2022

# Construction Management & Logistics Plan (CMP/CLP)

COLT LON04

KAYSAR ALIM

Beaconsfield Road, Hayes, UB4 0SL

# Construction Logistics Plan for:

# Colt Lon4 London LON04

## 1 INTRODUCTION

| | |
|---|---|
| **Development name:** | LON04, Colt Lon4 |
| **Client/Landowner** | Colt Technology Services Group Limited |
| **Site address:** | Beaconsfield Road, Hayes, |
| **Site postcode:** | UB4 0SL |
| **Existing site use:** | Data Centre |
| **Summary of works:** | The design and build of a Data centre. This consists of a series of portal frame type structures that house 9 data halls. This initial phase of two data halls is limited to a max expected IT load of 5.5 MW, each subsequent phase is expected to be deployed in 6MWr increments |

| | |
|---|---|
| **Construction Logistics Manager:** | James Murphy<br>Construction Services: Datacentres \| ISG<br>James Murphy \| Senior Project Manager \| Datacentres \| ISG<br>Aldgate House, 33 Aldgate High Street, London, EC3N 1AG |
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| Phone number: | +44 7814239124 |
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**CLP Produced by:**

| Name | Signature | Date |
|---|---|---|
| K Alim | | 26/04/2022 |
| | CLP Practitioner ID: | 00446 |

**INTRODUCTION**

ISg Construction has been appointed by Colt Data Centres Ltd to provide construction logistics and management advice for the Development of a Colt Data Centre Services, Beaconsfield Road, Hayes, UB4 0SL in the Borough of Hillingdon. ISg Construction will maintain overall responsibility for the CLP throughout planning, design, and construction. ISg Construction has prepared this CLP to satisfy Condition 21 of planning permission ref. 38421/APP/2021/4045, detailing the management of all freight vehicle movements to and from site during the development.

**1.1 CLP OBJECTIVES**

The overall objectives of this CLP are to:

- Lower emissions.
- Enhance safety - Improved vehicle and road user safety; and
- Reduce congestion - Reduced trips overall, especially during peak hours.

To support the realisation of this objective, several sub-objectives have been agreed upon and include:

- Encouraging construction workers to travel to the site by non-car models.
- Promote smarter operations that reduce the need for construction travel or that reduce or eliminate trips in peak periods.
- Encouraging greater use of sustainable freight modes.
- Encouraging the use of greener vehicles.
- Managing the on-going Development and delivery of the CLP with construction contractors.
- Communication of site delivery and servicing facilities to workers and suppliers; and encouraging the most efficient use of construction freight vehicles.

**1.2 SITE CONTEXT**

The proposal is to include the design and build of a Datacentre This consists of a series of portal frame type structures that house 9 data halls. This initial phase of two data halls is limited to a max expected IT load of 5.5MW. Each subsequent phase is expected to be deployed in 6MWr increments This first phase includes a data hall, gantry where the electrical technical equipment shall be installed and offices. Chillers, pumps and buffer vessels will be located on the roof.

**1.3 DEVELOPMENT PROPOSAL**

An enabling period has been allowed for to set up the site offices and associated works. The infrastructure works will commence immediately after words followed by the piling works

Following the piling works during the enabling period we will move straight onto foundation works and excavation and installation of the underground services site wide will be the first step. It allows the cladding and roofing to be installed on the building and the admin block releasing the mechanical and electrical services to be installed. This is the critical path through to commissioning and practical completion. After the installation of the cladding on the West side we will start with the installation of the steelwork in the gantry area.

## 1.4 CLP STRUCTURE

**Table of contents and figures.**



**The CLP contains the following figures, largely consisting of site plans:**

# 2 CONTEXT, CONSIDERATIONS AND CHALLENGES

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**2.1 POLICY CONTEXT**

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2.1.1. NATIONAL POLICY

The Traffic Management Act (2004)

The act makes 'provision concerning 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.

2.1.2 REGIONAL POLICY

**The London Plan (2021)**

The London Plan 2021 has a variety of policies designed to improve construction logistics, most notably Policy T7. This is d below:

*B) Development Plans, Opportunity Area Planning Frameworks, Area Action Plans and other area-based plans should include freight strategies. These should seek to:*

*1) reduce freight trips to, from and within these areas*

*2) coordinate the provision of infrastructure and facilities to manage freight at an area-wide level*

*3) reduce road danger, noise and emissions from freight, such as through the use of safer vehicles, sustainable last-mile schemes and the provision of rapid electric vehicle charging points for freight vehicles.*

*C) To support carbon-free travel from 2050, the provision of hydrogen refuelling stations and rapid electric vehicle charging points at logistics and industrial locations is supported.*

*E) Consolidation and distribution sites at all scales should be designed to enable 24-hour operation to encourage and support out-of-peak deliveries.*

*I) At large Developments, facilities to enable micro-consolidation should be provided, with management arrangements set out in Delivery and Servicing Plans*.

*J) Development proposals must consider the use of rail/water for the transportation of material and adopt appropriate construction site design standards to that enable the use of safer, lower trucks with increased levels of direct vision on waste and landfill sites, tip sites, transfer stations and construction sites.*

*K) During the construction phase of development, inclusive and safe access for people walking or cycling should be prioritised and maintained at all times.*

*10.7.4*

*When planning freight movements, Development proposals should demonstrate through Construction Logistics Plans and Delivery and Servicing Plans that all reasonable endeavours have been taken towards the use of* ***non-road vehicle modes****. Where rail and water freight facilities are*

*available, Transport for London's freight tools should be used when developing the site's freight strategy.*

*10.7.5*

*Delivery and Servicing Plans should demonstrate how the requirements of the site are met, including* ***addressing missed deliveries****. Appropriate measures include a large letter or parcel boxes and concierges accepting deliveries. Car-free Developments should consider the facilitation of home deliveries in a way that does not compromise the benefits of creating low-car or car-free environments.*

10.7.6

***Construction Logistics and Delivery and Servicing Plans*** *should be developed in line with TfL guidance and adopt the latest standards around safety and environmental performance of vehicles to ensure freight is safe, clean and efficient. To make the plans effective they should be monitored and managed throughout the construction and operational phases of the development.*

The plans should be monitored and managed throughout the construction and operational phases of the Development. TfL's freight tools including CLOCS (Construction Logistics and Community Safety), FORS (Fleet Operator Recognition Scheme) or equivalent should be utilised to plan for and monitor site conditions to enable the use of vehicles with improved levels of direct vision.

This should be demonstrated through a Site Assessment within a Construction Logistics Plan. Development proposals should demonstrate 'good' on-site ground conditions ratings or the mechanisms to reach this level enabling the use of vehicles with improved levels of driver direct vision. To support the procurement of these vehicles and to minimise road danger, the mayor has introduced his Direct Vision Standard, which rates Heavy Goods Vehicles on a star rating from 0 (lowest) to 5 (highest), based on how much the driver can see directly through the cab windows.

**The Mayor's Transport Strategy (2018)**

Freight and servicing are frequently mentioned throughout this document which contains a strategy considering all methods of freight delivery including road, rail, pipeline, water, bicycles, and air. The document especially highlights the importance of DSPs, CLPs and FORS to encourage improved efficiency and provide a framework for incentivisation and regulation.

In particular policies 3,6,9 and 16 and have impacts on construction activity and should be reviewed when undertaking a CLP.

TfL Freight and Servicing Action Plan (2019)

The mayor's key document for improving freight and servicing in the capital sets out a safer and cleaner vision for all freight trips. The vision for construction is set out in Actions one, two and nine which puts safety at the heart of this policy. These policies must be considered when undertaking a CLP.

Fleet Operator Recognition Scheme (FORS)

FORS is a unique, industry-led, membership (bronze, silver, gold) scheme to help van and lorry operators become safer, more efficient, and more environmentally friendly. Its relevance to the CLP is via its mention in the Mayor's Transport Strategy and requirements will be relayed to all operators engaged during the Development.

## 2.2 THREE PLANS AT DIFFERENT SCALES

The following maps show the area around the Development site. Figure 1 shows a regional plan with the location of the site in the context of greater London and the road network. Figure 2 shows the location of the site in relation to the surrounding local area. Figure 3 shows the site boundary plan showing the extent of footways, other buildings, cycle lanes and road markings.

