Hillingdon Hospital

Demolition and Construction Management Plan

May 2022

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Quality information

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Revision History

Revision	Revision date	Details	Authorized	Name	Position
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1. Introduction

1.1 Purpose and Scope of the DCMP

1.1.1 AECOM have been commissioned by Hillingdon Hospitals NHS Foundation Trust, to develop a Demolition and Construction Management Plan (DCMP) to be submitted in support of the planning application for the construction of a new hospital that would allow the existing Hillingdon Hospital, on Pield Heath Rd, Uxbridge UB8 3NN to be demolished and replaced (hereafter referred to as the 'Proposed Development').

1.1.2 This document provides an indicative strategy for the construction methodology, construction logistics and presents details of measures to be implemented to minimise impacts arising from construction of the Proposed Development ahead of appointing a Principal Contractor. To ensure the Principal Contractor, once appointed, follows the measures set out in this DCMP, this DCMP will be issued as part of the Employer's Requirements and the Principal Contractor will be required to refine this DCMP and conclude all outstanding matters noted within this plan before starting works on site, seeking prior approval from all relevant authorities.

1.1.3 Full details of the Proposed Development and the scope the planning application are provided in the Design and Access Statement (prepared by IBI Architects) and Planning Statement (prepared by Savills) which are submitted in support of the planning application.

1.1.4 This DCMP is a 'Live' document and has been prepared to communicate the construction delivery strategy and methodology for the construction of the Proposed Development. The over-riding intent of this DCMP is to ensure the delivery of a high-quality project in line with safe methods, sustainable initiatives and to develop a strong relationship with the local community, relevant authorities, and other stakeholders. This DCMP is supported by phasing plans and supplementary sketches/figures available at this point in time and will be updated and further details provided by the Principal Contractor, once appointed.

1.2 Background, Introduction to the Site Location and Proposed Development

1.2.1 The proposals seek to make optimal use of the land through the comprehensive redevelopment of the Hillingdon Hospital Site to deliver a hospital that has been designed to improve the experience of patients and staff.

The Trust have outlined that at the heart of the proposals, is a shared vision of providing improved access to better healthcare services for our population in a new fit for purpose local hospital on the Hillingdon Hospital site. The Trust, working with partners across the community, seek to improve care and help avoid unnecessary hospital stays. The strategy targets improvements through collaboration, integration, and greater efficiency.

The Trust plan to provide the same range of services that are currently available at the hospital, but in a high quality, purpose-built facility. In designing the new facility, the Trust seek to work with our partners across the health and social care system to improve the integration of care across the borough and beyond.

The site is in West London and is located south of Uxbridge and north of West Drayton.

The Local Planning Authority is the London Borough of Hillingdon (LBH).

The redevelopment comprises:

Hybrid planning application for:

FULL application seeking planning permission for demolition of existing buildings and redevelopment of the site to provide the new Hillingdon Hospital, multi-storey car park and mobility hub, vehicle access, highways works, associated plant, generators, substation, new internal roads, landscaping and public open space, utilities, servicing area, surface car park/ expansion space, and other works incidental to the proposed development.

OUTLINE planning application (all matters reserved, except for access) for the demolition of buildings and structures on the remaining site (excluding the Grade II Furze and Tudor Centre) for a mixed-use development comprising residential (Class C3) and supporting Commercial, Business and Service uses (Class E), new pedestrian and vehicular access; public realm, amenity space, car and cycling parking.

1.3 Timeframe

1.3.1 This DCMP is being submitted at the same time as the planning application, and therefore certain elements of the DCMP are unknown at this stage and will be confirmed on appointment of the Principal Contractor. As such, this document provides an indicative strategy for the construction methodology, construction logistics and associated assumptions relating to construction of the Proposed Development and sets out the transport and environmental management and control measures that will be implemented during the works.

1.3.2 Once the Principal Contractor is appointed, this Outline DCMP will be updated, and the Principal Contractor will conclude all outstanding matters noted within this plan prior to commencement of works.

1.4 Structure of this Outline DCMP

1.4.1 This Outline DCMP is based on established good management practice and includes the following information:

- Key Contacts.
- Description of the Site and construction works, including proposed timeline and logistics.
- Details of consultation undertaken to date and proposed consultation and community engagement during construction.
- General Requirements.
- Transport Management; and
- Environmental Management, Mitigation and Monitoring.

2. Contact

2.1 Overview

2.1.1 This section provides the contact details for the Outline DCMP, where available. These details will be updated once the Principal Contractor has been appointed,

2.2 Address Contacts

2.2.1 The full postal address of the Site and the planning reference relating to the construction works is:

Address: Hillingdon Hospital, Pield Heath Rd, Uxbridge UB8 3NN

Planning reference: Not available at this stage, a planning reference will be provided once the planning application is validated by LBH. To be updated by the Principal Contractor.

2.3 Key Contacts

2.3.1 The key contact details for the DCMP will be provided by the Principal Contractor, once appointed, and provided in a table similar to Table 2-1:

Table 2-1 Key Contacts for the DCMP

Task	Name	Address	Email	Phone
DCMP Manager	To be confirmed			
Site Project Manager	To be confirmed			
Community Liaison Manager	To be confirmed			
Main Contractor	To be confirmed			

3. The Site

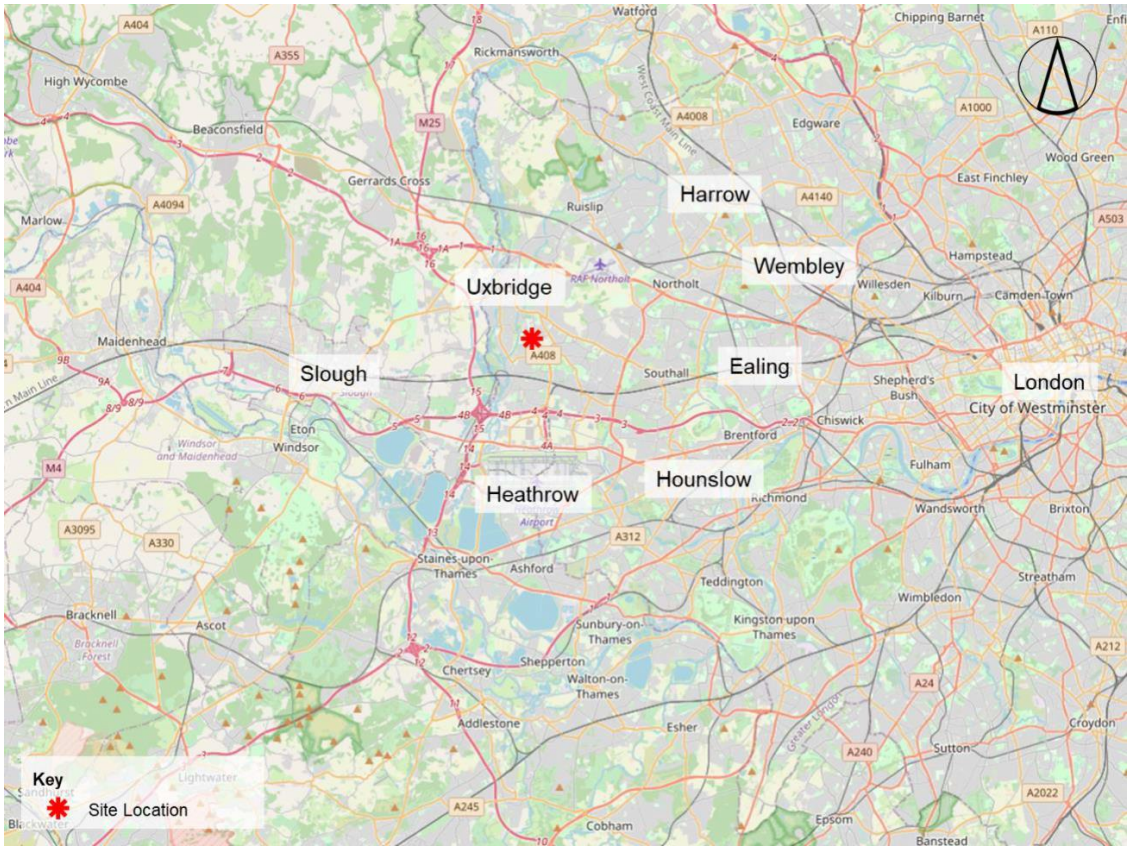
3.1.1 This section of the Outline DCMP provides a summary of the Site.

3.2 Overview of the Site

3.2.1 Hillingdon Hospital is located in West London, approximately 2km north of West Drayton and 2.5km south of Uxbridge. See site location figure 3.1. The site currently comprises:

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

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



Source: Open Street Map

Figure 3-1 Site location plan

3.3 Description of the Construction Works

3.3.1 The Proposed Development comprises of:

1. demolition of existing buildings (excluding the Old Creche, Grade II Furze and Tudor Centre) and redevelopment of the site to provide the new Hillingdon Hospital, See Figure 3.2.
2. multi-storey car park and mobility hub,
3. vehicle access,
4. highways works,
5. associated plant, generators, substation,
6. new internal roads,
7. landscaping and public open space,
8. utilities,
9. servicing area,
10. surface car park/ expansion space,
11. and other works incidental to the proposed development.
12. construction of mixed-use development comprising 327 residential units (Class C3)
13. construction of supporting commercial, business and service uses (Class E) up to 800 sqm of town centre uses, in a series of buildings ranging in height from 3 up to 8 storeys.
14. new pedestrian and vehicular access.
15. public realm, amenity space, 302 vehicles and up to 515 cycle parking spaces.

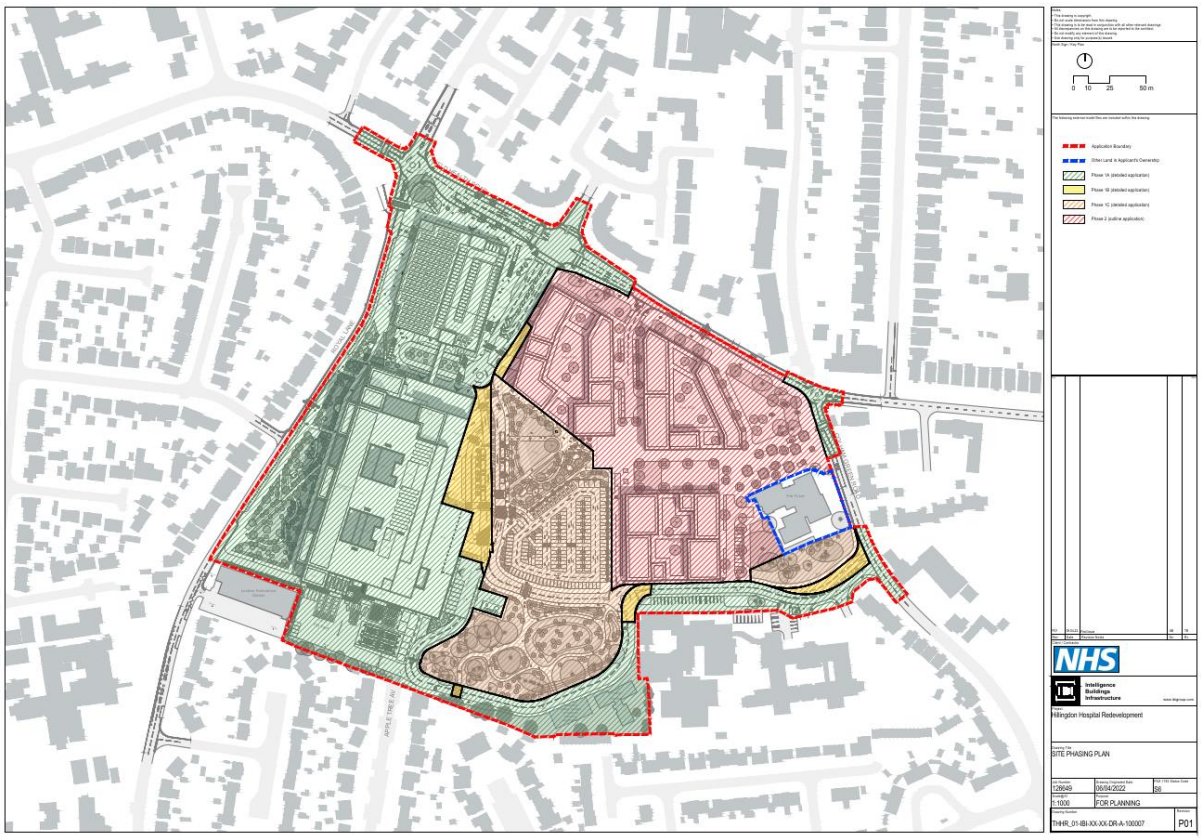


Figure 3-2 Proposed location plan

3.3.2 A description of the anticipated construction works is as follows:

Demolition

3.3.3 The following section sets out the likely demolition works to be undertaken on the Site.

3.3.4 The Trust employed Cantillon, (part of the Morrisroe Group) an established leading Demolition and Enabling Works contractor in the UK to prepare a method statement to undertake the soft strip and demolition for the Proposed Development. A copy of this method statement can be found in the Appendix which details the demolition Phase for this development.

3.3.5 Application ref. 4058/APP/2022/671 has been submitted to the Council to gain prior approval for the demolition of the following buildings Busy Bees, Alderbourne Unit, Elderly Day Hospital, Beaconsfield, Adult Audiology, Quebec Ward, Pinewood Ward, Osterley Ward, Churchill Ward, Middlesex Ward, Lister Ward, Pagett Ward Diabeticare Ward, Greenacres, Postgraduate Medical Centre, HV Plant Room, Annex Corridor and Partial Canteen.

3.3.6 The Application has been submitted as Prior Notification under Schedule 2, Part 11, Class B the Town, and Country Planning (General Permitted Development) (England) Order 2015 (as amended)). This is to ensure the demolition of these buildings relevant to phase 1 of the development can take place without delay.

