. Even before the pandemic, the data was suggesting that people were travelling less frequently, with only 36% of passengers making the journey into Euston five

[30] Network Rail, n.d. London's first intercity station website
[31] Office of Rail Regulation, 2024. Train Operating Company Key Statistics 2023-24 Avanti West Coast
[32] Google Maps, 2025. Existing public yransport services in Euston
[33] Transport for London, 2018. Central London Rail Termini Final Results

or more days a week in 2018 (see Figure 11), down from 40% in 2010. This trend also applied to the other stations considered in the survey (Paddington, Liverpool Street and Victoria).

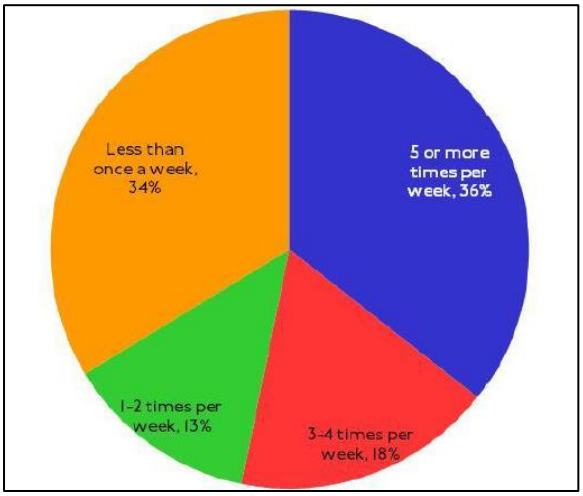


Figure 11 Passenger weekly frequency of travel to Euston Station

The government's rail passenger survey for the period between September and December 2023 shows that passengers were travelling at slightly different times of the day compared to prior to the COVID-19 pandemic.[34] In London, 45% of daily arrivals were in the morning peak, the same proportion as in autumn 2022, but lower than the 55% in 2019 (pre-pandemic). This change may be due increases in flexible working, with working hours being more varied.

Arrivals in the morning peak at London stations were up 140,400 passengers in autumn 2023 compared to the previous year (an increase of 14%). For Euston station there was an increase from 60,000 to 66,000 passengers per day (a 10% uplift). There were 22,000 arrivals in the AM peak.

London Underground

Euston is also well served by London Underground with services on the Northern and Victoria lines, accessed via the NR concourse. Additional services on the Circle, Metropolitan and Hammersmith & City lines can be found a short walk away at Euston Square station.

Recent travel demand data has shown that there was c. 31.9 million passengers on LU services at Euston in 2024 compared to c.31 million in 2019 [35]. Given that these numbers are broadly similar, it demonstrates a strong level of passenger recovery at this station following on from the pandemic, which will need to be accounted for as designs for the station upgrade are developed. This compares to c.9.8m journeys in 2020 at the height of the pandemic and c.23.6million journey in 2022.

Bus Services

Fifteen bus services currently directly serve Euston station along with several night buses. Some services directly serve the bus station (18, 68, 205, 73, 30, 91, 253, 390) whilst the rest serve nearby stops on Hampstead Road, Euston Road and Eversholt Street. Bus network changes will be needed at Euston to serve both the uplift in demand generated by both HS2 and the development, and to accommodate the physical changes HS2 will bring at street level.

[34] DfT, 2023. Rail passenger numbers and crowding on weekdays in major cities in England and Wales: 2023

[35] Transport for London, 2025. Network Demand Dashboard: Taps by Tube & TfL Rail Stations

Figure 12 Euston's current bus station

The current bus station is open 24/7 and provides both an important interchange function between bus, rail and tube services, while also acting as a transport hub for local residents and businesses. Data from the 2018 Rail Termini Study showed there approximately 13,000 passengers used the bus station on a typical weekday and a further 12,800 passengers used the area around the bus station[36], which equates to 4.3million annual passenger movements. More recent data from TfL (BUSTO) indicates that the bus station currently serves c.14,700 passengers on a weekday, equating to c.4.8million passengers annually.

There are currently 12 bus stops within the bus station zone, six of which are within the footprint of the bus station. There are four, day routes which terminate at the bus station (18, 30, 68 and 253) with four additional through routes serving the station eastbound (73, 91, 205 and 390). Six, night routes also serve the bus station. Additional buses serve the bus station zone, stopping on Euston Road and Eversholt Street. This translates into c.110 peak hour bus movements for the day routes which serve the bus station.

While the bus station is well-located and caters well to bus operations, its current layout offers a poor environment for passengers waiting to use buses and requires improvement.

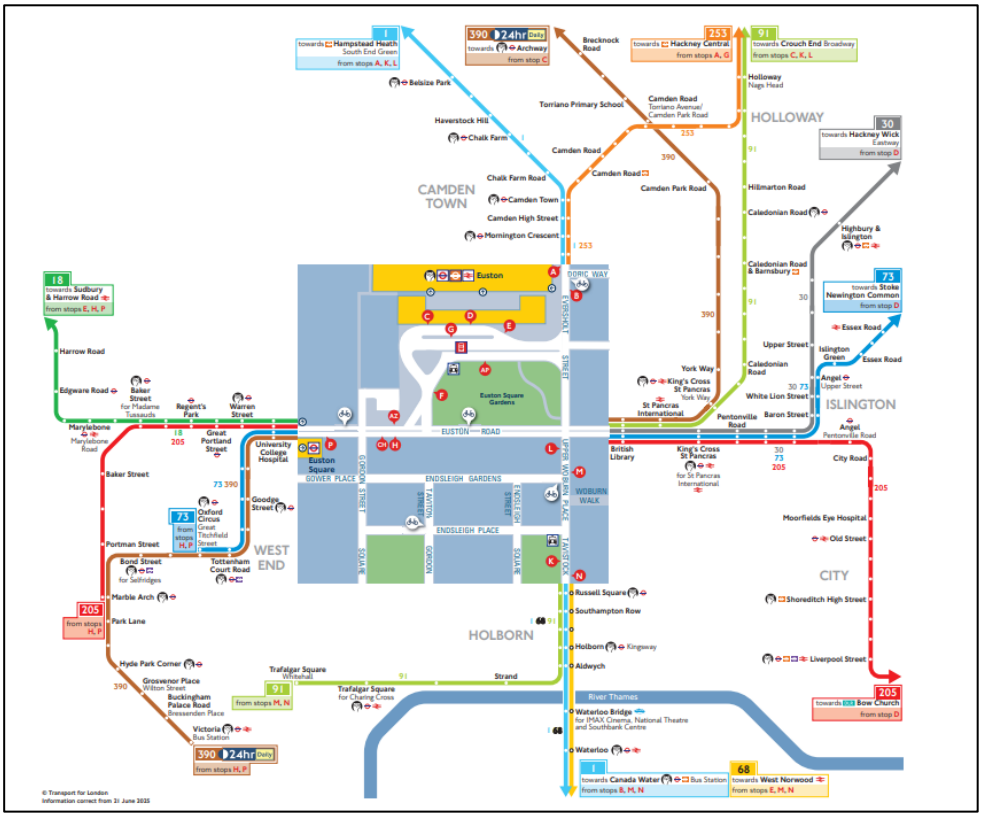


Figure 13 Bus routes serving Euston[37](TfL Spider maps)

[36] Transport for London, 2019. Oyster data, Period 9
[37] Transport for London, 2025. Buses from Euston

Box 5 Bus service changes

Following a public consultation on bus routes serving central London undertaken in 2022, the number 59 no longer serves Euston station. A new bus service, (route 1 now) has served Euston since September 2023, stopping on Eversholt Street. Fig 18 shows the bus routes serving Euston.

Walking and cycling environment

Euston station is well located for passengers to undertake onward journeys by foot, with many key attractors located in nearby. University College London (UCL) and Somers Town are within a 5-minute walk; the British Library, Regent's Park and King's Cross St Pancras are within 10 minutes; the British Museum within 15 minutes and Oxford Circus within 25 minutes.

Figure 14 shows the key existing east-west walking and cycling routes within the EAP boundary, alongside the roads falling within the Healthy Streets programme.

Figure 14 Existing Routes in the EAP Area

Although walking and cycling is possible on much of the local network, some of the main routes are dominated by traffic and have a lack of suitable infrastructure for pedestrians and/ or cyclists e.g. lack of formal crossing facilities, potentially making active travel less attractive to some people.

The full list of challenges relating to walking and cycling are set out in Table 2 on Issues and Opportunities in the Euston Healthy Streets section of Chapter 2.

Walking

Most passengers who make their onward journey from Euston station on foot travel to destinations located along and to the south of Euston Road.

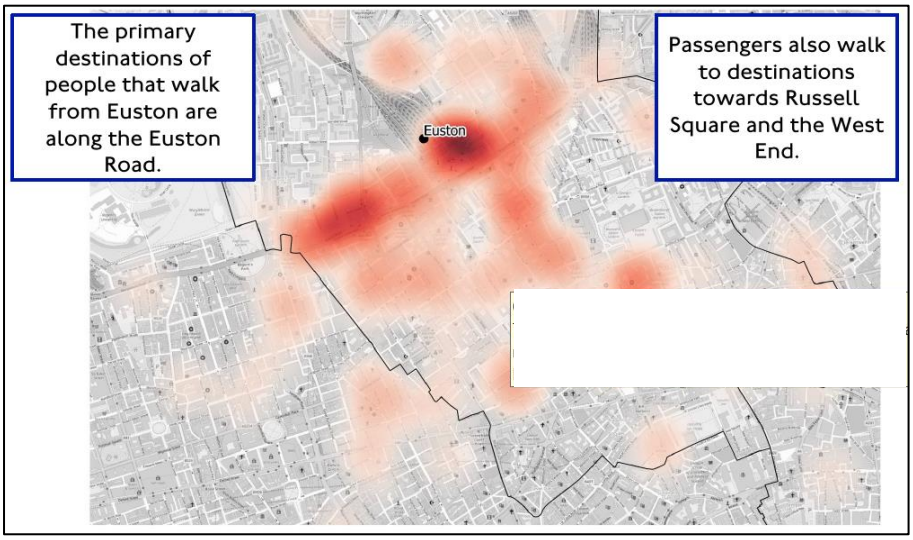


Figure 15 Destination heatmap of passengers leaving Euston Station on foot[38]

We have recently undertaken surveys to understand why people are travelling to Euston Road. The main reason is for work, followed by leisure related purposes. With more trip attractors found to the south of the station, this would align with where the most significant pedestrian desire lines can be found on the heatmap.

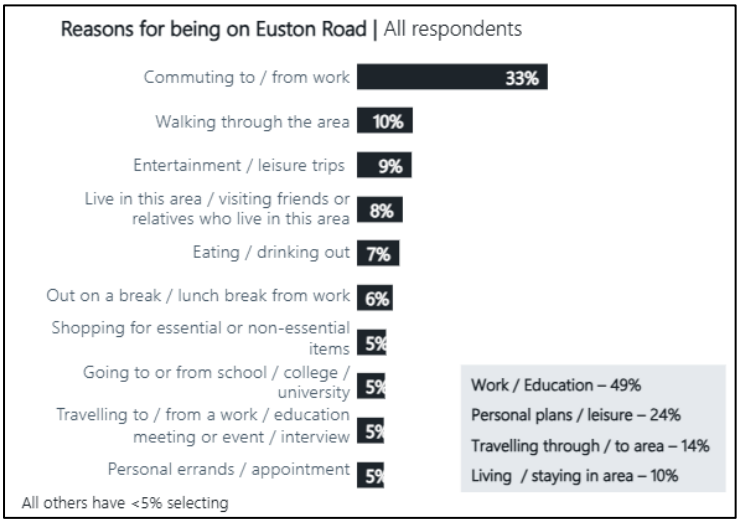


Figure 16 Reasons for pedestrians being on Euston Road (2025)[39]

[38] Transport for London, 2018. Central London Rail Termini Final Results
[39] TfL & 2CV, 2025. Euston Road Pedestrian Perceptions

Pedestrian Severance

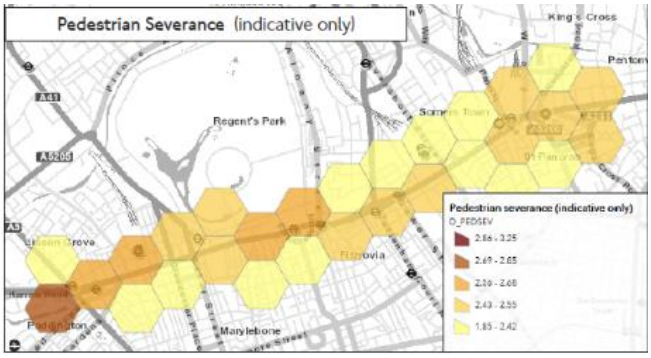


Figure 17 Pedestrian severance in the Euston Area (2021)

Pedestrian Severance (indicative only) is moderate, but has a potentially high impact given the large volumes of pedestrians in this central London location

Cycling

The existing cycle network and cycle docking stations within and surrounding the EAP are shown in the figure below.

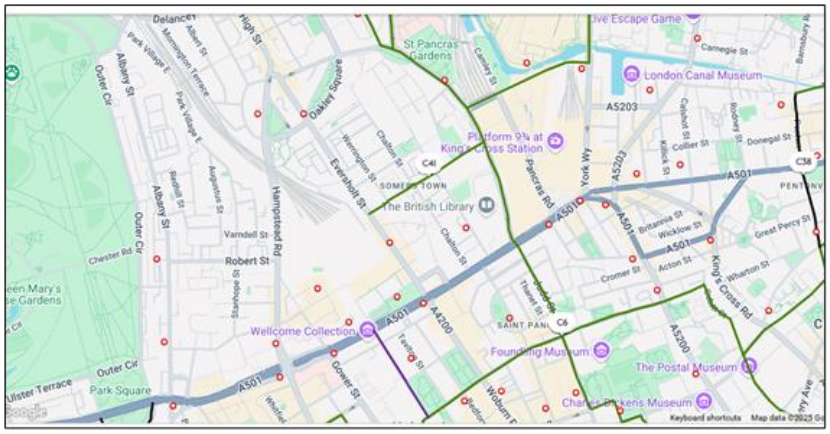


Figure 18 Existing cycle routes and Santander docking stations[40]

Euston Station is located close to London Cycle Route 6, which runs from Kentish Town to Elephant and Castle. Some streets to the south of Euston Road form part of the Central London Grid, which is a mix of Quietways and Superhighways in the City and West End. It should be noted that Quietways and Cycle Superhighways across London are currently in the process of collectively being rebranded as Cycleways. There is currently no dedicated cycle infrastructure on Euston Road or Eversholt Street. While there is temporary cycle infrastructure on Hampstead Road, this is often partially suspended due to HS2 works. This may be a barrier to cycling in the area, particularly for less confident cyclists.

During the Covid-19 pandemic, a temporary wand separated cycle track was introduced on Euston Road in both directions. However, this was removed due to negative impacts on bus journey times and HS2 requiring space for construction works.

There is a dense network of existing cycle routes south of Euston Road, such as C52, which runs south from the Wellcome Collection to the Thames, C41 / C6 which connects northern Camden to Bloomsbury, crossing Euston Road at Midland Road / Judd St, and the newly enhanced C27, which runs east-west through Bloomsbury, connecting King's Cross to Paddington. The C41 is a further cycle route north of Euston Road, which runs along Phoenix Road between Midland Road and Eversholt Street. The recent

[40] Transport for London website, n.d. Cycle

introduction of segregated cycle tracks on Crowndale Road has improved east-west provision to the northeast of the EAP area but overall east-west provision north of Euston Road is intermittent.

Figure 19 shows the locations can be reached from Euston by bike in 2km and within a 20-minute and 40-minute cycle. This information can be combined with the data on cycling potential (see Appendix A) to identify the highest impact locations for investing in cycling infrastructure.

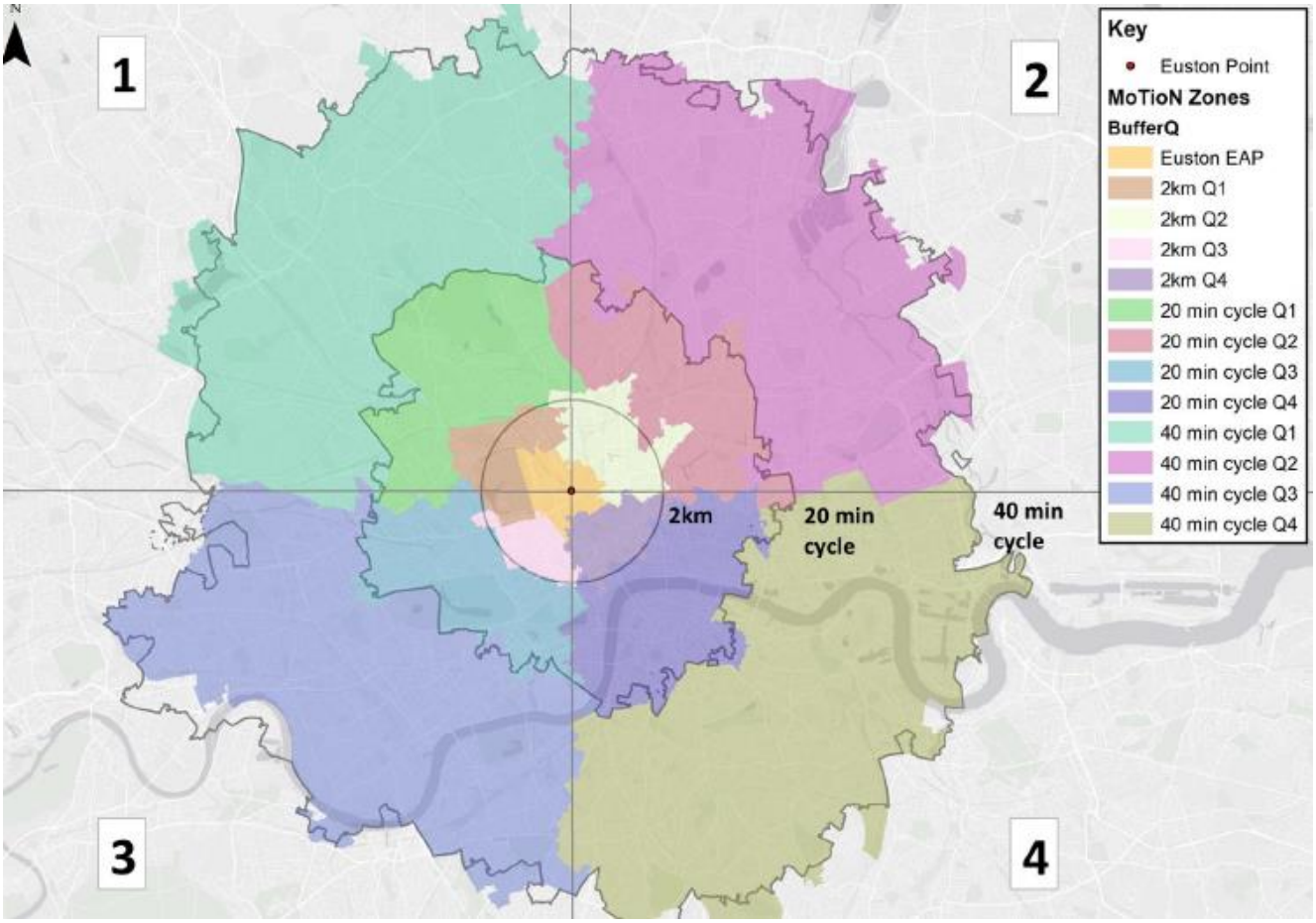


Figure 19 Cycling catchment area

Data from the London Travel Demand Survey (LTDS) taken pre-pandemic showed that between 2014/15-2016/17, 5% of Camden residents cycled to work as their main mode of transport. Census data showed this figure decreased to 4% in 2021 (during the Covid-19 pandemic) , but as noted earlier, this had increased to 6.7% by 2024.[41] [42] The current mode share for cycling falls slightly short of Camden's 2019 Cycling Action Plan target for this to increase to 7.5% by 2024/25. The plan sets a further target of 15% by 2041, by which time the Euston Masterplan Development will be closer to completion.

Box 6 Cycling demand

Figure 20 shows the spring cycle flows between 6am and 8pm on key roads in the Euston Area in 2025 (except on the southern end of Hampstead Road and Euston Road (where data is only available for 2021, when there was a trial cycle lane on Euston Road). This shows that major roads in Euston are well

[41] ONS, 2022. Method used to travel to work
[42] LB Camden, 2024. Camden Transport Strategy Delivery Plan 2025-28 and Local Implementation Plan (SC/2024/32): Appendix A CTS Delivery to date and developing the new 3-year plan

used for cycling, along with smaller side streets and designated cycle routes such as the major east-west Tavistock Place – Torrington Place route.

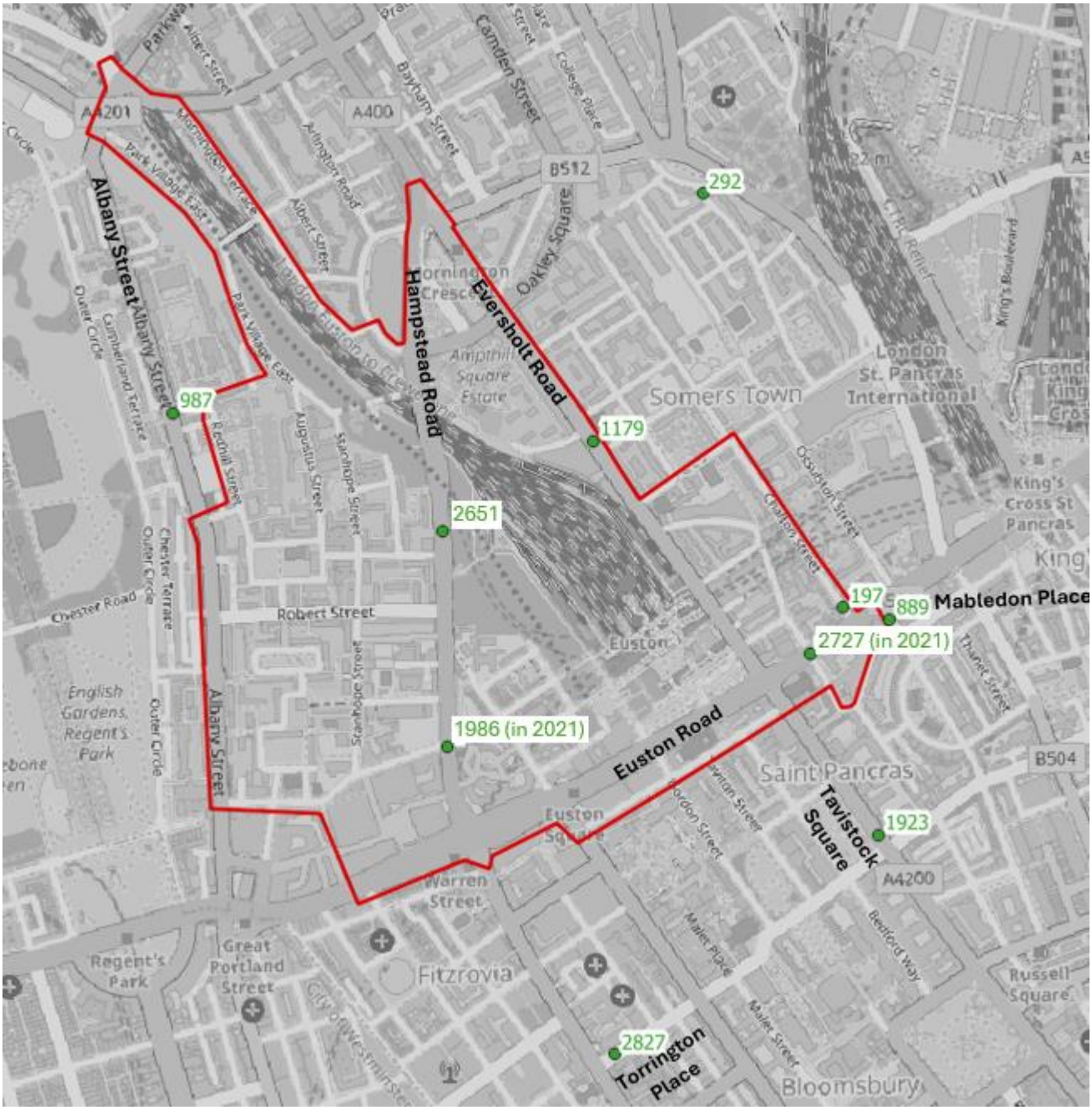


Figure 20 Spring 2025, 6am-8pm Cycle Counts in Euston[43]

Box 7 Camden and TfL-led Healthy Streets Projects in Euston

Camden and TfL are already developing a range of healthy streets projects in the Euston Area to address the issues described above and improve bus priority. At the current time all TfL led projects are aspirational and subject to further work. For some schemes additional third-party funding will be required to enable delivery. Many of Camden's projects are built, underway or planned. A high-level overview of Camden's projects is shown in Figure 21 below.

[43] Transport for London website, n.d. Cycle Counts Dashboard

These include the following:

Euston Healthy Streets (joint TfL & Camden projects)

- Small change big impact changes - minor improvements to the pavement on Euston Road to improve the environment and make it more accessible (e.g. seating & greening).
- Short-term pedestrian upgrades focused on crossing and junction safety improvements
- Long-term schemes on major routes - TfL and Camden are respectively developing long-term proposals for Hampstead Road and Eversholt Street, to be implemented following major HS2 construction, to leave a legacy of improved road safety, greater pedestrian and cycle amenity and priority for buses.

Re-imagining Euston Road

- Identification of a range of pilot projects for improving Euston Road with a coalition of local stakeholders, to make it less traffic dominated, safer and more pleasant for walking and cycling.
- Any pilot projects identified should help support a longer-term vision for change along Euston Road.
- The implementation of any of the shortlisted pilot projects are subject to funding

Alternative east-west walking routes (Camden)

- Greening Phoenix Road – an existing signed walking route between Euston and King's Cross stations north of Euston Road running through Somers Town. The Council is now using HS2 Green Space assurance funding to invest in greening along this route
- Wellbeing Walk – designs are in development for walking and accessibility infrastructure upgrades south of Euston Road, which will be accompanied by signage
- Granby Terrace Bridge Pedestrianisation – the Council is developing long-term plans in partnership with HS2 and Network Rail, to pedestrianise Granby Terrace Bridge as part of the HS2 project, while allowing some essential maintenance access for Network Rail. This would provide a much-needed east-west walking link to the northwest of the station campus, especially where over-station routes may no longer be deliverable.

Healthy Streets Projects in the Somers Town and Regent's Park Area

- The Council has and continues to deliver a wide range of healthy streets projects in the neighbourhoods adjacent to HS2. In Somers Town the Council has trialled and made permanent multiple healthy school streets covering all 5 schools, which, in combination with the Greening Phoenix Road project, mean that through traffic in Somers Town is significantly limited during school street operating hours.
- The Council is developing a series of additional pedestrian priority and road safety measures to make walking more accessible and attractive in the area. The Council has also installed 5 mobility hubs and will implement2 more in 2026. Mobility hubs include shared and sustainable transport options such as dockless bike and scooter hire, shared cargo bikes, electric car clubs, short stay cycle parking and cycle hangars for residents, seating and greening.
- The Council is also developing walking, cycling and road safety proposals for streets in the Regent's Park Area, where there are already two healthy school streets on Redhill Street and William Road. To improve road safety and mitigate against displaced through traffic it is also developing further proposals for a healthy school street on Stanhope Street, as well as a one-way system on Osnaburgh Street. The Council is also developing designs for a pedestrian improvements and stepped cycle tracks along Albany Street.
- The Council may develop further proposals for restricting traffic through residential neighbourhoods surrounding the Euston area, subject to feasibility testing and if necessary,

modelling, to reduce the impact of increased travel demand on residents. Overall, these changes will provide an enhanced active travel network for the Euston Masterplan Development to connect into in the future.