FIGURE 1: REGIONAL PLAN 1:50,000

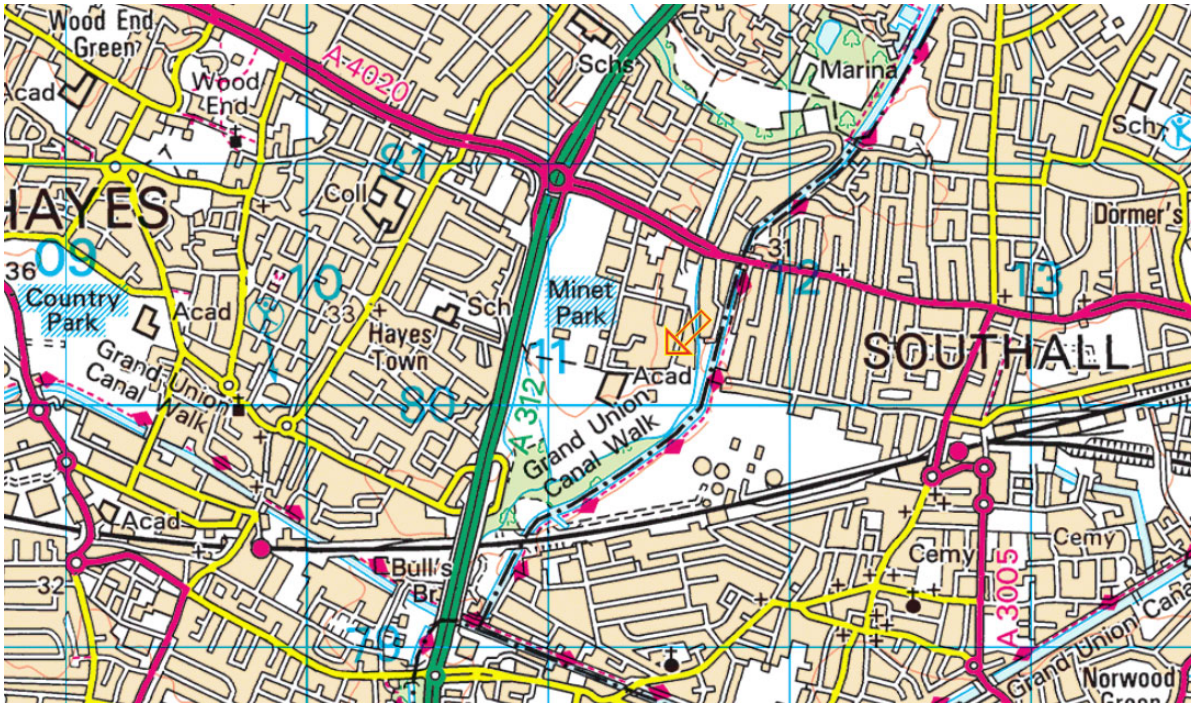


FIGURE 2: LOCAL CONTEXT PLAN 1:2,500

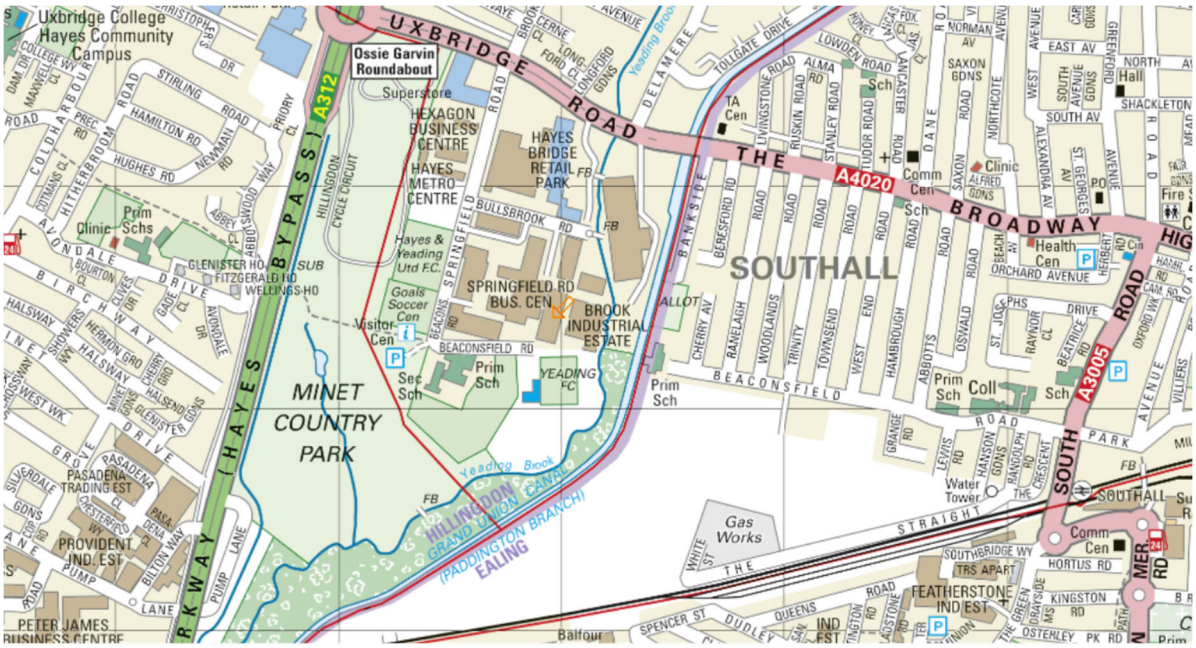
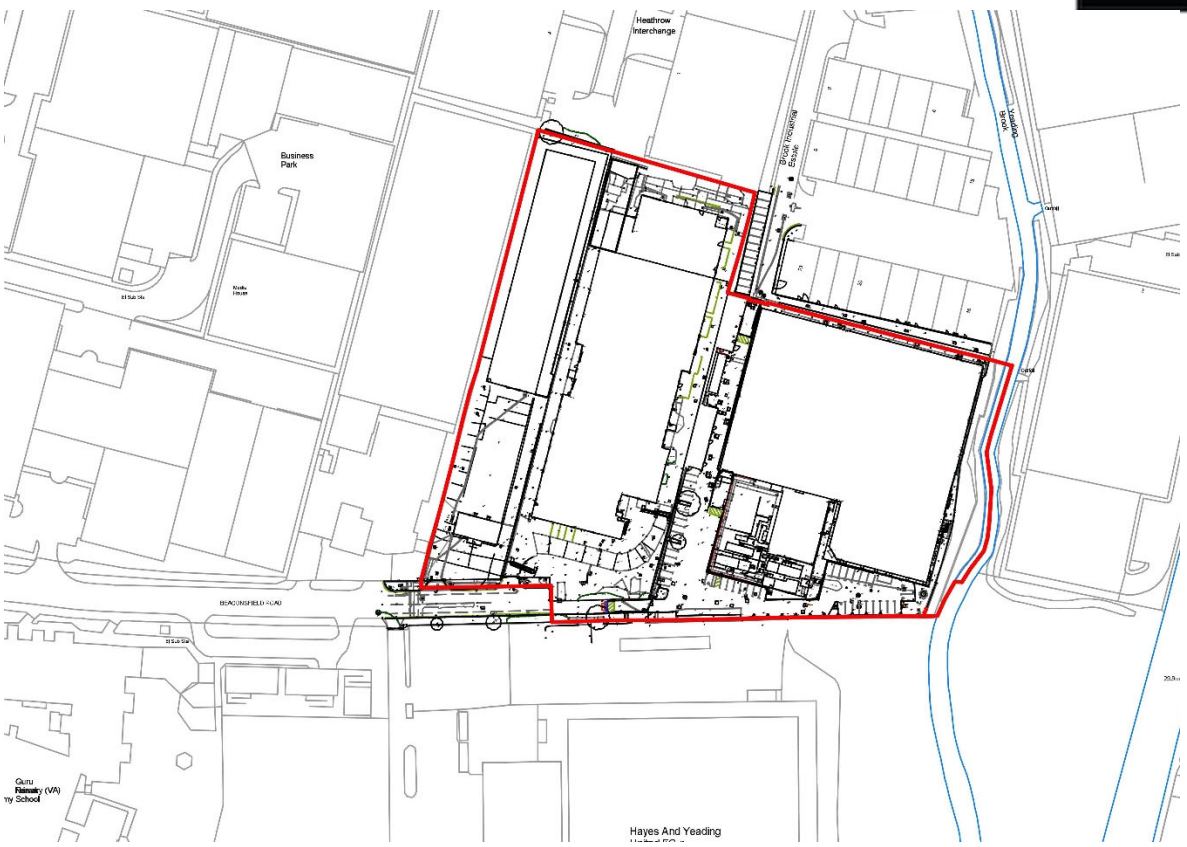



FIGURE 3: SITE BOUNDARY PLAN




## 2.3 LOCAL ACCESS INCLUDING HIGHWAY, PUBLIC TRANSPORT, CYCLING, WALKING AND WATERWAYS

2.3.1. HIGHWAYS, CARRIAGEWAYS AND FOOTWAYS

Colt Lon4 site is situated on Beaconsfield Road. Beaconsfield Road leads onto Site gates and presents some limitations to access. Beaconsfield Road intersects with Springfield Road to the western elevation. Beaconsfield Road is a two-way traffic single lane road.

The majority of vehicular access will lead on from off Springfield Road (shown in Figure 6). However, during school peaks/event days the North entrance to the site will be utilised servicing as a holding point and vehicle checkpoint prior to arriving at the site gates.

Currently, it is not envisaged that the following Traffic Regulation Orders will be required during the Development of the apartment. Note: Access to neighbouring properties will be maintained at all times.

2.3.2. RAILWAY/UNDERGROUND

The Nearest transport system to Colt Lon4 is Hayes & Harlington Station, the site can also be serviced by Southall Station on the Great Western Railway or TfL Railway. This is envisaged as the main form of operative transport to the project.

2.3.3. BUS ROUTES

Nearby bus route 90, 140, E6, on Coldharbour Lane, Stop U alighting at Precinct Road. Routes 207 & 427 from Southall alighting at Stop I on Alexandra Avenue.

In addition to the above bus routes. ISg will investigate, supplementing the above routes with electric/hydro fuelled shuttle busses provided for the operative from a nominated station during peak hours.

2.3.4. CYCLING

The cycle route on the development is approximately 8-10mins from either Southall Railway station or 9min from Hayes & Hillingdon Railway. The cycle awareness will be communicated to the contractors arriving and delivering to the project.

