

# Lower Thames Crossing Framework Construction Travel Plan

**DATE: June 2021**

**Version 0.2**

# Lower Thames Crossing

## Framework Construction Travel Plan

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## Covering Note

This document is a draft of one of a series of Control Documents that will form part of our planned DCO application. Following this consultation we will carefully consider your feedback as we finalise the documents for our planned submission of our DCO application for the Lower Thames Crossing later this year.

This Framework Construction Travel Plan (FCTP) sets out a framework to reduce the impact of the project's construction workforce on the road network as a result of travel to and from construction areas and compounds (including utility logistic hubs). This FCTP sets out proposed ways in which this would be done, including by reducing single occupancy vehicle trips and encouraging sustainable and active travel.

Before starting construction, contractors would develop Site Specific Travel Plans (SSTPs) in accordance with this FCTP for the sites they are responsible for, following the latest policy advice and best practice documents. This would apply to individual compounds, or several where they are closely located with similar levels of accessibility.

The following contains a draft copy of this document to provide an example of how mitigation and commitments would be secured within our DCO application when it is submitted.

This FCTP reflects the changes to the design described in this consultation. Updates will be made to this document to reflect feedback received from stakeholders ahead of submitting the document as part of our DCO application.

As this is a draft control document, there are references to the upcoming Development Consent Order (DCO). Any documents referenced that will form part of our DCO are mentioned with a (REF TBC).

# 1 Executive summary

- 1.1.1 The primary purpose of this Framework Construction Travel Plan (FCTP) is to set out a framework with regard to the implementation of travel planning for the movement of personnel to and from the construction areas and compounds during the construction phase of the Lower Thames Crossing (the Project).
- 1.1.2 The key aims of the FCTP are to minimise adverse local disruption or traffic impacts on the highway network from worker and visitor travel to and from construction areas and compounds by reducing the number of single-occupancy vehicle trips and encouraging the uptake of sustainable and active modes of travel. Potential changes in travel behaviours would also be explored to identify the most efficient ways of working, such as reducing the distance travelled and the need to travel.
- 1.1.3 These Project-wide aims and objectives are also set out in the Code of Construction Practice (CoCP), and are secured as commitments to be delivered by the Project through the DCO Schedule 2.
- 1.1.4 In line with this overarching FCTP, contractors would develop Site-Specific Travel Plans (SSTPs) in respect of the sites for which they are responsible (either an individual construction area or compound, or a number of construction areas and compounds where these are closely located with similar levels of accessibility), following the latest policy advice and best practice documents.
- 1.1.5 The SSTPs would be required to contribute to the development and refinement of Project-wide targets, measures and incentives, as outlined in this FCTP, as suitable for each of the specific construction areas and compounds. This would be required to be summarised in an action plan, which sets out a programme of regular scheduled activities and monitoring, with associated timescales and responsibilities, to be carried out as a minimum during the Project's construction period.
- 1.1.6 This FCTP and future SSTPs are designed to incorporate the flexibility needed to respond and adapt to changing conditions over the duration of the Project and will require a continuous monitoring and reviewing process. Regular employee travel surveys would be undertaken at each site, reviewing targets and indicators as necessary.
- 1.1.7 A Travel Plan Liaison Group (TPLG) would be established, with the collective responsibility of providing high level support to, and critical review of, travel planning across the Project. It would support efforts towards achieving greater use and increased uptake of sustainable travel, monitoring and reviewing progress, and agreeing new or amended initiatives. To ensure sufficient progress is being made, the effectiveness of the FCTP and SSTPs would be reviewed, audited and reported to Highways England by the Travel Plan Manager (TPM) within the first six months of construction (to be repeated every six months throughout the duration of construction thereafter).
- 1.1.8 Highways England would fund the preparation, implementation and operation of this FCTP, including the activities related to the implementation of this FCTP and the TPLG. The preparation of the SSTPs and the implementation and monitoring of SSTP measures would be a requirement of contractors' appointment and so would be funded by those contractors.

## 2 Introduction

### 2.1 Purpose of the document

- 2.1.1 This document is the Framework Construction Travel Plan (FCTP) for the Lower Thames Crossing (hereafter referred to as the Project).
- 2.1.2 The purpose of the FCTP is to set out a framework with regard to the implementation of travel planning for the movement of personnel to and from the construction areas and compounds during the construction phase of the Project. These construction areas and compounds are located to support distinct works such as the tunnel portals or areas such as compound CA 02 to the A2/M2 connection area. Compounds are sized based on forecast labour demand (office and site), catering and welfare and plant and material storage.
- 2.1.3 The key aim of the FCTP is to minimise adverse local disruption or traffic impacts on the highway network from worker and visitor travel to and from construction areas and compounds (including the construction compounds, and the site office in Ebbsfleet, also known as the enterprise office) by reducing the number of single-occupancy vehicle trips and encouraging the uptake of sustainable and active modes of travel. Potential changes in travel behaviours will also be explored to identify the most efficient ways of working, such as reducing the distance travelled and the need to travel, where possible.
- 2.1.4 The FCTP sets out guidance for developing Site-Specific Travel Plans (SSTPs) for each construction compound, or compounds where these are closely located with similar levels of accessibility. This includes the Utility Logistic Hubs (ULH) required for Statutory Undertakers (SU) to carry out the utility-specific works. The ULH would be established, in different locations and at different time periods to the main works compounds. The SSTPs will be developed by the contractors as set out in the Requirements and produced following the latest guidance and best practice. The SSTPs will be subject to review (and approval) by the Secretary of State (SoS), in consultation with relevant local planning authorities.
- 2.1.5 As set out in the Government guidance ‘Travel Plans, Transport Assessments and Statements’<sup>1</sup> (outlined in detail in Chapter 7) some of the main high-level benefits which Travel Plans can positively contribute towards, include the following:
- a. Encouraging sustainable travel
  - b. Lessening traffic generation and its detrimental impacts
  - c. Reducing carbon emissions and climate impacts
  - d. Creating accessible, connected, inclusive communities

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<sup>1</sup> <https://www.gov.uk/guidance/travel-plans-transport-assessments-and-statements>

- e. Improving health outcomes and quality of life
- f. Improving road safety
- g. Reducing the need for new development to increase existing road capacity or provide new roads

2.1.6 These benefits provide the key focus of the FCTP and subsequent SSTPs and are captured in detail in Chapter 3.

## 2.2 The Project

2.2.1 The A122 Lower Thames Crossing (the Project) would provide a connection between the A2 and M2 in Kent, east of Gravesend, crossing under the River Thames through a tunnel, before joining the M25 south of junction 29. The Project route is presented in Plate 2.1.

2.2.2 The A122 road would be approximately 23km long, 4.25km of which would be in tunnel. On the south side of the River Thames, the Project route would link the tunnel to the A2 and M2. On the north side, it would link to the A13 and junction 29 of the M25. The tunnel entrances would be located to the east of the village of Chalk on the south of the River Thames and to the west of East Tilbury on the north side.

2.2.3 Junctions are proposed at the following locations:

- a. New junction with the A2 to the south-east of Gravesend
- b. Modified junction with the A13/A1089 in Thurrock
- c. New junction with the M25 between junctions 29 and 30

2.2.4 To align with NPSNN policy and to help the Project meet the Scheme Objectives, it is proposed that road user charges would be levied. Vehicles would be charged for using the new tunnel.

2.2.5 The Project route would be three lanes in both directions, except for:

- d. link roads
- e. stretches of the carriageway through junctions
- f. the southbound carriageway from the M25 to the junction with the A13/A1089, which would be two lanes

2.2.6 In common with other A-roads, the A122 would operate with no hard shoulder but would feature a 1m hard strip on either side of the carriageway. It would also feature technology including stopped vehicle and incident detection, lane control, variable speed limits and electronic signage and signalling. Our A122 road design outside of the tunnel includes emergency areas spaced at intervals between 800 metres and 1.6km (less than one mile). The tunnel would include a range of enhanced systems and response measures instead of emergency areas.

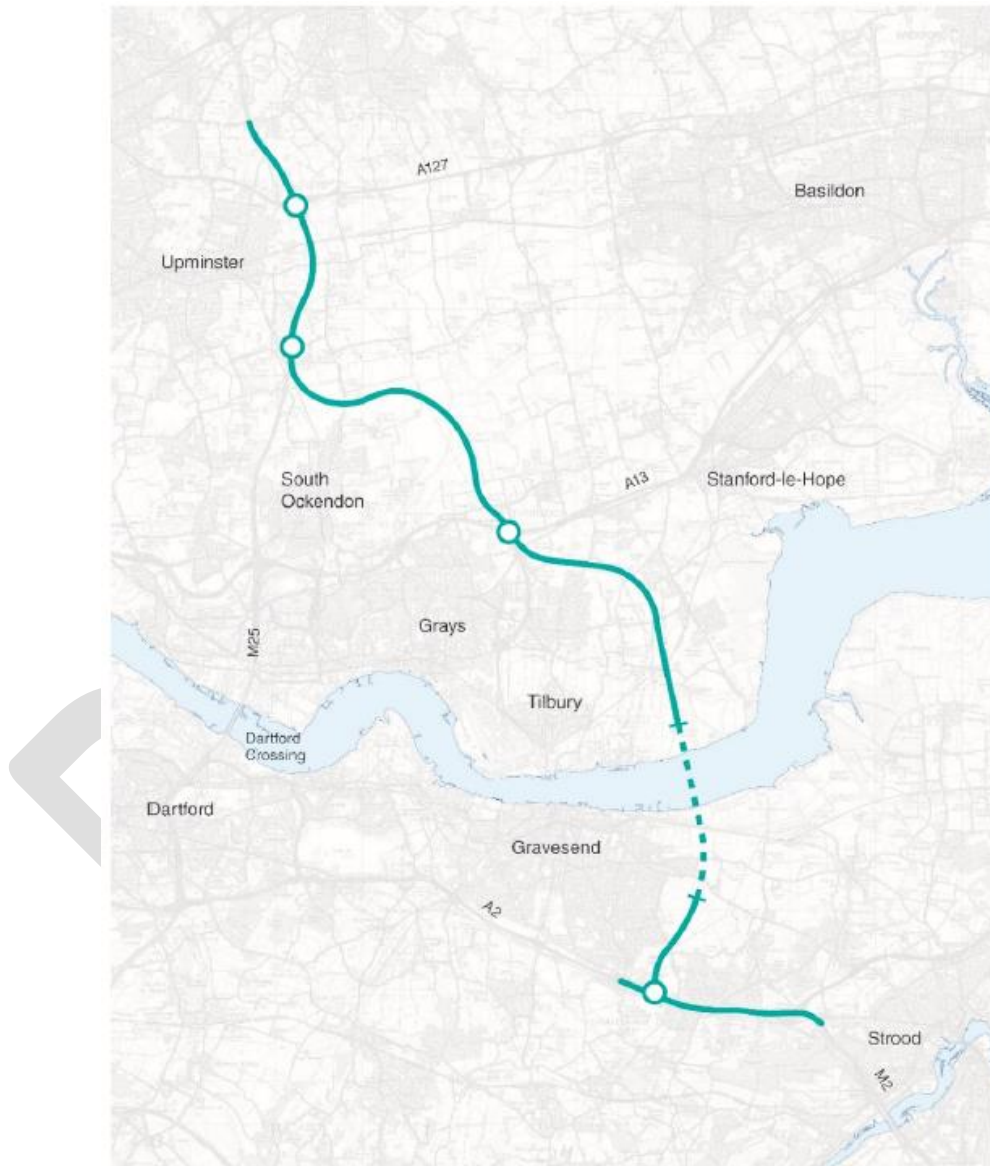
2.2.7 The A122 would be classified as an 'all-purpose trunk road' with green signs. For the benefit of safety, walkers, cyclists, horse-riders and slow-moving vehicles would be prohibited from using it.

2.2.8 The Project would include adjustment to a number of side roads. There would also be changes to a number of public rights of way, used by walkers, cyclists

and horse riders. Construction of the Project would also require the installation and diversion of a number of utilities, including gas pipelines, overhead power lines and underground electricity cables, as well as water supplies and telecommunications assets and associated infrastructure.

- 2.2.9 The Project has been developed to avoid or minimise significant effects on the environment. Some of the measures adopted include landscaping, noise mitigation, green bridges, floodplain compensation, new areas of ecological habitat and two new parks.

**Plate 2.1 Lower Thames Crossing route**

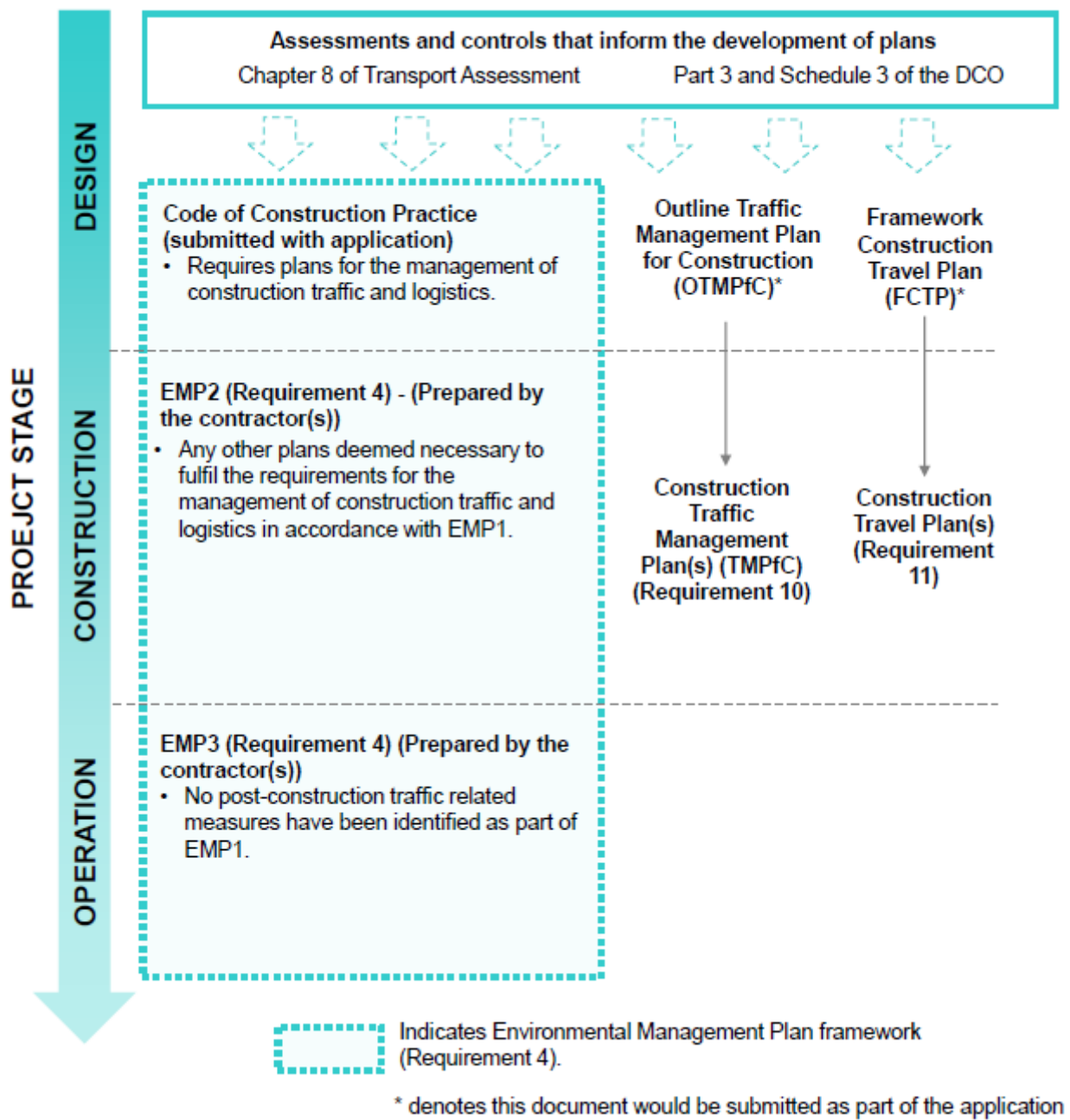


## 2.3 Approach to the document

- 2.3.1 This FCTP is a stand-alone document and compliance with the measures set out in this document are secured under Requirement 10 (Part 1 of the DCO Schedule 2). The document has been developed in coordination with a number of related Project documents, as illustrated in Plate 2.2.



**Plate 2.2 Document map**



2.3.2 This document has been produced in support of the commitments set out in the Code of Construction Practice (CoCP) which, together with the Register of Environmental Actions and Commitments (REAC), provides a framework for how the mitigation and management of environmental effects of the Project would be delivered and maintained. This is detailed further in Chapter 3.

2.3.3 As shown in the diagram above, the CoCP feeds into the EMP2 and EMP3 for construction and operational phases. The Environmental Management Plan (Second Iteration) (EMP2) must be substantially in accordance with this CoCP and must reflect the mitigation measures set out in the REAC. During the final phases of construction, the contractors would prepare an EMP3 in consultation with, and subject to agreement by, Highways England. The information contained within the EMP3 serves to inform the approach to environmental management during the Project’s operational phase to be implemented by

Highways England. The EMP3 would build on the EMP2 and would provide the relevant information on existing and future environmental commitments and objectives that will need to be honoured and ongoing actions and risks that will need to be managed.

- 2.3.4 This FCTP is also closely related to the outline Materials Handling Plan (oMHP), and the outline Traffic Management Plan for Construction (oTMPfC) (Requirement 10, Part 1 of the DCO Schedule 2).
- 2.3.5 The oMHP presents the outline strategy for handling construction materials required for the construction of the project, including the handling of excavated materials and the delivery of large and/ or frequent materials defined as bulk deliveries. It also includes the approach which the Project intends to reduce the impact of construction related movements, including HGVs on the road network. Contractors will be required to produce further MHPs before commencing works. These documents will be submitted to and approved by the SoS before the relevant part of the authorised development can commence.
- 2.3.6 The oTMPfC provides outline concepts and principles that will inform the temporary traffic management measures and transport logistics for the Project. Contractors will be required to produce Traffic Management Plans for construction before commencing works. These documents will be presented to Highways England and submitted to and approved by the SoS before the relevant part of the authorised development can commence.
- 2.3.7 This FCTP is also closely related to the Transport Assessment (REF TBC), in particular Chapter 8 which assesses the impacts of the Project on the performance of the highway and public transport network during the construction phase. This is detailed further in Chapter 5.
- 2.3.8 It is important to retain a coordinated approach to managing and mitigating the impacts of the Project during the construction phase. While the development of this FCTP provides a framework for improving travel opportunities to and from the Project construction areas and compounds and managing travel demands, it must remain consistent with the other related documents and control processes required to be implemented.
- 2.3.9 This FCTP falls within a dynamic process intended to adapt and develop with time as the travel patterns of the construction workforce change, and new initiatives are introduced. The FCTP sets out a framework and overarching principles for the future SSTPs. This would incorporate the flexibility required to respond and adapt to changing conditions over the duration of the Project, such as:
- a. Variation in the levels of construction activity over the duration of the construction programme in each location.
  - b. New or amended public transport provision in the vicinity of each site.
  - c. Transport network operation as a result of changing background levels of travel demand over time.
  - d. Initiatives employed through travel planning, drawing on experience of its implementation.



- e. Consideration of updates in policy or guidance – this FCTP has been prepared based on current established policy and guidance including that from the Department for Transport (DfT) and Transport for London (TfL), alongside local highway authority guidance, which are the most up-to-date documents available. This is detailed further in Chapter 7.

## 2.4 Ownership of the document

- 2.4.1 This FCTP is owned by Highways England who would retain overall responsibility for the implementation of the SSTPs approved under it, and for liaising with the appropriate local highway authorities and transport operators.
- 2.4.2 Operational responsibility for the development of measures specific to each site, and for day-to-day implementation of these measures, would be delegated to the appointed contractor at each site. Contractors would be required to work within the context of this FCTP and to monitor and report progress to Highways England.
- 2.4.3 This is set out in detail in Chapter 4 which includes details of the wider management organisation, roles and responsibilities applicable to this FCTP and the SSTPs.

## 2.5 FCTP structure

- 2.5.1 This FCTP comprises the following 12 chapters:
  - a. Chapter 1 – executive summary
  - b. Chapter 2 – introduces the purpose, and sets out the approach and ownership of the document
  - c. Chapter 3 – sets out the aims and objectives of the document
  - d. Chapter 4 – sets out details of the wider management organisation, and roles and responsibilities relevant to this document and the SSTPs
  - e. Chapter 5 – provides an overview of the Project's construction traffic details and arrangements
  - f. Chapter 6 – sets out the baseline traffic conditions on the road and public transport networks
  - g. Chapter 7 – summarises the overarching and local highway authority policy guidance related to travel planning which has informed the preparation of this document
  - h. Chapter 8 – details high-level targets for workforce travel
  - i. Chapter 9 – sets out the measures and incentives proposed for workforce travel
  - j. Chapter 10 – sets out the proposed implementation strategy and action plan

- k. Chapter 11 – sets out the proposed monitoring and review process, along with the steps to be taken to roll out any remedial measures required in the short term
- l. Chapter 12 – provides a summary

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## 3 Aims and objectives

### 3.1 Aims and objectives

3.1.1 The overarching aims and objectives of this FCTP are presented below.

3.1.2 These have also been set out in the CoCP within Section 6.3 (journey planning) and are secured as commitments to be delivered by the Project, through Requirement 4, Part 1 of the DCO Schedule 2.

#### Aims

3.1.3 The key aims of the FCTP are as follows:

- a. The Project is committed to, and will encourage, sustainable travel.
- b. SSTPs for the movement of personnel to and from the construction areas and compounds will be developed by the contractors following the latest guidance and best practice (see Chapter 7).
- c. SSTPs will be produced by the contractors for each compound, or compounds where these are closely located with similar levels of accessibility. The SSTPs will be subject to review (and approval) by the SoS, in consultation with relevant planning authorities.
- d. The intent of the SSTPs will be to identify, mitigate and appropriately manage negative travel impacts that may be generated by travel to and from construction sites.

#### Objectives

3.1.4 The SSTPs will adhere to the following principles to promote the use of sustainable transport:

- a. Walking and using sustainable forms of transport at sites shall be supported where travel can be completed in a safe, lit highway environment, with footways for pedestrians.
- b. Parking will be controlled at each compound to ensure demand does not exceed supply.
- c. Shuttle buses will operate from existing transport hubs on both sides of the River Thames. These hubs are currently envisaged at Gravesend (Bus, HS1, National Rail), Grays (Bus, National Rail) and Upminster (Bus, National Rail, London Underground, London Overground). Buses are likely to provide routes to each compound and inter-compound connectivity and will be for Project workforce only.

3.1.5 The mechanism for implementing these objectives is set out in paragraph 9.4.1.

## **Implementation strategy and action plan.**

- 3.1.6 Each SSTP will contain the following information:
- a. An assessment of the existing accessibility of the compound
  - b. The sustainable transport principles, as encapsulated above
  - c. Targets for the Travel Plan, which will be SMART (specific, measurable, attainable, realistic and time-bound)
  - d. Measures, which are targeted to the location to enable the targets to be achieved
  - e. Details of the management of the Travel Plan, including the appointment of a Travel Plan Coordinator (TPC)
  - f. Details of a clear monitoring programme which will establish the effectiveness of the Travel Plan measures against the targets set
  - g. An action plan which provides a programme for the delivery of the measures, setting this out in a clear way

## **3.2 Intent of the framework**

- 3.2.1 The information below sets out how this document aims to support meeting the aims and objectives detailed above.

### **Guidance for contractors**

- 3.2.2 This document provides a single central framework to manage and guide the movement of construction workers to and from construction areas and compounds across the Project. Given that the project falls within a number of local authority areas (both highway and planning) and has a complex overlapping programme of construction at each site, the travel planning strategy would be underpinned by the SSTPs. This is to ensure that implementation, development of targets and the subsequent monitoring and management are appropriate to each site and its surroundings, whilst also retaining a project-wide overview.

### **Inclusion of commitments**

- 3.2.3 Contractors would be required to develop SSTPs for the sites for which they are responsible, and to contribute to the development and refinement of Project-wide measures.
- 3.2.4 To support this process, guidance has been developed which will form part of the arrangements for appointed contractors. These will include the following obligations:
- a. A requirement to develop an SSTP within the framework of the FCTP and to implement an SSTP prior to the start of construction at that site

- b. To meet the minimum requirements for the content of the SSTPs in relation to the aims, objectives and measures to be employed as set out in this FCTP, and the need for an identified action plan
- c. A requirement to work with Highways England to monitor the effectiveness of the SSTPs, including undertaking regular travel surveys
- d. A requirement to ensure that subcontractors and suppliers comply with the SSTPs

3.2.5 The contractual requirements to produce SSTPs are supported by the content of this FCTP, including understanding the objectives of the Travel Plan, the responsibilities of the various parties and the range of potential measures that should be considered for inclusion in the action plan.

3.2.6 In addition, a template to aid the development of the SSTPs is provided in Appendix A.

### **Flexibility**

3.2.7 This FCTP identifies a series of Travel Plan measures which may be relevant to one or more sites or could be applied on a Project-wide basis. These are discussed in further detail in Chapter 9

3.2.8 Issues which are specific to individual site locations would be captured in the SSTPs to ensure that local characteristics are fully and appropriately reflected.

3.2.9 It is important that the implementation of measures within this FCTP and associated SSTPs is responsive, flexible, and dynamic in order to respond to changes in the context within which they are delivered and assessed.

3.2.10 This means that the SSTPs would draw from a range of potential measures, identifying those which are appropriate for each location and are likely to be most effective. During the construction period, it may be appropriate to add, remove or amend measures in the SSTPs, following the high-level guidance set out in the FCTP, to respond to changing requirements and travel patterns.

3.2.11 Travel Plan measures which at this stage are considered to be suitable for the Project fall into the following broad categories:

- a. Travel awareness
- b. Walking and cycling
- c. Public transport
- d. Shared worker transport
- e. Single-occupancy car travel

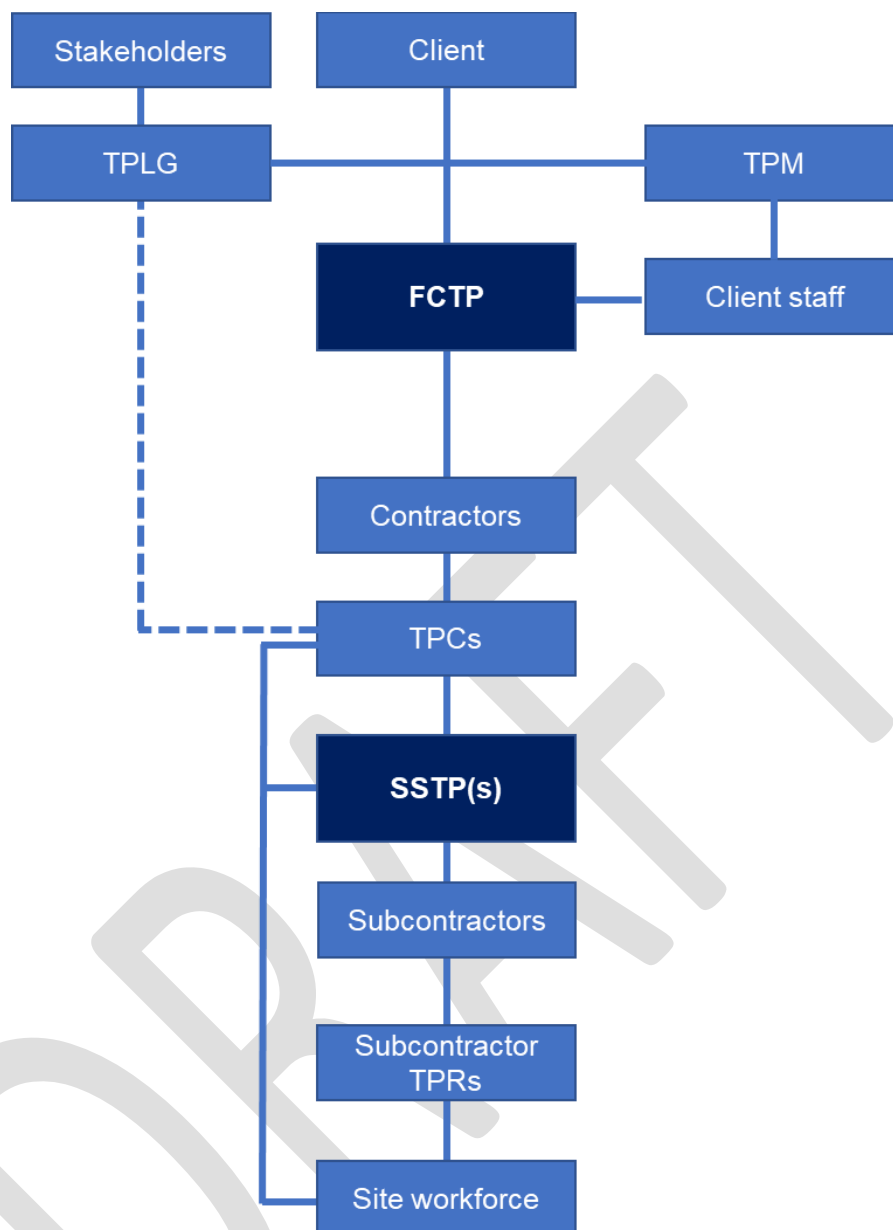
3.2.12 This highlights the importance of effective communication with and support from local planning and highway authorities throughout the process, ensuring local changes or updates have been taken into consideration, and that proposed measures and targets remain aligned with local policies.

