

# Demolition and Construction Logistics Plan

<b>Project Name</b>	Meadow High School – SEN Block
<b>Client</b>	London Borough of Hillingdon
<b>Site address</b>	Royal Lane, Uxbridge
<b>Site postcode</b>	UB8 3QU
<b>Existing site use</b>	School
<b>Summary of works</b>	Demolition of existing lightweight construction school buildings and replacement with a purpose-built steel frame extension.

<b>Main Contractor</b>	ISG Construction
Phone number	
Email:	

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## **1 INTRODUCTION**

ISG Construction have been appointed by London Borough of Hillingdon (LBH) to undertake the construction of the new school extension to the existing school – Meadow High – at Royal Lane in Uxbridge.

Meadow High School currently comprises a two-storey teaching building, a sports hall, a multi-use games area (MUGA), a sports field and a dedicated school park. Both pedestrian, vehicular access and egress is from Royal Lane.

### **1.1 CLP OBJECTIVES**

The overall objectives of this Construction Logistics Plan and the project are to minimise where possible the disruption to local road networks and residents during the construction works.

### **1.2 SITE CONTEXT**

The site is located in a residential area and is bound by Brunel University sports park to the west and residential properties to the north, east and south.

The school site is open from 06:00 and closes at 18:00. Pupil classes start at 09:00 with the majority of pupils arriving between 08:30 and 09:00. Classes finish at 15:05 and the majority of pupils leave between 15:05 and 15:30.

## **2 CONTEXT, CONSIDERATIONS AND CHALLENGES**

### **2.1 POLICY CONTEXT**

This section of the CLP references policies we have considered in the preparation of the document:

#### **2.1.1 London Plan**

Addressing the key trends and challenges that London will face, this Mayor's document pays particular attention to encouraging sustainable modes of travel. Policy 6.3 states that CLPs should be secured in line with the London Freight Plan and should be co-ordinated with Travel Plans. In addition, Policy 6.14 stresses the need to promote movement of freight by rail and waterway. Development proposals promoting the uptake of the Fleet Operators Recognition Scheme (FORS), CLPs and Delivery and Servicing Plans (DSP) to consolidate freight will be encouraged.

