MOTT MACDONALD

The Hillingdon Hospitals
NHS Foundation Trust

The Hillingdon Hospital Redevelopment

Outline Construction Logistics Plan

May 2022

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1 Introduction

1.1 Background

1.1.1 This Outline Construction Logistics Plan (CLP) has been prepared by Mott MacDonald to accompany a hybrid planning application being submitted but the applicant, Hillingdon Hospitals NHS Foundation Trust (the Trust) to the London Borough of Hillingdon.

1.1.2 The site is in West London and is located south of Uxbridge and north of West Drayton. The Local Planning Authority is the London Borough of Hillingdon (LBH).

1.1.3 The proposed development will be submitted as a hybrid planning application comprising:

- FULL application seeking planning permission for demolition of existing buildings and redevelopment of the site to provide the new Hillingdon Hospital, multi-storey car park and mobility hub, vehicle access, highways works, associated plant, generators, substation, new internal roads, landscaping and public open space, utilities, servicing area, surface car park / expansion space, and other works incidental to the proposed development.
- OUTLINE planning application (all matters reserved, except for access) for the demolition of buildings and structures on the remaining site (excluding the Grade II Furze and Tudor Centre) for a mixed-use development comprising residential (Class C3) and supporting Commercial, Business and Service uses (Class E), new pedestrian and vehicular access; public realm, amenity space, car and cycling parking.

1.1.4 This report provides the CLP for the proposed development. This report accompanies a suite of supporting transport related documents which have also been prepared in support of this application, including:

- Transport Assessment;
- Hospital Travel Plan Framework;
- Residential Travel Plan Framework;
- Delivery and Servicing Plan;
- Car Park Management Plan;
- Outline Construction Logistics Plan (this report); and
- Mobility Hub Vision Paper.

1.2 Report Purpose

1.2.1 A CLP is developed to reduce:

- Environmental impact – providing a plan to minimise vehicle emissions and noise levels from construction traffic;
- Road risk – improving safety for all road users around the development site, and on routes used by construction traffic;
- Congestion – minimising the amount of vehicle trips generated by the construction of the proposed development, particularly during peak periods; and
- Cost – using efficient working practices so that fewer vehicle trips have to be made, reducing the cost of construction.

1.2.2 This report considers the impact of construction logistics on the local area and provides options for how these impacts can be reduced. This ensures that construction logistics have been seriously considered during the planning process.

1.2.3 This report relates to Phase 1 of the development, which is being submitted as a full application. The required construction information to produce a CLP, such as programme, materials, and methodology, has not yet been specified for Phase 2, which is being submitted as an outline application.

1.2.4 Further information on construction and logistics for Phase 2 of the development will therefore be forthcoming at a future date, in association with a future Reserved Matters application related to the outline element of the scheme.

1.3 Objectives of the CLP

1.3.1 The objectives of this Outline CLP are to:

- Improve efficiency in construction of the proposed development;
- Enhance and improve safety for all road users in the local area;
- Implement sustainable construction by encouraging sustainable transport for both construction deliveries and workforce trips;
- Reduce congestion by minimising construction trips, especially in peak periods; and
- Lower emissions related to the construction of the proposed development.

1.4 Site Context

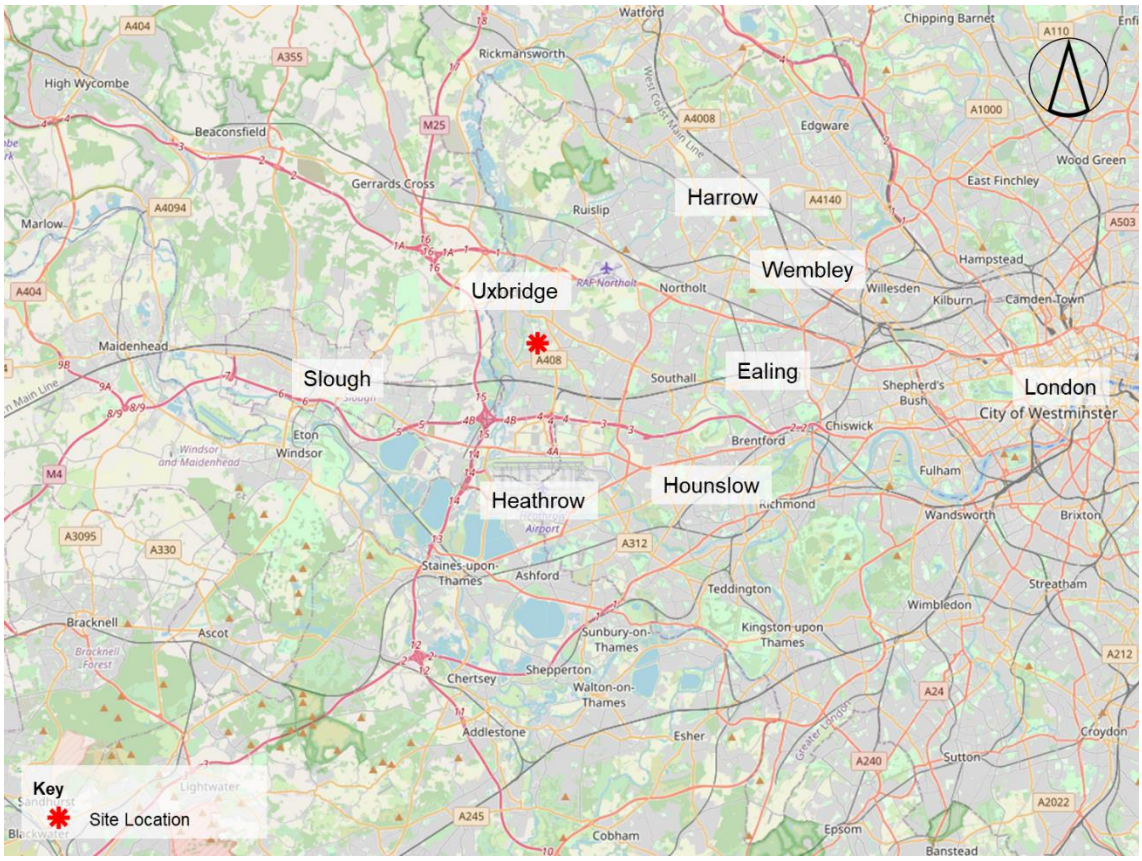
1.4.1 Hillingdon Hospital is located in West London, approximately 2km north of West Drayton and 2.5km south of Uxbridge. The site currently comprises:

- Accident & Emergency;
- Inpatients;
- Day Surgery;
- Outpatients; and
- Maternity.

1.4.2 The site is accessed from Pield Heath Road (north), Colham Green Road (east) and Royal Lane (west). The surrounding area is largely residential in nature, though there are some complementary uses within walking distance of the hospital, such as a nursery school which is located on the site, a convenience store to the north-east of the site and various places of worship.

1.4.3 The site location is presented in Figure 1.1.

Figure 1.1: Proposed Development Site Location



Source: Open Street Map

1.5 Development Proposals

1.5.1 The proposed development will be submitted as a hybrid planning application comprising:

- Full application seeking planning permission for demolition of existing buildings and redevelopment of the site to provide the new Hillingdon Hospital, multi-storey car park and mobility hub, vehicle access, highways works, associated plant, generators, substation, new internal roads, landscaping and public open space, utilities, servicing area, surface car park/ expansion space, and other works incidental to the proposed development.
- Outline planning application (all matters reserved, except for access) for the demolition of buildings mixed-use development comprising residential (Class C3) and supporting Commercial, Business and Service uses (Class E), new pedestrian and vehicular access; public realm, amenity space, car and cycling parking.

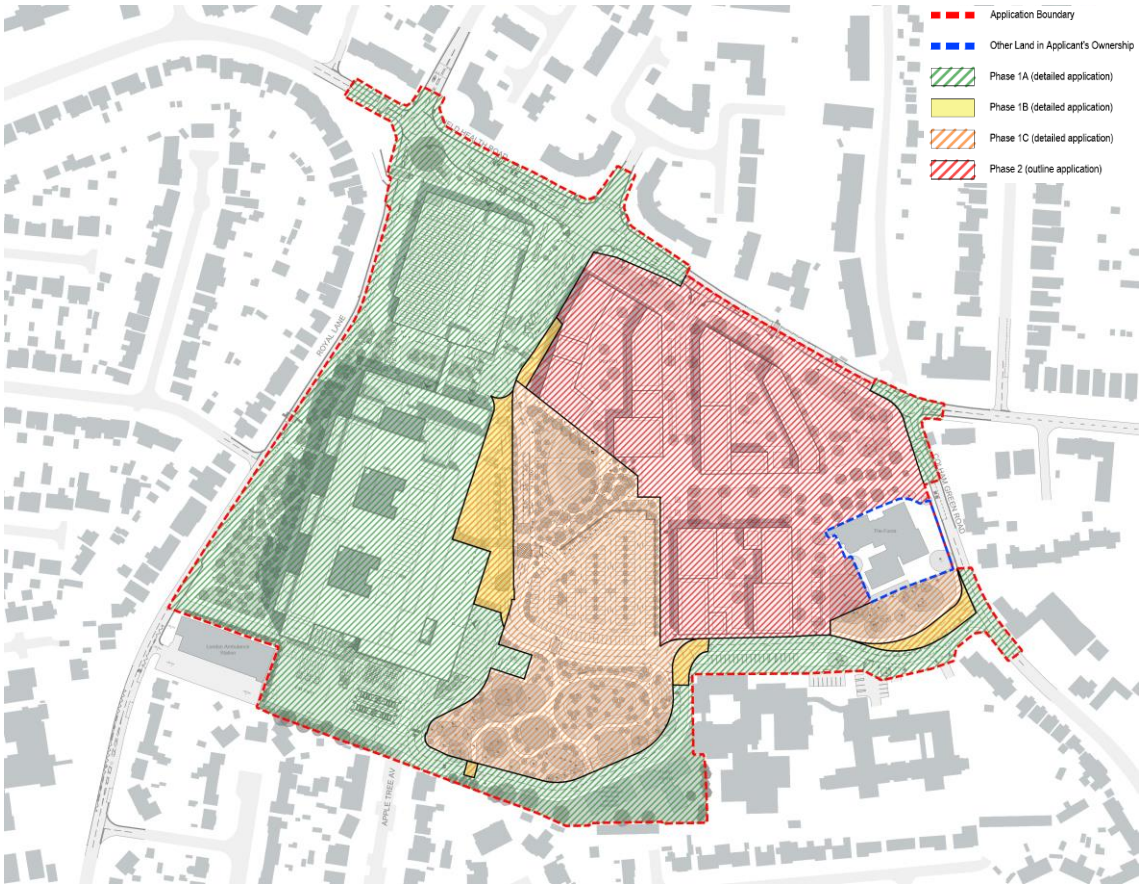
1.5.2 The outline planning application comprises up to 327 residential units (Use Class C3) and up to 800 sqm of town centre uses (Use Class E) in a series of buildings ranging in height from 3 up to 8 storeys with associated access and car parking for up to 302 vehicles and up to 515 cycle parking spaces, refuse storage, landscape and amenity areas and associated servicing.