## 4 Management and organisation

### 4.1 Introduction

- 4.1.1 This FCTP is owned by Highways England. The contractors would be required to commit to its principles as part of their appointment to the Project and would also be required to work in conjunction with Highways England to ensure that the SSTPs are implemented effectively and are reviewed on a regular basis.
- 4.1.2 In order to successfully achieve the objectives of this FCTP, a consistent and well-managed programme of action needs to be implemented. This would involve a number of key parties including Highways England, contractors working on the Project, subcontractors and suppliers, transport authorities and transport providers.
- 4.1.3 Plate 4.1 illustrates the management structure proposed for the implementation of the FCTP and SSTPs. The roles contained within this structure are explained below.
- 4.1.4 Highways England would manage the SSTPs through a TPM. Contractors and subcontractors would be required to identify nominated individuals within their organisations to manage Travel Plan activities for their sites.
- 4.1.5 A TPLG would be established, comprising stakeholder representatives such as public transport operators and local highway authorities, together with the TPM and Highways England representatives. The TPCs provided by the contractors would also be invited to attend the TPLG as necessary to discuss site-specific issues.

**Plate 4.1 FCTP management structure**



## 4.2 Highways England responsibilities

4.2.1 Highways England would appoint a TPM. The TPM would:

- ensure standards and best practice are applied across the project through coordination and information-sharing with the appointed contractors
- issue and explain the FCTP and the requirement to produce SSTPs, to each appointed contractor
- review and ensure the FCTP and SSTPs action plans are identified, appropriate and implemented
- support procurement and implementation of measures set out in the FCTP and SSTPs in conjunction with contractors

- e. assess, collate and report progress on the SSTPs' performance and determine amendments and further initiatives where required
- f. liaise and consult with the TPLG
- g. update the FCTP on a regular basis before and during the construction programme

4.2.2 As outlined in the CoCP, the construction works are expected to be split into three packages across the Project to enable appropriate management and phasing. Some of these packages will proceed concurrently with ongoing construction activities in either the same or different locations under the control of other contractors.

4.2.3 Highways England will therefore establish and chair a Joint Operations Forum (JOF), which will help coordinate the different activities undertaken by the contractors. It will help manage the interface between the different contractors efficiently, and maximise opportunities for reducing the overall impact on the surrounding communities and environment. The JOF will be attended by the contractors, which will meet regularly to discuss the internal interface between the contractors, as well as the potential interaction with other schemes and external stakeholders.

4.2.4 Furthermore, it will be required to coordinate several activities, one of which refers to monitoring the impact of the construction workforce on the community in its travel to and from work and its use of temporary accommodation. Other key tasks include the management of environmental effects, maintaining communication with the emergency response services, the coordination of construction phasing and logistics, traffic management and site access, alongside the coordination and communication between the contractors to deliver a consistent approach across the Project.

## 4.3 Contractor responsibilities

4.3.1 Each contractor would be required to appoint a TPC to develop and implement the relevant SSTPs. A contractor may choose to appoint a single TPC with responsibility for a number of construction areas and compounds. The appointed TPCs would be required to:

- a. develop an SSTP for each construction area or compound, or group of construction areas and compounds, in accordance with the contractual requirements and Travel Plan guidance set out in this FCTP, working with the TPM
- b. procure, implement, and actively promote Travel Plan measures in the SSTPs and support implementation of the FCTP
- c. act as a focal point on transport-related issues at the site/s being represented and ensure that contractors' staff comply with their responsibilities
- d. manage the monitoring, audit, and review of SSTPs



- e. liaise with other TPCs and representatives in order to share ideas, coordinate efforts and review progress
- f. ensure subcontractors and suppliers comply with their role and, where appropriate, appoint Travel Plan Representatives (TPRs)

## 4.4 Subcontractor and supplier responsibilities

- 4.4.1 Subcontractors and suppliers would be required to comply with the SSTP(s) that they work on and/or deliver to.
- 4.4.2 Depending on the amount of work that each subcontractor or supplier is contracted to do at each site, the TPC may require the appointment of a TPR.
- 4.4.3 The TPR will:
  - a. promote the SSTP(s) to their employees
  - b. act as a point of contact and liaison to the TPC
  - c. provide data as required to the TPC to aid with monitoring of the SSTP(s)

## 4.5 Worker responsibilities

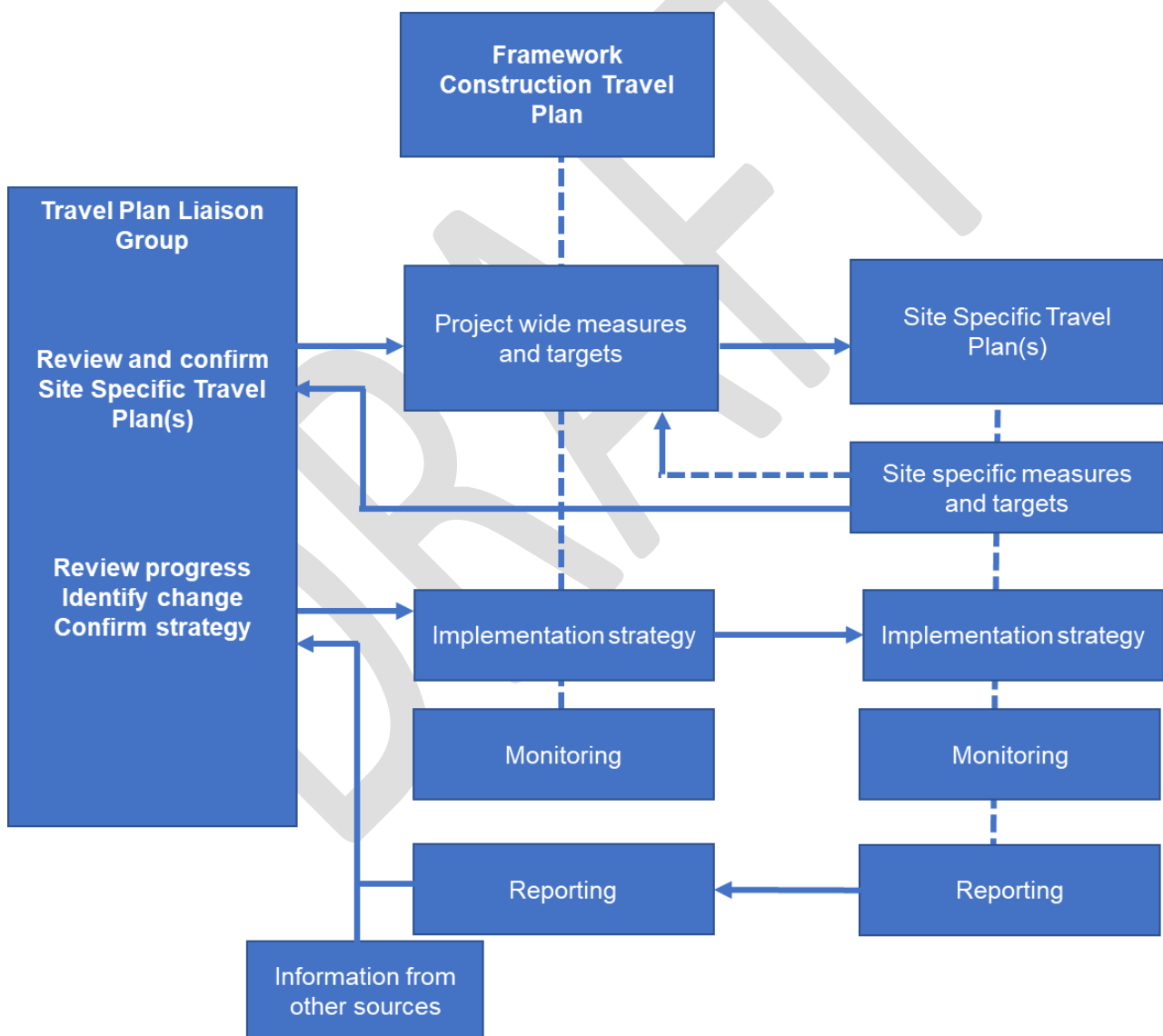
- 4.5.1 Each worker on the Project would be required to uphold and comply with the Travel Plan requirements and objectives. This would be implemented through an introductory session, with workers asked to agree and sign a commitment to their assigned responsibilities. Their responsibilities would be to:
  - a. consider all transport options available to them for travel to and from the site and ensure that adequate travel time is allowed for their journey
  - b. ensure they have all the necessary equipment to travel safely by their chosen mode of transport
  - c. report on the effectiveness of the SSTP applicable to them and raise concerns about any problems that become apparent
  - d. suggest ideas to their appointed representative on how to modify the plan to suit the workforce

## 4.6 Travel Plan Liaison Group

- 4.6.1 The TPM would be responsible for setting up and participating in the Travel Plan Liaison Group (TPLG), comprising stakeholder representatives (such as public transport operators, TfL, and local authorities) together with Highways England and the TPCs provided by the contractors. The TPLG would be constituted before the commencement of construction, with meetings held on a monthly basis.
- 4.6.2 The TPLG would be responsible for providing high-level support to, and critical review of, travel planning across the Project. It would support efforts towards achieving greater sustainable travel, monitoring, and reviewing progress and agreeing new or amended initiatives.

- 4.6.3 The TPM would be responsible for managing and coordinating the TPLG activities to promote partnership working. The TPM would prepare agendas, briefing papers, and minutes for TPLG meetings.
- 4.6.4 It would be for the TPLG to determine whether it is appropriate to set up sub-groups to deal with particular groups of sites with similar characteristics or particular interactions.
- 4.6.5 The role of the TPLG will ensure that Local Authorities and key stakeholders are consulted at the developmental stage prior to formal approval by the SoS.
- 4.6.6 Plate 4.2 details the consultative role of the TPLG and illustrates the SSTP process and how the success of the measures would feed into the FCTP targets.

**Plate 4.2 The role of the TPLG**



## 5 Project construction details and programme

### 5.1 Introduction

- 5.1.1 A summary of the Project's construction details and programme is outlined in this chapter, for both the main construction works and the utility works. The main construction works are related to construction elements associated with the permanent designed scheme (including earthworks, structures, roads, drainage etc). The utility works are works related to both the temporary utility works (eg temporary power to compounds) and the permanent utility works (eg diversion of assets, permanent power to the tunnels etc). There are many utility networks across the scheme which require temporary and/or permanent diversion to allow main construction works to proceed (eg power, gas, foul sewers, water, communications).
- 5.1.2 Further details are also provided in Chapter 2: Project Description of the Environmental Statement (REF TBC) which sets out a comprehensive overview of the construction activities, construction packages of work for delivery of the Project and the construction of the tunnel and approaches. It also provides a summary with regard to information on the construction compounds, haul routes, river transport for construction, working hours, waste and monitoring.
- 5.1.3 A more detailed description is also provided in Appendix 2.1: Construction Supporting Information (REF TBC) and presents a practical and achievable approach to the construction of the Project. It is still acknowledged however, that the methodology ultimately employed would be determined by the contractors, dependent on the detailed design and the construction methodology developed in accordance with the parameters and controls in the DCO.

### 5.2 Construction programme and phasing plan

- 5.2.1 The Project's construction programme is forecast to run from January 2024 through to December 2029. The construction of the Project would require the use of traffic management measures (such as narrow lanes and traffic signals to control traffic through contraflows) and so the phasing described in Table 5.1 has been based primarily on the different elements of traffic management scheduled across the Project's construction programme. The start and end date of each phase was set so that each phase represents the Project's proposed traffic management measures and their impact on the road network during that phase.
- 5.2.2 The proposed construction measures for the Project are outlined in further detail in the oTMPfc.
- 5.2.3 Table 5.1 sets out the location and programme dates associated with each of the 18 sites across the construction, operation and de-mobilisation phases of the programme.

**Table 5.1 Main works construction programme and phasing**

Compound	Borough	Start	End	Duration (months)
Marling Cross (CA1)	Gravesham	January 2024	April 2025	16
A2 (CA2)	Gravesham	January 2024	February 2029	66
Southern tunnel entrance (CA3)	Gravesham	January 2024	November 2028	63
A226 Gravesend Road (CA3a)	Gravesham	January 2024	December 2026	38
Milton (CA3b)	Gravesham	January 2024	December 2026	38
Northern tunnel entrance (CA5)	Thurrock	January 2024	January 2029	65
Station Road (CA5a)	Thurrock	July 2024	June 2027	38
Brentwood Road (CA6)	Thurrock	January 2024	May 2028	57
Stanford Road (CA7)	Thurrock	January 2024	December 2025	25
Long Lane A (CA8a)	Thurrock	February 2026	August 2027	20
Long Lane B (CA8b)	Thurrock	February 2026	August 2027	20
Stifford Clays Road West (CA9)	Thurrock	March 2026	March 2028	26
Stifford Clays Road East (CA10)	Thurrock	January 2024	February 2028	53
Mardyke (CA11)	Thurrock	April 2025	September 2027	32
Medebridge (CA13)	Thurrock	January 2024	November 2028	63
M25 (CA14)	Havering	January 2024	December 2028	64
Ockendon Road (CA15)	Havering	November 2024	January 2028	41
Warley Street (CA16)	Brentwood	May 2025	December 2027	34

## 5.3 Construction areas and compounds

5.3.1 The proposed locations of the construction areas and compounds are shown across four separate maps in Plate 5.1 to Plate 5.4. This includes the construction areas and compounds for both the main construction works and the utility works (known as Utility Logistic Hubs (ULH)).



**Plate 5.1 Construction areas and compound sites (1 of 4)**

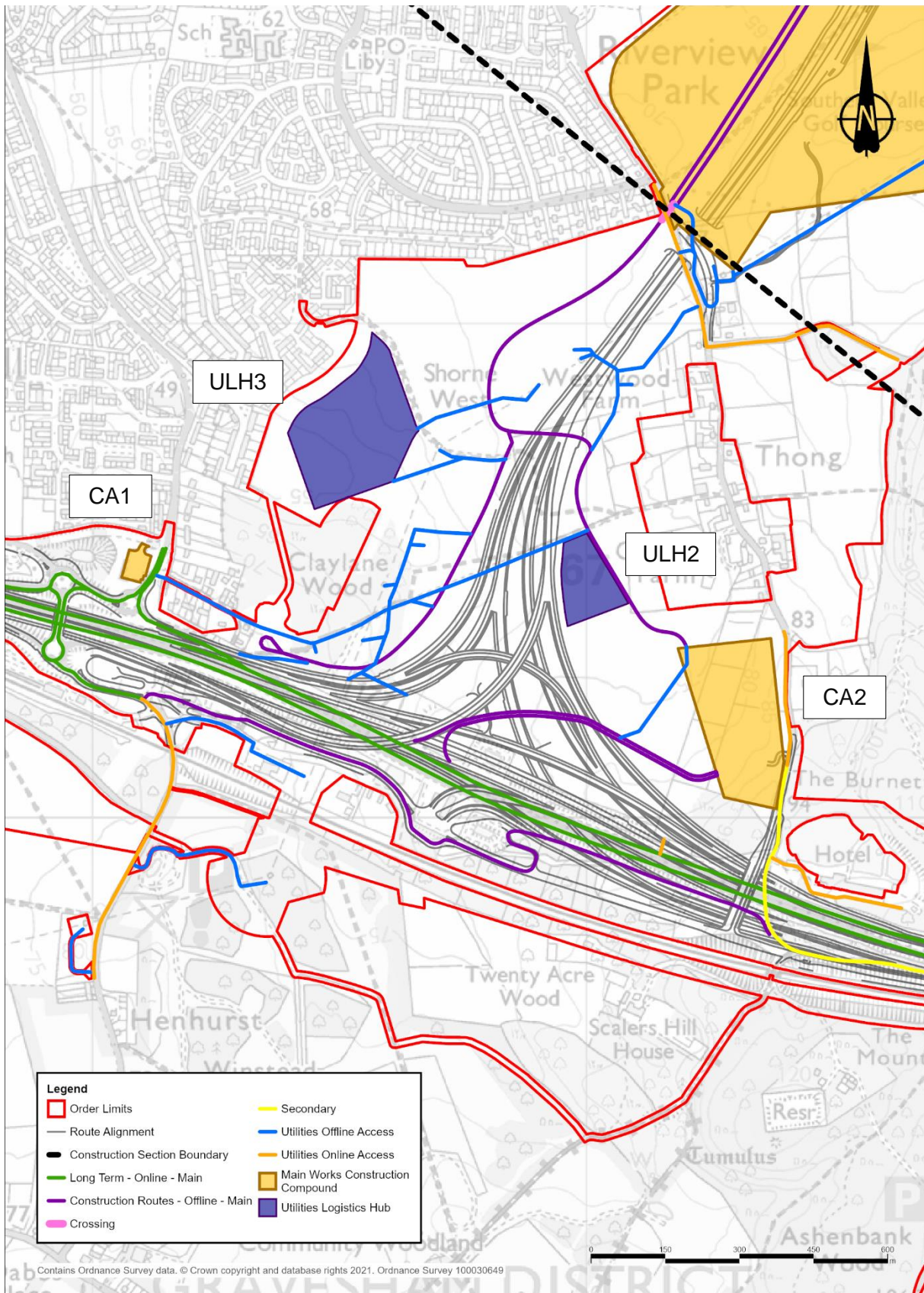
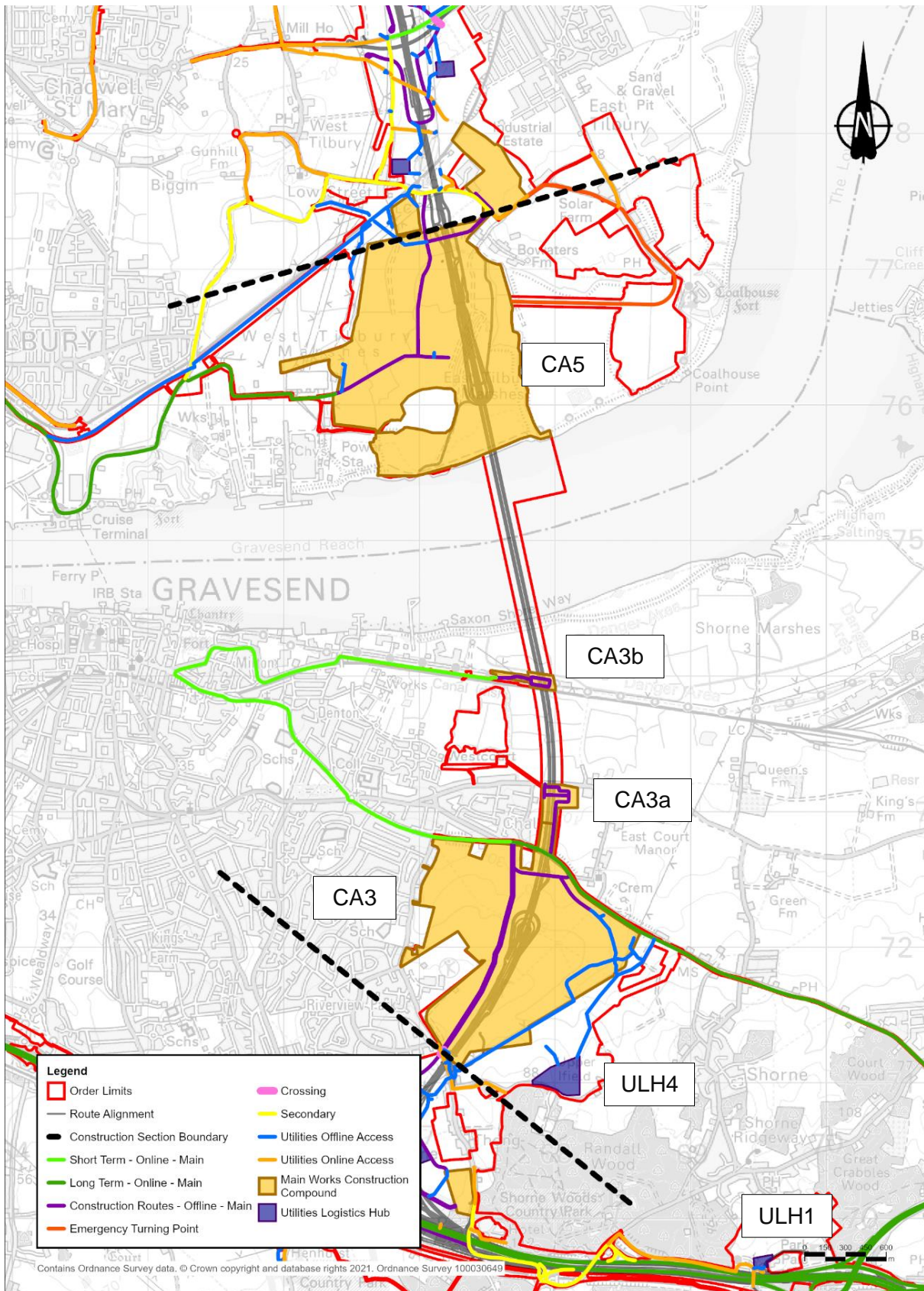




Plate 5.2 Construction areas and compound sites (2 of 4)





**Plate 5.3 Construction areas and compound sites (3 of 4)**

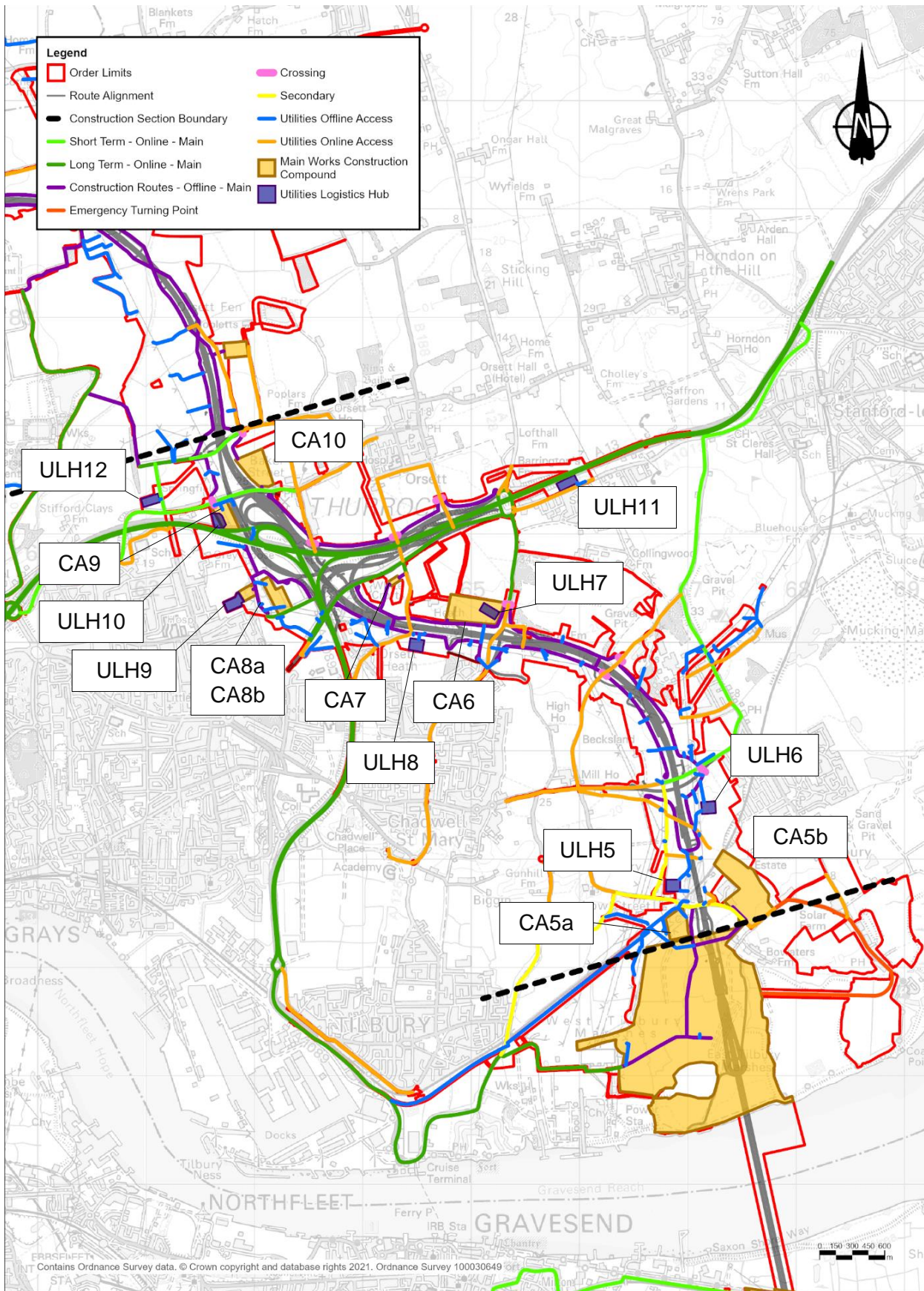
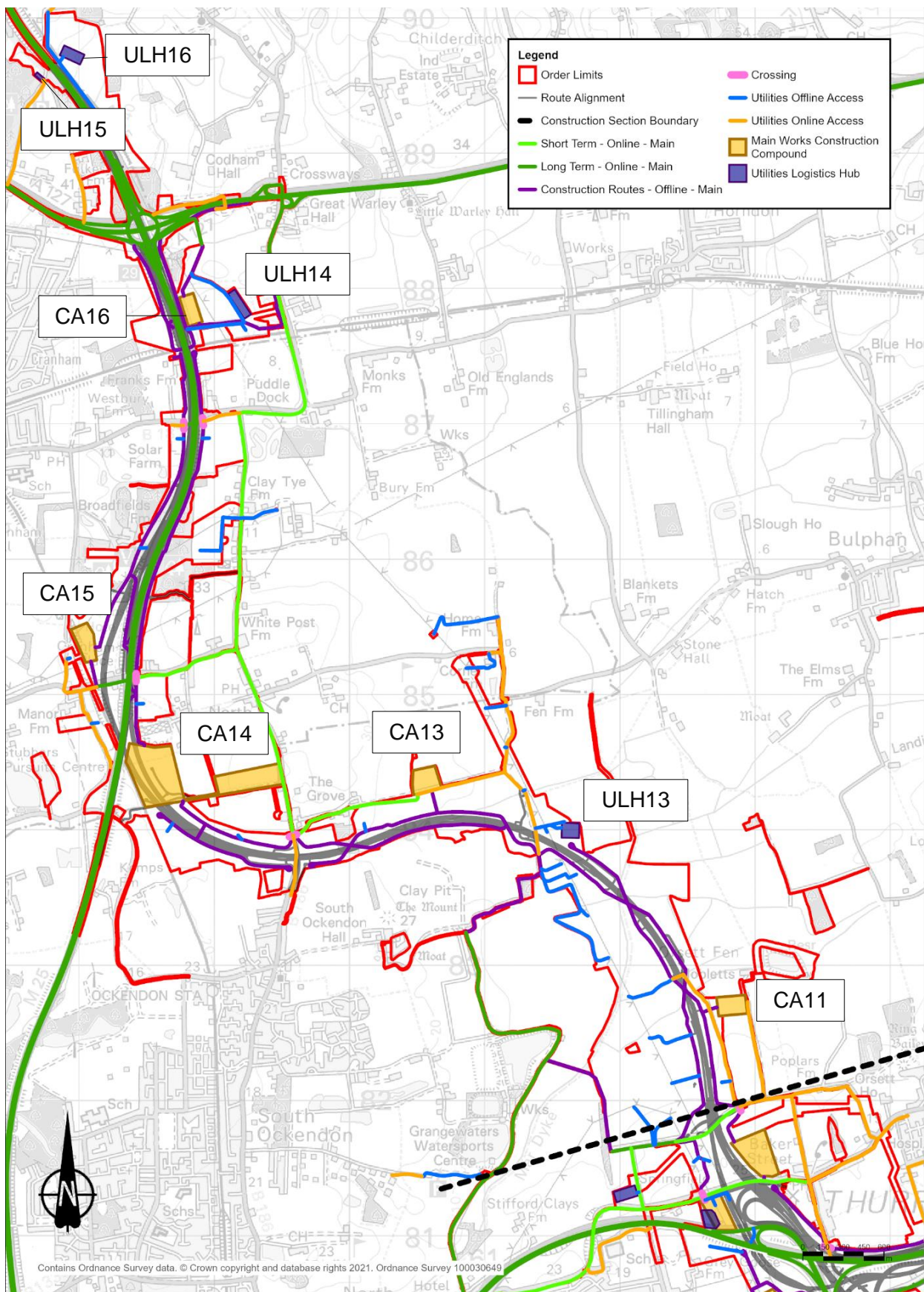




Plate 5.4 Construction areas and compound sites (4 of 4)





- 5.3.2 As shown above, the construction areas and compound sites fall within the Local Planning Authority areas of Brentwood Borough Council, the London Borough of Havering, Thurrock Council, and Gravesham Borough Council.