The option to provide e-bikes, bike hire or ride on scooter facilities will be explored.

2.3.5 WATERWAYS

Yeading Brook off the River Crane leading off the Thames tributary. The site lies a mile from the Bull's Bridge junction. Due to the size and nature of the re-Development utilising the waterways for the project does not lend itself well to a feasible solution as a form of material/waste transportation. However, the workforce will be notified of Thames waterway transport services, which may be used as means of operative transport.

2.4 COMMUNITY CONSIDERATIONS

Colt Lon4 has been identified as a development in the London Borough of Hillingdon that presents particular issues and challenges. As a general rule, before work commencing on each stage of the Development, the ISg Management will contact the London Borough of Hillingdon's Highways Division and the Pollution Control Team, to:

- agree on the scope of the '**Scheme of Protective Works'** to be submitted; and
- identify the scope of community liaison and consultation.

ISg Construction intends to conduct 'Best Practicable Means' (BPM) and create a 'Scheme of Protective Works' for protecting neighbours. As part of this Scheme, we will liaise and consult with our neighbours to minimise the environmental impact of our works.

These have been fully considered below. Planned measures to mitigate any potential conflicts or challenges are discussed in Section 5.

2.4.4. SCHOOLS & HOSPITAL

Guru Nanak Sikh Academy is a mixed Sikh all-through school and sixth form. It is located on Beaconsfield Road within the immediate vicinity that might be affected by the proposed works at Colt Lon. The nearest Emergency Services Division (ESD) or Accident & Emergency is located at **Hillingdon Hospital** this situated north-west of the project approximately 4miles away. Pield Heath Rd, Uxbridge UB8 3NN

2.4.5. PUBLIC RELATIONS

A Community Liaison Officer will be appointed to mitigate and resolve any issues and difficulties in the local community. A key aspect of the successful management of this project will be establishing and maintaining a good relationship with all the surrounding neighbours. This CLP has prepared a strategy for preventing potential issues, however, any difficulties encountered during construction will be reported/recorded in a full log and resolved through the use of a 24 hour-staffed telephone line and liaison committee meetings.

Good Neighbour Policy

The main contractor will subscribe to the "Considerate Contractors Scheme" and adhere to the guidelines set out by the scheme.

Community liaison will take place with residents to best accommodate their needs, confining disruptive works within the standard hours to short periods and avoiding particular times in their schedules wherever possible. It is not anticipated that significant amounts of dirt or dust will be spread onto the public highway. Adequate wheel washing facilities with with robust dust suppression techniques will be adopted.

The Policy To minimise any affect/impact to the local residents, businesses alike. The main contractor will endeavour to ensure that affected parties are fully informed in advance of known activities which may cause inconvenience.

Communication and liaison with these parties will be established prior to works commencing and will
be ongoing throughout the project to ensure good relations are maintained. Contact details and information bulletins will be displayed on the site hoarding along with the adequate signage.

Particular emphasis will be placed upon maintaining the safe movement of the public and vehicles within Colt Lon4.

This project will review the Considerate Constructors' Scheme. A single point of contact will be established, and a liaison officer appointed.

- Before commencing on site, he will contact all adjacent establishments to introduce himself and to establish a point of contact for future liaison.
- He will brief them on the nature of the project and highlight specific areas that may impact them.
- He will listen to their concerns and endeavour to understand their daily routines and activities to identify any areas of potential conflict.
- He will arrange and chair regular liaison meetings with adjoining property representatives.
- We will co-ordinate our working activities to minimise or eliminate the inconvenience or disruption caused to the general public or neighbouring properties.
- Signs will be placed on the hoarding giving the names and contact numbers for relevant personnel.
- Regular inspections of the access route and perimeter of the site will be conducted to ensure that obstructions are not created, and a clean, efficient presentation is maintained.
- Newsletters will be produced at key stages of the Development for distribution to members if required. This will advise of our forthcoming programme of activities and status of the construction works
- A comments/complaints log will be maintained on-site, and any comments received will be positively actioned as they arise.

We appreciate that our presence can from time to time affect the routine of the surrounding neighbours. However, our experience of operating on such projects has shown that this system of keeping people informed works well and others are more likely to be tolerant of the "building site" as a result.

We are particularly keen to uphold Planning Conditions and environmental requirements, keep a tidy and clean site and ensure that access roads are unobstructed.

# 3 CONSTRUCTION PROGRAMME AND METHODOLOGY

**CONSTRUCTION PROGRAMME PHASES**

3.1. SITE SETUP

Hoardings and Security

Site security is extremely important, and it is imperative that the site is secure at all times. This will be achieved by the erection of a fully sheeted, plywood hoarding for site waste and storage on Colt Lon4, together with a dedicated access point. We shall arrange for all personnel to arrive at the main site entrance off Beaconsfield Road. A single entry and exit point for all personnel will be established with an induction holding area. These swipe card passes will only be issued after the recipient has been through a site induction process, during which the fundamental safety aspects of the project are communicated.

Pedestrian footpaths surrounding the site will remain open at all times with appropriate signage clearly visible. At the end of each working day the site will be given a final patrol and then secured.

We would not anticipate providing a twenty-four-hour manned security regime throughout the project; however, this may be appropriate during the final stages when fitting out is progressing.

Accommodation

The site office and welfare accommodation will be established within the site parameters.

Site Operation Hours
Works will take place during the standard working hours of working set out in LB of Hillingdon's Minimum Requirements for Construction sites. The general site working hours will be

Site hours (in accordance with LBH)

- Monday – Friday: 08:00 to 18:00
- Saturday: 08:00 to 13:00

Demolition and construction hours

- Monday – Friday: 08:00 to 18:00
- Saturday: 08:00 to 13:00

School time restriction will be adhered to; hence no deliveries will be permitted between peak hours of 08:30-09:15 and 14:50 -15:30

These hours must be updated once the Planning Conditions with Hillingdon have been discharged

Quiet works

No works audible at the site boundary are permitted before or after the above noted site hours. All noise levels must adhere to those stipulated within the Section 61 Agreement

Noisy works will be controlled using the hierarchy of risk control and measured using noise monitoring equipment to ensure safe levels are not compromised and noisy work hours are not breached. In all noisy work cases substitution of equipment for machines or processes which reduce

the noise levels to acceptable levels and therefore minimise the impact on both site personnel and the general public will be used. Where this is not possible Construction controls will be employed utilising such control measures as baffles and 'noise screens.

Every effort should be made to reduce the noise at source. Only if all methods have failed to reduce the noise to an acceptable level (i.e.,85 dB(A) average over an 8-hour working shift). Ear defenders will be considered and anyway in accordance with current regulations.

Ear defenders should be regarded as the last line of defence and should be suitable for the job and for the person who has to wear them. The Subcontractor is to erect appropriate signage as required to inform interfacing Subcontractors of any noisy zones of the site.

Out of hours must complete the weekly out-of-hours request form and submit for approval to LBH. ISg Construction require the aforementioned forms to be submitted by no later than 13.00 each Thursday for works taking place the following week.

ISG (including ISG supply chain) will be responsible for the logistics management and coordination of all its activities and those of the Sub-contractors and suppliers including:

- All logistics activities on site
- All logistics activities to deliver the works
- All movement of all Equipment, Plant and Materials and people to and from the Working Areas.
- The removal and treatment of all waste and excavated material.
- The coordination of all logistic activities with all parties & Subcontractors on site, including any Client artisans and tradesmen requiring access to site.

ISG shall ensure that the safe delivery of plant, equipment and materials, with the priority being people working on the project, the public, visitors and other associated personnel. All subcontractors are to comply with the requirements of this Logistics Plan that may be updated and revised from time to time to suit the Project requirements.

The appointed contractor will dampen down before sweeping the roads and footpaths on the local highway network as required on a daily basis in so far as is reasonably necessary to remove any spoil or debris deposited on the highway resulting from the construction period. Visiting road sweepers may be deployed at regular intervals or as determined by the project.

Waste will be stored in enclosed skips and containers. Any fine materials will be stored within container units. Site management inspections will include the monitoring of all internal and external pavements and public highways surrounding the site.

Deposits will be removed from the pavement and highway that may constitute a safety hazard. This would be done manually or through the use of mechanical sweepers if necessary.

Noise, Dust and Smoke Control

Trade contractors are to ensure that their activities do not produce any excessive amounts of noise, dust or smoke.

To monitor and control noise Class 2 rated devices that are be able to measure LAeq,t (Monitoring average noise) level over a period of time. The sound level meter will also be able to measure the highest level and this will be recorded as the Lmax or Maximum Hold. These will integrate logging sound level meters as are usually required by Local Authorities. Ensure

that calibration is up to date and verified before, during and after all noise monitoring assignments.

Vehicle movements from the loading and unloading of replacement waste skips and containers and servicing of the project will be infrequent but may also cause the generation of noise and dust.

The logistics contractor will provide all required waste receptacles, dispose of the collected waste, and be responsible for the housekeeping of all 'common' areas – corridors, walkways, escape routes, stair-cores and fire escapes – leaving the work areas (floor plates) as the responsibility of each contractor.

Segregation is detailed further into this procedure, but we would assess the amount of space available on the floor levels – to assess the amount of on-floor segregation achievable.