1.5.3 The areas of the site are designated into different phases set out below and shown in Figure 1.2.

- Phase 1a – New hospital, MSCP, and accesses.
- Phase 1b – All interim elements that need to be put into place so that the new hospital can be operational whilst the remaining hospital site to the east can be demolished.

- Phase 1c – All elements of the new hospital site that can only be built once the old hospital site to the east has been demolished, including the surface car park, new bus stops, and junction access upgrades.
- Phase 2 – Outline application area for the residential development.

Figure 1.2: Site Areas and Key Phases



Source: IBI

1.5.4 In Phase 1c, buses will be diverted from Pield Heath Road and Colham Green Road into the site, where they will stop at new bus stops located between the main hospital entrance and the A&E entrance.

1.5.5 This report has been prepared in relation to construction activity on the Phase 1 site area only.

1.6 Report Structure

1.6.1 Following this introduction, the remainder of this report is structured as follows:

- Chapter 2 – Context, Considerations, and Challenges;
- Chapter 3 – Construction Programme and Methodology;
- Chapter 4 – Vehicle Routing and Site Access;
- Chapter 5 – Strategies to Reduce Impacts;
- Chapter 6 – Estimated Vehicle Movements; and
- Chapter 7 – Implementing, Reporting and Securing the CLP.

2 Context, considerations, and challenges

2.1 Introduction

2.1.1 This section describes the existing situation at the site and its surrounding area. Sensitive receptors and other land uses that might have an impact on construction of the development are also identified.

2.2 Policy

2.2.1 This section of the CLP references policies that have been considered in the preparation of the report.

National Policy

National Planning Policy Framework (2021)

2.2.2 The National Planning Policy Framework (NPPF) sets out the Governments planning policies for England and how these should be applied. It provides a framework within which plans for housing and other development can be produced.

2.2.3 Chapter 9 – Promoting sustainable transport states that “Transport issues should be considered from the earliest stages of plan-making and development proposals, so that:

- the potential impacts of development on transport networks can be addressed;
- opportunities from existing or proposed transport infrastructure, and changing transport technology and usage, are realised;
- opportunities to promote walking, cycling and public transport use are identified and pursued;
- the environmental impacts of traffic and transport infrastructure can be identified, assessed and taken into account – including appropriate opportunities for avoiding and mitigating any adverse effects, and for net environmental gains; and
- patterns of movement, streets, parking and other transport considerations are integral to the design of schemes and contribute to making high quality places”.

The Traffic Management Act (2004)

2.2.4 The act makes “provision in relation to the management of road networks; to make new provision for regulating the carrying out of works and other activities in the street”. It acknowledges that highways may be occupied due to construction activities and identifies appropriate changes levied for any extended occupation.

Designing for Deliveries, Freight Transport Association (2006)

2.2.5 Designing for Deliveries provides specifications for the size of delivery vehicles, turning radii and clearance requirements for each type of vehicle. This should be used to ensure that delivery vehicles can safely and efficiently access the construction site.

Local Policy

The London Plan (2021)

2.2.6 The London Plan is the Spatial Development Strategy for Greater London. It sets out a framework for how London will develop over the next 20-25 years and the Mayor’s vision for Good Growth.

2.2.7 The London plan addresses the key trends and challenges that London will face, and acknowledges the importance of safe and efficient construction, deliveries, and servicing. Policy T7 states that CLPs and Delivery and Servicing Plans (DSP) are required to facilitate safe, clean and efficient deliveries and servicing. To do this, they should plan to provide off-street provision of adequate space for servicing, storage and deliveries.

2.2.8 Paragraph 10.7.4 of The London Plan states that development proposals should demonstrate through a CLP and DSP that all reasonable endeavours have been taken towards the use of non-road vehicle modes. Rail and water freight facilities should be considered in the CLP and used where possible.

The Mayor's Transport Strategy (2018)

2.2.9 The Mayor's Transport Strategy sets out his plans to transform London's Streets, improve public transport, and create opportunities for new homes and jobs. To achieve this, the Mayor wants to encourage more people to walk, cycle, and use public transport.

2.2.10 Proposal 15 states that the adverse impacts of freight and service vehicles will be reduced. The Mayor aims to reduce the number of lorries and vans entering central London in the morning peak by 10% by 2026. CLPs are used to review and plan viable ways of reducing trips associated with construction, especially in the peak hours.

2.2.11 Proposal 16 states that the efficiency of freight and servicing trips on London's transport network will be improved. This will be done by identifying opportunities for moving freight off-road and reviewing the potential benefits of a regional freight consolidation and distribution network. The use of Construction Consolidations Centres (CCCs) to reduce the impact of freight and deliveries on the transport network will be considered and encouraged through CLPs.

The Hillingdon Local Plan Part 2 – Development Management Policies (2020)

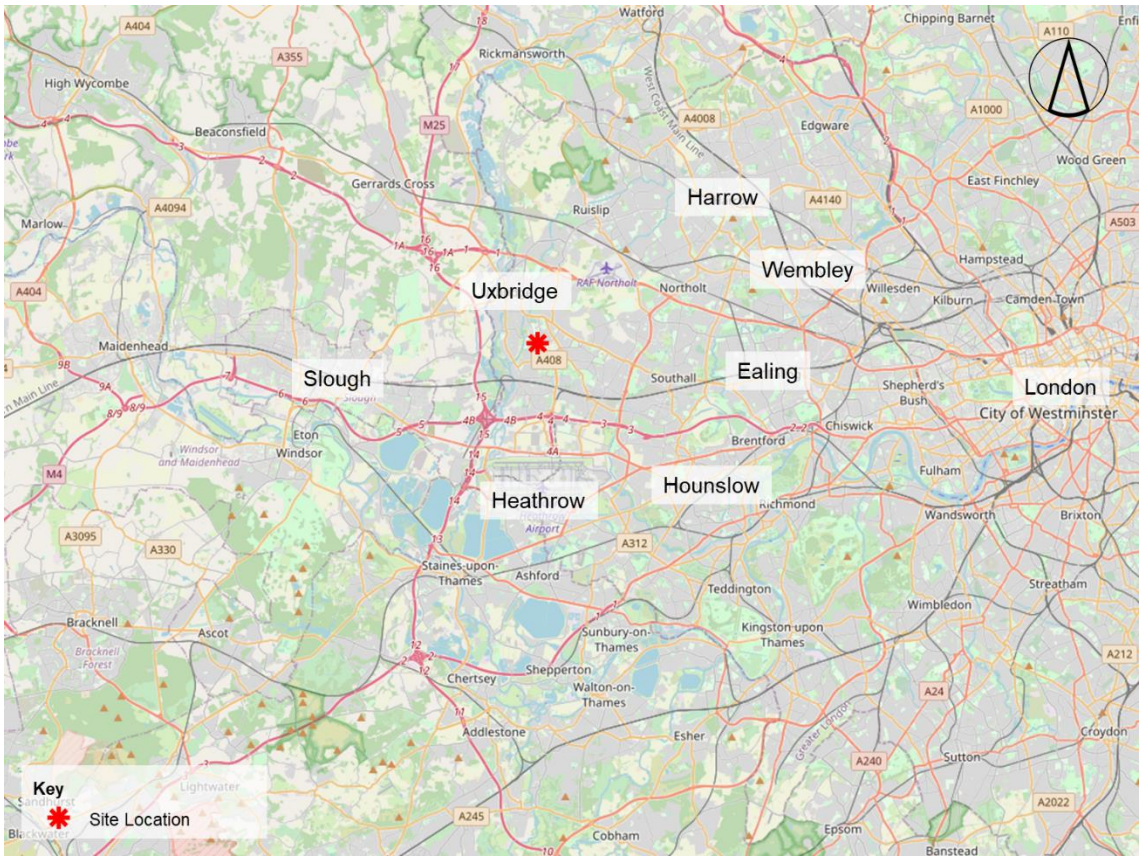
2.2.12 The Hillingdon Local Plan Part 2 provides detailed policies that will form the basis of the Council's decisions on individual planning applications.

2.2.13 The document recognises that freight by road is a contributor to the air quality and noise issues in the Borough. Paragraph 8.34 states that development proposals should include a CLP and DSP which work to provide the efficient and consolidated movement of goods, with minimum disruption to the local community and surrounding amenities.

2.3 Plans

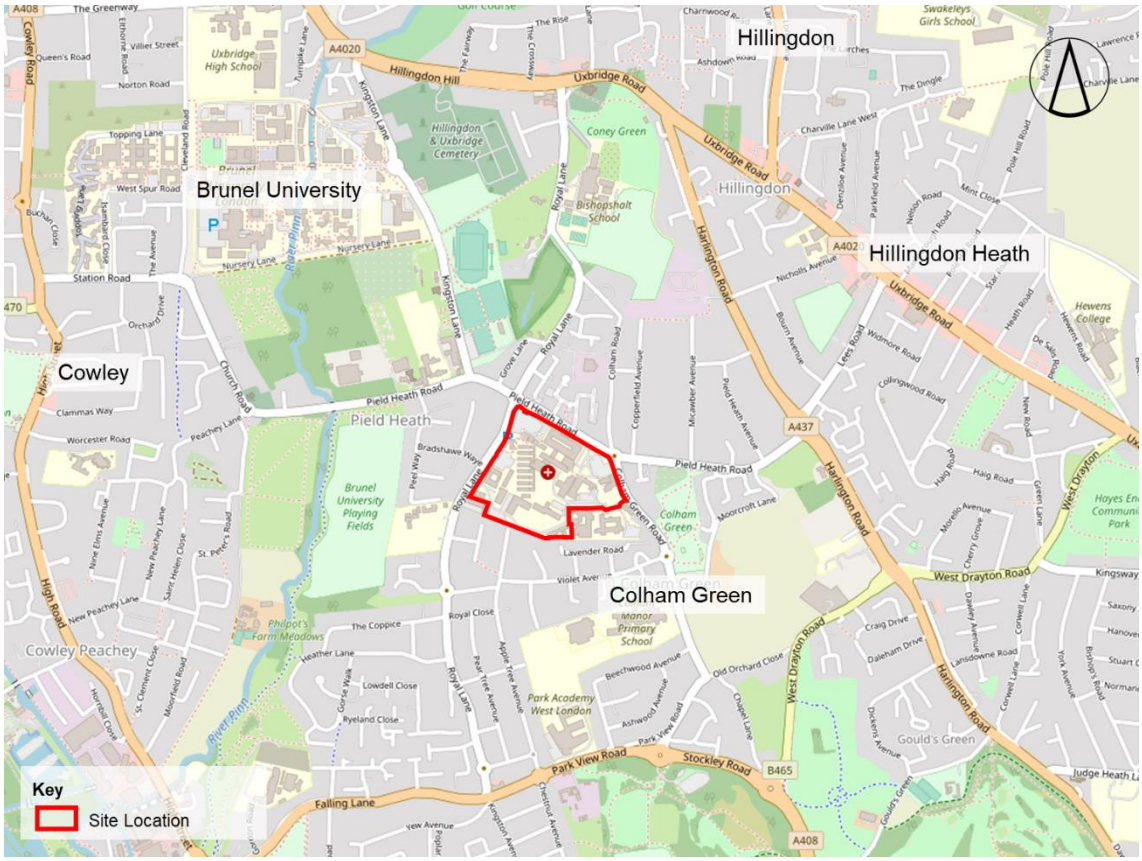
2.3.1 The following maps show the area around the development site. Figure 2.1 shows a regional plan, with the location of the site in the context of West London and the road network. Figure 2.2 shows the location of the site in relation to the surrounding local area.