## 5.4 Compound access arrangements

- 5.4.1 The proposed access and egress arrangements for the compounds would be made up of a combination of temporary and existing junctions onto the existing highway network (some with infrastructure modifications), and haul roads.
- 5.4.2 Haul roads would provide a new link road between compounds and the existing road network where required, and generally follow the alignment of the Project. Some of these haul roads would also require localised traffic control measures to be created to enable construction traffic to access and egress the compounds and where the haul roads cross the existing local road network.
- 5.4.3 For some compounds, access arrangements would change in different phases of construction, and some compounds may include separate access points for workforce and HGVs, where required. More details of which compounds this would affect is set out in the oTMPfC.

## 5.5 Workforce details

### Workforce numbers

- 5.5.1 Estimates of the number of workers at each compound on a month-by-month basis throughout the construction programme have been derived, for the main works. The total number of workers at the peak of construction is shown in Table 5.2. Some workers would be accommodated on site within the Northern tunnel entrance compound to the north of the River Thames. The remaining workers are expected to live within 60 minutes travel time from the construction sites.

**Table 5.2 Workforce numbers**

	North (at peak)	South (at peak)
Total workers	1,723	846
Home-based	311	212
Onsite	400	0
Hyperbaric	80	0
Requiring accommodation	932	634

### Workforce shift arrangements

- 5.5.2 Most compounds would be expected to use the same time-based profile, thereby operating to the same shift pattern (08:00 – 18:00), arriving in the AM peak between 07:00 – 08:00 and departing in the PM peak between 18:00 – 19:00.
- 5.5.3 For compounds associated with tunnelling (the Southern tunnel entrance and the Northern tunnel entrance compounds) there would be three different shift patterns as follows:

- a. Daytime (arrivals between 07:00 – 08:00 and departures between 18:00 – 19:00)
- b. Extended daytime (50% of arrivals split between 07:00 – 08:00 and 13:00 – 14:00, 50% of departures split between 15:00 – 16:00 and 22:00 – 23:00)
- c. 24-hour shift (arrivals split equally (33% in each) between 06:00 – 07:00, 14:00 – 15:00 and 22:00 – 23:00, departures split equally (33% in each) between 07:00 – 08:00, 15:00 – 16:00 and 23:00 – 00:00)

## Workforce travel arrangements

### Onsite worker accommodation

- 5.5.4 There are forecast to be 400 onsite accommodation spaces available for workers to use, which would be located within the Northern tunnel entrance compound.
- 5.5.5 It is proposed that workers south of the River Thames would not have access to onsite accommodation.
- 5.5.6 If an employee is staying in the onsite accommodation, it is assumed that they would not make a journey to work trip.

### Mode share

- 5.5.7 The baseline mode share applied in the modelling assessments (as set out in the Transport Assessment (REF TBC), has been assumed based on the number of available parking spaces at each compound and the likely vehicle occupancy without Travel Plan measures in place. The modal share assumptions are as follows:
  - a. For smaller compounds (if the maximum number of compound workers is fewer than 50), 100% single occupancy car mode share and 0% by other modes has been assumed
  - b. For medium-sized compounds (if the maximum number of compound workers is between 50 and 100), 80% single occupancy car mode share and 20% by other modes (including multi occupancy car trips) has been assumed
  - c. For large compounds (if the maximum number of compound workers is greater than 100) 70% single occupancy car mode share and 30% by other modes (including multi occupancy car trips) has been assumed
- 5.5.8 These baseline figures have been used to develop suitable targets for increasing the sustainable mode share for the construction workforce, as set out in detail in Chapter 8. They are considered to be a conservative assumption of the likely use of sustainable modes to access the compounds. As such, these are likely to provide a robust assessment of the likely impacts of construction of the Project on the highway network, which in reality would be bettered through the implementation of the FCTP and SSTPs.
- 5.5.9 In summary, Table 5.3 sets out the size, associated peak number of workers (as determined through the assessment of the likely construction period of the Project), the modal share assumptions applied in the assessment for each compound and the peak number of two-way hourly car trips (as input into the Project's transport model).

**Table 5.3 Main works workforce numbers**

Compound	Size	Peak number of workers	% cars	Peak number of two-way hourly car trips
Marling Cross	Medium	56	80	50
A2	Large	175	70	215
Southern tunnel entrance	Large	384	70	247
A226 Gravesend Road	Small	40	100	40
Milton	Small	11	100	10
Northern tunnel entrance	Large	797	70	245
Station Road	Medium	56	80	38
Brentwood Road	Large	140	70	140
Stanford Road	Medium	44	80	55
Long Lane A and B	Medium	55	80	44
Stifford Clays Road west	Medium	44	80	48
Stifford Clays Road east	Large	211	70	211
Mardyke	Medium	61	80	61
Medebridge	Large	126	70	137
M25	Large	302	70	254
Ockendon Road	Medium	85	80	59
Warley Street	Large	107	70	107

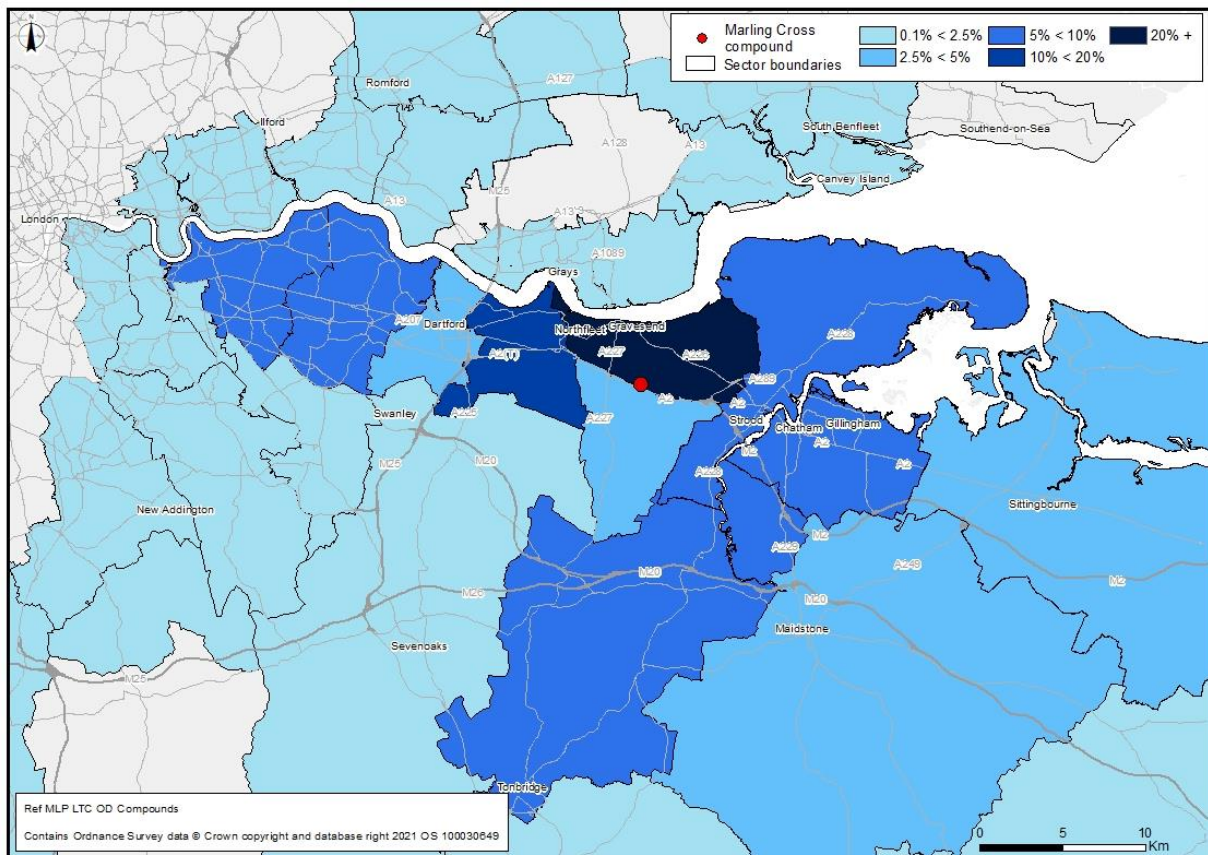
5.5.10 As shown in Table 5.3, half of the construction areas and compounds are considered as ‘large’ with a total of nine sites with a 70% car mode share in the baseline. A further seven construction areas and compounds (all compounds) are considered as ‘medium’, with an 80% car mode share in the baseline. The remaining two construction areas and compounds (all compounds) are considered ‘small’, with a 100% car mode share in the baseline.

### Workforce distribution

5.5.11 An assessment has been undertaken to identify where the workforce trips are expected to originate when travelling to the various construction areas and compounds. Plate 5.5 to Plate 5.22 illustrate the geographical catchment of trips for each compound and how these trips are distributed across the wider area. This analysis has helped ensure that the transport hubs and the services provided at them are likely to be sufficient, and to identify where further measures may need to be considered to better align workforce movements with transport services provided.

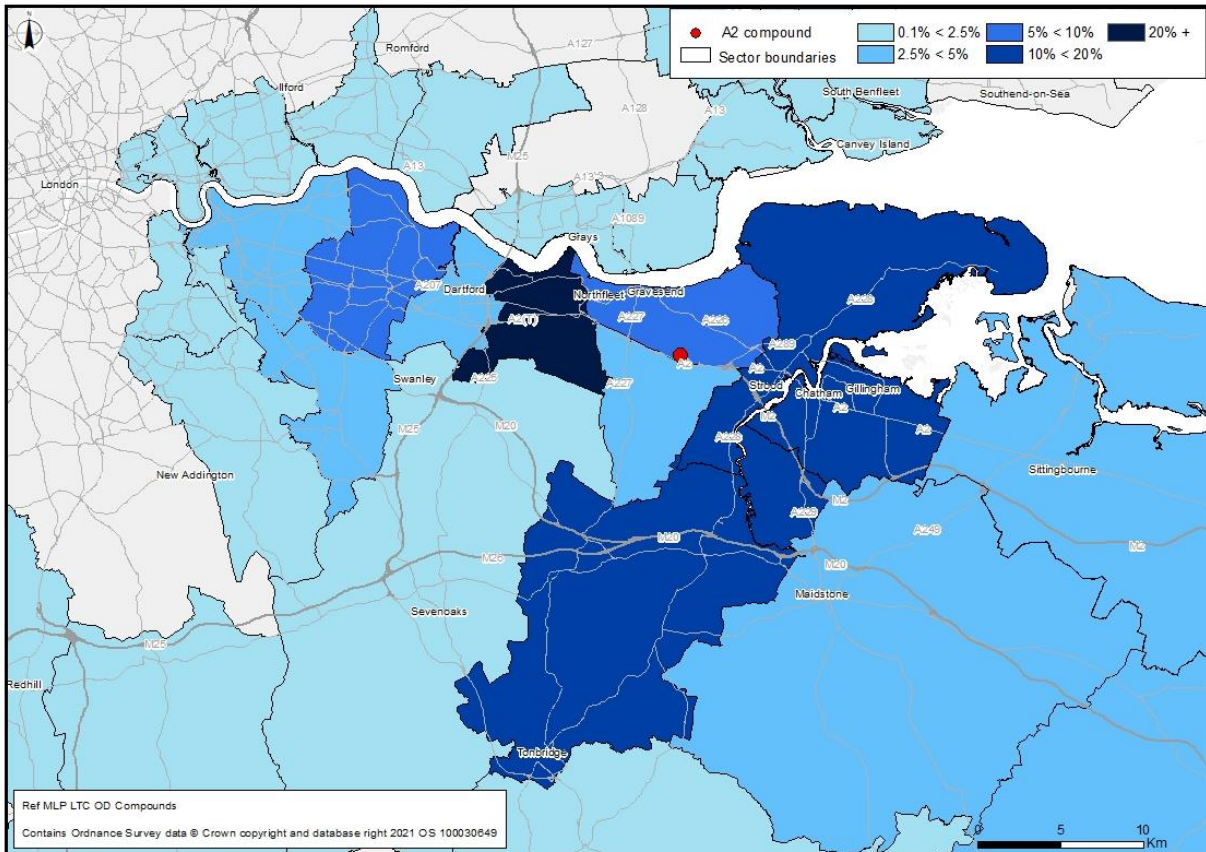
5.5.12 Plate 5.5 to Plate 5.10 present the information for all main works compounds located south of the River Thames.

**Plate 5.5 Marling Cross compound workforce origin locations**

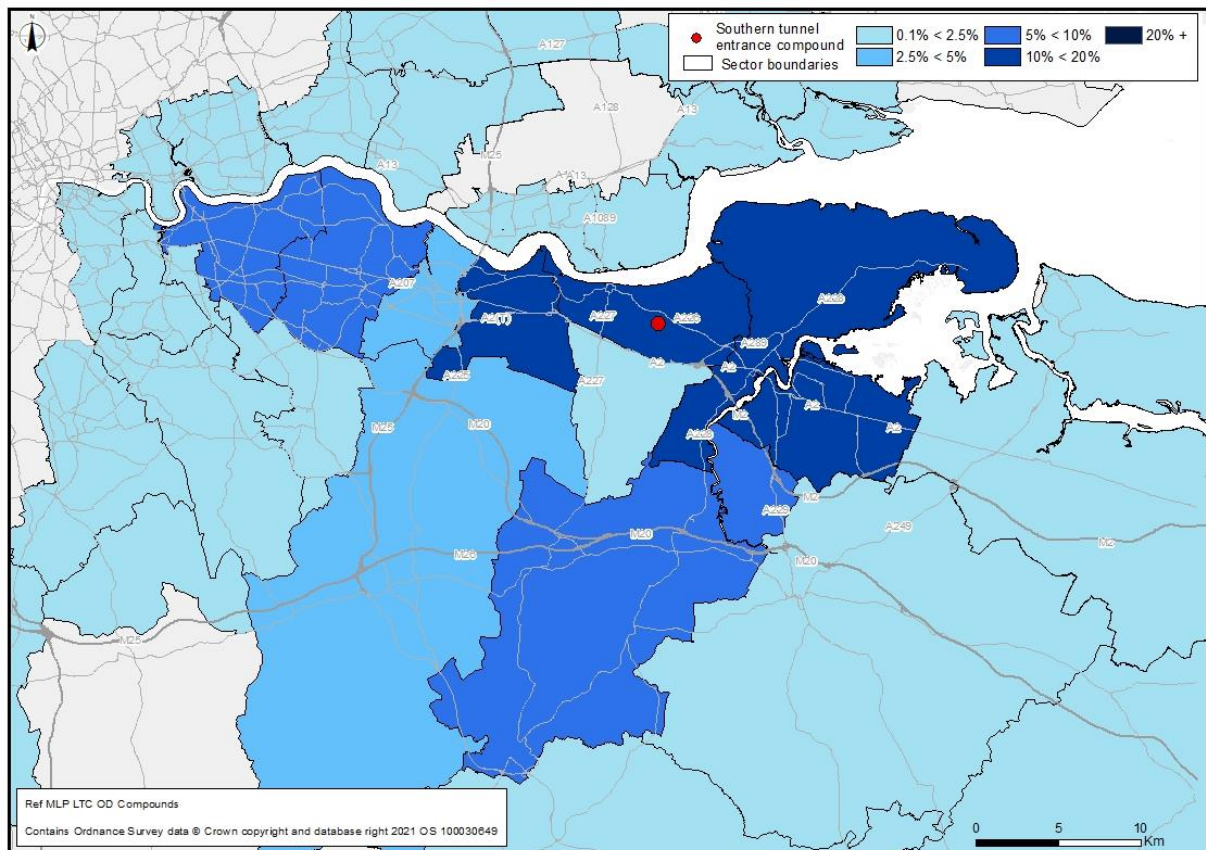




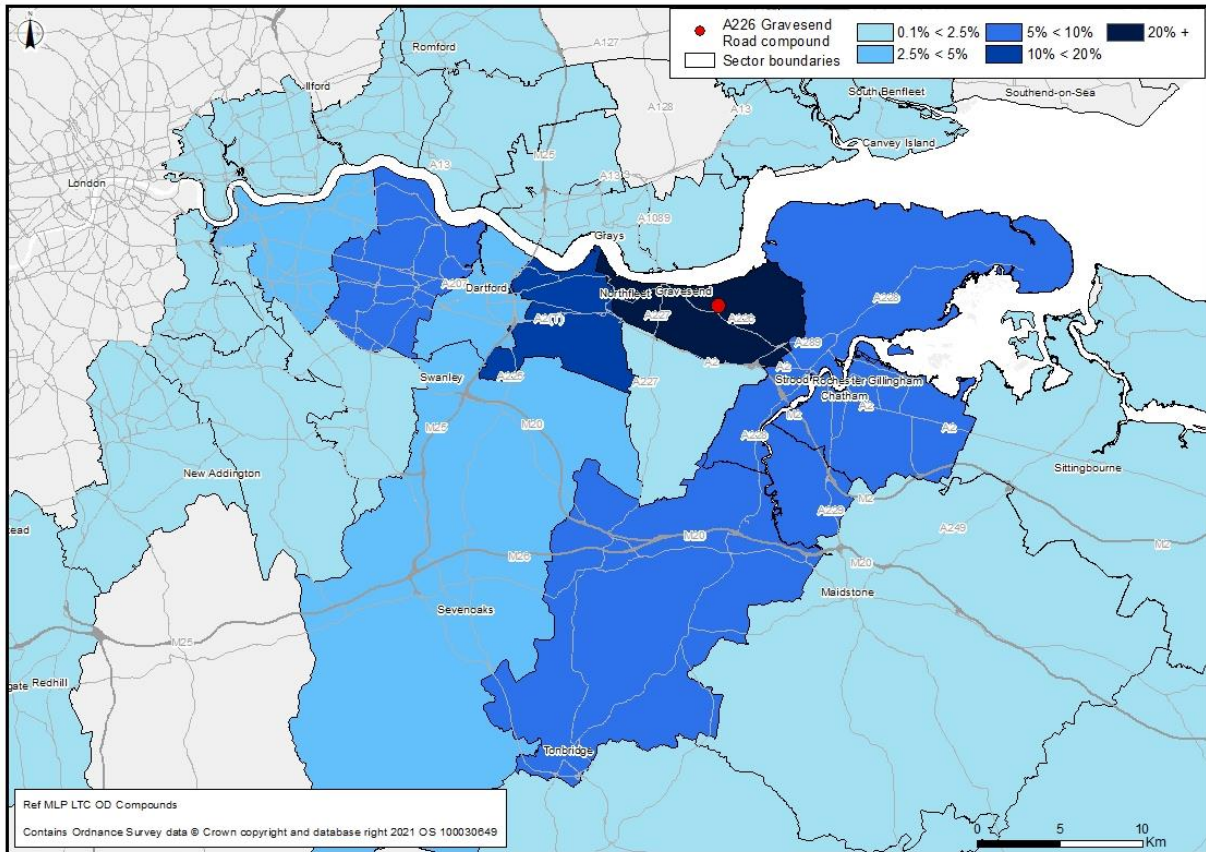
**Plate 5.6 A2 compound workforce origin locations**



**Plate 5.7 Southern tunnel entrance compound workforce origin locations**

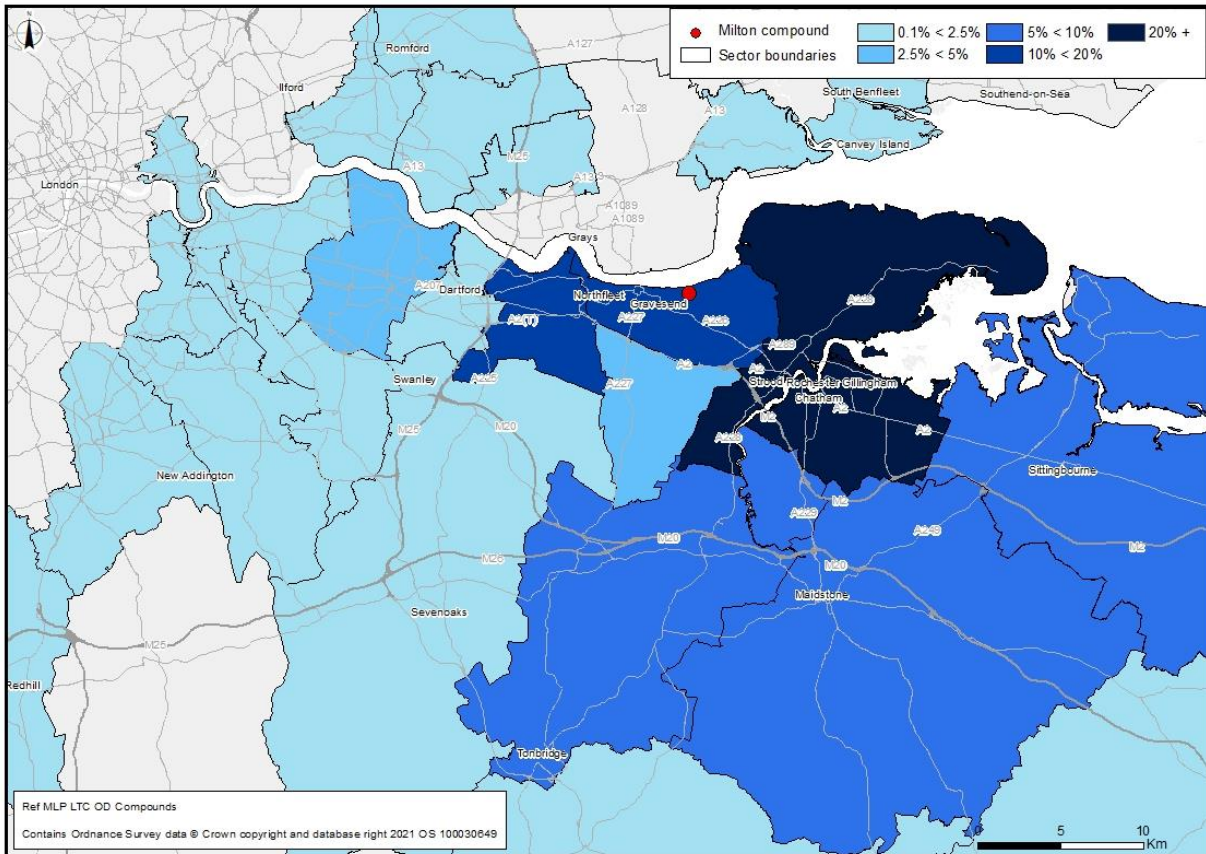


**Plate 5.8 A226 Gravesend Road compound workforce origin locations**

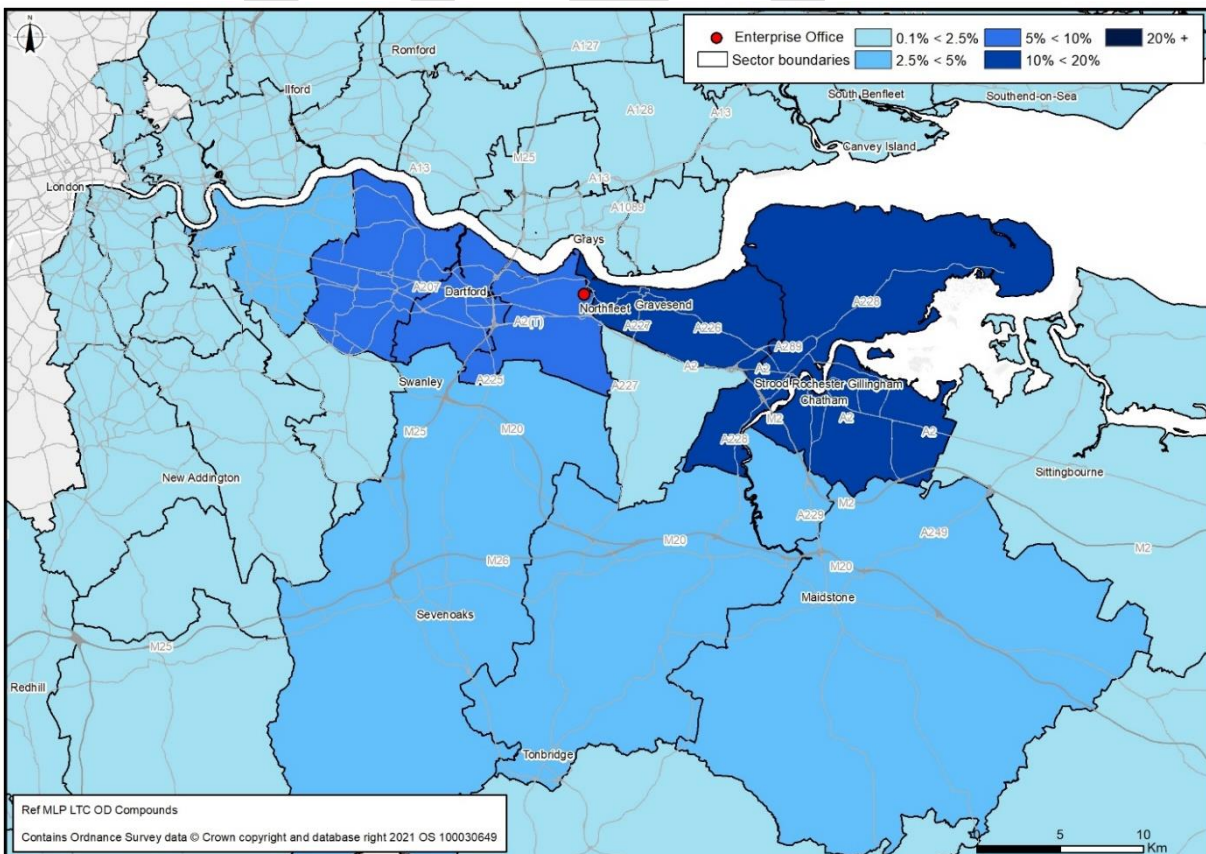




**Plate 5.9 Milton compound workforce origin locations**

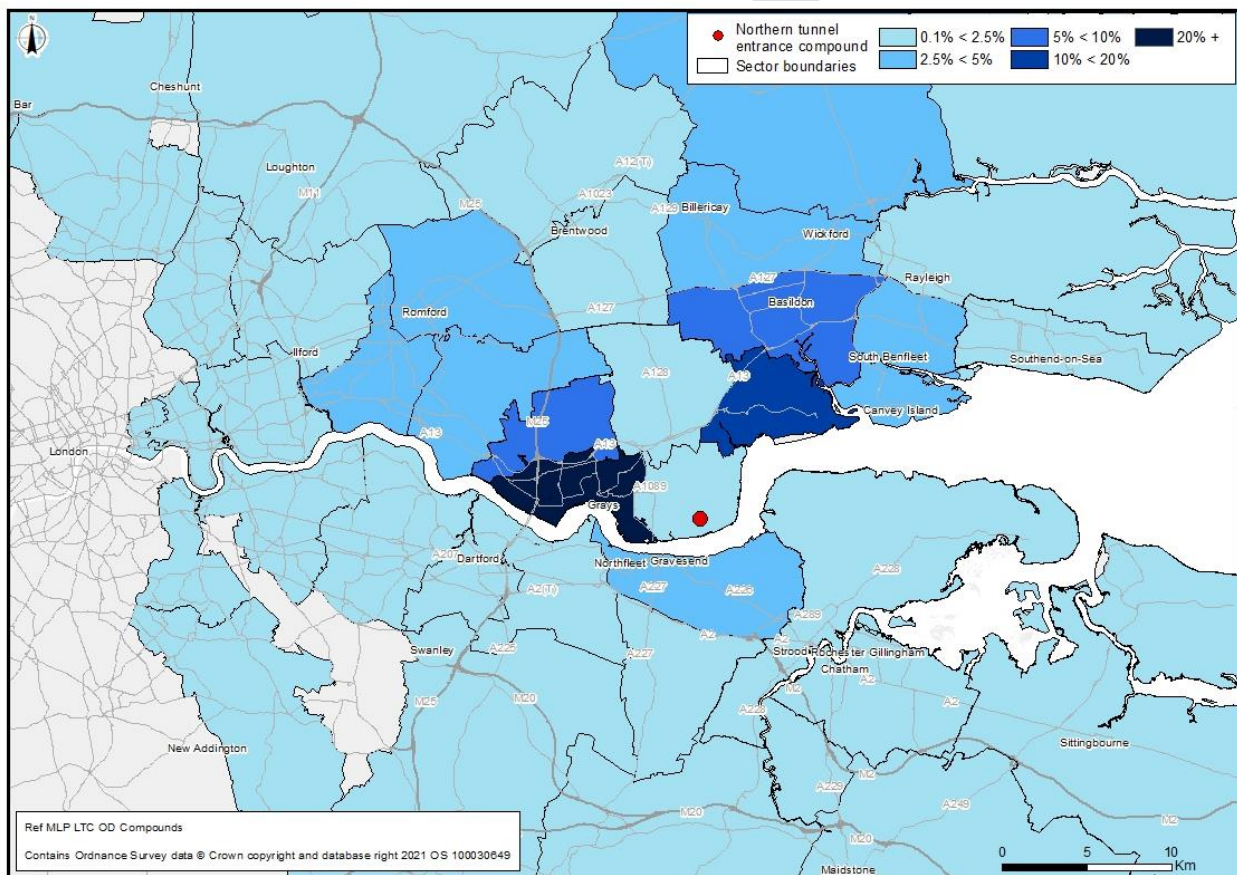


**Plate 5.10 Enterprise Office workforce origin locations**



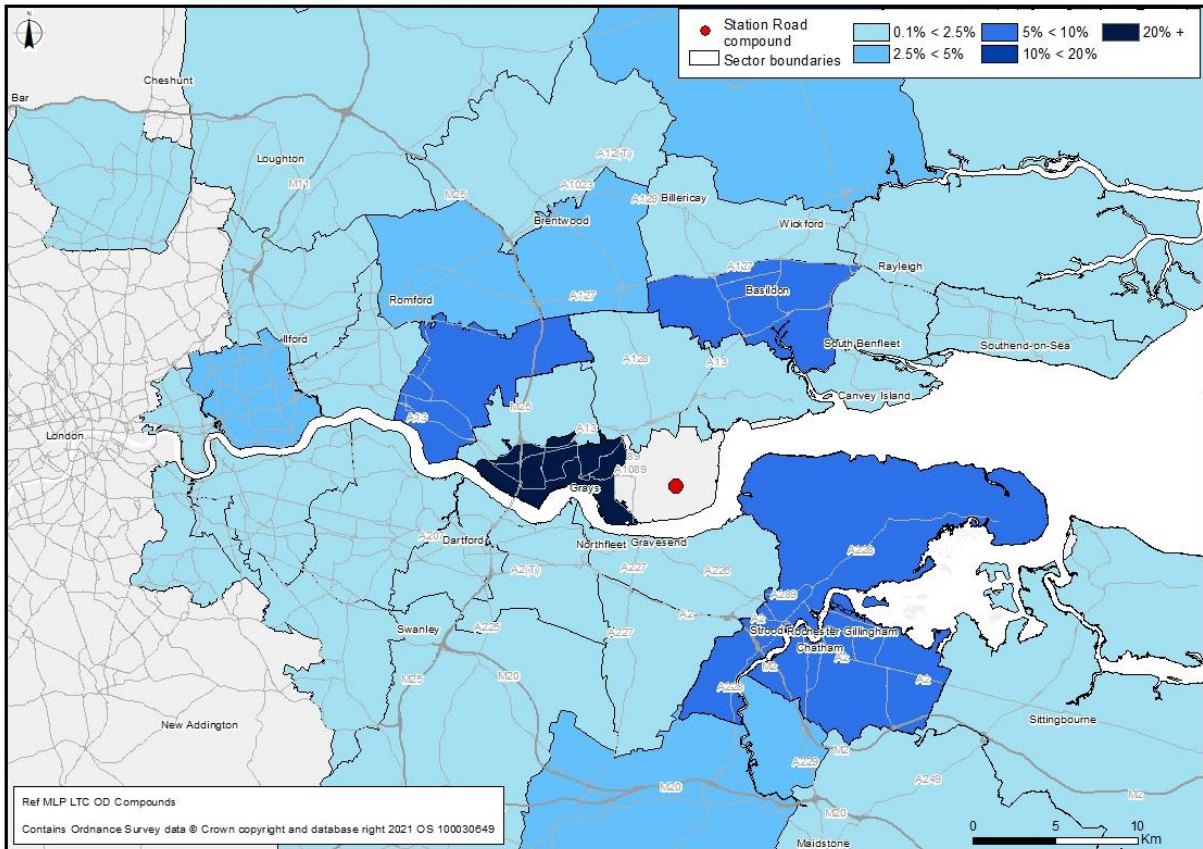
- 5.5.13 For all compounds located south of the River Thames (and the enterprise office) the majority of trips origins are concentrated in the Medway Towns, Gravesend and Dartford sector boundaries (all located in Kent) with each of them expecting 20%+ trips across the different locations.
- 5.5.14 The Southern tunnel entrance compound and the enterprise office are shown to only expect a maximum of 10% - 20% of trips origins from across the different sector boundaries, this is spread out over a greater area south of the River Thames in comparison to the sector boundaries that expect 20%+ trips.
- 5.5.15 Plate 5.11 to Plate 5.22 present the information for all main works compounds located north of the River Thames.