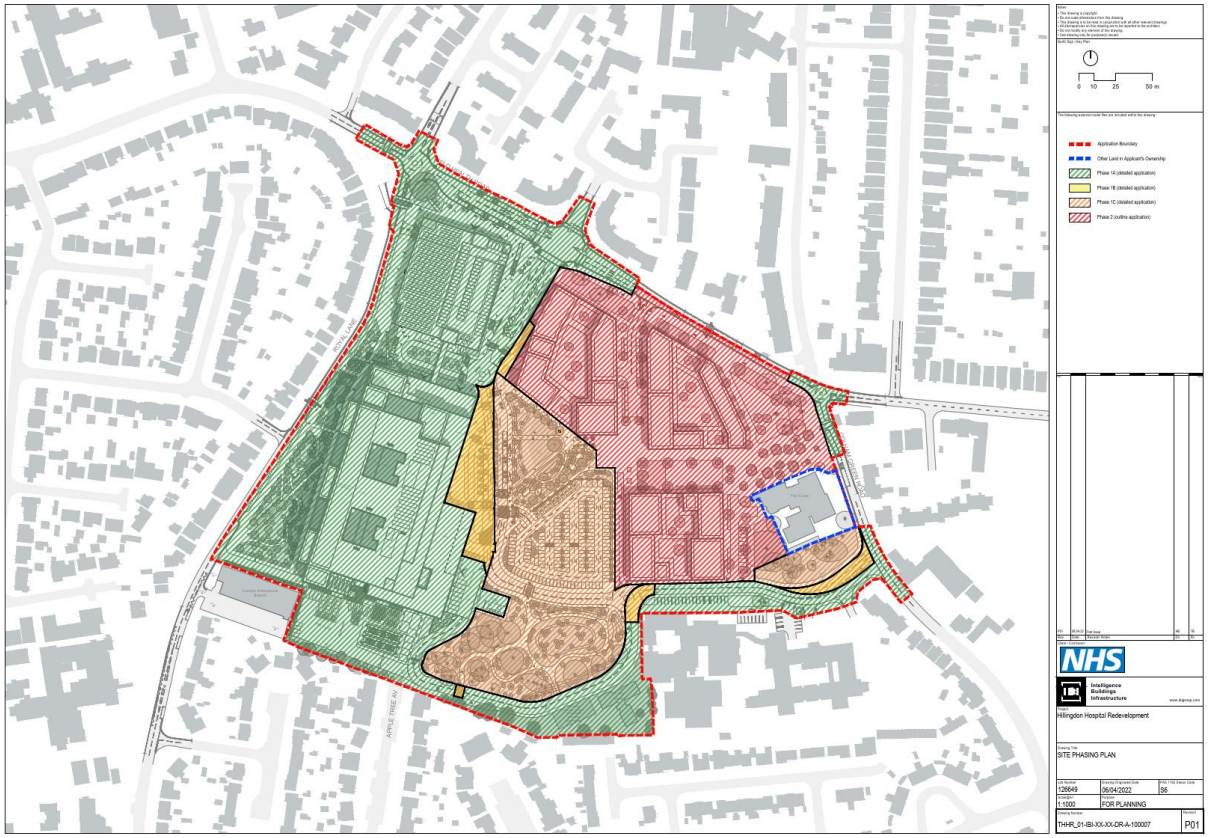


Figure 3-3 Site Phasing Plan

3.3.7 On appointment the Principal Contractor will review the Cantillon method statement and the sequence of works for any changing conditions and amend the activities to address any associated risks.

3.3.8 The demolition activity will commence following full vacation of the building and site set up, with asbestos survey and asbestos removal. This will be followed by soft strip, the erection of protective scaffolding prior to the start of any demolition.

Foundations and Basement Construction

3.3.9 A basement Impact Assessment has been undertaken for the purposed development of the site . This has included calculations of predicted ground movements and an assesment of the structural impact on the surrounding buildings that may be affected.

3.3.10 Calculations have been undertaken to assess the potential impact on the Hillingdon Ambulance Station. Ground movements used in the damage assessment are based on the deflection profile of the retaining wall predicted by analysis software and the recommendations of CIRIA 760. The calculations have been carried out assuming a ‘bottom up’ construction sequence (low stiffness support system) of secant hard-firm piled wall.

3.3.11 The Building Damage Assessment was undertaken based on the method proposed by Burland et al. (2001) in which the impact of the excavation on the adjacent Hillingdon Ambulance Station was analysed. The analyses showed that the excavation would result in insignificant ground movements due to which the damage imposed on the Station is negligible.

3.3.12 At the time of writing the design process is at an outline stage for planning purposes. The following ‘bottom up’ construction sequence (i.e. excavate and brace, then construct from the

bottom of the excavation upwards) is assumed in this assessment. A summary of the proposed construction sequence for the secant piled wall is presented below:

- Demolition of the existing structures on site and remove car park hardstanding.
- Formation of the perimeter secant bored pile wall with 600mm diameter piles spaced at 900mm from ground level (approximately +37.50mOD).
- Excavation to +34.90mOD.
- Installation of temporary propping at +35.80mOD.
- Excavation to basement level (approximately +31.40mOD).
- Installation of bearing piles using CFA or rotary bored techniques.
- Casting pile caps and basement insitu RC slab at +31.96mOD (centreline).
- Casting of ground floor insitu RC slab at +36.90mOD (centreline).
- Removal of temporary propping.
- Construction of superstructure.

The basement is likely to have temporary groundwater control measures in the form of sumps and pumping to collect any groundwater seeping through the perimeter wall and the base of the excavation. Any groundwater flow is likely to be relatively slow through the impermeable London Clay Formation.

The proposed development and sequence of construction provided above is considered appropriate for the ground conditions in the Basement Impact Assessment.

The assumed construction sequence should be verified once the design further progresses by the Principal Contractor and as further information becomes available.

Ground Floor

3.3.13 Upon completion of the basement and lower ground floor, the ground floor will be constructed.

3.3.14 The ground floor slab is assumed to be a reinforced concrete slab which varies in level and is likely to be constructed of 350mm, 400mm and 500mm deep slabs.

Main Tower Core Construction and Floors

3.3.15 It is anticipated that 'Jumpforming' the core walls may be a option the Principal Contractor's preferred choice and that they would aim to keep the core three to four levels above the highest level concrete floor slabs. This is considered to be an option at this point in time as it would keep the tower cranes at a reasonable height above both the core walls and floor slabs, the cranes can oversail the core giving additional flexibility, and the concrete placing booms can service both the slabs and core walls, minimising the plant required. This would also allow cranes to be placed in the core if necessary to assist the construction. The Principal Contractor will confirm the preferred option on appointment.

3.3.16 A fully enclosed system with a working platform on top that can be used for additional storage of materials, in particular reinforcement, such as the Doka SCP system, is currently proposed. The full enclosure and upper storage deck will minimise the loss of working time in the event of high winds which would preclude use of the cranes. Another advantage with this type of system is that if delays occur then it is possible to continue the floor slabs up to the base of the lower edge of the platform.

3.3.17 An indicative view of a crane showing an upper storage platform in use is illustrated on Figure 3.4.

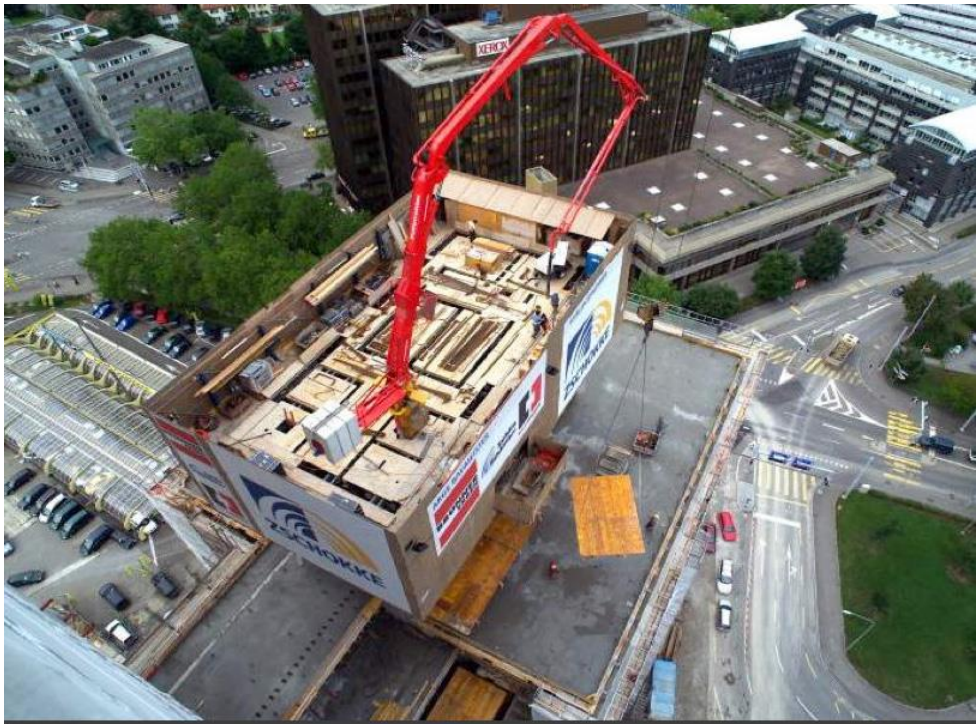


Figure 3-4 Indicative only - Ariel view of a Doka SCP 400

Façade

3.3.18 A leading façade contractor will be engaged to ensure the correct approach for the main areas of façades is adopted. Currently, it is assumed the following steps will be taken to construct the façade:

- Lower Ground and Ground Floor up to Level 1; a high quality stick system to the reception areas, lobbies and atrium.
- Unitised cladding system for 'typical upper floors' from Level 2 onwards.
- There will be different types of façade, which will be shipped from the manufacturer directly to Site, with 'just in time' deliveries direct from the factory on flat bed Fleet Operator Recognition Scheme (FORS) accredited lorries.
- The panels will be packed in purpose made shrink wrapped metal crates capable of being unloaded by elephantine hoist, forklift or crane.
- Presently we propose the actual installation of the unitised panels will be either by manipulator working from the same floor as the panels to be installed or spider crane from the floor above, lifting from a launching table on the installation floor, as shown below. The stick system will be accessed from the ground floor via a variety of systems. The exact method of installation will be determined by the Principal Contractor. An example of a spider crane in use is provided below in Figure 3-5.

Figure 3-5: Example of spider crane from the floor above lifting panel into place

Fit Out

3.3.19 It is expected that fit out works would start on Level 1 once the temporary waterproofing has been installed to Level 6 and the external cladding works are complete two floors above. The first fit out activities will comprise of surveying the structure, installing high level MEP, then setting out walls.

3.3.20 Following the high level MEP installation, internal blockwork, the dry lining and first fix services will begin to the ground floor. Installation of the MEP modular elements of fan coil units, cable trays and duct work will follow. Connections will then be made, tested, witnessed and certified and voids closed up.

3.3.21 Taping and jointing and a mist coat will follow, with any stone, carpentry and joinery, doors and finishes trades, installation of specilist equipment along with commissioning, snagging and de-snagging, pre inspections and client inspections.

Mechanical, Electrical and Plumbing Services Delivery

3.3.22 Once all wet trades have completed, (concreting & blockwork), the MEP installation can commence in the lower ground floor and ground floor. Plant will be positioned and loaded out as soon as back propping has been removed and unpacked as soon as the area is watertight to allow installation. A prefabricated risers solution has been proposed for all areas as well as the use of off site manufactured MEP Modules to all levels (see example in Figure 3-6).

3.3.23 For all common parts horizontal distribution (both mechanical and electrical containment) can be sub-divided into 3m sections. These will be lifted up the building utilising the hoist and manoeuvred across the floor plate into the core before being raised up and fixed to the structural soffit.

Figure 3-6: Examples of Off-Site Manufacture

Testing and Commissioning

3.3.24 Once fit out is completed and MEP is installed, testing and commisioning phase of the building will be undertaken.

3.3.25 A Commissioning Plan will be developed by the Principal Contractor detailing the method of commissioning which will include a commissioning programme identifying key dates, commissioning tolerances, a list of method statements, off site testing dates, commissioning principal meeting dates, handover requirements, building control and fire officer requirments and interface points. A commissioning manager will be appointed to conduct and chair the commissioning activities addressing perceived commisioning issues bringing all of the commissioning activites to a close on behalf of the Principal Contractor.

3.4 Timeline

3.4.1 Phasing detail for the demolition and construction programme will be provided following appointment of the Main Contractor.

3.5 Logistics Management

3.5.1 This section provides further detail on how the demolition and construction will be managed and the supply chain controlled.

3.5.2 It is envisaged that the following four Key Logistics Principles will be followed:

- There will be one delivery process and one central traffic control system.
- There will be a team who will monitor planned and actual road movements and intervene when necessary to ensure compliance.
- There will be the one point of contact for the emergency services in relation to material movement planning and implementation.
- All material requirements and deliveries will be controlled within the constraints of available delivery times.

Main Issues and Challenges

3.5.3 The main issues and challenges relating to logistics which are anticipated for the demolition of the existing buildings on the Site and construction of the Proposed Development include:

- Working within the Hospital grounds whereby certain departments are occupied 24/7. This would make it difficult to plan construction works that could potentially require temporary disruption to a neighbouring building and will require, from the outset, a comprehensive solution to minimise noise and dust nuisance and manage access in a sensitive and considerate manner. This shall be determined and agreed with immediate neighbours and various hospital departments.
- Shutdowns of utilities serving healthcare systems such as domestic water, heat, ventilation, and air conditioning (HVAC), and medical gas are sometimes necessary. Avoiding shutdowns is always the better option, but for most situations where this is not feasible, ensuring that proper communication with all involved parties and understanding the full extent of the shutdown is very important in order to prevent unexpected issues.
- Safety and the overall positive experience for the patients, visitors, staff, and contractors is a key priority. Understanding that the construction works can unsettle the overall flow traffic to the neighbouring hospital, it is important to put into place a plan to minimise disruption and ensure that the necessary staff from the adjoining hospital, who understand how it works, are party to planning conversations to provide constructive input and suggestions.
- Pedestrian Access – The neighbouring hospital buildings are old and have complicated access routes used by patients and guests who may not be familiar with the facility, and often the staff as well as the guests are emotionally vulnerable or stressed. Adding to the complexity with construction detours, system shutdowns, and just by being nearby to an active construction site in this already ‘highly charged’ situation requires the highest levels of planning, patience and understanding from all members of the construction team including delivery staff and subcontractors. It will be necessary to put into place after agreement with the existing hospital a plan and route which causes the least disruption to patients and guest.
- Construction Traffic – Construction vehicle access must be arranged into the construction site so that vehicles and pedestrians, using separated site routes, can move around safely. The complexity of identifying routes for the people and vehicles using them, in suitable locations and with sufficient capacity is a key challenge. A site-

specific Traffic Management Plan will be prepared by the Principal Contractor to arrange and coordinate vehicle access routes in conjunction with pedestrians.

Management of equipment and materials and waste principles

Review of alternative methods to transport materials or waste

3.5.4 The use rail to transport materials to and from site was considered. However, the location of the Site does not lend itself in making this a viable option and this option is no longer being considered as the Site is not immediately adjacent to any railway and has no railway siding. There are no railways or underground lines in the vicinity of the development site. Therefore, it is not anticipated that there will be any impacts on railways or underground lines as a result of the construction of the proposed development.

3.5.5 The use of the nearby canal to transport materials to and from site was considered. However, an unloading dock local to the site is not available and therefore this method of transportation is no longer being considered as an option.

Cranes and Equipment

3.5.6 Once the piling and lower ground floor/basement excavation has been completed tower cranes will be delivered via 16.5m articulated vehicles, which will be delivered via the routes described in section 6. A mobile crane will be used to erect the tower cranes that will be used to construct the proposed building.