Figure 2.1: Regional Location Plan



Source: Open Street Map

Figure 2.2: Local Location Plan



Source: Open Street Map

2.4 Local Access, Highways, Public Transport, Cycling and Walking

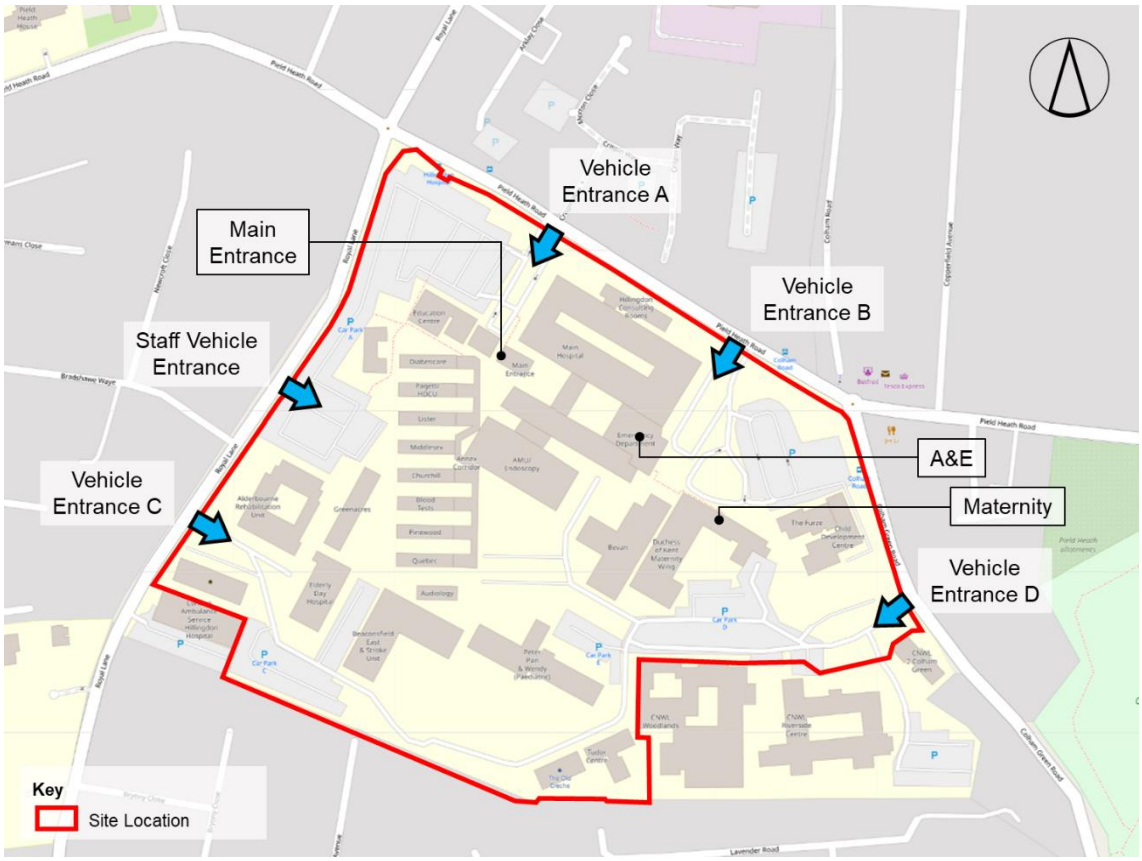
Local Access, Highways, and Footways

2.4.1 The site is constrained on three sides by the local highway network. To the north of the site is Pield Heath Road, to the east of the site is Colham Green Road, and to the west of the site is Royal Lane. To the south, the site is constrained by a residential area.

2.4.2 The existing site is accessed from five locations, shown in Figure 2.3. The five locations are:

- Vehicle Entrance A – from Pield Heath Road (Main Entrance);
- Vehicle Entrance B – from Pield Heath Road (A&E and maternity entrance);
- Vehicle Entrance C - from Royal Lane (hospital only internal link through site to Colham Green Road);
- Vehicle Entrance D – from Colham Green Road (hospital only internal link through site to Royal Lane); and
- Staff Vehicle Entrance – from Colham Green Road (staff car park entrance).

Figure 2.3: Site Boundary and Access Locations (Existing)



Source: Open Street Map

2.4.3 Pield Heath Road is a two-way road with a single lane in either direction which is subject to a 30mph speed limit. Pield Heath Road has pedestrian footways on both sides of the road, a zebra crossing at the eastern hospital access, and a pelican crossing with a central island at the western access. There are no cycle facilities on Pield Heath Road. There are a number of bus stops along Pield Heath Road, these are served by Bus Routes U1, U2, U3, U4, U5 and U7. No stopping or parking is allowed on Pield Heath Lane.

2.4.4 Colham Green Road is a two-way road with a single lane in either direction which is subject to a 30mph speed limit. Colham Green Road has pedestrian footways along the western side of the road and intermittent pedestrian footways along the eastern side of the road. There are no pedestrian crossing facilities or cycle facilities on Colham Green Road. There are a number of bus stops along Colham Green Road which are served by Bus Routes U1, U3 and U5. There is some on-street parking provision on the eastern side of Colham Green Road.

2.4.5 Royal Lane is a two-way road with a single lane in either direction which is subject to a 30mph speed limit. Royal Lane has pedestrian footways on both sides of the road. There are no pedestrian crossing facilities on Royal Lane, but a local cycleway runs along the length of the road between Regional Cycleway 39 in the north and Regional Cycleway 89 in the south. There are no bus stops on Royal Lane. There is some on-street parking provision on the eastern side of Royal Lane.

2.4.6 Improvement works on the local network, to facilitate access to the site and improvements to facilities around the site, may require temporary suspensions to bus stops and footway and crossing diversions. This includes possible temporary traffic management along parts of Pield Heath Road and Colham Green Road during such works. These will be pre-arranged with

Transport for London (TfL), LBH, and the local police. At all times, access to neighbouring properties will be maintained.

Railway and Underground

2.4.7 There are no railways or underground lines in the vicinity of the development site. Therefore, it is not anticipated that there will be any impacts on railways or underground lines as a result of the construction of the proposed development.

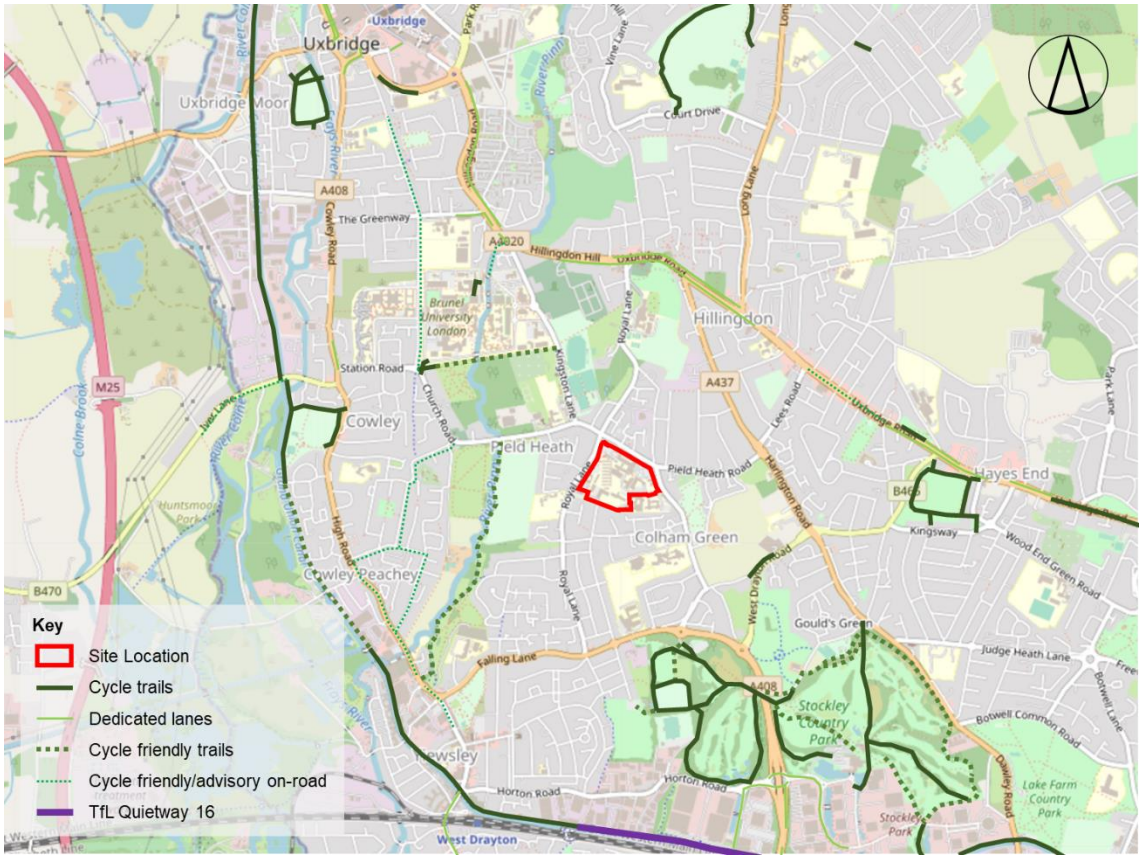
Bus Routes

2.4.8 There are a number of bus routes in close proximity to the development site. Bus Routes U1, U2, U3, U4, U5 and U7 run along Pield Heath Road and Bus Routes U1, U3 and U5 run along Colham Green Road. It is likely that these roads will be used by construction traffic, and there may be some temporary road/lane closures which will have an impact on bus routes or services during the construction period. If bus routes are to be disrupted during the construction period, TfL will be consulted to ensure minimal disruption to bus services.