**Plate 5.11 Northern tunnel entrance compound workforce origin locations**

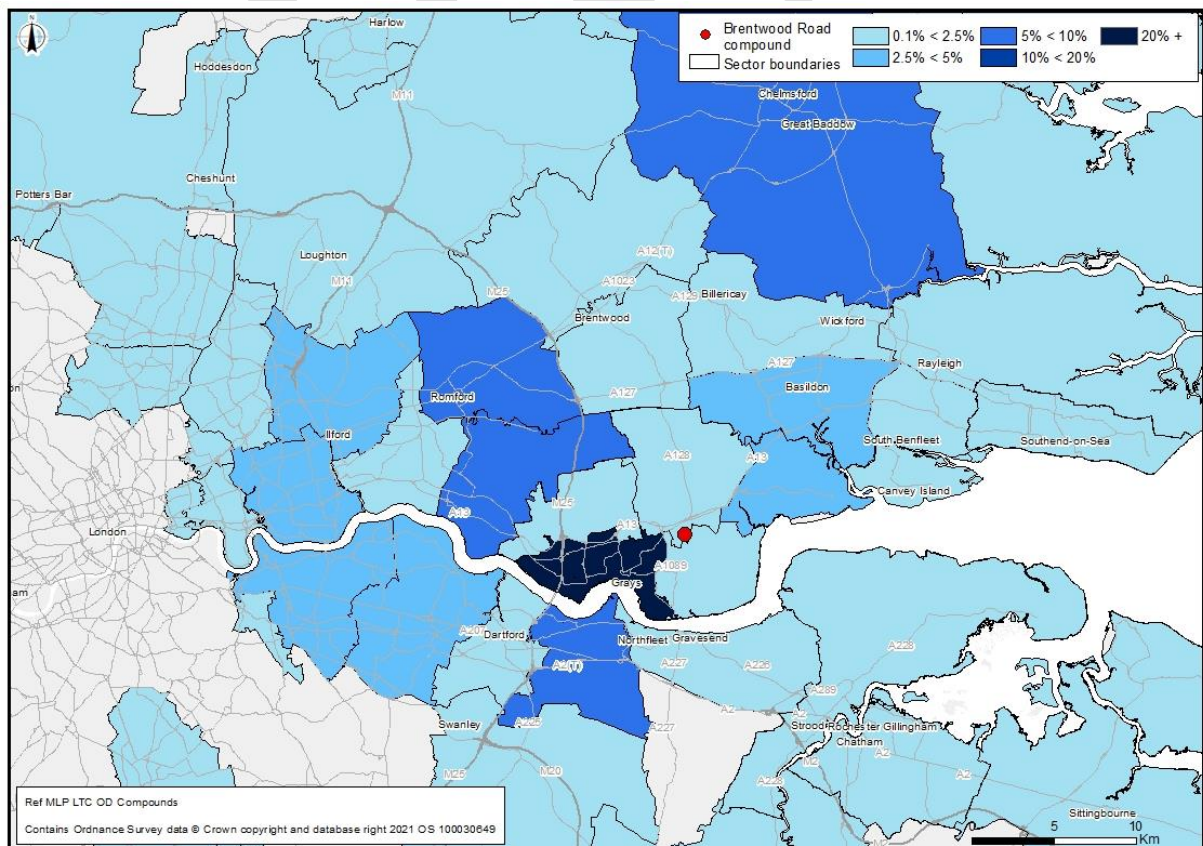




**Plate 5.12 Station Road compound workforce origin locations**

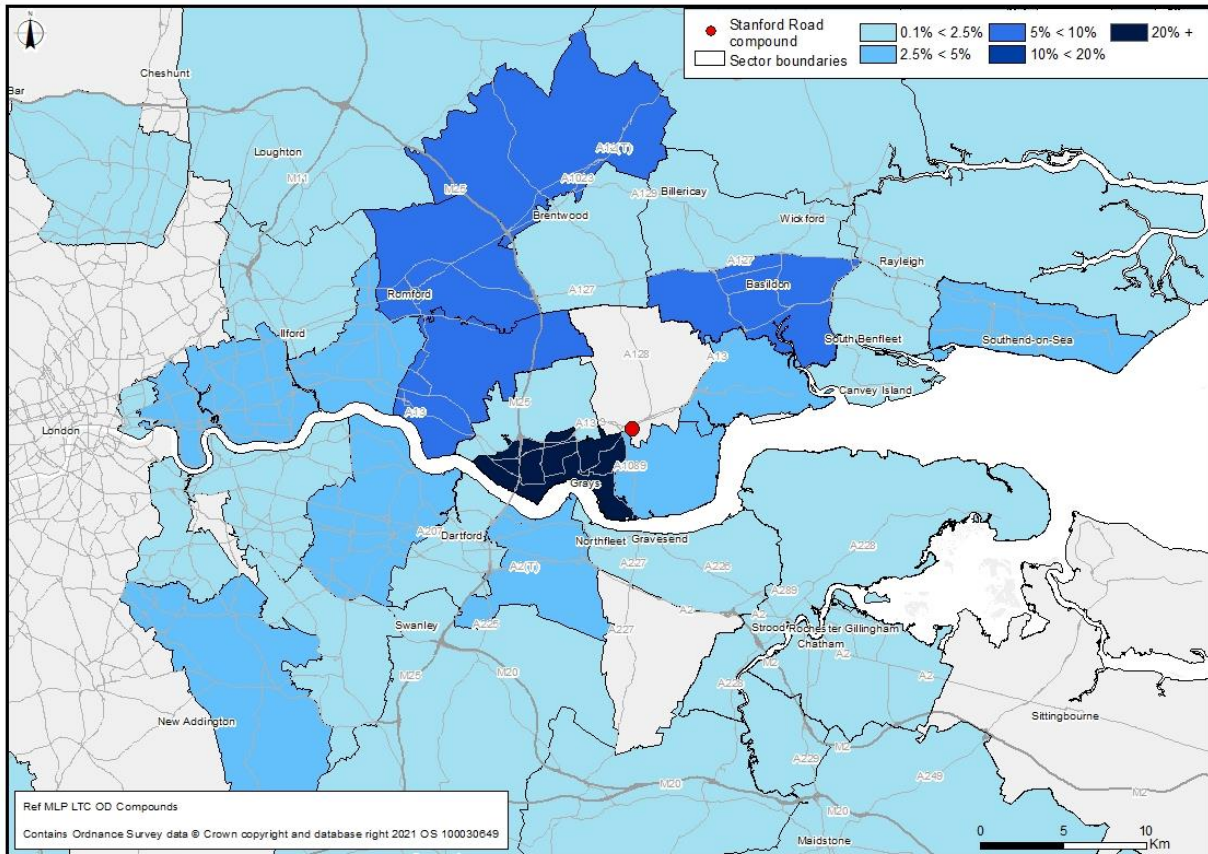


**Plate 5.13 Brentwood Road compound workforce origin locations**

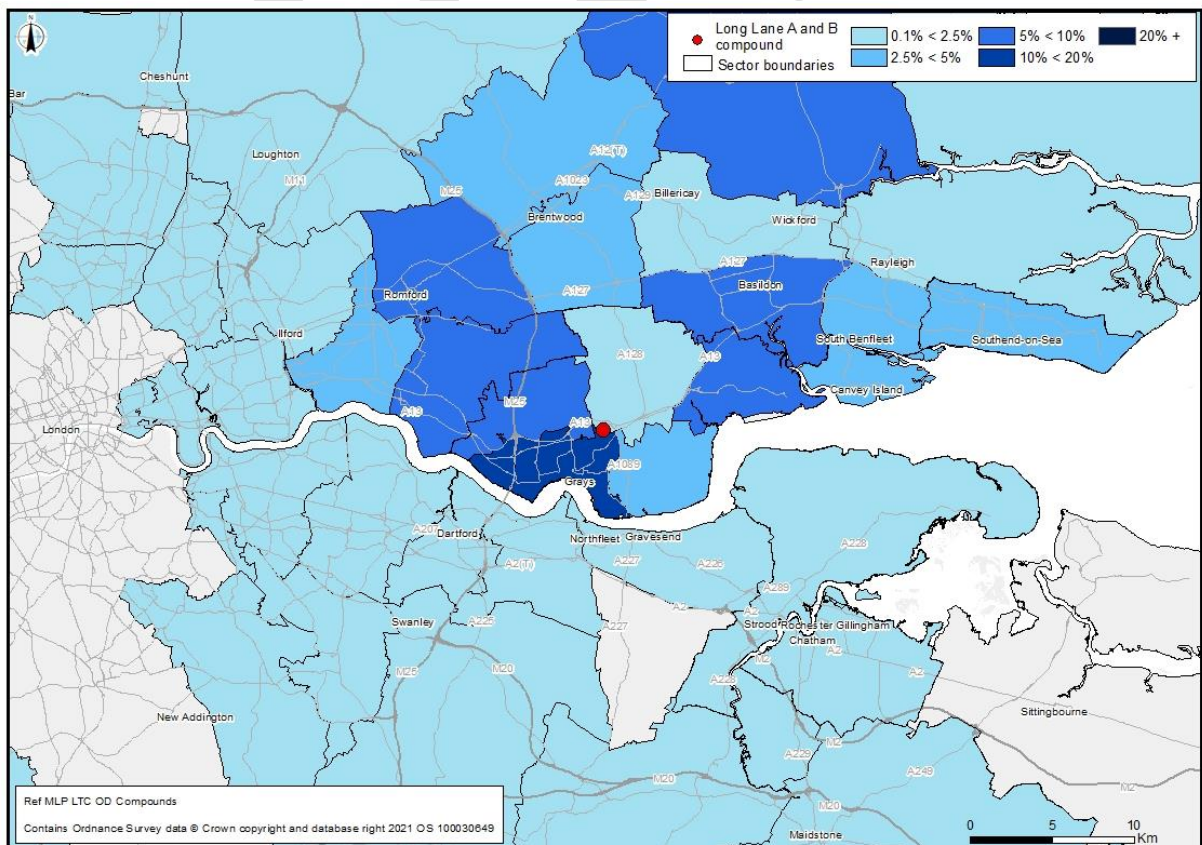




**Plate 5.14 Stanford Road compound workforce origin locations**

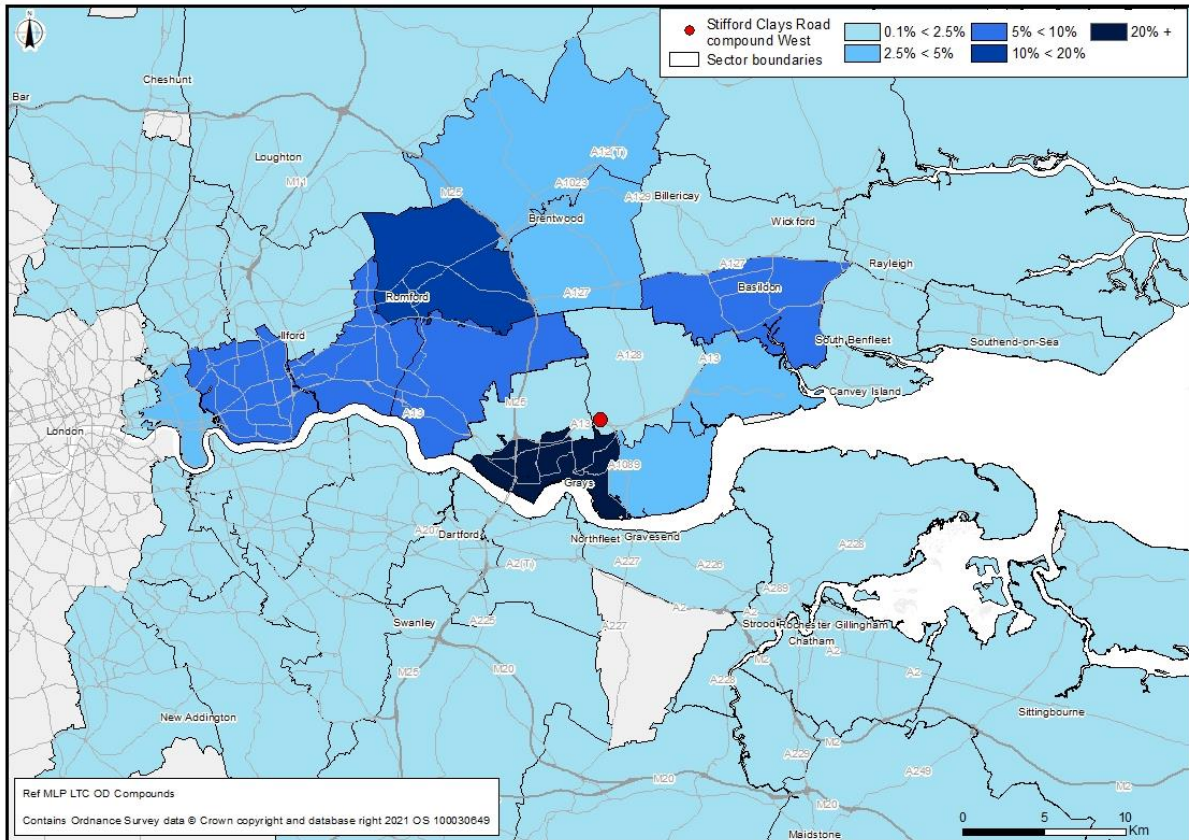


**Plate 5.15 Long Lane A and B compound workforce origin locations**

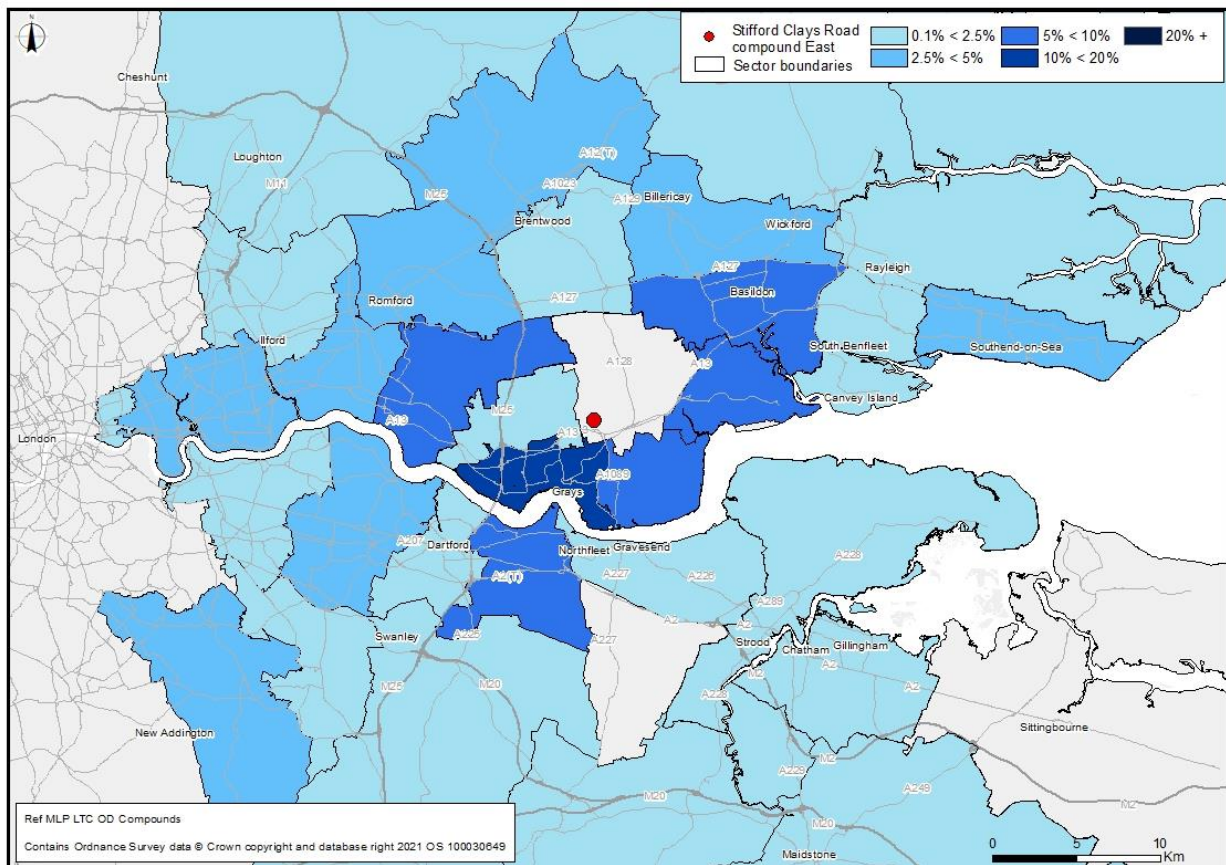




**Plate 5.16 Stifford Clays Road west compound workforce origin locations**

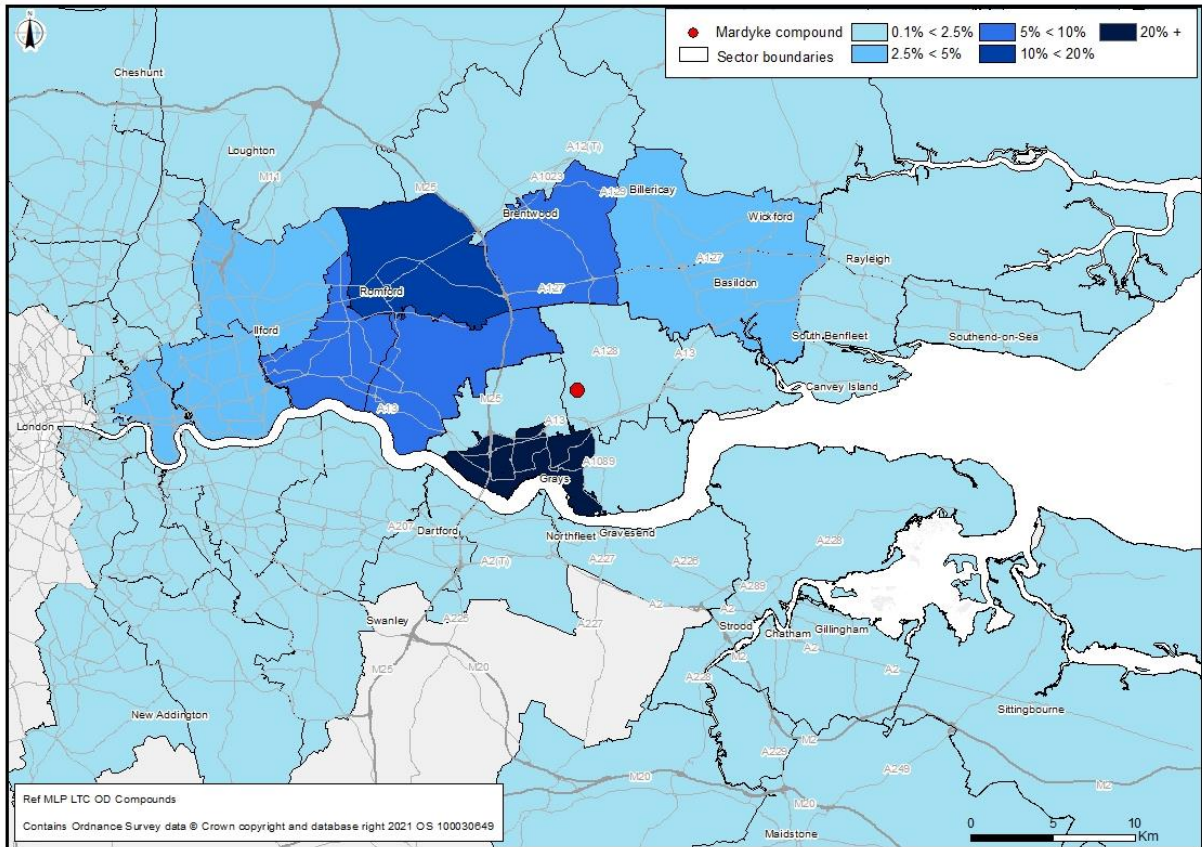


**Plate 5.17 Stifford Clays Road east compound workforce origin locations**

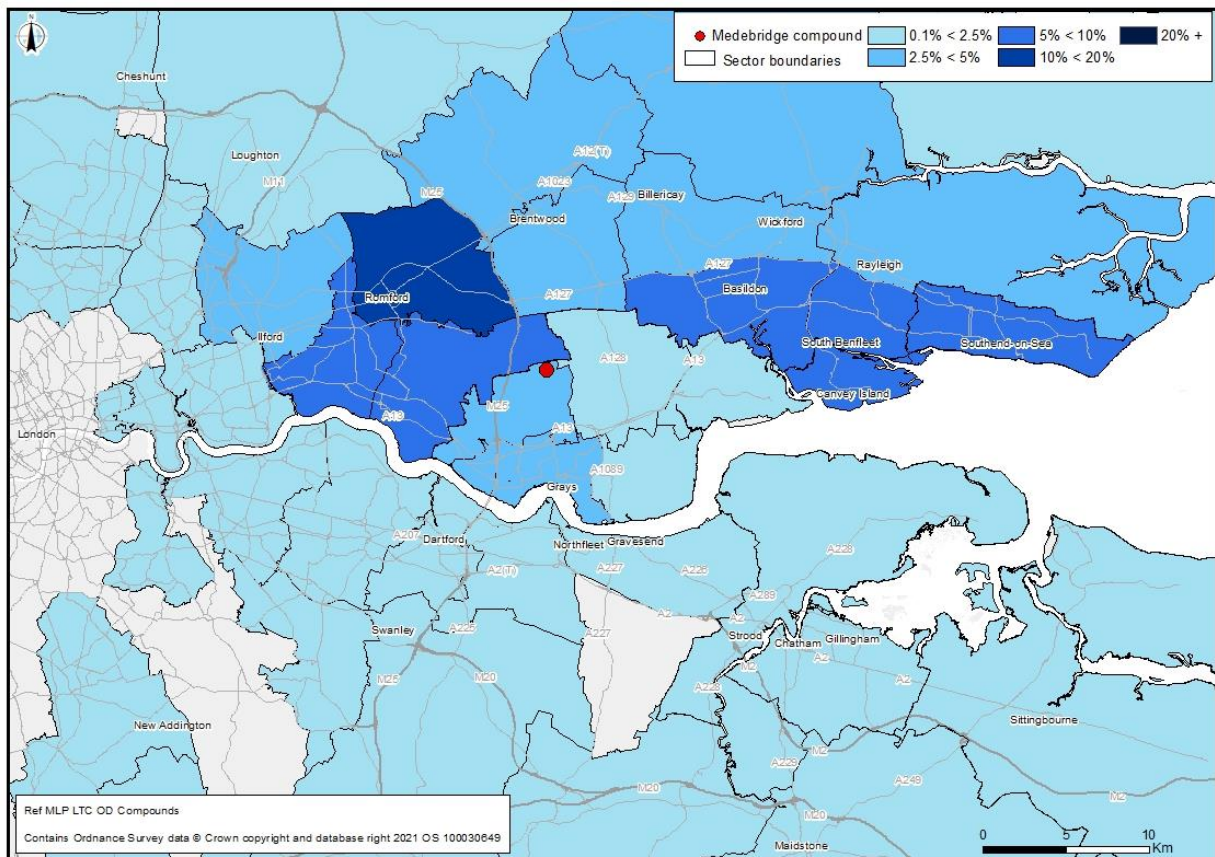




**Plate 5.18 Mardyke compound workforce origin locations**

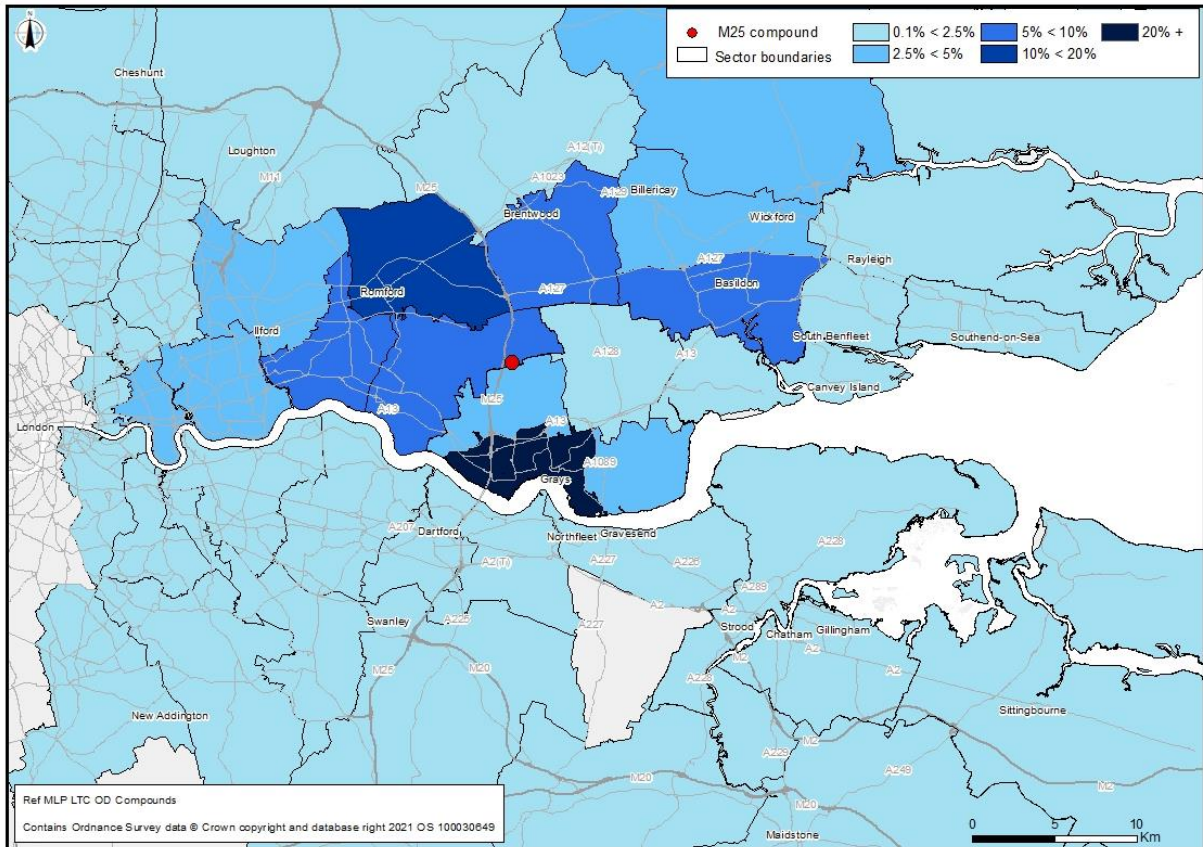


**Plate 5.19 Medebridge compound workforce origin locations**

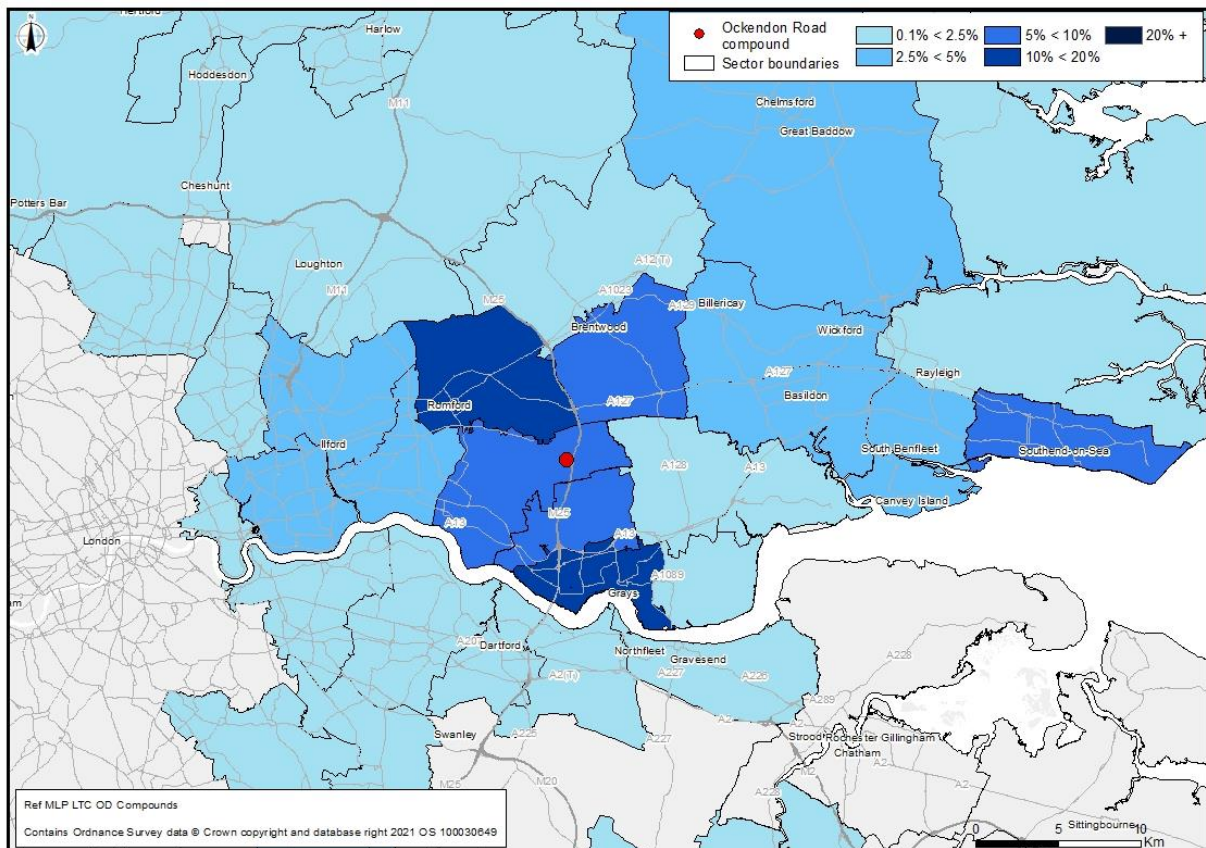




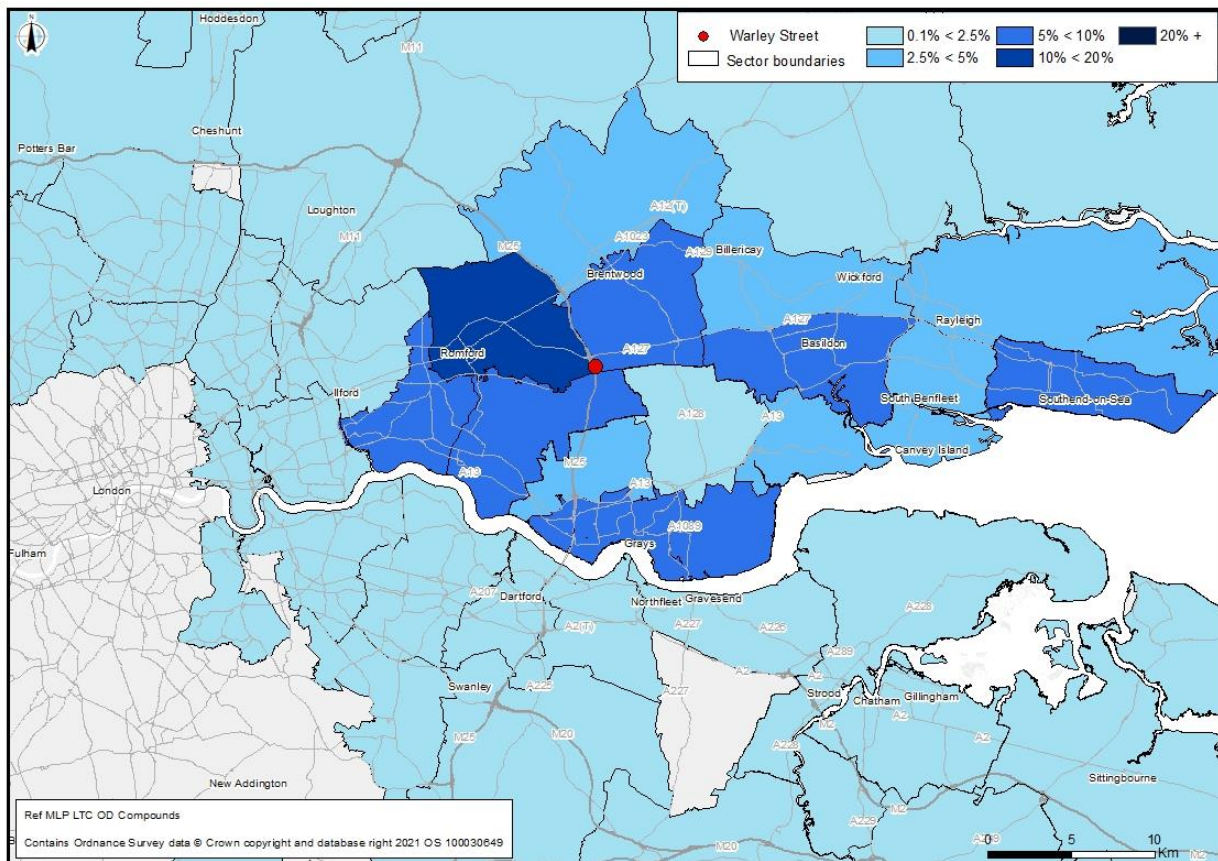
**Plate 5.20 M25 compound workforce origin locations**



**Plate 5.21 Ockendon Road compound workforce origin locations**



**Plate 5.22 Warley Street compound workforce origin locations**



- 5.5.16 For most compounds located north of the River Thames, the majority of trips are shown to be concentrated within the Grays sector boundary, with almost all of these locations expecting 20%+ of all trips to originate in this area. Other noticeable areas include the London Borough of Havering and Essex (in particular Basildon, Brentwood, Chelmsford, Billericay, Wickford, South Benfleet, Canvey Island, Southend-on-Sea).
- 5.5.17 For the Warley Street and Medebridge compounds, the sector boundary that falls within the northern part of the borough of Havering indicates the highest concentration of trips, albeit this is still only 10%-20% of expected trips.
- 5.5.18 For the Long Lane (A and B) and Stifford Clays Road compounds, while Grays is still identified as the most concentrated area for trip origins, these are the only instances where the Grays sector is shown with trips lower than 20% of trips (10%-20%).
- 5.5.19 Whilst the majority of trips to these compounds originate from north of the River Thames, for the Station Road, Brentwood Road, Stanford Road and Stifford Clays Road compounds some trips are shown to originate from Kent (in particular Dartford, Gravesend, Rochester and Gillingham and the Medway Towns, and Maidstone).
- 5.5.20 The maps also identify a low number of trips (up to 2.5%) that are expected to originate from a significant catchment area in the wider vicinity of the compound locations (as indicated by the lightest blue marker).



## 5.6 Statutory Undertaker arrangements

5.6.1 This section provides a summary of the Statutory Undertakers (SUs) Utility Logistic Hub (ULH) arrangements. These are construction areas that would be operated by SUs, but undertaking work that would be required to facilitate the construction of the Project.

5.6.2 Table 5.4 sets out the location and programme dates associated with each of the 16 sites across the construction, operation and de-mobilisation phases of work.

**Table 5.4 Utility works construction programme and phasing**

Utility Hub	Location	Start	End	Duration (months)
Park Pale (ULH1)	West of Harlex Haulage, north of Park Pale	July 2024	September 2026	28
A2 East (ULH2)	West of Thong on the eastern side of the Project	October 2025	January 2027	16
A2 West (ULH3)	West of Thong Lane, north of Claylane Woods	January 2024	December 2025	25
Shorne Ifield Road (ULH4)	East of Thong Lane, north of Shorne Ifields Road	January 2024	December 2025	25
Low Street Lane (ULH5)	West of the Project, 950m south of Muckingford Road	January 2024	February 2025	14
Muckingford Road (ULH6)	East of the Project, 400m south of Muckingford Road	January 2024	February 2025	14
Brentwood Road (ULH7)	North of the Project, west of Brentwood Road	February 2024	February 2025	13
Hornsby Lane (ULH8)	South of the Project, 700m west of Brentwood Road	January 2024	September 2026	35
Long Lane (ULH9)	West of the Project, north of Long Lane	January 2024	September 2026	35
Stifford Clays Road (ULH10)	West of the Project, south of Stiffords Clay Road	January 2024	September 2026	35
Stanford Road (ULH11)	North of Stanford Road, to the east side of the Orsett Cock junction	February 2024	April 2026	28
Green Lane (ULH12)	West of Green Lane, north of Stiffords Clay Road	February 2024	April 2026	28
Medebridge (ULH13)	2km to the east of the B186 North Road	January 2024	September 2026	35
Folkes Lane (ULH14)	South-eastern side of M25 junction 29	June 2024	May 2025	12

Utility Hub	Location	Start	End	Duration (months)
Warley Street (ULH15)	1km north of M25 junction 29 (western side)	April 2026	April 2027	13
Beredens Lane (ULH16)	1km north of M25 junction 29 (eastern side)	April 2026	April 2027	13

5.6.3 The proposed locations of the ULH are shown in Plate 5.1 to Plate 5.4 above, with the main construction works construction area and compound site locations.

5.6.4 The access arrangements extend from the highway network, with a mixture of standalone sites and combined sites (where a number of ULH sites have been grouped together with a single access point). A number of the ULH sites would also have a shared access with the main works compounds.

5.6.5 Table 5.5 shows the peak number of workers at each ULH.

**Table 5.5 Utility works workforce numbers**

Utility hub	Size	Peak number of workers
Park Pale	Small	11
A2 East	Small	11
A2 West	Medium	30
Shorne Ifield Road	Medium	30
Low Street Lane	Small	11
Muckingford Road	Small	11
Brentwood Road	Medium	30
Hornsby Lane	Small	11
Long Lane	Small	11
Stifford Clays Road	Small	11
Stanford Road	Medium	30
Green Lane	Medium	30
Medebridge	Small	11
Folkes Lane	Medium	30
Warley Street	Small	4
Beredens Lane	Medium	30



## 6 Baseline networks

### 6.1 Introduction

6.1.1 This chapter provides a summary of the existing baseline conditions along the highway and walking, cycling and horse-riding (WCH) networks, in the vicinity of the Project. Details of the public transport network are also provided, in relation to the proposed ‘transport hubs’.

### 6.2 Highway network

6.2.1 Key routes on the highway network (situated in proximity to the Project’s construction sites) that are expected to be used for workforce travel include:

- a. The M25 (between junction 27 north of the River Thames and junction 2 to the south of the River Thames)
- b. The A127
- c. The A13
- d. The A1089
- e. A282 Dartford Crossing
- f. The A2/M2

6.2.2 The M25 motorway is a dual four-lane carriageway from junction 27 to junction 30, before reaching the A282 Dartford Crossing. The A127 runs east-west from M25 junction 29 and is dual two-lane between M25 junction 29 and the junction with Progress Road in Eastwood. The A13 also runs east-west from M25 junction 30, with the carriageway predominantly dual three-lane between M25 junction 30 and the A128 junction. The section between the A128 and the A1014 is currently a two-lane dual carriageway, but Thurrock Council is in the process of widening this section to dual three lanes. An improvement scheme on the A13 at M25 junction 30 was completed in early 2017. The A1089 is a link between the A13 and Tilbury Port. The majority is two-lane dual carriageway with the southern end a single carriageway.

6.2.3 South of M25 junction 30 the route is identified as the A282 Dartford Crossing, which provides four lanes for traffic in each direction across the River Thames between Dartford and West Thurrock. The four lanes northbound are provided in two tunnels, each with two lanes. The four lanes southbound are provided over the Queen Elizabeth II Bridge. There is a charge for using the Dartford Crossing which is collected remotely. South of the A282 Dartford Crossing, the M25 motorway is dual four lanes to junction 2 with the A2. The A2 runs east-west from M25 junction 2 and is dual four-lanes from the A282 to M2 junction 1, except for a dual three-lane section through the Bean junction. The A2 meets the M2 at junction 1 between Gravesend and Strood, extending eastwards through Kent to junction 7 just east of Faversham. The M2 is a dual four-lane carriageway between junction 1 and junction 3, predominantly dual three-lane carriageway between junction 3 and junction 4, and dual two-lane carriageway between junction 4 and junction 7.

## 6.3 Walking, cycling and horse-riding network

- 6.3.1 There is an extensive walking, cycling and horse-riding network (situated in proximity to the Project’s construction sites) that would be expected to be used for workforce travel.
- 6.3.2 There are pedestrian footways adjacent to many of the local roads in the proximity of the Project’s construction sites. There are also roads without footpaths used by pedestrians. There is a network of advisory cycle routes and traffic-free routes, particularly around Thurrock, including two National Cycle Network (NCN) routes and two Regional Cycle Routes.
- 6.3.3 In addition to the pedestrian facilities on the public roads, there are PRowS linking local communities.
- 6.3.4 Many of these existing PRowS have been severed by the construction of major roads, including M25, A13, A2, as well as the HS1, adjacent to the A2. There are also numerous bridleways in the vicinity of the Project construction sites.
- 6.3.5 Table 6.1 and Table 6.2 provide details of the existing cycleways, footpaths and bridleways within the vicinity of the Project’s construction sites to the south and north of the River Thames respectively.

**Table 6.1 WCH routes south of the River Thames**

Facility	Route/Ref	Description
Cycleway	National Cycle Route 1	Runs along the disused Thames and Medway Canal, bordering a number of marshes near the River Thames. It connects Lower Higham and Gravesend, along the A2260 through Ebbsfleet to Bluewater
	Regional Cycle Route 177	Runs parallel north of the A2 from the A2260 Northfleet into Strood, Rochester and crosses the A2 at Park Pale bridge. The route is mixed on-road and partially traffic-free along Watling Street. It is connected to National Cycle Route 1 (NCR1) at A2260 Northfleet
	Jeskyns Community Woodland Network	Formed of a number of cycle tracks in close proximity, to the south of the A2, in the vicinity of Henhurst Road and Jeskyns Road
	NS195 Thong Lane	Thong Lane overbridge over the A2
	Gravesend Road (A226)	Accommodates an on-road cycle lane from Strood via Higham to Gravesend
Bridleway	NU48	Crosses the A2 at the Hog Lane overbridge, located to the west of Cyclopark. It connects to NU27 from Istead Rise to Perry Street housing estate via Downs Road/Northfleet Green Road
	NS174	Originating from NG17 by the Gravesend East junction and finishing halfway up footpath NS167
	NS318	Originates at NG2 (the disused Thames and Medway Canal) and ends at NG1 by the Shornemead Fort