As a minimum, we would segregate metals / plasterboard / packaging on the floors and conduct further segregation in the central compound area – and at the recycling centre (off site).

project's registration for the Considerate Constructor Scheme for the duration of the works.
All complaints received from the general public; local businesses will be reported.

Details of any accidents will be logged together with the measures implemented to prevent any reoccurrence or reason given if not attributable to construction activities at Colt Lon4 Project.
This log will always be available for inspection by the Client, Principle Designer, Company Health & Safety Advisers and Considerate Constructor

AQDMP
Air Quality and Dust Management Plan (AQDMP) that includes related Risk Assessment will be produced in accordance with current guidance The Control of Dust and Emissions during Construction and Demolition, in line with Supplementary planning guidance (GLA, July 2014) for the existing site and the proposed development will be produced, based on these findings any reported mitigation measures will be implemented and a scheme developed to control pollution. Construction activities will be identified as having the greatest potential for dust generation and requiring significant $NO^X$ monitoring equipment.

Noise, Dust and Smoke Control
Trade contractors are to ensure that their activities do not produce any excessive amounts of noise, dust or smoke. To monitor and control noise Class 2 rated devices that are be able to measure LAeq,t (Monitoring average noise) level over a period of time. The sound level meter will also be able to measure the highest level and this will be recorded as the Lmax or Maximum Hold. These will integrate logging sound level meters as are usually required by Local Authorities. Ensure that calibration is up to date and verified before, during and after all noise monitoring assignments. Vehicle movements from the loading and unloading of replacement waste skips and containers and servicing of the project may also cause the generation of dust.

Vibration Control

Vibration is a particular risk during the demolition and piling phases. The measures taken to reduce the acoustics of these two operations will also assist in mitigating the effects of vibration on neighbours, their property and the existing building to be retained.

A digital seismograph measuring device may be used to measure the amount of vibration produced during the piling and excavations works. Where elevated levels are recorded the

source will be investigated and, where possible, alternative techniques employed to reduce the levels

The works on site will be carried out in accordance with BS 5228-1: 2009, A1:2014 and the best practice means will be employed to minimise noise and vibration generated from site activities.

Waste Management Strategy

In summary Alandale will provide all required waste receptacles, dispose of the collected waste, and be responsible for the housekeeping of all 'common' areas – corridors, walkways, escape routes, stair-cores and fire escapes – leaving the work areas (floor plates) as the responsibility of each contractor.

Segregation is detailed further into this procedure, but we would assess the amount of space available on the floor levels – to assess the amount of on-floor segregation achievable.

As a minimum, we would segregate metals / plasterboard / packaging on the floors, and conduct further segregation in the central compound area – and at the recycling centre (off site).

The initial aspect of this service will be the production of a waste management plan – this will outline the methods and procedures that will be employed to ensure an effective and efficient waste management service is implemented.

Alandale will hold enough bins to ensure that when full bins are collected, that empty one are always put in place for use – and this is conducted on a 'milk round' basis. Once the bins are emptied they would be returned to the floors ready for reuse.

This routine can be scheduled daily, twice daily, every two or three days, (whatever suits the project and the progress of the works in each particular area) – and this will be assessed by the waste management team.

We have assumed at present that sufficient lift time will be afforded to the waste management operations for the movement of bins from upper levels. We have assumed that there will be no carrying out of waste management operations out of hours due to noise / working restrictions.

A central skip area is also proposed (within the central compound) to allow further segregation of wastes – to attain the 95% diversion from landfill.

**Wastes normally controlled by Alandale– General Outline**

- Metals (stud/track)
- Timber (off-cuts etc.)
- Flooring (off-cuts etc.)
- Packaging; paper, cardboard, polystyrene, polythene
- Plastics
- Ceramics
- Glass
- Insulation (rockwool)

- Cabling (timber cable drums are considered returnable by the contractors)
- General site debris.

All timber and metal crates, stillages and pallets are considered re-usable, and contractors should be encouraged to return them to their suppliers / dispose of them individually.

Alternatively, if the contractors break the timber pallets down, then we would dispose of them on their behalf.

We would police the waste segregation and the disposal of pallets by a system of contractor labelling and if necessary, issue a contra charge to the contractor for them to dispose of the pallets themselves.

Crane Management

All lifting operations should be planned so they are carried out safely with foreseeable risks taken into account. The person appointed to plan the lifting operation should have adequate practical and theoretical knowledge and experience of the lifts being undertaken.

The plan will need to address the risks identified by a risk assessment, the resources required, procedures and the responsibilities so that any lifting operation is carried out safely.

The plan should ensure that the lifting equipment remains safe for the range of lifting operations for which the equipment might be used. British Standard BS 7121Part 1 2006 sets out an acceptable standard for managing lifting operations using cranes on construction projects.

safe system of work and this information should be recorded. This record is sometimes known as a method statement, and you must ensure that everyone involved understands it.

Planning:

planning – including site preparation, crane erection and dismantling; selection, provision and use of a suitable crane and work equipment including safe slinging and signalling arrangements; maintenance and examination of the crane and equipment; provision of properly trained and competent personnel; supervision of operations by personnel having the necessary authority; thorough examinations, reports and other documents; preventing unauthorised movement or use of the crane; and measures to secure safety of persons not involved in the lifting.

Supervision of lifting

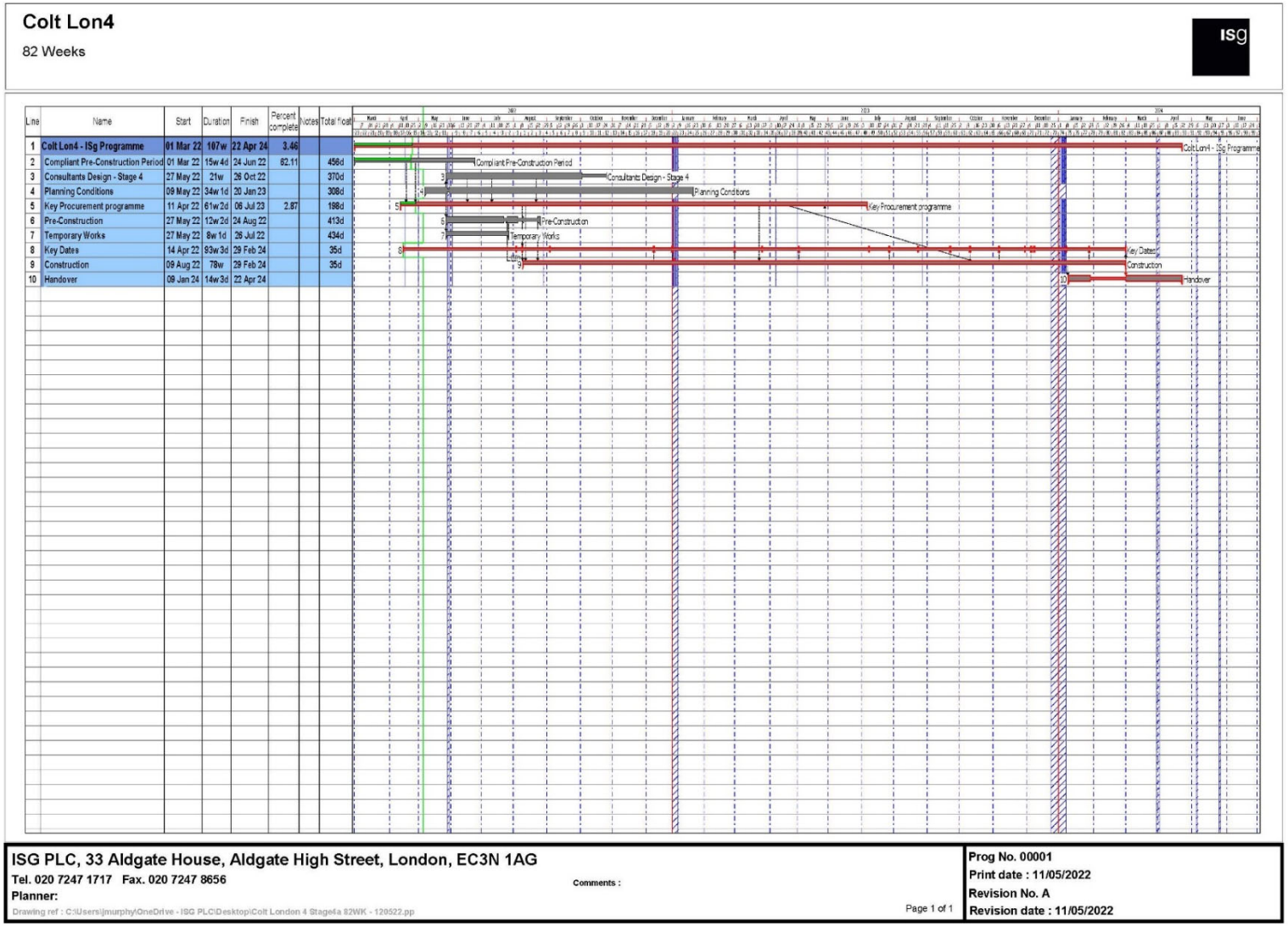
The right level of supervision must be in place for lifting operations, reflecting the degree of risk and personnel involved in the lifting operation.

The crane supervisor should direct and supervise the lifting operation to make sure it is carried out in accordance with the method statement.