Bus Priority Measures (Camden Highways)

- Camden Council is bringing forward bus priority measures on its highways including on Upper Woburn Place, which will include new sections of bus lanes and extended operating hours.

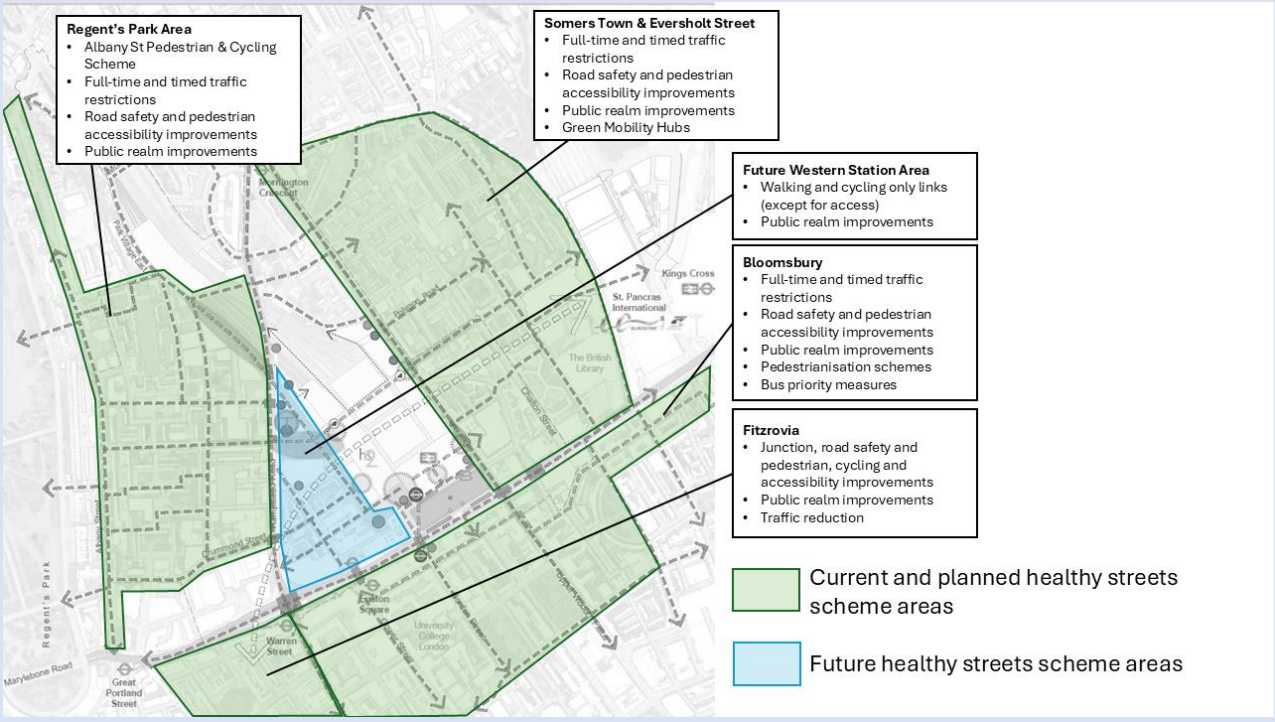


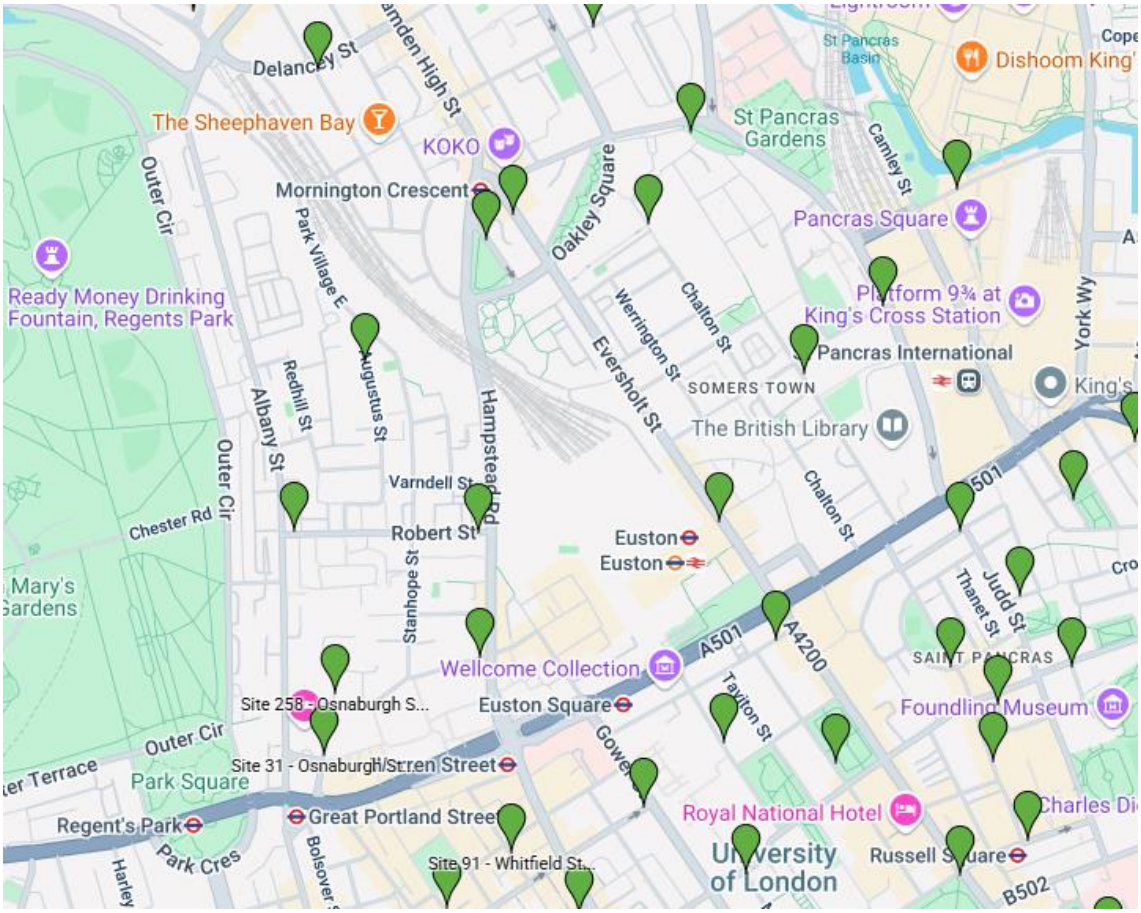
Figure 21 Camden Healthy Streets Projects

Cycle Hire

There are several TfL cycle-hire docking stations located on and around Euston Road and Marylebone Road. Prior to the pandemic the cycle hire station on Belgrove Street by Kings Cross Station had the highest total usage, with 197,888 total hires annually. Some cycle hire docking stations around Euston station have been affected by HS2 construction, which is affecting their usage. HS2 have commitments to deliver new and replacement cycle hire docking stations once the construction activity has been completed.

There are also 14 dockless bike and scooter hire bays in the EAP area (shown in the figure below). The location of future docked and dockless hire stations should be considered as part of any future micromobility strategy for the Euston Development Masterplan to avoid the surrounding streets becoming cluttered and impeding on pedestrian movement. According to strategic modelling for the EAP, cycle trips are expected to increase as a result of EAP development, and it is likely some of these will be made by shared cycles.

Figure 22 Dockless Bike and Scooter Hire Bays[44]



Highway Network

Road hierarchy

Figure 23 shows the location of the strategic road network in the Euston area.

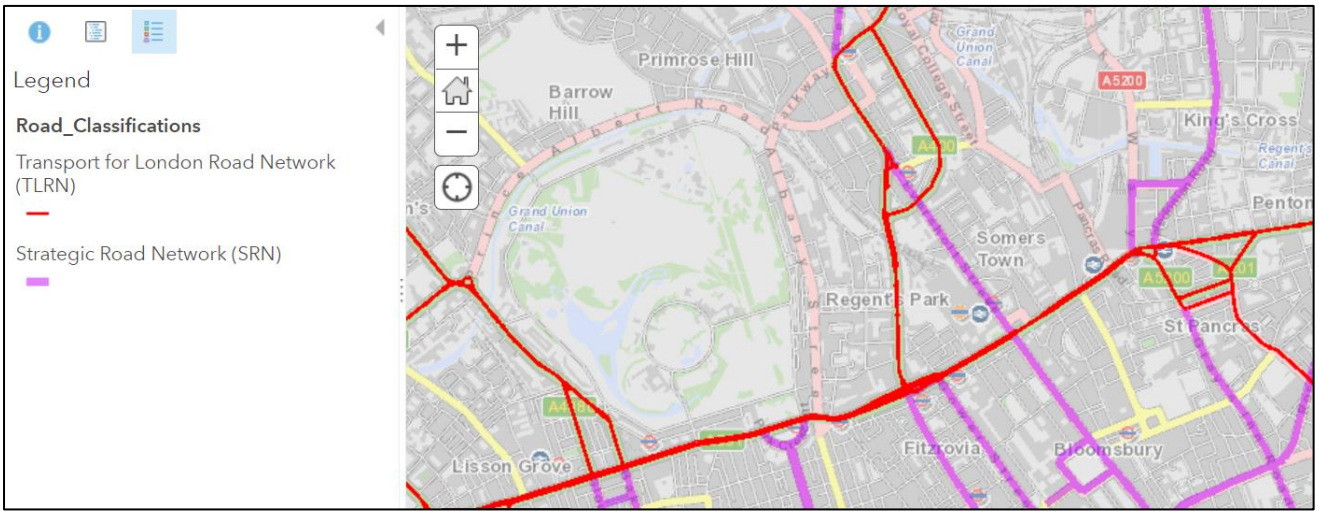


Figure 23 Road hierarchy classification in the Euston Area[45]

The EAP area is well connected to the Transport for London Road Network (TLRN) and the Strategic Road Network (SRN). To the south, strategic connectivity is provided by the A501 Euston Road, which forms part of the Inner Ring Road and northern boundary to the Congestion Charging Zone. The A400 Hampstead

[44] Camden Council, 2025. Dockless bikes and scooter hire bays
[45] Transport for London. Surface Playbook, Road Classifications

Road also forms part of the TLRN and links the area to Camden Town to the north. The A4200 Eversholt Street, along with Upper Woburn Place forms part of the SRN and is a key north-south link to Holborn and Central London.

These roads are significant, strategic highways whose primary function is the movement of motor traffic, which can result in negative impacts/environments for pedestrians, cyclists and severance (as noted elsewhere). Approximately 60% of traffic on Euston Road comprises of 'light vehicles', including private cars, LGVs and private hire vehicles. A further 15% is estimated to be made up of taxis (black cabs).

All roads in the Euston area are now within the boundary of the Ultra-Low Emissions Zone following the extension of the boundary out to the North and South Circulars in October 2021.

Highway mode share

Average annual daily vehicle flows (AADF) from 2023 shows that cars (including PHV's) and taxis were the dominant mode at all locations considered, with them being most prevalent on Euston Road. Whilst this data doesn't break the car mode share down further, based on the EAP modelling summarised in Appendix A, it is likely that cars and taxis would form a similar proportion of this demand, followed by PHVs.

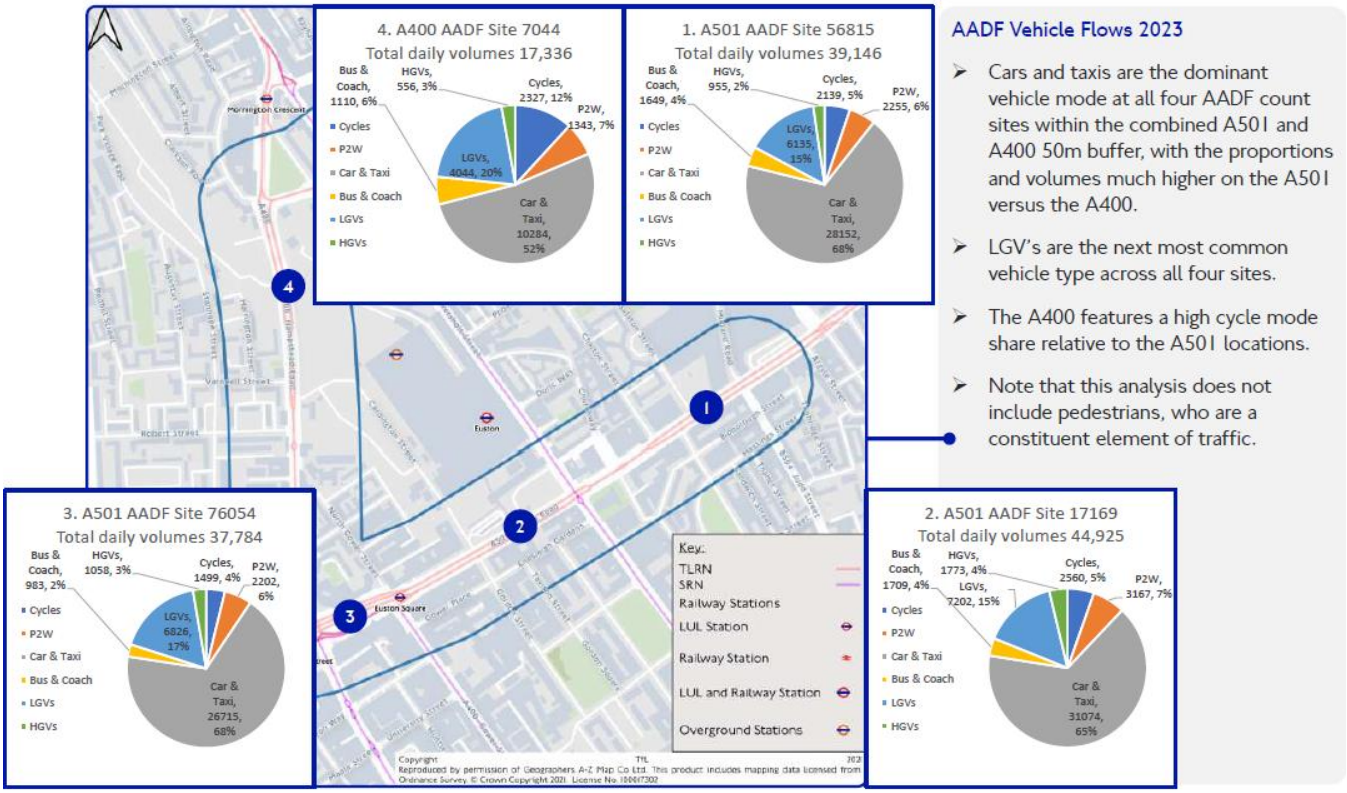


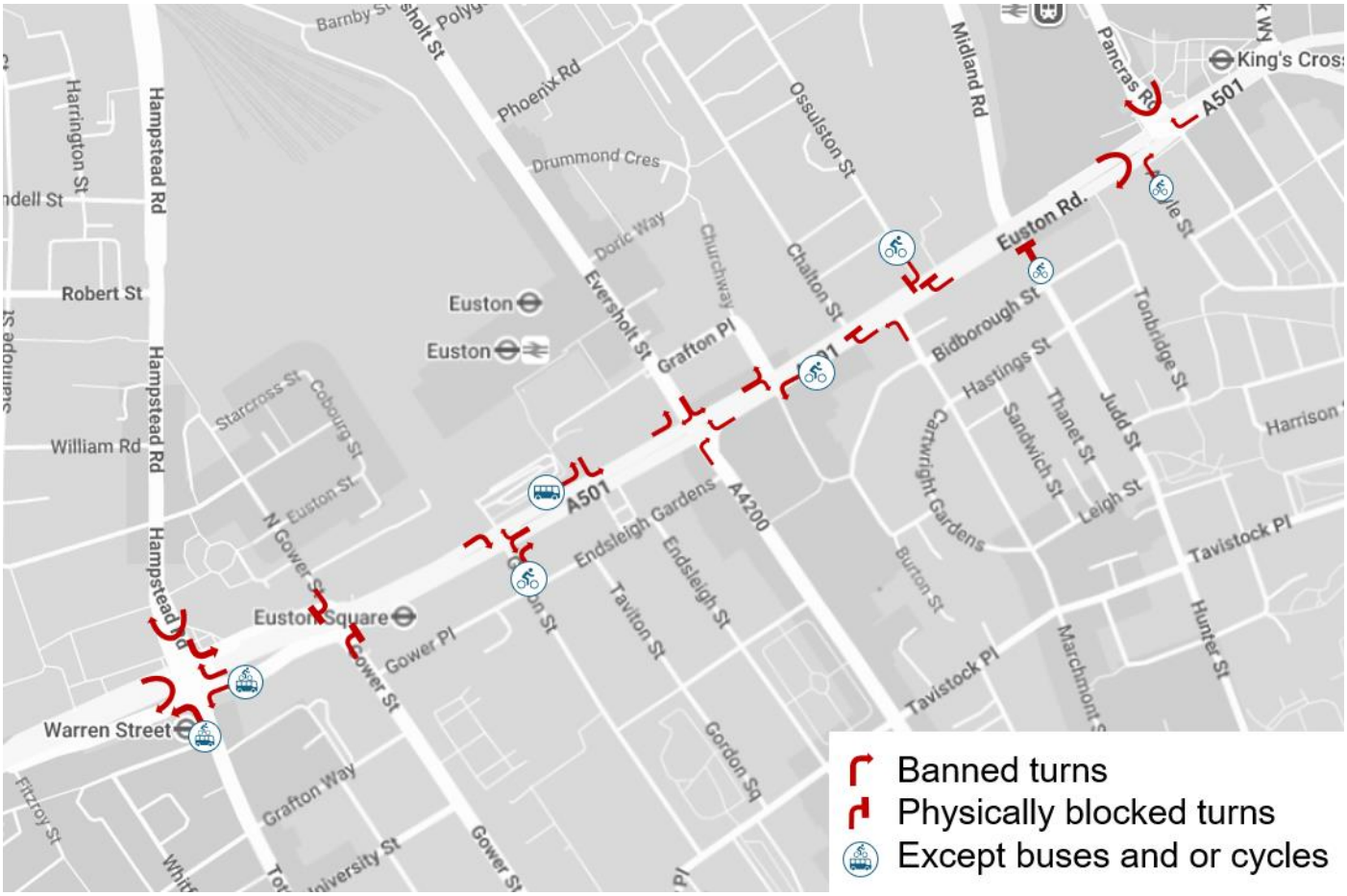
Figure 24 Annual Average Daily Flow (AADF) figures[46]

Vehicular movement restrictions

Banned turns have been introduced at several junctions along Euston Road to improve traffic flow and facilitate pedestrian crossings (see Figure 25). In some locations, these banned turns mean that to turn onto and off Euston Road, vehicles must use side streets as gyratories. For eastbound traffic there is no right turn at the junction with Gordon Street and no left into Eversholt Street / Euston Square. Westbound traffic on Euston Road is permitted to go ahead only at the junctions with Upper Woburn Place and Euston Square / Eversholt Street and with Gordon Street and Melton Street. Southbound movements at the junction of Upper Woburn Place, Euston Square / Eversholt Street and Euston Road are subject to ahead only restrictions, while right turns are banned when travelling through this junction northbound.

[46] DfT, 2024. Road Traffic in Great Britain: Annual Average Daily Flow count data

Figure 25 Banned Turns on Euston Road



Connectivity

Euston Road connects Euston to King's Cross and St Pancras Stations and is a vital east-west link for buses, taxis, freight and general traffic. As well as having high traffic flows, this section of Euston Road is characterised by also having high levels of pedestrian movement, both along and across it. The A501 turns into a one-way system at the King's Cross Gyratory.

Hampstead Road and Eversholt Street are important north-south connections through the Opportunity Area. Hampstead Road is generally two lanes in each direction but narrows to one lane in each direction at the rail bridge. Eversholt Street is generally three lanes wide with one lane in each direction for general traffic with an intermittent southbound bus lane.

Box 8 Speed Limits Update

Since this document was originally drafted TfL has accelerated the roll-out of 20mph limits on its road network to respond to road safety concerns, with speeding being cited as one of the biggest contributing factors of road deaths across the UK[47]. Of all the fatal collisions in London in 2021 (37 out of 75), police reported it as a contributory factor. Euston Road was made 20mph in March 2023, as part of the mayor's 'Vison Zero' approach. Hampstead Road is now also 20mph. With these changes, all roads within the EAP boundary are now subject to 20mph limits.

Freight

Due to the strategic nature of roads in Euston noted above, they also carry high volumes of freight traffic. This is expected to continue into the future, with Euston Road remaining an important freight corridor and

[47] DfT, 2023. Reported road casualties Great Britain: fatal 4 - speed factsheet, 2023

local increases in servicing and maintenance activity anticipated in relation to the redeveloped station, which will need to be mitigated through reducing, retiming, re-moding and consolidating deliveries.

Car Parking & Kerbside Activity

Camden Council seeks to reduce reliance on private car use and has planning policies in place which require car free development across the borough, for all residential and non-residential uses (with exceptions for blue-badge parking).

Parking controls cover all of Camden's highways and are designed to enable a variety of users to access kerbside parking, as appropriate. The area to the north of Euston Road is subject to controlled parking zone enforcement where permit holders, whether resident, business or visitor, can apply to use permit bays[48]

Euston Station itself as well as most of Somers Town to the east and the Regents Park Estate to the west fall within zone CA-G Somers Town Area.

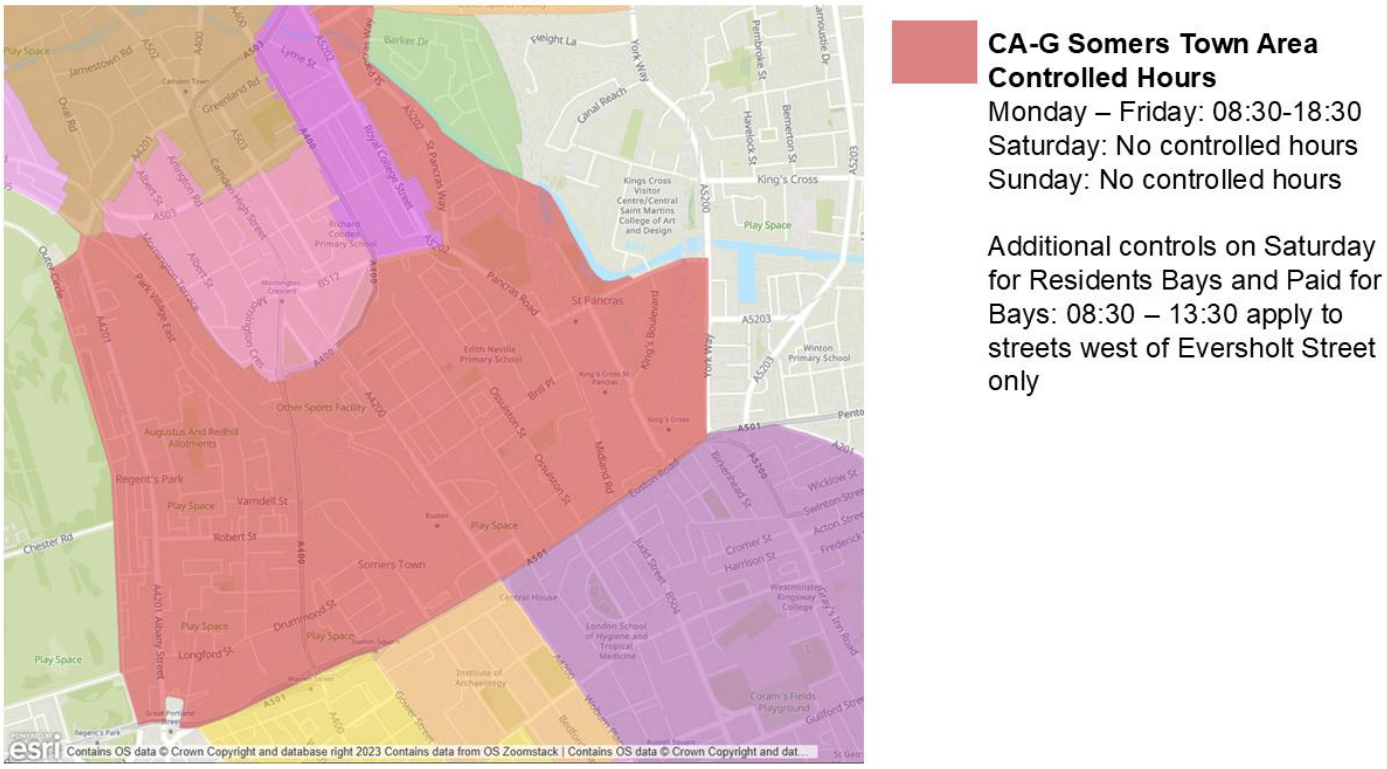


Figure 26 Controlled parking zones in the Euston Area

There is significant loading activity in the Euston Area, especially in key commercial locations, such as on Eversholt Street and Drummond Street. The Council typically brings forwards measures to consolidate loading activities to reduce their impact as part of most healthy streets schemes. The Council has also set out further measures to tackle the impact of freight and servicing movements through the Camden Freight and Servicing Action Plan.[49]

Box 9 Controlled Parking Zones

Saturday Parking

To better protect resident parking provision and prevent unnecessary private motor-vehicle trips into the city centre on weekends by people who live elsewhere, Saturday morning parking controls were also introduced on streets west of Eversholt Street as a trial, which was made permanent in December 2023.

[48] London Borough of Camden, n.d. Controlled Parking Zones
[49] London Borough of Camden, 2024. Draft Freight and Servicing Action Plan

It is expected that a similar trial will be introduced in the eastern half of the parking zone from Autumn 2025.

Despite being car-free, the new masterplan development area could still attract some private motor-vehicle trips by visitors. Some of these may wish to park in 'Electric Vehicle Only' bays. The uptake of electric vehicles is increasing significantly, and this could put pressure on existing infrastructure that is primarily being provided for local stakeholders in Euston. New development would therefore need to contribute to providing more electric charge points within the Euston Masterplan Development and/or on Camden's highways and to controlled parking zone reviews so that the impact of increased vehicle demand can be managed.

Road Safety

Real and perceived road safety risks could potentially be considered barriers to the uptake of walking and particularly cycling within the EAP area. To help support the mayor's aim of having zero killed or seriously injured on London's roads by 2041, and to create a more attractive environment for walking and cycling, improvements should be targeted in the locations where issues have been identified, which tends to be around junctions. The growth and development around Euston could exacerbate any existing issues if improvements are not made, particularly with the significant increase in pedestrian demand anticipated.

TfL has developed a new road safety methodology which considers historic casualty harm, to identify locations where harm is higher than the network average, and therefore where intervention could have the greatest impact, by reducing risk the most. Locations showing road risk at the network average or lower are labelled as not a priority, however this does not mean there is no risk at these locations.