Cycle Routes

2.4.9 The local cycle routes surrounding the site are shown in Figure 2.4.

Figure 2.4: Local Cycle Network



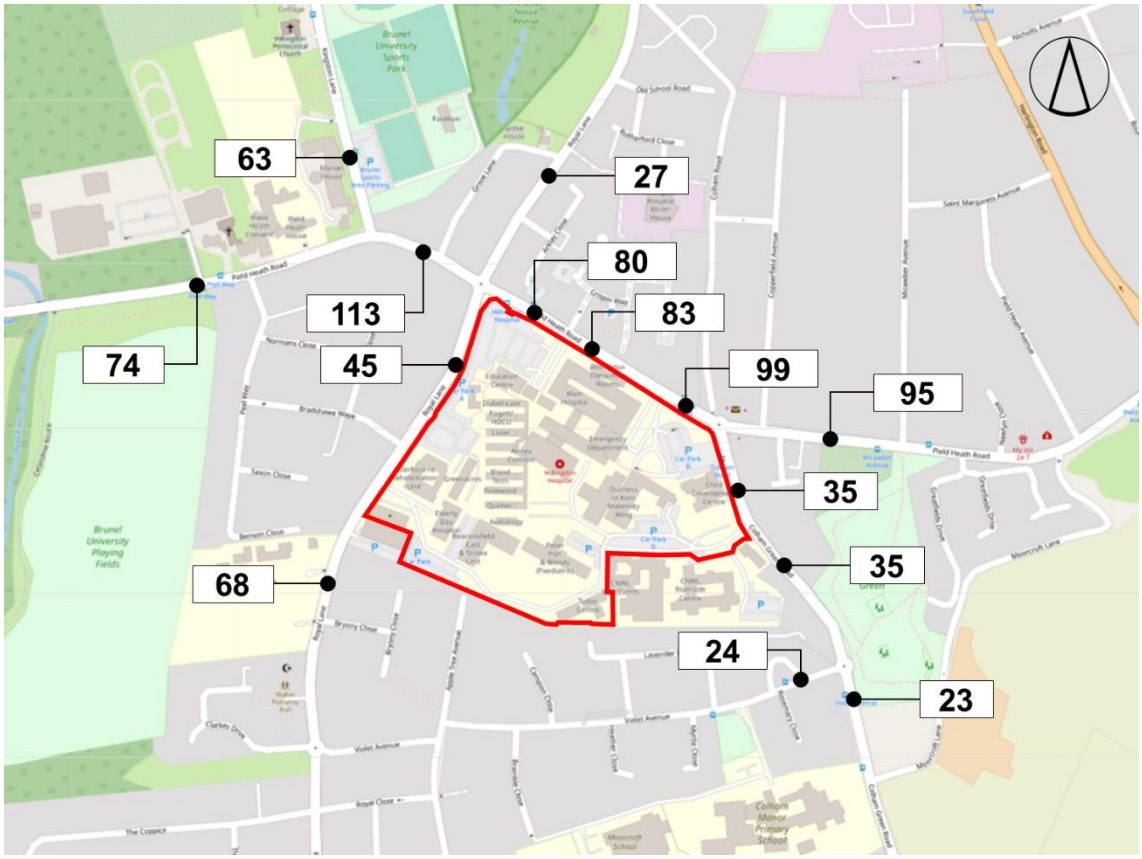
Source: Open Street Map

2.4.10 There is also a local cycleway on Royal Lane which is adjacent to the development site. Royal Lane will not be a dedicated construction traffic route and cycle safety will be maintained throughout construction. There are existing Brunel University Cycle Hire docks located on Pield Heath Lane close to the hospital Main Entrance and future construction access. TfL will be

consulted if a temporary relocation is required during the construction of the proposed development.

2.4.11 Cycle usage on the local network around the hospital has been captured through comprehensive traffic and transport surveys. The surveys were carried out on a neutral weekday in November 2021. Although these were undertaken in late autumn the weather was clear and sunny during daylight hours. The observed on-road cycle levels across the full 24-hour survey period at various locations on the local network are shown in Figure 2.5.

Figure 2.5: Observed Two-Way On-Road Cycle Levels



Source: Open Street Map

2.4.12 Cycle demand is predominantly focused east and west on the main Pield Heath Road frontage, along Kingston Lane and along Royal Lane (south). The Pield Heath Road corridor will be the main approach from the east and west for future construction traffic.

2.4.13 To ensure safe operation, Fleet Operator Recognition Scheme (FORS) accredited suppliers will be used to ensure safety for cyclists is maintained throughout construction.

2.5 Community Considerations and Challenges

2.5.1 The development site is located in West London and is presented with a number of constraints and challenges. These have been outlined below. Planned measures to mitigate any potential conflicts or challenges are discussed in Section 5.

Public Relations

2.5.2 A key aspect of the successful management of this project will be establishing and maintaining a good relationship with all surrounding businesses and stakeholders within the local

community. A Community Engagement Officer will be appointed to mitigate and resolve any issues and concerns within the local community.

2.5.3 This CLP has prepared a strategy for preventing potential issues that is detailed in Section 5, however a 24-hour manned telephone line will be set up such that any difficulties encountered during construction can be reported/recorded in a full log and resolved. Regular community gatherings will be held to inform and deal with issues such as late-night works, site boundaries and hoardings, construction vehicle congestion and general community disruption.

Schools

2.5.4 There are a number of schools and nurseries in close proximity to the development site. They are set out below:

- Busy Bees at Hillingdon Nursery – Royal Lane;
- Meadow Special School – Royal Lane;
- Pield Heath House School – Pield Heath Road;
- Colham Manor Primary School – Violet Avenue; and
- Moorcroft School – Bramble Close.

2.5.5 Where possible, construction deliveries will take place out of school opening and closing times, and the Community Engagement Officer will regularly contact the school to share information in order to maximise child and pedestrian safety.

Places of Worship

2.5.6 Baitul Amn Mosque is located on Royal Lane to the south west of the site. Royal Lane is not intended or anticipated to be a route used by construction traffic. It is not therefore anticipated that there will be any impacts of construction traffic on Baitul Amn Mosque.

2.5.7 The Mosque is located approximately 175m straight line distance from the south-western corner of the site. Although in close proximity, the Mosque has its own dedicated car park, and there are areas of on-street parking available on Royal Lane adjacent to the Mosque. The on-street bays are restricted to permit holders (HH) Monday to Friday from 9 am to 5 pm.

2.5.8 Given the restrictions in place, it is not expected that there will be any overspill car parking from the site taking place in the local area. Management plans will be on place on the site to control activity and avoid unintended impacts, this will include a Construction Workforce Travel Plan.

2.5.9 Any instances of prohibited parking taking place on roads around the site can be reported to the Community Engagement Officer and appropriate action can be taken to resolve.

Nursing Home

2.5.10 Marian House Nursing Home is located on Kingston Lane to the north west of the site. It is likely that construction traffic will pass the nursing home on Kingston Lane. The residents of this home may be sensitive to noise and vibration. It is assumed that most residents will walk the local area and may be more vulnerable to safety concerns associated with an increase in HGV traffic on local roads.

2.5.11 The Community Engagement Officer will share information about the construction programme and any effects on the area around the nursing home with the home's residents and collate any issues or concerns. These concerns will be taken into consideration to maximise safety and minimise any noise and vibration impacts around the nursing home.

Sports Facilities

2.5.12 Brunel University Sports Park is located on Kingston Lane to the north west of the site. There are numerous facilities on the sports park, including football pitches, hockey pitches, tennis courts, rugby pitches and an athletics track. It is assumed that these facilities will be used consistently throughout the week, but most activity will be in the evenings and at weekends.

2.5.13 It is likely that construction traffic will pass the sports park on Kingston Lane but it is not expected to have a significant impact on the sports park. However, a timetable of upcoming major events at the sports park will be incorporated into the construction programme and overseen by the Community Engagement Officer to ensure there is minimal disruption and optimal safety in the area at these times.

3 Construction Programme and Methodology

3.1 Construction Programme

3.1.1 The current construction programme is at an early stage of development and detailed information is not available. The construction Stages have therefore been estimated based on the best information available from the wider design team at the time of preparing this report. A full review of the programme, construction stages and vehicle estimates will be undertaken by the main contractor upon appointment. A Detailed Construction Logistics Plan will be prepared and submitted by the main contractor, and agreed with LBH and TfL as necessary, prior to commencement of construction on-site.

3.1.2 Based on the information available at the time of preparing this report, the construction period of The Hillingdon Hospital Redevelopment is expected to last three years and seven months, beginning with mobilisation in January 2025. The site will be completed and ready for full use from August 2028. Figure 3.1 and Table 3.1 provide a high-level breakdown of the program by the key construction stages for the new hospital and Phase 1 works.

3.1.3 Prior to commencement of the Phase 1 works, there will be a decant stage. A range of key moves are to take place within the site, with certain activities and operations relocated to vacate the future new hospital footprint. Other moves include relocation of activities to other sites, including the decant to Mount Vernon Hospital. This will take place prior to commencement and is not anticipated to generate significant vehicle movements external to the site.

3.1.4 Upon completion of the new hospital construction there will be a transition from the old hospital buildings into the new hospital. Except for the delivery of new furnishings and equipment, this is not anticipated to generate significant levels of vehicle movements externally, as much of this activity will be contained on-site.