The crane supervisor should be competent and suitably trained and should have sufficient experience to carry out all relevant duties and authority to stop the lifting operation if it is judged dangerous to proceed.

Figure 4: CONSTRUCTION PROGRAMME (Outline)

The project is now due commence in August 2022 completion June 2024



## 4 VEHICLE ROUTING AND SITE ACCESS

The following maps show the area around the Development site. Figure 5 shows a regional rote plan with of London Borough of Hillingdon. Vehicle routes follow the Road Network until the final approach to the site where local roads are used for access. Figure 6 shows vehicle routes to the site. Figure 7 shows the site boundary plan and extent of the Development, Vehicle tracking into and out of the site has also been included to show the safe manoeuvring of vehicles into and out of the site.

FIGURE 5: REGIONAL PLAN


FIGURE 6: LOCAL VEHICLE ROUTE

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FIGURE 7: SITE BOUNDARY PLAN

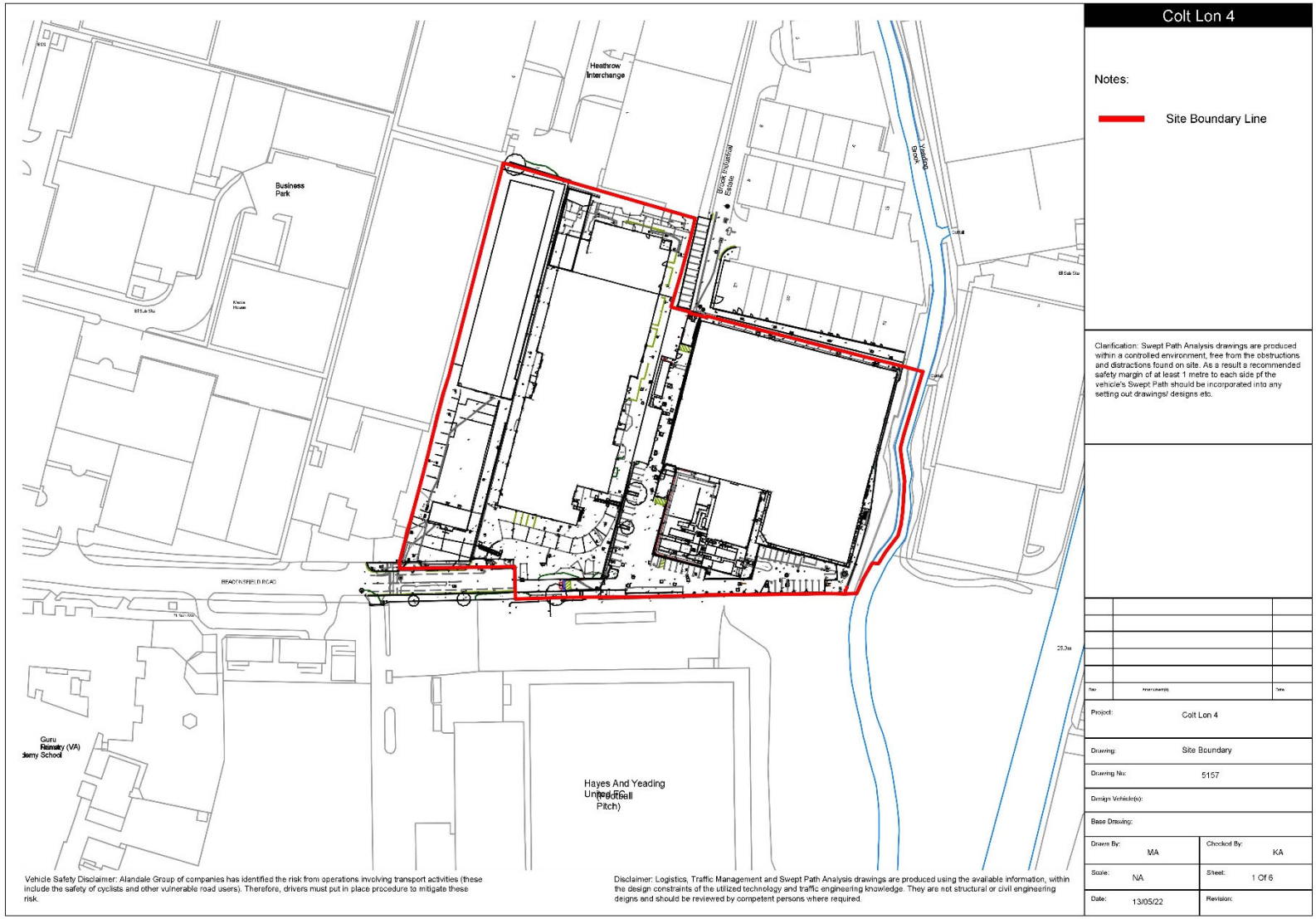


FIGURE 8: LOGISTCS PLAN

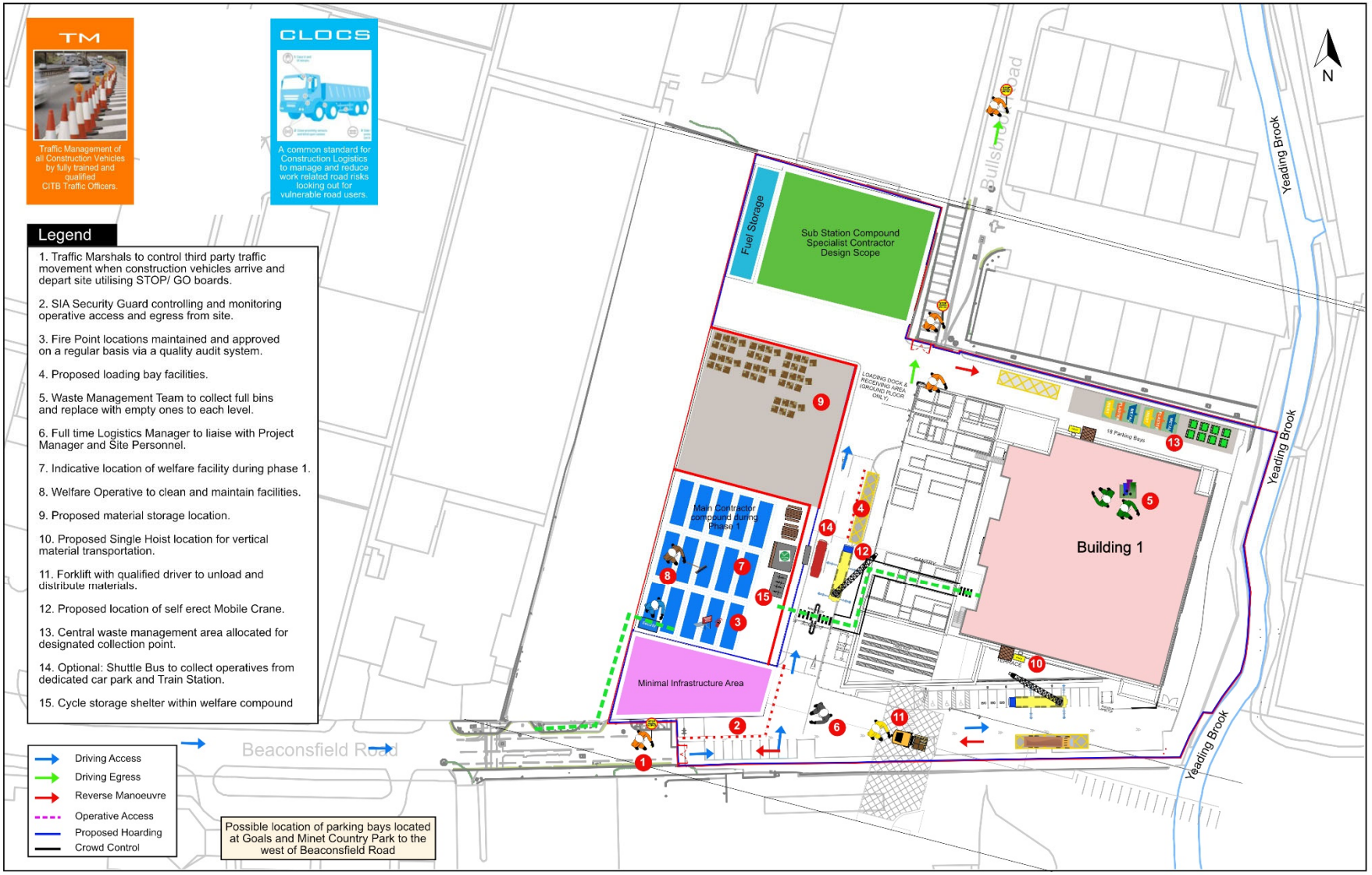


FIGURE 9 & 10: VEHICLE SWEPT PATHS 16.5m Articulated Lorry

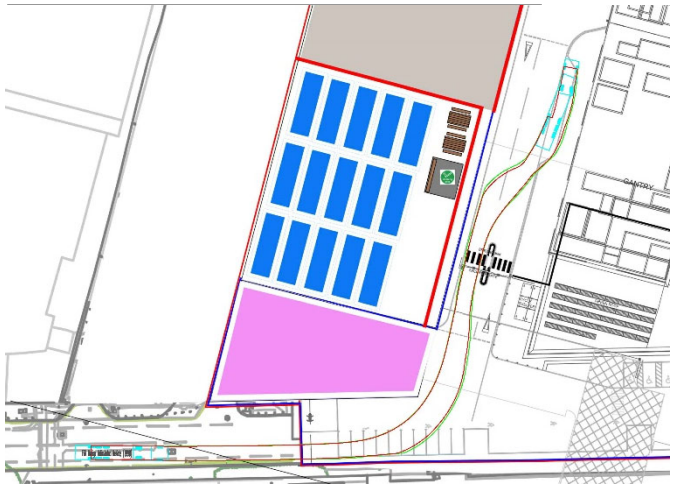


**Figure 9:** Vehicle reversing into Colt Lon4 off Beaconsfield Road.

**Figure 10:** Vehicle driving forward out via Brook Industrial Estate.

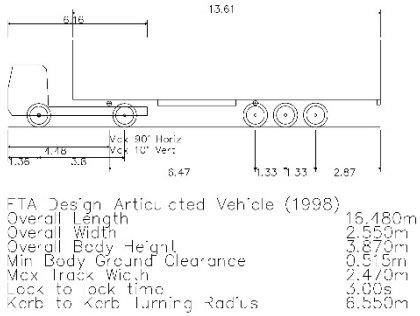
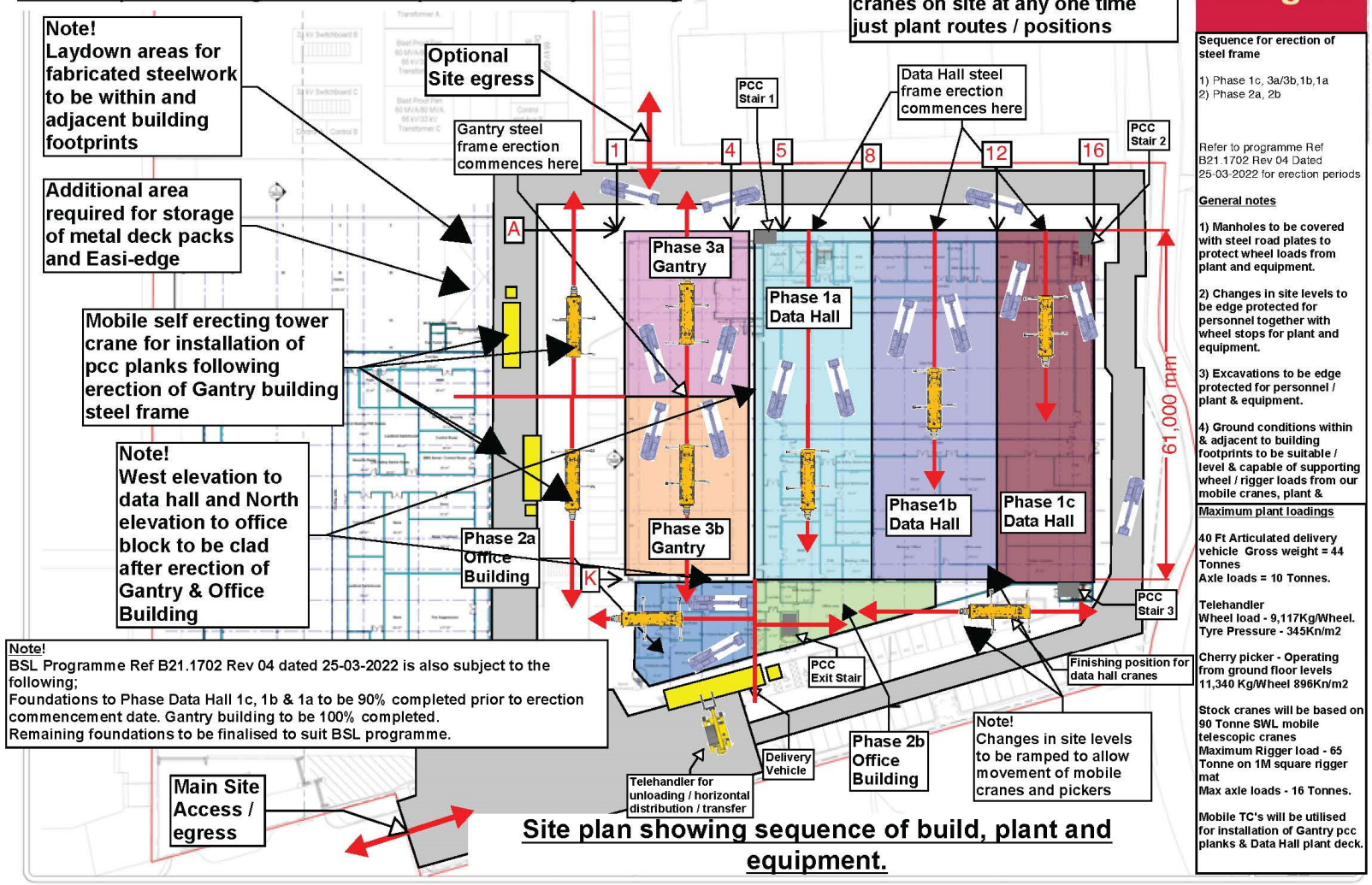



**Figure 11:** Vehicle Profile

# B21. 1702 LON4 Hayes Data Centre - JFMB Rev 08 Dated 24-03-2022

## Build Sequence & Logistics - PCC Option to Gantry Building




**Site plan showing sequence of build, plant and equipment.**

billington

**Sequence for erection of steel frame**

1) Phase 1c, 3a/3b,1b,1a
2) Phase 2a, 2b

Refer to programme Ref B21.1702 Rev 04 Dated 25-03-2022 for erection periods

**General notes**

1) Manholes to be covered with steel road plates to protect wheel loads from plant and equipment.

2) Changes in site levels to be edge protected for personnel together with wheel stops for plant and equipment.

3) Excavations to be edge protected for personnel / plant & equipment.

4) Ground conditions within & adjacent to building footprints to be suitable / level & capable of supporting wheel / rigger loads from our mobile cranes, plant &

**Maximum plant loadings**

40 Ft Articulated delivery vehicle Gross weight = 44 Tonnes
Axle loads = 10 Tonnes.

Telehandler
Wheel load - 9,117Kg/Wheel.
Tyre Pressure - 345Kn/m2

Cherry picker - Operating from ground floor levels
11,340 Kg/Wheel 896Kn/m2

Stock cranes will be based on 90 Tonne SWL mobile telescopic cranes
Maximum Rigger load - 65 Tonne on 1M square rigger mat
Max axle loads - 16 Tonnes.

Mobile TC's will be utilised for installation of Gantry pcc planks & Data Hall plant deck.

## STRATEGIES TO REDUCE IMPACTS

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.

| Higher impact Site 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 | | ✓ | |
