A1

Bus lane extension

N 181799990
E 526999980

N 181779566
E 526959081
EL 32335

N 181757056
E 526909911
EL 32335

N 181737066
E 526847907
EL 32335

New plants and trees in subway ramps

No left turn

Increased footway to remove refuge island

6.5m

10.55m

Mandatory cy

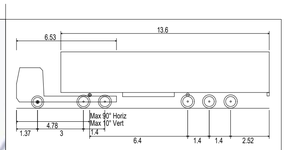
NEWCASTLE PLACE

HARROW ROAD

Harrow Road

A40 MARYLEBONE FLYOVER

NOTE:
PRS HATCH PROVISIONAL
LOCATION LIKELY TO CHANGE



Max Legal Length Articulated Vehicle (16.5m)

Overall Length	16.500m
Overall Width	2.550m
Overall Body Height	3.681m
Min Body Ground Clearance	0.411m
Max Track Width	2.500m
Lock to Lock Time	6.00s
Kerb to Kerb Turning Radius	6.530m

Key

Vehicle crossover

Rev	Date	By	Chkd	Appd
A	26/03/21	RJM	KW	AF

ARUP

13 Fitzroy Street
London W1T 4BQ
Tel +44(0)20 7636 1531 Fax +44(0)20 7580 3924
www.arup.com

Client
Berkeley Homes
(Central London) Limited

Project Title
Paddington Green
Police Station

Drawing Title
Construction Access
Gate 03 Egress

Scale at A1 1:200

Role Transport

Suitability - For Information -

Arup Job No **277685-00** | Rev **A**

Name **277685-SK-034**

Do not scale

Appendix C

Site Logistics Strategy

PADDINGTON GREEN POLICE STATION

Site Logistics Strategy

09.11.2022

Rev 5 - Update to 18th November Submission

Berkeley
Designed for life

Statutory Requirements and HSE Guidance

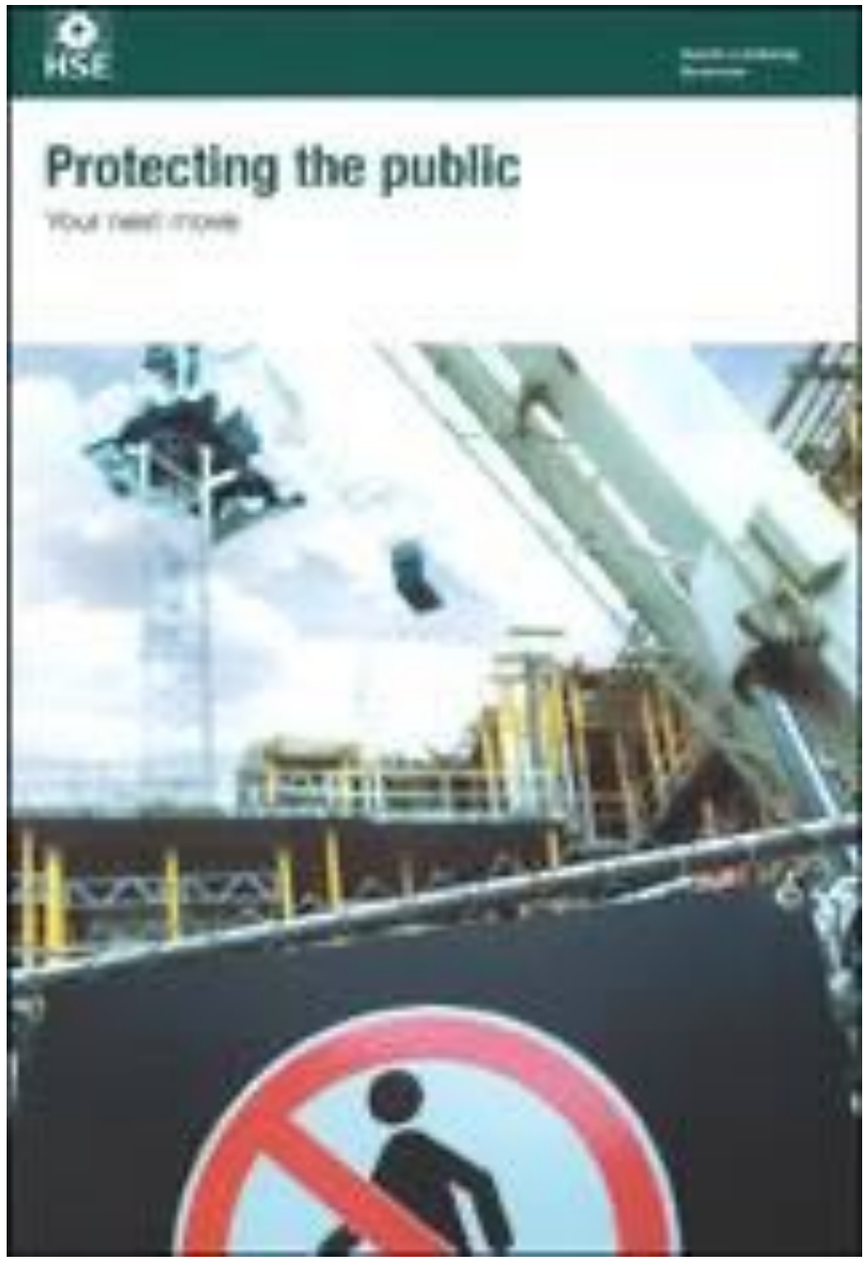
Health and Safety at Work Act 1974

The Act places a duty on all employers and the self-employed to take reasonably practicable steps to ensure the health and safety of people who are not in their employment, such as members of the public.