Figure 3.1: Construction Programme (Main Hospital)

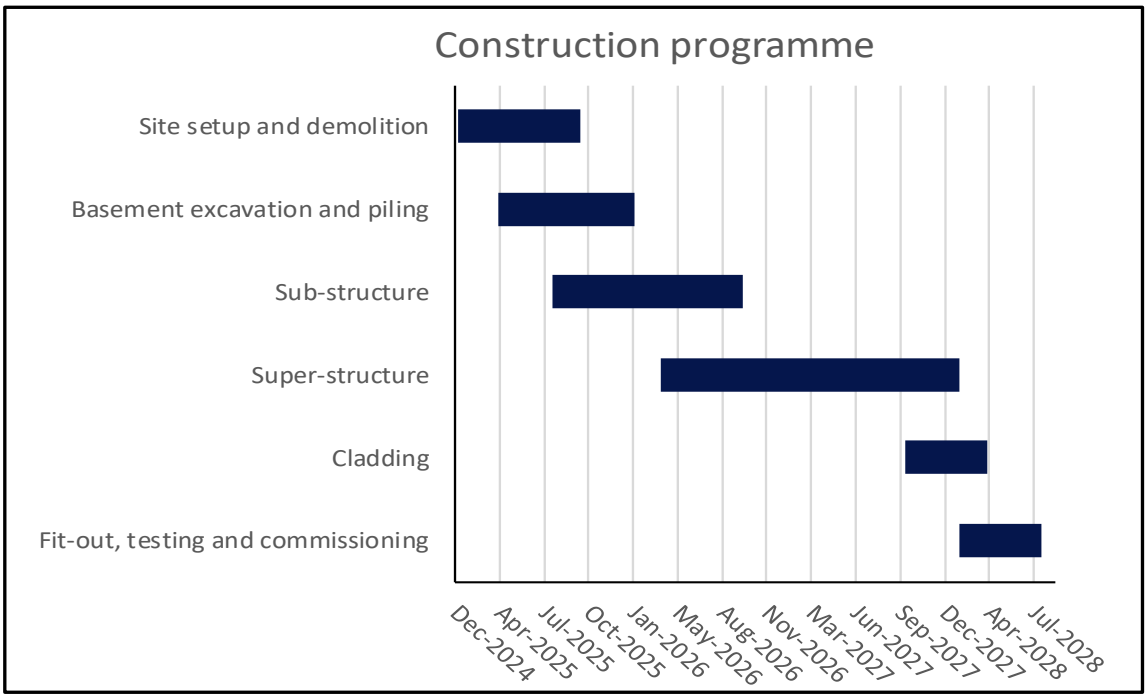


Table 3.1: Construction Programme

Construction stage	Start	End
Site setup and demolition	Jan-2025	Oct-2025
Basement excavation and piling	Apr-2025	Feb-2026
Sub-structure	Aug-2025	Oct-2026
Super-structure	Apr-2026	Feb-2028
Cladding	Oct-2027	Apr-2028
Fit-out, testing and commissioning	Feb-2028	Aug-2028

3.2 Construction Methodology

Site Setup and Demolition

3.2.1 The existing hospital and other buildings will require demolition, which will be undertaken using mechanical plant and craneage. Licensed waste carriers will deliver and collect waste skips for waste material during this period. An initial soft internal strip will take place, after which the remaining structure will be demolished and crushed so that the materials can be reused in the piling phase, reducing the number of vehicles accessing the site. Any additional waste will be loaded into tipper lorries and removed from the site.

Basement Excavation and Piling

3.2.2 The redevelopment proposals include a basement level underneath part of the hospital building footprint. Piling will be undertaken to support the structure of the proposed development. It is anticipated that most of the construction vehicles travelling to and from the site in this stage will be concrete deliveries and muck away lorries where necessary. There will also be some additional deliveries of steel reinforcement.

Sub-Structure

3.2.3 It is expected that cranes will be installed at the site, at the beginning of this stage. The stage itself will include the construction of foundations and lowest floor assembly below the underside of the screed or lowest floor finish. Most of these components will be formed of concrete, and cement lorries plus flat-bed lorries delivering steel reinforcement will be the primary vehicle types accessing the site during this stage of construction. Flat-bed lorries will also deliver drainage pipework and ductwork which is likely to take place in this stage of construction.

3.2.4 Lorries will be off loaded at a designated area within the site, and a banksman will control the movement of vehicles, pedestrians and cyclists when lorries are accessing and egressing the site.

Super-Structure

3.2.5 AECOM are currently exploring a number of options for construction of the super-structure. It is likely that a hybrid (precast and in-situ) concrete solution will be used for the super-structure, and the flooring panels will be precast concrete. The precast elements will be brought by lorry to the site and off loaded at the designated area. The flooring panels will also be brought to the site by lorry. Any in-situ elements will require cement and reinforcement deliveries. However, by using large components that are manufactured off site in this stage, the number of vehicles accessing the site will be reduced significantly.

Cladding

3.2.6 The façade contractor will be directed to design the façade so that it does not require external access to all elevations. This means that there will be minimum reliance on cranes, so they can

be used to service the construction of the steel and concrete frame. In this stage, the crane will only be needed to lift large materials, such as glazing, to the installation location. As such, the cladding and glazing is expected to be delivered consolidated loads. This means that there will be no immediate demand for supplies/materials on a just in time basis, so deliveries can be made in advance of installation and scheduled outside of peak hours.

Fit-out, Testing and Commissioning

3.2.7 The Trust will seek to apply pre-fabrication of components to fit-out the development where it affords best value. These components will be manufactured off-site into modules to ensure quality and consistency before being delivered to site. This will suit the delivery programme and will reduce the number of overall component deliveries required. Some of the mechanical, electrical and plumbing (MEP) equipment is also expected to be manufactured and assembled offsite and brought to the site to be installed as a complete unit. However, there will be a high proportion of on-site activity for MEP installation and fit-out. Any hospital equipment from the existing hospital will be transferred to the new hospital where possible. This will also reduce the number of deliveries to the site.

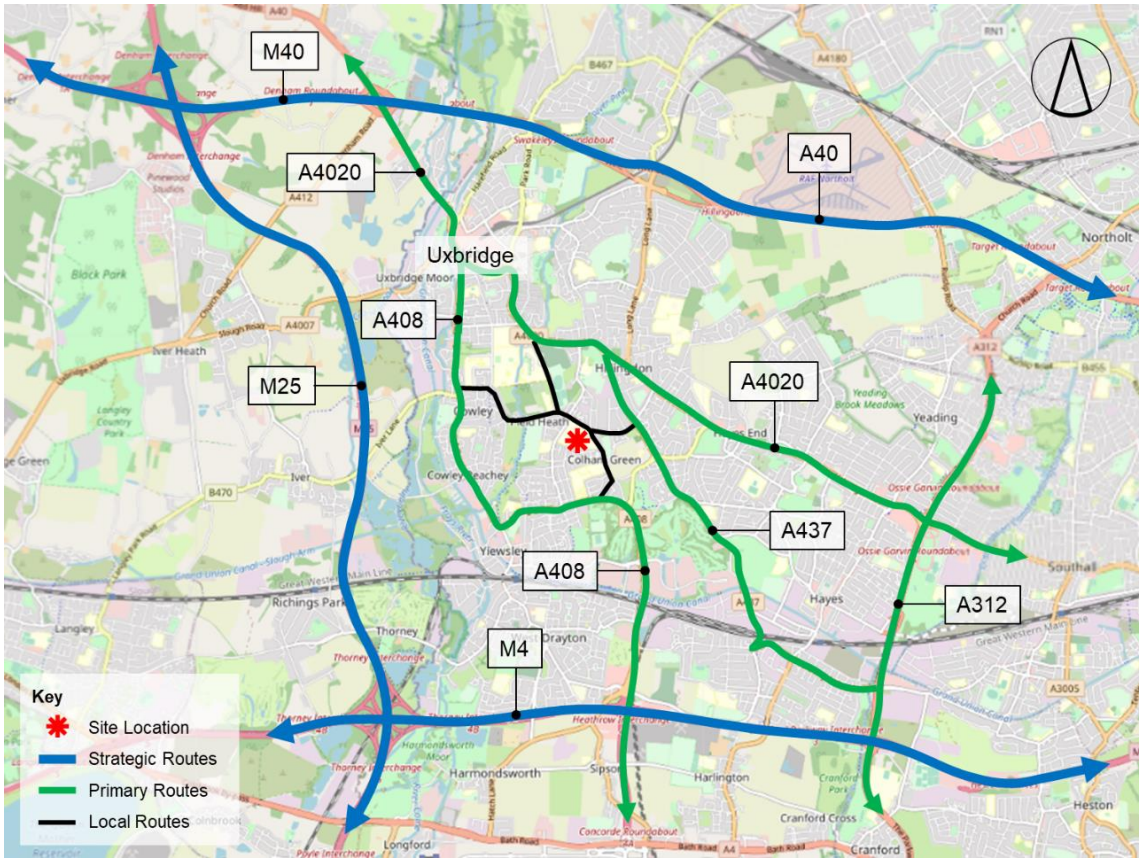
4 Vehicle Routing and Site Access

4.1.1 Health Technical Memorandum (HTM) 07-03 (2015) sets out best practice in car-park management and sustainable transport. It identifies how the NHS patient, visitor and staff car parking principles can be implemented within an NHS organisation's carparking provision and what measures need to be considered when developing strategies and policies.

4.1.2 In relation to construction planning and management of construction traffic alongside an operational hospital, HTM 07-03 advises that during site construction works, construction traffic should not interfere with the day-to-day running of an NHS organisation. Where possible, specific parking for construction vehicles should be provided.