Footpath	NG22	Crosses the A2 east of Gravesend Central junction, via a footbridge from Roman Road to Wrotham Road

Facility	Route/Ref	Description
	NS359	Crosses the A2 west of Gravesend East junction via a footbridge from Hever Court Road and Church Road
	NS183	Passes under the M2 at Albatross Avenue, connecting RR28 and NS183
	NS359	Crosses the A2 via a footbridge west of Gravesend East junction, connecting Church Road and Hever Court Road
	NS167	Route links Thong and the A2 via Thong Lane and Valley Drive
	NS170 and NS355	Both routes stem from NS167 north, joining onto Shorne Ifield Road
	NS169	Route connects FP NS167 and Riverview Park housing estate
	NG17	Originates from Valley Drive/Franklin Road, passes through a small group of houses just off the Gravesend East junction and ends when it joins the footpath along the A2
	NS367	Originates from Henhurst Road and looks to have been previously connected to NG17, but has been severed by the A2 construction
	NS177	Route is located south of the A2 connecting Cobham and Henhurst Road, just south of the Gravesend East junction of the A2
	NS177A	Joins NS177 to Henhurst Road, but further south of where NS177 meets Henhurst Road
	NS311 and NS195	Originating from Cobham, they merge within Ashenbank Wood and use the Thong Lane bridge to cross the A2
	NS178	Originates in Cobham, travels through Ashenbank Wood and joins the roundabout connecting Halfpence Lane, Thong Lane and Brewers Road
	NS179	Originates at Halfpence Lane in Cobham, travels north to the A2 then runs parallel to the A2 before joining Park Pale. NS179, NS180, NS161 all converge at this point
	NS180	Originates at Lodge Lane in Cobham, travelling through Rochester & Cobham Park Golf Club and joins NS179 and NS161 at Park Pale
	NS161	Originates at Knights Place Farm Equestrian Centre, travels through Rochester & Cobham Park Golf Club and then joins the roundabout connecting Halfpence Lane, Thong Lane and Brewers Road. It looks to have been connected to NS161 north of the A2, heading towards Shorne Ridgeway, before the A2 was constructed
	NS183	Passes under the M2 at Albatross Avenue and joins onto RR28
	NS1563	Route links NS182; via Knights Place Farm Equestrian Centre and crossing over a rail track, to a service road connecting to an A2 slip road heading westbound



Facility	Route/Ref	Description
	NG8, NG9, NG7, NS165, NS164, NS163 and NS163A	Collection of footpaths that form part of a network of PRowS that cross fields between Shorne and Gravesend. NG7 goes across several fields from Thong Lane/A226 Gravesend Road to Shorne at Crown Lane. NG8 goes across the Southern Valley Golf Club from Riverview Park and ends at the A226 Gravesend Road
	NG3 and NG4	Run parallel to one another in a north to south direction, starting at Lower Higham Road and finishing at the Thames and Medway Canal
	NG1	Runs right along the edge of the River Thames from Cliffe to Gravesend
	NG2	Runs parallel to the south of the disused Thames and Medway canal

**Table 6.2 WCH routes north of the River Thames**

Facility	Route/Ref	Description
Cycleway	National Cycle Route 13	The eastern section connects Tilbury town via the A1089 at Tilbury docks, with East Tilbury at Coalhouse Fort. This route is also partly footpath (FP146). The western section connects Wouldham Road to Tilbury Power station. National Route 13 is in development and will connect Tower Bridge in London with Fakenham in Norwich
	Regional Cycle Route 137	An entirely traffic-free path that follows the route of the Mardyke River from the south of Aveley to North Stifford. The route starts just off Ship Lane and under the M25 and the A13. It travels through Davy Down Riverside Park before finishing at the B186 just outside North Stifford. Here the route connects to local cycle routes that continue on into Chafford Hundred and skirt the Grays Chalk Quarry Nature Reserve
	Stifford Road	Route in the vicinity of M25 providing a connection to NCR137 and the Mar Dyke Bridleway
	Route from NCR137	Route from B186 Pilgrims Lane, B186 Burghley Road, B186 Fenner Road to the junction of the A126 and Lakeside Shopping Centre. The route crosses under the A13
	London Road	Located south of Lakeside, parallel to A282, along the A1306 Arterial Road West Thurrock, A1306 Arterial Road North Stifford, Lodge Lane, A1013 Stanford Road to Stanford-le-Hope, where it meets London Road. The cycle route has connections from Lodge Lane along Hogg Lane to Grays Chalk Quarry Nature Reserve and also Hathaway Road to Little Thurrock
	Little Thurrock and Horndon-on-the-Hill	Connects Little Thurrock and Horndon-on-the-Hill, via Blackshots Lane and Stifford Clays Road, passing under the A13, through Orsett. The route splits north and south at Rectory Road providing a link to the on-road cycle lane on the A1013 Stanford Road. The route also provides a wider

Facility	Route/Ref	Description
		loop between Little Thurrock and Horndon-on-the-Hill, via Stanford-le-Hope, connecting via the A1013 Stanford Road cycle route
	A1089	Route linking Ferry Road, Dock Road, across the A1089 Asda roundabout, adjacent to A1089, A126 Marshfoot Road, passing over the A1089, connecting into Tilbury via A126 St Chad's Road, Chadwell Hill. There is also a connection between B149 Chadwell By-Pass along Wood View Road and Chadwell Road, linking Chadwell St Mary and Little Thurrock, crossing over the A1089
Bridleway	BR187	Runs along the edge of the River Thames from Coalhouse Fort NCR146
	BR161	Green Lane bridleway and farm track
	BR58	Route (also referred to as Coal Road) begins at the point where Station Road meets Love Lane, then crosses over the rail line; via a level crossing, crosses Low Street Lane, joins onto BR66 and ties into Muckingford Road
	BR63	Connects to BR58 and provides access onto Muckingford Road
	BR233	Connects the A1013 and Long Lane, passing through a travellers' site
	BR206 and BR94	Route links a private track owned by the Foxhounds Riding School and Baker Street (B188) running parallel to the edge of the A13
	Heath Road	An unknown bridleway starts at Heath Road, runs parallel to the edge of the A1089 and connects to a footpath
	Orsett Heath	Unknown bridleway connects Orsett Heath Crescent (Orsett) and King Edward Drive (Little Thurrock), via a footbridge over the A1089
Footpath	FP193 & 98	Connect Tilbury Fort with Fort Road
	FP144	Connects Fort Road and Brunel Close, running along the edge of the Port of Tilbury vehicle handling centre
	FP200	Originates at Coalhouse Fort, travels through the East Tilbury Marshes and connects into Station Road
	FP68	Route links Gun Hill and Church Road
	FP72	Route links Biggin Lane and Turnpike Lane
	FP71, FP69 and FP70	A small network of footpaths that occupy a field between Turnpike Lane and Blue Anchor Lane
	FP74	Routes links Turnpike Lane and Linford Road
	FP66	Route link Blue Anchor Lane and Muckingford Road, crossing over BR58 (Coal Road)
	FP61	Route originates at Princess Margaret Road and connects to Low Street Lane and BR58 (Coal Road) at the point where they intersect

Facility	Route/Ref	Description
	FP60	Connects FP61 and Muckingford Road
	FP65 and FP64	Both link High House Lane to Hoford Road at different points. FP65 to the south and FP64 to the north
	FP75	Route links Linford Road to Cole Avenue (housing estate)
	FP78	Originates at High House Lane, crosses Brentwood Road and joins onto FP79 at the most northern point of Chadwell St Mary
	FP79	Originates in northern Chadwell St Mary, crosses FP78 and joins the A1013 at Rectory Road bridge
	FP95	Originates at the end of FP78 and ends at the start of FP107
	FP108	Route links Heath Road and an unknown footpath (Orsett Heath Crescent; Orsett, and King Edward Drive; Little Thurrock), via a footbridge over the A1089
	FP107	Originates at the end of FP95 and ties into Hornsby Lane
	FP43, FP45, FP46, FP106 and FP105	These paths connect to one another to create a route from Buckingham Hill Road, around the edge of Orsett Golf Centre, to the A1013 where the Rectory Road bridge is located
	FP105	Links the A1013 at Rectory Road bridge to Brentwood Road
	FP97	Originates at Long Lane, heading in a north direction but has no final destination, ending where it is intersected by the A13
	FP104	Connects the A13 Brentwood junction to Rectory Road as it enters Orsett
	FP93	Route links Mill Lane to Rectory Road at the point where it crosses the A13
	FP82	Route starts at School Lane but has no final destination, ending where it is intersected by the A13
	FP96	Connects Mill Lane and Baker Street (B188)
	FP207	Originates at Baker Street (B188) but ends where the A13 link road onto the A1089 intersects it

6.3.6 The oTMPfC makes reference to the development of a 'PRoW management plan' which would set out a list of all WCH routes expected to be impacted by the construction phase. Alternative temporary diversions would be provided prior to the closure for construction purposes, subject to engagement with the relevant local authority to ensure the measures put in place are fully informed.

## 6.4 Public transport network

6.4.1 Existing transport hubs (offering a point of interchange between different transport modes) located on both sides of the River Thames have been identified as important locations to provide onward transport services for the Project workforce (in the form of a shuttle bus service) to and from the construction areas and compounds. These hubs will provide an interchange point between the existing public network services, and the shuttle bus service.



The identified hub locations have been selected given the range of public transport provision available, as well as surrounding urban areas providing opportunities for walking and cycling. The selected hubs are:

- a. Gravesend (Bus, HS1, National Rail)
- b. Grays (Bus, National Rail)
- c. Upminster (Bus, National Rail, London Underground, London Overground)

## Rail network

6.4.2 The frequency, described as trains per hour (tph), of rail services at the proposed hub locations are detailed in Table 6.3. These are correct as of March 2021.

**Table 6.3 Frequency of rail services**

Hub	Route	Frequency
Gravesend	Southeastern Highspeed	2tph Highspeed to London St Pancras 2tph Highspeed to Faversham 1tph extended to Margate, Ramsgate, Deal and Dover Priory
	Southeastern Charing Cross - Gravesend	2tph London Charing Cross via Sidcup
	Southeastern Victoria - Gravesend	2tph London Victoria via Bexleyheath
	Thameslink Luton - Rainham	2tph Luton 2tph Rainham
Grays	C2C London-Tilbury-Southend	4tph London Fenchurch Street: - 2tph via Rainham - 2tph via Ockendon 2tph Southend Central
Upminster	London Underground District Line	6tph to Richmond 6tph to Ealing Broadway
	London Overground Romford - Upminster	2tph to Romford
	C2C London - Tilbury - Southend	6tph London Fenchurch Street 2tph Southend Central via Ockendon 4tph Shoeburyness via Basildon

## Bus and coach networks

6.4.3 The frequency of bus and coach services for the hub locations is detailed in Table 6.4. These are correct as of March 2021.