#### **2.1.2 Fleet Operator Recognition Scheme (FORS)**

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

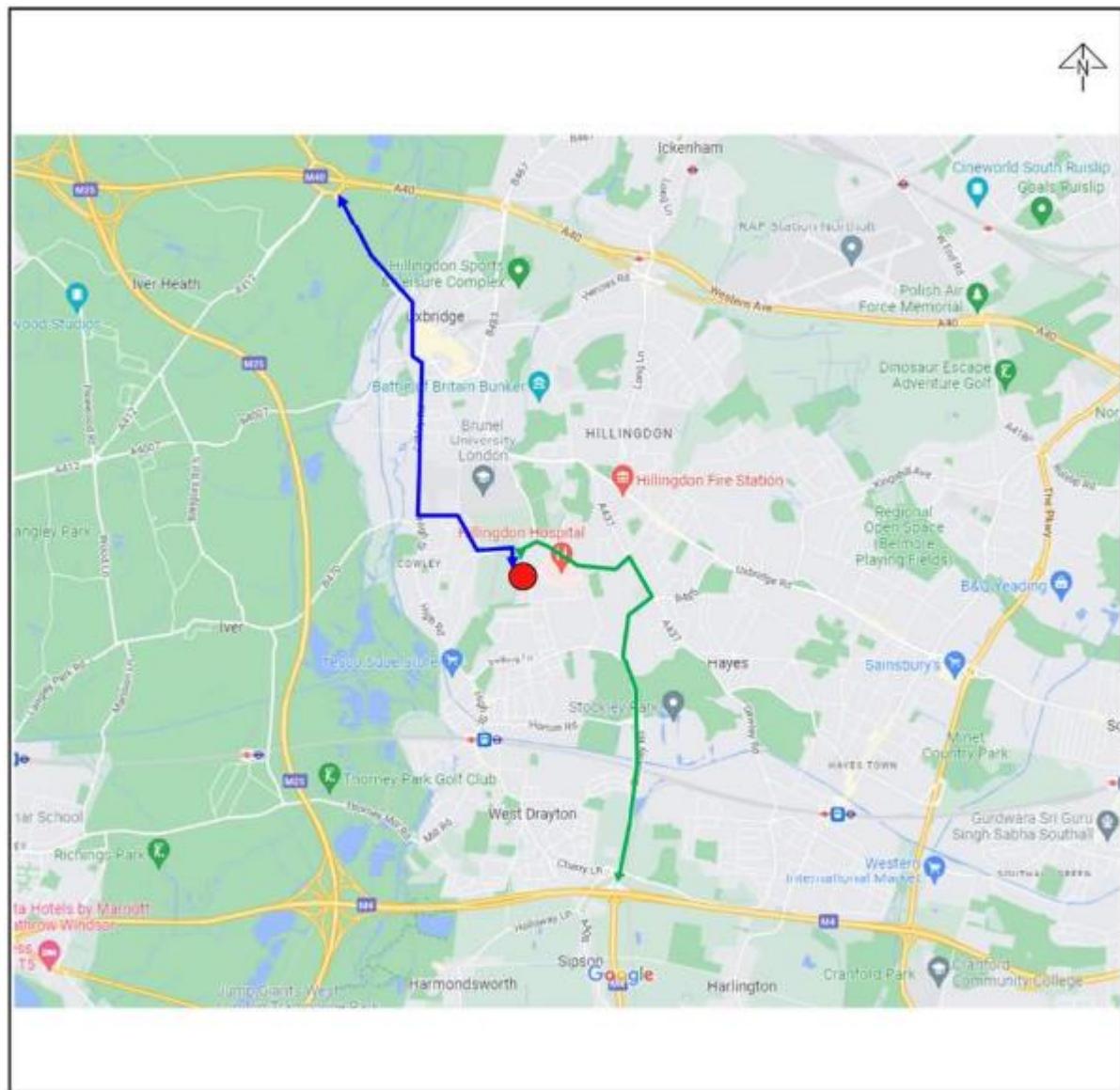
#### **2.1.2 CLOCS**

Deliveries in line with CLOCS.

## 2.2 VEHICLE

### DELIVERY ROUTES

Wider construction vehicle routing to site



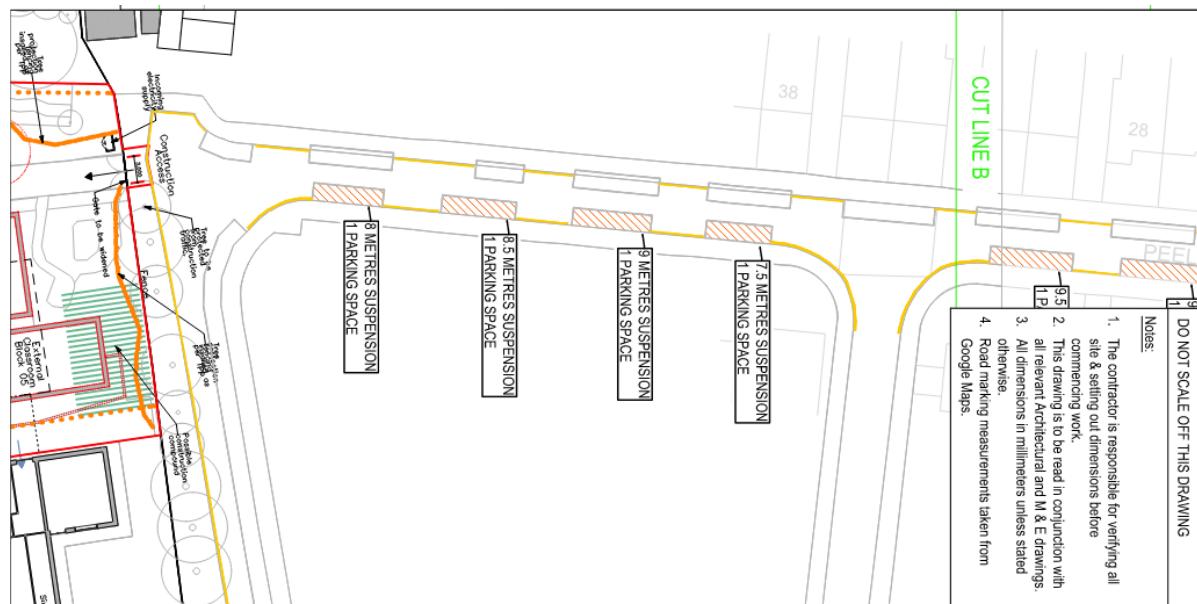
Site location

Construction vehicle routing within the vicinity of the site



- Site location
- Construction vehicle route during term time
- Construction vehicle access point during term time
- Construction vehicle route during school holidays
- Construction vehicle access point during school holidays

PARKING SUSPENSIONS ON PEEL WAY DURING TERM TIME



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

### **Accessibility by non-car modes**

#### **Pedestrians**

The footway network within the area surrounding the site predominately includes footways which are in good condition, with street lighting provided at regular intervals.

There are a number of pedestrian crossings in the vicinity of the site. There is uncontrolled crossing facility with tactile paving located on Royal Lane, 10m to the south of the school entrance. There is a zebra crossing on Royal Lane 30m to the north of the school entrance. There is an uncontrolled crossing with tactile paving and pedestrian refuge island located on Royal Lane 70m to the south of the school entrance.

In the area surrounding the school, dropped kerb crossings with tactile paving are provided at junctions to residential streets, including at the mini-roundabout on Royal Lane to the south of the site.

#### **Cyclists**

There are a number of cycling routes within the vicinity of Meadow High School. Royal lane is designated as a cycle route. There are other local cycle routes that passes through open space to the west of the site.

There is a proposed TfL Quietway (Q16) to be implemented to the south of the site along Grand Union Canal Walk.

#### **Public transport**

##### **Buses**

There are seven bus routes that operate within the vicinity of the site providing weekday services.

