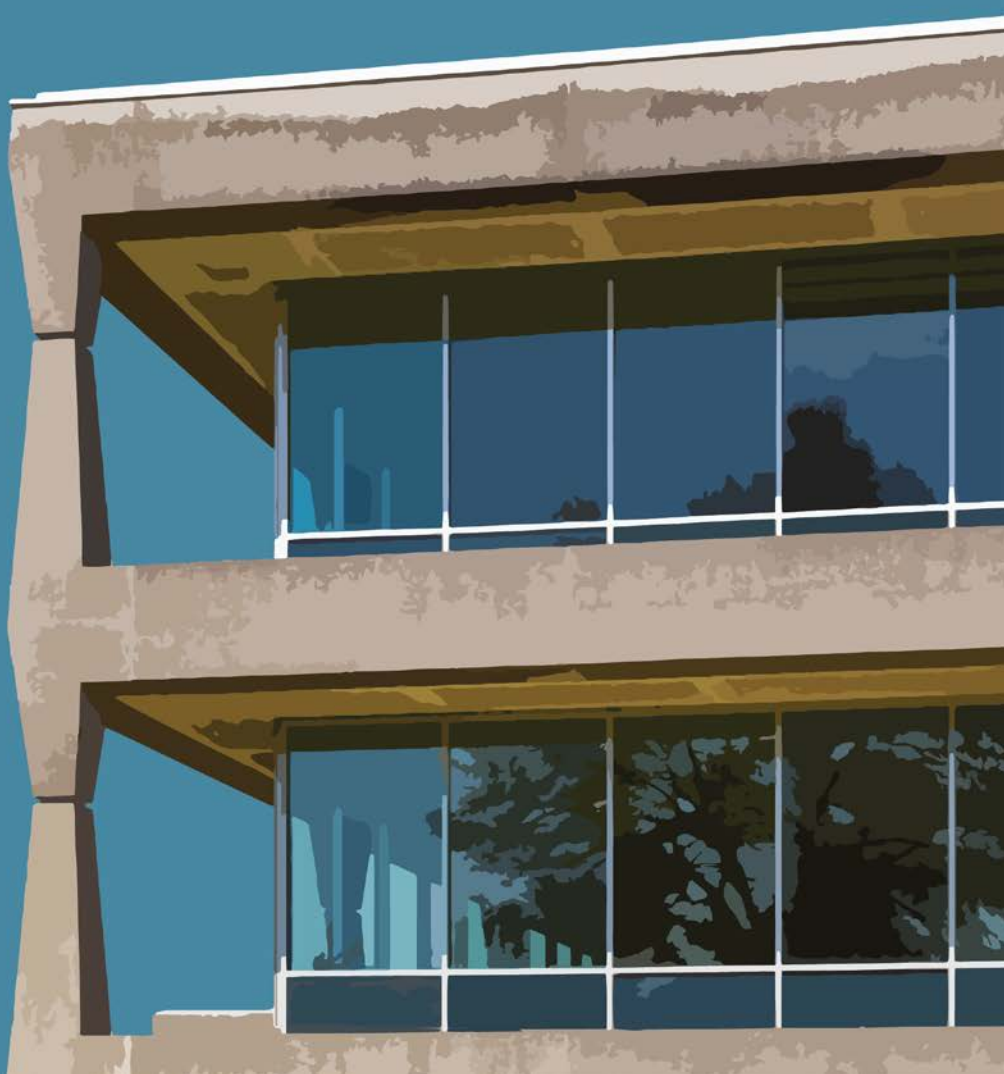
Hayes Park

Outline Construction Logistics Plan

May 2023



Waterman

Hayes Park, Hayes End Road, Hayes, UB4 8FE

Outline Construction Logistics Plan

June 2023

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Client Name:	Shall Do Hayes Developments Limited
Document Reference:	WIE19060.104.R.3.2.3.CLP
Project Number:	WIE19060

Quality Assurance – Approval Status

This document has been prepared and checked in accordance with
Waterman Group's IMS (BS EN ISO 9001: 2015, BS EN ISO 14001: 2015 and BS EN ISO 45001:2018)

Issue	Date	Prepared by	Checked by	Approved by
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Comments

Comments

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Contents

1. Introduction 1
Brief 1
Background 1
Objectives of the CLP 1
Contact Details 1
Site Background 1
Recent Changes to the Highway Network 1
Description of Development 1
CLP Structure 2

2. Context, Considerations & Challenges 3
Policy Context 3
Location Plans 3
Local Access including Highway, Public Transport, Cycling & Walking 4
Considerations & Challenges 5

3. Construction Programme & Methodology 6
Cumulative Schemes 6
Staff Schedule 7
Site Setup & Demolition 7
Site Setup and Demolition 9
Basement Excavation/Sub-Structure 9
Super-Structure 9
Cladding 10
Fit-Out, Testing & Commissioning 10

4. Vehicle Routing & Site Access 11
Site Logistics 11
Control of Site Traffic 11
Access to the Site 12
Road / Footway Closures 12
Initial Risk Assessment 12

5. Strategies to Reduce Impacts 13
Consideration of Adjoining Sites 13
General Measures 13
Supplementary Measures 14
Deliveries 16

6. Construction Staff Travel Plan 18
Aim and Approach 18
Amenity Access 18

7. Estimated Vehicle Movements 20
Vehicles 20
Site Access & Egress 20
8. Implementing, Monitoring and Updating 21
Community Engagement 22
Complaints Procedures 22

Figures

Figure 1: Local Context 3
Figure 2: Regional Plan 3
Figure 3: Indicative Construction Vehicle Routes to / from the Site 11
Figure 4: TIM Mapping 19
Figure 5: Indicative Construction Vehicle Trips 20
Figure 6: Indicative Construction Peak Month 20

Tables

Table 1: Demolition and Construction Programme 6
Table 2: Number of staff on site 7
Table 3: List of Plant/Machinery 9
Table 4: Risk Assessment – Construction Vehicle Movements 12
Table 5: Construction Impact Reduction Measures 13

Appendices

A. Swept Path Analysis

1. Introduction

Brief

1.1. This report has been prepared in support of the detailed planning and listed building consent application being submitted by Shall Do Hayes Developments Ltd ('the Applicant') to the London Borough of Hillingdon ('the Council') for the proposed residential conversion of two listed buildings at Hayes Park, Hayes End Road, Hayes, UB4 8FE ('the site').

1.2. The proposed development has evolved through an extensive pre-application and wider stakeholder consultation process, which has included collaborative discussions with the Council, Greater London Authority ('GLA'), Historic England ('HE'), and a number of other key stakeholders.

1.3. The local planning and highway authority are the London Borough of Hillingdon (LBH). The Site also falls with the jurisdiction of the Greater London Authority (GLA).

Background

1.4. The description of the proposed development is as follows:

"Change of use of the existing buildings to provide new homes (Use Class C3), together with internal and external works to the buildings, landscaping, car and cycle parking, and other associated works."

Objectives of the CLP

1.5. The CLP is intended to provide a framework to:

- Safely manage the volume and frequency of demolition and construction related trips;
- Minimise the impact on the surrounding transport network in terms of vehicle movements, public transport and vulnerable road users; and
- Contribute to minimising the potential impacts of noise generating activities, and to minimise air quality related issues.