3.5.7 Initial liaison with the Heathrow Safeguarding team have confirmed that any crane/s that are required to extend 10m Above Ground Level (AGL) would require a Crane Permit to be authorised by Heathrow Airside Works Approval Team. Given the likelihood that a crane, if needed, would need to be erected above the final elevation height of 41.35m AGL. They recommend that the construction team make contact with the Airside Works Approval Team via airside works approvals@heathrow.com sooner rather than later as they might apply their own height restrictions to the site which could impact the propose construction methodology. The principal Contractor will action this on appointment.

Material Storage and Security

3.5.8 The amount of materials stored on site will be minimised as far as possible by the Principal Contractor.

3.5.9 A ‘Just in Time’ delivery policy will be adopted by the Principal Contractor to ensure no more than 5 days’ worth of materials are stored on site. All materials will be stored within the Site boundary and no materials will be left outside the Site boundary after normal hours. The Principal Contractor will develop a strategy to show the provision of on-site facilities for equipment, tools and materials that would reduce the number of trips to site. These facilities will be located entirely within the Site boundary.

3.5.10 The Principal Contractor shall keep the Site secure using robust hoarding and secure card/fob reader accessible turnstiles for entry, with security guards based inside any site entrances. All delivery access points shall be locked at night and shall be security patrolled during site working hours.

Staff Travel Plans

3.5.11 There are a number of ways for the construction workforce to travel to the Site during the construction period via public transport. There are public transport services and walking and cycling routes in close proximity to the site which enable sustainable travel where feasible.

3.5.12 No parking for construction staff will be provided on site and staff will be advised to access the Site via public transport. Given the extent of public transport provision in the immediate area, it is anticipated that few construction staff will access the Site via privately owned vehicles.

3.5.13 The Principal Contractor will be responsible for encouraging their workers to use sustainable methods of public transport to the site. A Construction Workforce Travel Plan will be prepared by the Principal Contractor prior to commencement of construction.

3.5.14 Meetings will be arranged to ensure staff and visitors accessing the Site can do so via the public transport system and public transport information should be provided on a notice board within the Site, to ensure that visitors and staff are aware of their travel options. This system will help promote the use of public transport.

3.5.15 Staggered shift patterns for the various trades and specialists employed on site will ensure that the impact of any workforce traffic is spread over a number of hours and will therefore have a negligible effect on the capacity of the surrounding road and public transport network.

4. Community Liaison

4.1 Sensitive/affected dwellings affected

4.1.1 One month prior to starting works on Site, the Principal Contractor will undertake communication with residents and local businesses. This will become a regular newsletter which will be issued to the surrounding residents and businesses to keep all parties informed about the progress to date and forthcoming events. Further details are provided in Section 4.

4.1.2 The nearest existing noise sensitive receptors to the Proposed Development have been selected for the assessment. The receptors identified are listed in Table 4.1 with the locations illustrated in Figure 4.1. Each sensitive receptor was assigned a measurement location for the purposes of the assessment and appropriate noise level data have been applied at each receptor location for assessment purposes.

Table 4-1 Receptor Identification Table

Receptor Group	Description	Receptor Type
R1	Properties along the western boundary of the site along Royal Lane	Residential
R2	Properties along the northern boundary of the site on Pield Heath Road	Residential
R3	Properties along the southern boundary of the site on Royal Lane and Bryony Close	Residential
R4	Existing hospital to the east of proposed hospital building	Hospital
R5	Meadow Special School to the south west of the site	School

Figure 4-1 - Receptor Locations

4.2 Construction Working Group

4.2.1 On site communication and neighbour liaison (in conjunction with the LBH) will be managed by the appointed Principal Contractor. The Principal Contractor will appoint a Logistics and Neighbourhood Liaison Officer (NLO) to liaise with the LBH, local primary schools, residents, businesses, and other interested parties to keep them informed of progress on the Site and forthcoming activities which may affect them.

4.2.2 During the construction works, there will be frequent communication with residents and local businesses. A regular newsletter will be issued to the surrounding residents and businesses to keep all parties informed about the progress to date and forthcoming events. Any abnormal activities (such as road closures, wide load deliveries) will be notified by way of supplementary letter issued to the relevant local contacts in advance of the activities taking place.

4.2.3 In addition, the appointed Principal Contractor will:

- Provide a named point of contact, to the neighbouring residents and relevant statutory LBH.
- Establish a complaints register, which will be logged and made available for inspection, and investigate complaints.
- Display project information and key contacts on the site hoarding.

4.2.4 The Principal Contractor will update the local community on construction progress via quarterly local community progress meeting sessions. It is anticipated that these regular updates on construction activities will be held in a nearby community centre, potentially on the Hospital grounds, be open to the general public and affected local residents and businesses, and will likely include:

- Issuing regular letter-drops / web-updates (on the London Borough of Camden website if allowable).

- Organising regular meeting sessions in vicinity.
- Reporting on street cleaning activities around the Site.
- Addressing any neighbourly concerns raised at previous meetings.
- Informing residents of any upcoming noisy works such as demolitions/ foundations and other significant construction works.
- Liaison and co-ordination of construction traffic activities with the immediate neighbours, local Schools, and other nearby sensitive establishments.
- Notice of any temporary traffic management measures in surrounding roads.
- Overall programme reporting and anticipated completion date.

4.2.5 In accordance with the requirements of the Considerate Constructors Scheme (CCS), (see below) and being a good neighbour, the Principal Contractor will conduct full negotiations with the Partnership, adjacent landlords and tenants to ensure that there is a shared philosophy to deliveries, pick-ups, and access. An agreed route for communication with all parties will be agreed and refined where necessary for individual needs.

4.3 Complaints

4.3.1 The Principal Contractor will keep all neighbouring properties and the local community and others informed about unavoidable disturbance such as from unavoidable noise, dust, or disruption of traffic.

4.3.2 A board showing key project contacts shall be displayed prominently on the site boundary; this is to ensure that problems can be rectified quickly, and that residents and others can channel their questions and complaints to the ‘Construction Manager’ from the Principal Contractor who has the authority to take action.

4.3.3 The Contact Board shall include the following information:

- The title ‘Contact Board’
- Name of the Principal Contractor, email address and postal address and person to whom correspondence should be addressed.
- Name of the Construction Manager.
- Month and year of completion of works.
- Names and telephone numbers of staff who can take immediate action, so that contact can be made at any time.

4.3.4 Occupiers in the vicinity who may be affected by the works from the Site will be notified of the nature of the works, a contact name, telephone number (including that to be used outside normal working hours), and address to which any enquiries should be directed also in writing.

4.3.5 The telephone number (and any changes to it) shall be publicised widely within the local community affected by the works. It shall also be notified to the Noise and Licensing Enforcement Team at LBH.

4.3.6 Should noise/vibration/dust complaints arise from the building construction/building works, these complaints will be recorded in a complaint’s register and made available to the LBH, if requested. The complaint register shall provide information on day, time, details of complaint, details of monitoring carried out and any additional mitigation works.

4.3.7 Should complaints be received concerning works/activities, then the affected works/activities being the cause of complaint will be immediately investigated and if necessary, must cease, until such time as further agreement to work is negotiated.

4.4 Schemes

4.4.1 The Principal Contractor will be required to operate in accordance with the CCS, the FORS and the Construction Logistics and Cyclist Safety (CLOCS) scheme whilst working on site.

4.4.2 The construction of the Proposed Development will be undertaken in accordance with the CCS with targets set for minimum performance, including CLOCS monitoring.

4.4.3 In addition, the Principal Contractor will also be required to register the project under the CSS with a minimum target score of 4 in each section of the scheme's site code for Considerate Practice. For instance, and in accordance with the CCS requirements, and being a good neighbour, the Principal Contractor will conduct full negotiations with the adjacent landlords and tenants to ensure that there is a shared philosophy to deliveries, pick-ups, and access.

4.4.4 This will also include:

- An agreed route for communication with all parties will be agreed and refined where necessary for individual needs.
- As part of the CCS scheme regular inspections will be carried out and subsequent reports will be distributed as part of the contractor's monthly report.
- Details of the CCS registration number and confirmation that the guide for 'Contractors Working in Camden' is fully understood will be provided by the Principal Contractor once appointed.

4.5 Neighbouring Sites

4.5.1 As part of the construction processes Principal Contractor will meet with the LBH Environmental Health and Highway representatives and key members from the local community to refine methods of working and measures to minimise disruption. As part of this liaison, regular meetings will be held to ensure they are kept informed of the progress and any comments received are logged and actioned as a result of the works, not only about the Proposed Development but also regarding issues or concerns about neighbouring construction sites.

4.5.2 To mitigate disturbance the Principal Contractor will identify all other active construction sites in proximity to the Site prior to commencing work.

4.5.3 The Principal Contractor will appoint a Logistics and Neighbourhood Liaison Officer (NLO) to liaise with the LBH, local primary schools, residents, businesses, and other construction sites/interested parties to keep them informed of progress on site and forthcoming activities which may affect them.

4.5.4 The Principal Contractor shall attend and participate in a Construction Logistics Forum or similar local forums as may be suggested by the LBH to explore ways of coordinating development activities across the Site and in the wider area for the duration of the demolition/construction programme.

5. General Requirements

5.1 Site Management and Framework

Site Management – Roles and Responsibilities

5.1.1 The successful implementation of the DCMP and management of potential environmental impacts is reliant on clear definition and understanding of requirements among Project Team staff. An outline of the key roles and responsibilities is provided below. The Principal Contactor will identify and provide contact details for the roles identified in Table 5-1 below.

Table 5-1: Summary of key roles and responsibilities

Role	Key Responsibilities
Client	• Responsibility for appointment / allocation of the Principal Contractor, Project Manager and Environmental Manager. • Check that the Principal Contractor is competent and has allocated sufficient resources to allow delivery of the DCMP. • Co-ordinate communication with key stakeholders and other third parties, as required. • Agree and set construction environmental targets for the Principal Contractor; and • Review findings of the monitoring programme, and direct Principal Contractor / Environmental Manager as required.
Environmental Consultant	• Advise Client on environmental related matters, as required. • Undertake external audits on the implementation of the Construction Environmental Management Plan (CEMP), as required; and • Provide specialist technical input to key areas such as Noise and Vibration; Air Quality to discharge any planning conditions etc.
Principal Contractor Project Manager	• Responsibility for the day-to-day management of the demolition and construction activities on site, ensuring the activities adhere to the actions set out in the DCMP, including: • Update and management of the DCMP • Delivering a system of work such that the construction activities are carried out in compliance with the DCMP. • Checking the qualifications and competence of subcontractors for appointment. • Delivering environmental awareness training in conjunction with the Environmental Manager for all workers, including an induction for all site workers / contractors to support the implementation of the DCMP. • Agreeing and setting construction environmental targets with the Client; and • Ensuring that the construction environmental targets/ objectives of the DCMP are being achieved and that are not contrary to any relevant legal requirements. Identifying and implementing any corrective actions and opportunities for continuous improvement to meet construction environmental targets. • Providing oversight of the demolition / construction activities to ensure these undertaken are in accord with contract.

Role	Key Responsibilities
	• Monitoring the performance of sub-contractors and provide direction as necessary. • Monitoring the demolition / construction programme in conjunction with the Environmental Manager to ensure DCMP actions are integrated into it. • With the Environmental Manager, undertaking a regular audit of the DCMP and report findings – all audits will be followed up noting any completed actions, further work needed and actions that are not being complied with; and • Undertaking corrective actions in the event of breaches of environmental requirements.
Principal Contractor Site Manager/ Foreman(s)	• Lead responsibility for the practical construction of the Proposed Development, including day to day co-ordination of the contractors. • Co-ordinate with the Project Manager and Environmental Manager for the management of construction activities in compliance with the requirements of the DCMP. • Implement and maintain environmental controls on site. • Ensure that all environmental incidents, near misses and observations are reported and actioned as appropriate; and • Maintain waste register and ensure correct waste management procedures are being implemented on site.
Principal Contractor Environmental Manager	Co-ordinate monitoring and reporting of the implementation environmental management, through liaison with the Project Manager, Site Foreman, and other parties, as appropriate, to ensure that the works are implemented in accordance with the environmental management commitments, including: • Preparation of the CEMP following the receipt of planning consent. • Regularly reviewing and updating the CEMP and other complementary plans and procedures to ensure they are compliant with the CEMP. • Applying for any environmental consents and licences required to ensure compliance with legal requirements and communicating the requirements to the site construction team. • Monitoring the implementation of the CEMP, including undertaking regular site inspections, monthly audits and reviewing Construction Method Statements/ Risk Assessments and Method Statements (RAMS) to ensure that any relevant requirements of the CEMP have been carried over. • Reviewing and reporting against the construction environmental targets and identifying any corrective actions and opportunities for continuous improvement. • Ensuring that any environmental records to demonstrate compliance with the CEMP are kept and maintained. • Ensuring that the results of any internal audits of the CEMP and site inspections are reported back to the Client on a monthly basis. • Preparing and undertaking environmental awareness training for the site team (e.g. environmental input to site induction, Toolbox Talks etc.). • Monitoring the compliance of sub-contractors against the requirements of the CEMP.

Role	Key Responsibilities
	• Co-ordinating the technical and environmental specialists as part of the implementation of the monitoring regime to monitor and record the impacts arising from the construction activities. • Acting as the first point of contact for any environmental issues encountered by the Principal Contractor – Investigate all environmental incidents, and ensure they are recorded and reported, with corrective / preventative actions are undertaken. • Contribute to communication on environmental matters between project team and relevant consultees / stakeholders; and • Providing and collating evidence for the Considerate Constructors Scheme, BREEAM or any other relevant external assessments.
Sub-Contractors (where relevant)	• Comply with the relevant requirements of the DCMP and the CEMP. • Work to agreed plans, methods, and procedures to minimise environmental impacts. • Understand the importance of avoiding pollution on-site, including noise and dust, and how to respond in the event of an incident to avoid or limit environmental impact. • Report all incidents immediately; and • Monitor the workplace for potential environmental risks and escalate through the appropriate systems if any are observed.

Top 10 Site Safety Rules

5.1.2 Construction sites are dangerous places to work. A list of top 10 construction site safety rules to keep everyone safe is provided below. This will be developed further by the Principal Contractor and shared with all parties and subcontractors.

1. **Wear your PPE on site at all times**
   PPE is your last line of defence should you come into contact with a hazard on site. Wear your hard hat, safety boots and Hi-Viz vest as a minimum, along with any additional PPE required for the task being carried out.

2. **Do not start work without an induction**
   Each site has its own unique hazards and work operations. Make sure you know what is happening so that you can work safely. Your induction is important, don't start without one.

3. **Keep a tidy site**
   Construction work is messy. Remember to keep your work area tidy throughout your shift to reduce the number of slip and trip hazards. Pay particular attention to high-risk areas such as access and escape routes.

4. **Do not put yourself or others at risk**
   You are responsible for your own behaviour. Construction sites are dangerous places to work. Make sure you remain safety aware throughout your shift.