The nearest bus stops (stop HA and HB) to the site are located 450m (6 minute walk) northeast of the site on Pield Health Road. These bus stops are served by routes U1, U2, U3 U4, U5, U6 and U7.

A summary of the bus services provided within the vicinity of the site are outlined below -

Bus route	Stop location	From	To	AM peak frequency	PM peak frequency
U1	Pield Health Road (Stop HA)	West Drayton Station	Ruislip Station	4	4
	Pield Health Road (Stop HB)	Ruislip Station	Ferrers Avenue	4	4
U2	Pield Health	Uxbridge	Brunel	4 - 6	4 - 6
	Road (Stop HA)	Station	University		
	Pield Health Road (Stop HB)	Brunel University	Belmont Road	4 - 6	4 - 6
U3	Pield Health Road (Stop HA)	Heathrow Central Bus Station	Belmont Road	4	5 - 6
	Pield Health Road (Stop HB)	Uxbridge Station	Heathrow Central Bus Station	4	5 - 6
U4	Pield Health Road (Stop HA)	Prologis Park	Belmont Road	4	5 - 6
	Pield Health Road (Stop HB)	Uxbridge Station	Prologis Park	4	5 - 6
U5	Pield Health Road (Stop HA)	Clarendon Road	York Road	4	5 - 6
	Pield Health Road (Stop HB)	York Road	Blyth Road	4	4 - 5
U7	Pield Health Road (Stop HA)	Lombardy Retail Park	Belmont Road	2	2
	Pield Health Road (Stop HB)	Uxbridge Station	Lombardy Retail Park	2	2

The summary of bus services within the vicinity of the site shows that between 44 and 48 AM peak services and between 49 and 59 PM peak services are provided.

### National rail

The closest National Rail station to the site is West Drayton Station located 1.65km to the south of the site. West Drayton Station is served by frequent Great Western Rail and TfL rail trains travelling to London Paddington, Reading and Didcot Parkway. Elizabeth line services are also provided to Abbey Wood and Reading.

## **Local highway network**

A summary of the highway network in the vicinity of the site is provided below.

### **Royal Lane**

Royal Lane is a two-way residential street that connects Failing Lane to the south of the site and Uxbridge Road A4020 to the north of the site. Within the vicinity of the site, the road is subject to a 30mph speed limit and there are footways provided on both sides of the carriageway.

School keep clear lines are located on the west side of the carriageway outside of the school at both the access and egress points on Royal Lane. Stopping restrictions are in operation from Monday to Friday between 08:00 and 10:00 and 14:30 and 16:30. Double and single yellow lines are also located along Royal Lane. Single yellow line parking restrictions are in operation from Monday to Friday between 09:00 and 17:00. A mix of on-street parking bays and half footway parking bays are located along Royal Lane and are located within controlled parking zone (CPZ) HH. Restrictions are in operation from Monday to Friday between 09:00 and 17:00.

### **Bryony Close**

Bryony Close is a residential cul-de-sac located opposite Meadow High School. Bryony Close is accessed from Royal Lane and footways are present along both sides of the carriageway.

Single yellow line parking restrictions and on-street parking bays are present along Bryony Close. The parking bays are located within CPZ HH. Single yellow line restrictions are in operation from Monday to Sunday between 00:00 and 08:00 and 18:30 and 00:00 for buses and vehicles >5t.

### **Pield Heath Road**

Pield Heath Road is a single carriageway two-way road that connects Church Road to the northwest of the site to Harlington Road A437 to the northeast of the site. Pield Heath Road is subject to a 30mph speed limit and footways are present on both sides of the carriageway.

Pield Heath Road has double yellow line restrictions located on both sides of the carriageway.

### **Peel Way**

Peel way is a residential road leading to Normans Close, Bradshawe Way, Saxon Close and Benson Close. The road is a cul-de-sac except for cycles. Peel Way provides secondary access to Meadow High School.

Peel way is subject to a 30mph speed limit and footways are provided on both sides of the carriageway.

A mix of on-street and footway parking bays are provided on Peel Way. Double yellow and single yellow line restrictions are also in place on Peel Way.

Parking bays are located within CPZ HH. Footway parking is restricted to cars and vans only not exceeding 1525kg.

Single yellow line restrictions are in operation from Monday to Sunday between 00:00 and 08:00 and 18:30 and 00:00 for buses and vehicles >5t.

## **2.4 COMMUNITY CONSIDERATIONS**

### **2.4.1. LOCAL POLICY**

London Borough of Hillingdon requires the project to comply with the following:

CLOCS

FORS silver standard

### **2.4.2. LOCAL COMMUNITY**

There are three schools located within the vicinity of Meadow High School as follows:

Pield Heath House SEND School located 460m to the north of the site.

Colham Manor Primary School located 600m to the southeast of the site.

Rabbsfarm Primary School located 800m to the southwest of the site.

Hillingdon Hospital is located within the vicinity of Meadow High School (to the north west), with the car parking for staff located off of Royal Lane and for patients and visitors off of Pield Heath Road

There is a mosque and community centre next door (to the south) to Meadow High school on Royal Lane.