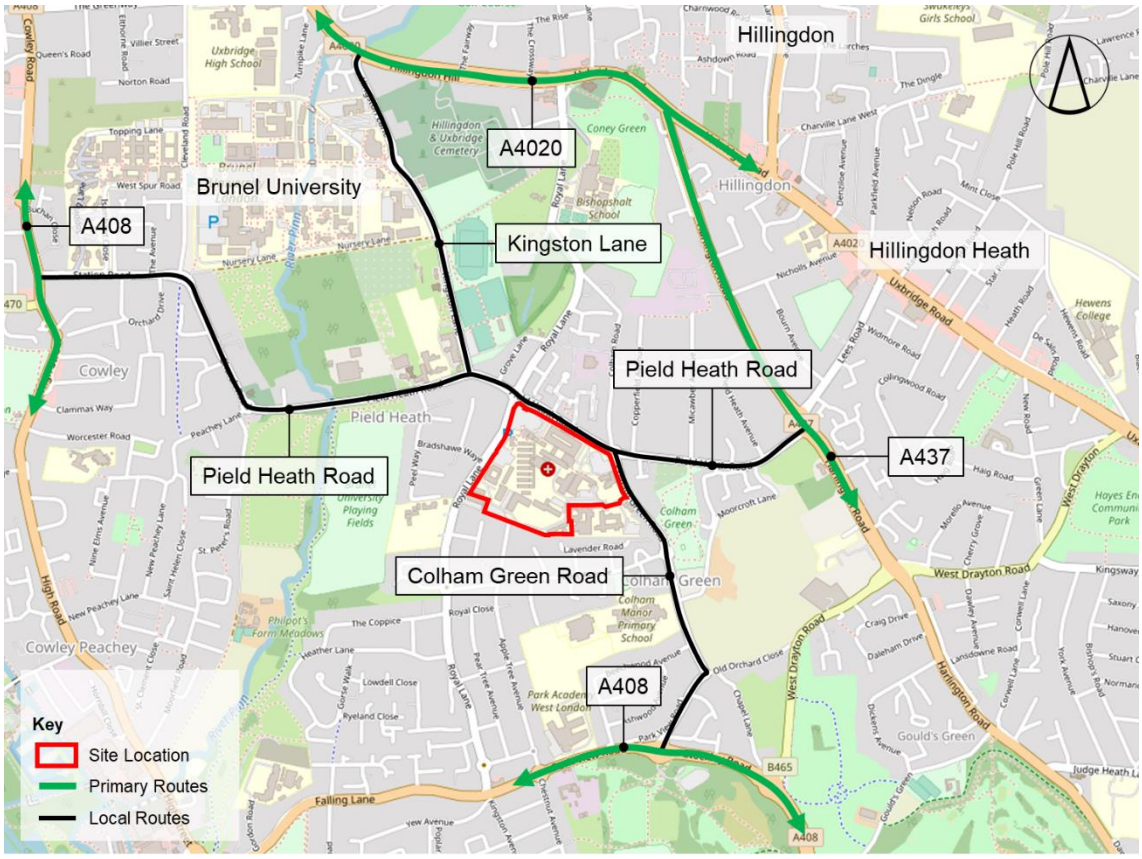
4.1.3 The following maps show the area around the development site. Figure 4.1 shows a regional plan with vehicle routes on the TfL Road Network, which are likely to be used by construction vehicles travelling to the local area. Figure 4.2 shows vehicle routes to the site from the TfL Road Network and via local roads. These routes consider local area constraints, locations with large numbers of vulnerable road users and potential locations for vehicle holding areas. Figure 4.3 shows the site boundary plan and vehicle accesses.

Figure 4.1: TfL and Local Road Network



Source: Open Street Map

Figure 4.2: Local Connections



Source: Open Street Map

Figure 4.3: Site Boundary Plan and Vehicle Accesses

Source: Open Street Map

5 Strategies to Reduce Impacts

5.1 Planned Measures Checklist

5.1.1 The following planned measures have been identified to help the contractor achieve the goals of the CLP and better manage the challenges identified in Section 2.

Table 5.1: Planned Measures

Planned measures checklist	Committed	Proposed	Considered
Measures influencing construction vehicles and deliveries			
Safety and environmental standards and programmes	X		
Adherence to designated routes	X		
Delivery scheduling	X		
Re-timing for out of peak deliveries		X	
Re-timing for out of hours deliveries		X	
Use of holding areas and vehicle call off areas		X	
Use of logistics and consolidation centres		X	
Measures to encourage sustainable freight			
Freight by water			X
Freight by rail			X
Material procurement measures			
Design for manufacture and assembly, and offsite manufacture		X	
Re-use of material on site	X		
Smart procurement		X	
Other measures			
Collaboration amongst other sites in the area		X	
Implement a staff travel plan	X		
Minimising HGV movements during school drop off and pick up	X		

5.2 Measures Influencing Construction Vehicles and Deliveries

Safety and Environmental Standards and Programmes

5.2.1 All contractors and sub-contractor vehicles arriving at the development site should comply with sufficient safety measures and requirements relating to work related road risk.

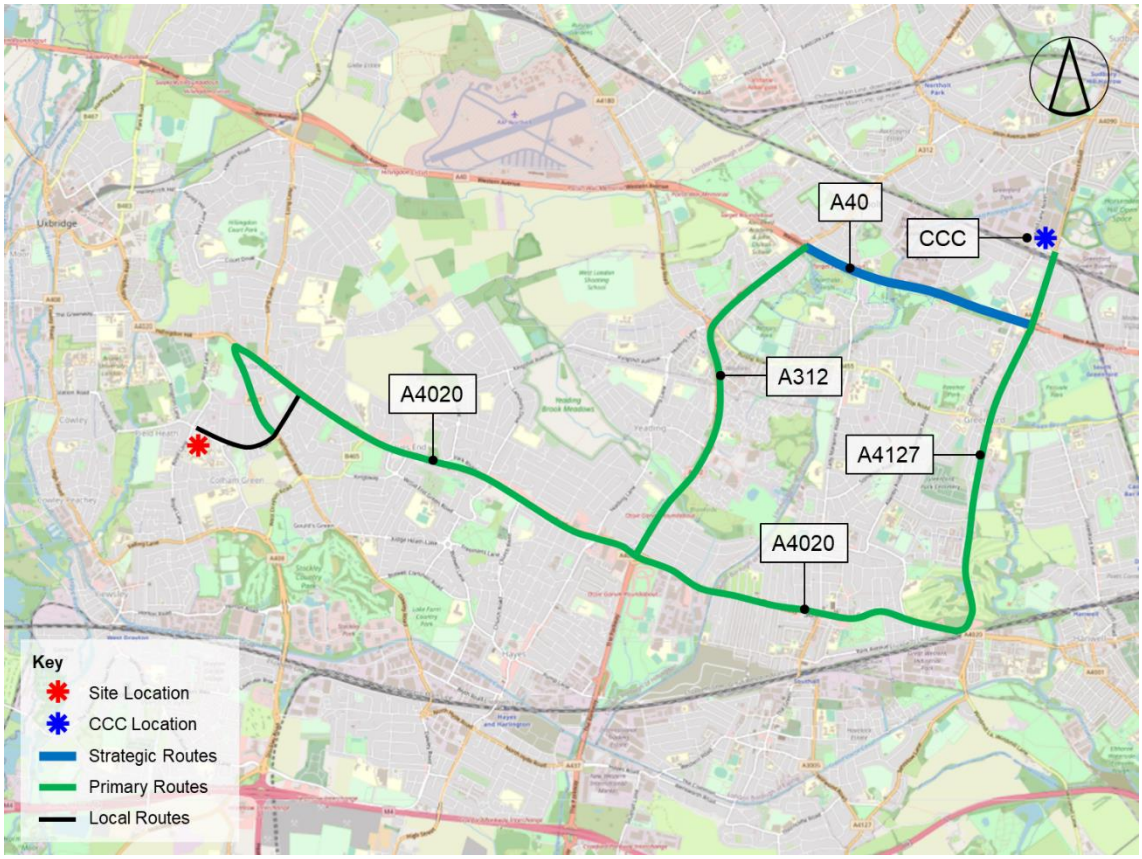
5.2.2 It is a requirement for all vehicles and driver management practices to comply with the FORS and Construction Logistics and Community Safety (CLOCS). FORS Bronze, with progression to Silver within 90 days, will need to be confirmed by all sub-contracted transport/haulage providers that the Contractor intends to use. An up-to-date list of trained companies and drivers is available at www.fors-online.org.uk.

5.2.3 A collision reporting system will be mandated to ensure all collisions and accidents involving the projects' vehicle and drivers are reported to the Project Manager and any relevant parties. The 'FORS Manager' reporting tool will be used on www.fors-online.org.uk.

Adherence to Designated Routes

5.2.4 Details of designated routes expected to be used for construction trips to and from the site are provided in Section 4. The maps in Section 4 show local routes to be used by construction traffic travelling to and from the Strategic Road Network (SRN). Routes from the potential CCC are also suggested in Figure 5.1. These construction traffic routes have been reviewed with respect to potential impacts, hazards, and restrictions.

Figure 5.1: Suggested Routes from Potential CCC



Source: Open Street Map

5.2.5 A copy of the route plan will be given to all suppliers when orders are placed to ensure drivers are fully briefed on the required route to take. The supplier will be made aware that these routes are required to be followed at all times unless agreed or alternate diversions are in place.

Delivery Scheduling

5.2.6 A web-based delivery management system will be used to control the volume of deliveries to site. This system will work by defining the capacity of the site to accept deliveries, depending on the delivery vehicle, goods being delivered and the volume. This ‘service level’ should be specified in circa 30-minute intervals and used to limits the number of delivery bookings based on the defined capacity.

5.2.7 Sub-contractors and hauliers will need to book in deliveries a minimum of 48-hours in advance in order to allow the request to be reviewed and subsequently approved/declined through the site. The system will be accessed by completing a new user application form and submitting it, countersigned by the supplier relationship manager or package manager to the delivery manager.

5.2.8 KPIs will be proposed to indicate that zero unplanned vehicles, zero non-compliant vehicles and zero instances of project-related vehicles involved in a collision, arrive at site.

Re-Timing for Out of Peak Deliveries

5.2.9 Permitted construction hours on weekdays and weekends will be agreed with LBH prior to commencement on site. All efforts to minimise HGV construction movements to out of peak hours will be taken. Based on the November 2021 surveys, the typical weekday highway network peak periods are 07:00 – 09:00 and 16:00 – 18:00. This will aid the operational efficiency of the construction site, reduce costs, reduce emissions due to quicker delivery trips, and reduce the impact of the development on the local highway network. The contractor and developer will be consulted and encouraged to re-time as many deliveries as possible out of the observed peak hours.

Re-Timing for Out of Hours Deliveries

5.2.10 Where construction vehicle movements need to be carried out outside of the permitted and agreed construction hours, the contractor will seek agreement from LBH for out of hours deliveries. In some cases, planning such activity out of hours can be beneficial and prevent HGV movements taking place during busier daytime periods. This can also be done in conjunction with the use of CCCs, where goods and deliveries can be consolidated at the CCC and then delivered to site in consolidated loads and at a specified time to suit site activity and network traffic conditions. This would also reduce the impact of the development on the local area by reducing daytime vehicle movements.

Use of Holding and Vehicle Call Off Areas

5.2.11 The site has a limited storage area and a congested local highway network. It is important that construction vehicles waiting to enter the site do not hinder traffic trying to access the existing hospital. It is intended that a holding point local to the site will be identified and agreed. This will allow vehicles to arrive early and delay their final approach to site until the pre-arranged delivery time. This will lead to greater logistical efficiency and reduced disturbance in the local area and to existing land uses.

Use of Logistics and Consolidation Centres

5.2.12 It is anticipated that CCCs will be used during the construction period. Components and materials can be delivered in bulk from suppliers to the CCC where deliveries are checked and securely stored. When deliveries are required at site, they can be delivered from the CCC in consolidated loads. This means that deliveries can arrive at site when needed, delivery vehicles can be used for reverse logistics operations by taking waste/damaged goods back to the CCC on the return journey, and the amount of delivery trips to and from the site are reduced. Experience has indicated that the use of CCCs can reduce deliveries to site by up to 70%.