Several priority nodes and links have been identified within the EAP area, indicating that there are locations where the risk of harm is above the network average and where improvements are required. The most prominent of these are on Euston Road between Mabledon Place and Eversholt Street, which has been identified as being a Priority 1 and the Euston Road/ Gordon Street junction which is a Priority 2. Priority 3 nodes have been identified at several locations along Euston Road, including at the junction with Eversholt Street/ Tavistock Square, Gower Street/ North Gower Street and Hampstead Road/ Tottenham Court Road (Euston Circus). This aligns with where most accidents have occurred within the EAP boundary, as seen in Fig 27.

Box 10 EAP Area Collision Statistics 2019-2024[50]

In the last five years (September 2019 to September 2024) there was a total of 279 collisions involving all road users within the approximate boundary of the EAP. This includes two fatalities in 2020 and 44 serious injuries. Fatal collisions occurred at the Melton Street / Euston Road junction (TLRN) and on Eversholt Street near the junction with Lancing Street (a Camden road).

The mode most affected by accidents was pedal cycles (28% of all collisions) followed by motorcycles (23%) and pedestrians (21%), suggesting a need to focus any potential improvements on improving conditions for these vulnerable road users. It can also be seen from Figure 28 that serious injuries tend to be clustered around junctions, indicating this is where any proposed improvements should be focused.

Some work has already been undertaken by TfL in response to the fatality on the TLRN, with the Melton Street/ Euston Road junction being subject to banned movements and buildouts to improve the situation, with further improvements being explored.

[50] TfL, n.d. Road Safety Data Report

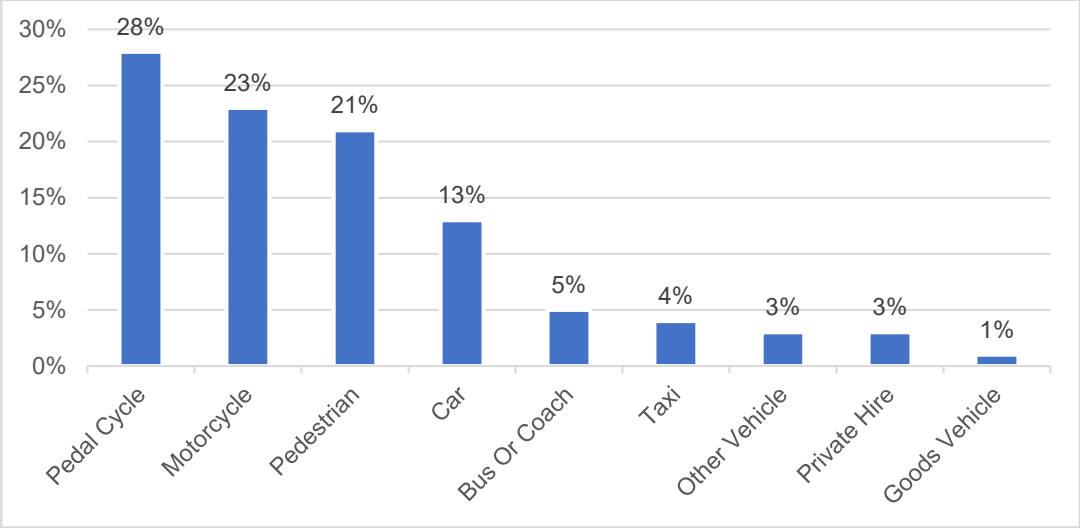


Figure 27 All collisions in the EAP boundary by mode (September 2019 - September 2024)

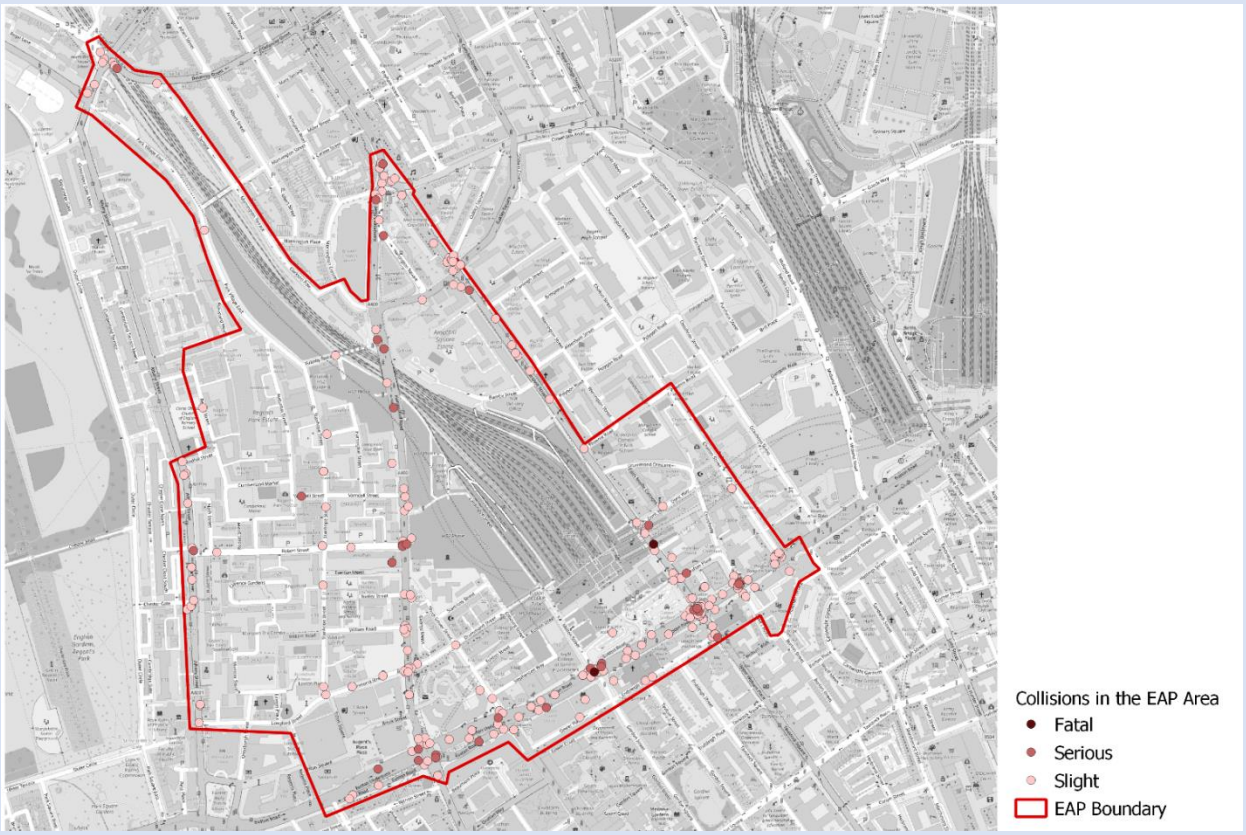


Figure 28 Serious and fatal injuries within the approximate EAP boundary (September 2019- September 2024)

The mayor's 'Vision Zero Action Plan[51]' sets out measures to reduce road danger, supporting TfL's Vision Zero targets. This document identifies that three quarters of fatal and serious collisions in London occur at junctions, so addressing known safety concerns at junctions is fundamental to achieving Vision Zero. Based on previous accident data, Camden's Road Safety Action Plan [52] also identifies priority junctions for improvement within the borough. Those within the EAP boundary include Euston Road / Upper Woburn

[51] Transport for London, 2018. Vision Zero Action Plan
[52] London Borough of Camden, 2019. Camden Road Safety Action Plan

Place / Eversholt Street, Euston Road / Judd Street (which has since seen safety improvements), and Euston Circus (Euston Road / Tottenham Court Road / Hampstead Road junction).

Personal safety

As well as road safety issues, there are also concerns around personal safety within the urban environment that need to be addressed. Everyone should feel safe in public spaces, especially at night-time, but women are often disproportionately affected by poor design which may impact their travel choices and make them feel more vulnerable in certain areas. Research has shown that 55% of women would not use public transport after dark and that 34% state feelings of insecurity have stopped them from travelling at times.[53] UN Women found that over 70% of women in the UK have been sexually harassed in public spaces, with only 3% of women aged 18-24 saying they had not been subject to sexual harassment[54].

According to the Met Police crime map[55] the area in and around Euston station is a crime hotspot, with 341 crimes reported in October 24 alone, of which 45 were related to violent and sexual offences. Of these, 22 were reported between Hampstead Road and Eversholt Street, including within the station itself.

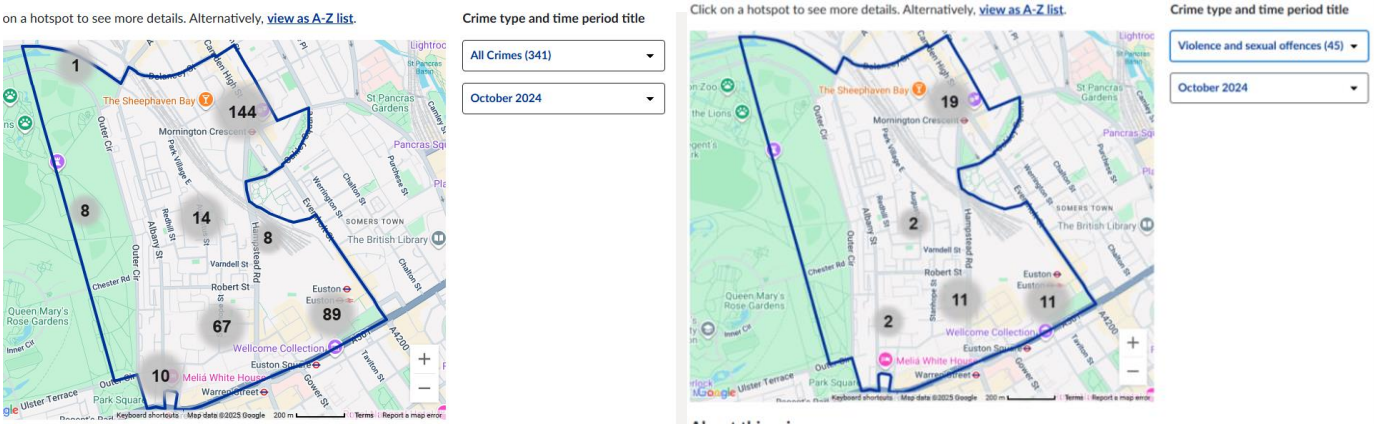


Figure 29 Met Police crime map (Regent's Park) Oct 2024[56]

Designs for the Euston Masterplan Development therefore should consider how issues affecting personal safety can be improved.

Access to public transport

Public Transport Accessibility Level (PTAL) ratings provide a measure of how easily the public transport network can be accessed from a given location, (within a sub-divided grid of London). The rating considers walking distances and service availability and grades each area between 0 and 6b, where a score of 0 is very poor access to public transport, and 6b is excellent access to public transport. Figure 30 shows the PTAL ratings for the Euston Area.

Most of the Euston area already benefits from the highest PTAL level available, due to the excellent range of public transport services already available at the station and across the wider area. This will be improved further with the arrival of HS2 and potentially Crossrail 2 (although this is currently on pause). Levels drop to around a 3 or a 4 west of the station towards Regents Park, due to the lack of public transport available within the park itself. The high PTAL level combined with the number of trip attractors in the area means there could be scope to encourage more onward journeys to be made by sustainable modes (as part of multi-modal journeys) were the right conditions are in place.

[53] Arup, March 2021. Travelling in a Woman's Shoes
[54] All Party Parliamentary Group, 2021. Prevalence and reporting of sexual harassment in UK public spaces
[55] Metropolitan Police, n.d. Regent's Park
[56] Metropolitan Police, n.d. Regent's Park

Figure 30 Euston Area Public Transport Accessibility Levels (PTAL)[57]

Taxis and Private Hire Vehicles

The previous taxi rank at Euston station, located in a basement in the southwest corner of the Network Rail station and accessed via one-way ramps on Melton Street, was decommissioned in 2019 to help facilitate construction of the new HS2 station. An interim taxi facility opened at the same time on the western side of Euston Square Garden's.

Box 11 Taxis & PHVs

Since April 2024, the interim taxi rank for Euston has been relocated to the eastern side of Euston Square gardens, while access for passengers with reduced mobility remains on the western side of the gardens. The interim taxi rank is expected to remain in its current location until the completion of HS2.

At present there is significant PHV activity in the area with no formal management (such as dedicated pick-up or drop-off bays) aside from occasional civil enforcement rounds. Consequently, the southern end of Eversholt Street around the main entrance to Euston Station is often congested with PHVs picking-up and dropping-off passengers by stopping in a small informal lay-by or by double parking. PHV services then often make three-point turns in the middle of the road to continue their journey, further contributing to congestion and potentially impacting road safety.

The Council is developing plans to introduce additional restrictions to prevent PHVs from dropping off and picking up unsafely. Surveys undertaken by Camden show that there are over 100 individual recorded instances of passenger pick up or drop off during peak hours (on both weekdays and Saturdays) between Lancing Street and Drummond Crescent. Overall, a better strategy for managing PHV activities in the area is required and it is recommended the Euston Partners work together to develop a management strategy for the area,

Air Quality

The MTS highlights the scale of air quality issues across London. Air pollution caused by carcinogenic diesel emissions, high levels of nitrogen dioxide (NO2) and particulate matter contribute to and exacerbate health conditions and shorten the lives of Londoners.

[57] Transport for London, n.d. WebCAT Planning Tool

The Ultra Low Emissions Zone (ULEZ) was expanded to cover all London boroughs in August 2023. As a result, 95% of vehicles driving in London on an average day now meet the ULEZ emission standards, up from 39% in 2017. NO2 emissions from cars and vans are 13% and 7% lower than would have been expected without the ULEZ expansion. Particulate matter exhaust emissions from cars and vans are 20% lower than they would have been without the expansion. Under the expanded ULEZ, NO2 levels are also 53% lower in Central London (south of Euston Road) and 24% lower in Inner London (north of Euston Road).

Despite this progress, all sites across the EAP area still exceed the World Health Organizations recommended limit of 10µg/m3 for NO2. In 2023 in the Euston area, NO2 levels were highest on Euston Road (46µg/m3) and Hampstead Road (39µg/m3). This data comes from Camden's air quality monitors on site.

Hampstead Road has seen the lowest level of improvement, which could be due to vehicle movements associated with HS2 construction. In the first 9 months of 2025, 30-80 HGV movements to and from sites that are typically accessed via Hampstead Road were recorded. However, this number of movements is much lower than what is forecast for the busiest periods of the HS2 construction programme in the Environmental Statement for the Euston Station and Approaches Area of Phase 1. In peak construction periods of the HS2 project, it is expected that approximately 400-600 two-way HGVs trips will be made to compounds that are accessed via Hampstead Road daily. This will negatively impact air quality, even if these vehicles required to be LEZ compliant.

Future healthy streets measures in the Euston area will also help support improved air quality, by creating a healthier urban environment.

Future Travel Patterns

Euston already benefits from excellent access to public transport, but a range of additional infrastructure projects (described below) will improve the station's connectivity and widen passenger travel choices further. Results of the strategic transport modelling undertaken to support this study, which considers both the arrival of HS2, and the development foreseen by the EAP, are summarised at the end of this section.

Box 12 Future Infrastructure Planning

It should be noted that following government announcements around HS2, there is currently some uncertainty over the exact transport improvements which will be delivered at Euston and how they will be funded. At present, until any formal decisions are made, it is assumed all HS2's previous obligations, as referenced elsewhere in this document, remain. It is assumed that any changes proposed to the HS2 station (including to any committed infrastructure improvements) which would impact on the demand for travel, would need to be subject to further analysis and modelling to demonstrate their acceptability and that that would occur as part of the HS2 workstream. Any proposed changes to the infrastructure being delivered should be based on modelling which uses the most up to date assumptions and be suitably sized to accommodate all anticipated growth. This is in order to avoid any potential future limitations on the amount of development it is feasible to deliver on the site, due to the transport offer being constrained.

Rail travel

Significant changes are proposed at Euston with the arrival of HS2 services and the potential upgrade of the exiting Network Rail station, both of which could impact on the way people travel to the station. There

are also changes being delivered to the wider public transport network due to commitments made as part of the HS2 Act.

HS2 will more than double the number of seats (although it should be noted the proposed level of service is currently subject to review) out of Euston Station during peak hours and free up space on the west coast mainline for more local and long-distance commuter services.

Future station facilities

London Underground facilities will be improved, with new station entrances planned for both Euston and Euston Square stations. The latter will help further improve interchange opportunities between the two stations. Both stations will also have fully accessible step-free access from the street to train for the first time once complete. It is currently assumed that all required LU station upgrades at Euston will be delivered by HS2 and be suitably sized to accommodate both the rail and the associated development demand. All modelling needed to support the ongoing design development for the LU station upgrade is being undertaken as part of the HS2 workstream and has not been replicated here. For the EAP, it has been assumed that a suitably sized facility which can accommodate all demand anticipated on site will be delivered. Without a suitably sized LU station, there may end up needing to be restrictions on the amount of development which can be accommodated.

Network Rail are considering options to regenerate the existing Euston Station, which provides commuter and long-distance rail services to the north. This regeneration may also contribute towards the provision of new homes and jobs above and around the station.

Crossrail 2

In further recognition of the important strategic transport role that Euston plays, proposals for a new regional or metropolitan rail route linking southwest London to northeast London and beyond (Crossrail 2), will be safeguarded, although the delivery of this project is currently on pause.

Bus Station

The bus station provides an important interchange function for passengers making bus-to-bus journeys alongside those interchanging between modes. It is also essential for bus operations, providing important bus standing space.

The highway network in Euston can act as a barrier to buses as there are banned turns in place at multiple junctions, which limits bus movements. This includes at the junction of Euston Road with Eversholt Street.

Additional bus stops and stands with good interchange between bus and rail will be required to meet the demand from HS2 and new developments. Strategic modelling shows that in 2041 there would be c. 23,000 bus trips in the 3-hour morning peak with the upper development scenario, compared to c.18,600 without it. Onward travel by bus will also help reduce crowding on the Underground. As such, the need for a suitably sized bus station, which meets bus passenger and operational requirements remains. Consideration will also need to be given to how on-street bus stops can best help support the operation of the wider bus network in the area.

Whilst the increase in passenger demand at Euston will require adequate space for buses to operate, it is also important that bus facilities enhance movement for pedestrians and cyclists around the station and more widely in the Euston area and contribute positively to the public realm and townscape.

Any proposals related to the delivery of a new bus station should also consider how they would help maintain/ improve bus speeds and journey time reliability.

Car Parking

It is proposed that all development at Euston will be car free except for the provision of dedicated spaces for blue-badge holders and essential servicing vehicles.

Strategic Transport Modelling Insights

As referenced in the Introduction and Background sections, three different growth scenarios for Euston were tested in the 2041 strategic model. Detail of the forecast growth for these scenarios is shown in Appendix A. For the purpose of understanding the impact on transport under a worst-case scenario (in terms of the number of trips the site is expected to generate), the headline results of the upper growth scenario are set out below. For more detail, see Appendix A.

Trip Generation (Upper EAP Scenario)

- For trips under 2km, walking and cycling make up over half of journeys to and from Euston, with the majority of remaining journeys made by public transport (92% of journeys under 2km made by sustainable modes)
- For trips between 2-10km, just under half are made by rail and just over a quarter by bus, while around one tenth of trips are made by cycling
- For journeys over 10km, the vast majority ~90% would be made by rail
- Around 40% of cycle trips are travelling a distance exceeding 5km (20 minutes)
- Around 20% of walk trips are travelling a distance exceeding 2km (25 minutes)
- Fewer journeys are made by cycle under 2km than between 2-5km and 5-10km (10-8%)
- Forecasts show a very slight shift towards rail across all distances with Lower and Upper EAP development scenarios (in the order of 1-2% per band)

Highway Impact

- In the Upper EAP scenario, the volume capacity ratio is expected to exceed 99% on some key links around the station, including Hampstead Road
- The difference in highway network delays in the study area between the no EAP and Upper EAP scenarios is minimal as many of the streets surrounding Euston already have high congestion levels; moreover, car free development policies will limit the amount of vehicular traffic that would be generated in an Upper EAP scenario

Public Transport

- Modelling shows that in the lower and upper EAP growth scenarios, the Metropolitan, Hammersmith & City, Circle and Victoria Lines would see particular growth, while bus, rail and the Northern Line are expected to see little impact. Bus, rail and the northern line may see little impact due to already being at capacity and passengers being ‘crowded off’ onto other options.
- The EAP scenarios all have a similar (little) impact on bus journey times, given they are all car free and not anticipated to generate much traffic
- Bus demand is expected to increase on southbound routes on Eversholt Street, eastbound on Euston Road, northbound on Southampton Row, southbound on Hampstead Road. Additional buses may need to be provided, and this will need to be assessed in more detail as individual planning applications are submitted for the site.

Walking

- There are opportunities to reduce severance and increase walkability and wayfinding
- The most dominant pedestrian desire lines in the Upper EAP modelling scenario are to the north (Camden Town), South (Bloomsbury) and East (King's Cross)
- Gordon Street and Upper Woburn Place are forecast to be particularly busy
- Pedestrian routing on Euston Road expected to dominate

Cycling

- Opportunities to increase cycling include east-west routes, e.g. Marylebone Road and the King's Cross gyratory, and north-south routes on Eversholt St, Hampstead Road and into Central London

- The most dominant cycling desire lines in the Upper EAP modelling scenario are to the south (Bloomsbury and Fitzrovia), the southeast (Holborn / Clerkenwell) the east (King's Cross) and northeast (Islington)
- Trips by cycle are forecast to increase because of EAP development and it is likely that with the significant increase seen in the use of micromobility services in recent years, many of these would be made by dockless bikes or scooters

PHVs

- The strategic modelling undertaken showed that EAP development is expected to increase PHV trips. Without any new development at the station there were forecast to be around 1,000-1,200 PHV trips during the peak periods, rising to around 1,400 peak hour trips in the Upper EAP development scenario.
- The latest model forecasts, developed by TfL since the Covid pandemic show a reasonably static picture of PHV demand across Camden between now and 2041 – being around 2%-3% of trips.

4. Summary of transport challenges and opportunities

Introduction

This chapter synthesises the key issues and opportunities identified in Chapter 3 and the Euston Healthy Streets Vision and sets out the target transport outcomes for the Euston Area Plan. The proposed transport interventions for the Euston Area (set out in Chapter 5) will be assessed against these outcomes at the end of the study.

Challenges and Opportunities

Maximise benefits of Euston as a world-class, accessible transport interchange

Major change is happening at Euston, enabled by the arrival of HS2. This will deliver improvements to existing public transport and the surrounding highway network as secured through the HS2 Act.

The project is a once in a generation opportunity to secure major transport benefits for the area. Alongside the LU upgrades referenced above, HS2 will also be responsible for delivering a new bus station and taxi rank, both of which are important modes for people with disabilities and accessibility requirements. They also present the challenge of trying to balance excellent operational performance with the creation of a more accessible, attractive public realm that is not overly dominated by motor vehicles.

Improvements to the wider street network will also be needed alongside the transformation of the station and public transport infrastructure, to create an integrated transport network in which passengers can easily make the most sustainable and active transport choices. Proposals for the new station should integrate seamlessly with surrounding streets and open new north-south and east-west walking and cycling routes through the area where feasible, so that existing passengers and people travelling to/ through the area can also benefit.

Manage the performance of the highway network to protect essential journeys and improve road safety for all users

The scale of growth potential is a fantastic opportunity for the Euston area.

Steps to improve safety, congestion, air quality and conditions for pedestrians and cyclists to encourage mode shift will need to be balanced with the need to ensure essential traffic, such as buses and freight, are not subject to excessive delays on pressured parts of the highway.

In line with Vision Zero, competing pressures on road space need to be managed to provide safe routes for people walking and cycling. This will be important given the significant uplift in pedestrian activity forecast due to HS2 and the other changes proposed for Euston. Strategies to improve efficiency may include introducing measures to discourage non-essential vehicular trips, such as by restricting through traffic on minor roads where proven feasible and introducing sustainable freight management strategies in the new development.

Improve local connectivity and reduce severance

The regeneration presents an opportunity to significantly improve local connectivity and wayfinding. Walking and cycling routes within the Opportunity Area north of Euston Road are fragmented and longwinded due to physical barriers (such as road and rail infrastructure) which can restrict movement. Whilst the area has a dense pedestrian network beyond the existing station, wayfinding is in some locations poor and making use of these routes can be challenging due to severance and poor air quality amongst other issues.

Improve the health of residents and commuters and facilitate travel by sustainable modes

The EAP offers an opportunity to drive behaviour change by encouraging the delivery of infrastructure improvements that will help support more people to walk and cycle for all or part of their journey. This is in line with the mayor's aspiration for 95% of all trips within central London to be made using sustainable modes of transport.

Implementing the Healthy Streets Approach will be key to encouraging behaviour change for both existing and new residents and commuters. Any improvements to air quality and noise levels gained from reducing traffic and delivering public realm improvements may also benefit the health and wellbeing of people living, working and passing through the Euston Area.

Ensure the full integration of development and transport at the station

The new workplaces and homes created will need to be integrated with the transport network to ensure this development is sustainable. Strategic modelling shows a slight increase in car trips with the EAP development, which is likely being driven by the increase in retail floorspace at Euston, to which current modelling erroneously assigns an uplift in car trips. However, car-free development policies should limit this impact. There is also a significant increase in taxi and private hire use associated with the new HS2 services.

Incorporating the Good Growth principles set out in the London Plan, such as building new developments in places well served by public transport and delivering good quality walking and cycling routes will help to promote active lifestyles and tackle some of the key challenges facing Euston.

Transport Outcomes

The challenges and opportunities outlined above have been assessed alongside the previously identified aspirations of the Euston Healthy Streets vision and are in alignment. Therefore, adopting the Euston Healthy Streets Outcomes as the target transport outcomes for street-level interventions for the EAP is considered appropriate. As the Euston Healthy Streets project develops, new outcomes may emerge, which would need to subsequently be adopted by the EAP. The Euston Healthy Streets Outcomes, originally presented in Table 1, are presented in brief in the table below. Indicators have been added that can be used to measure progress against these outcomes for the Euston Masterplan Development and area within the EAP boundary specifically.

In addition to the Healthy Streets outcomes, another key transport outcome relates to the requirement for a suitably sized London underground station that can accommodate the level of demand expected on site.