Management of Health and Safety at Work Regulations 1999

Under the Regulations the employers have to:

“assess, in particular, the risks to the health and safety of their employees and of others who may be affected by the work activity.”



HSG151 Protecting the public provides guidance on the above legislation:

29 When planning for the delivery of materials there are many positive precautions that can be taken to ensure people outside the site are protected including:

- eliminate reversing into the street or on to site by providing one-way systems and turning areas within the site where possible;
- providing specific ‘drive-in’ loading areas for safer movement of goods on to site;
- plan deliveries to make sure they do not coincide with heavy pedestrian traffic, such as taking children to school;
- consider whether the deliveries should be scheduled at times outside of large movements of people such as rush hours or the journeys to and from school.

However, for higher risk activities, such as using cranes or fork-lift trucks to unload vehicles, it may be necessary to temporarily extend the existing site perimeter while this work is carried out. Alternative pedestrian routes may be required and this will often need permission from the local authority.

41 For activities such as the delivery of materials, a banksman may be sufficient to ensure that people outside the site are not put at risk. However, for higher risk activities, eg the use of a crane, it may be necessary to temporarily extend the existing site perimeter while this work is carried out. Alternative pedestrian routes may be required and this will often need permission from the local authority.

42 It may be necessary to use pedestrian tunnels or properly constructed false ceilings or crash decks to protect the public from falling materials during work over occupied areas.

Westminster Policy

Code of Construction Practise

3.7.2 Location of huts, equipment and skips etc

The location of site huts or office accommodation on or over the highway on gantries will not be permitted … Only in exceptional circumstances, where site huts cannot be accommodated on site, will the Highway Authority consider applications for licences/consents to locate them outside the boundaries of the site … Applications for welfare facilities on or over the highway on gantries will be considered on their merits.

3.9 Temporary Structures on a highway

In view of the potential impacts faced by both traffic and pedestrians, temporary structures etc. should only be allowed on the highway in exceptional circumstances. Where they are permitted, the contractor must pay particular attention to the safety of pedestrians as well as ensuring that any revision to traffic cyclist or pedestrian flows are properly controlled by signs, lights, banksmen etc. as necessary.

5.3.2 Works affecting carriageways and footways

The safety of the public must be ensured, with particular regard to the needs of vulnerable road users such as pedestrians and cyclists. In the case of temporary footways, reasonable access shall be provided for people, including those with disabilities, wheelchairs and pushchairs, in accordance with the following requirements:

(a) Any temporary footways and carriageways will be constructed to the reasonable requirements of the Highway Authority. They should provide safe and direct routes for all users. They should have uniform surfaces with no steps and any gradient falls should be preferably 1 in 20 and no greater than 1 in 12.

(b) Pavement ramps must be provided at all junctions of footways with carriageways. Gradient falls must not exceed 1 in 12 and the base of the ramp must be flush with the carriageway.

(c) All temporary footways and ramps must be surfaced in non slip materials to the satisfaction of the Highway Authority.

(e) Existing footway widths around construction sites will be maintained except where this exceeds 2 metres when the Highway Authority may accept a reduction to a clear width of not less than 2 metres or to a minimum clearance between street furniture, obstructions and temporary measures of 1.8 metres.

(f) Heavily used footways, including at crossing points and transport hubs, may have to be maintained at their existing width, although the Highway Authority and the Police will normally accept a reduction to a clear width of 3.0 metres.

(g) Clear signing must be provided at all times for pedestrian routes with the minimum number of changes to all temporary layouts in order to reduce confusion. Advance warning should, if possible, indicate alternative existing wheelchair-accessible routes.

(j) Headroom clearance over footways will be a minimum of 2.75m should be provided if possible. A horizontal clearance of 0.6m will be provided from the kerb line, where practicable, for any hoarding projection less than 5.1m high, to avoid fouling by vehicles.

(k) All pedestrian routes diverted onto the carriageway must be clearly defined by continuous barriers, constructed to the reasonable requirements of the Highway Authority, which will include a build-out and ramping parallel to the kerb line.

(l) So far as is reasonably practicable, all footways and carriageways will be kept free from mud and other loose materials arising from the works.

(m) Lorries entering or leaving the site will only be allowed to traverse crossovers under the control of an agreed sufficient number of competent banksmen. The Highways Authority will advise on the necessary number of banksmen.

TFL Guidance and Requirements

New London Plan (2020)

Policy T7 Deliveries, servicing and construction

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

Construction Logistic Plans Guidance for Developers

4.3 Planning the supply chain - Route Planning

Strategic Access Routes

Journeys should be restricted, unless otherwise advised, to the strategic road network (SRN) and Transport for London's Road Network (TLRN). Both are best suited to this type of heavy traffic. Use of strategic routes is less likely to create congestion and will help minimise the impact on local air quality.

Local Access Routes

The impact on local access roads may inevitably be essential for the last stages of a journey to site. One or more specific access routes on the local distributor road network should be specified as compulsory.