Contact Details

1.6. Contact information will be included in subsequent revisions of this report once the Principal Contractor for the Site has been appointed.

Site Background

1.7. The site sits within a wider former business park known as 'Hayes Park'. The red line site area which forms the basis of this application is 3.73 hectares and comprises of Hayes Park South, Hayes Park Central, the surrounding grassland area, and the associated car parking and road areas.

1.8. The wider Hayes Park business park site includes Hayes Park North and the adjacent multi-storey car park which do not form part of this application. The site is accessed from the east from Park Lane and from the south from Hayes Park Road.

Recent Changes to the Highway Network

1.9. There have not been any significant changes to the wider highway network that directly affect the proposals.

Description of Development

1.10. Specifically, the proposed development will comprise:

- The change of use of the buildings from office (Use Class E) to residential use (Use Class C3).
- 124 new homes, including 25 x Studios, 40 x 1-bed, 41 x 2-bed, 17 x 3-bed and 1x 4-bed homes.

- A high proportion of open space across the site totalling 2.48 hectares (24,800 sqm), including the provision of a new playground, a new square, and extensive communal grassed areas surrounding the buildings.
- The provision of a variety of communal spaces within the buildings, including courtyards and flexible spaces on all levels:
  - 412 sqm internal communal amenity (lobbies, communal space and storage)
  - 796 sqm external communal amenity
  - 1,183 sqm private external amenity
- The proposed development will seek to promote sustainable modes of transport and will provide the following:
  - 207 cycle parking spaces allocated as follows:
    - 203 cycle parking spaces allocated to the new homes.
    - 4 cycle parking spaces allocated to visitors to the site.
  - 124 vehicle parking spaces allocated as follows:
    - 124 (111 standard and 13 accessible) vehicle parking spaces allocated to the new homes.
    - No visitor spaces are provided

CLP Structure

1.11. Following this Introduction, the document is structured as follows:

- Section 2 – Context, Considerations & Challenges;
- Section 3 – Construction Programme & Methodology;
- Section 4 – Vehicle Routing & Site Access;
- Section 5 – Strategies to Reduce Impacts;
- Section 6 – Estimated Vehicle Movements; and
- Section 7 – Implementing, Monitoring & Updating.

2. Context, Considerations & Challenges

Policy Context

2.1. Alongside development plan policies contained in the London Plan and Local Plan, the following guidance has been considered in the preparation of this CLP:

- Construction Logistics Plan Guidance (TfL, 2017);
- Construction Logistics & Cyclist Safety (CLOCS) (TRL, 2013);
- Mayor's Transport Strategy (2018);
- London Plan (2021);
- Fleet Operator Recognition Scheme (FORS) (TfL, 2012).

Location Plans

2.2. Location plans are provided below in Figure 1 to Figure 2. Full size versions will be updated following the Principal Contractor's appointment.

Figure 1: Local Context

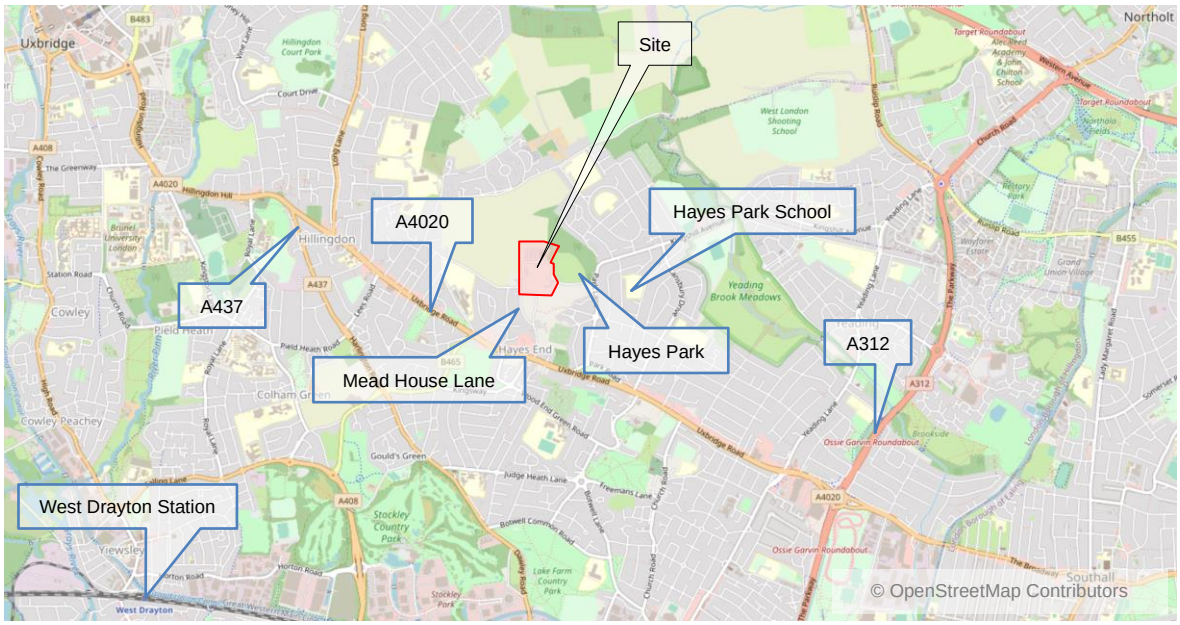
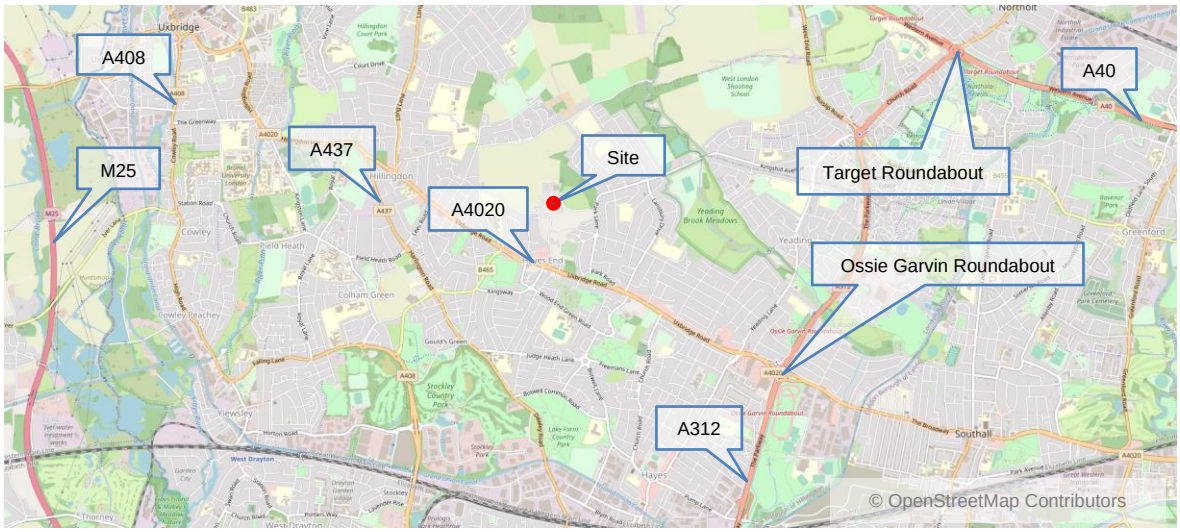


Figure 2: Regional Plan



Local Access including Highway, Public Transport, Cycling & Walking

Local Highway Network, Carriageways

2.3. Vehicular access to the site is currently provided through two vehicle points. One is located to the east in the form of a priority junction with Park Lane and the second one to the south via Mead House Lane, which forms a mini-roundabout junction with Hayes Park Road. The site currently provides a total of 750 car parking spaces.