Table 3 Euston Healthy Streets Vision Outcomes[58]

Healthy Streets and People	
Outcome	**Indicators of success**
Places for walking: deliver a high quality, safe and inclusive walking environment, remove existing barriers and prioritise pedestrian crossings and comfort. Support urban realm and place making opportunities.	• Increase in walking network density • Mode shift to walking / increased number of walking trips, including on alternative routes • Reduction in collisions involving pedestrians • Improved / optimised results in accessibility audits and Healthy Streets Checks • Reduced severance on Euston Road
Connected cycling: enable high quality, safe and well-connected cycle routes. Prioritising crossing points over the Euston Road that link into the existing and planned cycle networks. Ensure easier and safer east-west and north-south movements through the project area with good quality cycle infrastructure that links to the cycle network and key destinations.	• Increase in cycling network density • Mode shift to cycling / increased number of cycle trips, including on alternative routes • Reduction in collisions involving cyclists
Road Danger Reduction: prioritise measures to reduce collisions, particularly those involving cyclists and pedestrians, in known hotspots considering future changes in street layouts.	• Reduction in collision rates and severity, especially for vulnerable road users
Efficient use of street space: reallocation of space / capacity from cars to support walking, cycling and public transport outcomes, fostering a positive perception of routes to maximise connectivity and support mode shift. Reduce adverse impacts of freight and service vehicles on street network in line TfL's freight action plan, including considering more sustainable loading and servicing practices.	• General traffic volumes reduced on key routes in the EAP area • Rates of PHV and taxi parking loading and waiting • Delivery and Servicing Plans in place for all new development • Actions from Camden's Freight and Servicing Action Plan adopted campus wide, including micro-consolidation • No increase in transport emissions from new development • Junction capacity within the EAP area is at an acceptable level • Journey times for buses are operating at an acceptable level (with bus priority measures potentially implemented where proven necessary/ feasible) • Mode shift to walking and cycling

[58] Transport for London & London Borough of Camden, 2021. Our Vision for Euston Healthy Streets

Improve the environment: identify opportunities to deliver green infrastructure, improve air quality, reduce traffic noise, reduce private car use and prioritise sustainable modes of travel	• Increased density of seating • Increase in greenspace • Improved air quality • Reduced noise pollution • Improved street maintenance and street cleaning etc.
Good public transport experience	
Quality Public Transport: delivery of a high-quality bus interchange which supports onward journey by sustainable modes	• Public transport infrastructure performs at a high level when modelled and constructed
Enhancing customer service: high quality, legible and accessible transport interchange between Euston and Kings Cross through bus, cycle and walking connectivity	• Increase in density of walking routes in the area • Increase in walking and cycling counts in the area • Bus journey times are operating at an acceptable level • Improved positive campus user feedback • Improved accessibility audit results
Local Community	
Meeting the needs of the Local Community: explore opportunities for removing existing barriers that disconnect the communities surrounding Euston Station and work with the Local Community to ensure their transport, movement and public realm needs and priorities are accounted for within the EHS proposals	• Increase in density of walking routes • Increase in greenspace • Improved air quality • Reduced noise pollution

5. An integrated transport strategy for Euston: Interventions and solutions

Introduction

In response to the challenges summarised in Chapter 4, this chapter details the potential transport interventions that will be delivered in the Euston Area and assesses them through application of specialist knowledge, evidence, and stakeholder feedback. There are three key workstreams through which interventions will be delivered:

i) The joint TfL – Camden-led Euston Healthy Streets Programme, which will require third party funding
ii) Public transport and other upgrades to be delivered through the HS2 project
iii) Other transport measures required to support the delivery of the masterplan, to be delivered by the Developer

To support the level of growth promoted by the EAP and ensure it is integrated into the urban environment sustainably, transport connectivity, accessibility and capacity improvements will be required. We have assessed the suitability of a range of proposed transport interventions against the challenges and opportunities identified throughout this document, alongside the following:

i) The objectives of the Mayor's Transport Strategy (see Chapter 2)
ii) The objectives of Camden's Transport Strategy
iii) The outcomes of strategic transport modelling (see Appendix A and Chapter 4 Introduction)
iv) The Euston Healthy Streets Vision

As outlined at the end Chapter 4, outcomes of the Euston Healthy Streets Vision are considered to align with the desirable outcomes identified in this study. The interventions outlined in this chapter are therefore assessed for their potential to deliver these outcomes in Appendix C.

HS2 Act

Since the 2015 EAP was adopted, HS2 has been granted Royal Assent and with it committed to delivering several transport improvements, which will increase capacity to accommodate the additional demand that HS2 will generate. This includes the items summarised below and considered in more detail later in the chapter.

HS2 has/ will consider the impact of these interventions separately as part of its own ongoing design development process. As such, for the purposes of this study we have assumed that any infrastructure delivered by them would be suitably sized to support the additional demand being generated by both the OSD and the new railway. As such, we have not considered it necessary to appraise the acceptability of the individual schemes which are due to be delivered by HS2, as it is assumed this has / will be done separately.

If as a result of the ongoing design development discussions which are underway any changes are proposed to the transport infrastructure HS2 is anticipated to deliver, these revised proposals would need to be assessed again as needed through that workstream, to demonstrate that they remain fit for purpose.

HS2 commitments, as set out in the HS2 Act include the delivery of the following transport measures which would help support the redevelopment of Euston. As mentioned elsewhere, it should be noted that the design and status of these is currently under review following the Euston pause and therefore may be subject to change. At present, for the purpose of this study, it is assumed they will still be delivered by HS2, as per their obligations in the HS2 Act:

- A new LU station entrance and ticket hall at Euston station
- A new Euston Square LU station entrance and ticket hall located on Gordon Street
- A passenger subway linking Euston Station and Euston Square Station under Euston Road
- New local crossings and connections
- A new linear bus station
- A new 60 bay taxi rank
- New and additional cycle parking
- New and additional cycle hire docking stations
- Travel demand measures
- Safeguarding of the Crossrail 2 ticket hall and associated infrastructure

Along with over-station walking and cycling routes were not committed to in the HS2 Act but were identified as an aspiration in the previous EAP.

Euston Healthy Streets Schemes

The joint Euston Healthy Streets Programme led by TfL and Camden will deliver a range of improvements on key roads surrounding Euston Station to deliver on the outcomes set in the Euston Healthy Streets vision (described in detail in Chapter 2). The impact of these proposed measures will be appraised separately through the Euston Healthy Streets workstream itself, including undertaking modelling for individual proposals prior to implementation where needed. As such, it was not considered necessary to formally appraise the suitability of individual Healthy Streets measures as part of the EAP. Instead, the document seeks to identify the highway outcomes we are looking to achieve at Euston and should be considered as part of any highway proposals put forward by the developer and others at Euston.

Table 4 provides an indication of the changes which could potentially be made to each street, noting that this is indicative only and subject to change. Work is currently at an early stage and likely to evolve as part of the ongoing design development and internal governance processes. Whilst some high-level modelling has been undertaken to understand the impact of making changes to the network, individual proposals for change will be subject to further analysis and testing (including relevant detailed modelling) to demonstrate their acceptability prior to implementation.

TfL and Camden will further engage key stakeholders as designs develop, to ensure that the best solution can be delivered in the most affordable way possible. It is anticipated that some of the changes will be delivered by the key organisations working in Euston (HS2, Network Rail, developer) as part of their works in the area. Developers might also be required to make financial contributions towards delivering improvements related to their development.

Table 4 Camden and TFL Led Schemes

Euston Rd	Hampstead Rd	Eversholt Street
Carriageway: 2 lanes - 1 x general, 1 x bus with stops **Cyclists:** junction safety improvements **Pedestrians:** Footway widening and good suitably sized north-south crossings. Straight across crossings across all junction arms where feasible	**Carriageway:** 1x general traffic lane **Cyclists:** segregated cycle lane **Pedestrians:** footway widening and good east/ west crossings **Buses:** bus lane only where space allows (northbound) **Urban realm improvements:** street cleaning and maintenance etc.	**Carriageway:** no private vehicles except for local access / traffic restriction at the southern end of Eversholt St, retaining access for buses, cycles and possibly taxis **Cyclists:** improved conditions for cyclists (less traffic, segregated tracks north of Phoenix road)

Buses: bus lane **Urban greening:** Street greening to enhance pedestrian amenity and climate resilience **Urban realm improvements:** street cleaning and maintenance etc.		**Pedestrians:** improved conditions for peds (wider pavements, better crossings) **Buses:** access for bus only, with a bus gate between Grafton Place and Doric Way **Urban greening:** Street greening to enhance pedestrian amenity and climate resilience **Urban realm improvements:** street cleaning and maintenance etc.

Box 13 'Reimagining Euston Road' event

Camden and TfL have been developing designs for short and long-term initiatives as part of the Euston Healthy Streets project during the EAP update period. Some schemes will likely be deliverable ahead of HS2's completion, while others will be delivered afterwards.

In 2024, Camden launched a 'coalition of change' for Euston Road through a workshop in which representatives from the community, local institutions, developers and other stakeholders were asked to 're-imagine Euston Road'.

Findings from the workshop will help identify some pilot projects which could potentially be implemented along the Euston Road corridor, subject to further work being undertaken to demonstrate their acceptability and the identification of a suitable funding pot.

This is currently considered separate to the Healthy Streets workstream, although some of the pilot projects identified could potentially feed into it, depending on what is being proposed.

HS2 Committed improvements

As stated above, a package of transport improvements was previously secured as part of the HS2 Act, and consultation on the latest station designs was undertaken in 2022[59]. Whilst all these measures are currently subject to change as referenced elsewhere, a summary of what was assumed at the time the Transport Study was originally drafted is presented below, alongside an update on their current status.

As referenced elsewhere, all modelling needed to support the ongoing design development for these measures is being undertaken as part of the HS2 workstream and has not been replicated here. For the EAP, it has been assumed that all new transport facilities being designed and/ or delivered by HS2 will be suitably sized and capable of accommodating all demand anticipated to be generated on site from both

[59] HS2 and Partners, 2022. Euston Station Design: Spring 2022 Engagement

from the rail uses and the proposed development. If this isn't the case, there could end up being restrictions on the amount of development which can be accommodated on site.

London Underground improvements

- **A new LU station entrance and ticket hall at Euston**

  A new, suitably sized LU ticket hall will be provided at Euston station. This will be a new standalone entrance that is operationally independent from the HS2 / National Rail station, which will represent a significant improvement to the current arrangement. The new station entrance will improve access to the station, improve permeability through the area, increase capacity and operational flexibility, all of which will benefit passengers travelling to and from Euston via the Underground. Future spatial planning work will determine the precise layout of the new station, which TfL considers to be an essential infrastructure upgrade needed to support journeys to/ from both the HS2 and Network Rail stations, alongside the proposed development.

- **A new Euston Square LU station entrance and ticket hall located on Gordon Street**

  A new LU station entrance will be provided on Gordon Street, significantly improving interchange between Euston station and LU services at Euston Square. This proposal also requires the pedestrianisation of Gordon Street from the junction with Euston Road to Endsleigh Gardens. Banning traffic from Gordon Street will free up capacity at this junction for traffic moving along Euston Road. This will partially balance out the additional capacity required to accommodate the increase in pedestrian crossings which are needed on Euston Road to support the increased demand. Discussions are currently underway regarding the future of this station entrance. TfL still consider it necessary to support efficient travel to/from Euston and to improve the interchange function of the station.

- **Euston Square Link**

  A new below-ground link will be built connecting Euston and Euston Square stations (via the new Gordon Street entrance). It is envisaged this will take the form of a new underpass under Euston Road, which would also help in part mitigate the impact of a significant uplift of pedestrians at street level, therefore helping to relieve some of the stress on Euston Road. Discussions in relation to this link are ongoing, and we strongly believe that it is still needed to support pedestrian movement through the area and to reduce the pedestrian impacts at surface level. Without it, there would be a lot more pressure on the network at street level, which may require additional mitigation measures to be implemented (e.g. improved and wider crossings) to ensure pedestrians can move safely and efficiently through the area and would likely present challenges given the strategic role Euston Road plays in the movement of traffic.

Figure 31 Visualisation of the new Gordon Street LU Station Entrance (subject to design development)

Surface Access Improvements

- **A new bus station**

. A new linear bus station for Euston was secured at the Bill stage. Ensuring that the operational needs of the bus station and its passengers are met, alongside delivering a high-quality public realm and a more permeable environment for pedestrians and cyclists is a key aspiration of the EAP. To ensure that a suitable bus network can continue to operate in the future, TfL's passenger and operational requirements should be considered in full as part of the ongoing design development process. More detail on requirements for the bus facility are provided in Appendix D.

Box 14 2025 Bus Facility Layout Status

Recent work for the future Euston Masterplan Development, informed by a TfL feasibility study, has identified that a linear bus station layout, in front of the new stations along the northern edge of Euston Square Gardens, is the most suitable location for the new bus facility. The exact form this will take, including whether it should be a one-way or two-way linear facility will be considered in more detail during the next phase of design development. The bus station will need to be suitably sized to accommodate the level of bus demand anticipated in the future.

- **A new 60 bay taxi rank plus private hire vehicle provision**

HS2 are committed to providing a new taxi-rank, with enough capacity to cater for the increase in demand arising from HS2. Potential suitable locations for this are currently under review.

Box 15 2025 Taxi Facility Layout Status

Following the recent spatial integration work for the future Euston Masterplan Development it is anticipated that one consolidated taxi facility will be provided on the western side of the Euston Masterplan Development. This would be complimented by some limited spaces for pick-up and drop-off for passengers with reduced mobility on Eversholt Street. A more detailed feasibility study is now required to inform further design development. The outputs of this work will help inform future management strategies for taxis and PHVs.

Requirements for taxis and Private Hire Vehicles (PHVs) need to be considered separately and it will be important for these two modes to be managed holistically. For taxis this will include providing appropriate ranking facilities to help limit on-street impacts, whilst for PHV's drop-off and pick-up need to be managed in a way that has the least detrimental impact on other road users. Management strategies for both modes will be needed and will need to be developed, owned and implemented by the relevant Euston Partners.

The following measures should be considered as part of the ongoing design development process and when identifying a suitable location and management approaches for taxis:

- Designing taxi ranks that minimise conflicts for pedestrians and cyclists
- Active management of queuing and good driver behaviour using marshals and suitable enforcement mechanisms (requires funding)
- Increasing taxi occupancy rates by using taxi-share and other initiatives (requires funding)
- Designing facilities to encourage train passengers who are able, to walk, cycle (includes shared mobility) and use public transport instead of taxis
- Designing intuitive wayfinding to the ranks that appeals to passengers who need taxis the most (those with impaired mobility)
- If taxi ranking cannot be accommodated within the Euston Masterplan Development (first choice), any on-street taxi ranking, pick-up and movements should be designed to avoid sensitive areas and adversely impacting residents or businesses
- Avoiding taxi provision that risks compromising improvements for pedestrians, cyclists and public transport users

➢ **Private hire vehicles**

Consideration should be given on how to best manage private hire vehicles dropping off and picking-up passengers, to minimise the impact on the local highway network. No specific measures have been developed, and this should be considered in the future through the development of PHV and Taxi Management Strategies. These should consider how technology changes could help mitigate the impact of private hire vehicles in the area. The strategies should also consider how the introduction of autonomous private hire vehicles in the next two decades could impact vehicle behaviours (including for drop-off and pick up) and compliance with private hire vehicle exclusion zones. The strategies would need to be developed, owned and managed by the relevant Euston Partners.

Active Travel

New local crossings and connections

Crossings

To support the significant uplift in pedestrians expected due to the new HS2 station and proposed development, an improved crossing is planned on Euston Road. This will include a widened pedestrian crossing and a new signalised cycle crossing that will connect new cycle lanes on Cobourg Street and Gordon Street.

Through-station connections

The EAP aspiration is to achieve improved north-south and east-west walking and cycling connectivity across the site and HS2 have commitments to do so, although there are limitations to what can be delivered within the confines of the HS2 station alone. North-south connectivity improvements may include an improved route along Cobourg Street connecting Hampstead Road with the HS2 station and Euston Road.

There will however be new and improved east-west connections delivered by HS2, including one along the frontage of the new station.

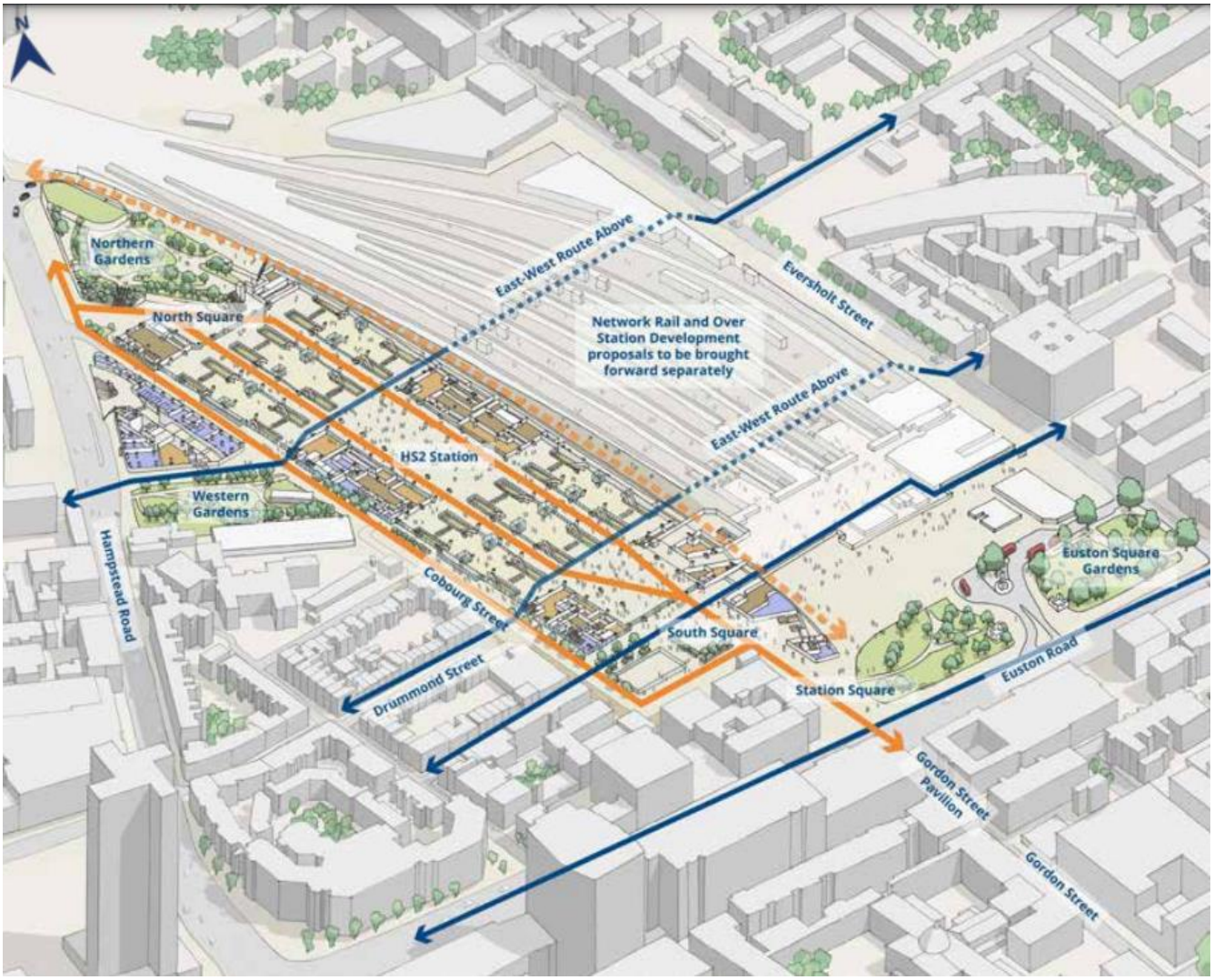


Figure 32 Previous indicative north-south and east-west connections across the site[60]

Box 16 Budget implications for through and over-station routes

Changes to the station design have been proposed since this document was originally drafted, which will impact the ability to improve and deliver east-west connections over and through the station. Notwithstanding this, it is recommended that improving these connections remains a long-term ambition.

In a scenario where these enhanced walking and cycling routes north-south and east-west through the Euston Masterplan Development cannot be provided due to these changes, then enhancement of alternative walking and cycling routes immediately around the station will become increasingly important. This includes enhancements mentioned elsewhere in this study, including in Somers Town, on Eversholt Street, on Granby Terrace Bridge, Robert Street, Longford Street, and on the Wellbeing Walk south of Euston Road.

Options which would enable over- and through-station routes to be delivered in the future, e.g. through new station entrances, should be safeguarded where feasible.

- **New and additional cycle parking**

HS2 are committed to providing 2,000 safe, secure and convenient cycle parking spaces across two new cycle parking hubs, the location of which is still under discussion. The expectation is that wherever these

[60] HS2 and Partners, 2022. Euston Station Design: Spring 2022 Engagement

hubs are located, they should also provide complimentary facilities for cyclists e.g. lockers, showers, cycle surgery where feasible. New cycleways should also be considered to help facilitate access to the new hubs.

Additional cycle parking will be needed to serve the Network Rail station and the wider Euston Masterplan Development. The cycle parking provision will need to have a suitable split of long-stay and visitor spaces and be designed to be convenient and accessible for visitors.

The number of cycle trips is expected to grow due to the arrival of HS2 and the Euston Masterplan Development. Cycle parking should be provided to accommodate this uplift and additional long-term growth. The overall provision of cycle parking across the Euston campus should, as a minimum, meet the policy requirements set out in the London Plan[61] and seek to support the measures and targets set out in TfL and Camden's Cycling Action Plans[62] [63].

Cycle parking at Euston Station should be located to allow cyclists to access it safely on key desire lines from the surrounding network, be close to station entrances, well-lit and subject to natural and more formal surveillance. Cycle parking should be designed to a high-quality standard, in line with the London Cycle Design Standards (LCDS)[64]

- **New and additional cycle hire docking stations**

HS2 are committed through the HS2 Act to delivering 200 new docking facilities, with locations subject to further discussion. Additional cycle hire facilities may be needed to serve any uplift in commercial/ residential floorspace arising from the redevelopment plans. TfL's Cycle Hire team can advise further on the level of additional capacity required upon receipt of more detailed information about the plans for the area.

Other Measures

- **Further walking and cycling improvements**

Further infrastructure improvements for both pedestrians and cyclists will be needed to support the uplift in demand arising from an improved Network Rail station and the Euston Masterplan Development, especially on strategic roads within the EAP boundary. The improvements needed for each user group will differ and be independent of each other and will be explored further through the Euston Healthy Streets workstream. Future planning applications for both the Euston Masterplan Development and the Network Rail station will also need to consider what improvements may be needed to support local walking and cycling networks.

Pedestrian modelling conducted in 2023 showed that the following areas would see the greatest impact from pedestrian demand increases: Gordon Street, Upper Woburn Place, Euston Road west of Gordon Street and west of Dukes Road, Euston Square Gardens (southeast corner) Robert Street. For further details on pedestrian modelling outcomes see Appendix A. Improvements may need to include new signalised pedestrian crossing facilities.

- **Bus Priority measures**

[61] GLA, 2021. The London Plan 2021
[62] Transport for London, 2023. Cycling Action Plan 2
[63] London Borough of Camden, 2019. Cycling Action Plan
[64] Transport for London, n.d. Streets Toolkit

TfL's Bus Action Plan [65]sets a vision to provide customers with attractive journey times on buses. As such any proposals coming forward which affect the highway should consider whether its desirable and/ or feasible to also deliver any associated bus priority measures. As a minimum it will need to be ensured that all proposed highway schemes protect bus speeds and journey time reliability. TfL will be exploring what specific bus priority measures (e.g. dedicated bus lanes) could/ should be delivered through Euston Healthy Streets and other workstreams. Any future development may be required to deliver mitigation measures if the proposals have a negative impact on the highway network.

- **Micromobility**

Box 17 Emerging Shared and Micro-Mobility Trends

The Council has begun monitoring shared public transport accessibility levels in recent years, through a 'STAL' scoring system that works similarly to TfL's PTAL rating from 1A to 6B, with a view to monitoring and promoting the expansion of shared transport across the borough. The areas around Mornington Crescent, Euston Station and all along Euston Road have a high score of 4 to mostly 5 and 6A. However, areas of Regent's Park north of Drummond Street have lower scores of 1A-3. A target STAL of 6A has been set for the whole of the Euston Area.

Consideration should also be given to how micromobility measures could support sustainable journeys to/from the site. This includes the expansion of the dockless bike and e-scooter hire bay network through contributions from both the Council and Euston development partners.

The number of people using micromobility services in Camden since the original EAP was adopted has and continues to grow significantly. Trips made on dockless bikes and scooters in the borough increased by approximately 20% between the 2023 and 2024 summer peaks. It is likely that a share of the previously modelled increase in cycle trips arising from EAP development will be made by shared cycle and scooter services and that their popularity may also result in an overall higher number of cycle trips than previously forecast. Therefore, provision of micromobility infrastructure could help achieve higher cycling mode share targets (which outstrip the currently modelled mode-share). This could include installing new dockless bike and scooter hire parking bays in locations where demand for onward travel by these modes is likely to be the highest. Micromobility services need to be managed effectively, to minimise negative impacts on other people travelling through the area and further work should be undertaken to identify suitable locations where such bikes could potentially be docked. Restrictions in the form of GPS parking controls should be put in place if needed to prevent these bikes from being parked in locations which may conflict with the movement of people and risk causing accessibility issues.

Whilst it is not currently legal to ride electric scooters on the public highway outside of the current trial being run by the DfT, consideration should be given to how they could potentially be accommodated were this to change, given the timescales associated with the full build out of Euston. The same applies to other areas where we might see technological improvements in the coming years.

- **Safeguarding of the future public transport infrastructure, including Crossrail 2**[66]

Euston's strategic transport role could be further enhanced in the future through the introduction of further public transport infrastructure schemes. This includes proposals for Crossrail 2, which would create a new high frequency, high-capacity rail line with shorter journey times between south-west and north-east London. Whilst work on Crossrail 2 is currently on pause, land in and around Euston is

[65] Transport for London, 2021. Bus Action Plan
[66] Crossrail2, n.d. Current Status of the Crossrail2 Proposal

currently safeguarded to deliver the potential new route, alongside a ticket hall and associated infrastructure, should this change.

- **Sustainable Freight and Servicing Measures**

Delivery and Servicing Plans (DSPs) can encourage off-peak travel freight and servicing trips and efficiencies. Freight transport impacts can be mitigated by reducing the number of trips in the first place, consolidating freight (see below), retiming trips and switching to more sustainable vehicles, such as cargo bikes, especially for last-mile deliveries.

Embedding sustainable freight management practices within the new Euston Masterplan Development could include the creation of a consolidation centre from which last mile deliveries could be made to tenants in new development on site as well as the wider area. Last mile deliveries could be carried out by more sustainable vehicles such as cargo bikes or smaller e-vans, reducing the number of heavier goods vehicles travelling in the area. This consolidation centre could be introduced as a meanwhile use while development is brought forward in phases, allowing an optimal permanent configuration to be tested during the development process. A booking system could also be introduced which would assist in preventing vehicle queuing, traffic disruption and delays. The location and exact operating model of a consolidation centre should be explored further by the Euston delivery partners. A separate note on freight and servicing management in the Euston Masterplan Development will be developed.

- **Air Quality Improvement Measures**

As described in Chapter 3, as of August 2023, all London boroughs are now coved by the ULEZ with air quality improving as a result. Other pan-London measures are also planned which could have a positive impact on emissions in the Euston. This includes the Mayoral target for a zero emissions bus-fleet by 2034 and measures to accelerate the de-licensing of diesel taxis and increasing the number of Zero Emissions Capable vehicles in London, alongside investment in the charging infrastructure needed to support these vehicles.