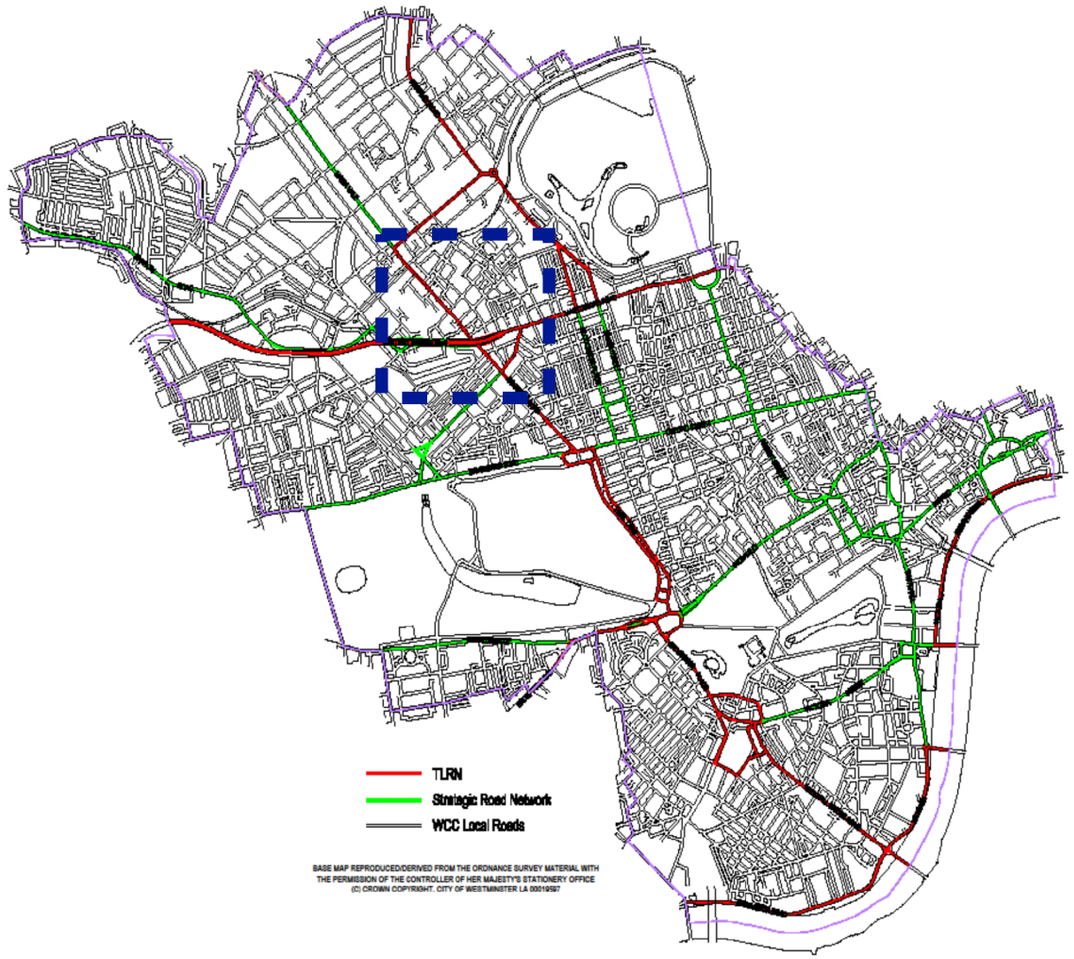
The route to the site should avoid areas that may increase the traffic risk to vulnerable road users. For example, avoid routes that pass by schools, hospitals and health centres, or places used by older people, or people with disabilities or learning difficulties.

Loading/unloading locations

Vehicles should be loaded and unloaded on-site. Always avoid loading or unloading on the public highway. This reduces risks to the public, reduces congestion, and minimises disruption and risk to any passing vehicles on the highway. All deliveries and collections should be overseen and managed by a nominated person.