**Table 6.4 Frequency of bus and coach services**

Hub	Route	Frequency
Gravesend	3 Sole Street Station - Cobham - Gravened (via Gravesend Station)	1 service Thursday AM
	190 Chatham Waterfront Bus Station - Gravesend Station (via Chatham and Rochester Stations)	20 minutes (08:00-16:00) (30 minutes before 08:00 and after 16:00)
	306 Bluewater Bus Station - Gravesend - Borough Green - Sevenoaks (via Swanscombe, Northfleet Arriva Depot, Gravesend and Borough Green Stations)	2-3 evening services (19:00-23:00)
	308 Sevenoaks Bus Station - Gravesend Station (via Sevenoaks and Borough Green Stations)	9 services per day (07:00-19:00)
	455 Valley Drive - Gravesend Station	2 services per day
	480 (Sapphire) Riverview Park Cascades Leisure Centre - Dartford (via Gravesend, Northfleet Arriva Depot and Bluewater Bus Stations)	30 minutes (07:00-19:00)
	481 Riverview Park Cascades Leisure Centre - Bluewater Bus Station (via Gravesend and Ebbsfleet International Stations)	35 minutes (08:00-18:00) (120 minutes before 08:00 and after 18:00)
	483 Gravesend - Bluewater Bus Station (via Gravesend and Ebbsfleet International Stations)	30 minutes (07:00-17:00) (60 minutes from 17:00)
	489 Gravesend - New Ash Green (via Gravesend and Longfield Railway Stations)	7 services per day (07:00-17:00)
	490 (Sapphire) Singlewell - Dartford (via Gravesend and Bluewater Bus Station)	30 minutes (07:00-19:00)
	B Fastrack Gravesend Station - Temple Hill (via Ebbsfleet International, Greenhithe and Bluewater Bus Stations)	10-15 minutes (07:00-19:00)
Grays	22 Aveley - Grays Bus Station (via Lakeside and West Thurrock)	30 minutes (08:00-17:00)
	33 Chafford Hundred Station - Grays Bus Station	60 minutes (06:00-17:00)
	44 Lakeside - Grays Bus Station (via Purfleet and West Thurrock)	30 minutes (08:00-17:00) (60 minutes before 08:00 and after 17:00)
	66 Grays Bus Station - Tilbury (via Tilbury ASDA and Civic Square)	30 minutes (07:00-17:00)
	73 Lakeside - Tilbury (via Grays Bus Station and Chadwell St Mary)	30 minutes (08:00-17:00)

Hub	Route	Frequency
	77 Aveley - Tilbury (via South Ockendon, Lakeside, Grays Bus Station and Chadwell)	3 peak hour services (AM and PM)
	77A Aveley - Tilbury (via South Ockendon, Lakeside, Grays Bus Station and Chadwell)	30 minutes (evening only from 19:00-23:00)
	83 Lakeside - Chadwell St Mary (via Grays Bus Station and Socketts Heath)	30 minutes (08:00-19:00)
	88 Stifford Clays - Grays Bus Station (via Socketts Heath)	60 minutes (07:00-18:00)
	265 Grays - West Horndon Station	1 service Mon, Wed, Fri only
	269 Grays Bus Station - Brentwood (via Ockendon and Brentwood Stations)	4-5 services per day (07:00-18:00)
	374 Grays Bus Station - Basildon Bus Station (via Stanford-le-Hope Station)	8 services per day (07:00-18:00)
	Z1 Tilbury (Amazon) - Aveley (via Tilbury Station, Grays and Lakeside Bus Stations)	4 x AM peak hour services and 2 x PM peak hour services
Upminster	248 Romford Market - Cranham (via Romford, Upminster Bridge and Upminster Stations)	6-10 minutes (07:00-19:00)
	346 Upminster Station - Cranham	15 minutes (08:00-18:00) (30 minutes before 08:00 and after 18:00)
	347 Romford Station - Ockendon Station (via Harold Wood and Upminster Stations)	4 services per day
	370 Romford - Lakeside Bus Station (via Romford, Emerson Park, Upminster Bridge and Upminster Stations)	15 minutes (07:00-19:00)
	648 Romford Market - Cranham (via Romford, Upminster Bridge and Upminster Stations)	1 service per day

### River network

- 6.4.4 A regular ferry service operated by Jetstream Tours runs from Monday to Saturday between Tilbury riverside and Gravesend. Tilbury sailings are to and from the Tilbury Riverside pontoon, off Ferry Road, Tilbury. On the Gravesend side, all sailings are to and from the Town Pier.
- 6.4.5 Crossings take between five and 10 minutes depending on river traffic and run from both sides approximately every 30 to 60 minutes between 05:00 and 19:00 (correct as of March 2021).



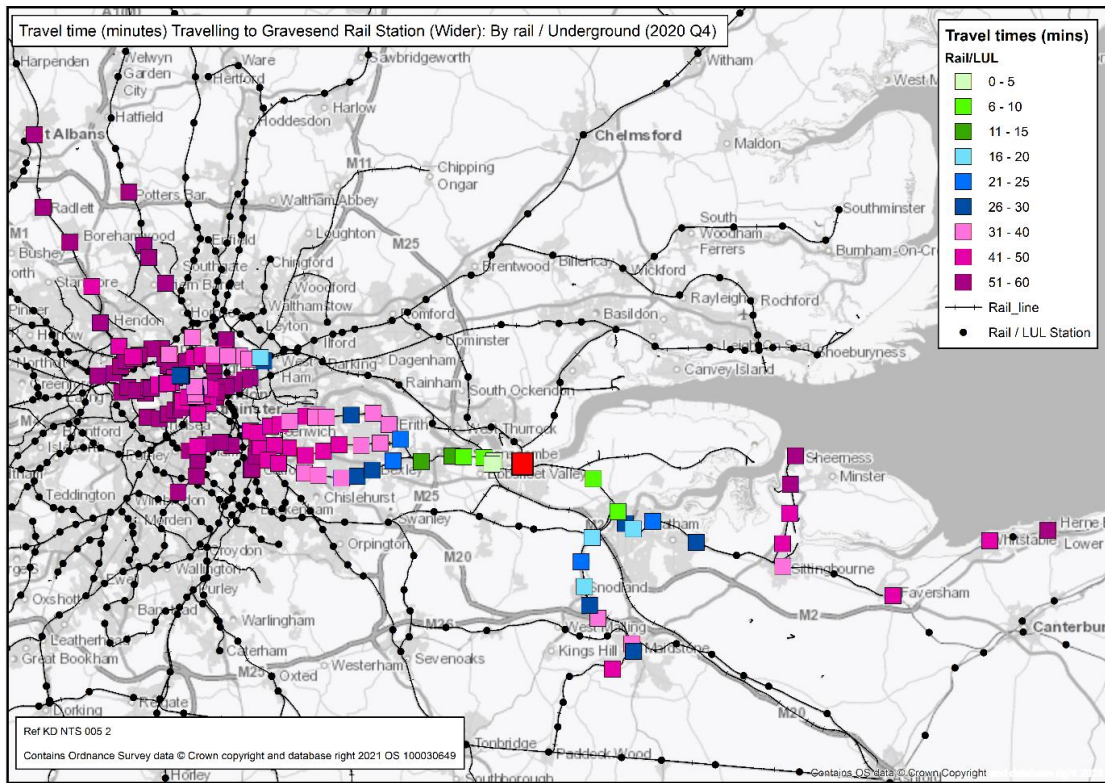
## Construction impacts

- 6.4.6 The oTMPfC sets out details of how impacts arising from Project construction activities on public transport services during the construction period would be managed. This would take place alongside discussions with stakeholders, including public transport users, operators and local authorities.
- 6.4.7 The oTMPfC sets out that the Project would take the following considerations and objectives into account:
- a. Maintain existing routes (as far as reasonably practicable)
  - b. Provide temporary diversions, temporary bus stops when and where required
  - c. Seek view of local authorities when designing diversion routes and temporary bus stops
  - d. Reduce impact on the rail network and schedule
  - e. Engage with rail companies on proposed works and programme to reduce impacts

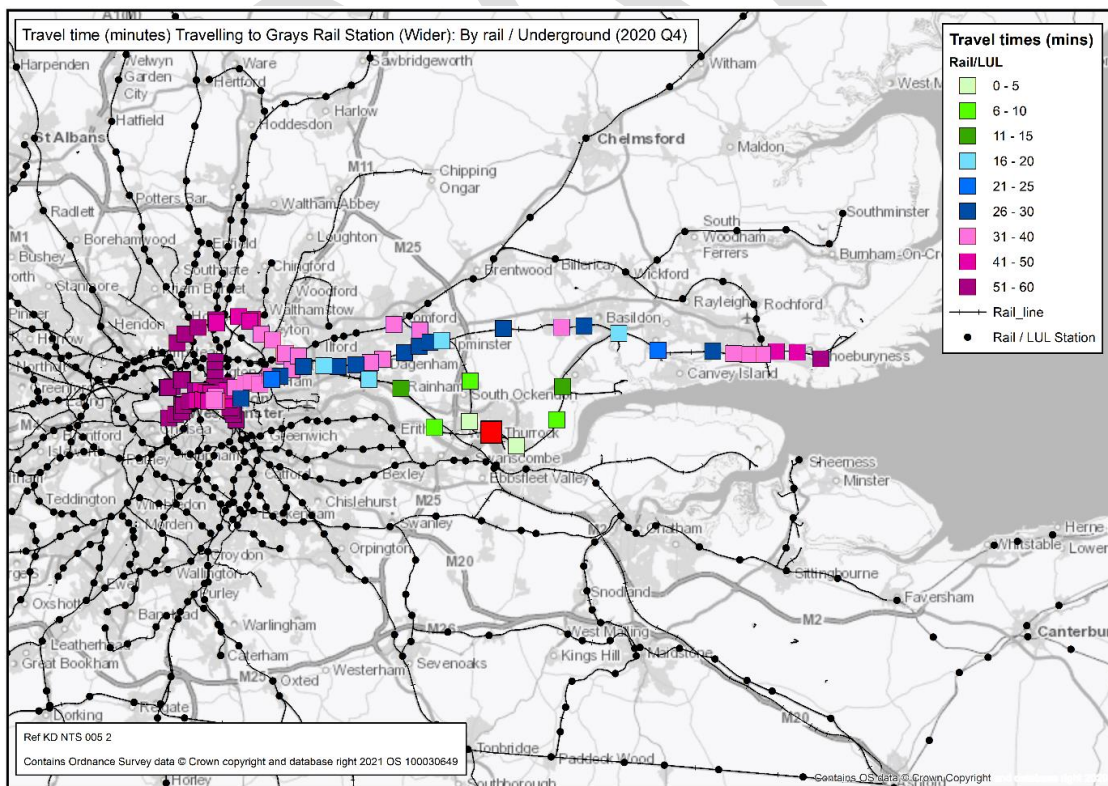
## 6.5 Hub accessibility

- 6.5.1 Plate 6.1 to Plate 6.3 illustrate the catchment area for travelling to each of the proposed hub locations by train or underground within a maximum one-hour travel time. For the Gravesend hub, south of the River Thames, the one-hour travel time catchment extends to St Albans in Hertfordshire to the north-west, Maidstone to the south and Whitstable to the east, both in Kent.
- 6.5.2 For the hubs north of the River Thames (Upminster and Grays) these show a similar catchment area extending out to central London to the west, and Southend-on-Sea to the east. As indicated by the green and blue markers, there is also a considerable catchment area within a maximum of 30 minutes' travel time by rail, with the majority of locations in east London, Thurrock and parts of Essex within only 15 minutes travel time to Upminster, and within 30 minutes travel time to Grays.

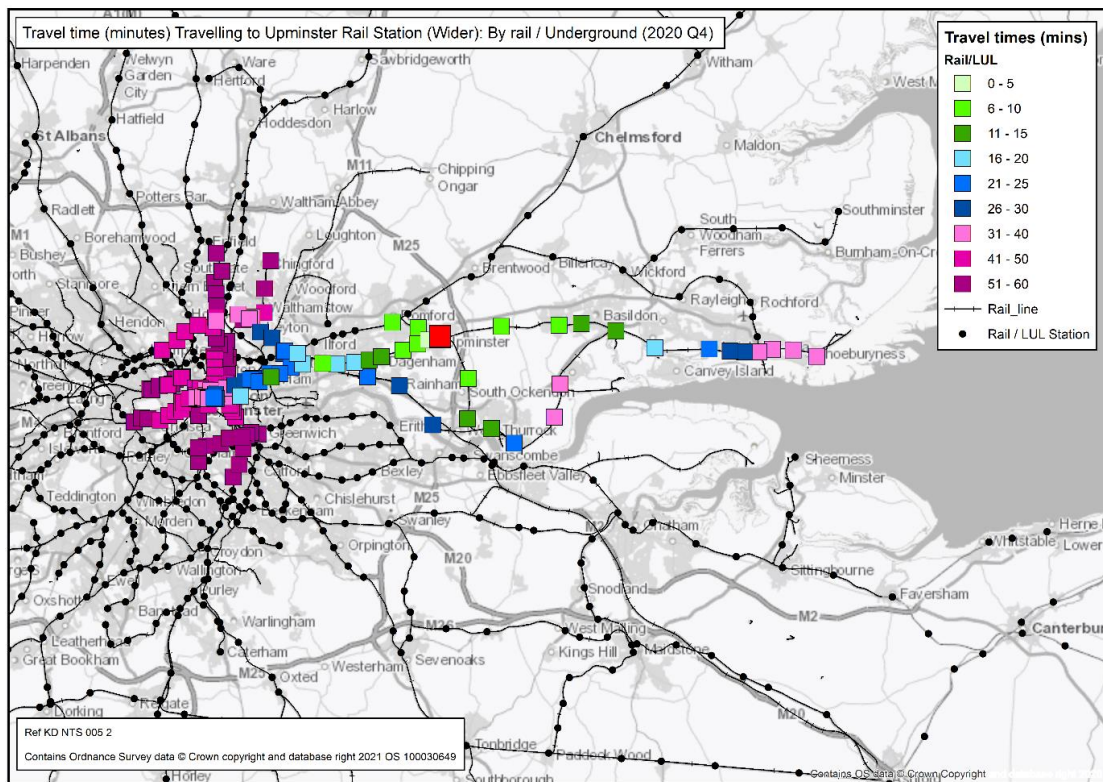
**Plate 6.1 Rail accessibility to Gravesend transport hub**



**Plate 6.2 Rail accessibility to Grays transport hub**



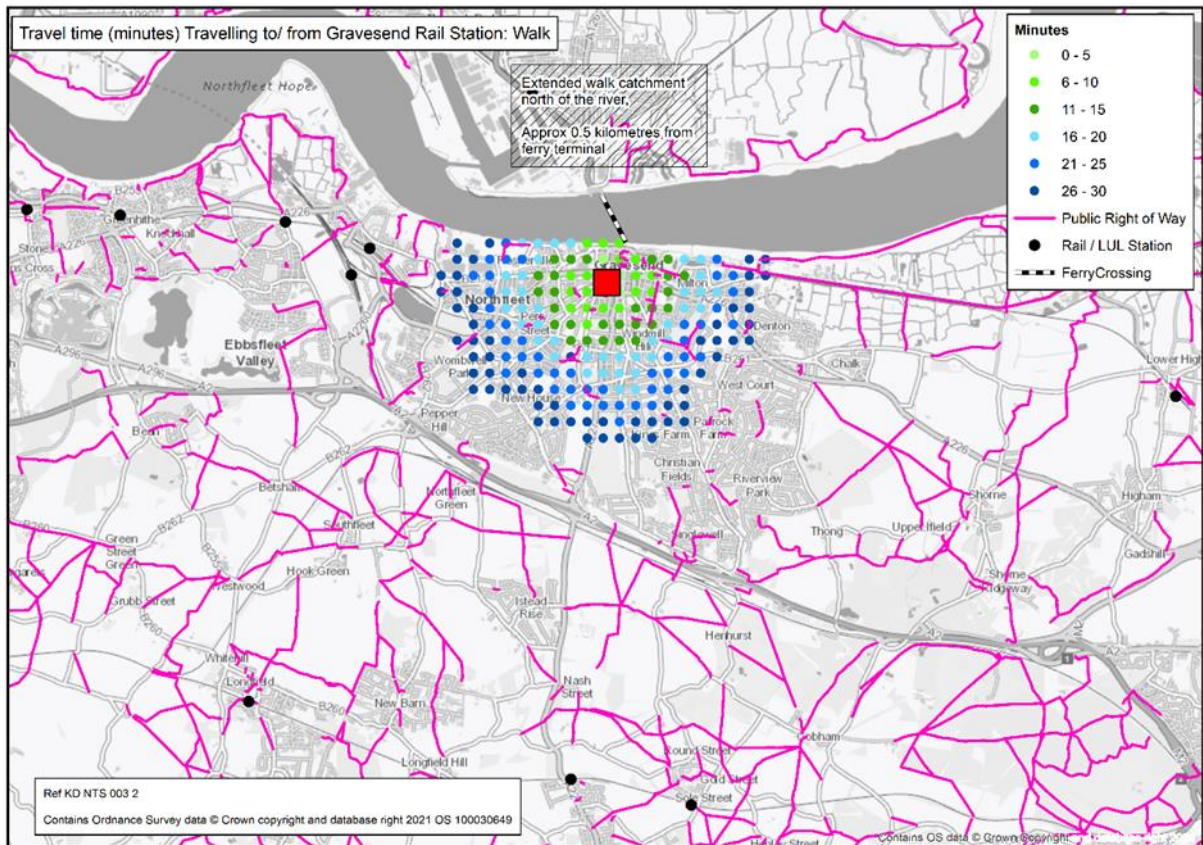
**Plate 6.3 Rail accessibility to Upminster transport hub**



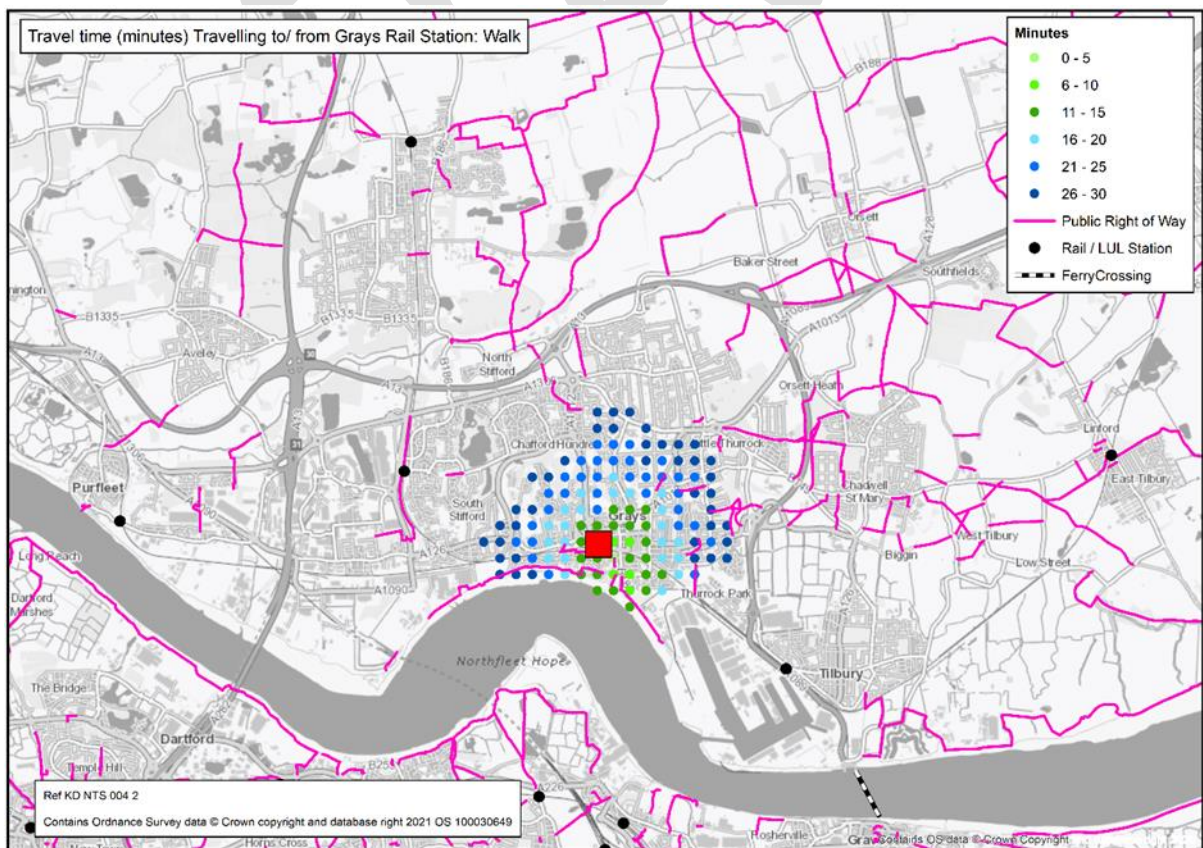
6.5.3 Plate 6.4 to Plate 6.9 illustrate the walking and cycling routes in proximity to all three proposed hub locations, and the travel time associated with these modes of travel for trips up to 30 minutes. For walking, this appears to capture a distance of approximately 2km from each of the hubs while for cycling this extends to a distance of approximately 5-7km comprising a number of towns and suburban areas situated in the wider vicinity of the hub locations.