5.2.13 It is recommended that Wincanton Greenford Consolidation Centre in Greenford, Middlesex is used during the construction period. This is located approximately 8 miles away from the site. This CCC is CLOCS compliant, FORS accredited, and exceeds the minimum mandatory safety requirements.

5.2.14 Upon appointment of a suitable contractor, and once construction methodologies have been decided, a detailed CLP will be provided. The detailed CLP will further consider the use of CCCs where appropriate and practical.

5.3 Measures to Encourage Sustainable Freight

Freight by Water

5.3.1 There are no canals or navigable waterways in the vicinity of the site. Therefore, freight by water is not a viable option for the proposed development.

Freight by Rail

5.3.2 Freight by rail would cause a significant disruption to local rail and underground services. Therefore, freight by rail is not a viable option for the proposed development.

Use of Electric Vehicles

5.3.3 The use of electric freight vehicles will be encouraged for deliveries to the Site. The main contractor, upon appointment, will work with their supply chain and workforce to encourage the use of electric vehicles for freight delivery and staff movements.

5.4 Material Procurement Measures

Design for Manufacture and Assembly and Off-site Manufacture

5.4.1 The option of off-site construction will be discussed upon appointment of a contractor and used where possible. This will reduce the number of delivery trips generated by the site, which will limit the impact of construction on the local area.

Re-use of Material On-site

5.4.2 Measures to re-use material on site will be decided and agreed upon with the contractor once they have been appointed. It is unlikely that the re-use of on-site materials will be possible in first phase of development. This is because this section of the site is mostly covered by car parks in the current situation. The re-use of on-site material is more likely in Phase 2 because material from the demolition of the existing hospital could be re-used.

Smart Procurement

5.4.3 Materials will be sourced from local suppliers where possible, which will reduce the impact of the development on the wider road network, as well as contributing to the local economy. There may also be the opportunity to source materials from the same suppliers as other development sites in close proximity to the hospital site.

5.5 Other Measures

Appointment of a Community Engagement Officer

5.5.1 As stated in Chapter 2, a Community Engagement Officer will be appointed to mitigate and resolve any issues and concerns win the local community. The Community Engagement Officer will be responsible for reporting/recording any community issues during construction in a full log and addressing them, where necessary. They will also be responsible for organising regular community gatherings which will deal with issues such as late-night works, site boundaries and hoardings, construction vehicle congestion and general community disruption.

Collaboration Amongst Other Sites in the Area

5.5.2 Upon appointment of a contractor and prior to formal start date on site, consultation will take place with LBH, TfL to identify any other contractors/developers in the local area. This will highlight any opportunities to work with nearby sites by using common suppliers to minimise cumulative disruption. If needed, a joint trip generation analysis will be undertaken.

Implement a Staff Travel Plan

5.5.3 During the construction of Phase 1, as many car parking spaces as possible are to be reserved for NHS staff, patients and visitors. Hence, to minimise impacts on the day-to-day operation of the existing hospital, there will be minimal parking for construction workforce vehicles on-site. Restrictions will also be imposed to prevent construction staff from parking on-street in the local area. Whilst some of the workforce will have to arrive in LGVs with tools, limited on-site parking due to the constrained nature of the construction area will mean construction staff will need to drop off tools and then park elsewhere or store their tools on-site.

5.5.4 Vehicle sharing will be encouraged amongst staff working on-site. This could include using an off-site parking location and a mini-bus or similar to transport staff to the construction site.

5.5.5 There are also public transport services, and walking and cycling routes in close proximity to the site which enable sustainable travel where feasible.

5.5.6 A Construction Workforce Travel Plan can be conditioned and would be prepared by the main contractor upon appointment and prior to commencement of construction.

Preventing HGV Movements During School Drop-off and Pick-up

5.5.7 As shown in Section 2.5, there are a number of schools/nurseries in the local area. HGV deliveries will be scheduled, where possible, outside school drop off and pick up times in order to minimise the associated safety risks.

Dust Control Measures

5.5.8 The following measures will be implemented in order to control the dust generated from construction related traffic:

- Water suppression / sprays used for dampening down dry loads; and
- Covering loads.

Local Highway Condition

5.5.9 The following measures will be implemented in order to monitor and maintain the condition of the local road network that may be affected by regular construction traffic:

- Pre-commencement condition survey of the surrounding roads and construction access routes
- Provision of wheel washing at site exit(s) and lorry jet washing facilities;
- Appropriate hard surfacing at vehicle holding areas on site;
- Regular cleaning of hard standing areas (washing/street sweeper);
- Management of site based construction vehicle/plant movements to prevent spreading of mud to hard standing areas where possible;
- Regular inspections of the local road network around the site;
- Regular street sweeping and maintenance at the site access point and in the local road area.

5.5.10 The pre-commencement condition survey of the surrounding roads and construction access routes will need to be agreed in advance with LBH and is likely to include detailed video/photo surveys and defects identification. This will enable a regular monitoring process to be agreed with LBH and the condition of local roads and defects can be reviewed and monitored over time. Monitoring could be at monthly intervals by means of walkovers by site staff and representatives of the highway authority and any potential remedial works identified would need further discussion to agree a way forward.

5.5.11 As stated previously a Community Engagement Officer will be appointed to mitigate and resolve any issues and concerns within the local community. A 24-hour manned telephone line will be set up such that any difficulties encountered during construction can be reported/recorded in a full log and resolved. Regular community gatherings will be held to inform and deal with issues such as late-night works, site boundaries and hoardings, construction vehicle congestion and general community disruption. This will enable any local residents to report issues with street maintenance with ease.

6 Estimated Vehicle Movements

6.1.1 The number of vehicle trips generated by the site has been estimated accordingly for each of the six construction stages. The CLOCS CLP tool has been used to develop the estimates below, which automatically calculates daily trips across construction stages and identifies maximum estimates based on any overlaps in construction stages.

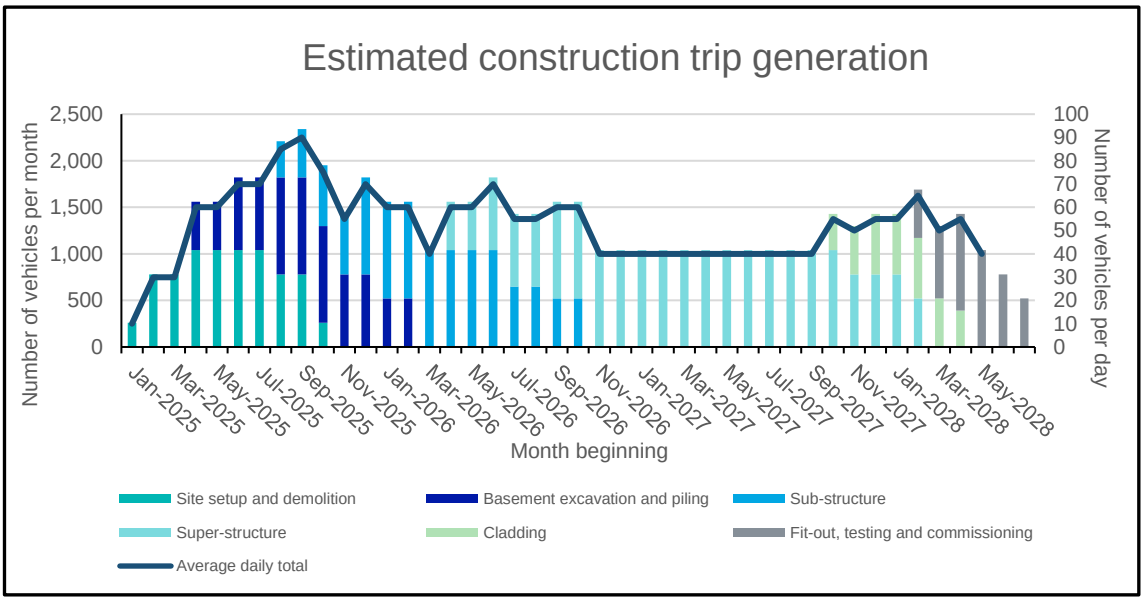
6.1.2 It should be noted that the current construction programme is at an early stage of development and detailed information is not available. The construction Stages have therefore been estimated based on the best information available from the wider design team at the time of preparing this report. A full review of the programme, construction stages and vehicle estimates will be undertaken by the main contractor upon appointment. A Detailed Construction Logistics Plan will be prepared and submitted by the main contractor, and agreed with LBH and TfL as necessary, prior to commencement of construction on-site.

6.1.3 The preliminary estimated number of vehicle trips across each construction stage are summarised in Table 6.1 and Figure 6.1.

Table 6.1: Estimated Construction Trip Generation

Construction stage	Period of stage	No. of trips (monthly)	Peak no. of trips (Daily)
Site setup and demolition	Q1 2025 - Q4 2025	1,040	40
Basement excavation and piling	Q2 2025 - Q1 2026	1,040	40
Sub-structure	Q3 2025 - Q4 2026	1,040	40
Super-structure	Q2 2026 - Q1 2028	1,040	40
Cladding	Q4 2027 - Q2 2028	650	25
Fit-out, testing and commissioning	Q1 2028 - Q3 2028	1,040	40
Peak period of construction	Q3 2025 - Q3 2025	2,340	90

Figure 6.1: Estimated Construction Trip Generation

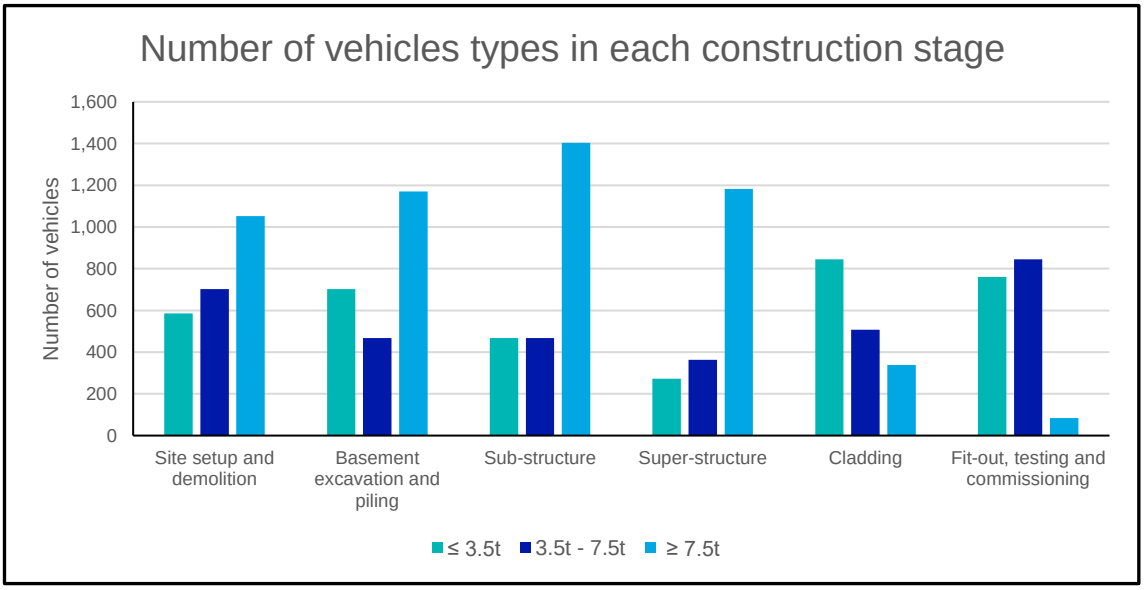


Source: Mott MacDonald

6.1.4 During the peak month of construction, the preliminary estimate is that there will be approximately 2,300 construction vehicle trips generated by the site. This equates to around 90 vehicles per day and 17 vehicles in the peak hour, assuming 20% of vehicles arrive during the peak.