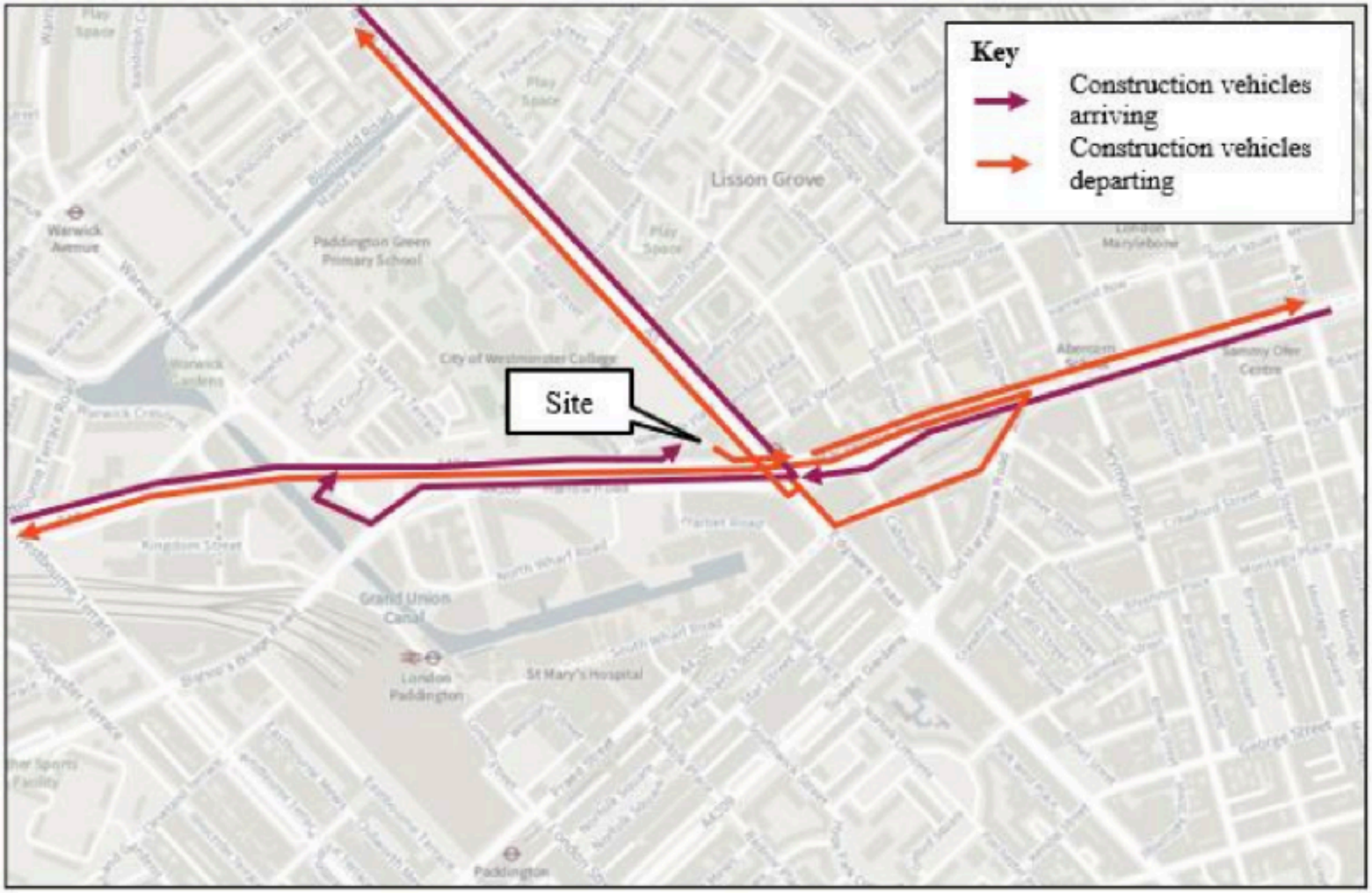
Swept Path Analysis

You should carry out a swept path analysis for the prospective site using design plans, and take account of the expected vehicles that will enter and exit the site during the construction project.



Westminster map of Strategic Routes.
In previous pre-app meetings, it has been stated Harrow Rd is a strategic route