2.4. Mead House Lane is predominantly a private road that forms a mini-roundabout junction with Hayes End Road.

2.5. To the south of the site, Hayes End Road is a single carriageway running between Uxbridge Road (A4020) to the south and Mellow Lane East to the west of the site. Hayes End Road is subject to a 30-mph speed limit and provides access to the residential areas to the south of the site.

2.6. Uxbridge Road (A4020) is a dual carriageway which links with Hayes End Road via a signalised junction. The road is subject to a 40-mph speed limit and routes between Hillingdon Hill (A4020) to the west and Ealing to the east. Uxbridge Road (A4020) provides access to the M4 as well as numerous local facilities and amenities.

2.7. To the east of the site, Park Lane is a single carriageway running on a south / north alignment between Kingshill Avenue and Uxbridge Road (A4020). Park Lane is subject to a 30-mph speed limit with footways provided on both sides of the road.

2.8. Hayes End Road is provided with footways on both sides of the road between its junction with Mead House Lane and Uxbridge Road (A4020) while footways are provided only on the western side of the road between Mead House Lane and Mellow Lane East. The eastern site access road is provided with footways on both sides of the road.

Walking and Cycling

2.9. Pedestrian access to the site is provided through Mead House Lane to the south and Park Lane to the east. The pedestrian network surrounding the site is in good condition with dropped/tactile crossings providing safe access for all users.

2.10. To the south, Hayes End Road is provided with footways on both sides of the road between its junction with Mead House Lane and Uxbridge Road (A4020). These footways link with further footways on Uxbridge Road (A4020) where several local facilities are available. A signalised pedestrian crossing is available at the junction between Uxbridge Road (A4020) and Hayes End Road which provides pedestrians safe access to the bus stops on Uxbridge Road (A4020).

2.11. To the east, Park Lane is equipped with footways on both sides of the road and provides access to the bus stops to the east of the site.

2.12. There are no dedicated cycle routes in the immediate vicinity of the site, however, the local roads are lightly trafficked therefore suitable for cyclists.

2.13. Footways are predominantly provided on both sides of the local roads including Leeway, Millard Road, Bowditch, Dragoon Road and Oxestalls Road. These footways link the Site to the local residential areas and facilities.

Rail

2.14. Hayes & Harlington rail station is the closest station to the site located approximately 3.5km (43 minutes' walk) southeast of the site. Hayes & Harlington rail station is served by GWR and TfL Rail and provides access to various destinations including Heathrow Airport, Didcot Parkway, London Paddington and Reading. The station provides 118 car parking spaces.

Bus Services

2.15. Hayes End bus stops, (Stop XF- westbound) and (Stop XC – eastbound) are the nearest bus stops to the site which are located approximately 650m (8 minutes' walk) and 700m (9 minutes' walk) respectively south of the site on Uxbridge Road (A4020).

Considerations & Challenges

Local Policies

2.16. The relevant policy documents and guidance have been referenced above.

Challenges

2.17. The following constraints have been identified at the Site for which will require control or mitigation measures:

- Hedgewood Primary School located to the northeast of the Site;
- Grange Park Junior School located to the southeast of the Site;
- Land use in the vicinity of the Site is predominantly residential or local-level commercial; and
- Pedestrians and cyclists in the immediate vicinity.

3. Construction Programme & Methodology

3.1. This CLP envisages the construction programme to be as follows and as shown in Table 1. These dates will be confirmed once a contractor has been appointed.

- Start: December 2023 (*indicative start date)
- End: May 2025 (*indicative start date)

3.2. For the purposes of this CLP the activities assumed to be undertaken within each of the six phases of construction identified by the TfL CLP guidance are:

- Site setup and demolition - comprising the enabling works;
- Basement excavation and piling – comparison of removal of dirt and foundation works;
- Sub-structure - comprising the sub-structure works;
- Super-structure - comprising the above ground works;
- Cladding – comprising of façade works;
- Fit-out, testing and commissioning – comprising the testing, commissioning and landscaping works.

3.3. The above arrangements are considered an optimal construction programme in order to minimise potential disruption to neighbouring residential, community and commercial premises.

3.4. The construction Site will be operational during the following hours:

- Monday to Friday 8.00am - 6.00pm
- Saturday 8.00am - 1.00pm
- No Sunday, bank holiday or public holiday working.

3.5. Work may be permitted outside of these hours in exceptional circumstances; the contractor will liaise with LBH in order to obtain a Section 61 (S61) license. This will be conditional on the Principal Contractor informing local residents in advance of the proposed activity.

Table 1: Demolition and Construction Programme

Phase	Start	End
Site setup and demolition	December 2023	May 2024
Basement excavation and piling	n/a	n/a
Sub-structure	n/a	n/a
Super-structure	May 2024	January 2025
Cladding	n/a	n/a
Fit-out, testing and commissioning	January 2025	May 2025

Cumulative Schemes

3.6. As works will influence, and be influenced by, surrounding developments this CLP will be further developed regarding other developments scheduled to be active during the construction period.

3.7. Committed developments in the local area have been reviewed. Currently, those committed development relevant to the Site are local regeneration schemes (Coldharbour Lane / Avondale Drive / Hayes Town Centre).

3.8. The local regeneration schemes do not conflict with the anticipated development of the Site.

Staff Schedule

3.9. Details of required staff that will be on site during various phases of construction will be provided by the Principal Contractor once appointed.

Table 2: Number of staff on site

Roles	No. Staff
Site setup and demolition	TBC once principal contractor is appointed
Basement excavation and piling	n/a
Sub-structure	n/a
Super-structure	TBC once principal contractor is appointed
Cladding	n/a
Fit-out, testing and commissioning	TBC once principal contractor is appointed

Site Setup & Demolition

3.10. Details of the likely duration of demolition working is illustrated above in Table 1. Timings, plant and vehicles required and works description will be included as details are made available.

3.11. During this phase it is necessary to establish the site compound (Welfare). This will include the delivery of welfare, plant and machinery, as well as skips. Trips as part of site setup will be included within the overall trip calculations.

Security & Hoarding Strategy

3.12. Hoarding will be set up to the Site perimeter. Pedestrian access gates will be provided to facilitate access to the Site. All entrances will be manned during the day by traffic marshals/gate men. This will be checked regularly to ensure continued security and prevention of access to unauthorised persons.

3.13. A notice will be prominently displayed at the entrance to the site which clearly states the following information:

- The permit holder's name;
- The contractors name and contact details;
- An emergency contact name and the Project Manager's telephone number;
- A statement that the site is permitted by the local authorities;
- The permit number; and
- The government's environmental incident hotline (0800 807060) or any other number subsequently notified in writing.