### 3 CONSTRUCTION PROGRAMME AND METHODOLOGY

The outline construction programme is

Construction Stage	Start	End
Site set up and demolition	July-23	Aug-23
Service diversions and enabling works	Aug-23	Oct-23
Sub and Super structure	Oct-23	Mar-24
Cladding	Feb-24	Sep-24
Fitout and completion	Mar-24	Dec-24

Site hours for the works (term time and holidays) will be:

Monday – Thursday	0800 – 1800
Friday	0800 - 1700
Saturday	0800 – 1300 by arrangement
Sunday / Bank Holidays	No works

Delivery times for the project will be: TERM TIME (Peel Way)

Monday – Thursday	0900 – 1700
Friday	0900 - 1700
Saturday	No deliveries
Sunday / Bank Holidays	No deliveries

Delivery times for the project will be: HOLIDAY TIME (Royal Lane)

Monday – Thursday	0800 – 1730
Friday	0800 - 1700
Saturday	0800 – 1300 by arrangement
Sunday / Bank Holidays	No works

### **3.1 CONSTRUCTION PROGRAMME PHASES**

#### **De-construction and Enabling works**

Mobile plant will be required for this phase of works including tracked excavator with grab/ breaker, skip lorries, 8 wheeled wagon.

The de-construction of the existing temporary classrooms and sheds including the removal of the ground support plinths and ramps, using reach grab and pecker. When the breaker is being used water suppression / spray will be used to reduce the dust created and prevent it from becoming air-bourne. No concrete crushing is being undertaken on site.

Removal of associated hard standings

Diversion of existing below ground services

Establishment of site compound and welfare units.

Materials that will be required for delivery during this phase include: reinforcement / concrete/ shuttering / pipework and ducting

An asbestos survey has been carried out and there is no licensed asbestos removal works required. There is a small amount of asbestos roof tiles to be removed and disposed of.

#### **Construction of foundations and substructure**

Mobile plant will be required during this phase including excavators, dump trucks, concrete wagons and 8-wheeled wagon, skip lorries, delivery vehicles.

Wheel wash to be used to prevent fouling of surrounding residential roads, with regular road sweeping being undertaken too.

Concrete strip foundations with suspended ground floor slab.

Pad foundations for temporary site cabins, and installation of hard standings on site to provide solid and level ground for deliveries and operative access routes.

Materials that will be required for delivery during this phase include: reinforcement / concrete/ shuttering.

#### **Superstructure**

Mobile plant will be required during this phase including mobile crane, articulated lorries, skip wagons, delivery vehicles, concrete wagons.

Steel frame with metal decking and concrete slab to first floor and roof levels.

The steel frame will be installed using a mobile crane located within the site boundary.

The perimeter of the building will be scaffolded to afford access for the construction of the external walls including the brickwork. This scaffold will be wrapped in monaflex sheeting material on all elevations to reduce potential for dust.

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Façade will be constructed from brickwork outer skin and lightweight steel internal skin with insulation between.

During the superstructure it is anticipated materials that will be required include: composite metal deck/ steel beams/ concrete/ brickwork / lightweight steel framing/ board products/ insulation/ scaffolding.

The length of the steel beams will be minimised as far as is practicable but will require delivery via articulated vehicle.

### **Internal partitions, finishes and fit-out**

Internal finishes include plasterboard internal walls constructed from metal stud and drywall, new MEP services, floor finishes, furniture, joinery (doors/ frames / skirtings).

External hard and soft landscaping.

During the fit out it is anticipated materials that will be required include: board products/ doors and frames / furniture / floor finishes / ceiling materials/ MEP materials.

### **Construction access**

Due to the nature of the students on the school grounds, and recent discussions with planning, construction vehicle access has been carefully considered and will be as follows:

During School holidays (outside of term time) construction vehicles will access the site from Royal Lane to the east of the site and approach the construction area via the existing access route between the school sports hall and the MUGA.

The use of this existing access route will require vehicles to reverse onto or away from the construction area and will require operatives to marshal vehicles during these manoeuvres.