5. **Follow safety signs and procedures**
   Your employer should ensure a risk assessment is carried out for activities. Make sure you read and understand it. Follow signs and procedures – control measures are put in place for your safety.

6. **Never work in unsafe areas**
   Make sure your work area is safe. Don't work at height without suitable guard rails or other fall prevention. Don't enter unsupported trenches. Make sure you have safe access. Don't work below crane loads or other dangerous operations.

7. **Report defects and near misses**
   If you notice a problem, don't ignore it; report it to your supervisor immediately. Action cannot be taken quickly if management are not aware of the problem, and the sooner problems are resolved the less chance for an accident to occur.

8. **Never tamper with equipment**
   Never remove guard rails or scaffold ties. Do not remove guards. Do not attempt to fix defective equipment unless you are competent to do so. Do not ever tamper with equipment without authorisation.

9. **Use 110v equipment**
   110v equipment only, must be suitable for use on site. 240v equipment strictly prohibited without prior authorisation from management and will only be used if no 110v alternative available and additional safety precautions taken.

10. **If in doubt – Ask**
    It is better to be safe than sorry. Mistakes on construction sites can cost lives - don't let it be yours. If you need help or further information speak to your supervisor.

Construction Site Staff Training

5.1.3 The Principal Contractor will be required to ensure that all personnel engaged on site and in activities that may have an impact on the environment are competent to carry out their duties or, where necessary arrange for suitable training to be undertaken before commencement of the associated construction activity.

5.1.4 The Principal Contractor will also be responsible for ensuring that any sub-contractors are competent to undertake the relevant work, including with regards to environmental training. Health, Safety and Environmental requirements will be made clear in the procurement process and the Principal Contractor will be responsible for quality assurance, corrective action, and disciplinary procedures for non-compliance. Sub-contractors will be required to attend environmental awareness training as part of the site induction and any relevant Toolbox Talks.

5.1.5 The Principal Contractor will raise awareness of site rules with a construction site rules toolbox talk, as part of the induction process, as a short awareness talk, or to display on site.

5.1.6 Awareness and appreciation for the contents and purpose of the DCMP will be a priority during the training and induction process. All staff requiring site induction will undergo environmental awareness training relevant to the project as part of the induction. A training plan that identifies the training requirements for all personnel allocated with environmental responsibilities will be produced.

5.1.7 The Principal Contractor will hold informal 'Toolbox Talks' as necessary in line with key risk activities to promote safe working and environmental responsibility.

5.2 Site Hoardings

5.2.1 The Site boundary will be secured by hoardings for security and public safety. These hoardings will be an appropriate height (a minimum of 2.4m) and will comply with BS 5975:2019 (Ref. 5) for construction of temporary works.

5.2.2 Some of the demolition works of the existing building will occur whilst the wider Hillingdon Hospital site is still partially occupied. Access to any facilities within the wider Hillingdon Hospital site that continue to be operational will be maintained during this time. The hoardings for this phase will be confirmed once the extent of demolition has been determined.

5.2.3 Details, including access/egress points, are to be specified by the Principal Contractor and agreed with the LBH prior to works starting on-site.

5.3 General Public

5.3.1 Throughout the construction programme the Site will remain closed to the general public. Site access and the safety of the general public at the entrances / exits will be controlled and managed by trained personnel.

5.3.2 Measures to safeguard visitors to the Site and to segregate them from on-going construction operations will be implemented. Separate pedestrian and vehicle/ plant accesses and routes will be established and maintained. Safe and unobstructed routes to operational buildings outside of the Site will be provided. Clear visitor routes will be defined through the use of appropriate signage.

5.4 Lighting

5.4.1 Temporary lighting will be provided within the Site and the Site compound, additional lighting will be provided as the construction progresses. In determining construction lighting requirements, appropriate measures will be adopted by the contractors to minimise nuisance or harmful impacts arising from obtrusive light on sensitive receptors.

5.4.2 It is envisaged that low wattage directional lighting will be used on the Site during the construction works to avoid lighting disturbance of neighbouring land uses, in line with the Institution of Lighting Engineers ‘Guidance Notes for the Reduction of Obtrusive Light’ (Ref. 6). Lighting provided will be of the minimum luminosity required for safety and security purposes.

5.4.3 Where practicable, motion sensor lighting and low energy consumption fittings will be installed to reduce usage and energy consumption.

5.5 Site Working Hours

5.5.1 Noise from building work (Ref 2) which is audible at the site boundary is only permitted between the following times:

- Monday to Friday, from 8am to 6pm
- Saturday, from 8am to 1pm
- Works audible at the site boundary are not permitted on Sunday, public or bank holidays

5.5.2 Should construction work outside of these hours be required, the Principal Contractor will make an application to the LBH for prior consent for works through Section 61 of the Control of Pollution Act 1974 (Ref. 7), i.e. for tower crane installation.

5.5.3 The government has also introduced a temporary fast track deemed consent route to amend planning restrictions on construction working hours. The new, temporary fast track deemed consent route (under section 74B of the Town and Country Planning Act 1990) enables urgent changes to construction working hours to support safe construction working, in line

with the government's latest social distancing guidance on construction and other outdoor work. (Ref. 7).

5.6 Additional Hours of Working

5.6.1 Certain construction activities may require extended working hours for reasons of engineering practicability, weather, and safety such as major concrete pours and piling, surveys, lifting/fitting of infrastructure and abnormal deliveries.

5.6.2 The nature and timing of these works and the associated extended working hours will be agreed with the LBH through the Section 61 process and notified to relevant stakeholders. The Principal Contractor will be required to liaise and consult with the LBH prior to applying for Section 61 consent.

5.6.3 In the case of work required in an emergency, or which if not completed would be unsafe or harmful to workers, the public or local environment, the LBH will be informed as soon as reasonably practicable of the reasons and likely duration. Examples may include concrete pouring taking longer than anticipated due to unfavourable conditions or equipment failure.

5.7 Emergency Procedures

5.7.1 The Principal Contractor will prepare and implement appropriate measures to control the risk of pollution due to construction activities, materials and extreme weather events and document these in an incident response plan. In the event of any incident, including an environmental incident, the project incident response plan procedures must be followed.

5.7.2 In line with the emergency procedures, regular monitoring of weather forecasts will be undertaken to plan around any extreme weather events.

5.7.3 The Principal Contractor will prepare and maintain a list of emergency contacts with contact details displayed prominently at the Site, including emergency phone numbers and the method of notifying LBH and other relevant services.

5.7.4 Details of the incident response plan will be provided within the procedures set out in the Site project files.

5.7.5 Where an environmental incident or near miss has occurred, the Principal Contractor will initiate a root cause review within 24 hours of the incident occurring. The review should include all relevant personnel and the Client where appropriate. The review and recommendations will be reported to the Client and Project Manager within an appropriate timeframe and recorded on the Site project files.

5.8 Good Housekeeping

5.8.1 The Principal Contractor will follow a “good housekeeping” policy at all times. This will include, but not necessarily be limited to, the following requirements:

- General maintenance and cleanliness of the Site boundary, welfare facilities and storage areas.
- Provision of adequate welfare facilities for site personnel.
- Appropriate waste management provision and regular collections, and no burying of waste on site.
- Open fires will be prohibited at all times.
- Maintenance of wheel washing facilities or other contaminant measures.

- No discharge of site runoff or water discharge without agreement of the appropriate authority.
- Appropriate security and lighting.
- The use of less intrusive noise alarms which meet the particular safety requirements of the site, such as broadband reversing warnings, or proximity sensors to reduce the requirement for traditional reversing alarms.
- Provision of site layout map showing key areas such as material storage, spill kits, material, and waste storage etc.
- Maintenance of public rights of way, diversions, and entry/ exit areas around the boundary of the Site for pedestrians and cyclists where practicable and to achieve inclusive access.

Rodent Control

5.8.2 The existing Site will be assessed for the presence of rodents and vermin prior to demolition. Should any rodent or vermin issues be present, an external contractor will be appointed to eradicate these.

5.8.3 Effective infestation prevention of pests or vermin will be installed including arrangements for regular disposal of food or other material attractive to pests. If infestation occurs during the construction of the Proposed Development the Principal Contractor will take appropriate action to eliminate the problem and prevent further occurrence.

6. Transport

6.1 Overview of transport management during the demolition and construction phases

6.1.1 This section provides a summary of the transport management measures to be implemented during the demolition and construction phases of the Proposed Development.

6.1.2 Where possible, details have been included, however, where information is not yet known, this will be completed by the Principal Contractor once appointed.

6.1.3 Information to be confirmed by the Principal Contractor, once appointed, includes:

- Name of Principal Contractor.
- Proposal for checking compliance with CLOC Standard.
- Confirmation of CLOCS Standards.
- Confirmation that the Principal Contractor has included the requirement to abide by the CLOCS Standard in their contracts to contractors and suppliers.

6.2 Site Traffic Routing

6.2.1 The site is constrained on three sides by the local highway network. To the north of the site is Pield Heath Road, to the east of the site is Colham Green Road, and to the west of the site is Royal Lane. To the south, the site is constrained by a residential area. The existing site is accessed from five locations, shown in Figure 6.1. The five locations are:

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

Figure 6-1: Site Boundary and Access Locations (Existing)

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

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

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

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

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

6.2.6 The Site currently is located outside the Congestion Charge Zone/Ultra Low Emissions Zone (ULEZ). However, Transport for London (TfL) intends to extend the ULEZ zone to cover the whole of Hillingdon from 2023, requiring drivers of certain vehicles to pay a daily fee to drive to the Site.

6.2.7 The following maps show the area around the development site. Figure 6-2 shows a regional plan, with the location of the site in the context of West London and the road network and the location of the site in relation to the surrounding local area.

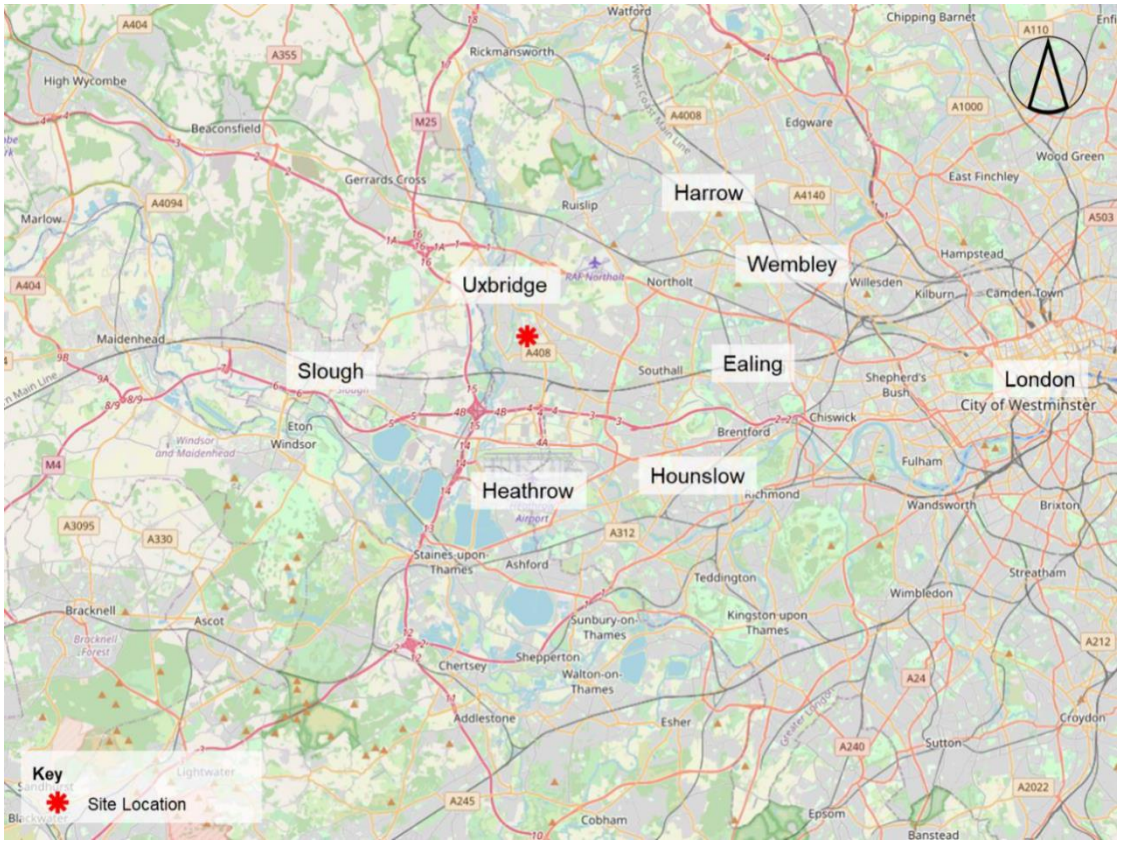


Figure 6-2 - Regional Location Plan

6.2.8 Vehicles delivering goods and materials to the Site will be required to use an appropriate route. This route will be communicated to all visitors to the site needing to travel by vehicle, identifying all restrictions.

6.2.9 The advised routing will be informed by TfL's Freight Journey Planner (http://freightplanner.tfl.gov.uk). The website can be accessed by FORS accredited companies. This website will produce personalised routings for freight vehicles which considers the time and date of the journey as well as the size of the vehicle.

6.2.10 Use of designated routes will ensure that congestion levels are reduced on both local and major routes, air and noise pollution are reduced and that vehicles comply with the London Lorry Control Scheme.

6.2.11 To reduce the impact of the number of heavy goods vehicles on the surrounding road network the current compliant route is and as shown in Figure 6.3 below:

- M25 – A40 – B483 – A4020 – Kingston Lane – Pield Heath Rd

OR

- M25 – M4 – A408 – Park View Rd – Colham Green Rd – Pield Heath Rd

The Principle Contractor and the driver of the vehicle shall ensure vehicle uses a route agreed and the vehicle minimises the use of restricted roads unless a route is specifically agreed with the with LBH. To this end, the Principle Contractor and the driver of the vehicle shall ensure that the vehicle:

(a) does not leave the excluded roads until as near as practicable to the planned stopping place on the compliant route; and

(b) takes the shortest practicable route from a planned stopping place either to the nearest excluded road or to the next planned stopping place if this results in the vehicle being driven a shorter distance in total on restricted roads.

If an alternative specific route has been agreed with LBH the Principle Contractor and the driver shall ensure that the vehicle follows the agreed route.