Site Establishment - Accommodation Facilities

3.14. From the outset, the primary objective will be the establishment of office and welfare facilities on site. The site accommodation will comprise office(s), meeting room, drying room, kitchen and eatery, male and female toilets, first aid and reflection room. The facilities will have cleaning staff to ensure they are maintained to the highest standard. During the Construction stage, a site compound complete with welfare facilities will be present on site.

3.15. The site welfare includes a site office, canteen, drying room and toilet facilities. A road cleaner will come to if and when required, to remove any dirt caused by lorries who have entered and left the site.

3.16. A wheel wash station will also be provided to further prevent any dust and mud entering the public highway. A security officer is present on site and helps to coordinate deliveries an minimise conflict between site users.

3.17. The facilities will comply, in all respects, with current HSE/CDM guidelines/regulations including the provision of mains water and electrical services and will have a dedicated PPE free safe access to them at all times. The office will have fully functional telecommunications and internet that can be used by all of the delivery team inclusive of the clients and the client's professional management team.

3.18. A full copy of all project documents including planning permission, planning conditions, design drawings and methodology and risk assessments will be kept on site in the site office available for review by all staff and any authorized visitors on request.

Fire Safety

3.19. The Principal Contractor will produce a fire plan which will be displayed on site notice boards within the site accommodation and included in the site induction. Any Fire Safety duties performed by personnel will be undertaken in accordance with the Fire Plan. Fire marshalling duties will be undertaken by appropriately trained and certified operatives.

3.20. Additionally, the Principal Contractor will carry out regular reviews / updates of the Fire Plan to ensure it remains current. The Principal Contractor will provide fire points, which will be strategically located throughout the work areas as necessary.

3.21. Fire points will include, as a minimum, fire point stand, fire extinguishers (1no. CO_2 and 2no. foam), sand bucket, rotary hand bell and back panel for fixing appropriate signage (evacuation route, emergency procedures, etc.).

3.22. Servicing and maintenance of fire points and extinguishers will be provided based on statutory requirements and additional maintenance necessitated by proper use of the equipment.

3.23. Appropriate signage will be positioned strategically around the accommodation area to effectively communicate the plan to the operatives. Emergency escape routes and exits will also be prominently signed.

3.24. In addition, the existing fire escape routes will be kept clear and maintained at all times. These will be indicated on the fire plan and briefed to all operatives during the induction.

3.25. All visitors will be requested by notices to report to site management prior to entry to their demise.

Drainage

3.26. The Principal Contractor will implement a temporary drainage strategy to control surface water runoff.

Isolation of Services

3.27. Any requirement for any isolations or disconnection to any electric, gas or water supplies/services will require isolation back to the main incoming and distribution of temporary site supplies of electric and water to facilities works will be required.

3.28. Any isolation works for any service provision will be undertaken by experienced and trained personnel.

Statutory Services – Building Services

3.29. The early stages of the project will require necessary enquiries with the statutory authorities regarding existing services on the site, the Principal Contractor will liaise with the department services engineer for the retrospective statutory services companies to ensure adequate and correct protection during the works.

Plant

3.30. It is envisaged that the following NRMM (Non-Road Mobile Machinery) plant/machinery will be required to execute the works (to be provided by the Principal Contractor once appointed):

Table 3: List of Plant/Machinery

Type of Machinery	Machinery / Plant No.
Tower Cranes	0
Excavators	0
Mobile Cranes	0
Mobile Lorry Concrete Pumps	TBC once principal contractor is appointed
5T Dumper	TBC once principal contractor is appointed
Forklift	TBC once principal contractor is appointed
Piling Rigs	0
Hydraulic Access Platforms	TBC once principal contractor is appointed

3.31. The NRMM Low Emission Zone uses the Mayor and London Borough's planning powers to control emissions from NRMM used on construction sites.

3.32. The Site will be registered by the Principal Contractor at http://nrmm.london.

Site Clearance

3.33. All plant, welfare facilities, and maintenance materials and rubbish will be removed from the site leaving the site in an orderly condition.

Site Setup and Demolition

3.34. Between September 2023 and January 2024, work will be undertaken to set up the site and remove waste. The number of vehicles accessing the Site will be updated further once the Principal Contractor has been appointed.

Basement Excavation/Sub-Structure

3.35. The main building fabric remains largely intact with the exception of internal (above ground) changes. As such this stage is largely redundant except for drainage, removal of surplus spoil, delivery of building materials, and concrete wagon deliveries for the casting of concrete elements (where/if required).

Super-Structure

3.36. Material needed for the super-structure element is largely restricted to internal works and some perimeter treatments (doorways, access etc). The material will be delivered in flat bed vehicles off-loaded from an area within the site boundary Use of cranes will be limited. Traffic marshals will be in place to accommodate the safe entry and exit of vehicles into and out of the site.

3.37. Concrete will be delivered in 8-wheel lorries off-loaded from within the site boundary with the aid of the cranes (if needed) and concrete skip. If larger scale concrete pours are required, the concrete lorries will discharge into a static concrete pump situated within the site.

Cladding

3.38. Façade deliveries will vary in size due to the different elements of façade required. Deliveries will be well organized to ensure lorries are fully loaded to reduce the number of deliveries required. All deliveries will be booked into the booking system and the logistics team will facilitate the entry and exit of the lorries under banksman/marshal control.

3.39. Frames and glass will be delivered on metal stillages and each stored individually strapped.

Fit-Out, Testing & Commissioning

3.40. This will involve deliveries of material on rigid vehicle where possible, off-loaded by the forklift or crane on site. At this stage in the construction the superstructure will be well advanced/almost complete. This would involve deliveries for materials such as Metal Framing/Plasterboard/plastering materials/ceiling materials/Mechanical and Ventilation Materials/Electrical Materials/ Flooring Materials/Painting and Decoration/Case-goods etc.

3.41. Deliveries will be well organized to ensure lorries are fully loaded to reduce the number of deliveries required.

3.42. During the last months of the project there will be a large amount of furnishing to be installed in the units. Typically, these would be delivered in rigid lorries and will be off-loaded on site and then brought directly into the buildings.