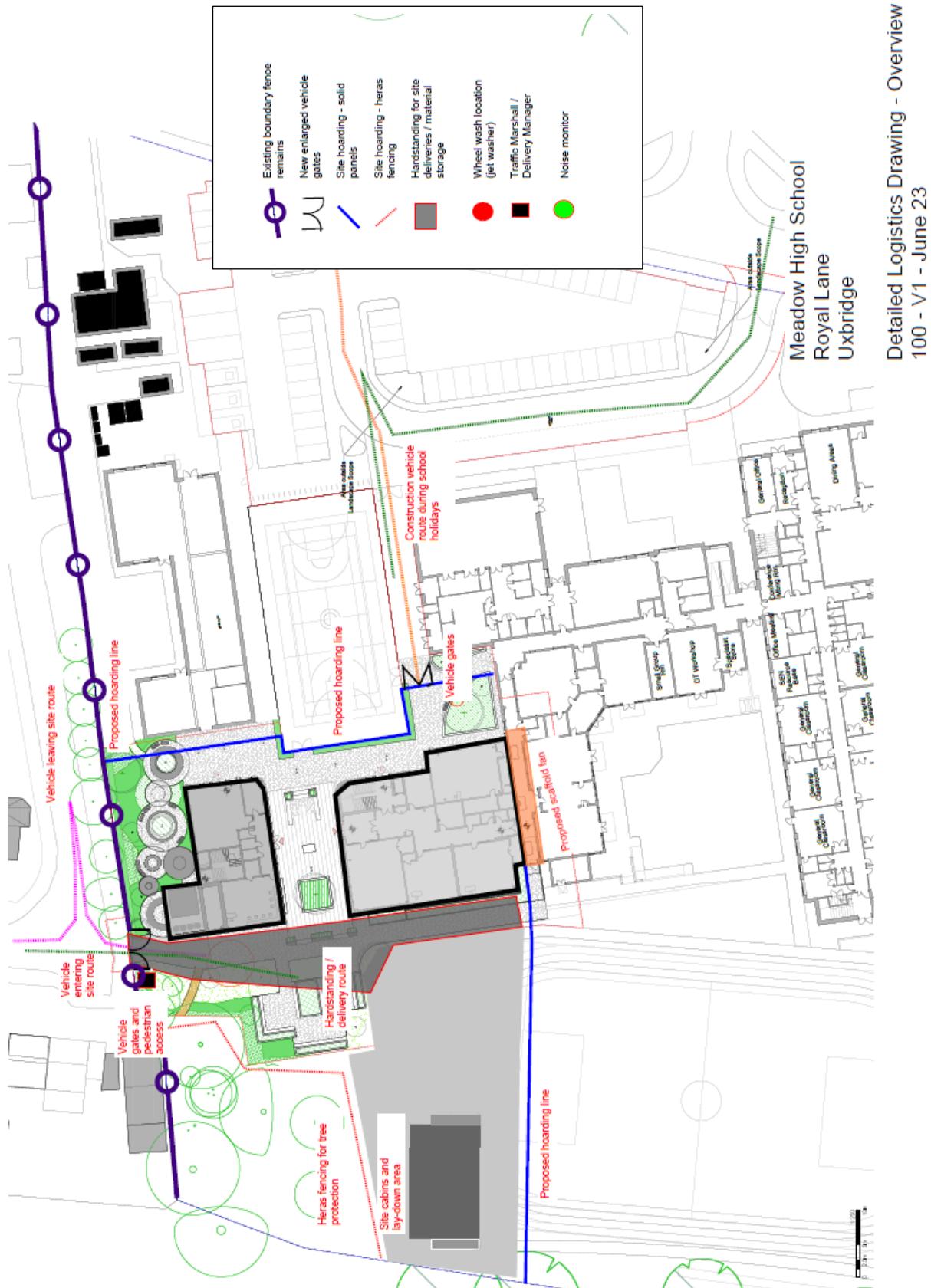
During term times (weekdays only) construction vehicles will access the site from Peel Way to the north of the site. Vehicle movements will be restricted and will only be permitted between the hours of 0900 and 1700 which is when the suspension (between 0830 and 1730) of 17 number parking bays will be in operation along the length of Peel Way.

The parking suspensions will not operate on Saturdays, Sundays or Bank Holidays.