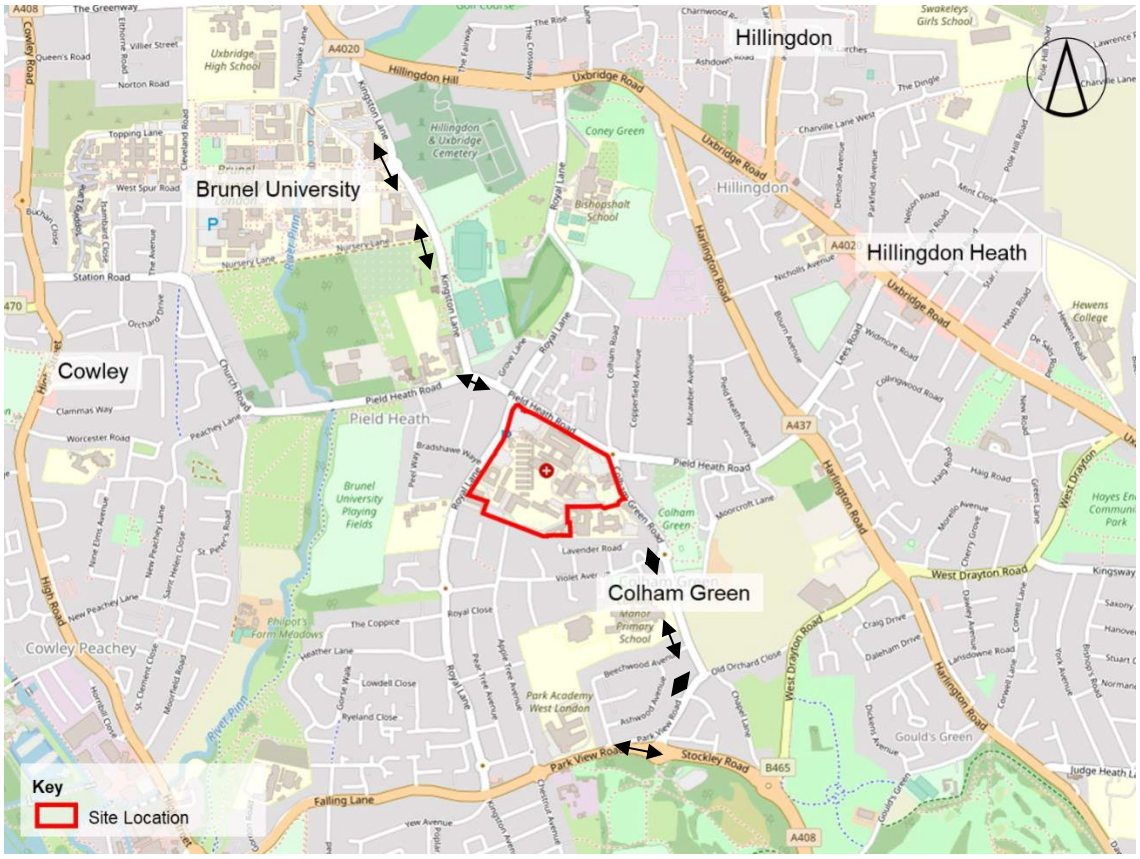


Figure 6-3 - HGV Traffic Route

6.3 Control of Site Traffic, particularly at Peak Hours

6.3.1 Efforts to restrict construction vehicle movements to the hours of 9.30am to 4.30pm on weekdays and between 9.00am and 1.00pm on Saturdays will be adopted. Vehicles may be organised and permitted to arrive on site at 8.00am if they can be accommodated on site. When this is the case, drivers will wait with their engines switched off.

Delivery Booking and Scheduling

6.3.2 An online Delivery Management System (DMS) will be implemented and designed to co-ordinate the entire booking process, preventing any un-booked deliveries delaying major critical path deliveries.

6.3.3 Additionally, the system will ensure that bookings for deliveries/collections are scheduled, creating awareness and efficiency whilst also allowing the flow of materials onto a project. The software chosen will enable real-time reservation scheduling, easy delivery dispatch and instantaneous delivery management.

6.3.4 The Principal Contractor will be fully trained in the DMS, ensuring that the flow of materials and people from the supply chain to the Site is not delayed.

6.3.5 Furthermore, it is the intention to display on a large wide screen monitor within the site office the DMS; this will provide a visual schedule for all project deliveries to all operatives. In addition, the same screen will be used to display health and safety updates and project changes, creating an interactive notice board for the Proposed Development.

Details of Types of Vehicles

6.3.6 Details of the types of vehicles required to service the Site and the approximate number of deliveries per day will be developed by the Principal Contractor for the various phases of the project. However, the following list provides an indication of the types of vehicles that will need to gain access to the Site during the construction process. The vehicle types have been selected to ensure that they are of a size that can be accommodated on the highway network given the constraints of the Site access route, whilst minimising the potential number of traffic movements to and from the Site.

- Skip Lorry 4 Wheel, 17 Tonne, G.V.W 11m, 2.55m width and 4m height.
- Plant delivery Articulated low loader, 40 Tonne, G.V.W 16.5m, 2.55m width and 4.2m height.
- Concrete Delivery Vehicle 8 Wheel, 30 Tonne, G.V.W 9.15m, height 3.75m, width 2.55m.
- Rebar delivery Articulated flatbed, 40 Tonne, G.V.W 16.5m, 2.55m width and 4.2m height.
- Volumetric Units Articulated flatbed, 40 Tonne, G.V.W 16.5m, 2.55m width and 4.2m height.
- Building Deliveries 4 Wheel, 17 Tonne, G.V.W Panel body 11m, 2.55m width and 4m height.
- Ballast and Loose Materials 8 Wheel, 30 Tonne, G.V.W, Tipper 9.15m height 3.75m width 2.55m.
- General Building Materials 4 Wheel, 17 Tonne, G.V.W, HIAB Flat Bed 11m, 2.55m width and 4m height; and
- Bulk delivery articulated flatbed with HIAB, 40 Tonne, G.V.W, 16.5m, 2.55m width and 4.2m height.

6.3.7 All construction vehicles over 3.5 Tonne will meet the following conditions:

- Operators must be a member of TfL's Fleet Operator Recognition Scheme at the Silver level with a commitment to achieve Gold; and
- All drivers will have undertaken cycle awareness training such as the Safe Urban Driver module through FORS or similar.

6.3.8 All vehicles associated with the construction works will have:

- Side guards fitted.
- A close proximity warning system fitted comprising of a front mounted, rear facing CCTV camera (or Fresnel Lens where this provides reliable alternative), a close proximity sensor, an in-cab warning device and an external warning device to make the road user in close proximity aware of the driver's planned manoeuvre.
- A Class VI Mirror; and
- Prominent signage on the rear of the vehicle to warn cyclists of the dangers of passing the vehicle on the inside.

Cumulative Effects of Construction Traffic

6.3.9 The cumulative effects of construction traffic servicing multiple construction sites in the local area should be minimised where possible. Details of other developments in the local area on routes that may require deliveries to be coordinated between two or more sites will be investigated by the Principal Contractor and the steps and proposals will be submitted to LBH before works begin on site.

Holding Area

6.3.10 On appointment of the Principal Contractor a decision will be made on whether a nearby location will be required for holding construction vehicles for short periods of time, prior to arrival at the Site.

Consolidation Centre

6.3.11 It is anticipated that the number of potential vehicles arriving is unlikely to exceed the capacity within the Site boundary. The Principal Contractor will investigate the use of off-site fabrication and a consolidation facility to reduce the number of vehicle movements and labour on site. In addition, during the fit-out phase the Principal Contractor will investigate the use of a consolidation centre to control the flow of small deliveries more accurately. Consolidation methods will be considered to reduce and minimise the number of vehicles such as the London Borough's Consolidation Centre (LBHC), potentially providing financial, environmental, and operational benefits through reducing cost, vehicle emissions and reducing time.

Emissions from engines

6.3.12 Emissions from engine idling will be minimised wherever possible. The Principal Contractor will inform and monitor the supply chain at regular intervals. All vehicles, other than concrete trucks, will switch off engines – no idling vehicles will be allowed and there will be a commitment to ensure vehicles meet lorry safety standards including CLOCS, FORS and Euro 6/VI emissions.

6.4 Site access and egress

6.4.1 During the early phases of the works, vehicles associated with demolition and basement construction will be entering and leaving the Site.

6.4.2 Vehicles entering and leaving the Site will be carefully managed, using gates that are clearly marked and free from obstacles. Traffic marshals will ensure the safe passage of all traffic

on the public highway, in particular pedestrians and cyclists, when vehicles are entering and leaving site, particularly if reversing.

6.4.3 Traffic marshals, or site staff acting as traffic marshals, will hold the relevant qualifications required for directing large vehicles when reversing. Marshals should be equipped with 'STOP – WORKS' signs (not STOP/GO signs) if control of traffic on the public highway is required. Marshals will have radio contact with one another where necessary. Full details of the proposed site access and egress points will be developed by the Principal Contractor and diagrams generated to clearly show access and egress points over the various phases of the works.

6.4.4 Routing will be planned to allow vehicles accessing the Site by the Principal Contractor. All vehicle movements into the Site will be fully marshalled and controlled by qualified banksmen. Exact numbers and locations of traffic marshals will be provided by the Principal Contractor.

6.5 Swept Paths

6.5.1 Swept path analyses for vehicles accessing/egressing the Site and the proposed route will be developed and submitted by the Principal Contractor before works begin on site.

6.6 Wheel Wash Management

6.6.1 Due to the layout within the Proposed Development, the Site will have designated loading areas. These areas will also serve as wheel wash areas for vehicles leaving the confines of the Site during the demolition and substructure works. Similarly, road sweepers will be dedicated to keeping all the access routes including public and internal roads and footpaths clean.

6.6.2 All ground or surface water run-off will be strictly controlled in accordance with environmental legislation and best practice to prevent pollution of drains and watercourses will be adopted. The location of the wheel wash station(s) will be provided by the Principal Contractor.

6.6.3 It is recognised that the Site sits within the wider Hillingdon Hospital campus and, as such, vehicle access and egress cannot be considered in isolation. To this end several potential routes and options were investigated to establish the optimum vehicle access for construction traffic serving the Site and the routing proposed does not adversely affect local bus, taxis, or other amenities within the vicinity of the Site.

6.6.4 To minimise the impact of traffic movements, the following strategies will be implemented:

- No parking is to be permitted on either of the access roads.
- All operatives shall use the established site pedestrian routes.
- All people entering and leaving the Site will be required to log in and out.
- Exclusion zones will be erected with controlled access / egress to the demolition zone.
- Vehicles will not be allowed to queue on the highway. At no time will vehicles exceed 5mph within the Site.
- A road sweeper and / or a hose/wheel cleaning plant will be available at the entrance of the Site to prevent the spread of and mud \ debris onto surrounding roads.
- Lorry routing will be determined so that the extent of cycle / lorry conflicts and cycle accident blackspots are avoided where possible.

- In addition to the requirements of FORS and CLOCS, road hauliers engaged on the project will be required to provide details of specific training with respect to cycle awareness and vehicle anti-idling measures.
- All drivers will be issued with a copy of the traffic route plan prior to coming to Site and will receive a Traffic Management Induction prior to attending Site.
- The communication between vehicles accessing Site and the Site team will be maintained to minimise congestion around the Site and avoid any possible stacking. The Principal Contractor will ensure communication is maintained between drivers and the Site team so that the arrival of vehicles can be suitably planned.

6.7 Loading and Unloading, and Construction Vehicle Types

6.7.1 The Principal Contractor will ensure that any collection and delivery will take place away from main roads. If holding areas for vehicles accessing the Site are required, the Principal Contractor will ensure these take place in locations which do not impact the highway network. A designated area within the Site may be identified as an on-site turning space, queuing facilities and serve as a holding area for vehicles. This will be set out in detail by the Principal Contractor upon appointment.

6.7.2 It is anticipated that all parking and loading activity directly associated with the Site will be carried out within the curtilage of the site hoarding. This will be reviewed by the Principal Contractor on appointment.

6.7.3 The Principal Contractor will provide a clear policy to all staff for the loading and unloading of any materials on-site. The Site managers will also ensure that they request an estimate of the time required to load or unload any materials on-site to ensure that there is no conflict of any space within the site. This management of best practice procedures will ensure that no vehicles or staff is required to wait to carry out tasks. The Site managers will also ensure they inform any vehicles arriving on-site that it is unacceptable to arrive before they are scheduled to do so. This will ensure that vehicles do not wait in hazardous locations or create congestion.

6.7.4 The loading and unloading of any equipment, materials and scaffolding will be undertaken with due care to keep noise levels to a minimum. This will be overseen by an appropriate member of staff employed by the Principal Contractor.

6.7.5 The Principal Contractor will work with the LBH highway authority to ensure that construction working hours do not result in any conflicts on the local highway network. The Principal Contractor will make every effort to ensure that only a limited number of vehicles access the site during peak periods, such as weekdays, before 9.30am and after 4.30pm (except for necessary site traffic as agreed with LBH). The majority of deliveries will be complete by school finishing time and the contractor will seek to work within the guidelines.

6.8 On site Arrangements

6.8.1 The movement of vehicles during the various construction phases will include the following key activities:

- **Demolition** – Lorry movements will be split between plant deliveries, site set up and demolition material away vehicles.
- **Groundworks** – Construction vehicle movements will include delivering timber, reinforcement, concrete, drainage, and muck away. Vehicular movements are

expected to have similar arrangements as per the piling works described below, i.e. they will access the Site.

- **Piling** – Lorry movements will be split between concrete deliveries, rebar deliveries and muck away of spoil. Access will be planned to allow vehicles to enter/exit from the site. This will enable piling to be undertaken and protection measures put into place will be erected in order to aid construction and protect the public. Jet wash facilities will be employed during all of these stages of the construction to guard against mud and other substances from the lorry wheels, chassis, and bodywork, to prevent any fouling of the public highway.
- **Frame** – Vehicles will utilise the construction site entrance and loading bay for offloading.
- **Fit Out** – Construction vehicles will enter the area in front of the Site, which will be separated from general traffic by hoarding or temporary barriers. The materials will be offloaded from these vehicles using a crane and could be stored either on the Site or on the footway (temporarily closed). In order to manage this activity and to ensure the safety of other road users, enhanced mitigation will be implemented using the banksmen to ensure the movement of the construction vehicles entering and exiting the Site loading bay.
- **Cladding** – Vehicular movements are expected to have similar arrangements as per the fit-out construction deliveries described above.

6.9 Vehicle loading and unloading Traffic Marshals

6.9.1 Vehicle loading and unloading will be planned by the Principal Contractor. All vehicle movements, loading and unloading will be fully marshalled and controlled by qualified banksmen. Exact numbers and locations of traffic marshals will be provided by the Principal Contractor.

6.10 Site set-up

6.10.1 A detailed scaled plan showing the local highway network layout in the vicinity of the Site will be prepared by the Principal Contractor. This will include details of on-street parking bay locations, cycle lanes, footway extents, relevant street furniture, and proposed site access locations.

6.11 Parking bay suspensions and temporary traffic orders

6.11.1 Parking bay suspensions will only be requested where absolutely necessary and a Temporary Traffic Order (TTO) will be applied for.

6.11.2 Details of proposed parking bay suspensions and/or TTOs which would be required to facilitate the construction will include details of the expected duration in months/weeks and will be provided by the Principal Contractor in due course.