4. Vehicle Routing & Site Access

Site Logistics

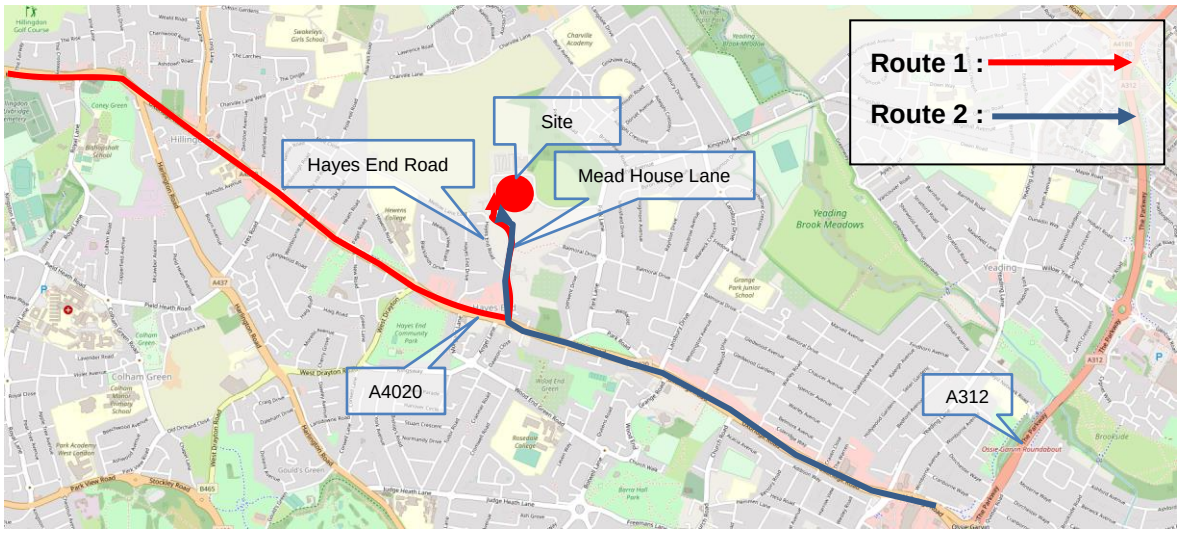
4.1. It is proposed that the main vehicular access into the Site for construction vehicles will be accessed from Mead House Lane through a gates access via Mead House Lane. Mead House Lane is a single carriageway road, running on a broadly north-south alignment between the mini-roundabout between it and Hayes End Road to the south and the gates to the north.

4.2. Hayes End Road is street-lit and subject to a 30mph speed limit with footways provided on both sides of the road. Along the eastern side of Hayes End Road, between its junction with Uxbridge Road, unrestricted on-street parking is available on both sides of the road.

4.3. Construction traffic accessing the Site from the west will travel east along A4020 Uxbridge Road and turn left at the signalised junction between Hayes End Road and A4020 Uxbridge Road onto Hayes End Road. It will then use the existing mini roundabout to access Hayes End Road. For traffic approaching from the east, it is envisaged that construction traffic will travel west along A4020 Uxbridge Road, it will then turn right at the signalised junction between Hayes End Road and A4020.

4.4. The nominated routes are summarised below in Figure 3.

Figure 3: Indicative Construction Vehicle Routes to / from the Site



4.5. It is understood that vehicles will be able to utilise the existing access point from Mead House Lane in order for construction and delivery vehicles to enter the Site. The access will cater for a variety of construction vehicles and is be demonstrated by Swept Path Analysis.

4.6. During both the construction and operational stages, vehicles will enter and exit the site in forward gear. The construction vehicles leaving the site must follow the same route as taken to access the Site.

4.7. Swept Paths of construction vehicles accessing the Site are included in Appendix A.

Control of Site Traffic

4.8. In the interests of public safety, and avoiding disruption to the local area, the method and route of deliveries to the Site will be controlled in agreement with the relevant authorities. The plan will outline timings of deliveries and routes to be taken by hauliers to ensure minimal disruption to local residents and businesses.

4.9. This will include potential risk for noise disturbance as well as minimising additional traffic during peak periods. A formal monitoring regime will be established to ensure all appropriate measures are put in place. Risks will be identified, scheduled, assessed and managed.

4.10. The complaints procedure will be formalised and circulated to local parties (as per the consultation) and the Council, reinforced (if required) through a local working group. Consideration will be given to other developments with regard to potential coordination of deliveries (subject to timely feedback from the Council). This will be regularly reviewed as part of the Site Manager's responsibility.

Access to the Site

4.11. Access to the Site will be locked to prevent unauthorized access and the hoardings will be checked regularly to ensure that they remain secure.

4.12. An appropriate member of staff will be named once appointed, and their contact details will be available to deal with emergencies. A customer care number will be displayed in front of the site allowing 24-hour contact, if necessary.

Road / Footway Closures

4.13. It is not proposed to close any roads or footways during the works unless specific access or utilities works are required, due to the presence and need for existing residents' access. Footways will remain open to all users wherever possible. Where temporary access control is needed, this will be managed by Banksmen and traffic marshals.

4.14. In the event of partial closures to transfer goods and materials across the footway, temporary traffic management will be laid out in accordance with Chapter 8 of the Traffic Signs Manual and Safety at Street Works and Road Works ('Red Book').

Initial Risk Assessment

4.15. Table 4 below provides an initial risk assessment, considering the likely impact of construction vehicle movements between the Site and the highway network in the context of potential conflicts with pedestrians and cyclists.

Table 4: Risk Assessment – Construction Vehicle Movements

Potential Hazard	Description of Risk	Embedded Mitigation	Risk Level
Construction vehicles entering/exiting the Site from Mead Head Lane Street via Hayes End Road	Construction vehicles restricting on-coming traffic and pedestrian movements.	Detailed delivery schedule and booking system for construction movements. Vehicles will turn around within Site and exit Site in forward gear. Banksmen on-site to assist construction vehicle access to Site and manage movements	Low
Construction vehicles waiting on Mead Head Lane	Construction vehicles unable to access Site / unauthorised construction vehicles.	Detailed delivery schedule and booking system for construction movements. Banksmen on-site to assist construction vehicle access to Site / move-on unauthorised construction vehicles and manage movements.	Low
Construction vehicle movements during peak network periods	Potential for greater risk of conflict during peak network periods	Restricted delivery times avoiding 08:00 – 09:00 and 16:00 – 18:00.	Low

5. Strategies to Reduce Impacts

5.1. This section of the CLP describes the committed, proposed and considered measures and strategies to reduce the environmental impact, road risk, congestion and cost of construction logistics associated with the Proposed Development.

5.2. Table 5 sets out a summary of the construction impact reduction measures.

Table 5: Construction Impact Reduction Measures

Planned Measures Checklist	Committed	Proposed	Considered
Measures influencing construction vehicles and deliveries			
Safety and environmental standards and programmes	●		
Adherence to designated routes	●		
Delivery scheduling	●		
Re-timing for out of peak deliveries	●		
Re-timing for out of hours deliveries	●		
Use of holding areas and vehicle call off areas	●		
Use of logistics and consolidation centres		●	
Control of dust and dirt	●		
Emergency Access	●		
Measures to encourage sustainable freight			
Freight by Water			●
Freight by Rail			●
Material procurement measures			
DfMA and off-site manufacture		●	
Re-use of material on site	●		
Smart procurement	●		
Other measures			
Collaboration with other sites in the area	●		
Implement a staff travel plan	●		

5.3. The key measures shown in Table 5 will be confirmed as part of future updates to the detailed CLP by the appointed Principal Contractor, however an overview and summary of the measures is outlined below.

Consideration of Adjoining Sites

5.4. The Applicant will liaise with the developers of the other development sites in the area in order to manage the construction programme accordingly. This will also include detailed liaison with LBH regarding highway works and TfL regarding potential diversions to bus routes (if required).