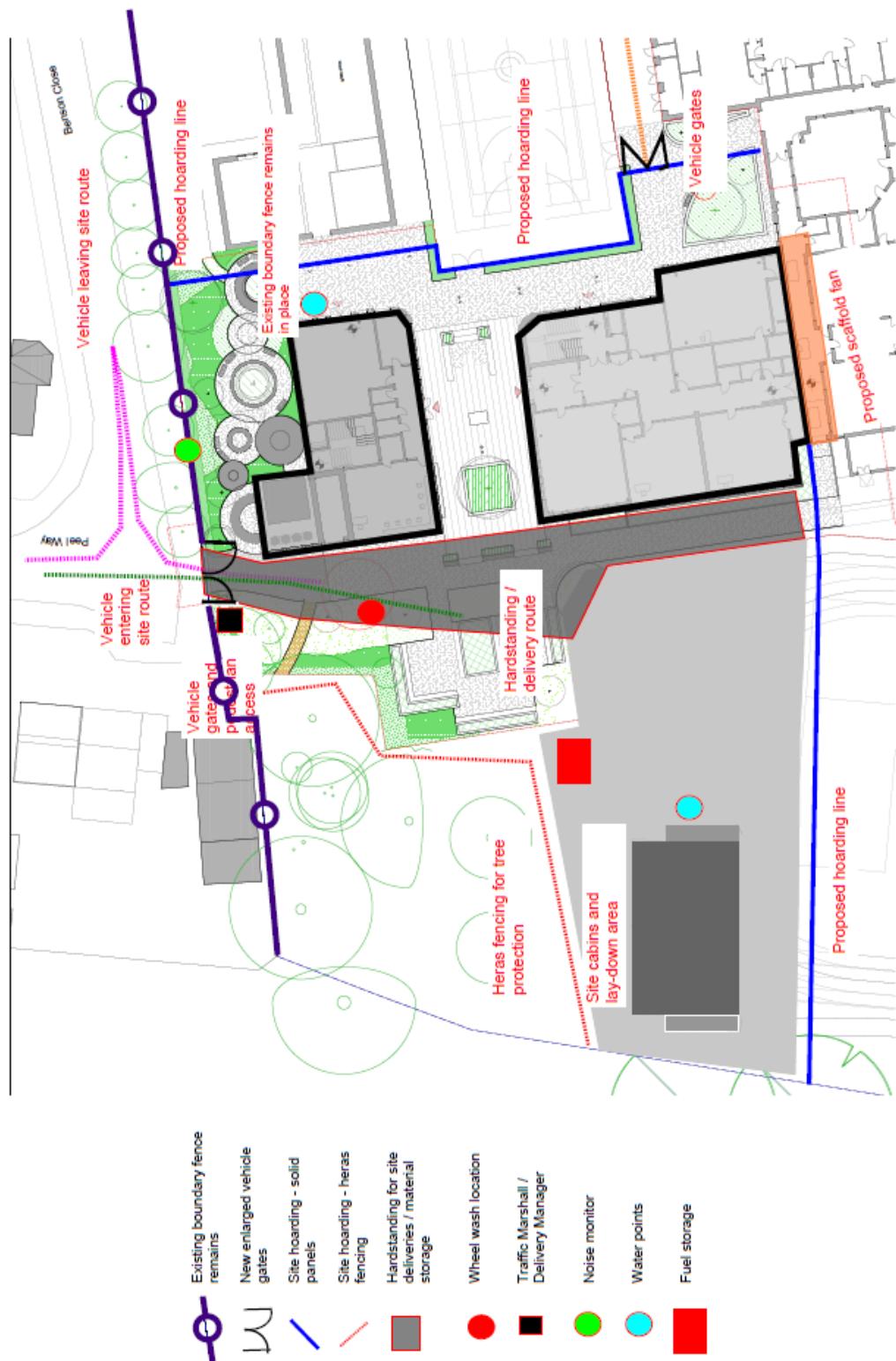
A temporary cross over is to be installed from Peel Way on to the school grounds to facilitate these vehicle movements.

Vehicles entering the construction site from Peel Way will need to reverse on to or off of the construction area and will require operatives to marshal vehicles during these manoeuvres.

## 4 VEHICLE ROUTING AND SITE ACCESS



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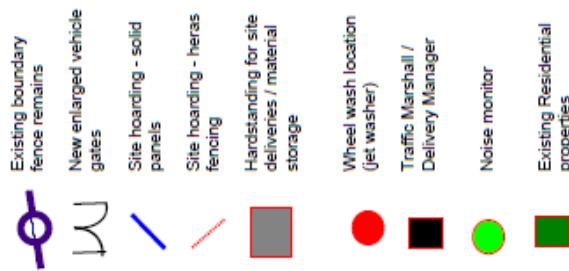
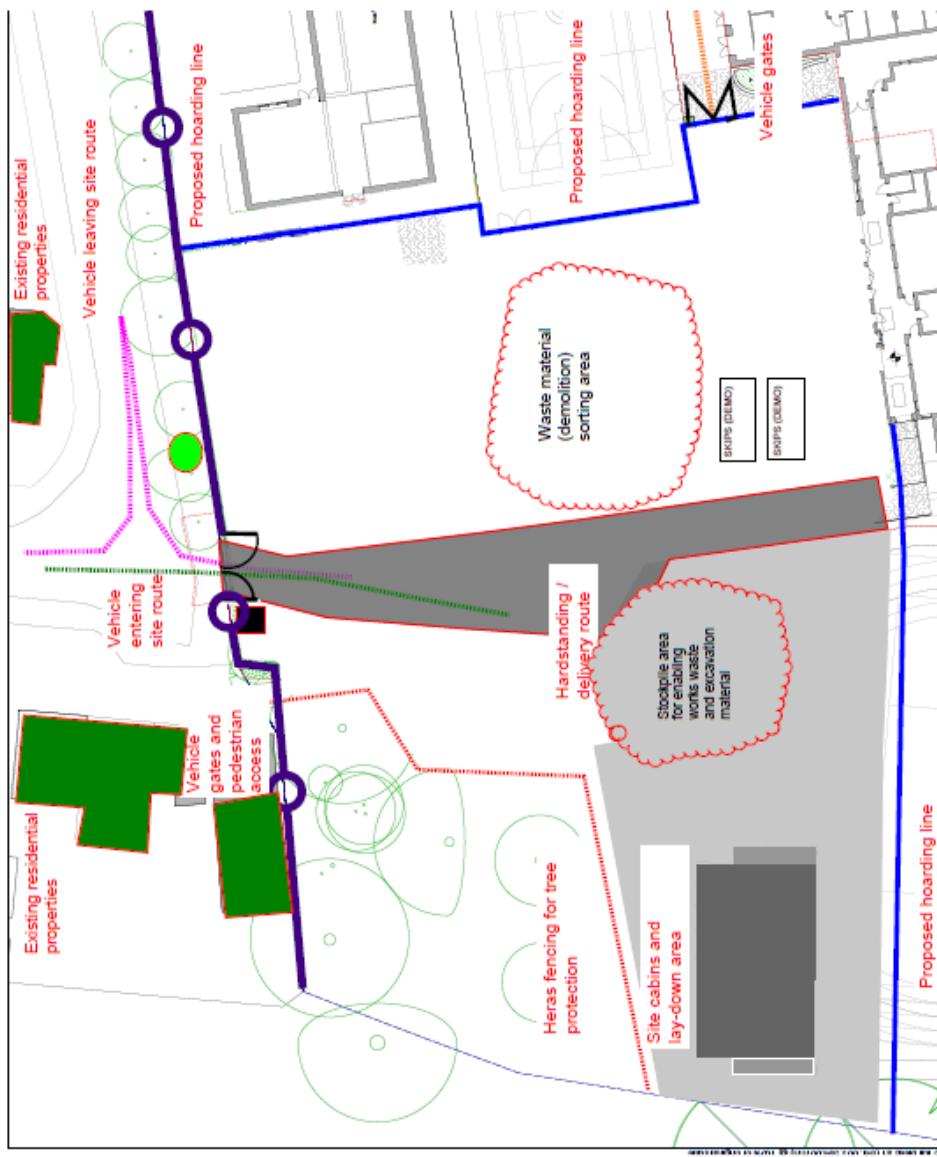