Neighbouring Developments

Box 18 Moorfields Eye Hospital

Moorfields Eye Hospital, currently located at Old Street, will be moving into a newly developed eye hospital, 'Oriel' in the former St. Pancras Hospital north of St. Pancras and King's Cross Stations. The relocation of the hospital may result in more visually impaired members of the public traveling through the King's Cross and Euston area in the future. Meanwhile, the Royal National Institute of Blind People is located south of Euston on Pentonville Road. Consequently, careful design may be required to ensure that these areas, including the new Euston Masterplan Development, are accessible to visually impaired people. Highways improvement schemes and new developments in Euston will need to take into account the expected increased demand for passengers (staff and patients) who may be travelling between Euston and the new Oriel Hospital site. The development is expected to generate a net uplift in journeys made to and from the site by rail, tube and bus in particular, as well as walking, many of which will likely be made via Euston.[67]

[67] London Borough of Camden Planning Portal, 2020. Application No. 2020/4825/P, Oriel Transport Assessment Part 2 (of 2)

Box 19 New Mobility Implications [686970]

New forms of transport are expected to emerge and mature in the coming decades and implications for development at Euston (both positive and negative) will need to be monitored and responded to appropriately on a continuous basis. This includes responding to potential impacts and harnessing benefits in the design and construction of the Euston Masterplan Development, and as part of ongoing management (meaning it should be considered and embedded in Travel Plans and Delivery and Servicing Plans). The focus of designing and planning for new mobility in Euston should follow the TfL approach which centres leveraging and managing new modes so that they either contribute towards or at least do not hinder the fulfilment of the healthy street's objectives. A similar approach has recently also been taken by the City of London in its updated 2024 Transport Strategy. Two emerging modes are discussed below:

Autonomous Vehicles

Autonomous Vehicles are a key new mode and could include autonomous private hire vehicles. The 2024 Automated Vehicles (AV) Act received Royal Assent in 2024 and lays the groundwork for self-driving vehicles, including self-driving taxis and private hire vehicles to use British roads from 2026 onwards. Several autonomous vehicle trials are underway in London and from spring 2026, a 'Robotaxi' trial (involving autonomous PHVs) is set to begin, without human safety drivers.

TfL's approach to AV development [71] in London and new modes in general is to influence and manage these in ways that support the Healthy Streets approach. The primary benefit of AVs is expected to be in their contribution to improving road safety, but there could be further benefits for congestion, accessibility, and emissions reductions which need to be further understood. Depending on this, autonomous vehicles may influence the future design and function of taxi and private hire vehicle access to the area, as well as the scale and types of healthy streets interventions that could be achieved on major roads in the EAP area. Learnings from forthcoming autonomous private hire vehicle trials may need to inform the design of future taxi and private hire vehicle management strategies, if these show that taxi and or private hire vehicle behaviour changes with a switch to autonomy.

Advanced Air Mobility

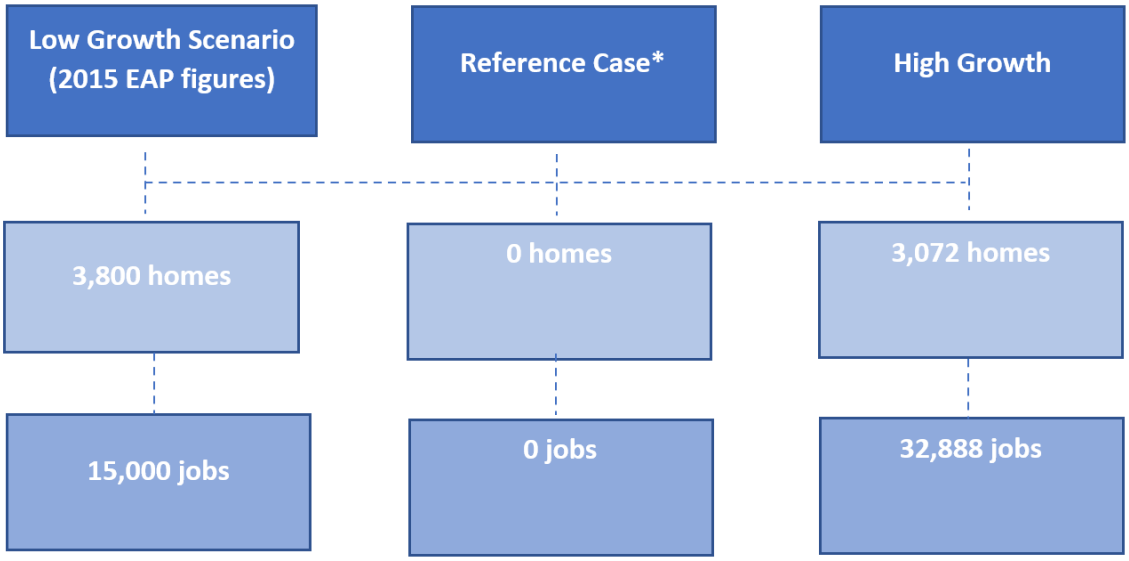
Advanced Air Mobility (including drones and flying taxis) could become more prevalent in the future. As noted in the latest 'towards a new London Plan' [72] consultation, these could help speed up emergency services and deliveries (especially in medical contexts), however, widespread and uncontrolled use could also potentially result in negative impacts. This is an area which requires further consideration prior to these methods becoming more common, to ensure any potential impacts can be managed in an appropriate manner.

[68] City of London Corporation, 2025. Transport Strategy 2024 Second Edition
[69] GLA, 2025. Towards a new London Plan
[70] BBC, 2025. Uber brings forward trialling driverless cars in UK
[71] Transport for London, 2025. TfL approach to automated vehicles
[72] GLA, 2025. Towards a new London Plan

Appendix A Transport Issues and Opportunities

Introduction

The transport insights collated in this Appendix are based on strategic and assignment modelling for a range of Euston Area Plan scenarios, conducted by Arup in 2022. Since then, as stated elsewhere, the thinking around the Euston Masterplan Development has evolved. However, modelling for the Upper EAP development scenario is still considered appropriate to support the development of the Euston Area Plan, as this is thought to represent the worst-case scenario in terms of the transport impacts (see Figure 33 for details). As referenced elsewhere, it should be moted that individual mitigation measures haven't been tested as part of this work as it is assumed they have been or will be modelled as part of the relevant workstream (HS2 or Euston Healthy Streets) to test their acceptability. Instead, all committed transport improvements (as per the HS2 Act) were included in the modelling as appropriate (see below).



* Background growth included only

Figure 33 EAP Transport Study Growth Scenarios

This modelling exercise included:

- MoTiON strategic mode share analysis
- LoHAM mode share analysis of vehicle trips
- Cycle and pedestrian desire line analysis
- Cynemon cycle route analysis
- Railplan bus and London Underground loading analysis
- Railplan public transport interchange demand analysis
- LoHAM bus journey time analysis
- LoHAM Highway Effects

Following the initial strategic modelling, further pedestrian modelling was conducted in 2023 using the Station Design Services Contracts' scheme design model, which showed which locations would see increased pressures from pedestrian footfall (see Box 20).

When this Transport Study was first drafted in 2022, several assumptions were made in relation the level of service on the transport network, to help inform the transport modelling. This included assumed frequencies on the bus and underground network, and for future service patterns on HS2 and National Rail services (noting that some of these assumptions will now have changed given the proposed changes to the station design). It should be noted that since the 2015 EAP was drafted, the upgrade of the Northern line, which was previously assumed, is no longer committed, so assumptions around levels of service will have changed, with this change incorporated into modelling undertaken in 2022.

Alongside assumptions around service patterns, several transport infrastructure improvements, as set out in the HS2 Act, were also assumed to be committed. This included the delivery of the following, some of which are now under review following the previous government's Network North [73] announcements (4th October 2023).

- A new LU station entrance and ticket hall at Euston station
- A new Euston Square LU station entrance and ticket hall located on Gordon Street
- A new passenger subway connecting the Euston Square LU Station with Euston LU Station
- New and upgraded pedestrian crossings on Euston Road and Hampstead Road
- A new linear bus station
- A new 60 bay taxi rank (assumed to be in the northern approaches for modelling purposes, as per the previous design assumptions)
- New and additional cycle parking
- New and additional cycle hire docking stations
- Travel demand measures
- Safeguarding of the Crossrail 2 ticket hall and associated infrastructure

*Over-station walking and cycling routes are not included in the HS2 Act and following the Network North announcements, it is less likely that these will be deliverable.

These measures haven't been modelled at an individual level as part of this workstream as it was assumed they are getting assessed in detail as part of HS2's ongoing design development. Any changes to these measures would need to modelled/ assessed to demonstrate their acceptability and to ensure they are suitably sized to accommodate the level of demand anticipated.

The analysis presented below primarily examines the impacts of the upper development scenarios on peak periods in the AM (7am – 10am) and PM (4pm – 7pm), as this represents the worst-case scenarios in terms of the demand for travel to the EAP area.

The current and future transport challenges and opportunities in Euston identified through the modelling are set out in this appendix, including:

- Mode share and demand forecasts
- Highway impacts including impacts based on vehicle types
- Bus capacity and journey time reliability
- Impacts on London Underground services
- Quality / potential of the walking and cycling environment, desire lines and pressure points

Mode Share & Demand Forecasts

Key statistics for the 2041 forecasts

Outputs from the trip generation module in the strategic modelling exercise have shown the following forecasts for 2041. This specific trip generation element of the modelling is focused on the development area and therefore only includes trips to and from the associated development zones (home, jobs, retail related trips). Through trips are captured in the modelling and are present in the assignment flows on the

[73] DfT, 2023. Network North: Transforming British Transport

network. This is to help isolate the impact of the development proposals, with those other trips included in the general background growth embedded in the models.

As expected, most of the walking and cycling trips to/ from the station are over a relatively short distance. This suggests there could be some scope to encourage a greater shift towards these modes amongst people travelling to destinations relatively local to the station, if the right measures are introduced to improve conditions for pedestrians and cyclists.

- Around 70% of cycle trips are travelling a distance exceeding 5km (20 minutes)
- Around 10% of walk trips are travelling a distance exceeding 2km (25 minutes)
- Around 50% of journeys under 2km are made by foot
- Cycling comprises 6% of journeys overall, but 90% of those journeys are under 10km
- Fewer journeys are made by cycle under 2km (5-7%) than between 2-5km (9-11%) and 5-10km (8-9%)
- Forecasts show a very slight shift towards rail across all distances with Lower and Upper EAP development scenarios (in the order of 1-2% per band)
- The data shows a slight increase in car trips with Lower and Upper EAP development (see below).
- Taxis and LGV's/ HGV's are included as fixed demand in the model and therefore aren't impacted by changes in development demand. Taxi demand has been input as a fixed matrix from HS2, whilst LGV/ HGV numbers are based on historical averages. While there will likely be some difference in the demand generated between the different development scenarios, this is unlikely to be significant.

In summary, the modelling indicates that the main mode of onward travel by far will be rail (including the tube and NR services), followed by bus and then walking and cycling. There could be scope to seek some mode shift from motorised modes to walking and cycling, particularly for trips under 2km. These percentages are based on a total of 123,298 trips identified in the modelling between Euston EAP and the bands, in the 3-hour am peak, for the upper EAP growth scenario. This is compared to 93,196 trips in the no-EAP scenario (where individual mode shares differ slightly).

The modelling shows a 5% onward car mode share. Although there will be no car parking provided at the site, the model allows for some car access representing drop-off trips or persons parking away from the site.

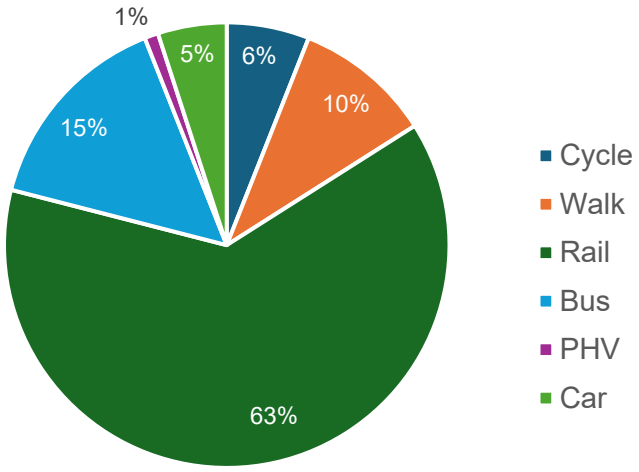


Figure 34 Upper EAP onward travel mode share (AM)[74]

Short-distance trips

Figure 35 and Figure 36 show which direction and by which modes people will be travelling on from Euston in the upper EAP growth scenario in the AM and PM 3-hour peak periods respectively[75]. This shows that for journey's within 2km of Euston station, walking and cycling are the main modes for onward travel, making up 56% of trips under 2km in the AM peak and 51% in the PM peak.

Overall, the modelling shows that 92.1% of journeys of up to 2km to and from Euston would be made by sustainable modes (walking, cycling and public transport). This aligns with the EAP target of over 90% of journeys up to 2km being made by sustainable modes, and the Camden Transport Strategy's target of 93% of resident trips being made by these modes by 2041.

For Intra-Inner London trips the forecast sustainable share of 92.1% of trips falls short of the MTS target where trips up to 2km to and from Euston are Intra-Central (95% sustainable mode share target) or Central-Inner London (99% target). This suggests more targeted measures may be needed to encourage more trips by walking, cycling and public transport between these locations.

Mid-distance trips

Public transport becomes more dominant as journey distances increase, with rail (which includes both NR and LU services), becoming the main mode of transport for onward journeys between 2-10km and those over 10km. For journeys between 2-10km, rail makes up 53% and 52% in the AM and PM peaks respectively, followed by bus at 24% and 26%. Rail makes up 90% of trips over 10km in the AM peak and 89% in the PM. Cycling makes up 10% of trips between 2-10km in the AM peak and 8% in the PM, lower than the EAP target of 15%.

This indicates that the EAP should focus on encouraging a mode shift towards cycling for these mid-distance journeys by incorporating provision for improved cycle infrastructure, permeability and micromobility services. Consideration would also need to be given to trip origins and destinations, so the investment in cycling infrastructure can be made along routes likely to have the highest impact on cycling rates.

Long-distance trips

For journeys over 10km, the modelling shows that 91% would be made by rail, 5% by bus, 2% by cycling, 3% by car and less than 0.1% by taxi / PHV in the AM peak, while in the PM it would be 89% by rail, 5% by

[74] Arup, 2021. MoTiON model outputs
[75] Arup, 2021. MoTiON model outputs

bus, 2% by cycling, 4% by car and again less than 0.1% by taxi / PHV. These forecasts for journeys of over 10km align with the EAP and Mayoral targets for over 95% of journeys being made by sustainable modes, although for trips to/from Euston in the 10km+ category that are between Central and Inner London this would currently fall slightly short of the 99% MTS target.

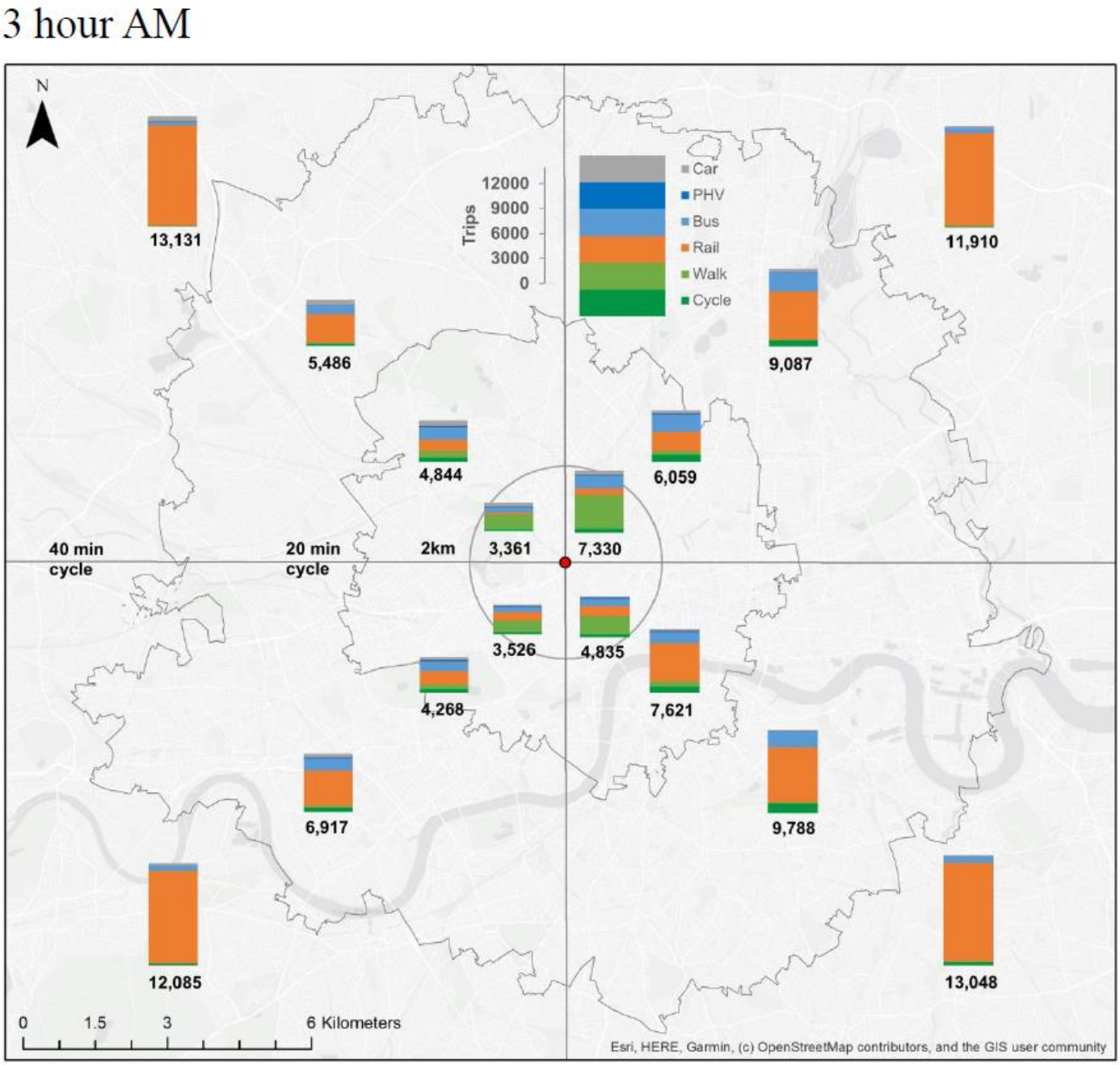


Figure 35 Modal splits by direction and distance- upper EAP (AM Peak Period 7-10am) [76]

[76] Arup, 2021. MoTiON model outputs

3 hour PM

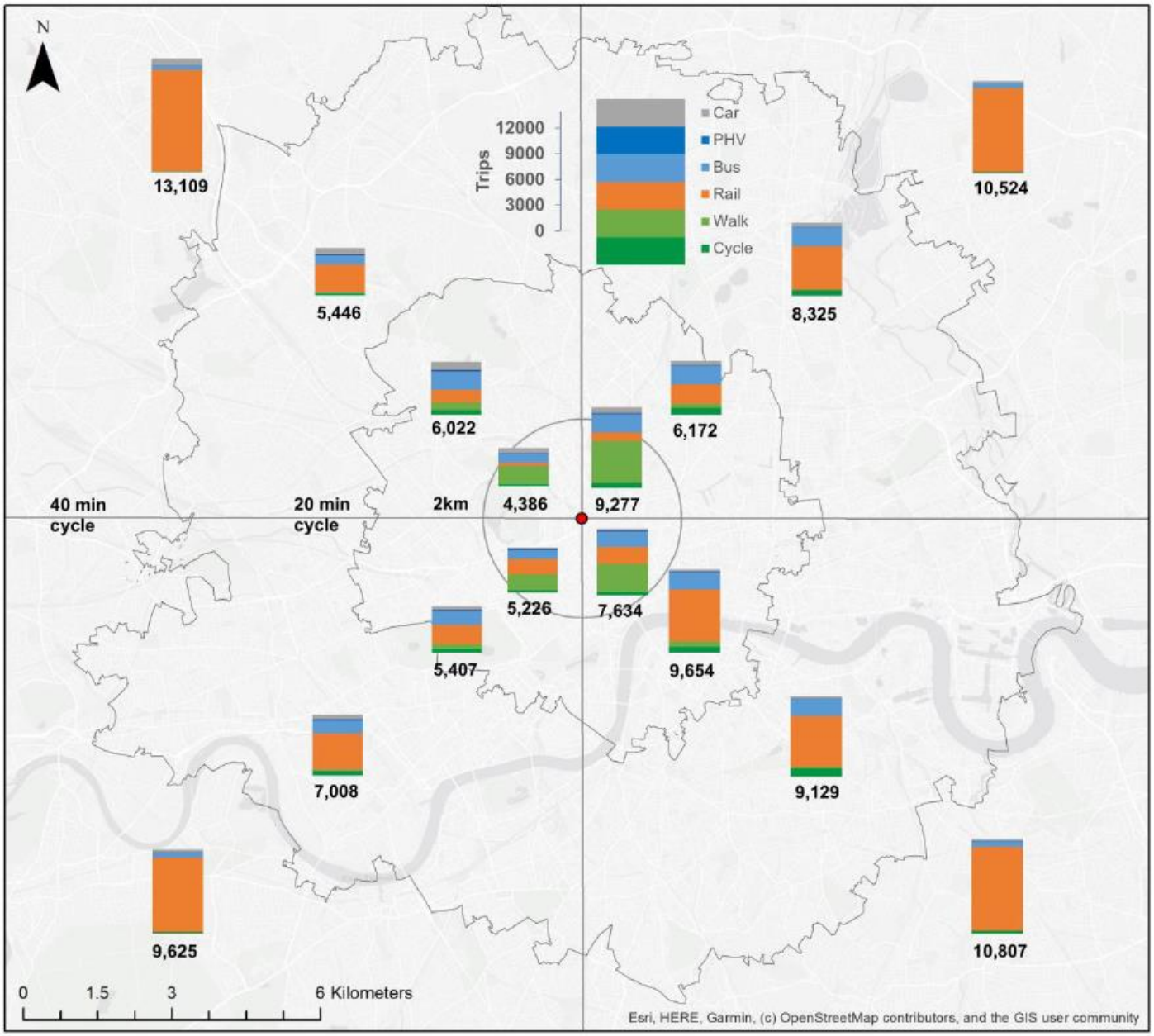


Figure 36 Modal splits by direction and distance- upper EAP (PM Peak Period 4-7pm) [77]

Highway Impact

Vehicle types

Figure 37 and Figure 38 show the vehicle trips being generated by the proposed development assumptions, by type, to and from the development zones, within the EAP area. For the zone associated with the station (14,059), the data shows[78] a slight increase in car trips in both the Lower and Upper EAP development. Whilst some uplift in car use is expected for the reasons referenced elsewhere, this is unlikely to be significant given the car free nature of the site. Some uplift in demand is also expected due to vehicles servicing the site, although it is anticipated that measures would be put in place to limit the impacts during peak periods. These may include delivery and servicing plans that seek to minimise the total

[77] Arup, 2021. MoTiON model outputs
[78] Arup, 2021. LoHAM model outputs

number of deliveries, retiming deliveries to occur outside of peak hours and remoding deliveries to more sustainable vehicles. The latter could be achieved in conjunction with the introduction of a micro-consolidation centre on the site.

Modelling has shown that an uplift in the demand for PHVs to the site is expected. Without any new development at the station there were forecast to be up to c.1,200 PHV trips during the AM peak, rising to c.1,350 peak hour trips in the Upper EAP development scenario (12.5% increase). The number of PHV journeys forecast in all scenarios means it will be important to implement mitigating measures, such as exclusion zones and a limited number of drop off bays, to reduce the impact on residential communities. The latest model forecasts, developed by TfL since the Covid pandemic show a reasonably static picture of PHV demand across Camden between now and 2041 – being around 2%-3% of trips to and from the area. Taxis are included as a fixed demand in the model (with demand matrices coming from HS2) and so changes aren't seen between the different development scenarios.

The highway vehicle splits from LoHAM show that overall, private cars are expected to make up the largest share of vehicular trips to and from Euston in the Upper EAP scenario in the AM peak (34%), closely followed by taxis (33%). LGVs are expected to make up 17% of trips and PHVs 11%. Some of these figures are based on fixed demands input into the model (e.g. taxis and LGVs/ HGV's) and aren't necessarily influenced by what's happening at the development, with assumptions having been made based on historic trends. This is due to minimal trips generally assumed to be generated from new developments by these modes during the peak periods.

The final location of the taxi rank will influence where any highway impacts are likely to be felt, and whilst the development is expected to have a low taxi mode share, it will generate some additional trips. As can be seen from Figure 37 and Figure 38 the impact of taxis and PHVs are likely to be felt in specific zones (e.g. where the rank is located) and these should be the focus of any potential mitigation measures.

Table 5 Upper EAP Vehicle mode share forecast for AM Peak Hour journeys to and from Euston (excludes through trips)

This table shows the private vehicle mode split from Loham (the highway model), rather than the overall mode split for all trips at Euston. It has been calculated by aggregating data from different zones in the highway model for the AM peak hour and is based on a forecas of 5,700 vehicle trips.