**Plate 6.4 Walking times to Gravesend transport hub**

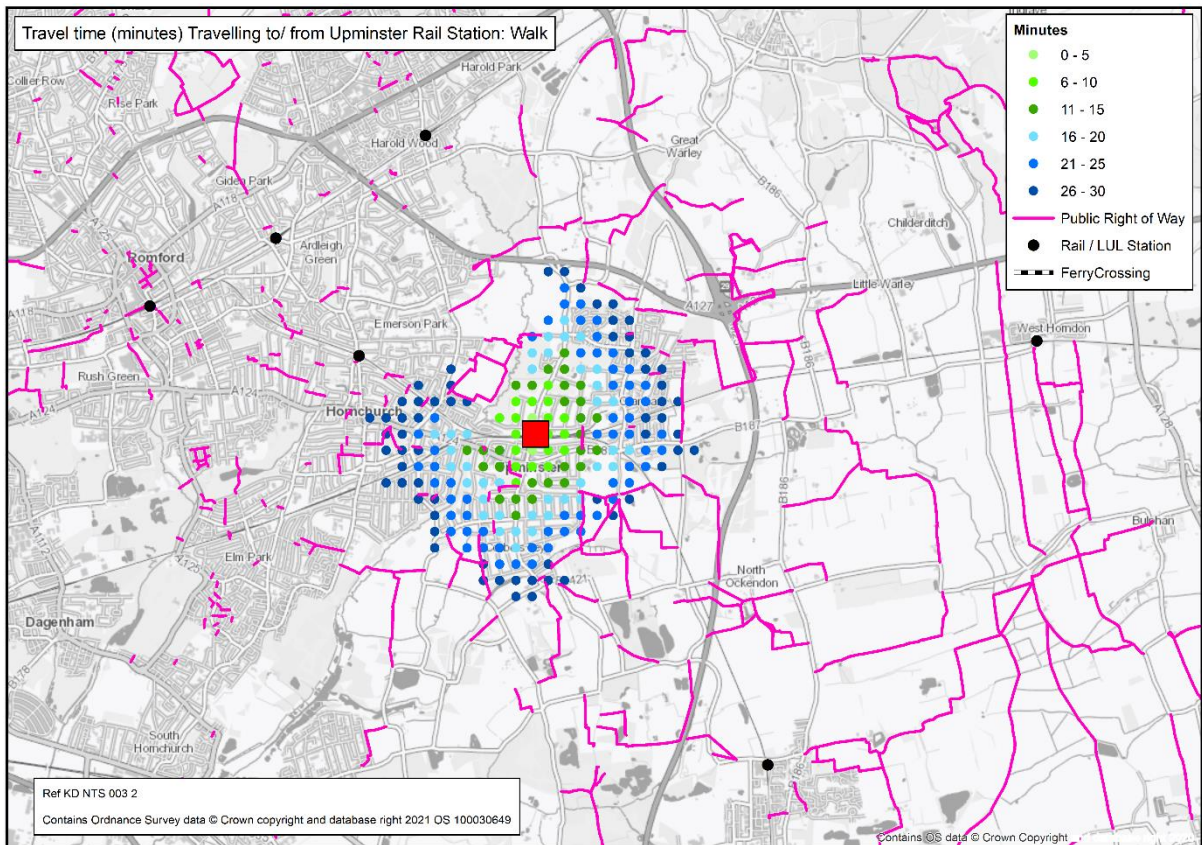


**Plate 6.5 Walking times to Grays transport hub**

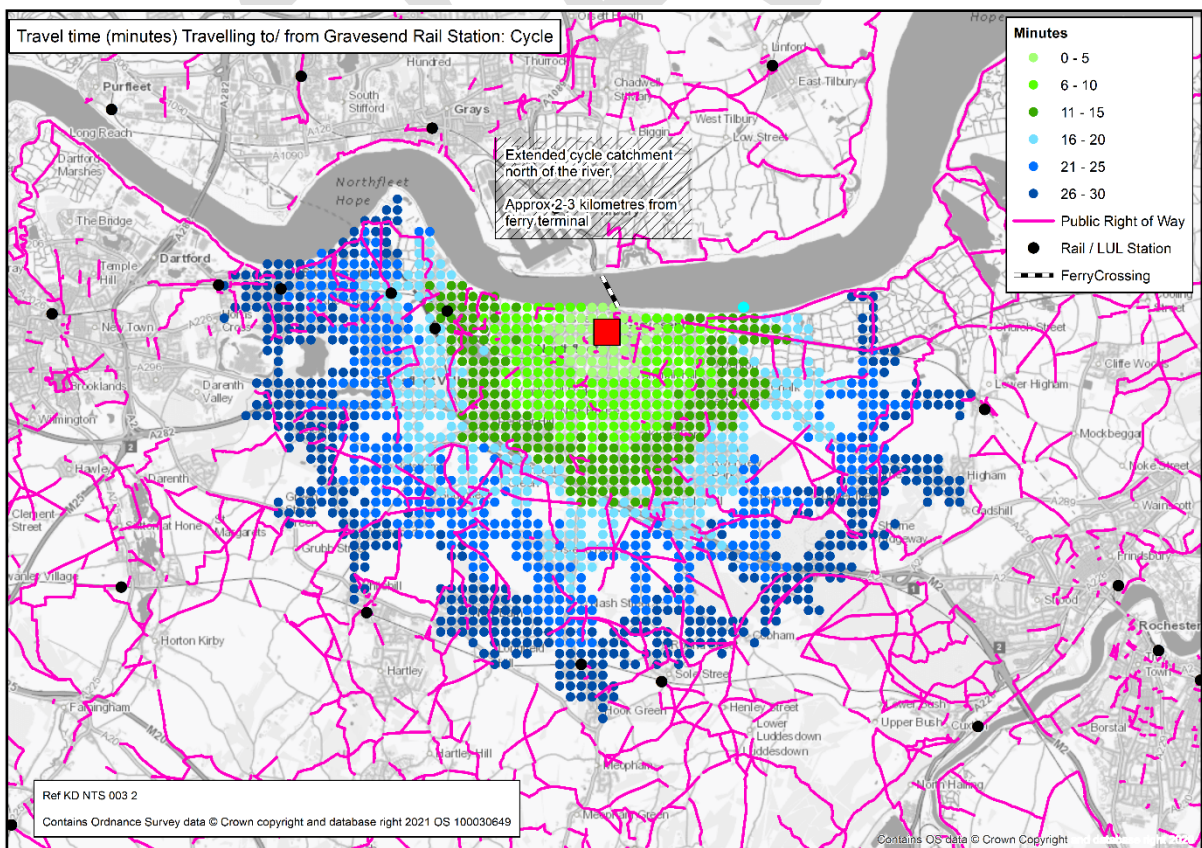




**Plate 6.6 Walking times to Upminster transport hub**

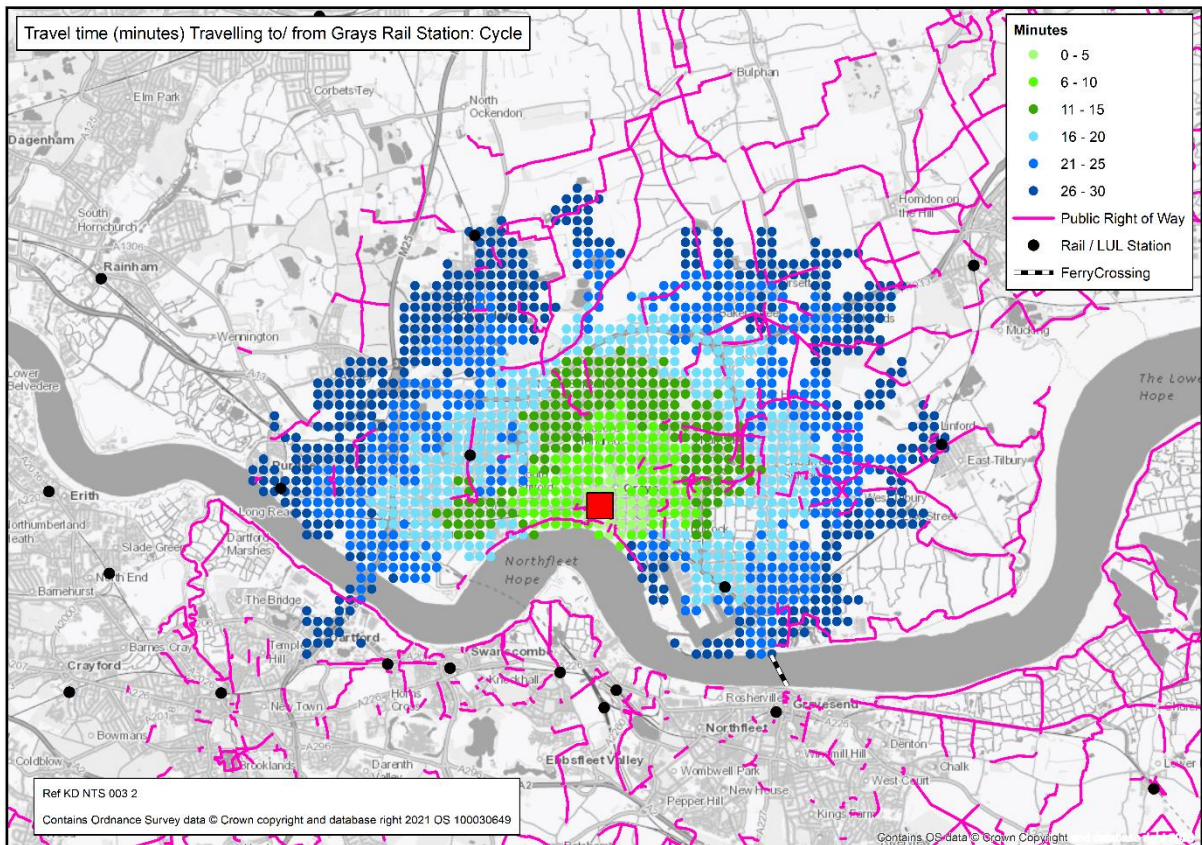


**Plate 6.7 Cycle times to Gravesend transport hub**

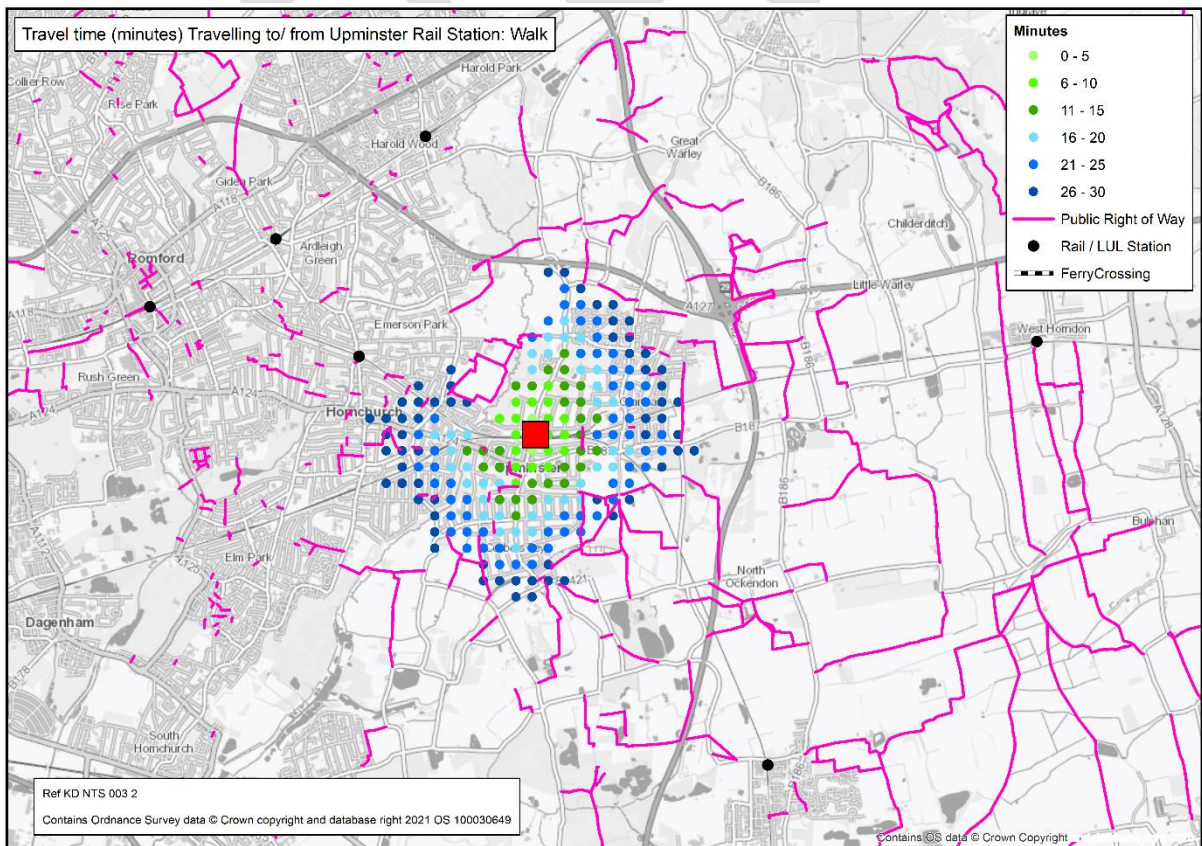




**Plate 6.8 Cycle times to Grays transport hub**



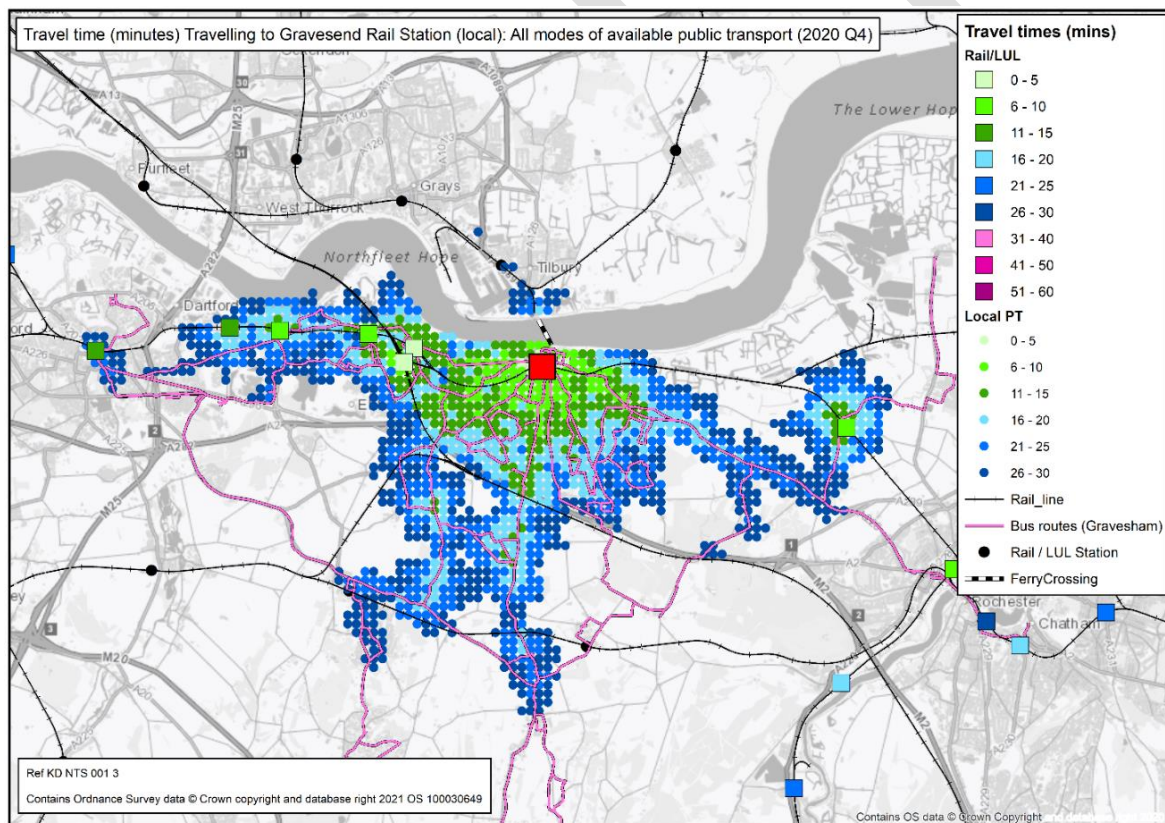
**Plate 6.9 Cycle times to Upminster transport hub**



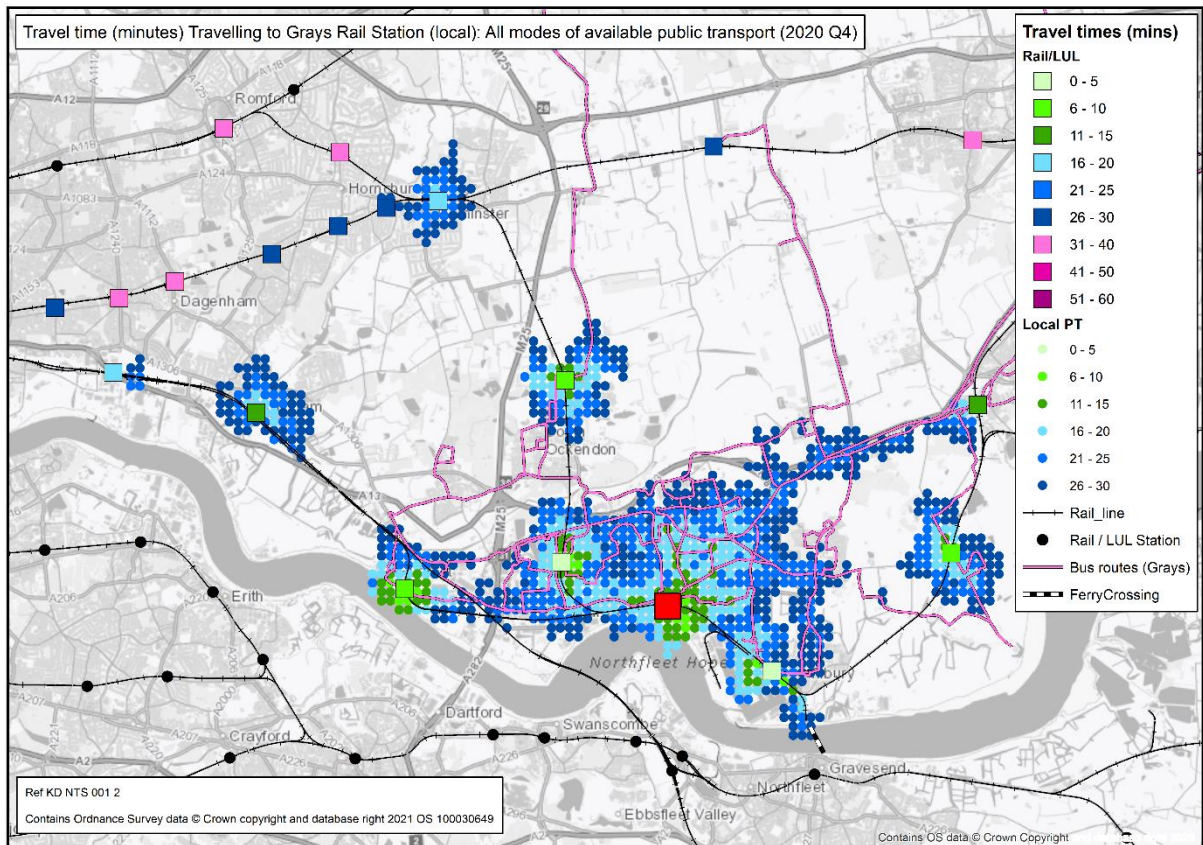


- 6.5.4 Plate 6.10 to Plate 6.12 illustrate the catchment area for travelling to each of the hub locations by public transport modes other than rail (namely bus and ferry services) within a maximum 30-minute travel time (rail services are shown to identify how these public network routes interrelate across a multimodal transport system). At Gravesend, the catchment extends to Dartford to the west; south of the A2; and across to Higham in the east. There is also a small catchment opportunity to the north of the River Thames in Tilbury as a result of the ferry service available. Similarly to the cycle network, bus services also comprise a number of towns and suburban areas situated in the wider vicinity of the hub locations, extending a slightly greater distance of approximately 10km in some instances.
- 6.5.5 For Upminster, bus routes are focused within the London Borough of Havering, extending out to East Horndon to the east and South Ockendon and Grays to the south. This is mirrored for Grays, with the majority of its catchment focused in Thurrock, albeit extending to Upminster to the north, Rainham to the west and East Tilbury to the east.

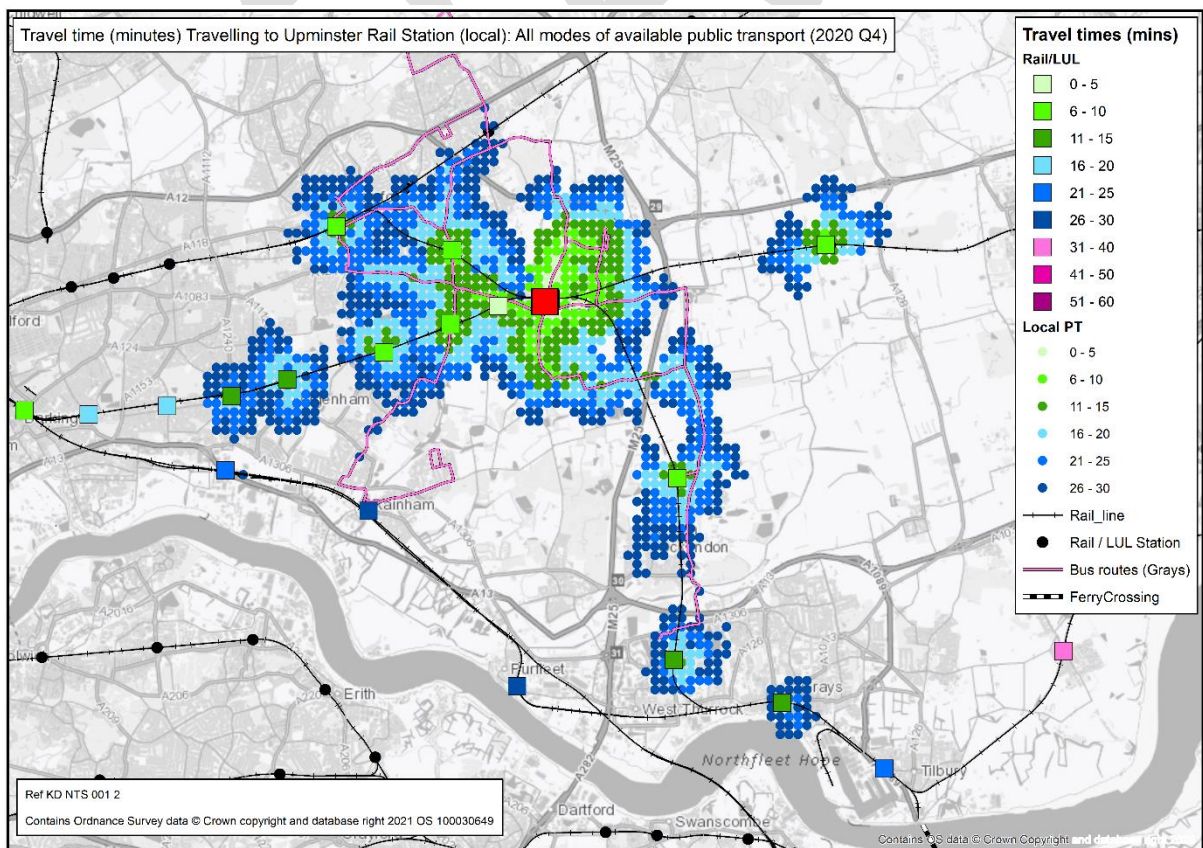
**Plate 6.10 Public transport accessibility to Gravesend transport hub**



**Plate 6.11 Public transport accessibility to Grays transport hub**



**Plate 6.12 Public transport accessibility to Upminster transport hub**





- 6.5.6 The wider highway connections to each of the proposed hub locations have also been identified. As shown above, trips originating from the Medway Towns, Gravesend and Dartford would be expected to utilise the hub located in Gravesend, also located south of the River Thames. This hub can be accessed via Singlewell Road which runs north to south from the station through the town towards the A2 which spans the southern edge of the town. The M2 links the A2 for journeys from the Medway Towns to the east, while the A282 and the A296 both link to the A2 for journeys from Dartford to the west.
- 6.5.7 For those travelling to the proposed Grays transport hub via road, the A13 spans to the north of the town, with both the A226 and the A1012 connecting the SRN southwards into the central area where Grays railway station is located. As shown in the plates above, a significant number of workforce trips are expected to originate within the local area, in close proximity to the proposed transport hub at Grays station.
- 6.5.8 For trips originating in Romford (or the wider Havering Borough area), the closest transport hub is Upminster with the A125/A124 connecting the Romford ring road to Upminster via Hornchurch.

## 7 Policy and guidance

### 7.1 Introduction

7.1.1 This chapter provides a summary on the latest planning policy (national and local level), and guidance and best practice documents available with regard to travel planning. These (together with any new or updated guidance) would be referred to by the contractors, when producing the SSTPs for each construction area or compound, or group of construction areas and compounds, unless updated and replaced by government or the relevant local authorities. While it is acknowledged that a large majority of the guidance is set within the context of development sites rather than construction areas and compounds, it is expected the overall principles for implementing sustainable travel will be still be applicable to be used as a guide for the SSTPs.

### 7.2 National planning policy

7.2.1 This section outlines national planning policies in relation to travel planning requirements set out in the National Policy Statement for National Networks (NPSNN) and the National Planning Policy Framework (NPPF).

#### **National Policy Statement for National Networks (NPSNN)**

7.2.2 Paragraph 5.208 states that, where appropriate, the applicant should prepare a travel plan including management measures to mitigate transport impacts. The applicant should also provide details of proposed measures to improve access by public transport and sustainable modes where relevant, to reduce the need for any parking associated with the proposal and to mitigate transport impacts.

7.2.3 This is set out specifically in regard to strategic rail freight interchange developments, however, paragraph 5.209 goes on to state that for schemes impacting on the SRN, applicants should have regard to DfT Circular 02/2013 'The Strategic Road Network and the delivery of sustainable development' (or prevailing policy) which sets out the way in which the highway authority for the SRN, will engage with communities and the development industry to deliver sustainable development and, thus, economic growth, whilst safeguarding the primary function and purpose of the SRN.

#### **Overarching National Policy Statement for Energy (EN-1)**

7.2.4 This document sets out the overarching national policy for energy infrastructure, and applies to the full suite of energy NPSs and any associated development (referred to as energy NSIPs).

7.2.5 The policy acknowledges that the transport of materials, goods and personnel to and from a development during all project phases can have a variety of impacts on surrounding transport infrastructure and potentially on connecting transport networks, for example through increased congestion.

7.2.6 Paragraphs 5.13.3 to 5.13.5 set out that if a project is likely to have significant transport implications, a travel plan should be prepared where appropriate, including demand management measures to mitigate transport impacts. Details referring to proposed measures to improve access by public transport, walking and cycling, and to reduce the need for parking associated with the proposal and to mitigate transport impacts should also be provided.

## **National Policy Statement for Gas Supply Infrastructure and Gas and Oil Pipelines (EN-4)**

- 7.2.7 This document, taken together with the Overarching Energy NPS (EN-1) sets out the national policy for the gas supply infrastructure and gas and oil pipelines, and follows the same high-level objectives, policy and regulatory framework for new nationally significant infrastructure projects, as set out in the Overarching Energy NPS (EN-1). This includes the key principles to be followed, policy on good design, and the assessment and handling of generic impacts that are not specific to particular technologies, as set out in the Overarching Energy NPS (EN-1).
- 7.2.8 Consistent with the instructions and guidance set out in the Overarching Energy NPS (EN-1), if a project is likely to have significant transport implications, a travel plan should be prepared where appropriate.

## **National Policy Statement for Electricity Networks Infrastructure (EN-5)**

- 7.2.9 This document, taken together with the Overarching Energy NPS (EN-1) sets out the national policy for the electricity networks infrastructure, and follows the same high-level objectives, policy and regulatory framework for new nationally significant infrastructure projects, as set out in the Overarching Energy NPS (EN-1). This includes the key principles to be followed, policy on good design, and the assessment and handling of generic impacts that are not specific to particular technologies, as set out in the Overarching Energy NPS (EN-1).
- 7.2.10 Consistent with the instructions and guidance set out in the Overarching Energy NPS (EN-1), if a project is likely to have significant transport implications, a travel plan should be prepared where appropriate.

## **National Planning Policy Framework (NPPF)**

- 7.2.11 Paragraph 111 of the NPPF states that all developments which will generate significant amounts of movement should be required to provide a travel plan, supported by a transport statement so that the likely impacts of the proposal can be assessed.
- 7.2.12 Travel plans therefore support national planning policy, which provides that planning should actively manage patterns of growth in order to make the fullest possible use of public transport, walking and cycling, and focus significant development in locations which are or can be made sustainable.

## **7.3 Local planning policy**

- 7.3.1 This section outlines local travel planning policies, guidance and current schemes in relation to travel plans, as determined by the local highway authorities in proximity to the Project. This highlights the existing approach undertaken in each area, and the measures currently provided. SSTPs would also be expected to demonstrate compliance with up-to-date local travel planning policies, guidance and schemes in relation to travel planning.



## Medway Council

- 7.3.2 The Medway Local Plan (2003)<sup>2</sup> sets out the Council's guidance on travel planning within Policy T14: Travel Plans. It states that Travel Plans will be required for all developments which require a Transport Assessment or as otherwise required by the Council's vehicle parking standards. This includes all substantial developments comprising employment, retail, leisure and/or service floorspace, smaller developments which would generate additional traffic movements in or near to an air quality management area, new or expanded educational facilities and where a local traffic problem would otherwise lead to a refusal of planning permission. A Travel Plan coordinator is also employed by the Council and can provide advice to existing companies and potential applicants for new built developments.
- 7.3.3 Medway Council promotes the use of company travel plans through their transport plans and policies guidance<sup>3</sup> both to reduce the number of trips made by private cars in connection with business and to reduce the overall need to travel. The adoption of a company travel plan is a key element in the Council's strategy. The Council has set out to establish a forum of major employers in Medway to share initiatives around travelling to work. Medway Council's own Travel Plan offers a range of incentives (including the Medway carshare scheme and bus ticket and bicycle discounts) as well as supporting schemes to allow more flexible working and reduce the need to travel (including nine-day fortnight, reduced office attendance and increased homeworking). The reduction in traffic congestion and the improvement of air quality that should result from Travel Plans are essential elements of the council's core values.
- 7.3.4 Travel also forms an important part of Medway's Local Transport Plan (LTP). The third LTP, which runs from 2011, includes the development of a new travel strategy with a greater focus on cycling initiatives. During the second LTP period (2006-2011) 16 workplace Travel Plans were adopted, targeting in excess of 15,000 employees.

## Kent County Council

- 7.3.5 Kent County Council has been working with a variety of partners to secure sustainable and active travel funding, to support its sustainable travel<sup>4</sup> ambitions and sustainable transport projects across Kent. These projects aim to promote sustainable transport options, active travel (walking and cycling) and encourage the switch to alternatively fuelled vehicles. Kent County Council is committed to making sustainable travel an attractive, realistic choice for journeys which will help to improve air quality, reduce congestion on the roads, and promote health and wellbeing in Kent.
- 7.3.6 Among these projects are schemes to improve sustainable travel for education, adult cycle training, access to the 'liftshare' platform to help commuters find car share members, access to 'KentConnected' a free journey planner app, and a number of walk and cycle to work schemes and initiatives.

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<sup>2</sup> [https://www.medway.gov.uk/downloads/file/2400/medway\\_local\\_plan\\_2003](https://www.medway.gov.uk/downloads/file/2400/medway_local_plan_2003)

<sup>3</sup> [https://www.medway.gov.uk/info/200161/travel/545/transport\\_plans\\_and\\_policies/3](https://www.medway.gov.uk/info/200161/travel/545/transport_plans_and_policies/3)

<sup>4</sup> <https://www.kent.gov.uk/about-the-council/strategies-and-policies/transport-and-highways-policies/transport-and-highways-funding/sustainable-transport-projects>

## Gravesham Borough Council

- 7.3.7 The Gravesham Local Plan Core Strategy (2014)<sup>5</sup> sets out Gravesham Borough Council's guidance on travel planning within Policy CS11: Transport. It states that new developments are to prepare and adopt Transport Assessments and Travel Plans (as appropriate) using Kent County Council's guidance, Transport Assessments and Travel Plans, October 2008. This will ensure new developments mitigate their impact on the highway and public transport networks as required, and ensure the delivery of travel choice and sustainable opportunities for travel.

## Thurrock Council

- 7.3.8 The Thurrock Core Strategy and Policies for Management of Development (2015)<sup>6</sup> sets out the Council's guidance on travel planning within Policy PMD10: Transport Assessments and Travel Plans. This ensures new developments play their role in implementing travel planning measures and the intensive application of Smarter Choices (which has been found to reduce car use by up to around 10%). The purpose of the policy is to encourage safe, healthy and sustainable travel options. By reducing car travel, the Council consider that Travel Plans/Assessments can improve health and wellbeing, free up car parking spaces, and contribute positively to mitigating adverse transport, environment and amenity impacts. Travel plans must be consistent with the Council's policies, and ensure it is clear the development can provide adequate provision for existing or planned transport infrastructure and other proposed measures. The objectives within the Travel Plans will be monitored, and must include targets, coupled with penalties if outcomes are not being met.
- 7.3.9 Thurrock Council travel planning guidance<sup>7</sup> is set out into four key areas; workplace, rail stations, school, and development-related travel planning, in order to provide suitable and tailored advice for the different development types.
- 7.3.10 The guidance clearly sets out the importance of travel planning in line with development planning, which provides a long-term strategy to mitigate and monitor the negative transport impacts of development, promote sustainable development, and maximise the potential for sustainable travel behaviour. Thurrock Council also provides Travel Plan assessment guidance and a checklist to assist with the development of the documents.
- 7.3.11 The workplace travel plan guidance provides support to businesses looking to promote and encourage sustainable travel use among their staff members. The example set out by Thurrock Council highlights the benefits available to both employers and employees when effective workplace travel planning is implemented, including lower costs for travel, increased staff productivity and health and wellbeing, and reducing parking issues by encouraging staff to travel by other means.

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<sup>5</sup> <https://drive.google.com/file/d/1bJTqQLmhbzjqZFibl-5WFb2tbvixXpLk/view>

<sup>6</sup> [https://www.thurrock.gov.uk/sites/default/files/assets/documents/core\\_strategy\\_adopted\\_2011\\_amended\\_2015.pdf](https://www.thurrock.gov.uk/sites/default/files/assets/documents/core_strategy_adopted_2011_amended_2015.pdf)

<sup>7</sup> <https://www.thurrock.gov.uk/travel-planning/workplace-travel-plans>

- 7.3.12 The rail operator c2c works with Thurrock Council and others to develop rail station Travel Plans for the stations in Thurrock, in order to reduce congestion around the station, lessen the station's effect on the environment and encourage more travel by rail. A station Travel Plan will include information on the site and surrounding area, details of any problems, passenger and operator views, and information on how passengers travel to and from the station.

### Transport for London

- 7.3.13 The 2021 London Plan<sup>8</sup> sets out the Greater London Authority (GLA) guidance on travel planning within Policy T4: assessing and mitigating transport impacts. With regard to national or local guidance, Travel Plans should be produced alongside Transport Assessments and/or Transport Statements as part of development proposals, to ensure that impacts on the capacity of the transport network (including impacts on pedestrians and the cycle network), at the local, network-wide and strategic level, are fully assessed. This should focus on embedding the Healthy Streets Approach within, and in the vicinity of, new development. The phasing of development, and the use of travel plans, and freight strategies will help reduce negative impacts of development on the transport network and bring about positive outcomes.
- 7.3.14 The 2018 Mayor's Transport Strategy<sup>9</sup> focuses on a new type of thinking, to put into practice the theory of reducing car dependency and increasing active, efficient and sustainable travel. This requires an understanding of how Londoners interact with their city, what defines their quality of life, especially in relation to streets. High-quality public transport services will also be required to provide alternatives to car use, connecting seamlessly to other forms of active, efficient and sustainable travel. The central aim is for 80 per cent of all trips in London to be made on foot, by cycle or using public transport by 2041.
- 7.3.15 Transport for London (TfL) provides travel planning guidance<sup>10</sup> in line with national, regional and local policy, highlighting the need to reduce car dependency, increase travel choices and encourage sustainable travel. This guidance was produced in 2013, and an update was expected in 2020, but has not yet been published.
- 7.3.16 The guidance details a number of benefits that can be achieved through travel planning, which have a significant impact on the road network. This includes road safety improvements, reduced highway capacity issues and environmental improvements through reduced levels of congestion, carbon emissions, pollution, and noise. Other benefits away from the highway network include increased opportunities for active healthy travel, and improved travel choice, quality, and affordable access to services. Benefits for employers include the reduced demand for parking spaces (enabling land to be put to more cost-effective or commercially beneficial use and freeing space for active travel initiatives) and increased opportunities to feed into corporate social responsibility or sustainability initiatives.