Meadow High School  
Royal Lane  
Uxbridge

Detailed Logistics Drawing - Peel Way  
101 - V1 - June 23

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Meadow High School  
Royal Lane  
Uxbridge

Detailed Logistics Drawing - Demolition - Enabling  
104 - V1 - June 23

## 5 STRATEGIES TO REDUCE IMPACTS

### 5.1 Measures influencing construction vehicles and deliveries

Safety and environmental standards and programmes – all delivery vehicles to be FORS silver compliant

Adherence to designated routes – designated delivery routes to be included in the contract documents

Delivery scheduling – datascope delivery schedule to be used

Re-timing for out of peak deliveries – during term time the parking suspensions will only be in force from 0830am – deliveries will be encouraged to occur after 0900.

Vehicle choice – deliveries to be CLOCS and FORS compliant. Size of vehicle to be discussed in tender stage. Site constraints will also influence the size of the vehicles.

### 5.2 Material Procurement Measure

DfMA and off-site manufacture – options to be considered during the tender stage.

### 5.3 Mitigation for activities creating a potential ‘nuisance’:

<b>Communication and Monitoring</b>	
Develop and implement a stakeholder communications plan for the project and display the contact names for the site team on the site boundary.	
Record all complaints including those relating to dust and air quality, and take appropriate measures to reduce emissions in a timely manner, and record the measures taken within a complaints log.	
Make the complaints log available to the local authority when asked.	
Issue regular updates including newsletters to the local community to advise upcoming works and progress on site.	
Undertake regular inspections (min weekly) where receptors (including roads) to monitor dust, record inspection results, and make the log available to the local authority when asked. This should include regular dust soiling checks of surfaces such as street furniture, cars and window sills within 100 m of site boundary, with cleaning to be provided if necessary.	
<b>Vehicle Movements and Deliveries</b>	
All on-road vehicles to comply with the requirements of the London Low Emission Zone and the London NRMM standards, where applicable.	
Vehicles entering and leaving sites are covered to prevent escape of materials during transport.	
All vehicles switch off engines when stationary - no idling vehicles.	
Plan site layout so that machinery and dust causing activities are located away from receptors, as far as is possible.	
Impose and signpost a maximum-speed-limit of 10 mph on surfaced and 10 mph on unsurfaced haul roads and work areas.	

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Install hard surfaced haul routes and standing areas, which are regularly damped down and cleaned.	
Water-assisted dust sweeper is to be used on the access and local roads, to remove, as necessary, any material tracked out of the site. The sweeper will attend site minimum weekly.	
Measure in place to reduce potential for site runoff of water or mud.	
<b>Hoarding and Screening</b>	
Localised screening to be used around dust producing / noisy activities i.e .brick cutting/ mortar mixing	
Keep site fencing, barriers and scaffolding clean using wet methods	
Details of a travel plan that supports and encourages sustainable travel (public transport, cycling, walking, and car-sharing)	
Remove materials that have a potential to produce dust from site as soon as possible, unless being re-used on site.	
Use enclosed chutes and covered skips.	
Scaffold to be enclosed in monaflex to reduce potential noise and dust 'escape'.	
Heras fencing to existing tree area to protect roots of trees.	
<b>De-construction and Construction</b>	
No bonfires or burning of waste materials is permitted on the project	
Soft strip inside the buildings as much as is practicable before pre-construction.	
Ensure effective water suppression is used during de-construction operations.	
Avoid/ reduce the use of diesel or petrol powered generators and use mains electricity or battery powered equipment where practicable.	
No explosive blasting is allowed / permitted on project.	
For smaller supplies of fine power materials ensure bags are sealed after use and stored appropriately to prevent dust.	
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.	
Dry sweeping of large areas will be avoided.	
Internally sweeping to be avoided and vacuuming used.	
Bunding for COSHH storage areas	
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.	