6.1.5 Vehicles arriving at the site are likely to be a variety of sizes. The anticipated number of each type of vehicle accessing the site during each construction stage is shown in Figure 6.2.

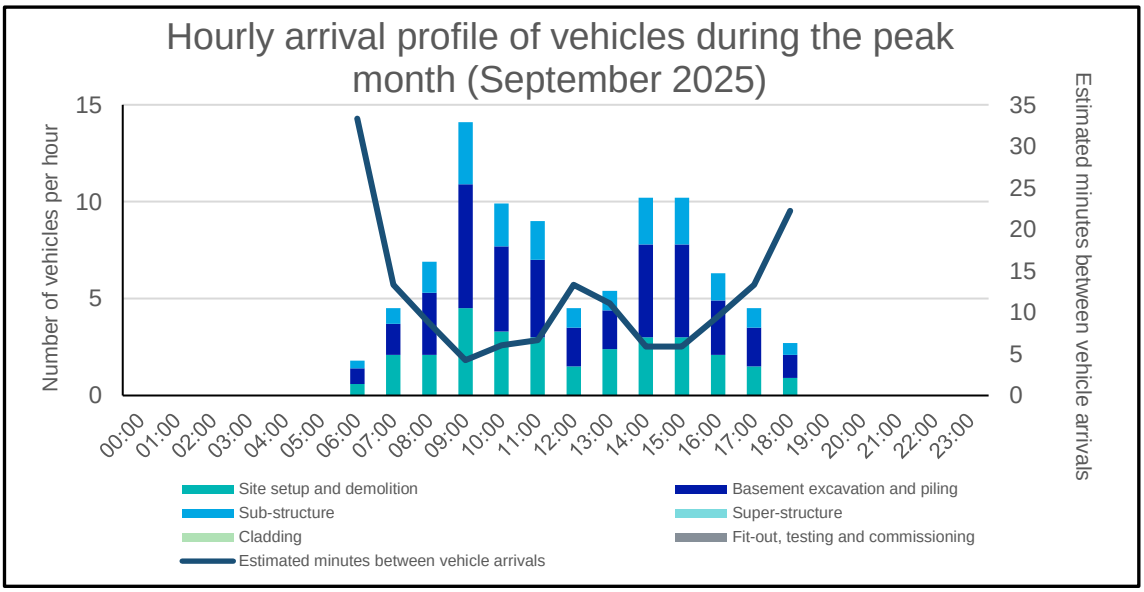
Figure 6.2: Number of Vehicle Types in Each Construction Stage



Source: Mott MacDonald

6.1.6 Peak times will be avoided for deliveries when possible. Figure 6.3 shows the hourly arrival profile of vehicles during the peak month. This preliminary estimate will be refined by the main contractor upon appointment and following detailed development of the construction programme. The contractor will provide a specific delivery schedule when appointed.

Figure 6.3: Hourly Arrival Profile of Vehicles During the Peak Month



Source: Mott MacDonald

6.1.7 It is anticipated that the peak hour for deliveries will be 09:00-10:00. There is also an afternoon peak period for deliveries from 14:00 to 16:00. As detailed in Section 5, deliveries will be encouraged outside of peak times and school pick up/drop off times. Therefore, this profile may change when the contractor provides a specific delivery schedule.

7 Implementation, Reporting and Securing the CLP

7.1.1 This outline CLP cannot include a detailed and defined description of how the CLP will be implemented, monitored and updated as this will be the responsibility of the appointed Construction Logistics Manager. However, the following strategy can be confirmed at this stage.

7.1.2 An appointed Construction Logistics Manager will be responsible for preparing and implementing a Detailed CLP on behalf of the main contractor. The Construction Logistics Manager will be required to put in place a framework to monitor and report on the following:

- Number of vehicle movements to site, to be recorded through a delivery booking-in system, including:
  - Total number of vehicle movements to site by vehicle type/size/age;
  - Time spent on site;
  - Origin/destination of the vehicle;
  - Log of scheduled delivery/collection time; and
  - Actual Delivery/collection time compared to planned schedule.
- Breaches and complaints, including:
  - Lack of compliance with prescribed routing;
  - Unacceptable queuing at construction access;
  - Unacceptable parking of construction vehicles at or around the site;
  - Supplier FORS accreditation; and
  - Compliance of construction vehicles with Low Emissions Zone (LEZ) standards.
- Safety, including:
  - Logistics-related collisions or near misses;
  - Any associated fatalities or serious injuries;
  - How staff are travelling to site (recorded through future Construction Workforce Travel Plan); and
  - Whether vehicles and operation are meeting safety requirements.

7.1.3 All records will be recorded and reported back to the Trust and will be made available to LBH and/or TfL based on agreement of the monitoring and reporting framework following preparation of the Detailed CLP.

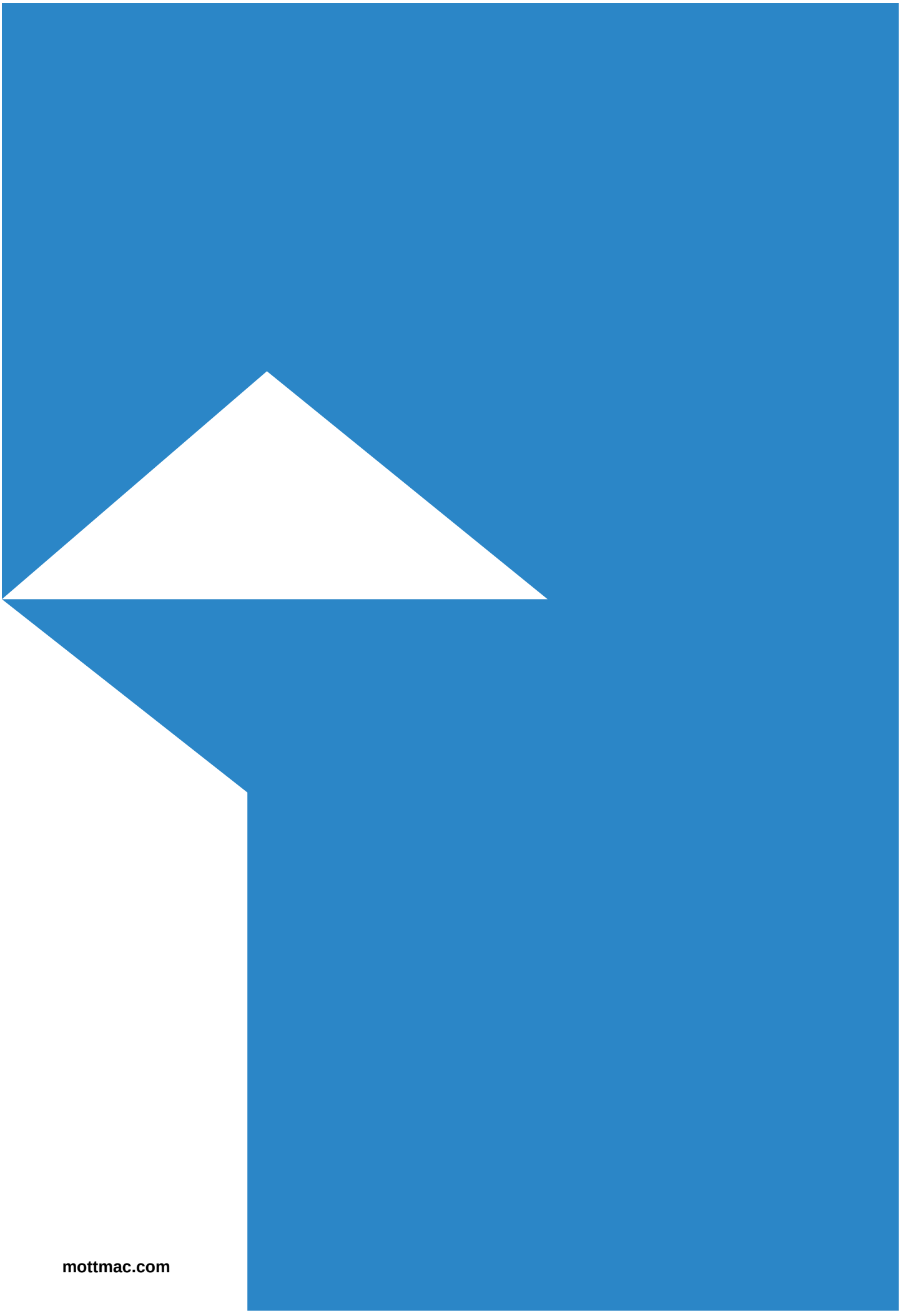
7.2 Securing the Detailed CLP

7.2.1 This Outline CLP has been prepared in-line with TfL Guidance and accompanies the planning application to give LBH an overview of the expected logistics activity during the construction programme.

7.2.2 A Detailed CLP is submitted to a planning authority at the post-granted discharge of conditions stage and provides the planning authority with the detail of the logistics activity expected during the construction programme.

7.2.3 The Detailed CLP will be prepared by the main contractor, upon appointment, and following further detail becoming available in relation to the overall project programme, construction stages and vehicle estimates.

7.2.4 The Detailed CLP is expected to be secured by way of an appropriate worded planning condition or a legally binding S106 Agreement.



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