PGPS - Construction Routes

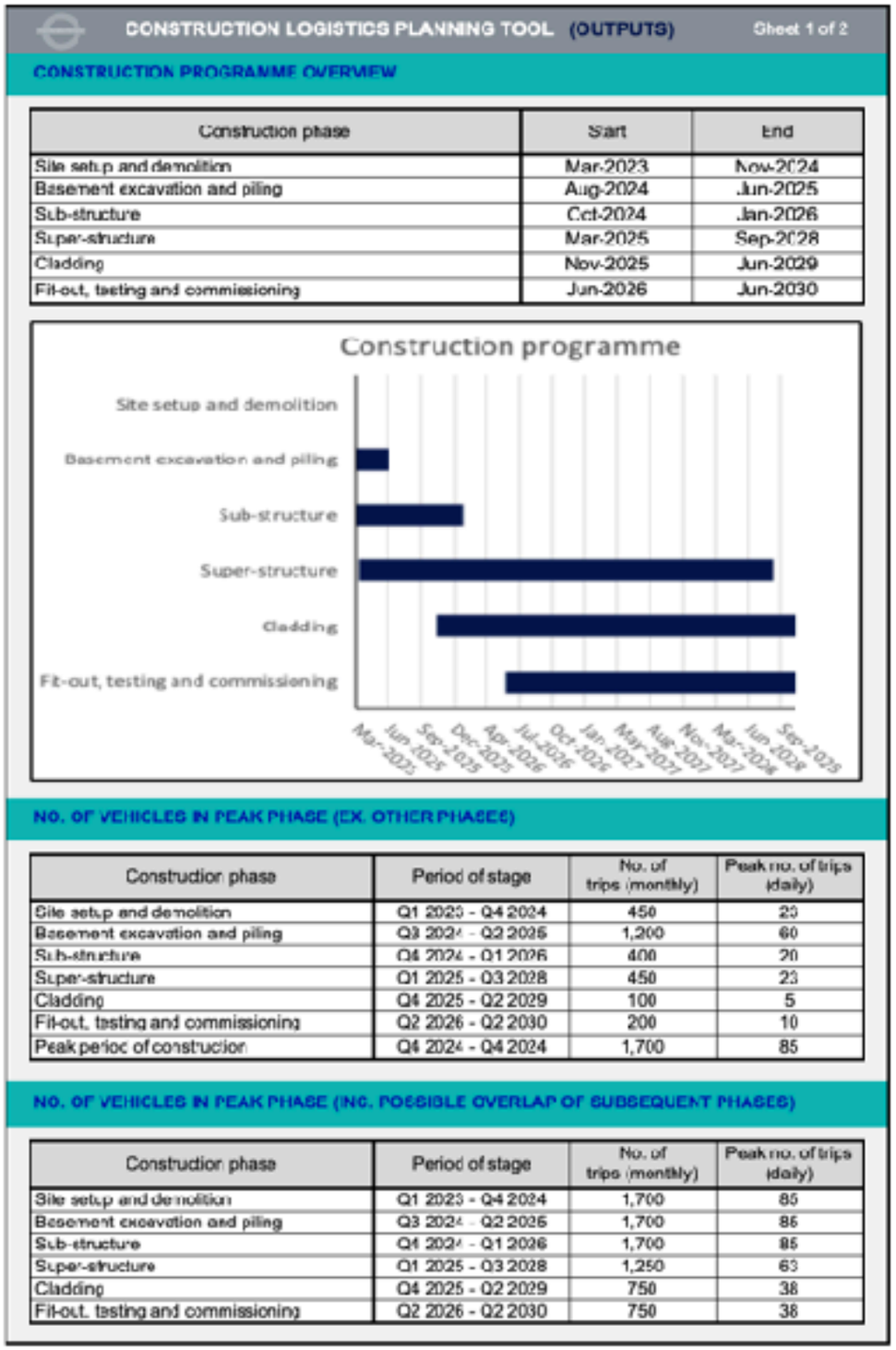


Construction Vehicle Access Routes

In line with TfL's Construction Logistics Plan guidance, construction routes will be routed along the Strategic Road Network (SRN) and the Transport for London's Road Network (TLRN) as they are best suited to heavy traffic, and less likely to create congestion which in turn could minimise impacts on local air quality.

The image above shows the proposed construction routes to and from the site. These routes are based on using main roads with direct movement in and out of London. The use of these routes will help to avoid travelling through urban communities and other sensitive areas such as schools.

Predicted Vehicular Movements



CONSTRUCTION LOGISTICS PLANNING TOOL (OUTPUTS) Sheet 1 of 2

CONSTRUCTION PROGRAMME OVERVIEW

Construction phase	Start	End
Site setup and demolition	Mar-2023	Nov-2024
Basement excavation and piling	Aug-2024	Jun-2025
Sub-structure	Oct-2024	Jan-2026
Super-structure	Mar-2025	Sep-2028
Cladding	Nov-2025	Jun-2029
Fit-out, testing and commissioning	Jun-2026	Jun-2030

Construction programme

Site setup and demolition
Basement excavation and piling
Sub-structure
Super-structure
Cladding
Fit-out, testing and commissioning

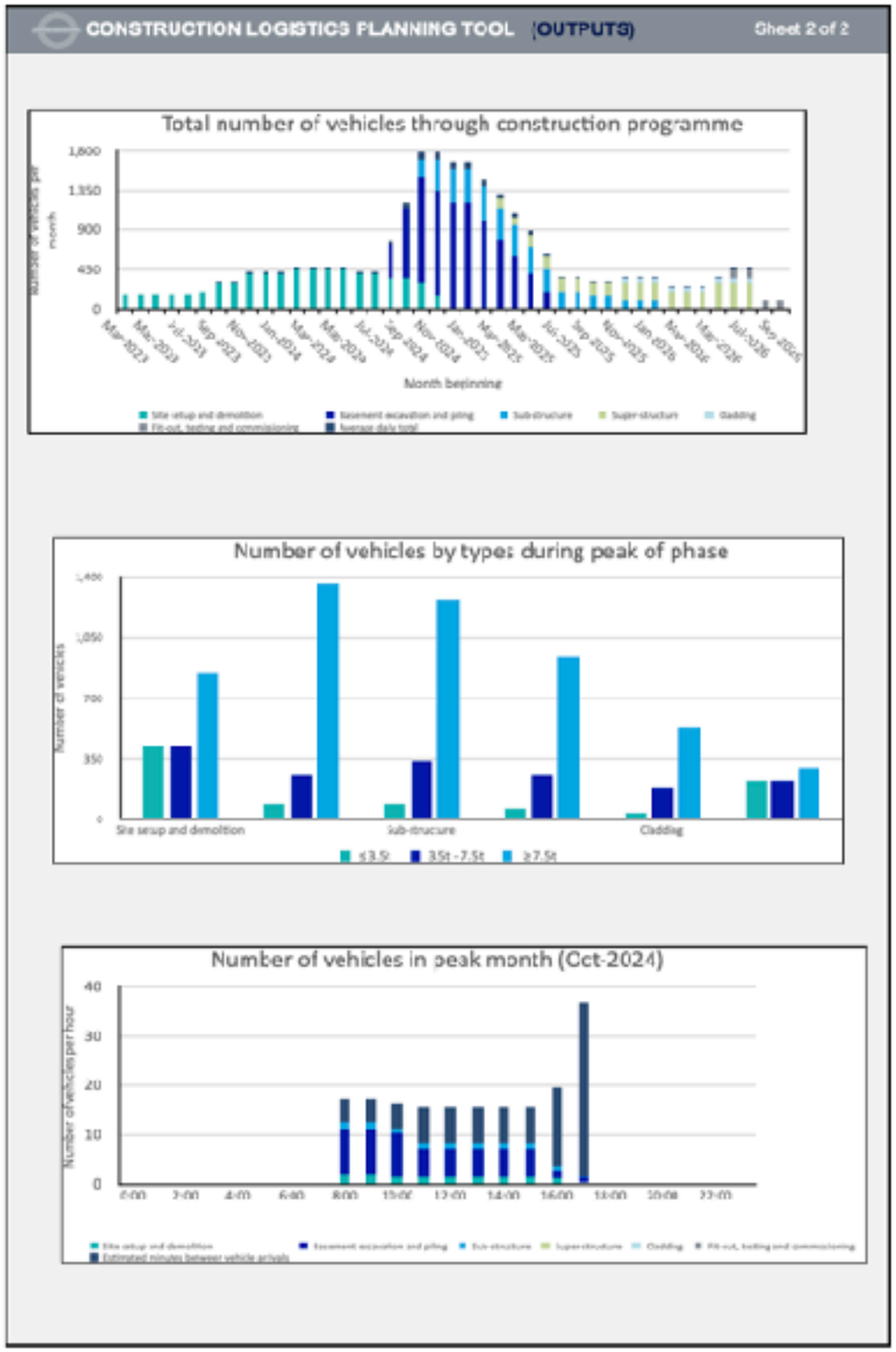
Mar-2023 Jun-2025 Sep-2025 Dec-2025 Apr-2026 Jul-2026 Oct-2026 Jan-2027 May-2027 Aug-2027 Nov-2027 Mar-2028 Jun-2028 Sep-2029