6.12 Occupation of the public highway

6.12.1 Details of using the public highway for storage, site accommodation or welfare facilities will be provided by the Principal Contractor, where required.

6.13 Motor vehicle and/or cyclist diversions

6.13.1 Details of any diversion, disruption, or other anticipated use of the public highway during the construction period will be provided by the Principal Contractor. The Principal Contractor will provide a drawing to show the locations of diversions and associated signage.

6.14 Scaffolding, hoarding, and associated pedestrian diversions

6.14.1 Pedestrians' safety will be a priority and all diversions will be clearly sign posted and maintained. Vulnerable footway users will be carefully considered. These include wheelchair users, the elderly, those with walking difficulties, young children, those with prams, the blind and partially sighted. Appropriate ramps will be used if it is unavoidable for cables, hoses, etc. to be run across the footway for short periods of time.

6.14.2 Any work above ground floor level may require a covered walkway adjacent to the Site. A licence will be applied for to allow scaffolding and gantries to be erected. The adjoining public highway will be kept clean and free from obstructions, and hoarding will not restrict access to adjoining properties, including fire escape routes. Lighting as well as signage will be used on temporary structures/skips/hoardings etc. if outside the Site and a secure hoarding will installed at the Site boundary with lockable access.

6.14.3 The Principal Contractor will provide details once appointed of all scaffolding, hoarding and pedestrian diversions, including any other temporary structures which would overhang/over sail the public highway (e.g. scaffolding, gantries, cranes etc.).

6.15 Services

6.15.1 Changes to the existing utility services will be carried out throughout the various phases of the project, i.e. disconnection of redundant utilities and connections to public utilities and/or statutory undertakers' plant. The Proposed Development will require new utility services and furthermore, will affect the existing supplies to some of the retained neighbouring buildings. A strategy and programme for coordinating the connection of services will be produced and contact with the utility services / utility companies will have to be made.(e.g. UKPN, Thames Water, National Grid, EDF Energy, BT etc.).

6.15.2 Proposals about how the utility companies can coordinate their works, and perhaps share the same excavations and traffic management proposals, will be discussed with the utility companies, and the outcome of the discussions will be provided to LBH.

7. Environment

7.1 Environmental Management Overview

7.1.1 This section provides a summary of the environmental management measures to be implemented during the demolition and construction phases of the Proposed Development.

7.1.2 Where possible, detail has been included and where information is not yet available, this will be provided by the Principal Contractor once appointed.

7.1.3 The Principal Contractor will be required to develop and implement an Environmental Management System (EMS) which is consistent with current legislation and best practice, such as ISO 14001 or equivalent environmental management standard.

7.1.4 The Principal Contractor will identify the environmental aspects of its activities and their associated environmental impacts as part of a Construction Environmental Management Plan (CEMP) for the Proposed Development and will summarise the EMS.

7.1.5 Furthermore, the Principal Contractor will determine significant environmental aspects by undertaking an environmental risk assessment (ERA) and will define appropriate mitigation, in line with the requirements set out within this Outline DCMP.

7.1.6 The control or mitigation measures identified as a result of the ERA will be included within the construction method statements and communicated to those involved in the execution of the construction activities, and will include reference to relevant British Standards, codes, protocols, and legislation. The effectiveness of the mitigation will be determined through monitoring.

7.1.7 For each work package associated with the demolition and construction phase, the contractors must issue a method statement detailing:

- Their work procedure.
- Pollution prevention measures.
- How they will dispose of waste.
- Any substances listed under Control of Substances Hazardous to Health (COSHH) Regulations 2002 (Ref. 8) which are to be used; and
- Environmental protection statements (including mitigation measures specified on the basis of the work-package specific ERA).

7.1.8 All method statements will be reviewed prior to their acceptance for use and communicated to the Site personnel prior to the start of works.

7.1.9 The sections below define a framework of mitigation measures for incorporation into the Construction Method Statements/ Risk Assessments and Method Statements (RAMS) during the demolition and construction phase. This approach is to ensure that the potential environmental impacts arising from the demolition and construction activities can be avoided or mitigated to an acceptable level of impact.

7.2 Noise

7.2.1 This section sets out the approach the Principal Contractor will take to minimise noise and vibration impacts during demolition and construction of the Proposed Development.

Noisy Operations

7.2.2 The Principal Contactor will:

- Provide details and a list of all noisy operations and the construction method used
- Be fully aware of the sensitivities to noise of those occupying the adjacent properties and will make all reasonable steps to minimise any noise disruption to adjacent occupiers.
- Apply Best Practicable Means (BPM) (as defined by section 72 of the Control of Pollution Act 1974) and BS 5228 Noise and vibration control on construction and open sites (Ref. 9) to minimise construction noise and vibration on neighbouring sensitive receptors.

7.2.3 Where it is necessary to carry out noisy activities these will be carried out in accordance with LBH requirements and in consultation with any affected residents, businesses and local staff working within the wider Hillingdon Hospital. Noisy activities will be identified well in advance and the timing of these agreed prior to commencement. The following principles will be implemented, further details of the noise mitigation measures are provided below:

- Prior to commencement of works baseline monitoring levels will be established to agree acceptable noise levels with the LBH and sensitive receptors. Monitoring will be carried out in accordance with BS 5228.
- Operatives working in noisy areas will be monitored to ensure they are wearing the necessary protective equipment and that they are not exceeding their permitted exposure periods.
- Electrically operated plant will be used where practical. All plant used on the Site will be installed with silencers where practicable. No radios or other audio equipment will be permitted on site.
- The daily time that noisy equipment is operated will be limited; however, it is acknowledged that sometimes a greater noise level may be acceptable if the duration of the construction activity, and therefore length of disruption, is reduced.

Noise Survey

7.2.4 Baseline noise monitoring was carried out to establish the existing noise climate in the area. The monitoring procedures followed guidance from BS 7445-2 1991 ‘Description and Measurement of Environmental Noise’.

7.2.5 Unattended noise monitoring equipment was set up at three locations surrounding the proposed development. Continuous measurements were undertaken between 26th February 2021 and 5th March 2021 to establish ambient noise levels during daytime (07:00 – 23:00) and night-time (23:00 – 07:00) periods. Attended noise monitoring equipment was set up at one location to establish the daytime ambient noise levels to the north of the site. The sound level meters were field calibrated with an acoustic calibrator both prior to commencement and after completion of the noise measurements.

7.2.6 Noise monitoring locations are presented and described in Table 7-1.

Table 7-1. Noise Monitoring Locations

Monitoring Location	Measurement Type	Details	GPS coordinates

LT1	Unattended	Signpost in close proximity to a staff only entrance on the western boundary of the site, across Royal Lane	51.525980, -0.463628
LT2	Unattended	Carpark north of LT4, in close proximity to the new proposed A&E entrance.	51.5244888, -0.4633147
LT3	Unattended	Lamppost at the southern boundary carpark of the site	51.5255658, -0.4628487
ST1	Attended	Signpost on the north-western boundary of the site, at the intersection of Royal Lane and Piled Heath Road.	51.527138, -0.462565

7.2.7 The Principal Contractor shall engage in early discussions with the LBH on the scope of the necessary noise and vibration monitoring and shall agree the details of the monitoring via the Section 61 consent process.

Noise & Vibration Predictions

7.2.8 A noise and vibration assessment relating to demolition and construction of the Proposed Development has been undertaken and is presented in the Noise and Vibration Assessment which is submitted with the planning application.

7.2.9 Once the Principal Contractor has been appointed and the list of equipment to be used has been confirmed, full details of noise and vibration predictions will be provided by the Principal Contractor.

Noise and Vibration Mitigation Measures

7.2.10 Where reasonably practicable, the following measures to minimise noise, vibration and levels will be adopted during the demolition and construction works to prevent noise and vibration disturbance from the activities on the Site, including the actions to be taken in the event that activities exceed the predicted levels:

- Using modern, quiet, and well-maintained equipment so that extraneous noise from mechanical vibration, creaking and squeaking is kept to a minimum. The Principal Contractor will ensure that all plant complies with the relevant statutory requirements
- Machines in intermittent use will be shut down or throttled down to a minimum when not in use.
- Compressors will be fitted with properly lined and sealed acoustic covers which will be kept closed whenever in use. Pneumatic percussive tools will be fitted with mufflers or silencers of the type recommended by the manufacturers.
- Equipment which breaks concrete, brickwork, or masonry by bending, bursting, or “nibbling” will be used in preference to percussive tools. Where possible, the use of impact tools will be avoided where the site is close to occupied premises.
- Rotary drills and bursters activated by hydraulic, chemical, or electrical power will be used for excavating hard or extrusive material.
- Wherever possible, equipment powered by mains electricity will be used in preference to equipment powered by internal combustion engine or locally generated electricity Ensure that noisy plant is located as far from receptors as practicable and is screened using temporary barriers.
- Screening and insulating the construction works from sensitive neighbours, in order to minimise the transfer of vibration and structure borne noise and undertaking regular monitoring to ensure the effectiveness of noise screens.

- Limit the daily time that noisy equipment is operated; however, it is acknowledged that sometimes a greater noise level may be acceptable if the duration of the construction activity, and therefore length of disruption, is reduced.
- Careful material handling such as lowering rather than dropping items.
- Avoidance of unnecessary noise between operations, such as excessive revving of engines by effective site management.
- The use of radios on site, shouting, swearing, singing; sitting outside the Site is not to be permitted at any time.
- As stated in Section 6 of this DCMP, the following traffic management measures will be applied which will reduce noise impacts:
  - Vehicles employed for any activity associated with the construction works will, where reasonably practicable, be fitted with effective exhaust silencers and shall be maintained in good working order.
  - Time slots will be adopted for deliveries to ensure that convoys of vehicles do not arrive simultaneously and avoid unnecessary idling on-Site.
  - Prevention of temporary parking on kerbsides in the vicinity of noise sensitive receptors near the Site; and
  - All construction vehicles will travel to and from the Site via a defined route.

Monitoring

7.2.11 The Principal Contractor shall provide details describing arrangements for monitoring of noise and vibration, including instrumentation to be used, locations of monitors and trigger levels where appropriate. Given the scale of the Proposed Development it can be defined as Major Works.

7.2.12 In accordance with the LBH's requirements, a continuous noise monitoring regime shall be implemented to ensure that the levels of noise and where applicable vibration, are being maintained to a minimum.

7.2.13 The exact location of instrumentation will be provided by the Principal Contractor on appointment. Where there is evidence of unacceptable levels of noise and vibration from the building construction/demolition activities the site, the Principal contractor will make carry out their own inspection and assessment, and where necessary undertake ambient monitoring with the aim of identifying those process operations giving rise to the noise and vibration. Once the source of the emission is known, corrective action will be taken.

7.2.14 Effective preventative maintenance will be employed during all aspects of the demolition/construction works including all plant, vehicles, buildings, and equipment concerned with the control of emissions to air.

7.2.15 The Principal Contractor shall only use suitably qualified staff to carry out noise and vibration monitoring.

7.2.16 The noise trigger levels will be agreed with LBH's Environmental Health Officer prior to works commencing in accordance with the process set out in LBH's Minimum Requirements.

7.2.17 As stated in LBH's Minimum Requirements, where the measured noise levels are more than 3 dB (A) above the predicted noise levels or in the event of a complaint of noise an investigation shall be carried out to ascertain the cause of the exceedance or the complaint and to check that BPM are being used to control the noise in accordance with the steps set out in the application for 'prior consent'. Noise levels shall be reduced further if it is reasonably practicable to do so.

Vibration

7.2.18 In the case of vibration, measured vibration levels shall be compared with the criteria in BS 5228: 2009 part 2 (Ref. 10). Lower limits will be agreed with the LBH if there is a risk that vibration levels may interfere with vibration sensitive equipment or other vibration sensitive objects.

7.2.19 Wherever possible to prevent unnecessary vibration arising from above/underground reinforced concrete superstructures which are to be demolished will be fitted with equipment with pulveriser/munching attachments.

7.2.20 To avoid noise and vibration transference via connections to adjacent buildings the Principal Contractor will separate the two by cutting structural breaks/ discontinuities with adjoining premises.

7.2.21 Where properties are close together the use of least vibration pilling techniques will be adopted. Breaking-up of concrete and the removal of floor slabs will be carried out using non-percussive techniques where practicable.

7.2.22 Where practicable ground bearing slabs will be levered from their position and broken up off-site. Where this is not practicable and where the structural transmission of noise and vibration generated by unavoidable percussive breaking into adjoining premises is likely, concrete slabs will first be cut around their perimeter to isolate them from the rest of the structure. Where the use of percussive breakers is necessary multiple breakers will be employed in order to minimise the time taken to break concrete and floor slabs.

7.2.23 Communication will be undertaken with neighbouring residents, businesses, and staff within the wider Hillingdon Hospital prior to concrete breaking so that works can be planned, and measures implement to minimise the disturbance to neighbours as far as practicable.

Noise and Vibration Compliance with BS 5228:2009

7.2.24 The Principal Contractor will produce evidence that staff have been trained to comply with BS 5228 -1:2009 ‘Code of practice for noise and vibration control on construction and open sites – Part 1: Noise’ (Ref. 9).

7.2.25 Part 1 of the Code of practice for noise and vibration control on construction and open cites provides guidance on the methods that can be used to predict and measure noise from construction activities and how to assess the impact on those exposed to it. In particular Annex F sets out the methods for estimating noise from construction sites which consider distance, ground effects, reflections from surfaces, and screening by obstacles.

7.3 Air Quality

Dust Nuisance Control Measures

7.3.1 The Principal Contractor shall provide details on how dust nuisance arising from dusty activities, on site, will be prevented. Proposed site layouts will be planned to locate machinery and dust-causing activities away from sensitive receptors, where reasonably practicable. Appropriate methods, such as the erection of hoardings or other barriers along the Site boundary, will be used, where appropriate, to mitigate the spread of dust to any sensitive buildings or other environmental receptors (including the wider Hillingdon Hospital). The site team will employ dust suppression measures when activities that risk generating large volumes of airborne dust are being carried out. This will normally take the form of damping down and dust screens. BPM will be strictly enforced to ensure work areas are kept clean and tidy at all times to prevent the migration of dust throughout the Site.

Public Highway Dirt and Dust Control Measures.

7.3.2 The Principal Contractor shall provide details describing how any significant amounts of dirt or dust that may be spread onto the public highway will be prevented and/or cleaned. In the initial stages, when demolition and ground works are being carried out, wheel washers will be used to wash down all vehicles that enter/leave the construction site.

7.3.3 All lorries will be fully sheeted to minimise the risk of any mud spreading onto the highway as well as considering spraying a fine spray to suppress dust on the following:

- Structures and building during demolition.
- Unpaved areas that are subject to traffic or wind.
- Sand, spoil, and aggregate stockpiles.
- During loading/unloading of dust generating materials.

7.3.4 As well as a wheel wash, a hose and pressure washer will be provided at the main entrance to prevent any dirt/dust on vehicles when leaving the Site.