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<sup>8</sup> [https://www.london.gov.uk/sites/default/files/the\\_london\\_plan\\_2021.pdf](https://www.london.gov.uk/sites/default/files/the_london_plan_2021.pdf)

<sup>9</sup> [https://www.london.gov.uk/about-us/londonassembly/meetings/documents/s69151/PUB18\\_001\\_MTS\\_TheChallenge\\_Vision\\_230218-1.pdf](https://www.london.gov.uk/about-us/londonassembly/meetings/documents/s69151/PUB18_001_MTS_TheChallenge_Vision_230218-1.pdf)

<sup>10</sup> <https://tfl.gov.uk/info-for/urban-planning-and-construction/transport-assessment-guide/travel-plans>



- 7.3.17 The guidance states that the overarching purpose of a Travel Plan should be to encourage behaviour change and should aim to address any issues identified within the associated transport assessment. This should be done through setting out a package of measures, that clearly contribute to achieving the targets and meeting the objectives of the Travel Plan. To help set targets in context, the current Mayor's Transport Strategy (at the time this guidance was produced) aims to:
- a. achieve a 5% modal share for cycling (from the baseline of 2%)
  - b. significantly increase walking mode share above the baseline of 24%
  - c. reduce private motorised transport by 4% from the baseline of 43%
  - d. achieve a 60% reduction in London's CO<sub>2</sub> emissions by 2025
  - e. balance capacity and demand for public transport
- 7.3.18 The guidance states that including a timetable and action plan for delivering the measures (and a means of communicating this to the ultimate site users), along with an appointed Travel Plan Coordinator, is crucial in order to secure and enforce Travel Plan targets. This should be followed by monitoring and surveys, to ensure the site achieves the targets and objectives set out in the Travel Plan. A clear monitoring programme should be provided detailing what and how frequently surveys will be undertaken, who will be responsible and how this information will be reported.

### London Borough of Havering

- 7.3.19 The London Borough of Havering Local Plan Proposed Submission (2016-2031)<sup>11</sup> sets out the Borough's guidance on travel planning within Policy 23: Transport Connections. It states that Travel Plans will be required for development as set out in TfL's latest Guidance on Travel Plan requirements, and that they will continue to promote the benefits of and support the development, delivery and monitoring of school, residential and workplace Travel Plans. Travel Plans submitted through the planning application process will be reviewed and monitored to ensure that developers are meeting their targets for modal shift. The Council will engage with local business to encourage the use of travel planning to increase modal shift to and from work, away from the private vehicle, minimising the need for car-based travel.
- 7.3.20 The London Borough of Havering currently provides transport and travel advice online<sup>12</sup>, in particular advice for businesses on sustainable travel options such as cycling workplace schemes, promoting ultra-low emission vehicles and electric vehicles and the use of their 'Stravel' reward scheme. This website and app provides a platform to encourage new and current employees to travel more actively and sustainably with employees able to log journeys, compete on leader boards and team challenges to earn rewards. The 'airTEXT' alert system is also encouraged, designed to alert users to when air pollution levels are expected to be elevated the following day, and provide users with suitable health advice.

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<sup>11</sup> [https://www.havering.gov.uk/download/downloads/id/1909/lbhp1\\_-\\_proposed\\_submission\\_local\\_plan\\_2016-2031.pdf](https://www.havering.gov.uk/download/downloads/id/1909/lbhp1_-_proposed_submission_local_plan_2016-2031.pdf)

<sup>12</sup> <https://www.havering.gov.uk/downloads/20027/travel>

- 7.3.21 Key information and supporting maps are also available for cycling routes within Romford town centre, and along heritage cycle routes. There is also information on the ‘Walking for Health’ national scheme, which started in 2003 and encourages people to exercise for the benefit of their health. There are over 20 trained walk leaders and 19 walk venues.

### Essex County Council

- 7.3.22 Essex County Council’s (ECC) sustainable travel guidance<sup>13</sup> sets out how ECC aims to use its roads and transport network to promote sustainable economic growth in Essex, alongside guidance for creating Travel Plans for new developments, businesses, and schools.
- 7.3.23 ECC’s Travel Plan guidance aims to promote greener modes of transport for new developments, workplaces or new and expanding schools. ECC is committed to working with developers, businesses and consultants to create and deliver Travel Plans for new or expanding developments, and provide guidance notes, templates and other resources where required. ECC also has a dedicated Travel Plan Coordinator to help conduct site visits, promote the Travel Plan, monitor, and review residential Travel Plans, and supply and distribute travel information packs for these developments. The ‘smarter travel for Essex network’ scheme also promotes active and sustainable travel for organisations, offering support with issues such as car park management, making alternative travel modes an attractive option for employees, and entry into a National Accreditation Scheme.
- 7.3.24 ECC also has a number of sustainable travel initiatives for the wider area, including its ‘sustainable modes of travel strategy’ which outlines what ECC is doing to make it easier to travel around Essex, while reducing dependence on the private car and improving the environment. ECC also promotes an information page on their website ‘getting around in Essex’<sup>14</sup> which provides details on travelling around the county by all transport modes, including cycle routes, PRowS and bus timetables. Other partnerships include working with the local rail operators to improve the local rail network (as part of the Rail strategy and the Community Rail Partnership) as well as working with Southend and Thurrock councils to deliver the South Essex Active Travel (SEAT) project, which aims to boost active travel and improve access to jobs, learning and skills in south Essex.

### Brentwood Borough Council

- 7.3.25 The Brentwood Local Plan (2005)<sup>15</sup> sets out Brentwood Borough Council’s guidance on travel planning within Policy T1: Travel Plans. It states that the Council will promote the widespread use of Travel Plans by businesses, schools, hospitals and other uses. All applications for proposals which are likely to give rise to significant transport implications (either of themselves or in conjunction with other proposals) will be required to provide a travel plan, incorporating measures to reduce travel to and from the site by car, provision of onsite facilities for cyclists, contributions to the improvement or expansion of public transport provision, the promotion of safe cycle and pedestrian routes, and provide for more environmentally friendly delivery and freight movements.

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<sup>13</sup> <https://www.essex.gov.uk/sustainable-travel>

<sup>14</sup> <https://www.essexhighways.org/getting-around>

<sup>15</sup> <https://www.brentwood.gov.uk/pdf/30102013165238u.pdf>

- 7.3.26 Travel Plans should be provided for major commercial and leisure developments or smaller developments in sensitive locations, new or expanded school facilities, and where they may address local traffic problems. Such plans should have measurable outputs, which relate to Local Transport Plan targets and arrangements for enforcement, in the event that agreed targets are not met. Applicants will be expected to enter into a legal agreement setting out how such measures are to be achieved.

## 7.4 Guidance and best practice

### Government guidance

- 7.4.1 The Government guidance ‘Travel Plans, Transport Assessments and Statements’<sup>16</sup> provides advice on when Travel Plans are required, and what they should contain. Travel plans are defined as ways of assessing and mitigating the negative transport impacts of development and are required for all developments which generate significant amounts of movement. Travel Plans should, where possible, be considered in parallel with development proposals and readily integrated into the design rather than retrofitted.
- 7.4.2 The primary purpose of a travel plan is to identify opportunities for the effective promotion and delivery of sustainable transport initiatives such as walking, cycling, public transport and tele-commuting, in order to reduce the demand for travel by less sustainable modes. It is noted, however, that while sustainable travel is the focus for Travel Plans, they should not be used to cut provision for cars in a way that is unsustainable and could have negative impacts on the surrounding areas.
- 7.4.3 These initiatives should be based on evidence of the anticipated transport impacts of development, and specific targets should be set against the baseline conditions before measures can be put in place to promote and encourage sustainable travel. Explicit outcomes should be set rather than just the identification processes to be followed and should address all journeys resulting from a proposed development by anyone who may need to visit or stay.
- 7.4.4 This is facilitated through the production of long-term management strategies for integrating proposals for sustainable travel into the planning process. Clear future monitoring and management arrangements need to be set out, with the consideration of any additional measures that may be required to offset unacceptable impacts if the targets should not be met.
- 7.4.5 The length of time over which monitoring will occur, and the frequency of monitoring should be proportional to the nature and scale of the development and should be agreed as part of the travel plan. Monitoring requirements should only cease when there is sufficient evidence for all parties to be sure that the travel patterns of the development are in line with the objectives of the travel plan. This includes meeting the agreed targets over a consistent period of time. At this point, the Travel Plan would become a voluntary initiative.

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<sup>16</sup> <https://www.gov.uk/guidance/travel-plans-transport-assessments-and-statements>



- 7.4.6 In summary, travel plans should evaluate and consider the following:
- a. Benchmark travel data including trip generation databases
  - b. Information concerning the nature of the proposed development and the forecast level of trips by all modes of transport likely to be associated with the development
  - c. Relevant information about existing travel habits in the surrounding area
  - d. Proposals to reduce the need for travel to and from the site via all modes of transport
  - e. Provision of improved public transport services

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## 8 Targets

### 8.1 SMART targets

- 8.1.1 Guidance from TfL and best practice, is that Travel Plan targets should be SMART: ‘Specific, Measurable, Attainable, Realistic and Time-bound’ (SMART).
- 8.1.2 At present there are a number of unknown factors and considerations including the locations from and to which construction workers would commute on a daily basis and details about individual members of the workforce.
- 8.1.3 Additionally, the nature of construction work would change over time. Initially work would involve more generalised civil engineering activities, where labour may be sourced locally. However, as construction progresses, the proportion of workers with specific skills (in tunnelling, for example) would increase and this in turn may influence the catchment area from which such workers can be drawn.
- 8.1.4 At this stage, the Project-wide targets within this FCTP can be categorised as changing the modal split and travel behaviour. This will set out the high-level aspirations for the SSTP targets, which will be refined as appropriate for each construction area and compound, to be developed further as ‘SMART’ targets.
- 8.1.5 The initial focus of changing the modal split and travel behaviour will be driven through the following aspirations:
- Minimising the number of single-occupancy vehicle journeys made to and from each site
  - Maximising the proportion of workers using public transport to travel to and from each site
  - Promoting health and active travel through encouraging workers to walk or cycle to and from the site where safe and practical
  - Reducing the distance travelled by workers
  - Reducing the need to travel for workers where practical
- 8.1.6 As noted above, given the uncertainties, setting specific mode share targets at a Project-wide level is difficult especially prior to undertaking initial baseline travel surveys (which will provide real-world data from the Project’s workforce). Project-wide targets would also be related to site-specific targets, which have not yet been prepared, and will be developed and included within the SSTPs.
- 8.1.7 As details of the workforce travel patterns would not be available until construction commences, 2011 Census Journey to Work data would be used as a basis for setting initial targets. Consideration will be made to the 2021 Census, but it is expected that the data would be impacted by the temporary changes required to travel, as a result of the Covid-19 pandemic. As a result, alternative sources of data may be utilised following discussions with the TPLG. More accurate mode share data would be derived after the baseline travel survey at each site has been conducted. This would be done within three months of the start of construction at that site.

8.1.8 The site-specific targets would be reviewed and agreed with the relevant stakeholders following analysis of the baseline travel survey results. It is proposed that the analysis of the survey will be completed within three weeks from the date of the survey and would be incorporated into the relevant SSTPs within six weeks of that date, unless otherwise agreed with the TPLG. This is detailed further in Chapter 4.

8.1.9 The mechanism for implementing these targets is set out in Chapter 10.

## **8.2 Changing the forecast modal split**

8.2.1 Within the Transport Assessment (REF TBC), baseline assumptions have been made regarding the car driver mode share for each construction area and compound, depending on its size.

8.2.2 The difference between the car driver mode share and the total number of trips made to each site includes an allowance for car sharing, public transport, workforce transport (shuttle buses) and walking and cycling.

### **Reduction in single-occupancy vehicle trips**

8.2.3 Targets in this area would seek to increase the share of multiple-occupancy car trips made to construction areas and compounds, through car-sharing incentives.

### **Increased use of sustainable modes of transport**

8.2.4 Targets in this area would seek to increase the share of sustainable trips made, whether through public transport, workforce transport, walking or cycling.

### **Promoting health and active travel**

8.2.5 The health of the workforce would be promoted through targets which focus on increasing walking and cycling trips to construction areas and compounds, either as part of the journey or for the full trip.

8.2.6 Any walking and cycling trips to sites will only be encouraged where these modes can be used safely.

## **8.3 Influencing travel behaviour**

### **Reduced distance travelled**

8.3.1 The Project's workforce is likely to be transient in nature, with some specialist labour moving into the area for a temporary period whilst other elements of the workforce will be sourced from the existing broader labour pool in the south-east.

8.3.2 Whilst some of the workforce will remain at home, a proportion of workers would likely move into the local area to take advantage of closer proximity to the Project. In addition, some of the workforce would be accommodated onsite within the Northern tunnel entrance compound.

8.3.3 For those moving into the local area, the consequent reduction in distance travelled to work is expected to positively affect the modal choices made by the workforce to further reduce the impact on the highway network.



### Reduced need to travel

- 8.3.4 Reducing the need for trips to occur at all is the ultimate way in which the impact of workforce trips can be reduced.
- 8.3.5 It is appreciated that, for most construction areas and compounds, the scope for this would be limited, given that the workforce will need to be present onsite in order to undertake their work.
- 8.3.6 However, there would be some limited opportunities at the enterprise office to encourage home or remote working, especially for meetings, to reduce the number of trips made.
- 8.3.7 In addition, the workforce staying in the onsite accommodation within the Northern tunnel entrance compound would also make fewer trips overall, given the lack of a need to make a daily journey to work trip.
- 8.3.8 In addition, on other sites, there may be opportunities for trip consolidation, ensuring that all trips made are necessary.

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## 9 Measures

### 9.1 Introduction

- 9.1.1 Measures and incentives are a vital part of a Travel Plan, as they set out how it is proposed that targets would be met.
- 9.1.2 Given this is an FCTP, the measures set out in this chapter are indicative and will be developed further by the TPLG, Travel Plan Manager (TPM) and TPCs for incorporation into the SSTPs.
- 9.1.3 However, it would be expected that many, if not all of the measures here would be incorporated into the SSTPs, but adapted as necessary to ensure they would have the most impact against the targets.

### 9.2 Compound measures

#### Methodology

- 9.2.1 As set out in Chapter 5, the Project construction compounds would be of varying sizes. This, alongside the existing levels of accessibility and location of a particular compound, will have a bearing on the measures that it would be possible to successfully implement at each construction area or compound.
- 9.2.2 Depending on these varying elements, for each of the compounds covered by an SSTP, a tier would be allocated to that compound. The TPC for each SSTP would agree the tier to be used with the TPM, following suitable consideration of each of the varying elements.
- 9.2.3 The tiers provide a framework for the proposed measures, and sites in higher tiers would be expected to incorporate measures from the lower tiers. As such, the measures contained within tier 1 should be seen as a minimum set of interventions that would be applied across all sites.
- 9.2.4 Further measures for SSTPs would be proposed as part of their development and would need to be agreed with the TPLG.

#### Tier 1

- 9.2.5 The measures set out within this tier should be seen as the base level of measures that would be implemented across all construction areas and compounds:
- a. An SSTP site-specific welcome pack, noticeboard and intranet/website page providing details of the SSTP, key contacts, the measures in force at that construction area or compound, and local public transport information
  - b. Access to an accommodation helpdesk, providing support and assistance to obtain accommodation
  - c. Access to schemes such as cycle to work and season ticket loans
  - d. Exploration of subsidised or discounted public transport

- e. Facilities for walkers and cyclists (secure cycle parking, changing facilities, showers and lockers)
- f. Onsite vending machines providing a range of snacks and drinks plus provision for making hot drinks plus chilled food storage provision
- g. A car park management scheme which would seek to ensure car parking spaces meet demand (ideally reducing the number over time)
- h. A car-sharing scheme, enabling staff to sign up to offer or look for car-sharing opportunities
- i. Priority car parking for car-share scheme users
- j. Minibus shuttles to and from local public transport hubs and between construction areas and compounds

### **Tier 2**

9.2.6 Measures in tier 2 would apply in addition to those outlined in tier 1, and include:

- a. Additional facilities for walkers and cyclists (laundry facilities)
- b. Personalised travel planning services for the whole workforce

### **Tier 3**

9.2.7 Measures in tier 3 would apply in addition to those outlined in tiers 1 and 2, and include:

- a. Onsite canteen providing hot meals
- b. EV charging points for electric vehicles

## **9.3 Enterprise office measures**

9.3.1 The enterprise office would operate throughout the construction programme, and the hours that the majority of staff would work would be different to those in place at construction compounds – in that the majority would be onsite for standard office hours.

9.3.2 The enterprise office would comply with all the measures set out in tiers 1 and 2 above, with further consideration to be given for additional measures as determined through the SSTP for the office.

## **9.4 Securing process**

9.4.1 The measures set out here will be secured by way of Schedule 2 Requirement, to ensure that there is commitment to their delivery.



## 10 Implementation strategy and action plan

### 10.1 Introduction

- 10.1.1 This FCTP sets out an overarching action plan for key tasks and measures, alongside associated timescales and responsibilities, to be achieved across all construction areas and compounds during the construction period of the Project. This is set out in Table 10.1. and represents all tasks required to be undertaken as a minimum.
- 10.1.2 This overarching action plan aims to provide clear guidance on the responsibilities of the TPCs and TPM and where wider involvement is required from the TPLG, throughout the Project's construction period.
- 10.1.3 The overarching action plan also identifies a programme of regular scheduled activities and monitoring for the TPCs to carry out during the Project's construction period. This will identify which measures are the most effective for the TPCs to implement.
- 10.1.4 The TPCs will also be required to set out separate action plans within the SSTPs, to include short, medium, and long-term activities. These may need to include additional tasks where required, in order to ensure effective implementation of site-specific measures and targets. In addition, modifications may need to be made throughout the Project's construction period to respond to changing requirements and circumstances.

### 10.2 Overarching action plan

- 10.2.1 Table 10.1 sets out the key tasks required as a minimum to be achieved across all construction areas and compounds during the Project's construction period.

**Table 10.1 Project action plan**

Item	Action	Designated responsibility	Indicative timeframe for completion
1	Appointment of TPCs (provide contact details to TPLG)	Highways England/ contractors	At least six months prior to construction commencement
2	Meet with the TPLG to discuss the initial timeframes associated with the measures set out	TPCs/TPM/ TPLG	At least six months prior to construction commencement
3	Develop an effective communications strategy to support implementation of the SSTPs (marketing and branding)	TPCs	At least six months prior to construction commencement
4	Organise and hold recurring (monthly) TPLG meetings	TPCs/TPM/ TPLG	At least six months prior to construction commencement
5	Establish a central database for organising workforce travel arrangements, obtaining staff postcodes to examine travel patterns and distribution	TPCs	At least six months prior to construction commencement

Item	Action	Designated responsibility	Indicative timeframe for completion
6	Organise a car-share scheme (align with planned shift patterns and workforce numbers) including contractual agreements	TPCs/TPM	At least six months prior to construction commencement
7	Organise transport hub shuttle bus services (align with planned shift patterns and workforce numbers) including contractual agreements	TPCs/TPM	At least six months prior to construction commencement
8	Develop car park management strategy (align with planned shift patterns and workforce numbers) for both on site and off site car parking.	TPCs/TPM	At least six months prior to construction commencement
9	Arrange onsite staff facilities (including showers, lockers, changing facilities, welfare areas)	TPCs/TPM	At least six months prior to construction commencement
10	Set out dates for regular reviews of periodic actions to ensure effective implementation	TPCs	At least six months prior to construction commencement
11	Desktop-based research to collate the necessary local transport network information	TPCs	Within three months prior to construction commencement
12	Review active travel (walking and cycling) facilities within the vicinity of the site	TPCs	Within three months prior to construction commencement
13	Prepare welcome packs and construction area and compound noticeboards	TPCs	Within three months prior to construction commencement
14	Implementation of travel surveys	TPCs	Within three months prior to construction commencement
15	Analysis of travel surveys	TPCs	Within three months prior to construction commencement
16	Analysis of workforce origin locations to identify journey to work patterns (where available)	TPCs	Within three months prior to construction commencement
17	Develop travel initiatives and incentives in line with SMART targets and initial analysis and survey findings	TPCs/TPM/ TPLG	Within the first three months of construction
18	Monitor travel patterns through use of multiple data sources	TPCs	Within the first three months of construction
19	Repeat travel survey	TPCs	Within the first three months of construction
20	Review travel survey and implement remedial measures	TPCs/TPM	Within the first three months of construction

Item	Action	Designated responsibility	Indicative timeframe for completion
21	Review shuttle bus services and construction area and compound facilities	TPCs	Within the first six months of construction (repeat every three months)
22	Review car-share scheme and car parking arrangements	TPCs	Within the first six months of construction (repeat every three months)
23	Review maintenance of agreed walking/cycling routes	TPCs	Within the first six months of construction (repeat every three months)
24	Maintain and review the communications strategy	TPCs	Within the first six months of construction (repeat every three months)
25	Maintain public transport information	TPCs	Within the first six months of construction (repeat every three months)
26	Repeat travel survey	TPCs	Within the first six months of construction (repeat every six months)
27	Hold ad hoc steering group meetings with workforce	TPCs	Within the first six months of construction (repeat every three months)
28	Adapt initiatives and incentives in line with SMART targets	TPCs/TPM/ TPLG	Within the first six months of construction (repeat every three months)
29	Review of FCTP and SSTPs and make modifications where needed	TPCs/TPM/ TPLG	Within the first six months of construction (repeat every three months)

## 10.3 Funding

- 10.3.1 Highways England would fund the preparation, implementation, and operation of the FCTP, including the TPM role and activities related to the implementation of the FCTP and the TPLG.
- 10.3.2 Highways England would also fund the role of the contractors (who would be required to provide the TPC roles, preparation of the SSTPs and the implementation and monitoring of SSTP measures).



## 11 Monitoring and review

### 11.1 Introduction

- 11.1.1 Monitoring is an important part of achieving Travel Plan success, as noted in Government guidance. It provides an evidence base to inform the review and evaluation of Travel Plan measures on a continuous basis.
- 11.1.2 This FCTP and the SSTPs would be actively implemented throughout the construction of the Project. Highways England, contractors, subcontractors, and suppliers would all be obliged to commit to the monitoring and review process, as detailed below.

### 11.2 Travel surveys

- 11.2.1 Employee travel surveys would be conducted by the TPCs at each site within three months prior to construction commencement. These would then be repeated within the first six months of construction, and then every six months thereafter during the construction phase. A common survey structure would be set by the TPM to enable standardised information to be captured across the Project. This would be supplemented by discussions with the TPCs to ensure that relevant site-specific information is collected in each location. These surveys would be iTrace compliant and would allow progress towards targets within the FCTP and SSTPs to be reviewed.

### 11.3 Review programme and Travel Plan updates

- 11.3.1 The TPLG would be responsible for reviewing the operation of this FCTP and the SSTPs and would require continuous engagement for review and discussion as part of the monthly TPLG meetings. The review would be based on the targets and indicators identified and the regular reporting from the TPM.
- 11.3.2 Following the receipt of information from the TPCs, the progress on the effectiveness of this FCTP and the SSTP action plans would be reviewed, audited and reported to Highways England by the TPM every six months throughout the duration of construction.

### 11.4 Remedial measures

- 11.4.1 In the event of this FCTP and the SSTP targets not being met, the TPLG would meet and agree whether the shortfall is significant (ie it is possible that failure to achieve a mode share target may be offset by lower overall trip generation or better performance in another area of the plan).
- 11.4.2 If the degree of shortfall is considered to be significant, the TPM, along with Highways England and the relevant TPC, would agree a package of remedial measures designed to address the shortfall in relation to the initial targets set out in the SSTPs. These measures would be presented to the TPLG for agreement, including a timescale over which the success of these measures should be reviewed.

- 11.4.3 Proposals may include further use of measures set out in the Travel Plan or drawing on measures set out in national and/or local highway authority guidance or other sources and may be implemented directly by Highways England if appropriate. The emphasis of addressing any target shortfall would be to consider 'soft' measures first, including incentives or disincentives designed to address the shortfall.

## 11.5 Funding

- 11.5.1 Funding for the monitoring of each SSTP would be provided by Highways England (as set out in Section 10.3).
- 11.5.2 It would be expected that a sum of money for each construction area and compound be held by the contractors to cover proportionate remedial measures. The exact sum of money will be agreed between the contractors and Highways England as part of their appointment.
- 11.5.3 If remedial measures are required at a particular site these would be proposed as set out in Section 11.4. If the measures agreed require funding in excess of that available, or the funding set aside has been previously exhausted, Highways England and the contractors will enter discussions to agree the source for funding between them.

## 12 Summary

- 12.1.1 This document is the Framework Construction Travel Plan (FCTP) for the Lower Thames Crossing (the Project).
- 12.1.2 The document is designed to provide a framework for how the impacts of the Project's construction workforce on the highway network would be reduced and/or transferred to more sustainable modes.
- 12.1.3 The principles set out in this framework are intended to be implemented in a series of Site-Specific Travel Plans (SSTPs) which would be implemented for a construction area or compound, or collection of construction areas and compounds by the appointed contractors.
- 12.1.4 Details of the Project's proposed construction programme has been detailed, with particular regard to the workforce numbers and peak period trips.
- 12.1.5 Baseline conditions on the transport network in and around the Project's construction areas and compounds have been set out, providing context particularly in relation to existing sustainable transport provision.
- 12.1.6 Reference has been made to relevant national, regional and local policy and guidance with regard to Travel Plans.
- 12.1.7 This FCTP has set out the overall aims and objectives (established as commitments to be delivered by the Project) and intent of this framework so that it is clear, particularly to those implementing it, what the Project wishes to achieve and how.
- 12.1.8 This FCTP then sets out high-level targets and how more detailed targets will be developed for the SSTPs.
- 12.1.9 Measures have been set out, providing a minimum level for construction areas and compounds, and providing flexibility for further measures if locally appropriate.
- 12.1.10 The management and organisation of this FCTP and SSTPs are set out, providing clear roles and responsibilities.
- 12.1.11 These are then set out further in the implementation strategy and action plan which provide a simple checklist to ensure this FCTP is implemented as planned. Details of how funding for the implementation of this FCTP and SSTPs is also set out.
- 12.1.12 Finally, the monitoring and review programme has been set out, which includes details of remedial measures that would need to be implemented if targets are not being met.

# Appendices

DRAFT



## Appendix A SSTP example template

### A.1 Contact details

- A.1.1 Site information (site name and full address of the site).
- A.1.2 Travel Plan Coordinator information (name, organisation, address, telephone and email contact details).
- A.1.3 Travel Plan Manager information (name, organisation, address, telephone and email contact details).

### A.2 Introduction

- A.2.1 Each SSTP should be developed in accordance with the requirements and guidance set out in the FCTP.
- A.2.2 Provide a brief introductory paragraph which explains the purpose of this SSTP and how it fits within the FCTP.
- A.2.3 For example: *'to actively manage and control workers' travel to and from the construction site to limit traffic movement and reduce disruption in the vicinity of the site'*.

### A.3 Site details

- A.3.1 Provide a summary of the site location and size of the site.
- A.3.2 Provide information on the relevant construction details such as the phases of development, anticipated outline programme and site access arrangements.
- A.3.3 Provide a breakdown of the anticipated number of construction workers and Highways England client staff, working hours and details of shift patterns.
- A.3.4 Where appropriate, provide this information for different phases of the construction work.

### A.4 Local policies

- A.4.1 Provide a brief summary of relevant local transport, development, and environment policies, to ensure compliance with local travel planning policies, guidance and schemes in relation to travel planning measures.

## **A.5 Contractor policy**

- A.5.1 Provide a brief summary of relevant contractor company policy in relation to transport, the environment and sustainability.

## **A.6 Existing transport conditions**

- A.6.1 Describe the local transport network (walking and cycling facilities, public transport services and their location and the nature of the highway network).
- A.6.2 Provide information on the baseline mode split for site workers (this will initially be based on the latest available Census Journey to Work data for the site location but will be updated after initial travel surveys are conducted at each development site).

## **A.7 Objectives**

- A.7.1 Set site-specific objectives. These need to align with the aims and objectives of the FCTP, as set out in the CoCP.
- A.7.2 The objectives must also have regard to:
- a. Mayoral policy and strategic guidance
  - b. Local authority policy and guidance
  - c. Contractor company policy
  - d. The challenges and opportunities specific to the site

## **A.8 Site-specific targets**

- A.8.1 Set interim site-specific targets which link directly to each objective. These will be in addition to targets included within the FCTP.
- A.8.2 The site-specific targets should be based on the baseline mode share data and should be developed in line with the programme of construction at each individual site.
- A.8.3 Develop indicators by which the targets will be monitored. These should align with indicators included within the FCTP but also be relevant to this site.

## **A.9 Site-specific measures**

- A.9.1 Develop site-specific measures which support the objectives and therefore enable the targets to be met. These will be in addition to the measures included within the FCTP. Relevant measures should be detailed according to each specific site.

## **A.10 Action plan**

- A.10.1 Tabulate the measures and implementation programme in an action plan which is split according to short, medium, and long-term activities.
- A.10.2 Explain how each of the measures in the SSTP will be secured in terms of funding and implementation responsibilities.

## **A.11 Management and monitoring**

- A.11.1 Summarise the management and monitoring requirements described in the FCTP, but in the context of the site. This should include the relationships between the TPC, the TPM, subcontractors, TPRs and all site workers.
- A.11.2 Make clear who is responsible for monitoring at this site (this is expected to be the nominated Travel Plan Coordinator for the site).
- A.11.3 Confirm the scope of the monitoring programme for this site.
- A.11.4 Provide information on the schedule of surveys and reviews (to match the requirements of the FCTP).
- A.11.5 Set out the mechanism for reviewing measures and targets regularly and revising them where necessary, particularly after the first employee travel survey for the site which will provide information on workers' travel patterns.

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Registered office Bridge House, 1 Walnut Tree Close, Guildford GU1 4LZ

Highways England Company Limited registered in England and Wales number 09346363