NO. OF VEHICLES IN PEAK PHASE (EX. OTHER PHASES)

Construction phase	Period of stage	No. of trips (monthly)	Peak no. of trips (daily)
Site setup and demolition	Q1 2023 - Q4 2024	450	20
Basement excavation and piling	Q3 2024 - Q3 2025	1,200	60
Sub-structure	Q4 2024 - Q1 2026	400	20
Super-structure	Q1 2025 - Q3 2028	450	23
Cladding	Q4 2025 - Q2 2029	100	5
Fit-out, testing and commissioning	Q2 2026 - Q2 2030	200	10
Peak period of construction	Q4 2024 - Q4 2024	1,700	85

NO. OF VEHICLES IN PEAK PHASE (INC. POSSIBLE OVERLAP OF SUBSEQUENT PHASES)

Construction phase	Period of stage	No. of trips (monthly)	Peak no. of trips (daily)
Site setup and demolition	Q1 2023 - Q4 2024	1,700	85
Basement excavation and piling	Q3 2024 - Q2 2025	1,700	85
Sub-structure	Q4 2024 - Q1 2026	1,700	85
Super-structure	Q1 2025 - Q3 2028	1,250	63
Cladding	Q4 2025 - Q2 2029	750	38
Fit-out, testing and commissioning	Q2 2026 - Q2 2030	750	38



CONSTRUCTION LOGISTICS PLANNING TOOL (OUTPUTS) Sheet 2 of 2

Total number of vehicles through construction programme

Number of vehicles per month
1,800
1,350
900
450
0

Mar-2023 May-2023 Jul-2023 Sep-2023 Nov-2023 Jan-2024 Mar-2024 May-2024 Jul-2024 Sep-2024 Nov-2024 Jan-2025 Mar-2025 May-2025 Jun-2025 Sep-2025 Nov-2025 Jan-2026 Mar-2026 May-2026 Jul-2026 Sep-2026

Month beginning

Site setup and demolition | Basement excavation and piling | Sub-structure | Super-structure | Cladding
Fit-out, testing and commissioning | Average daily total

Number of vehicles by type: during peak of phase

Number of vehicles
1,400
1,050
700
350
0

Site setup and demolition | Sub-structure | Cladding

≤3.5t | 3.5t - 7.5t | ≥7.5t

Number of vehicles in peak month (Oct-2024)

Number of vehicles per hour
40
30
20
10
0

0:00 3:00 4:00 6:00 8:00 10:00 12:00 14:00 16:00 18:00 20:00 22:00

Site setup and demolition | Basement excavation and piling | Sub-structure | Super-structure | Cladding | Fit-out, testing and commissioning
Estimated minutes between vehicle arrivals

CLP Traffic Assessment

The TFL CLP logistics planning tool has been used estimate delivery frequencies during the build programme.