| Vehicle choice – " ***proposals for utilising vehicles with greater payloads to reduce vehicle movements and improve safety, efficiency and environmental impact but only if those vehicles meet the highest environmental and safety standards."*** | | | ✓ |
| **Measures to encourage sustainable freight** | | | |
| Freight by water* | n/a | | |
| Freight by rail* | n/a | | |
| **Material procurement measures** | | | |
| DfMA and offsite manufacture | | | ✓ |
| Re-use of material on site | ✓ | | |
| Smart procurement | ✓ | | |
| **Other measures** | | | |
| Collaboration with other sites in the area | ✓ | | |
| Implement a staff travel plan | | ✓ | |
| | | | |

* If site, consolidation centre or holding areas are within 100m of foreshore of navigable waterway or rail freight siding.

## MEASURES INFLUENCING CONSTRUCTION VEHICLES AND DELIVERIES

### 5.1.1. Measures influencing construction vehicles and deliveries.

**Vehicular / Pedestrian Segregation**

Regulation 27 of the Construction (Design and Management) Regulations 2015 Regulations requires that A construction site must be organised in such a way that, so far as is reasonably practicable, pedestrians and vehicles can move without risks to health or safety.

Traffic routes must be suitable for the persons or vehicles using them, sufficient in number, in suitable positions and of sufficient size. Pedestrians or vehicles may use it without causing danger to the health or safety of persons near it;

any door or gate for pedestrians which leads onto a traffic route is sufficiently separated from that traffic route to enable pedestrians to see any approaching vehicle or plant from a place of safety; there is sufficient separation between vehicles and pedestrians to ensure safety or, where this is not reasonably practicable.

It is recommended that pedestrians and vehicles should not, wherever practicable, share access/egress points or circulation routes. Therefore, wherever vehicles and pedestrians/cyclists are required to utilise adjacent access into Colt Lon4 project. The vehicular and pedestrian routes will be isolated from site Pedestrians by the use of designated pedestrian routes.

This arrangement satisfies the requirements but will be reviewed as the project proceeds to ensure that any construction activity does not present any additional risks. Should any additional risk be subsequently identified then appropriate action will be taken to eliminate or minimize such risk.

The following measures will be introduced to make both pedestrians and vehicles aware of each other around the site.

•Traffic Marshals to ensure safe access/egress from Colt Lon4.

•All Traffic Marshals are to have appropriate training with Elite marshal recognition will wear orange hi-visibility vests / jackets, trousers, and helmets. (Vest and jackets require full length sleeves).

•A strict, No parking or mounting of adjacent kerbs will be adopted for the purpose of waiting, loading, or offloading of materials/equipment/plant.

•Signage to warn pedestrians on the public areas of site entrances and fire exits to the public realm. External signage and directional notices will be in agreement with LBH highway dept.