Air Quality Assessment and/or Dust Risk Assessment

7.3.5 A Dust Risk Assessment has been undertaken based on currently available information concerning construction phase activities, in accordance with the GLA's The Control of Dust and Emissions during Construction and Demolition Supplementary Planning Guidance (SPG). Full details of the Dust Risk Assessment are provided within the Air Quality Assessment submitted with the planning application. This also includes construction phase mitigation measures to be employed by the Principle Contractor during this phase.

7.3.6 The Dust Risk Assessment takes into account demolition, earthworks, and construction and track-out activities and focused on human receptors since other sensitive receptors were scoped out due to their distance to the Site.

7.3.7 Overall, the Dust Risk Assessment conservatively identifies the Site as having a 'high risk' of causing dust impacts during demolition activities on the Site and mitigation measures consistent with a high-risk site are therefore proposed, as set out in the Air Quality Assessment.

7.3.8 The mitigation measures set out below are based on the 'highly recommended' and 'desirable' mitigation from the SPG. The final mitigation measures to be adopted will be selected by the appointed demolition and construction contractor. The dust controls confirmed by the Principal Contractor will be included in the DCMP, which will be agreed with LBH prior to works commencing on Site.

GLA's 'highly recommended' measures

7.3.9 Based on the results of the Dust Risk Assessment, the mitigation measures listed below in paragraph 7.3.10 are recommended by the GLA's The Control of Dust and Emissions during Construction and Demolition SPG (Ref. 11).

7.3.10 It is recognised that not all of the recommended measures may be appropriate or feasible for all high-risk sites.

- Site Management:
  - Develop and implement a stakeholder communications plan that includes community engagement before work commences on site.

  - Develop a Dust Management Plan.
  - Display the name and contact details of person(s) accountable for air quality pollutant emissions and dust issues on the site boundary.
  - Display the head or regional office contact information.
  - Record and respond to all dust and air quality pollutant emissions complaints.
  - Make a complaint log available to the local authority when asked.
  - Carry out regular site inspections to monitor compliance with air quality and dust control procedures, record inspection results, and make an inspection log available to the local authority when asked.
  - Increase the frequency of site inspections by those accountable for dust and air quality pollutant emissions issues when activities with a high potential to produce dust and emissions and dust are being carried out, and during prolonged dry or windy conditions.
  - Record any exceptional incidents that cause dust and air quality pollutant emissions, either on or off the site, and the action taken to resolve the situation is recorded in the log book.
  - Hold regular liaison meetings with other high-risk construction sites within 500m of the site boundary, to ensure plans are co-ordinated and dust and particulate matter emissions are minimised.

- Preparing and Maintaining the Site:
  - Plan site layout: machinery and dust causing activities should be located away from receptors.
  - Erect solid screens or barriers around dust activities or the site boundary that are, at least, as high as any stockpiles on site.
  - Fully enclosure site or specific operations where there is a high potential for dust production and the site is active for an extensive period.
  - Avoid site runoff of water or mud.
  - Keep site fencing, hoarding, barriers and scaffolding clean using wet methods
  - Remove materials from site as soon as possible.
  - Cover, seed, or fence stockpiles to prevent wind whipping.
  - Avoid double handling of material wherever reasonably practicable.
  - Carry out regular dust soiling checks of buildings within 100m of site boundary and cleaning to be provided if necessary.
  - Agree monitoring locations with the Local Authority.
  - Where possible, commence baseline monitoring at least three months before phase begins.
  - Put in place real-time dust and air quality pollutant monitors across the site and ensure they are checked regularly.

- Operating Vehicle/Machinery and Sustainable Travel:
  - Ensure all on-road vehicles comply with the requirements of the London Low Emission Zone.
  - Ensure all non-road mobile machinery (NRMM) comply with the standards set within this guidance.
  - Ensure all vehicles switch off engines when stationary – no idling vehicles.

  - Avoid the use of diesel- or petrol-powered generators and use mains electricity or battery powered equipment where possible.
  - Impose and signpost a maximum-speed-limit of 10mph on surfaced haul routes and work areas (if long haul routes are required these speeds may be increased with suitable additional control measures provided, subject to the approval of the nominated undertaker and with the agreement of the local authority, where appropriate).
  - Produce a Construction Logistics Plan to manage the sustainable delivery of goods and materials.
  - Implement a Travel Plan that supports and encourages sustainable travel (public transport, cycling, walking, and car-sharing).
  - Loading of material into lorries within designated bay.
  - Plant working on site to have exhausts positioned such that the risk of re-suspension of ground dust is minimised (exhausts should preferably point upwards), where reasonably practicable.
  - Ensure all vehicles carrying loose or potentially dusty material to or from the site are fully sheeted.
  - Use ultra-low sulphur fuels in plant and vehicles.

- Operations:
  - Only use cutting, grinding, or sawing equipment fitted or in conjunction with suitable dust suppression techniques such as water sprays or local extraction, e.g. suitable local exhaust ventilation systems.
  - Ensure an adequate water supply on the site for effective dust/particulate matter mitigation (using recycled water where possible).
  - Use enclosed chutes, conveyors, and covered skips.
  - Minimise drop heights from conveyors, loading shovels, hoppers and other loading or handling equipment and use fine water sprays on such equipment wherever appropriate.
  - Ensure equipment is readily available on site to clean any dry spillages and clean up spillages as soon as reasonably practicable after the event using wet cleaning methods.

- Waste Management:
  - Reuse and recycle waste to reduce dust from waste materials.
  - Avoid bonfires and burning of waste materials.

- Measures Specific to Demolition:
  - Soft strip inside buildings before demolition (retaining walls and windows in the rest of the building where possible, to provide a screen against dust)
  - Ensure water suppression is used during demolition operations.
  - Avoid explosive blasting, using appropriate manual or mechanical alternatives.
  - Bag and remove any biological debris or damp down such material before demolition.

- Measures Specific to Construction:
  - Avoid scabbling (roughening of concrete surfaces) if possible

  - Ensure sand and other aggregates are stored in bunded areas and are not allowed to dry out, unless this is required for a particular process, in which case ensure that appropriate additional control measures are in place
  - Ensure bulk cement and other fine powder materials are delivered in enclosed tankers and stored in silos with suitable emission control systems to prevent escape of material and overfilling during delivery.

- Measures Specific to Trackout:
  - Regularly use a water-assisted dust sweeper on the access and local roads, as necessary, to remove any material tracked out of the site.
  - Avoid dry sweeping of large areas.
  - Ensure vehicles entering and leaving sites are securely covered to prevent escape of materials during transport.
  - Record all inspections of haul routes and any subsequent action in a site log book.
  - Install hard surfaced haul routes, which are regularly damped down with fixed or mobile sprinkler systems and regularly cleaned.
  - Inspect haul routes for integrity and instigate necessary repairs to the surface as soon as reasonably practicable
  - Implement a wheel washing system (with rumble grids to dislodge accumulated dust and mud prior to leaving the site where reasonably practicable).
  - Ensure there is an adequate area of hard surfaced road between the wheel wash facility and the site exit, wherever site size and layout permits.
  - Access gates to be located at least 10m from receptors where possible.
  - Apply dust suppressants to locations where a large volume of vehicles enter and exit the construction site.

GLA's 'desirable' Mitigation Measures

7.3.11 Based on the results of the dust risk assessment and the GLA's The Control of Dust and Emissions during Construction and Demolition SPG (Ref. 11), the mitigation measures listed above in paragraph 7.3.10 are 'desirable' to be implemented:

- Preparing and Maintaining the Site:
  - Install green walls, screens, or other green infrastructure to minimise the impact of dust and pollution.
  - Provide showers and ensure a change of shoes and clothes are required before going off-site to reduce transport of dust.
- Measures Specific to Construction:
  - For smaller supplies of fine powder materials ensure bags are sealed after use and stored appropriately to prevent dust.

NRMM Machinery

7.3.12 The Principal Contractor shall register all relevant machinery on the NRMM register, including the Site name under which it has been registered. An inventory of all NRMM will be kept on site and all machinery will be regularly services and service logs will be kept on site for inspection. The Principal Contractor shall ensure that all NRMM machinery used on the Site meets the specific standards set out in EU Directive 97/68/EC for Nitrogen Oxide

(NOx) and Particulate Matter (PM) emissions (Ref. 12). The Principal Contractor shall be required to enter the details of every vehicle on the NRMM website and copy the information to the Pollution Team at LBH.

Monitoring

7.3.13 Real-time dust (PM_{10}) monitoring with MCERTS 'Indicative' monitoring equipment will be required. These will be installed after it has been agreed with LBH whether the Site is a 'high impact' or a 'medium impact' site. In accordance with the LBH's Minimum Requirements, if the Site is a 'high impact' site, four real time dust monitors will be installed. If the site is a 'medium impact' site', two real time dust monitors will be installed.

7.3.14 Dust monitoring will be undertaken in accordance with the SPG, and guidance published by the Institute of Air Quality Management (IAQM) (Ref. 14). The Principal Contractor will provide details describing arrangements for monitoring dust levels, including instrumentation, locations of monitors and trigger levels to the LBH for approval. Given the scale of the project it can be defined as Major Works.

7.3.15 Where possible dust monitoring will be in place and operational at least three months prior to the commencement of works on-site. Dust monitoring reports will be provided to the LBH detailing activities during each monitoring period, dust mitigation measures in place, monitoring data coverage, graphs of measured dust (PM_{10}) concentrations, any exceedances of the trigger levels and an explanation of the causes of any and all exceedances, in addition to the further mitigation measures which have been implemented to rectify these.

7.3.16 Effective preventative maintenance will be employed on all aspects of the construction/demolition works including all plant, vehicles, buildings, and the equipment concerned with the control of emissions to air.

7.3.17 Management techniques which give effective control of emissions will include proper management, supervision, and training for process operations; proper use of equipment; effective preventative maintenance on all plant and equipment concerned with the control of emissions to the air; and best practice will be adopted to ensure that spares and consumables are available at short notice in order to rectify breakdowns rapidly.

7.3.18 A commitment to the prevention of dust formation will be adopted by the Principal Contractor and implemented at the Site. Management and control of dust will be undertaken in accordance with the following hierarchy:

1. Prevention.
2. Suppression; and
3. Containment.

7.3.19 All dusty operations will be identified, and best available techniques adopted to control dust emissions. When this is not practicable every effort will be made to control emissions at source. Examples include the correct storage of raw materials, organising the process in such a way that spillage is avoided, and maintaining high standards of internal and external housekeeping.

7.3.20 Consideration will be given to the siting of aggregate stockpiles, based upon such factors as the prevailing winds, the proximity of the Site boundary and proximity of neighbours.

7.3.21 In areas where there is vehicular movement, every effort will be taken to construct a consolidated surface which is kept in good repair.

7.3.22 The principles for preventing dust emissions will be adopted, such as containment of dusty processes and suppression of dust using water or proprietary suppressants. Suppression techniques will be properly designed, used, and maintained, in order to be effective.

7.4 Ecology and Biodiversity

7.4.1 The Principal Contractor will adopt appropriate measures to protect biodiversity and limit indirect effects on habitat adjacent to the Site.

7.4.2 The following surveys will be undertaken:

- Prior to the start of works on Site, an Invasive Non-Native Species survey will be undertaken to establish the extent within the Site of species listed in the London Invasive Species Initiative (LISI) as species of concern due to the high risk of negative impact on the environment. Wildlife and Countryside Act 1981 (as amended) (Ref. 15). An Invasive Species Management Plan will be produced and implemented during site clearance to deal with all concerns raised by the survey.
- The Invasive Species Management Plan will follow the guidance from the GB Non-Native Species Secretariat, Environment Agency, and the Property Care Association. The Invasive Species Management Plan will detail the method for removal of the plants and the biosecurity measures that will be implemented. Appropriate treatment of as per the Invasive Species Management Plan should be undertaken by an appropriately qualified specialist contractor.
- A survey to check for the presence/absence of active bird nests will be undertaken by a suitably qualified ecologist if site clearance works are being undertaken between the months of March and September inclusive. If any active nests are found, the work will cease, the area with the nests will be left in-situ and an appropriate buffer zone will be established. This area will be left intact until it has been confirmed by the ecologist that the young have fledged, and the nest is no longer in use.
- Furthermore, the following best practice measures related to (but not limited to) will be implemented during the construction of the Proposed Development to avoid adverse impacts to the local neighbourhood which is:
- Plant and machinery will be turned off when not in use.
- Enclosure and sheeting of material stockpiles.
- Use of sheltered locations for material storage.
- The use of wheel washes to reduce the tracking of soil onto adjacent highways with prompt clearance as a remedial action.
- Sheeting vehicles carrying spoil.
- Dust suppression measures for any on-site crushers; and
- Avoiding directional lighting of sensitive ecological receptors.

7.4.3 The Bat Surveys Report which is submitted with the planning application presents the findings of emergence and re-entry surveys for Potential Roost Features (PRF) identified on buildings within the Site. The Bat Surveys report, undertaken from May to August 2021 provides the following recommendations to mitigate potential construction impacts on bats:

- Prior to works commencing, the contractors should be made aware that the buildings have potential to support roosting bats via a toolbox talk; and
- Works to the features with potential to be egress and access points for bats must be carried out under the supervision of a suitably qualified ecologist.

7.4.4 In the event that a bat or signs of bats are found during the development, works should cease immediately, and a suitably qualified ecologist should be contacted for advice. A licence from Natural England may be required before works can continue on any demolition works.

7.5 Arboriculture

7.5.1 The Principle Contractor will work in line with the tree impact assessment and the tree method statement which will be secured by pre-commencement planning condition This will identify which are to be removed, pruned, and protected in relation to the Proposed Development and are identified within the Arboricultural Impact Assessment prepared by Landmark Trees which is submitted with the planning application.

7.5.2 Retained trees will be protected in accordance with BS 5837: 'Trees in relation to design, demolition and construction' (Ref. 16). Any works to trees will be carried out by suitably trained or qualified personnel in accordance with BS 3998: Tree work - Recommendations (Ref. 17). Should the requirement for additional tree works be identified, this will be discussed with a suitably qualified arboriculturist and no works will be undertaken without prior consent of the LBH.

7.5.3 An Arboricultural Method Statement will be prepared prior to the start of works on Site. An outline method statement is appended to the Arboricultural Impact Assessment submitted with the planning application.

7.6 Archaeology

7.6.1 Mitigation measures to manage potential effects on the archaeology may include, if deemed appropriate in consultation with the Greater London Archaeological Advisory Service (GLAAS), a phased programme of archaeological monitoring of the site investigation, trial trenching and/or archaeological monitoring of intrusive works during construction. The scope of the archaeological monitoring and evaluation would be subject to approval by GLAAS.

7.6.2 During the course of construction, should artefacts of archaeological interest or expected interest be located these will immediately be reported to the Principal Contractor's Project Manager.