Vehicle mode	Percentage of trips
Car businesses + car other	34%
PHV	11%
Taxi	33%
LGV	17%
HGV	5%

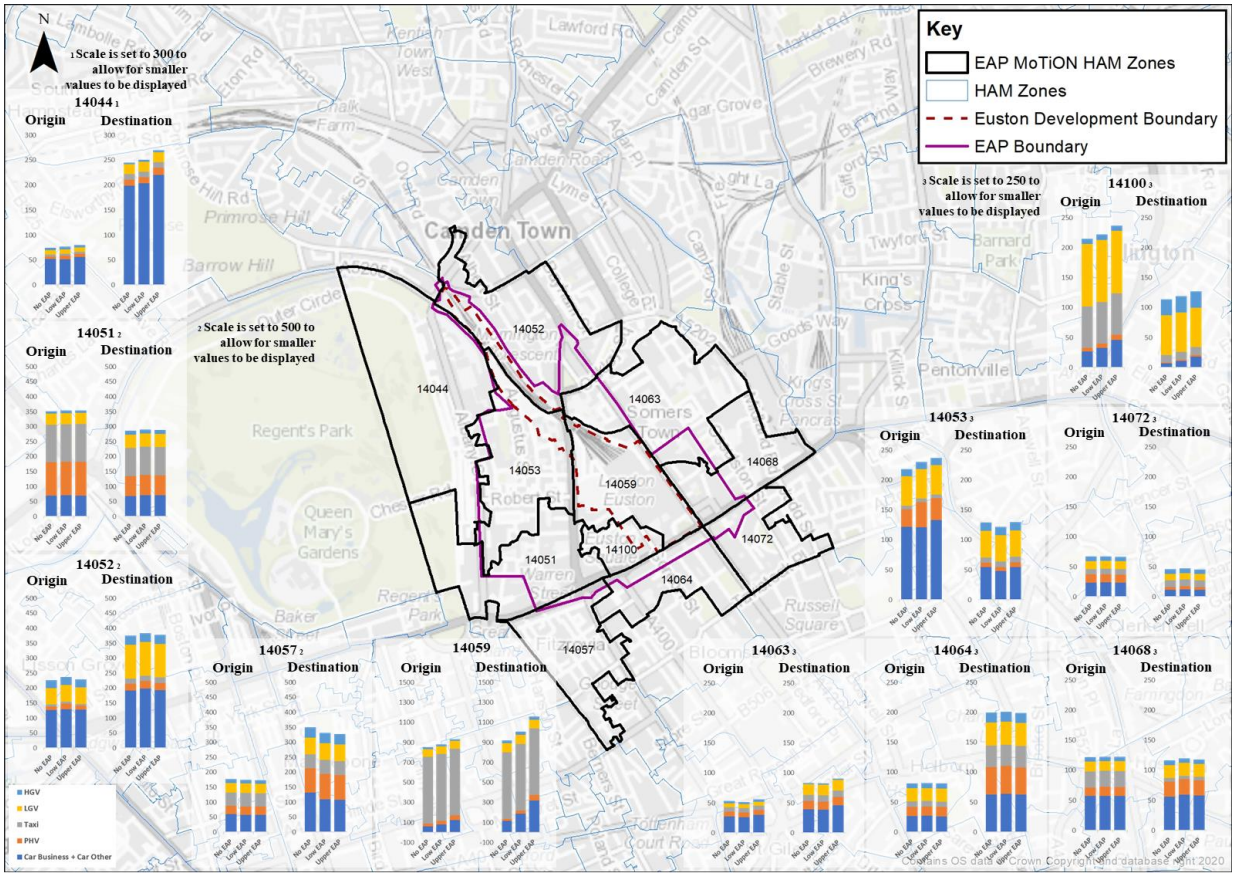


Figure 37 Highway Vehicle splits (AM Peak Period 7-10am)[79]

[79] Arup, 2021. LoHAM model outputs

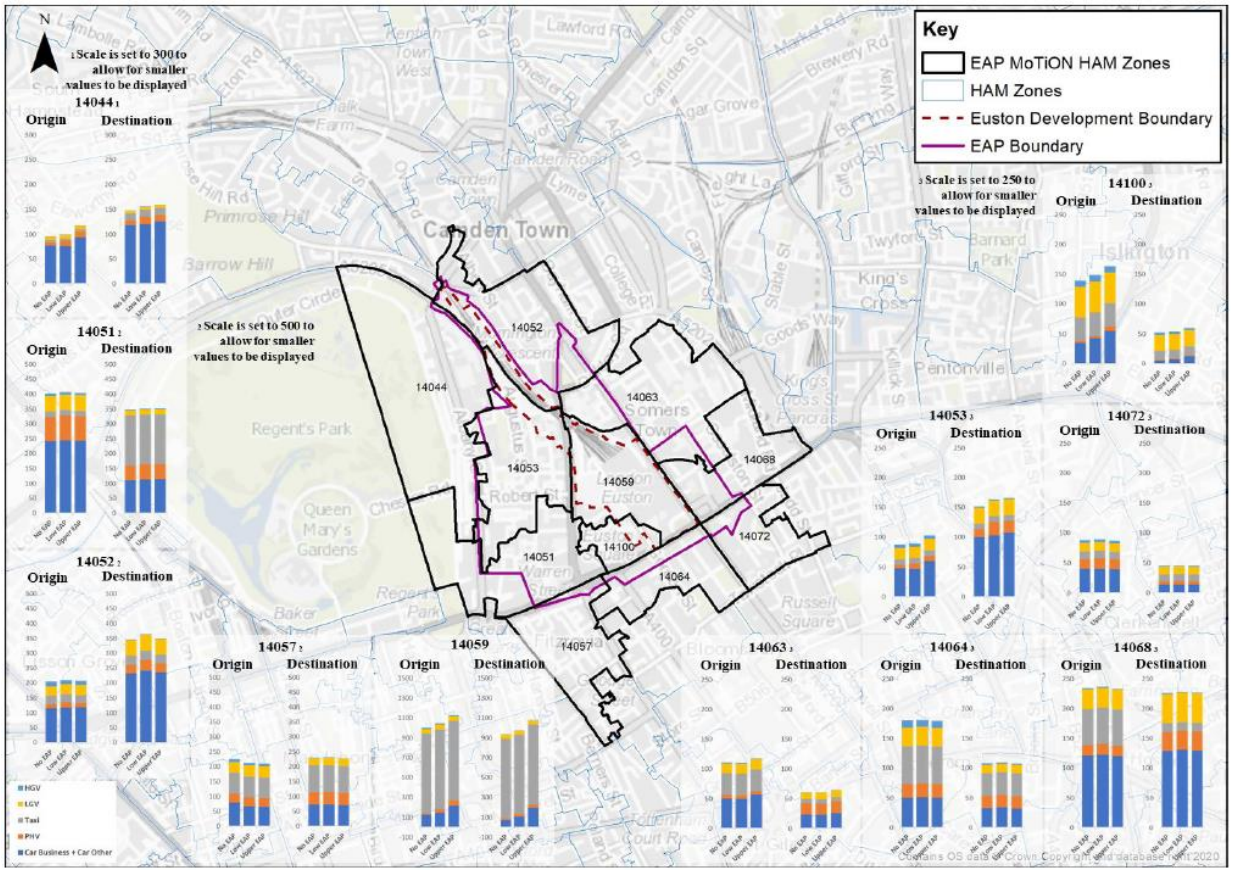


Figure 38 Highway Vehicle splits (PM Peak Period 4-7pm)[80]

Volume over capacity

Volume over capacity is a planning measure, where demand (or volume), is compared to the estimated capacity of each road during a specified time. Figure 39 and Figure 40 show a comparison between the no and upper EAP growth scenarios in the AM Peak. Figure 41 and Figure 42 show the volume capacity ratio of the No and Upper EAP scenarios in the PM Peak.

Common trends across AM and PM Peaks

There are some localised changes in flow in the low EAP v no EAP, namely on Drummond Street and some other local streets to the west of Euston station. This is due to an increase in trips associated with the station and the closure of Cardington Street/ Melton Street (in all growth scenarios) which forces vehicles to route via Drummond Street.

AM Peak observations

The volume/capacity (V/C) on links around Euston station, especially Hampstead Road is exceeded in both the No EAP and Upper EAP scenarios. The increase in taxi demand is one of the contributing factors to this, as this modelling assumed the rank would be located in the Northern approaches, located off Hampstead Road (which is now subject to change).

In both scenarios the V/C on Gower Street and Gower Place is also exceeded. This is due to the northernmost part of Gordon Street being closed, meaning all vehicles accessing Euston Road are required to do so via Gower Street.

Overall, there is limited difference in delays on the highway network between the no EAP and upper EAP scenarios. This is largely because Euston Road and the surrounding streets already suffer from high levels of congestion and delay and the level of traffic being generated by the development is relatively low in

[80] Arup, 2021. LoHAM model outputs

comparison to the traffic volumes already in place, given that the development is expected to be car free except for limited servicing activity and parking provision for blue badge holders.

The taxi rank is the key driver of vehicular traffic associated with the site and whilst the assumption in the modelling was this would be accessed from Hampstead Road; its future location is now currently unknown following changes to the station design. Further modelling and analysis will likely be required as part of the testing of any alternative proposals for the end-state taxi rank to ensure any impacts are fully understood and can be mitigated as required.

PM Peak observations

The No EAP and Upper EAP Peak period scenarios see less congestion on Hampstead Road, and instead there is congestion on Eversholt Street as well as on key routes in Somers Town (Chalton Street and Ossulston Street) and in northern Bloomsbury, including Endsleigh Gardens, Gordon Street, Taviton Street and Endsleigh Street. As in the AM Peak scenarios, there is little difference in the volume / capacity ratio between the No and Upper EAP scenarios.

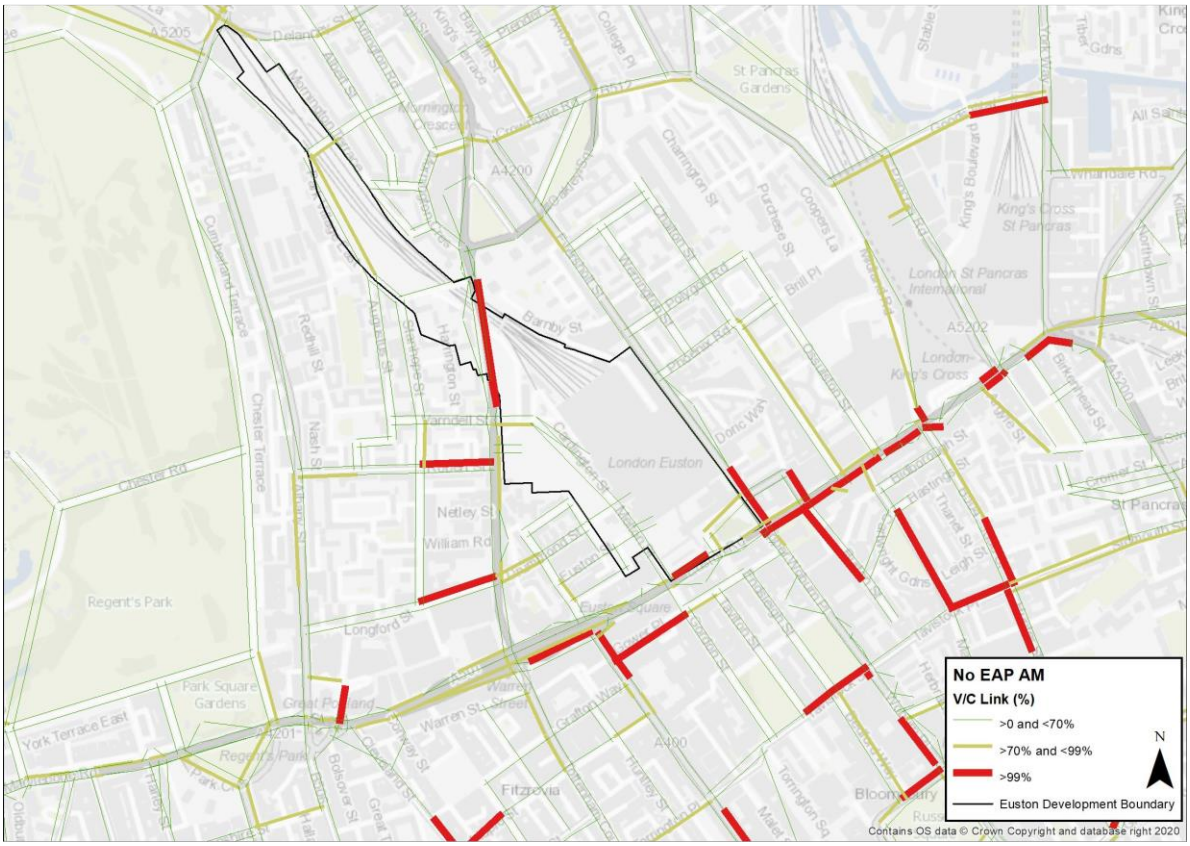


Figure 39 No EAP – Volume / Capacity on Links (AM Peak 7am-10am)[81]

[81] Arup, 2021. LoHAM model outputs

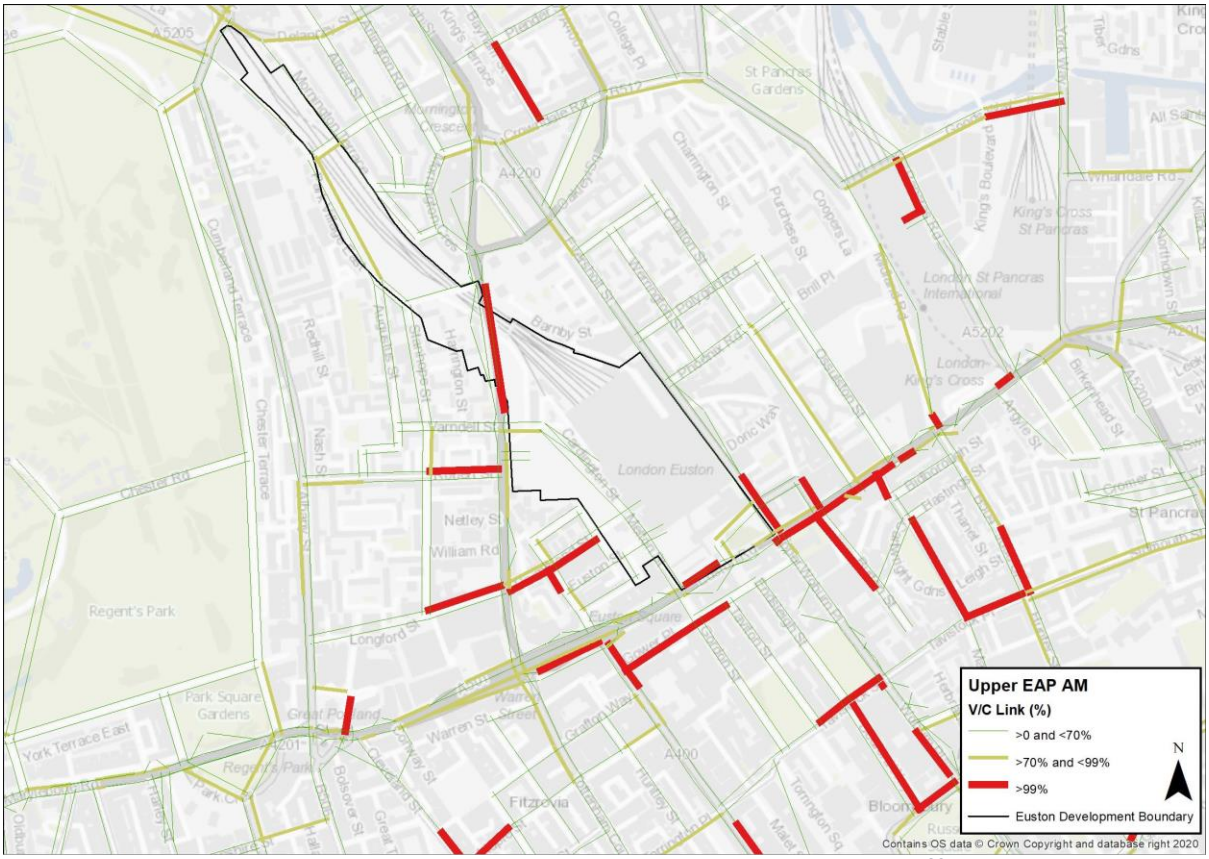


Figure 40 Upper EAP – Volume / Capacity on Links (AM Peak 7-10am)[82]

[82] Arup, 2021. LoHAM model outputs

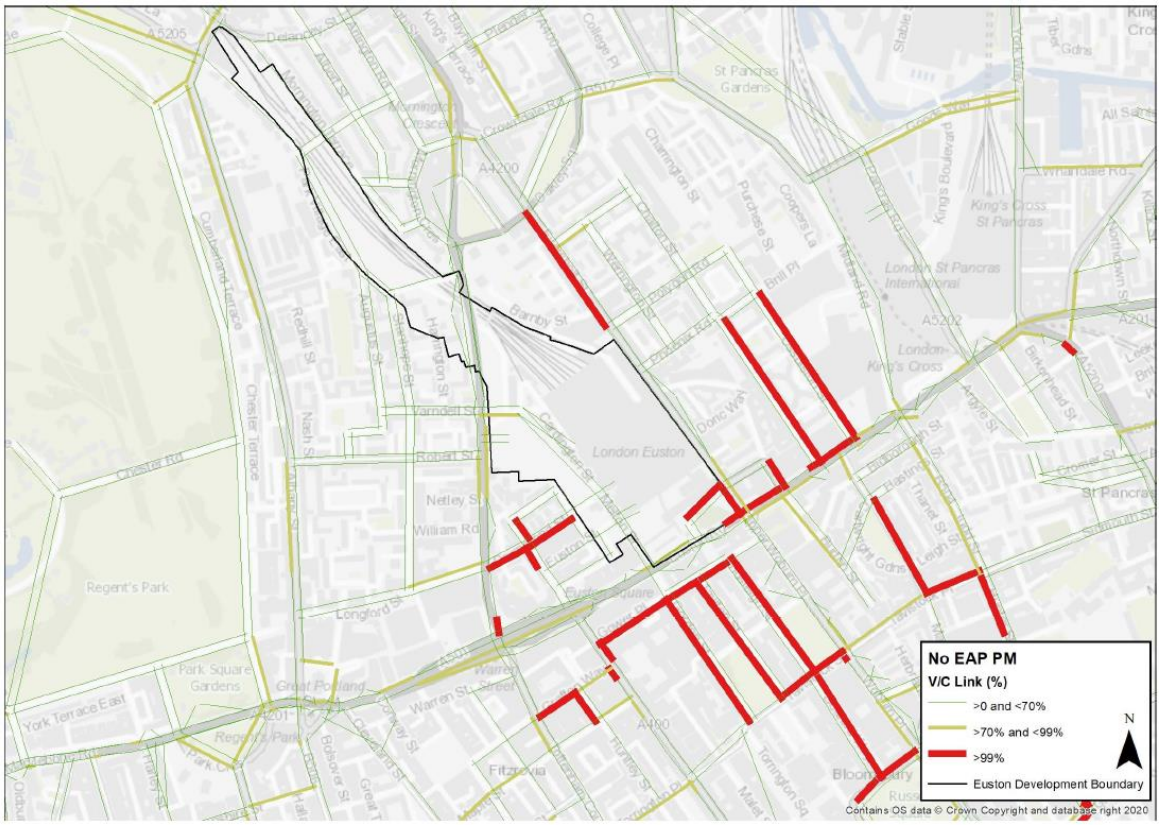


Figure 41 No EAP - Volume / Capacity on Links (PM Peak 4-7pm)[83]

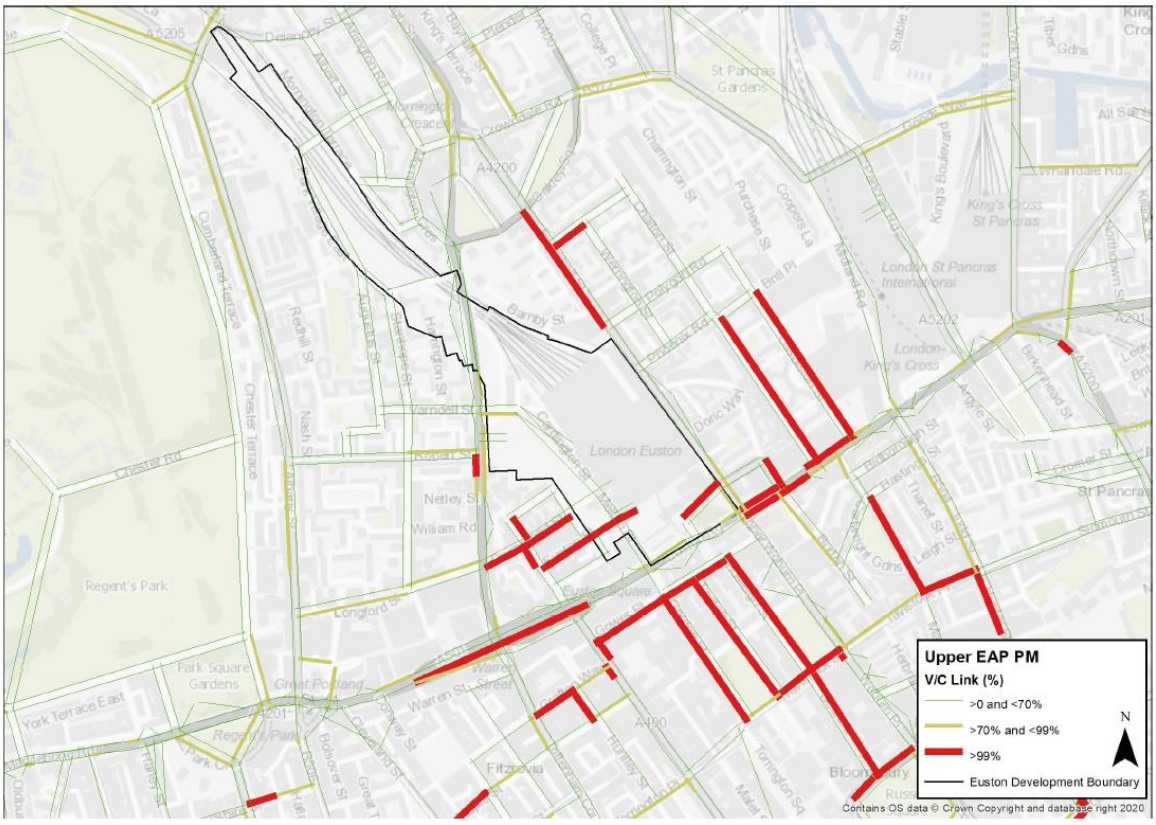


Figure 42 Upper EAP - Volume Capacity on Links (PM Peak 4-7pm)[84]

[83] Arup, 2021. LoHAM model outputs
[84] Arup, 2021. LoHAM model outputs

Freight Traffic

The impact of and on freight traffic hasn't been specifically modelled as part of this exercise. The A501, as part of the Inner Ring Road, is classified as a priority route for both HGV and LGV goods vehicles, with the Inner Ring Road enabling traffic to circulate around central London without entering the Congestion Charging Zone. Given the A501's important circulatory strategic freight movement role, protecting essential freight movements, which help support the economy, should be seen as a priority, with policy tools used to support mode shift and non-essential traffic reduction. Tools to help manage the impact of freight traffic should also be considered e.g. re-timing trips outside of peak periods.

Public Transport Impacts

The arrival of HS2 and the other changes proposed at Euston will increase the demand for public transport. This will be increased further as the Euston Masterplan Development is delivered

Figure 43 shows the passengers going to/from different public transport modes at Euston. The base (2016) is shown in red and the incremental uplift in extra passengers from the No, Lower and upper EAP scenarios are also shown in green, blue and orange respectively.

Since the original EAP was adopted in 2015, the upgrade of the Northern line, which was previously a committed scheme, is no longer funded. The modelling outputs from 2022 shown below did not include the Northern Line upgrade and therefore represent a worst-case scenario with regards to the impact on London Underground travel and interchange at Euston.

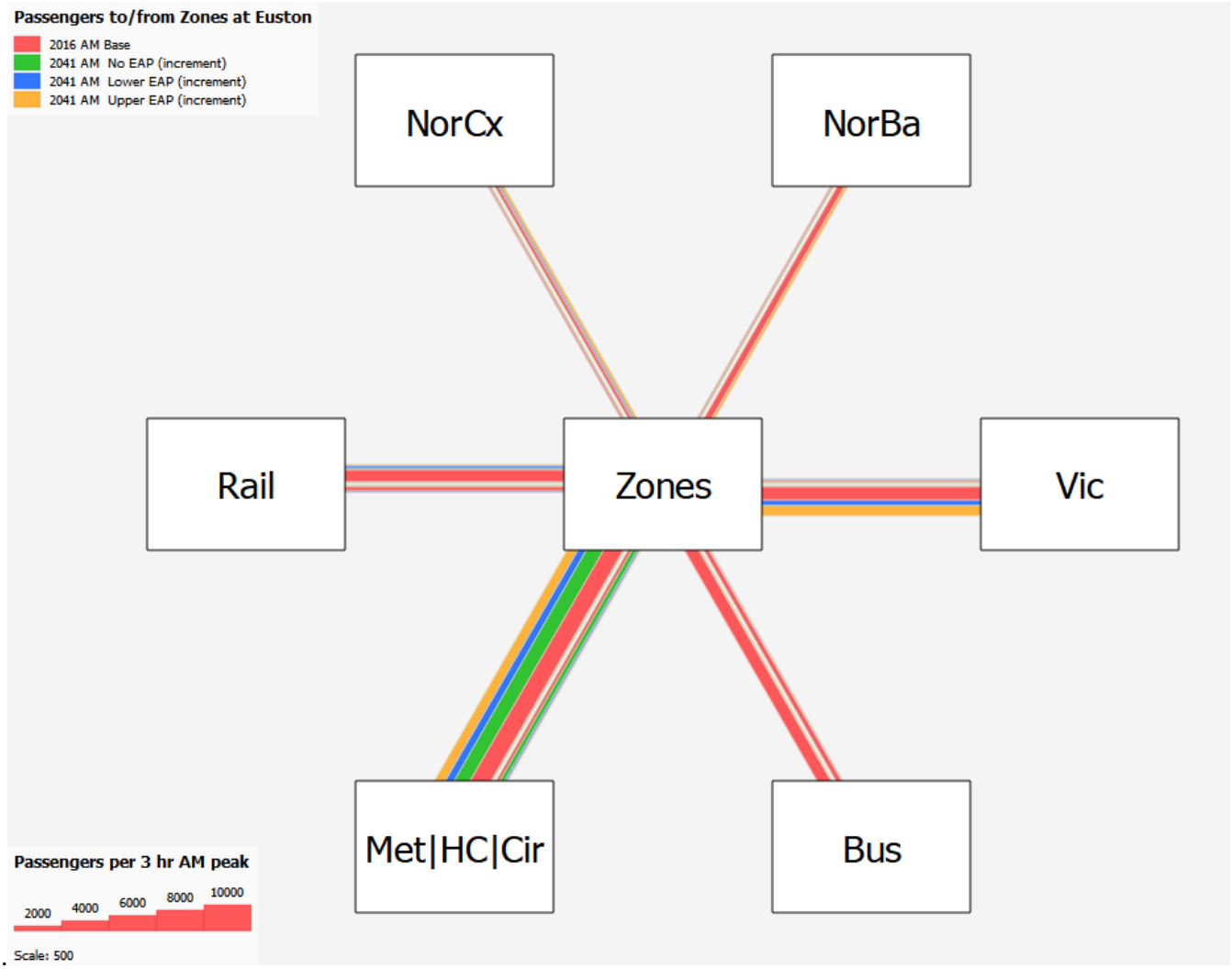


Figure 43 Forecast passenger interchange at Euston

Buses

Bus Journey Times

Figure 44 shows the impact of the different development scenarios on bus journey times in the morning peak, along the main bus corridors serving the Euston area. There is little difference in the impact between the different growth scenarios given all development will be car free, as further discussed elsewhere.