•No uncontrolled pedestrian traffic to be allowed through site areas.

Neighbours

The area around the site has several potentially highly populated public interfaces which attract many pedestrians to the area on event days. These include:

- Hayes & Yeading United FC
- Brook industrial Estate
- West London Film Studios
- Guru Nanak Sikh Academy Gurdwara

- Goals Hayes
- Minet Country Park

All of these combines to raise the risk profile of the site in relation to vulnerable road users. In order to reduce work related road risk (WRRR) the following principles are to be adopted:

The site will adhere to and ensure CLOC's compliance

- Cycle safety mitigation plans.
- Traffic Routing

All delivery arrangements will be given time slots to reduce the risk of congestion and potential collisions in the vicinity of the site.

Fleet operators shall inform drivers of site access/egress constraints to ensure they are aware of the specified route, the circumstances (if any) of deviating from the route and the resulting consequences of not adhering to the route.

Cycle Awareness / Training

All employees that cycle to work are encouraged to undertake a cycle awareness training.

Fleet operators shall ensure that all drivers undergo approved progressive training and continued professional development specifically covering the safety of vulnerable road users.

**Vehicles**

All supplier and subcontractor vehicles above 3.5 tonnes delivering to ISg Management project must achieve equal or equivalent to FORS Silver Standard. Any vehicle that does not meet this standard will be turned away from our projects. Vehicles should clearly display the FORS Silver badge at arrival to the site entrance.

In addition, all vehicles over 3.5 tonnes must be fitted with audible warnings to indicate that the vehicle is turning left or reversing.

Vehicles will enter the site off Beaconsfield Road by prior agreement/booking via the on-line booking system. ISg Management will deploy a trained marshal who will be responsible for marshalling delivery vehicles from the highway into the site and respective pit-lane. Marshals will be responsible for receiving the and for supervising the unloading of their vehicles. traffic marshals will have the relevant training, in line with the CLOCS requirements.

The logistics team will check vehicles against the daily delivery schedule; these are issued by the Logistics Manager from the delivery management system, to confirm that the vehicle is as scheduled. Vehicle drivers must stay with their vehicles at all times. Signage showing site rules for drivers will be posted and verbally advised to the driver by the banks person/security prior to them entering site.

Where reversing of vehicles is unavoidable for vehicles accessing or leaving site, such manoeuvres will be kept to a minimum and consideration given to, amongst others, the space required for

completing such manoeuvres, the exclusion of personnel from the area and the supervision, direction and control afforded to the manoeuvre. All reversing is to be supervised by a suitably trained and competent banks person, supplied by the appropriate sub-contractor, with hi visibility clothing denoting their role as a banksman on site.

It is incumbent upon the sub-contractors to ensure that the delivery vehicles are briefed on the vehicular access route to site and that the vehicles are to a satisfactory standard of road worthiness. All vehicles entering ISg Management sites are to be in accordance with the CLOCS standard and must be registered with FORS (Silver accreditation). Any vehicles found to be non-compliant will be removed from site prior to off-load commencement.

Numerous types of vehicles, plant and equipment will be used to bring/move materials to and from the Site. These include skip lorries; muck-away lorries, ready mix concrete lorries; flatbed delivery vehicles and articulated lorries, Excavators, Cranes, Forklifts trucks, Breakers, Piling plant and earth moving plants.

All freight vehicles travelling to the site shall be low emission vehicles where feasible, and regular fleet maintenance shall take place in order to reduce emissions. Additionally, all deliveries of materials, plant and equipment will be strictly controlled and co-ordinated to prevent congestion and disruption to traffic.

**Delivery scheduling**

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.

It is acknowledged that due to surrounding network constraints Colt Lon4 may limit the access/egress of delivery vehicles to and from the project.

Load/unload times are not expected to last longer than 1-2 hours. The site is expected to receive approximately 1-5 deliveries/hour. These will be communicated at local resident's meetings. Giving a look ahead for future deliveries where possible.

Re-timing for out of peak deliveries

Re-timing out of peak time will aid the operational efficiency of the construction site and also the neighbouring area. The ISg Management commits to attempting to re-time as many deliveries as possible out of the morning and afternoon peak. Hence, all deliveries will be blocked out on the booking system at the ties detailed above.

Use of logistics and consolidation centres

An efficient and effective logistical operation is of high importance to ISg Management and therefore we will strongly encourage the use of a consolidation service. The final decision will be made when a contractor is appointed.

If procured the intention is that the service be available to all sub-contractors and utilised to provide storage space ahead of onward delivery to the site in accordance with the scheduled or revised delivery programme. The use of a CCC will ensure all vehicles arriving at site can achieve an aim of 65% full loads or greater. The advantages of using such a service will be reduced on-site storage requirements, reduced quantity of vehicle movements with mixed load delivery to the project and a smoothing of peak demand for off-load bays and hoist/lift facilities to the project. A CCC will also allow deliveries to be 'just-in-time' and therefore reduce the likelihood of damage to materials.

5.1.2. MEASURES TO ENCOURAGE SUSTAINABLE FREIGHT

Freight by Water

River Thames lies over 150m away to the east of the site location. The option of transporting material by water on this route is a possibility, however this will still require a means of transporting by crane and/or lifting devices to the site. Due to the size and nature of the location using the waterways for the project does not lend itself well to a feasible solution, nor as a form of material/waste transportation away from site.

Freight by Rail

Initial discussion on the possibility of using the underlying rail line as a freight network has not been considered as solution.

### 5.1.3. MATERIAL PROCUREMENT MEASURES

Design for Manufacture and Assembly and off-site manufacture

Reducing delivery numbers and effective delivery management is a core value of this Development. Therefore, the option of off-site assembly will be discussed upon the appointment of a contractor and used where possible.

Re-use of material on site

A number of measures will be explored to re-use material on site. These will be decided upon in agreement with our contractor. For instance, the piles are proposed to be formed of deconstructed site material from the previous Development where possible. The welfare facilities will be recycled from a completed site. These are proposed to recycle material to decrease environmental impacts and also to reduce the number of vehicles required to deliver to the site.

Smart procurement

ISg Management will explore suppliers in the procurement stage that use water or rail freight (but the road for the last mile), as well as sourcing local suppliers to contribute to the local economy. We will also explore opportunities to source materials from nearby Builders Merchants and those in close proximity to this site.

### 5.1.4. OTHER MEASURES

**Collaboration amongst other sites in the area**

The ISg Management contractor will consult with the LBH, TfL, and another contractor/supply chain in the area to minimise disruption and undertake joint trip generation analysis. We are not aware of any neighbouring projects, however, should this arise we/the appointed contractor will be keen to pursue the possibility of collaborating on holding areas and shared services when their works schedule is known.

**Implement a staff travel plan**

There will be no on-site parking provided for construction worker's vehicles. Restrictions will also be imposed to prevent on-street parking. As there are good transport options available, travel by public transport will be strongly encouraged.

The use nearby parking facilities at the Leisure centre, Minet County Park and Hayes & Yeading FC can be utilised as required for the various phases of the project.

# 6 ESTIMATED VEHICLE MOVEMENTS

The number of vehicles accessing the site has been estimated according to each of the 6 stages of construction. Our construction expertise has been applied to the proposed programme and construction methodology tool to develop the estimates below. The estimated number of trips are summarised in Table 2 and Figure

10.ESTIMATED CONSTRUCTION VEHICLES – MONTHLY AND DAILY

| Construction Stage | Period of stage | No. of trips (monthly) | Peak no. of trips (weekly) |
|---|---|---|---|
| Enabling, Site Infrastructure, Foundations & Substructures | Apr 2022 - Oct 2022 | 120 | 22 |
| Super-structure | Aug 2022 – March 2023 | 1800 | 64 |
| Fit-out, testing and commissioning. | Apr 2023 – Dec 2023 | 650 | 118 |
| Peak period of construction | Aug 2022 – Jun 2023 | 880 | 160 |