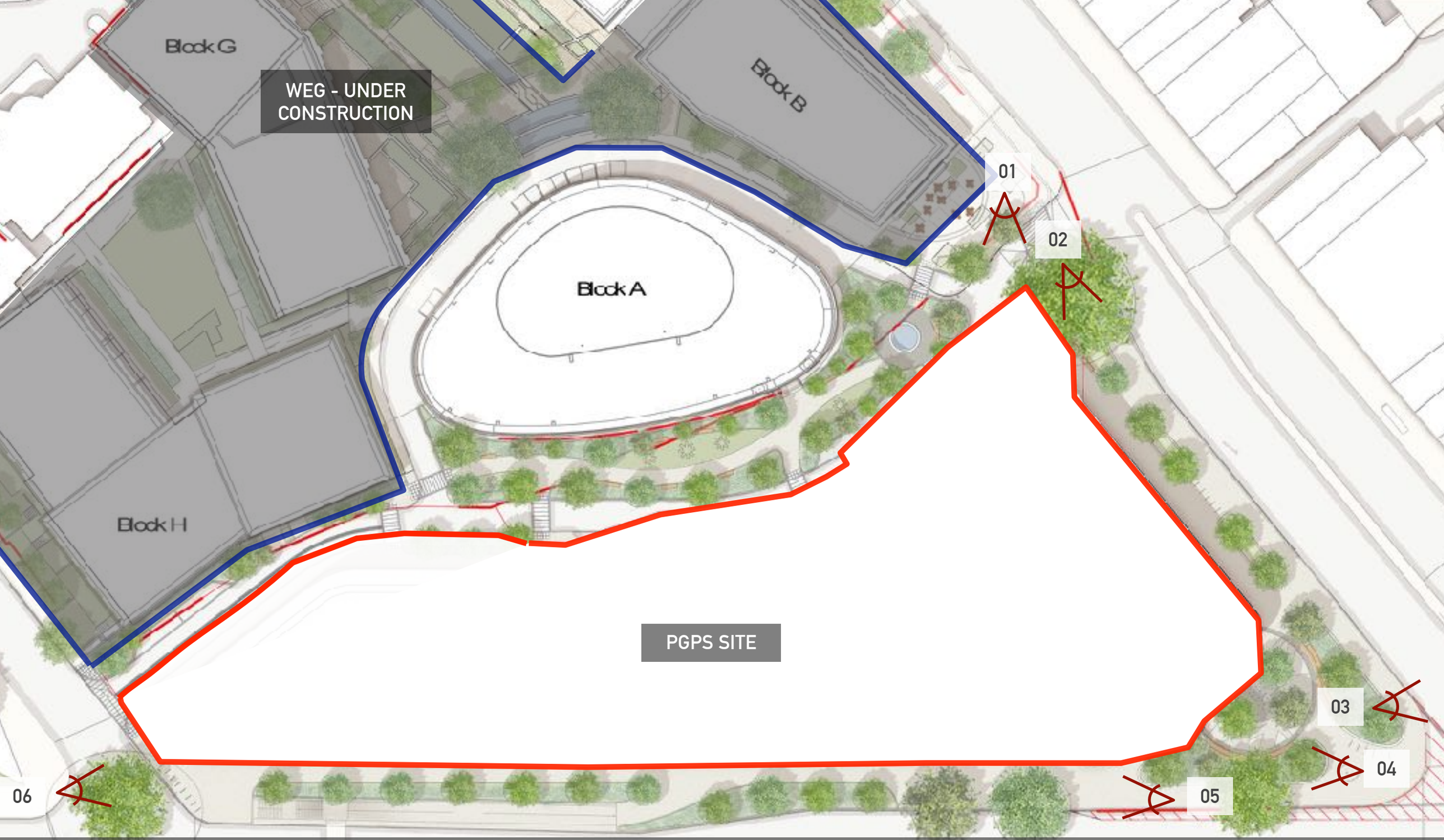
Analysis

The vehicle number peak just before mid November during the sub structure works.

The number of trips peak at 85 per day.

This can be doubled to provide an idea of number of cross overs from highway to site (single site access) - 170 crossings.

With 2 site accesses this would be 85 crossings at each gate, which through the work day would be a crossing every 7 minutes.



Site Photographs

1. Protected Tree and Substation and Newcastle Place Access.
2. Joe Strummer Subway and Edgware Road Bus Stop
3. Edgware Road Bakerloo Line Underground Station
4. Protected Trees on Harrow Road
5. Harrow Road Bus Stop
6. Harrow Road Subway, Protected Tree and Newcastle Place Egress

Site Photos

Photos of the key constraints to the sites perimeter which include: the bus stops, under pass at Edgware and Harrow Road, Edgware Road Bakerloo Line Station and protected trees.