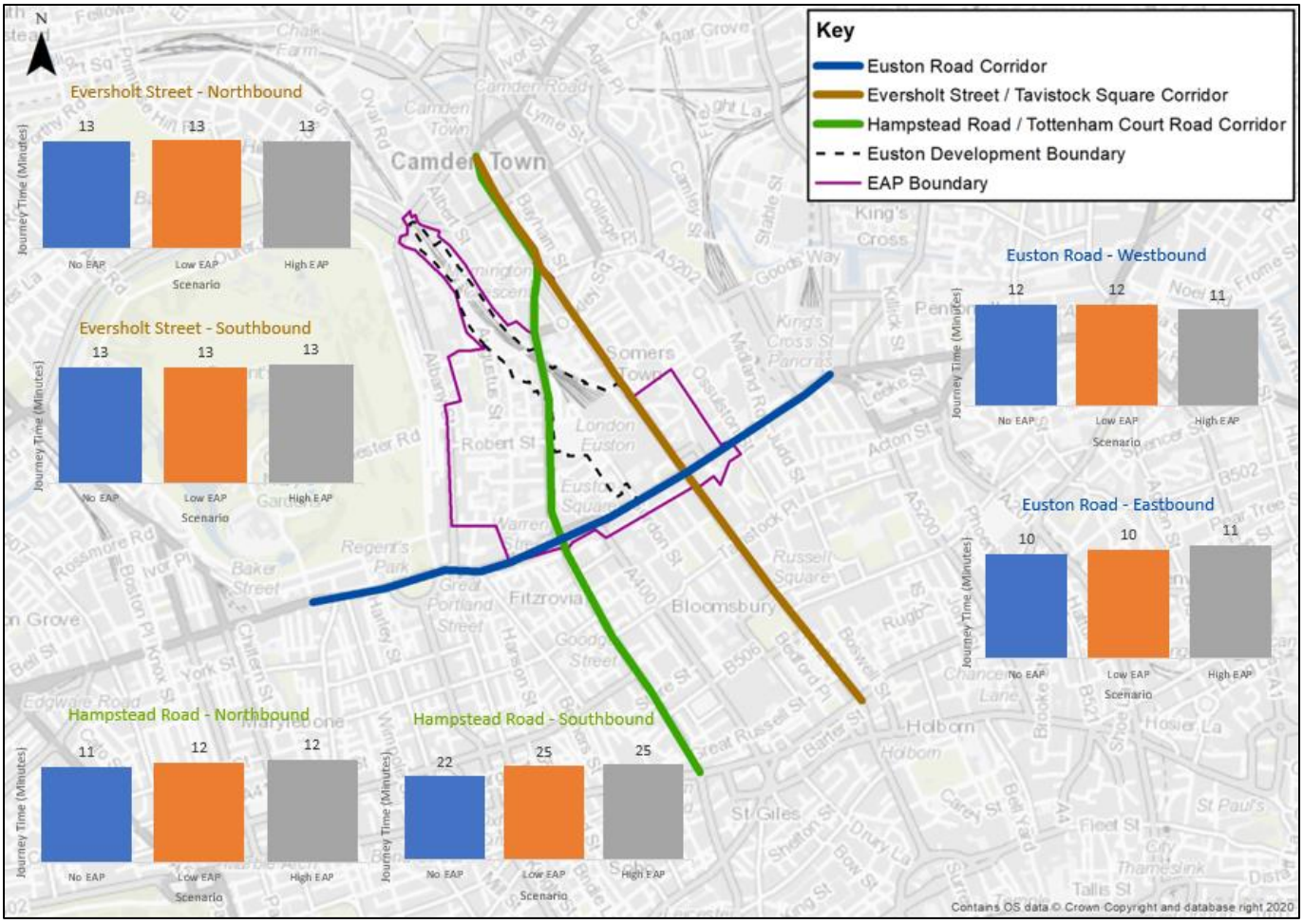


Figure 44 Impact of different development scenarios on bus journey times

Bus Demand

The different development scenarios being considered at Euston will also have an impact on the demand for buses in the area, Figure 45 shows passenger demand in the Upper vs no EAP demand scenario. This shows that in the upper growth scenario there are more passengers travelling to/from Euston:

- Southbound on Eversholt Street from Camden town
- Eastbound on Euston Road from Marylebone
- Northbound on Southampton Row from Waterloo/ Holborn
- Southbound from Hampstead Road towards Tottenham Court Road

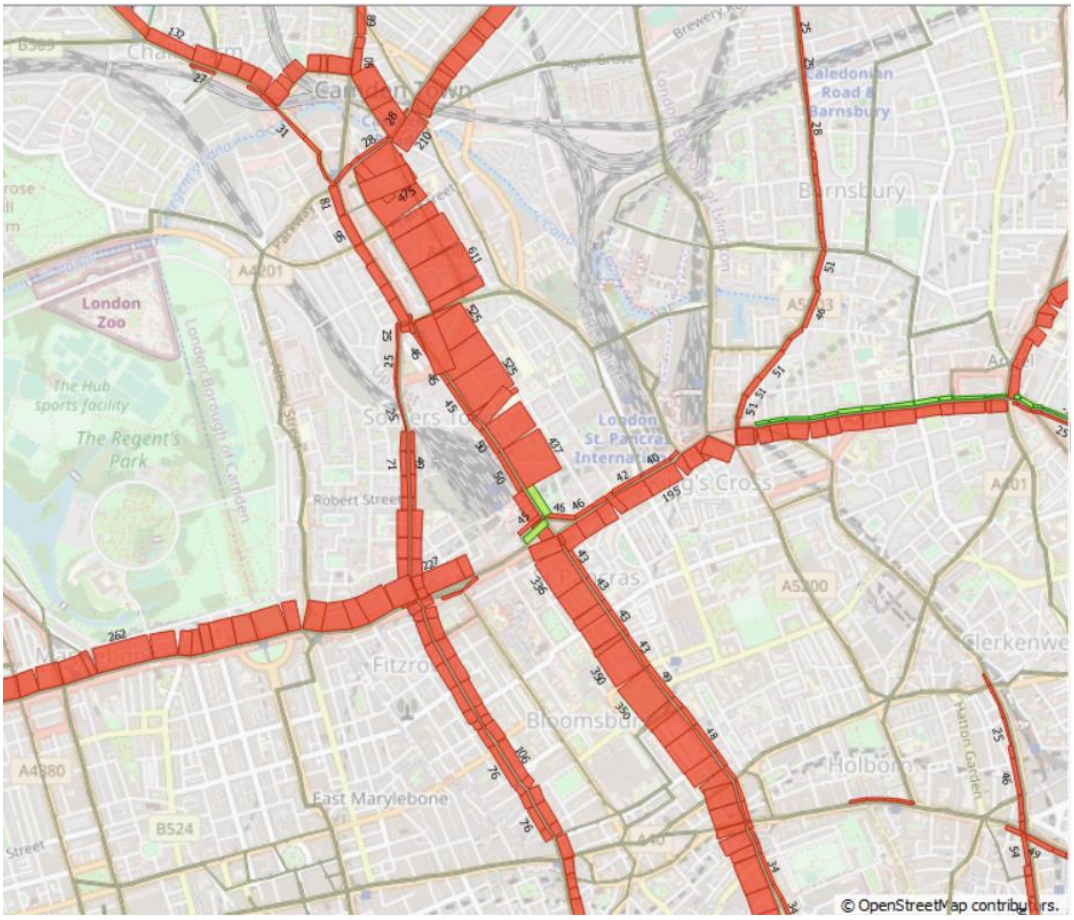


Figure 45 Difference in Bus Passenger Demand, Upper vs. No EAP (AM Peak 7-10am)[85]

Figure 46 shows the differences in bus boarders in the Upper vs. No EAP growth scenarios for both the AM and PM peaks. In the morning peak extra bus boarders will be mainly focused on Hampstead Road (travelling away from Euston). In the PM peak there is a more significant increase in bus boarding in general, with the demand more evenly spread out across all stops around Euston, especially at the new station entrance on Hampstead Road. A similar pattern can be seen in Low EAP scenario, but overall demand is lower.

This information suggests that additional buses will need to be provided on some routes in future to accommodate the uplift in demand. While work to develop the future design of the bus station will need to consider the total bus demand expected at the site, the need to provide additional capacity on individual bus routes beyond what is needed to support the additional demand generated by HS2, will need to be tested in more detail as individual planning applications are submitted for consideration. The expectation is

[85] Arup, 2021. Railplan model outputs

that any capacity enhancements which are proven necessary because of the development, will need to be funded by third parties e.g. the developer.

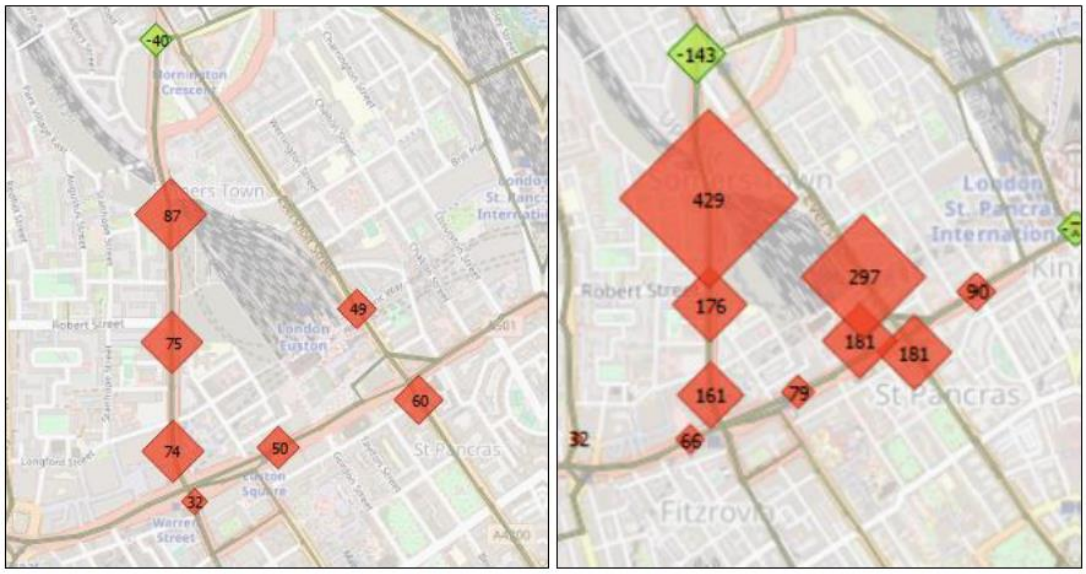


Figure 46 Bus boarding Upper EAP vs. No EAP (AM - left, PM - right)[86]

London Underground

The below figures show LU crowding maps for the different growth scenarios in the morning peak in 2041. It should be noted this type of plot is not ideal for detecting marginal changes due to the EAP given it's strategic nature, but it can still provide some useful insights.

[86] Arup, 2021. Railplan model outputs

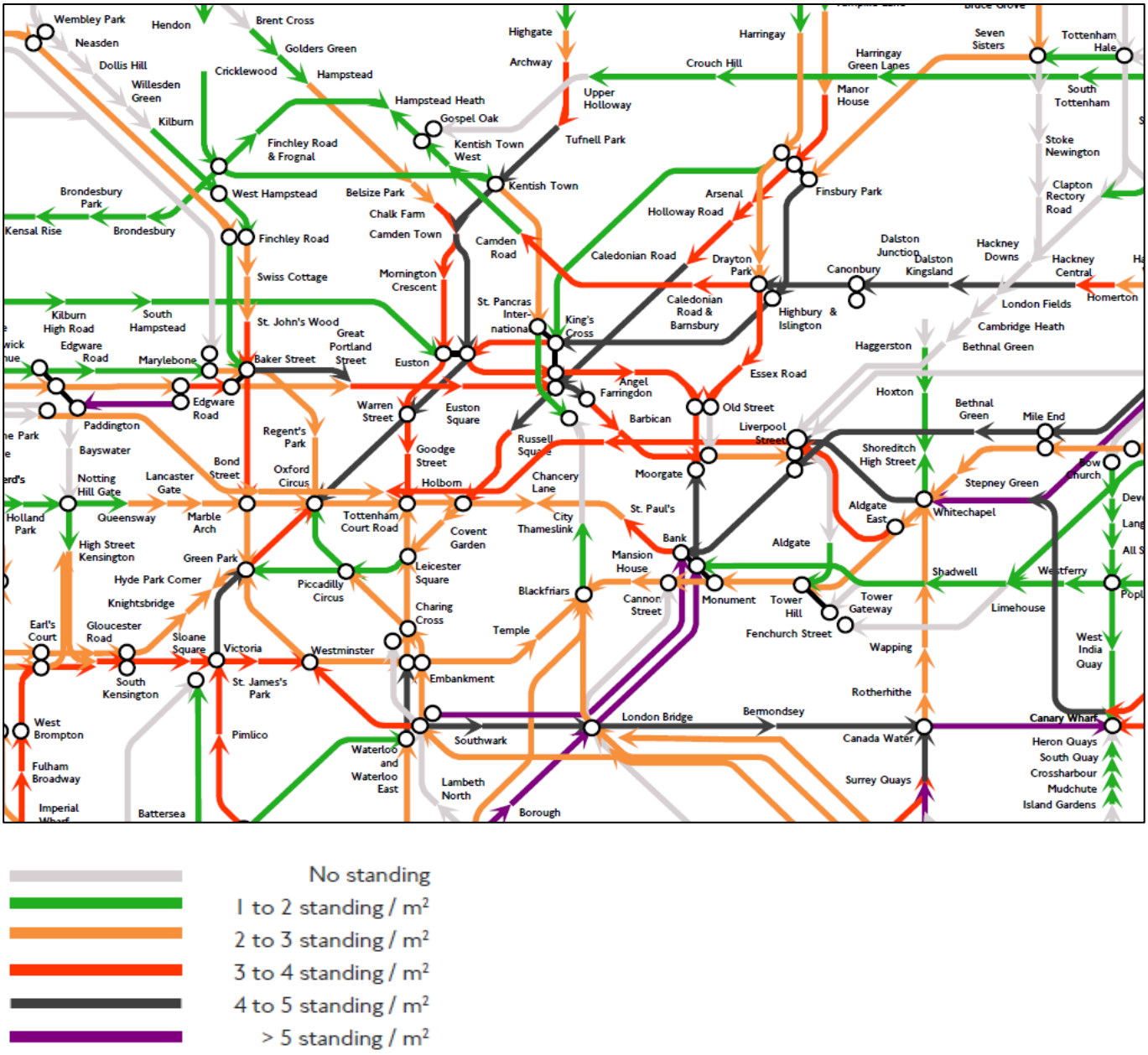


Figure 47 LU Crowding 2041 'No EAP' (AM)

Figure 47 shows that by 2041 there is severe crowding (4-5 standers per m2) on the Northern Line travelling both northbound and southbound from Euston, even without any growth associated with the EAP. This includes on the High Barnet ranch of the Northern line and the southbound Victoria line.

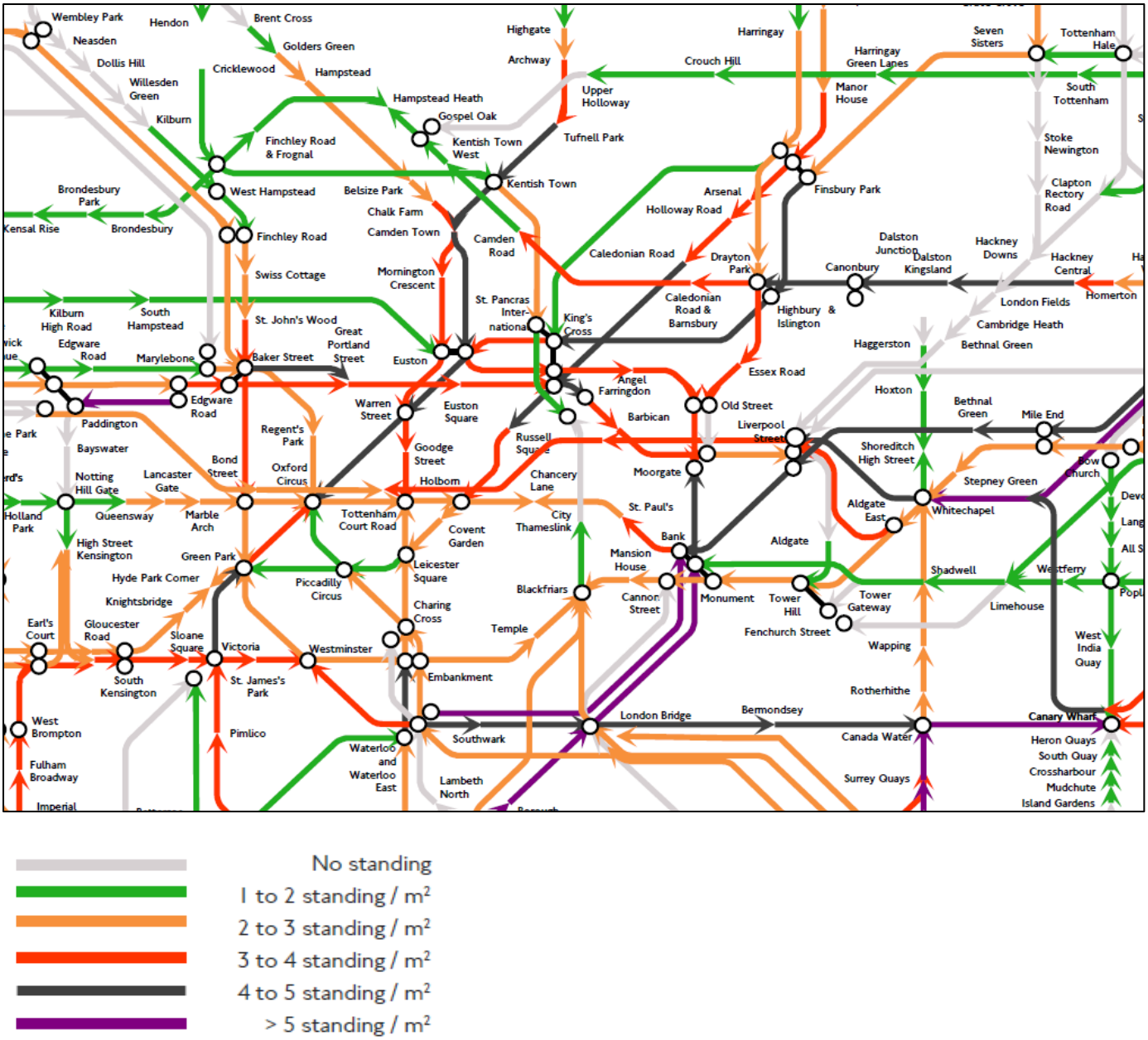


Figure 48 LU Crowding 2041 'Lower EAP' (AM)

By 2041 in the 'low growth' scenario, conditions are getting worse on more lines and there are changes from green to orange between:

- Finchley Rd and Bakers St on the Met Line
- Golders Green and Hampstead on the Northern Line

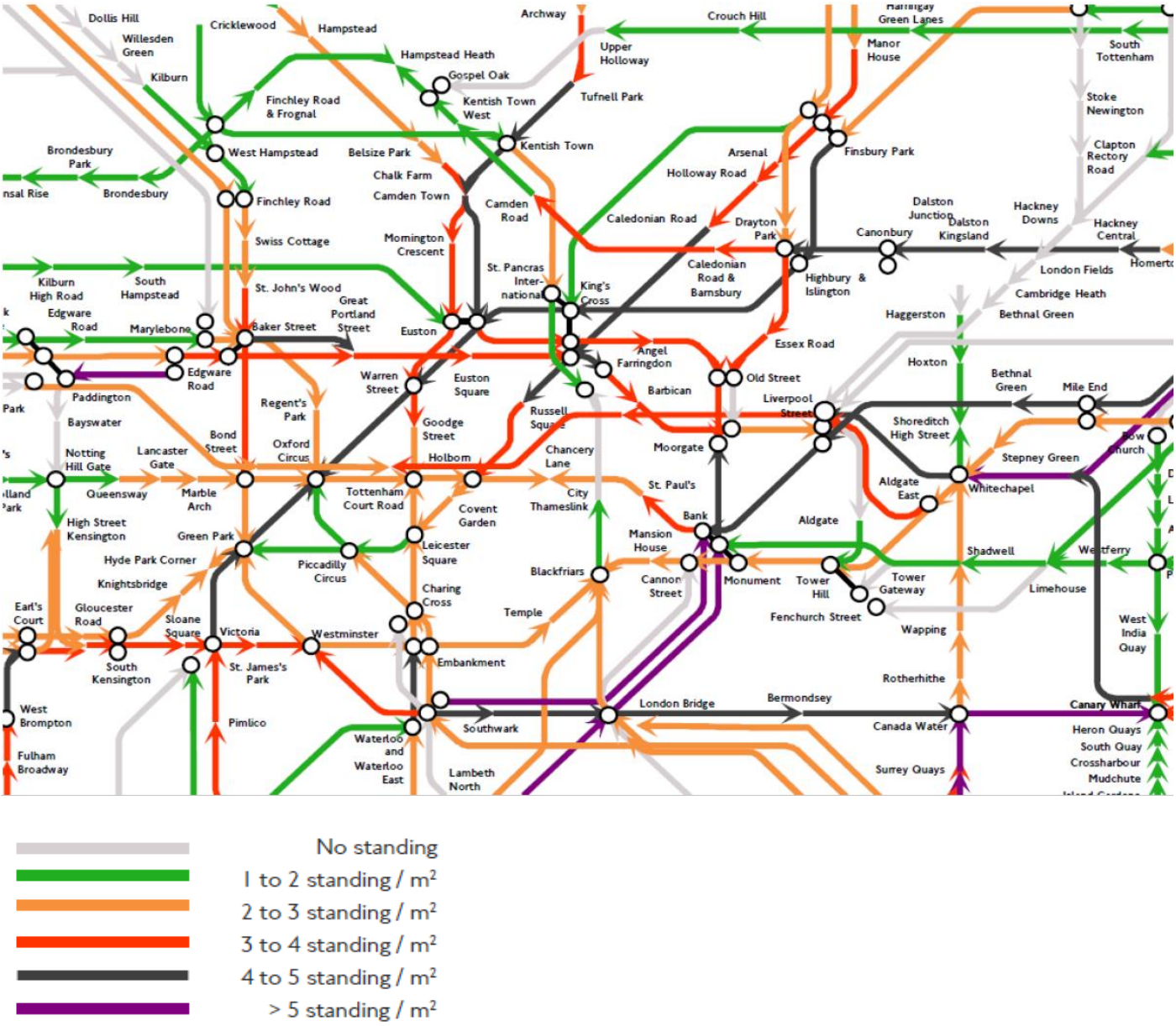


Figure 49 LU Crowding 2041 'Upper EAP' (AM)

By 2041 in the 'upper growth' scenario, conditions worsen again and there are changes from red to black between

- Kings Cross to Euston and Green Park to Oxford Circus on the Victoria line
- Between West Brompton and Earl's Court on the District line

These changes are happening at a strategic level across London, and are not necessarily attributed to one particular planning application. As such, any significant capacity upgrades which may be required on individual tube lines in the future, would likely need to be funded by the upgrades being included in a future TfL Business Plan.

Station level modelling hasn't been undertaken as part of this piece of work and may be something that needs to be considered as part of future planning applications for the OSD. The current assumption however is that the necessary improvements required at Euston LU station will be delivered by HS2 and that all infrastructure will be suitably sized to accommodate the demand being generated by both HS2 (and

other rail) passengers and the development, with HS2 undertaking suitable station modelling to demonstrate this as part of the design development process.

Active Travel Impacts

Local connectivity

Connectivity within the EAP area is in some locations fragmented due to the physical barriers to travel which exist, including the road and rail infrastructure. Data has shown that 20% of motorised trip lengths are under 5km, which suggests there could be scope for some modal shifts for more local journey's, were the right conditions in place.

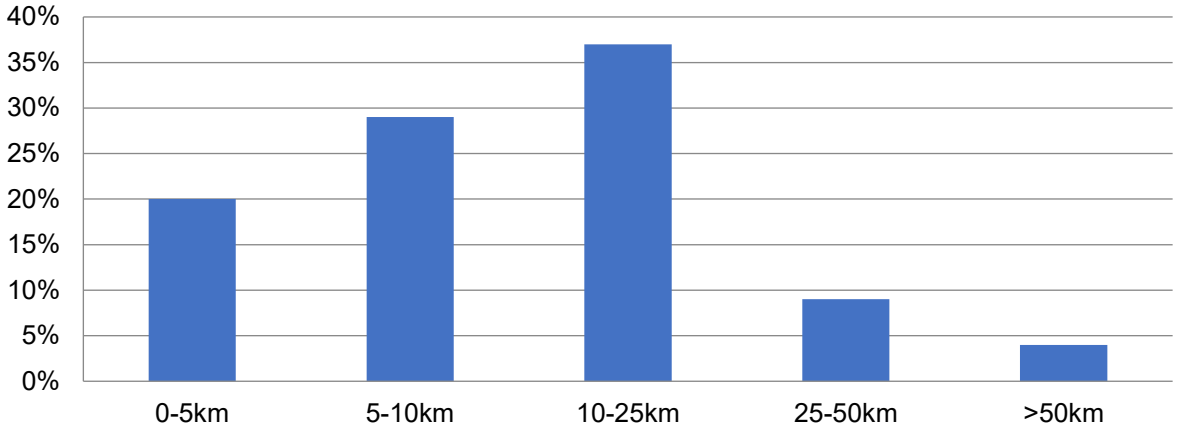


Figure 50 Motorised traffic trip length (excluding bus and P2W) on northern inner ring road corridor

There is an opportunity in the area for streets to function as social spaces and places that actively encourage walking and cycling, as well as corridors for vehicular movement.

In order to realise this potential, the following issues need to be addressed:

- Lack of legibility, and signage to quieter walking routes which are already in place e.g. Phoenix Road
- Lack of suitable infrastructure (including crossing facilities) for both pedestrians and cyclists in places
- Severance caused by rail and road infrastructure
- Poor quality and hostile street environments

Walking desire lines

Modelling data for the future year Upper EAP scenario (3-hour AM peak), has shown the main desire lines for pedestrians to/ from the EAP zone (Figure 51). This data doesn't include trips which are forecast to take place wholly within the Euston EAP area and does not include trips which are simply passing 'through' Euston, as the model is aiming to isolate the impact of development trips.

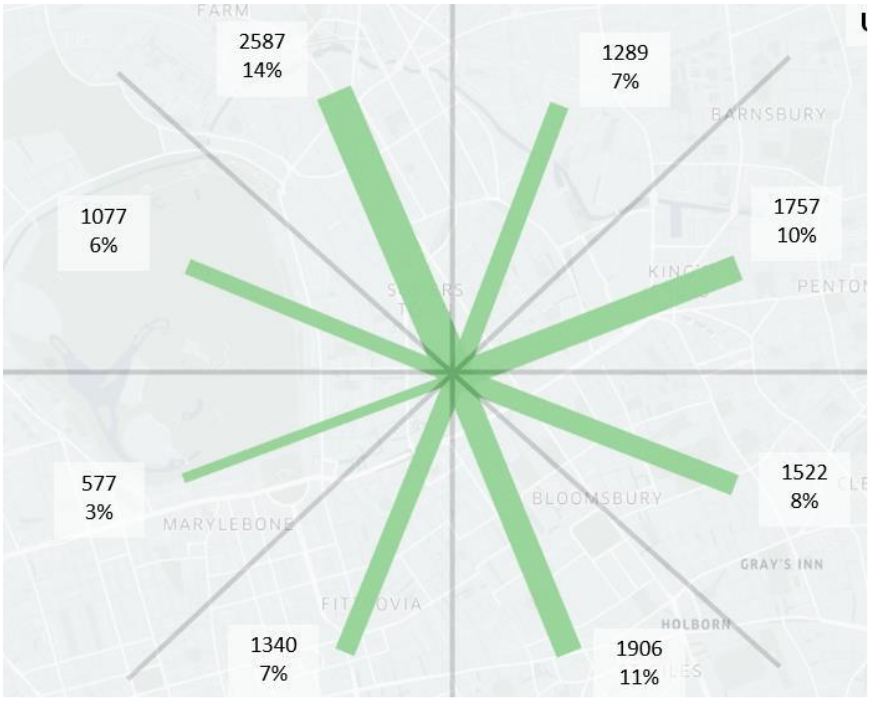


Figure 51 Pedestrian desire lines to/ from Euston in the 3-hour AM Peak (7-10am) (Upper EAP scenario)

Onward pedestrian movements are relatively equally spread in all directions to/from Euston, although there are slightly more trips to the south and east above other directions. Future spending on pedestrian improvements should consider these desire line statistics alongside mode share targets to try and identify where funding could have the best impact.

Box 20 Pedestrian Assignment Modelling 2023

In 2023 a study into future pedestrian demand arising from both the regeneration of Euston Station as well as background trips was conducted. This used the TfL MoTiON Strategic Transport model to derive background walking trips, and Railplan zones for the station campus and surrounding area to disaggregate this demand data into smaller local areas. This localised assignment data was then integrated with the Station Design Services Contracts' (SDSC) scheme design pedestrian model to calculate the distribution of trips from the station interchange (transport demand) and background walking trips on individual streets. This yielded the following results:

- Gordon Street and Upper Woburn Place are forecast to be particularly busy
    - Gordon Street is impacted by current representation of Gower St. TH at LU ESS station, which promotes use of Euston Road above Gower Street/ Gower Place
    - Reduced numbers crossing at Friends House impacts Upper Woburn Place
- Euston Street/ Drummond Street much quieter than expected
- Routing via Euston Road dominates

Areas forecast to have reduced pedestrian comfort levels lower than B+ (due to increased background and transport demand) included Upper Woburn Place, Gordon St, Euston Road (west of Gordon St) Euston Square Gardens (southeast corner), Robert St, Euston Road (west of Dukes Road). Further segments which scored low due to narrow pavement widths, rather than increased pedestrian demand included Drummond Street (east of North Gower Street) and Stephenson Way.