General Measures

5.5. To reduce the risk of potential conflict, this section has been prepared with regard to adjacent works coming forward during the construction programme. Key aspects include:

- Condition Survey (carried out before works commence, copied to LBH);
- Restricted Delivery Times (i.e. avoiding peak hours);

- Fixed Routing (using only the routes specified and agreed in this document);
- Accesses (layouts to be agreed with LBH);
- Monitoring (CCTV facilities funded by the Applicant);
- Traffic Management (using Banksmen, Chapter 8 TSM / Red Book etc. compliant management);
- Holding Areas (e.g. lay-by facilities on strategic road network);
- Neighbours and Public Liaison (contact details of site manager, regular updates to working groups, local interest parties);
- Freight Safety (FORS Gold (preferred) or Silver (minimum), comply/register with Work Related Road Risk (WRRR) and register vehicles with Non – Road Mobile Machinery (NRMM));
- Cyclists (equip construction vehicles with side-bars, blind spot mirrors and detection equipment, CLOCS);
- Waste Management (set waste reduction targets through a Site Waste Management Plan (SWMP), monitor and manage reduction/reuse/recycling etc.); and
- Utility Coordination (liaison with providers during works programme to check and manage overlaps, liaise with adjoining sites).

Supplementary Measures

5.6. Additionally, the following aspects will be incorporated into the management of construction traffic:

- Delivery Scheduling (use of JIT deliveries with holding areas, deliveries called in with refusal systems in place in case of erroneous/early/late deliveries – routing to follow the routes specified above);
- Re-timing out of Peak Deliveries (scheduled deliveries will be scheduled at the point of order where possible, booking system and use of holding areas to support delivery profiles);
- Staff Travel Plan (limit access to site by car where possible, promote use of public car parks and promotion of public transport use);
- DfMA and off-site manufacture;
- Re-use of material on site; and
- Smart procurement.

5.7. Items considered not possible include the following:

- Freight by Rail (site, holding areas or contractor depot are not near any suitable facilities).
- Freight by Water (site, holding areas or contractor depot are not near any suitable facilities).

5.8. The Applicant confirms that the following items will be considered for the works, although these will be reviewed in more detail once the Principal Contractor has been appointed.

Restricted Delivery Times

5.9. No site traffic would deliver to site or arrive in proximity to the site between the following times; 08:00-09:00 (unless by site-specific arrangement), 16:00-18:00 (unless by site-specific arrangement).

Delivery Specific Legal Agreement

5.10. The Applicant may commit to entering into a Delivery Specific Legal Agreement with the Council governing the behaviour of construction delivery traffic.

Holding Areas & Consolidation Centres

5.11. Holding areas are proposed because the number of potential vehicles arriving to the site will benefit scheduling deliveries. Given the scale of development, use of consolidation centres is not proposed at this time.

Crossovers and Highways

5.12. Access to Site by vehicles will be made via the existing vehicle access. It is not envisaged that additional enabling highways works may be necessary for suitable construction vehicle access. If additional work is required, the Applicant would contact LBH to establish acceptable parameters for the construction of all crossovers, relevant to the Site, are rated to withstand the weight of construction vehicle traffic and any other related access measures.

5.13. Regarding a photographic survey of the highway and footway adjacent and leading to their site (the extent of which to be agreed with LBH); they shall lodge digital copies of these images with LBH before the start of works.

5.14. These images will form the basis of assessment of any highway damage at the conclusion of works, which shall then be made good by the Applicant. Failure to do so will result in all highway defects adjacent to the site being attributed to the site traffic and operation.

5.15. It is understood that a Crane licence will be issued by LBH Traffic Management Team, and the Principal Contractor will obtain the necessary highway licences from LBH.

Site Access Monitoring

5.16. The Applicant may install CCTV on their Site which shall include cameras monitoring all site vehicle access and egress points. The data from these cameras is to be retained for at least two weeks after the time of recording and is to be made available in full to LBH officers upon request and in good time.

FORS

5.17. The Applicant will commit to site traffic meeting at least the FORS Silver standard.

Direct Vision Standard

5.18. The Direct Vision Standards (DVS) classifies vehicles using a star rating system. The rating is assigned on a scale of zero stars (the lowest rating, not suitable for use in an urban environment) to five stars (the highest rating), vehicles with excellent direct visibility.

5.19. As part of this development, it is deemed that no vehicles with less than a three-star rating will be used to support the development, and that all operators will be encouraged to use vehicles with the highest star rating possible.

5.20. More detail regarding checking the rating of vehicles and attaining a permit can be found using the following link. https://tfl.gov.uk/modes/driving/dvs-safety-permit-application/

Utility Co-ordination

5.21. The applicant would commit to co-operation with LBH-led utility coordination initiatives aimed at bringing in utility connections with the minimum possible disruption to the traffic network. This will require a full list of required utility connections and specifications to be made available at the earliest possible opportunity so that co-ordinated installation can be arranged. Particularly, contractor should commit to bringing utility connections up to site in a single co-ordinated set of works, with final connection then to be made at will.

Power Banks

5.22. Consideration will be given to power bank systems and or Temporary Builder Supply (TBS) to supplement and at times take over from the use of diesel generators on-site. This would also allow for a reduction in the size/capacity of generators specified for on-site use, leading to savings in cost, noise, pollution and residents' complaints.

TAD I-am

5.23. Consideration will be given to adopting this system of electronic security and monitoring for items of plant to improve health and safety as well as reduce pollution and operating costs on-site.

Deliveries

5.24. A delivery procedure will be implemented to ensure that vehicles to the construction site are organised in a controlled way and to be made '*just in time*', to prevent backing up onto the highway.

5.25. It is proposed that suppliers and sub-contractors will be informed of delivery procedures and the routes to and from Site to take. They will be made aware that there are always to be followed unless otherwise agreed.

5.26. There will be no storage of materials or waste permitted outside of the Site boundary.

Reverse Logistics

5.27. It is proposed that whenever possible delivery vehicles will take surplus or unused materials back to the source supplier, therefore suppliers who operate using reserve logistics will be prioritised as this will reduce waste and vehicle movements.

Delivery Booking System

5.28. All deliveries and collections to Site will be carefully controlled and managed by the Site Manager, and the procurement team using a delivery management system.

5.29. Deliveries will be coordinated to avoid multiple vehicle arrivals at any one time. It is proposed that when a delivery will be made on a larger vehicle there will be no other deliveries allowed during the time it is expected to take place.

5.30. Therefore, all sub-contractors and suppliers should be required to give at least 24 hours' notice of deliveries so that requests can be reviewed, approved or an alternative slot arranged.

5.31. Properly trained and accredited Traffic Marshalls will ensure that any non-compliant vehicles (e.g. not meeting the minimum FORS Silver standard) are swiftly turned away from the Site. The Traffic Marshalls will also turn away any deliveries which arrive outside of their designated booking slots.

Re-timing for Out of Peak Deliveries

5.32. The Contractor will re-time deliveries and collections to avoid peaks of vehicle and pedestrian traffic for the hours set out above. This will entail consideration of:

- Morning and evening peak hours for traffic on the wider highway network; and
- Start and finish times of nearby schools or community uses.

Re-timing for Out of Hours Deliveries

5.33. The Principal Contractor may seek permission for out of hours deliveries which could reduce congestion, improve road safety, encourage good relations with neighbours and increase the efficiency of construction delivery among other benefits.

5.34. A Quiet Delivery Scheme will be implemented to avoid causing disturbance to local residents on the routes, and within the Site in later stages.

Freight Operators Recognition Schemes (FORS)

5.35. It is required that all transport / haulage providers of vehicles which are making journeys to the Site are committed to best practice, demonstrated by membership of TfL's Freight Operator Recognition Scheme (FORS). The contractor will require a confirmation of accreditation from transport providers in order for approval of delivery slots.