7.6.3 Should human remains be located during construction, either during archaeological works (if required) or during construction activity, the Client, the Principal Contractor, and all subcontractors will comply with all relevant legislative requirements.

7.6.4 During the course of construction should artefacts be located that are deemed by their material content or context to be treasure, as defined by the Treasure Act 1996 (Ref. 18), then all necessary measures to comply with the requirements of the Act and any project-specific requirements will be implemented.

7.7 Built Heritage, Townscape and Visual Impacts

7.7.1 Hoardings and fencing are to be provided and maintained by the Principal Contractor. All worksites will be completely fenced and secured to prevent public access.

7.7.2 The Principal Contractor will instigate a programme of maintenance and regular inspection to ensure that all site hoardings and fencing remain secure and in good condition and keep the Site entrance and neighbouring roads clean and tidy.

7.8 Ground Conditions

7.8.1 The Principal Contractor will adopt appropriate measures to protect, assess, mitigate, and remediate land where required, including (but not limited to):

- Work will be carried out in accordance with Construction Design Management (CDM) Regulations 2015 (Ref. 19).
- A competent/ licensed contractor will survey and remove asbestos containing materials (ACM) and other materials and structures contaminated with asbestos fibres.
- An Incident Response Plan will be drafted prior to the commencement of the works. The Incident Response Plan will outline key pollution mitigation measures including a Control of Substances Hazardous to Health (COSHH) / fuel inventory and key contacts to be notified in the event of a significant pollution incident, which may subsequently lead to the contamination of controlled waters. Tanks and dispensing pumps will be locked when not in use to prevent unauthorised access. Information regarding spill prevention and disposal of COSHH items will be provided as part of the Site induction and during regular toolbox talks and as the works progress. On-site provisions will be made to contain a serious spill or leak through the use of booms, bunding and absorbent material, such equipment will be located in key areas of the Site such as oil storage areas.
- Appropriate use of Personal Protective Equipment (PPE) and implementation and adherence to Health & Safety Protocols, Plans and Procedures. Demolition and construction workers will remain vigilant of ground conditions at all times and will report to the Principal Contractor any suspected areas of potential contamination.
- Potentially contaminated made ground will be removed from excavations. Advice should be sought from an environmental specialist should materials suspected of being contaminated be uncovered.
- Oils and hydrocarbons will be stored in designated locations with specific measures to prevent leakage and release of their contents, include the siting of storage areas away from surface water drains, on an impermeable base with an impermeable bund that has no outflow and is of adequate capacity to contain 110% of the contents.
- Vehicles should be well maintained to prevent accidental pollution from leaks. Static machinery and plant should include drip trays beneath oil tanks/engines/gearboxes/hydraulics, which will be checked and emptied regularly.
- Pile arisings, concrete, pastes and/or grouts will be appropriately handled and disposed of during the laying of foundations.
- During excavation, the contractor/s will employ dust suppression measures when necessary to prevent the potential mobilisation of contaminated dust particles and their migration off site.
- Stockpiles and material handling areas will be kept as clean as practicable to avoid nuisance from dust. Dusty materials will be dampened down using water sprays in dry weather or covered.
- The length of time materials are stockpiled on-site before being removed for re-use, recycling or disposal is to be kept to a minimum and stockpiles are to be covered prior to disposal.

7.8.2 As set out in the Phase 1 Geotechnical and Geoenvironmental Desk Study Report which is submitted with the planning application, a Phase 2 intrusive ground investigation will be required prior to commencement of demolition and construction works, secured through an appropriately worded planning condition. The investigation will evaluate the quality of the soils and groundwater on the Site to specify foundation design requirements and management measures for any contamination found, if required, which will be implemented by the Principal Contractor.

Asbestos Survey

7.8.3 NHS Trust have undertaken a BREEAM Pre-Demolition Audit, and this has identified asbestos.

7.8.4 Where identified, ACM will be removed by a suitability licensed asbestos removal contractor and managed in accordance with the relevant statutory controls governing asbestos disposal. Any known ACM within the existing buildings will be removed in advance of the commencement of the demolition works in accordance with the Control of Asbestos Regulations 2012 (Ref. 21) and disposed of in accordance with the Hazardous Waste (England and Wales) Regulations 2005 as amended (Ref. 22).

Unexploded Ordnance

7.8.5 A Detailed Unexploded Ordnance (UXO) Threat & Risk Assessment has been commissioned and the UXO report indicates that the risk of UXO being present on the Site is high. This study site requires further action to reduce risk to ALARP (As Low as Reasonably Practicable) during intrusive activities. Given the types of UXO that might be present on-site, all types of aggressive intrusive engineering activities may generate a significant risk pathway.

7.8.6 6 Alpha Associates (Ref. 23) were commissioned to undertake the assessment. They are an independent, specialist risk management consultancy practice, which has assessed the risk of encountering UXO (as well as buried bulk high explosives) at this Study Site, by employing a process advocated for this purpose by CIRIA. The CIRIA guide for managing UXO risks in the construction industry (C681) not only represents best practice but has also been endorsed by the HSE. The Principal Contractor will be required to manage all site activities in accordance with this report and to take on board the recommended mitigation measures.

7.9 Water Quality and Water Resources

7.9.1 The Principal Contractor will be required to manage site activities and working methods to protect the quality of surface water and groundwater resources. Precautions will also be taken to prevent damage to services and to avoid pollution during ground penetration, excavation, and service diversions. Monitoring systems and emergency procedures (in the event of any pollution incidents) will be employed during the construction works. BPM will be used (e.g. through the use of silt traps and the re-use of water in wheel washers) where appropriate.

7.9.2 Measures to be employed, as appropriate, include the following:

- Sediment in run off:
  - The use of water-assisted dust sweepers on the access and local roads will be used to supress dust and remove any material tracked out of the Site as necessary.
  - Site access points will be regularly cleaned to prevent build-up of dust and mud.
  - Earth movement will be controlled to reduce the risk of construction silt combining with the Site surface water runoff.
  - Properly contained wheel wash facilities will be used where required, to isolate sediment rich runoff.
- Leaks and spillages:
  - An Incident Response Plan will be produced, which all Site staff will have read and understood. On-site provisions will be made to contain a serious spill or leak through the use of booms, bunding and absorbent material.

  - Any spillages and leakages will be immediately contained in line with the Incident Response Plan.
  - Oil drums and containers or other hazardous substances stored on the Site will be controlled in accordance with the Control of Substances Hazardous to Health (COSHH) Regulations 2002.
  - Wherever possible, plant and machinery will be kept away from the drainage system and will have drip trays beneath oil tanks/engines/gearboxes/hydraulics which will be checked and emptied regularly.
  - The majority of concrete used will be pre-mixed and delivered from an off-site source. Any mixing and handling of wet concrete on-site will be undertaken in designated impermeable areas, away from any drainage channels or surface water.

- Groundwater Flow and Quality:
  - In the event that ground contamination is discovered, work will stop immediately, and measures will be taken to prevent disturbance and mobilisation of contaminants, until the contamination has been treated in-situ or removed for off-site disposal or treatment.
  - If contaminated soils are encountered at the position where piling is due to be undertaken, then these materials should be removed prior to piling in order to prevent the dragging of contaminated soils with the piles to depth.
  - Contaminated soil requiring disposal will be excavated and kept separate from other soil and waste materials in protected temporary stockpiles prior to disposal.
  - Water arising from excavations will be disposed of to the local sewer network (subject to prior agreement with Thames Water) if uncontaminated and following the removal of silt via silt buster or other settlement technology.
  - Damp-proof membranes will be incorporated into the construction. These membranes will prevent the ingress of groundwater and reduce the risk of contaminants from reaching underground strata or groundwater. The watertight basement will therefore prevent any interior leaks or spillages from freely percolating into the shallow groundwater.
- Flood risk during construction:
  - The Principal Contractor as far as reasonably practicable, will ensure that flood risk is managed safely throughout the construction period and consider flooding when planning the site layout and storing materials.
- Minimising water use during construction:
  - Selection and specification of equipment to reduce amount of water required.
  - Implementation of staff-based initiatives such as turning off taps, plant, and equipment when not in use, both on-Site and within Site offices.
  - Use of recycling water systems such as wheel washes and Site toilets hand wash.
  - Use of rainwater harvesting system for use in equipment and vehicle washing.
- Minimising wastewater generation during construction:
  - The installation of water efficient fixtures and fittings would further reduce the volume of foul water generated on Site.
- Disturbance of existing drainage systems and water supply network:
  - All existing utilities will be identified and marked as far as practicable prior to works commencing.
  - Signs will be used to warn of the presence of any drainage systems.
  - Any damage to existing drainage networks will be immediately repaired.

7.10 Waste and Materials Management

7.10.1 As set out in the Circular Economy Statement which is submitted with the planning application, the use of Design for Manufacture and Assembly (DfMA) is being fully explored as part of the design to reduce waste in the production and construction of the building. Modular elements will be prioritised such as the central core which could be pre-fabricated and assembled on Site on a floor-by-floor basis.

7.10.2 The Principal Contractor will be required to implement the waste hierarchy (i.e. prevention, preparing for re-use, recycling, other recovery, and disposal as set out in the Waste (England and Wales) Regulations 2011 (as amended) to ensure that material resources are used to their maximum efficiency.

7.10.3 The Principal Contractor will comply with relevant legislation and best practice guidance governing the identification, handling, storage, transfer, treatment, and disposal of all waste. Prior to the removal of waste from Site, the Principal Contractor will put in place all relevant authorisations and develop a register for keeping waste records including information that relates to the transfer of waste (waste carriers); any off-site waste management facilities (permitted or exempt sites) to which waste is taken, and any requirements for hazardous waste premises notification. The Principal Contractor will also ensure that an environmental permit or registered exemption is in place prior to any off-site transfer, treatment or disposal of waste being undertaken.

7.10.4 The Principal Contractor will be responsible for ensuring that all duty of care documentation is in place, in line with the relevant statutory requirements, for any waste leaving the Site for waste transfer and that waste will be removed only by licensed carriers. Duty of care documentation will be retained by the Principal Contractor.

7.10.5 The Principal Contractor will be required to produce a suitable management plan in order to explore the option for the re-use of site-won materials to maximise off-site disposal of material where possible. The measures should also reference the consideration of specific design elements such as incorporating site-won material from demolition in construction. However there may not be much opportunity to reclaim components or materials from the existing buildings due to the presence of asbestos in many elements of the existing buildings.

7.10.6 The Principal Contractor will make provision for a waste storage area on the Site that will include containers for the collection and segregation of waste and will be clearly labelled. This is to facilitate re-use, recycling, and recovery of waste. Containers will be covered with sheeting or lids. Plastic sheeting will be used where there is a need to store excavated materials and aggregates where these are not stored within a container.

7.10.7 Liquid wastes will be stored on hard-surfaced areas with secondary containment systems to prevent spillages. Waste will not be stored within 10m of any surface water drainage system or foul water drainage system.

7.10.8 The Principal Contractor shall engage in early discussions with the supply chain to minimise packaging and develop take back schemes. Consideration will be given to sourcing reusable material for the Site hoarding or that the wood used for the hoarding is of recycled materials.

8. Relationship to the Development Control Requirements

8.1.1 The DCMP should be referred to when:

- Planning works to minimise remedy or mitigate the effects on the environment.
- Undertaking all works that may have an impact on the environment; and
- Communicating with Stakeholders.

8.1.2 Once the DCMP has been agreed with relevant stakeholders it will be adopted by the Principal Contractor and made available to all parties so that it can be used as a practical construction and communication management tool and reference source.

Documented Information

8.1.3 Details of the ongoing management of the DCMP will be documented and kept on file.

8.1.4 The DCMP will be saved in an online management system and as a hard copy, if appropriate, which will be available for view at the Site compound.

8.1.5 The DCMP will be reviewed and updated by the contractor every 6 months and upon significant changes to the demolition and construction methods, whichever is sooner.

8.1.6 The DCMP file will include:

- A copy of the latest version of the DCMP.
- Details of the appointed roles.
- Monitoring and auditing information.
- Complaints register; and
- Any other information relevant to demonstrating compliance with the requirements set out within the DCMP.

9. References

Ref. 1. Not Applicable.

Ref. 2. London Borough of Hillingdon Noise Nuisance Minimum Requirements. https://www.hillingdon.gov.uk/article/5157/Commercial-industrial-and-construction-noise

Ref. 3. Not Applicable

Ref. 4. Not Applicable

Ref. 5. British Standards Institution (2019) British Standard BS 5975:2019 Code of practice for temporary works procedures

Ref. 6. Institution of Lighting Professionals (2020). Guidance Note 1 for the reduction of obtrusive light

Ref. 7. Her Majesty's Stationery Office (1974) Control of Pollution Act 1974 and https://www.hillingdon.gov.uk/article/5408/Modifying-construction-working-hours

Ref. 8. Her Majesty's Stationery Office (2002) Control of Substances Hazardous to Health (COSHH) Regulations 2002

Ref. 9. British Standards Institution (2014) BS 5228:-1 2009+A1:2014 – Code of practice for noise and vibration control on construction and open sites. Noise, BSI

Ref. 10. British Standards Institution (BSI) (2014) BS 5228:-2 2009+A1:2014 – Code of practice for noise and vibration control on construction and open sites. Noise, BSI

Ref. 11. Greater London Authority (GLA) (2014); 'The Control of Dust and Emissions during Construction and Demolition – Supplementary Planning Guidance'. Available at: https://www.london.gov.uk/sites/default/files/gla_migrate_files_destination/Dust%20and%20Emissions%20SPG%208%20July%202014.pdf

Ref. 12. EU Directive 97/68/EC for Nitrogen Oxide (NOx) and Particulate Matter (PM) emissions

Ref. 13. Her Majesty's Stationery Office (2015) Non-Road Mobile Regulations 2015

Ref. 14. Institute of Air Quality Management (IAQM) (2014), Guidance on the assessment of dust from demolition and construction

Ref. 15. Her Majesty's Stationery Office, Wildlife and Countryside Act 1981 (as amended)

Ref. 16. British Standards Institution (BSI) (2012), BS 5837:2012. Trees in relation to design, demolition, and construction – Recommendations. BSI

Ref. 17. British Standards Institution (BSI) (2010), BS3998:2010. Tree work – Recommendations. BSI

Ref. 18. Her Majesty's Stationery Office. (1996) Treasure Act 1996

Ref. 19. Her Majesty's Stationery Office (2015) Construction Design Management (CDM) Regulations 2015

Ref. 20. Tersus (2019 and 2020). Asbestos Re-Inspection Reports for the existing Hillingdon Hospital Site

Ref. 21. Her Majesty's Stationery Office (2012) Control of Asbestos Regulations 2012

Ref. 22. Her Majesty's Stationery Office (2005). The Hazardous Waste (England and Wales) Regulations 2005 as amended

Ref. 23. 6 Alpha Associates Detailed Unexploded Ordnance Threat & Risk Assessment, Project Number 8766, study site – Hillingdon Hospital