Improvements may be needed at (but not limited to) these locations. However, this should be investigated further as part of any individual planning application with any improvements secured as part of the planning process.

- Junction of Eversholt Street with Euston Road

- Other desire lines on Euston Road
- Desire lines on Hampstead Road

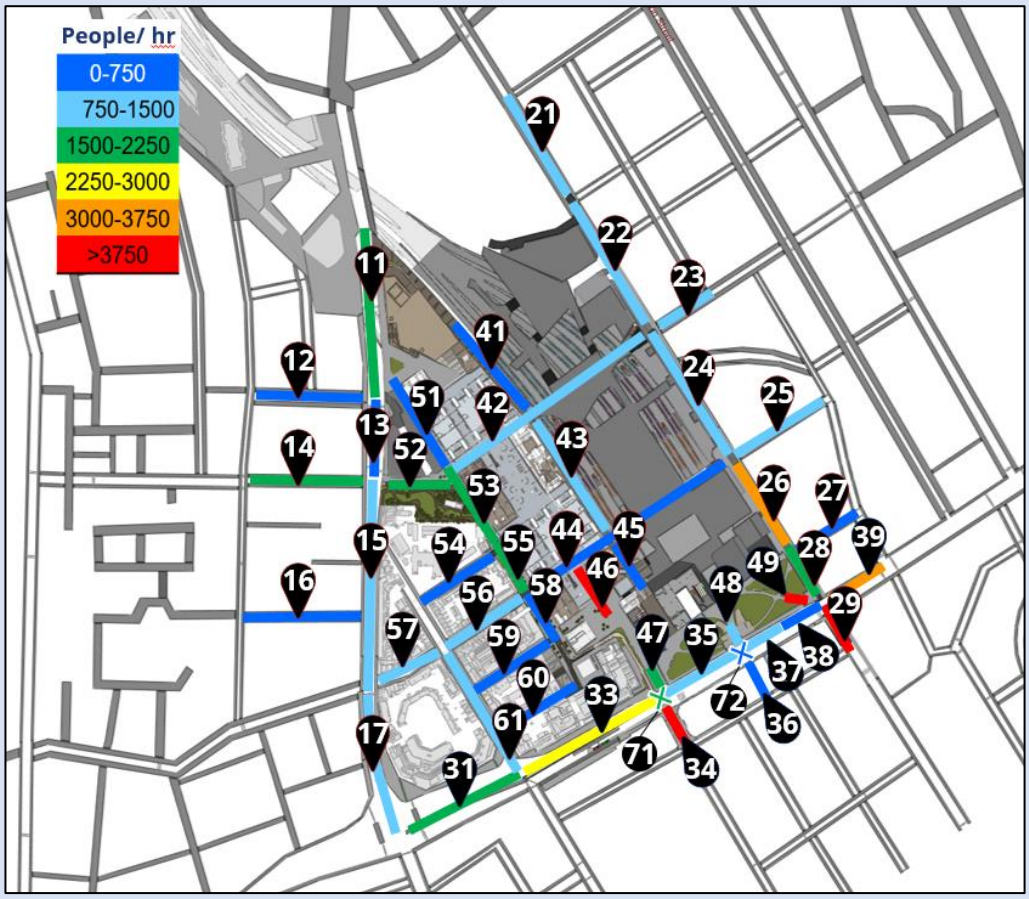


Figure 52 Euston pedestrian modelling, 2023 (Transport interchange and background demand)

As mentioned elsewhere in this document, the Council is working on delivering enhanced walking routes on Phoenix Road, north of Euston Road (between Eversholt Street and Midland Road), on the Wellbeing Walk south of Euston Road (between St. Chad's Street to Gower Place) on Granby Terrace Bridge, Robert Street and Longford Street.

Cycle desire lines

Modelling data for the future year Upper EAP scenario (3-hour AM peak), has shown the main desire lines for cyclists to/ from the EAP zone, this can be seen in Figure 53. This data doesn't include trips which are forecast to take place wholly within the Euston EAP area, or those which are simply passing 'through' Euston as the aim is to understand the impact of development trips.

This shows that 20% of trips to/ from Euston are coming from / to Bloomsbury and beyond, directly south of the station, while 16% come from the southeast towards Holborn and the City. Following this, movements to and from the east and northeast are the most used (14% respectively). Travel to the west is quite evenly spread in all directions. Looking at this data alongside the mode share data based on distance travelled could help inform where to target future investment in cycle infrastructure.

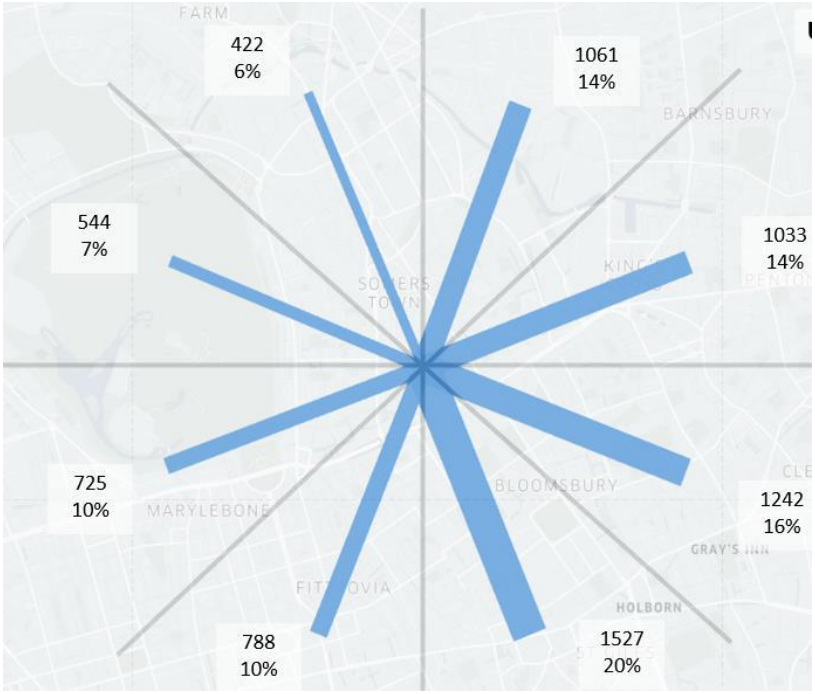


Figure 53 Cycle desire lines to / from Euston in the 3-hour AM Peak (7-10am) (Upper EAP scenario)

Cynemon cycle route analysis

Cynemon is a strategic cycling model which estimates the number of cyclists and their routes and journey times across London. Cynemon has been developed to model and visualise cyclist route choice, and to provide inputs for cycle connectivity mapping. Cynemon is capable of assessing the impacts of aspects such as gradient, road type, cycle lanes and other traffic on route choice. It can quantify the impacts of investment in cycling infrastructure and identify the locations where cycle infrastructure should be considered.[87]

Cynemon data has been produced for the 3-hour AM and PM peak periods. This data presents prevailing 'through' demand as well as demand arising from the EAP. The total demand forecast on routes is presented in a series of blue bar charts, with EAP development scenarios presented in darker share of blue. Those routes which are particularly heavily used by EAP development cycle demand are highlighted in orange and red.

Whilst the data should be read with caution at a local scale due to the strategic nature of the model and the sizes of MoTiON zones, the results are still useful when combined with other data, for providing an indication of which corridors are likely to be most attractive to both cyclists in general, alongside those associated with the development, and as such where it might be useful to focus improvements in cycling infrastructure. Euston Road and roads to the south of the station are likely to be popular with cyclists, as is Drummond Street and other roads which would be used to access the on-site cycle parking hubs (location as previously assumed).

[87] TfL, n.d. Strategic Transport Models: Cynemon

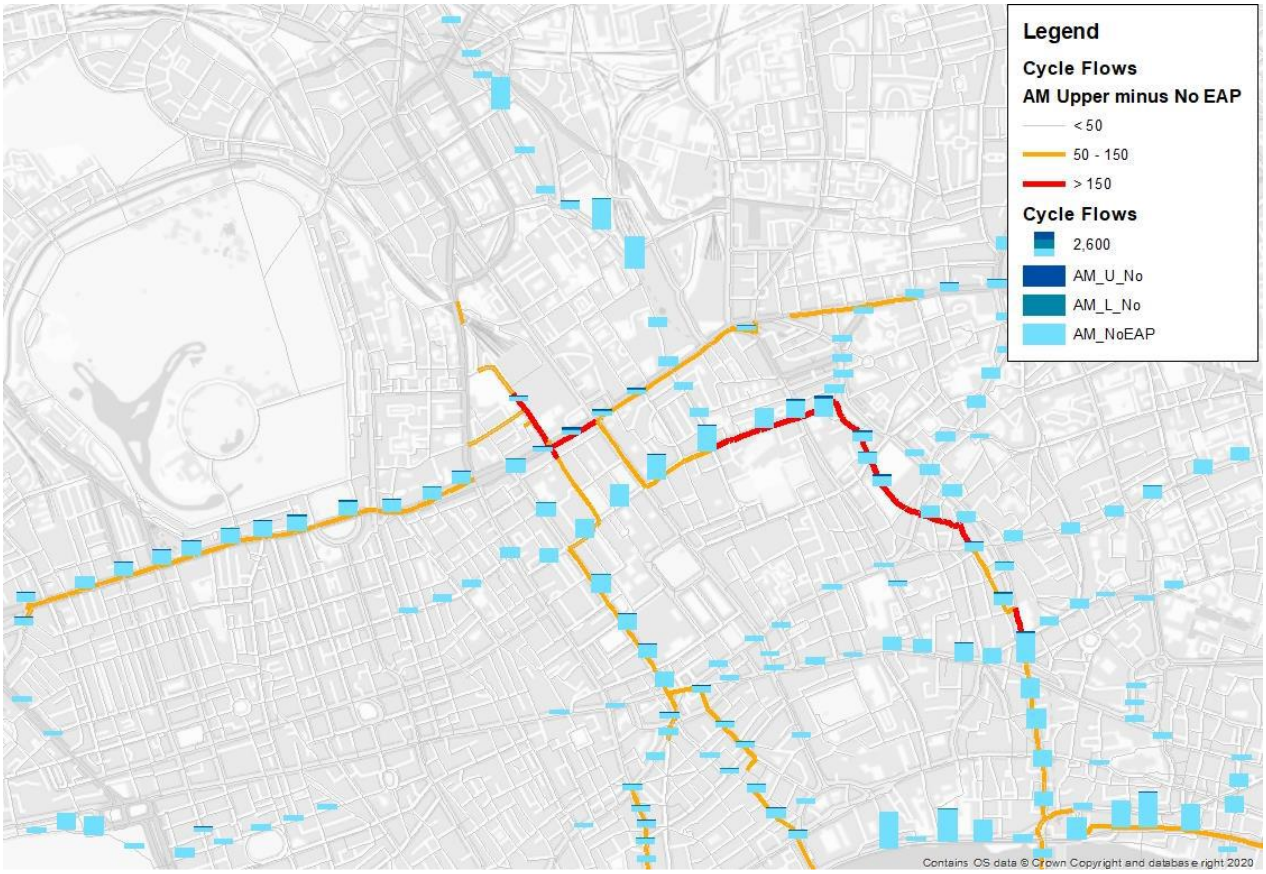


Figure 54 Main cycling flows, 3-hour AM peak (7-10am)

Appendix B Transport Implementation and Delivery Plan

This chapter sets out the package of strategic and local infrastructure needed to support growth at Euston, whilst addressing the challenges up to 2041.

It is currently assumed that some of the essential measures needed to support the growth at Euston will be developed and delivered by HS2, as per the Hybrid Bill. As referenced elsewhere, it is expected that all infrastructure will be suitably sized to accommodate all demand expected to be generated at the campus. These interventions have been identified accordingly in the table below.

Other interventions will be the responsibility of the developer and will be required to ensure that the relevant planning policies can be met, as per the standard planning process.

The key transport infrastructure identified in this Strategy is considered essential to support the high EAP growth scenario and regeneration of Euston.

The following section details the timescales for the delivery of the transport strategy as shown in Table 6. The table describes the project along with:

- The Euston Healthy Streets outcomes each project would support
- High-level estimated project cost
- Estimated timeframes for delivery
- Responsible stakeholders in terms of potential funding and/ or delivery

Key	
Outline Cost	£ - Up to 5M ££ - Up to 20M £££ - Up to 150M £££+ - Greater than 150M
Phasing Period	Phasing refers to when the infrastructure should come forward within the short term (ST: Up to 2030); medium term (MT: Up to 2035); and long term (LT: post 2035).

* assumed to be a commitment in the HS2 Act to deliver this

** there may be some commitments in the HS2 Act

Table 6 Delivery Plan

Intervention	Euston Healthy Streets Objectives delivered								Outline cost	Phasing	Responsibility
	Places for walking	Connected cycling	Road danger reduction	Efficient use of street space	Improve the environment	Quality public transport	Meeting the needs of local communities	Enhancing customer service			
Improving pedestrian accessibility, wayfinding and the urban realm											
Improved pedestrian crossings and links, including further investigation of all-green pedestrian crossings at key intersections. Start with short term pedestrian upgrades.	/		/	/		/	/	/	££	ST-LT	TfL, LB Camden, HS2, developer
New underground passenger subways linking Euston Station and Euston Square Station*	/		/	/		/		/	££	MT-LT	DfT, HS2, TfL
New car-free links along Drummond Street and Gordon Street	/	/	/	/	/	/	/	/	££	MT - LT	LB Camden, TfL, HS2
Consistent wayfinding, includes tying in with existing wayfinding projects such as the Urban Partners sponsored Wellbeing Walk	/					/	/	/	£	ST- LT	TfL Legible London, LB Camden, Urban Partners, developer
New north-south and east-west links through the station, or mitigating measures if these are not feasible	/		/	/		/	/	/	££	MT - LT	DfT, HS2, NR, Developer, TfL, LB Camden
Pedestrianisation of Granby terrace bridge with access for cycles and Network Rail retained	/	/		/				/	£	MT-LT	LB Camden
Improving cycle accessibility											

Intervention	Euston Healthy Streets Objectives delivered								Outline cost	Phasing	Responsibility
	Places for walking	Connected cycling	Road danger reduction	Efficient use of street space	Improve the environment	Quality public transport	Meeting the needs of local communities	Enhancing customer service			
Package of cycle network improvements		/	/	/			/	/	££	ST- LT	Developers, TfL, LB Camden, HS2
Provision of permanent cycle tracks along Hampstead Road		/	/	/			/	/	£	ST - MT	HS2, TfL, LB Camden, Developers
Additional dockless** and docked* scooter and bike hire within the station campus and on surrounding streets		/		/		/	/	/	£	ST - LT	HS2, Developers, LB Camden, TfL, NR
New cycle parking to serve the train stations and new development*		/				/	/	/	£	MT- LT	HS2, NR, Developer
Improving public transport facilities and the urban realm											
New bus station* which meets TfL's operational and passenger requirements,	/	/		/	/	/		/	££	MT - LT	TfL, HS2, NR, Developer
Additional capacity on some bus routes as a result of HS2 *						/		/	£	MT- LT	TfL, HS2
Additional capacity on some bus routes if proven necessary following submission of individual planning applications						/		/	£	MT- LT	TfL, developer
Crossrail 2 (desirable)						/		/	£££+	LT	TfL, DfT
New Euston LU station entrance and pedestrian link to Gordon Street entrance*	/		/	/		/		/	£££	MT- LT	HS2, DfT, TfL

Intervention	Euston Healthy Streets Objectives delivered								Outline cost	Phasing	Responsibility
	Places for walking	Connected cycling	Road danger reduction	Efficient use of street space	Improve the environment	Quality public transport	Meeting the needs of local communities	Enhancing customer service			
New Euston Square LU station entrance on Gordon Street*	/		/	/		/		/	£££	MT- LT	HS2, DfT, TfL
Managing freight and servicing											
Station servicing plans			/	/	/		/		£	MT- LT	HS2, NR, developer
Development delivery and servicing pans			/	/	/		/		£	MT- LT	HS2, NR, developer
Construction management plans			/	/	/		/		£	ST- LT	HS2, NR, developer
Micro-consolidation centre trial pilot and permanent facility to serve new development and surrounding area			/	/	/		/		£	ST - LT	LB Camden, Developer, HS2, NR
Materials by rail for construction			/	/	/		/		£££	ST - LT	HS2, NWR
Improving taxi facilities for passengers and drivers											
Taxi & management systems (active queue management)	/		/	/	/	/	/		£	ST - LT	TfL, HS2, NR, Developer, LB Camden
Taxi sharing initiative				/	/	/		/	£	MT - LT	TfL, HS2, NR, Developer, LB Camden
Travel demand/ highways interventions											

Intervention	Euston Healthy Streets Objectives delivered								Outline cost	Phasing	Responsibility
	Places for walking	Connected cycling	Road danger reduction	Efficient use of street space	Improve the environment	Quality public transport	Meeting the needs of local communities	Enhancing customer service			
Eversholt Street short term pedestrian and accessibility upgrades (may include cycle infrastructure)	/	/	/	/			/	/	£	ST	LB Camden
Eversholt Street traffic filter (bus and taxis only) and cycle track scheme (Long-term)	/	/	/	/	/	/	/	/	£	MT-LT	LB Camden, TfL, developer
Wellbeing Walk (alternative route south of Euston Road)	/		/		/		/	/	£	ST	LB Camden, developer
PHV Management systems			/	/	/		/		£	ST - LT	LB Camden, TfL, NR, HS2
Euston Road bus priority, pedestrian and cycling measures (long term)	/	/	/	/	/	/	/	/	££	MT-LT	TfL, LB Camden, developer
Euston station integrated ticketing						/		/	££	MT- LT	TfL, NR, HS2, DfT
Travel Plans for New Development	/						/	/	£	LT	LB Camden, developer

Covid Travel Patterns

Covid-19 Transport Impacts

Since the 2015 EAP was published, Covid-19 has significantly impacted on many areas of life, including how people work and commuting patterns. Across London, the requirement to stay at home, and continued home-working post-pandemic, has resulted in a reduction in the number of passengers using TfL services during the working week Euston station saw significantly reduced passenger numbers across all modes during the pandemic, but these numbers have been increasing since. The underground station for example saw c.31m passengers in 2019, falling to c.9.8m in 2020. This figure rose to c.31.9m passengers in 2024[88.] For the Network Rail station, passenger demand was c.44.8m in 2018/19, falling to c.6.6m during the pandemic years of 2020/21. This has since risen to c.36.2m in 2022/23[89]

During the pandemic measures were also put in place to help support more trips on foot and by bike. As part of this, two temporary cycling schemes were introduced in this area along Hampstead Road and Euston Road. It can be seen in Figure 55 that whilst all trips reduced during the pandemic, the proportion of people walking and cycling increased and both walk and cycle mode shares currently remain higher than before the pandemic, with 26 per cent of all trips in 2023 being walk trips. Cycle mode share was 4.5 per cent in 2023, up from 3.6 per cent in 2019[90].

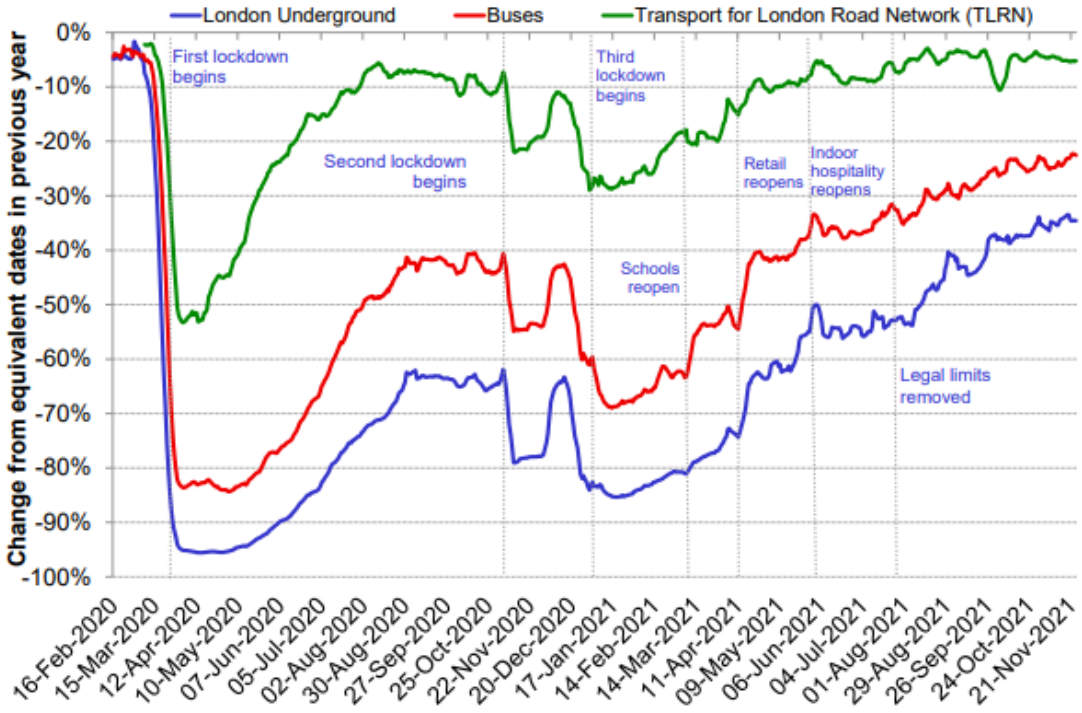


Figure 55 Demand on TFL services pre- and post-pandemic

[88] Transport for London, Network Demand Dashboard, Microsoft Power BI
[89] Railstats, London Euston railway station, London Euston Station
[90] Transport for London, 2024, P12, Travel in London 2024 - Annual overview

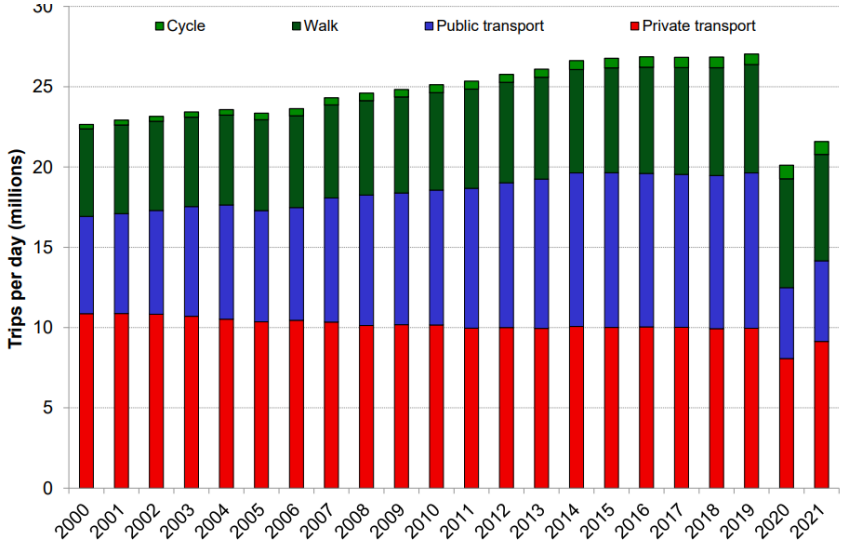


Figure 56 Estimated average daily trips by mode, seven-day week 2000-2021[91]

Bus Station Requirements

The future bus facility should meet the following criteria:

- Sufficient stop and stand space to accommodate the long-term bus network plans (2041 and beyond, as set out in the Euston Bus Station High Level Passenger & Operational Requirements).
- All bus stands are to be provided in a consolidated, off-highway facility with driver and TfL staff welfare facilities in an appropriate location.
- Intuitive layout – Stops are provided with routes grouped by key common destinations and enabling convenient interchange between bus routes and with other modes.
- Legibility of bus services – a clearly identifiable 'front door' easy wayfinding for passengers to find their stop and to inter-change between all transport services within the station site and the surrounding area.
- Pleasant, consolidated passenger waiting area with weather protection for waiting passengers
- Passenger information unit
- Security of tenure for passenger and operational facilities
- Allowing full permeability for pedestrians moving through the area, with provision of direct and level crossings on desire lines that accommodate anticipated footfall. Signalised crossing points around the bus station should be in a single stage.
- Provide the necessary entrance and exit points to enable bus services to serve the rail station from Euston Road and Eversholt Street and to provide operational resilience.
- The footways should be designed in line with footfall requirements and modelling, which would reflect bus boarding and alighting locations on highway and passenger waiting areas, alongside other on-street activities.
- To help create a high-quality urban realm which complements the design of the transport hub (including the rail station, the bus station, the LU station and the surrounding area), helps to transform the image of the area and ccontributes to the creation of a world class station and above station development
- To enhance the setting and historic context of Euston Square Gardens, balanced with providing essential bus access and convenient interchange at this key transport hub
- Accessibility for users with reduced mobility or other disabilities, by providing convenient, close, step-free access between trains and buses
- Improved permeability and crossing facilities for cyclists

[91] Transport for London, Traffic and Service performance data

Conclusions and Next steps

From the modelling undertaken to date, a package of interventions has been identified which it is considered would help support development at the site and help make it acceptable in planning terms. The analysis presented in this document is based on a 'worst-case scenario' from a travel demand perspective, given it considers the impact of a higher number of HS2 trains per hour and a more significant amount of development, than is now being assumed. As discussed elsewhere, given the current uncertainties surrounding the site, we do not consider it appropriate to undertake further modelling at this time given so many things are still subject to change.

To help ensure the most appropriate transport measures are taken forward for implementation to support the redevelopment of the Euston campus, we would recommend the following items are considered in more detail in due course. The best organisation to lead on each of these should be discussed and agreed through the Euston Partnership: Any future planning application for the site should be accompanied by a detailed Transport Assessment, supported by the relevant, up to date transport modelling.

- HS2 and Network Rail should update the modelling for the train passenger demand once decisions have been made on the future number of platforms and train services etc. This will ensure the station's design adequately responds to future travel demand and can fulfil target outcomes of delivering a high quality, accessible and legible transport interchange and campus.
- Further work and analysis (including modelling where needed) should be undertaken as part of the Euston Healthy Streets workstream, to identify what improvements should be taken forward at street level to support the safe and efficient movement of pedestrians, cyclists and buses through the area. Further consideration to how these improvements will be funded is also needed. Ongoing design work needs to respond to changes in the station design to ensure that Healthy Street outcomes can be achieved and maximised. Further analysis should be undertaken as needed to fill any gaps in our current understanding.
- A strategy to more effectively manage the movement and impacts of private hire vehicles in the area should be developed. Further analysis of current and future movements should be undertaken as needed to support this work. This should be considered alongside, but separately to taxis given that how they are managed and operate is different.
- Consideration should be given to developing a micromobility and cycle parking strategy for the Euston Campus and surrounding area
- Consideration should be given to developing a more detailed funding and delivery strategy