5.36. Site traffic will be required to meet at least the FORS Silver standard, with Gold level preferred. The Principal Contractor will require a confirmation of accreditation from transport providers in order for approval of delivery slots. All construction delivery vehicles should at all times display the relevant FORS level badge on the vehicle cab.

6. Construction Staff Travel Plan

Aim and Approach

6.1. As part of its measures to reduce the impact of staff travel to the Site, it is envisaged that construction staff will either use public transport or other sustainable modes of transport to access the Site, unless specific individual or trade requirements dictate otherwise.

6.2. To keep the impact of staff travel as low as possible, no additional parking spaces are to be provided within or around the vicinity of the site.

Objectives

6.3. There are a number of objectives that the implementation of the Staff Travel Plan (STP) is intended to help fulfil, including:

- To influence travel behaviour.
- To encourage a modal shift in travel towards more sustainable methods of travel.
- To reduce the need for unnecessary journeys.
- To help improve the health of employees.

Amenity Access

Walking

6.4. As identified previously, the surrounding pedestrian network is considered to be of a good standard, with appropriate footways typically on both sides of the carriageway. Appropriately dropped kerbs and junction protection restrictions are also implemented to maintain pedestrian/vehicle visibility. There are a number of restaurants, cafes and convenience stores located within 1km walking distance of the site, which staff can utilise.

Cycling

6.5. As previously stated in this report, the Site also benefits from good cycle connections within the surrounding areas.

6.6. The welfare facilities will be placed in an appropriate location within the Site boundary. It will also offer showers and secure lockers, encouraging staff to cycle to the Site.

Rail/Underground

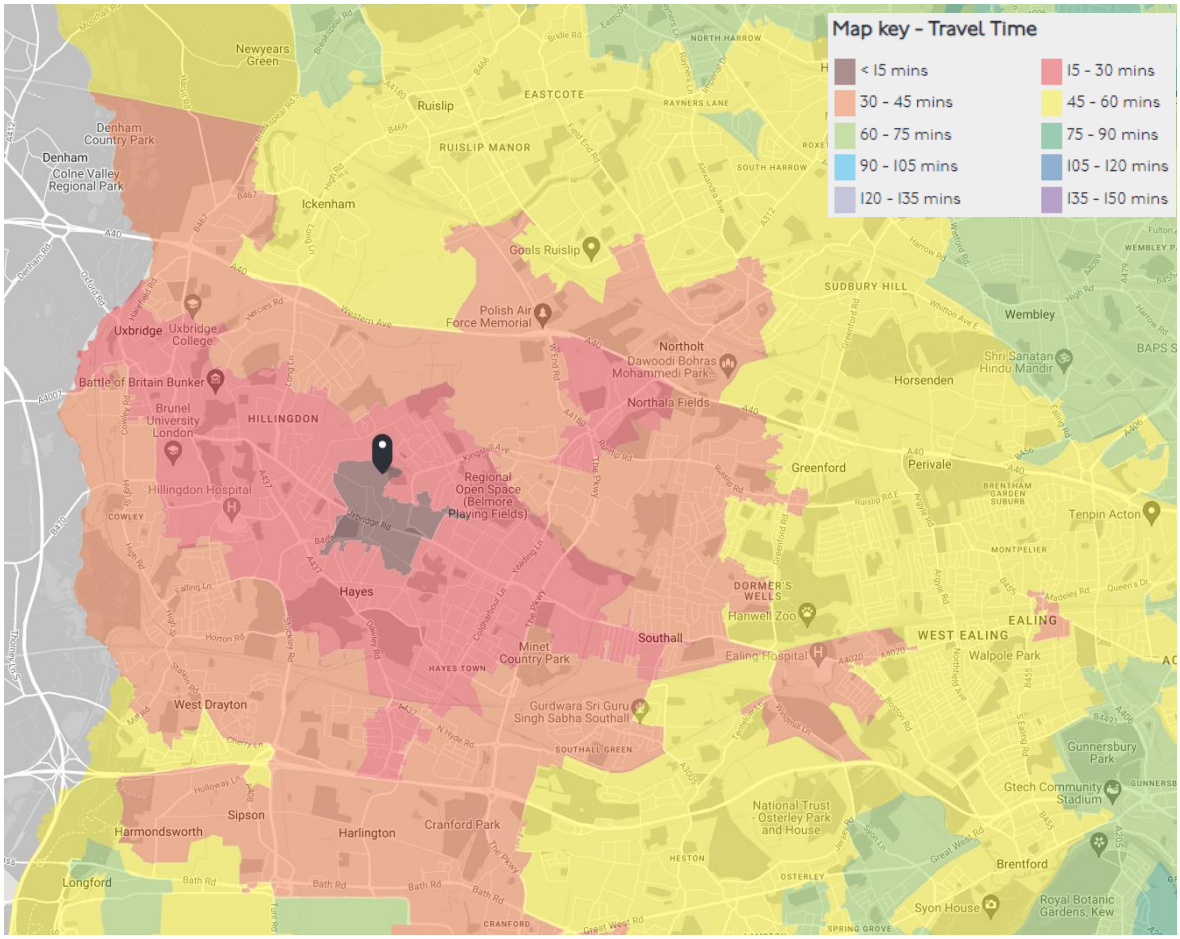
6.7. Hayes & Harlington rail station is the closest station to the site located approximately 3.5km (43 minutes' walk) southeast of the site. Hayes & Harlington rail station is served by GWR and TfL Rail and provides access to various destinations including Heathrow Airport, Didcot Parkway, London Paddington and Reading.

6.8. The station provides 118 car parking spaces. The station provides an off-peak service of 8 trains per hour to London Paddington, 2 trains per hour to Reading, 2 trains per hour to Didcot Parkway, 2 trains per hour to Heathrow Terminal 4, and 2 trains per hour to Heathrow Terminal 5.

Bus Services

6.9. Hayes End bus stops, (Stop XF- westbound) and (Stop XC – eastbound) are the nearest bus stops to the site which are located approximately 650m (8 minutes' walk) and 700m (9 minutes' walk) respectively south of the site on Uxbridge Road (A4020).

Figure 4: TIM Mapping



6.10. Figure 4 above represents the catchment area within which staff are able to travel by all public transport modes. As illustrated a number of key locations can be reached within a 15-30 minute journey from the Site, including Uxbridge, Southall and Hayes and Harlington station. All of which have excellent transport linking into other regions within London and further.

7. Estimated Vehicle Movements

Vehicles

7.1. As currently indicated by the Applicant, it is anticipated that a variety of vehicles will be used during the construction and development phases; as shown previously in Table 1; this will be updated in accordance with the Site's requirements.

7.2. The number and frequency of vehicles required will be dependent on movements permitted within the planning permission and TfL's best practice guidance.

7.3. As per the data provided by the contractor, the number of vehicle movements are presented below in Figure 5 below. It is noted that vehicle movements for each stage of the construction programme are subject to change, however, details will be kept up to date in future iterations of the CLP by the Principal Contractor.