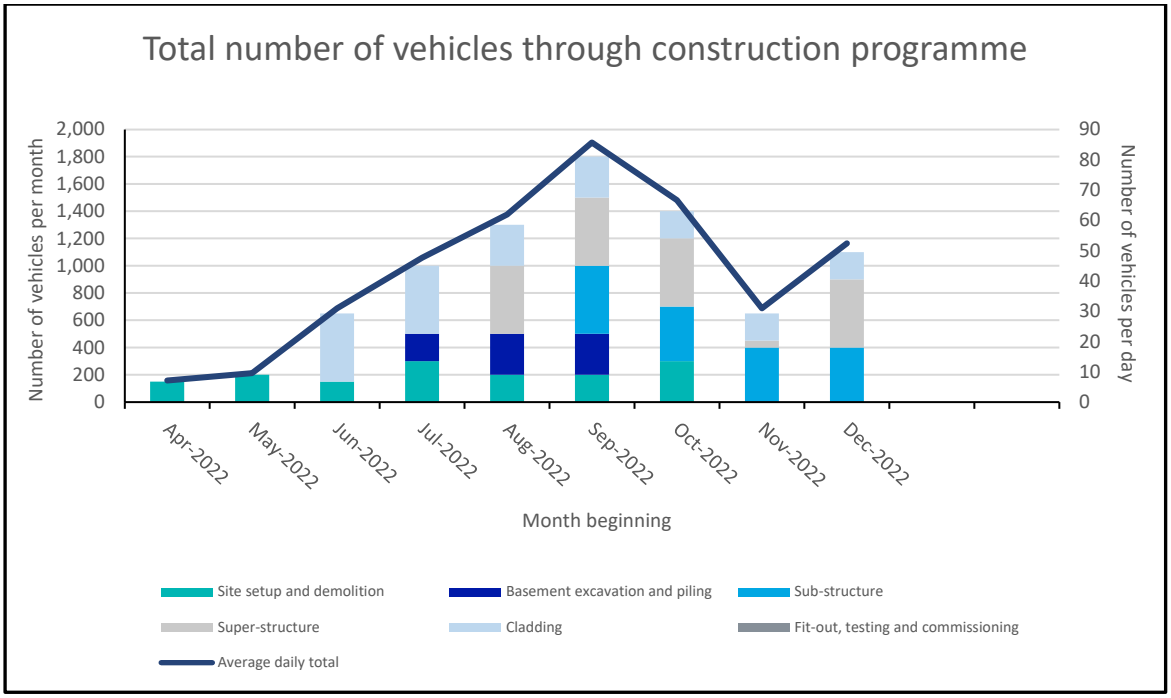
During the peak months of construction, approximately 64 construction vehicles will access the site. This equates to an average of 30-40 vehicles per day and 4 in the peak hour assuming 20% of vehicles arrive during the peak. These vehicles are expected to spend approximately 30-60 minutes each which gives the site an overall capacity of 3 vehicle per hour, sufficient to accommodate the number of vehicles expected to arrive during the peak hour.

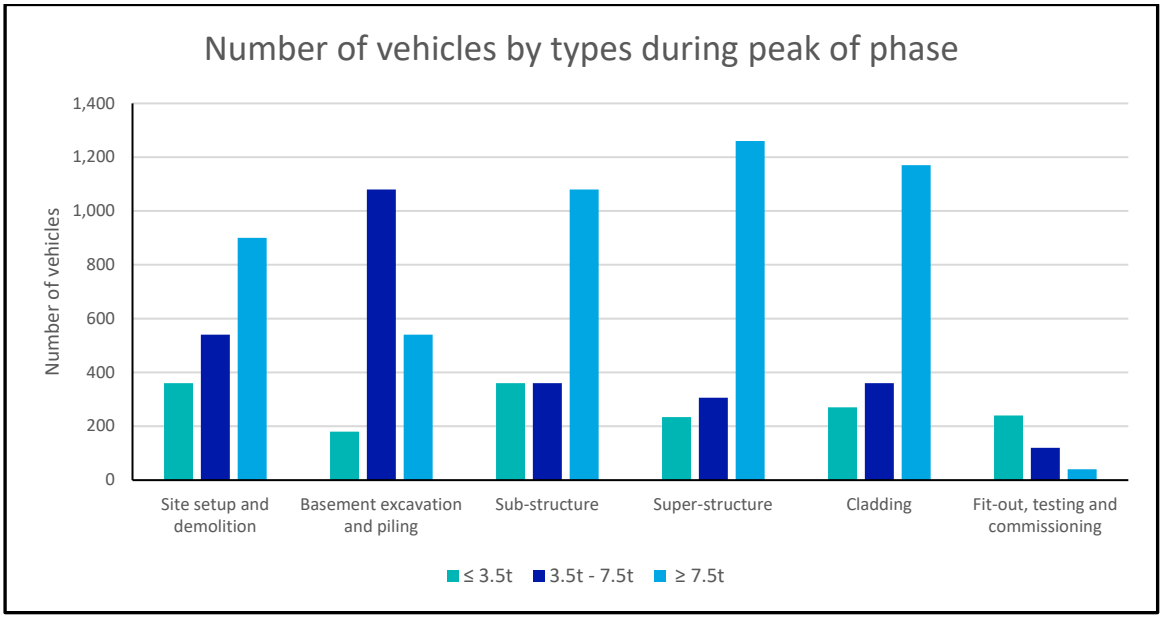
Vehicles arriving at the site will be of a variety of sizes.

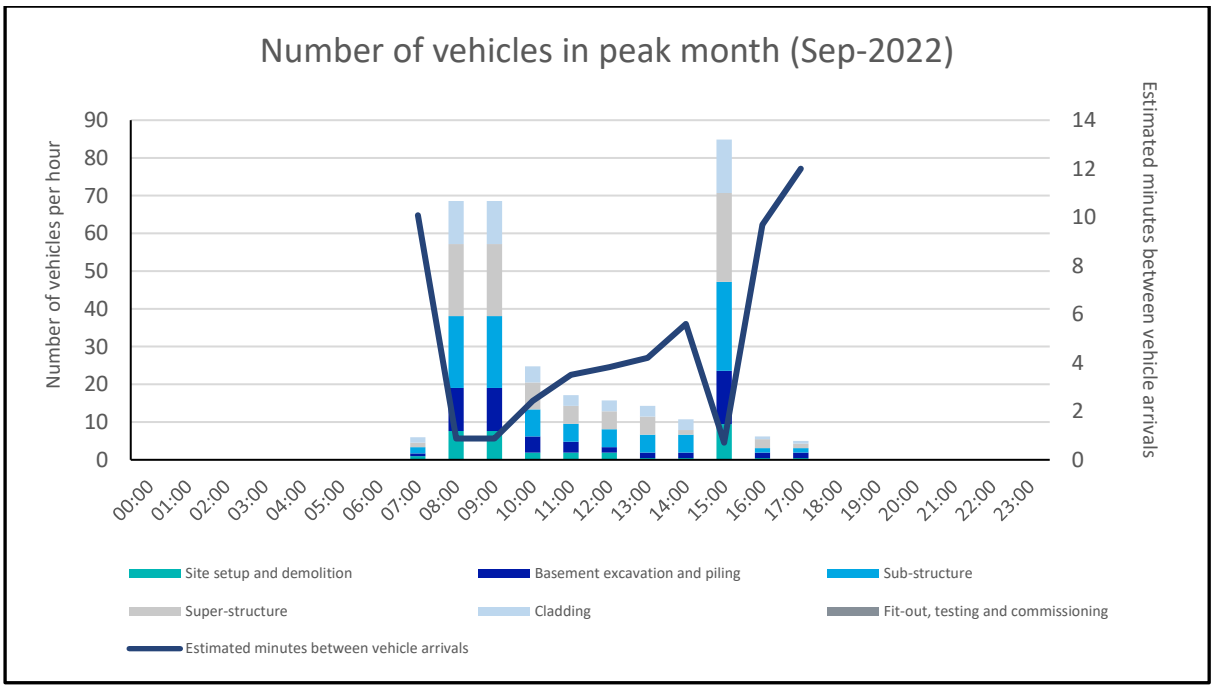
- Vans (short and long Wheelbase)
- Concrete
- Rigid Truck and Lorries (10-12m)
- Articulated Lorries
- Mobile Cranes
- Excavators
- Forklifts
- MWEP

The predicted number and type of vehicles accessing the site during each stage of construction are shown in the graphs below.

ESTIMATED CONSTRUCTION VEHICLES – MONTHLY AND DAILY




Number of vehicles in peak month (Sep-2022)
Number of vehicles per hour
Estimated minutes between vehicle arrivals
90
80
70
60
50
40
30
20
10
0
14
12
10
8
6
4
2
0
00:00
01:00
02:00
03:00
04:00
05:00
06:00
07:00
08:00
09:00
10:00
11:00
12:00
13:00
14:00
15:00
16:00
17:00
18:00
19:00
20:00
21:00
22:00
23:00
Site setup and demolition
Basement excavation and piling
Sub-structure
Super-structure
Cladding
Fit-out, testing and commissioning
Estimated minutes between vehicle arrivals

## 7 IMPLEMENTING, MONITORING AND UPDATING

This CLP details a description of how the CLP will be implemented, monitored, and updated. The following strategy can be confirmed at this stage.

An appointed Construction Logistics Manager will be in charge of implementing the Detailed CLP on behalf on the Contractor. Their job description will include collecting data on:

Number of vehicle movements to site; collected through a delivery booking-in system

- Total
- By vehicle type/size/age
- Time spent on site
- Consolidation centre utilisation
- Delivery/collection accuracy compared to schedule

Breaches and complaints

- Vehicle routing
- Unacceptable queuing
- Unacceptable parking
- Supplier FORS accreditation
- Low Emissions Zone (LEZ) compliance

Safety

- Logistics-related accidents
- Record of associated fatalities and serious injuries
- Ways staff are travelling to site
- Vehicles and operations not meeting safety requirements
- Description of the contractor's handbook
- Description of the driver's handbook

ISg Management will collect this data and keep records for full transparency to LBH and respective Local authority departments upon request.

## AGREEMENT

The agreed contents of this Construction Management Plan must be complied with unless otherwise agreed in writing by the Council. This may require the CMP to be revised by the Developer and reapproved by the Council. The project manager shall work with the Council to review this Construction Management Plan if problems arise in relation to the construction of the development. Any future revised plan must be approved by the Council in writing and complied with thereafter.

It should be noted that any agreed Construction Management Plan does not prejudice further agreements that may be required such as road closures or hoarding licences.

Please notify that council when you intend to start work on site. Please also notify the council when works are approximately 3 months from completion.

Signed:

Date:

Print Name:

Position:

End of form.