## 5.4 Dust and Noise Mitigation Measures

Task	Eliminate or limit the dust/ noise by:	Control the dust/ noise by using:
<b>External Activities</b>		
Soft strip / Deconstruction	Carefully planning the work  Limiting the number of people that need to be in the work area	Use water suppression or on-tool extraction for those tasks where it is possible.  RPE* with an APF of 20 – consider powered RPE for longer duration work
	Soft stripping as much as possible before deconstructing the buildings	Works carried out during normal site hours
Cutting concrete kerbs, bricks / blocks / paving	Limiting the number of cuts during design/ layout  Using lower energy equipment like block splitters instead of saws	Water suppression and noise enclosures  RPE* with an APF of 20
Groundworks and Substructure	Leave existing hard-standings in place as long as possible to reduce potential for mud on site.  New hard standings to be installed as early as possible to ensure good and safe travel areas on site.	Arisings to be removed from site on covered wagons.  Stockpiles to be kept to minimum and covered should they become too dry to prevent air-borne particulates.  Noisy activities during normal site hours.
Steel frame		Noisy activities during normal site hours.  Crane to be used.
<b>Internal Activities</b>		
Occasional short-duration drilling with hand-held rotary power tools	Limiting the number of holes during design/planning  Using direct fastening or screws / 'spit' guns to reduce drillings	Where possible use equipment that stops dust getting into the air.  on-tool extraction using an H or M Class extraction unit  Otherwise use RPE* with an APF of 20

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Drilling holes with hand- held rotary power tools as a 'main activity'	Limiting the number of holes during design/planning  Using direct fastening or screws	Where possible on-tool extraction using an H or M Class extraction unit and  RPE* with an APF of 20
Wet coring	Limiting the number of holes during design/planning	Water suppression  Long periods of wet coring in enclosed spaces may also need RPE.*  Use an APF of 20
Cutting wood with power tools	Ordering pre-cut materials  Using dedicated cutting areas to minimise spread	On-tool extraction using an H or M Class extraction unit  RPE* with an APF of 20 in most situations
Sanding plasterboard jointing	Using other finishes/systems  Select boards with tapered edges to limit finishing needed	On-tool extraction using an H, M, or L Class extraction unit

Medium Impact Site Planned Measures Checklist	Committed	Proposed	Considered
<b>Measures influencing construction vehicles and deliveries</b>			
Safety and environmental standards and programmes	X		
Adherence to designated routes	X		
Delivery scheduling	X		
Re-timing for out of peak deliveries	X		
Re-timing for out of hours deliveries			X
Use of holding areas and vehicle call off areas			X
Use of logistics and consolidation centres			X
Vehicle choice		X	
<b>Measures to encourage sustainable freight</b>			
Freight by water*			n/a
Freight by rail*			n/a
<b>Material procurement measures</b>			
DfMA and offsite manufacture			x
Re-use of material on site			x
Smart procurement		x	
<b>Other measures</b>			
Collaboration with other sites in the area			
Implement a staff travel plan			x

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

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## 6 ESTIMATED VEHICLE MOVEMENTS

The charts in this section are to be made using the construction logistics planning tool contained in the CLP Guidance. The following are example outputs from the spreadsheet of a **construction programme**. If your CLP is about an infrastructure programme, your outputs will have different stages.

### ESTIMATED CONSTRUCTION VEHICLES – MONTHLY AND DAILY

Construction Stage	Period of stage	No. of trips (monthly)	Max trips (daily)
<b>Site set up and demolition</b>	Jul 23 - Aug 23	20	3
<b>Service diversions and enabling works</b>	Aug 23 - Oct 23	35	5
<b>Sub and Super structure</b>	Oct 23 – Mar 24	50	5
<b>Cladding</b>	Feb 24 – Sep 24	25	4
<b>Fitout and completion</b>	Mar 24 – Nov 24	50	6
Peak period of construction	Fitout		

During the peak construction period we envisage approx. 50 large vehicle movements a month with there being a peak of 5 per day (some days will see fewer deliveries).

All deliveries will be booked in and we will only allow 1 vehicle on site at a time. There will be no waiting permitted in Peel Way – if a vehicle arrives earlier than their delivery slot and there isn't space for them they will be asked to 'circle' the area until space is available.

## **7 IMPLEMENTING, MONITORING AND UPDATING**

We will employ a Traffic Marshal who will be responsible for managing vehicle movement on site and ensuring that the deliveries arrive at their allotted times.

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

Total

By vehicle type/size/age

Time spent on site

Consolidation centre utilization

Delivery/collection accuracy compared to schedule

Breaches and complaints

Vehicle routing

Unacceptable queuing

Unacceptable parking

Supplier FORS accreditation

Low Emissions Zone (LEZ) compliance

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