Figure 5: Indicative Construction Vehicle Trips

[to be provided once Principal Contractor has been appointed]

Figure 6: Indicative Construction Peak Month

[to be provided once Principal Contractor has been appointed]

7.4. Figure 7 above illustrates the average the number of vehicles per hour in the peak month. As previously mentioned within the report, in order to avoid peak time deliveries, restricted delivery times are between 08:00 – 09:00 and 16:00 – 18:00.

Site Access & Egress

7.5. Safe and adequate access will be provided to all parts of the Site, and the Site must be kept tidy.

7.6. The Site must be adequately protected by barriers to prevent access (either accidental or deliberate).

7.7. When the work has stopped for the day, the Site must be secured, all ladders and access must be removed, the plant must be immobilised, and all hazardous materials must be safely stored.

8. Implementing, Monitoring and Updating

8.1. The contracting team and Applicant are fully aware of the sensitive nature of the environment and necessity to ensure that operations do not adversely affect neighbouring residents, businesses and the environment.

8.2. A Construction Logistics Manager will be appointed who will be in charge of implementing the detailed CLP and will be responsible to collect data on:

- Number of vehicle movements to Site:
  - Total;
  - By vehicle type/size;
  - Time spent on site;
  - Origin and destination of vehicles arriving at or leaving Site; and
  - Delivery/collection accuracy compared to schedule.
- Breaches and complaints:
  - Community concerns about construction activities;
  - Vehicle routing;
  - Unacceptable queuing;
  - Unacceptable parking;
  - Compliance with safety and environmental standards and programmes;
  - Low Emissions Zone (LEZ) compliance; and
  - Anti-idling.
- Safety:
  - Logistics-related incidents;
  - Record of associated fatalities and serious injuries;
  - Methods staff are travelling to site; and
  - Vehicles and operators not meeting safety requirements.

8.3. The contractor's handbook will be used to distribute information to those responsible for abiding by the CLP and it should include the followings:

- Safety toolbox talk;
- Anti-idling toolbox talk;
- Vehicle routing and delivery scheduling system;
- Driver training; and
- Safety and environmental standards.

8.4. The driver's handbook should include essentials relating to environment and safety that is specific to the construction programme as follows:

- Authorised routes to and from the site;
- Site opening times;
- Booking and scheduling information;
- Site entry and exit points, and other information relating to access;
- Anti-idling; and
- Vulnerable road user safety.

8.5. Should any aspects of the CLP change, updated information will be provided by the Principal Contractor to LBH and TfL.

Community Engagement

8.6. It is recognised that good public relations are important. A Public Liaison Officer will be appointed who will be responsible for communication with members of the public and their representatives.

8.7. Responsibilities of the Public Liaison Officer will include:

- Build relationships with the relevant management personnel within existing businesses, tenants, the general public and local community.
- Provide contact details.
- Maintain a complaints and enquiries log for the project and provide the details of the log for discussion as an item at progress meetings.
- The local community will be kept informed of progress associated with the Works on a regular basis.
- The Site Manager will be visible and 'on the ground' to ensure interaction and communication is face-to-face where possible. In accordance with the Considerate Constructors Scheme, a contact number for the Site Manager will be prominently displayed on site notice boards at all access points. The Site Manager will be contactable at all times throughout the works.

Complaints Procedures

8.8. Any complaints during the construction works will be dealt with by the Principal Contractor and, if necessary, the CLP will be updated and reinforced with processes to avoid similar complaints arising.

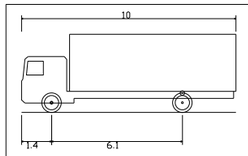
8.9. The Principal Contractor will be responsible for setting up a procedure to receive and act upon complaints. A complaints log will be maintained, and a monitoring system implemented by the contractor throughout the works to ensure that all complaints have been addressed and a satisfactory outcome reached for all parties involved.

8.10. The anticipated procedure for dealing with complaints will be as follows:

- Enter all complaints into a Complaints Register;
- Complainants will be encouraged to leave contact details so that a formal acknowledgement can be issued within 24 hours responding to their query;
- Acknowledge receipts of complaints in writing;
- Evaluate validity of complaints; and
- Once the matter has been investigated and resolved, the Principal Contractor through the Public Liaison Officer will close it out with the person concerned, confirm this in writing and make an appropriate entry in the Complaints Register.

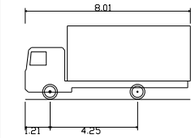
APPENDICES

A. Swept Path Analysis



FTA Design 13/18 Tonne Rigid Vehicle (2016)

Overall Length	10.000m
Overall Width	2.550m
Overall Body Height	3.645m
Min Body Ground Clearance	0.440m
Track Width	2.470m
Lock to lock time	3.00s
Kerb to Kerb Turning Radius	11.000m



7.5t Box Van

Overall Length	8.010m
Overall Width	2.100m
Overall Body Height	3.556m
Min Body Ground Clearance	0.351m
Track Width	2.064m
Lock to lock time	4.00s
Kerb to Kerb Turning Radius	7.400m

Rev	Date	Description	By	Chk
P01	23.03.23	ISSUED	DA	DM

Amendments

Project

Hayes Park

Title

10m Rigid & Box Van Swept Path Analysis

Client

Shall Do Hayes Developments Ltd

waterman

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WIP S0

Designed By: DA	Director: MP	Waterman Ref: WIE19060
Drawn By: DA	Date: 23.03.2023	Scales @ A3: Scale

Project - Originator - Volume - Level - Type - Role - Number: WIE19060-SA-95-0003-P01

Revision: P01

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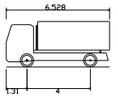
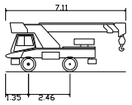


Small Tipper

Overall Length	6.528m
Overall Width	2.500m
Overall Body Height	3.327m
Min Body Ground Clearance	0.327m
Track Width	2.293m
Lock to lock time	6.00s
Kerb to Kerb Turning Radius	7.850m



Small Mobile Crane

Overall Length	7.110m
Overall Width	2.500m
Overall Body Height	2.894m
Min Body Ground Clearance	0.427m
Track Width	2.500m
Lock to lock time	4.00s
Kerb to Kerb Turning Radius	5.800m

Rev	Date	Description	By	Chk
P01	23.03.23	ISSUED	DA	DM

Amendments

Project

Hayes Park

Title

Small Tipper & Small Crane Swept Path Analysis

Client

Shall Do Hayes Developments Ltd

waterman

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WIP S0

Designed By	Director	Waterman Ref
DA	MP	WIE19060
Drawn By	**Date**	**Scales @ A3**
DA	23.03.2023	Scale

Project - Originator - Volume - Level - Type - Role - Number

WIE19060-SA-95-0003-P01

Revision P01

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A3-Wat-ISO-S

Our vision

"Engineering a better environment for people and the planet"

Our mission

"To solve complex problems for the benefit of clients, communities and the climate"

Our values

People orientated

Individually and collectively, people are our business.
We strive to create environments for everyone to flourish and thrive.

Flexible

Pragmatic by nature and dedicated to getting the job done to the highest possible standard.

Professional

Operating at pace with integrity to deliver technical and robust solutions.

Environmentally aware

We understand our responsibility to the environment, it shapes our decision making and informs our practice.

Innovative

Our forensic questioning provides the ability to deliver appropriate innovations at every stage on every project.

Relationship focused

We value individuality and the benefits of working collaboratively to achieve positive outcomes for all.