01

02

03

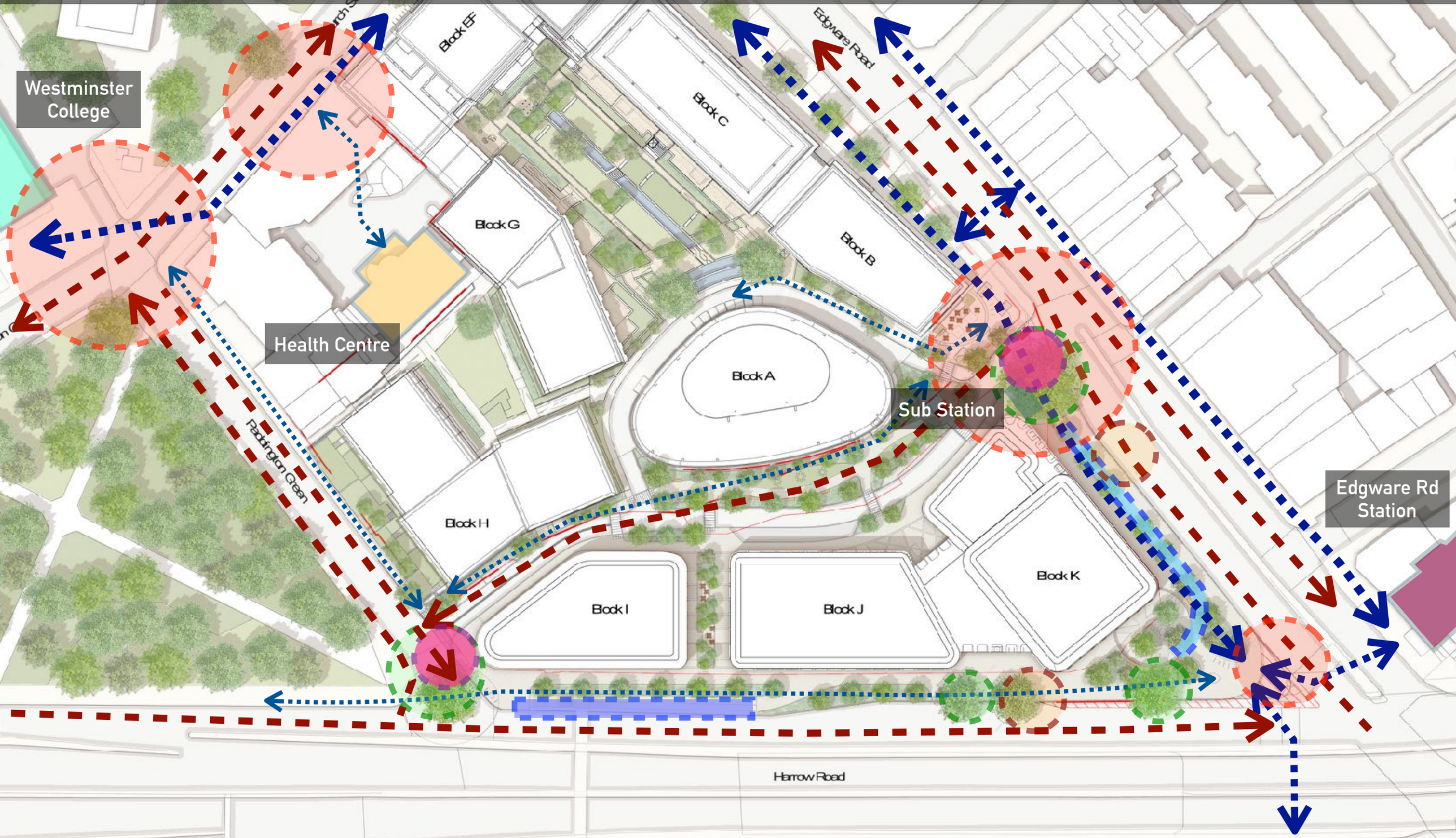
04

05

06

Constraints

1. Bus Stop
2. High Foot Fall Pedestrian Route
3. Low Foot Fall Pedestrian Route
4. Vehicular Routes and Direction of Travel
5. Retained Trees
6. Tight Turning Radius for HGV / Artic
7. Vehicular / Pedestrian Interface - High Risk Zone
8. Existing Subway (in use)
9. Existing Subway (not in use)
10. Westminster College
11. Health Centre
12. Edgware Road Bakerloo Line Station



Logistics Strategy

Access and Egress Requirements

A minimum of 3 gates are required because:

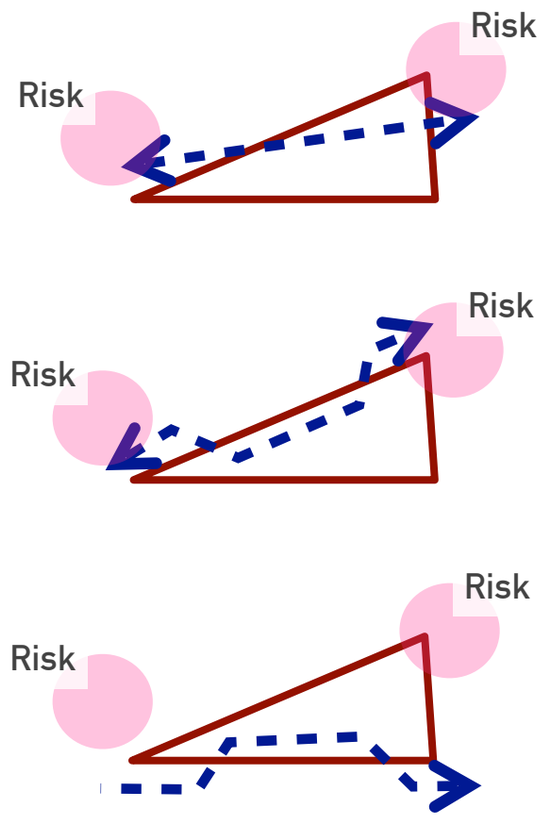
- Different basement construction levels:
  - Existing PGPS basement
  - New basement levels for proposed scheme
- Occupation of the blocks.

Policy Compliance

- Berkeley standards incorporates a number of required policy requirements:
  - FORS Silver accreditation for all deliveries
  - CLOCS compliance
  - Wheel washes
  - Traffic marshals and banksmen
  - Delivery management System
- The linear route across site provides a one way system complying with HSG151
- Harrow Road has significantly less pedestrian traffic and so it is feasible to schedule deliveries outside of peak periods in compliance with HSG151
- The use of Harrow Road makes use of the strategic road network and reduces impact on the local road network as per CLP guidance
- Access and Egress on Harrow Road avoids routes past Westminster College and the Health Centre as set out in CLP guidance
- The linear route through site allows vehicles to be unloaded on site as per CLP guidance and also significantly reduces the risk vehicle stacking
- Each access point has been tracked using swept path analysis with representative vehicles as required by CLP guidance.
- Site sharing during the initial demolition phase for oversize vehicle access as per CLP guidance

Summary

The constrained nature and triangular shape of the site allows for very limited access and egress without risk to members of the public.



The diagrams above simply illustrate the decision making process and the logistics solution that has been developed in order to mitigate public risk around the site perimeter.

Risk to members of the public is of primary concern and following in-depth analysis of various options and design development access from Harrow Road is considered the safest option for the construction and delivery of the project.

Initial Demolition Access

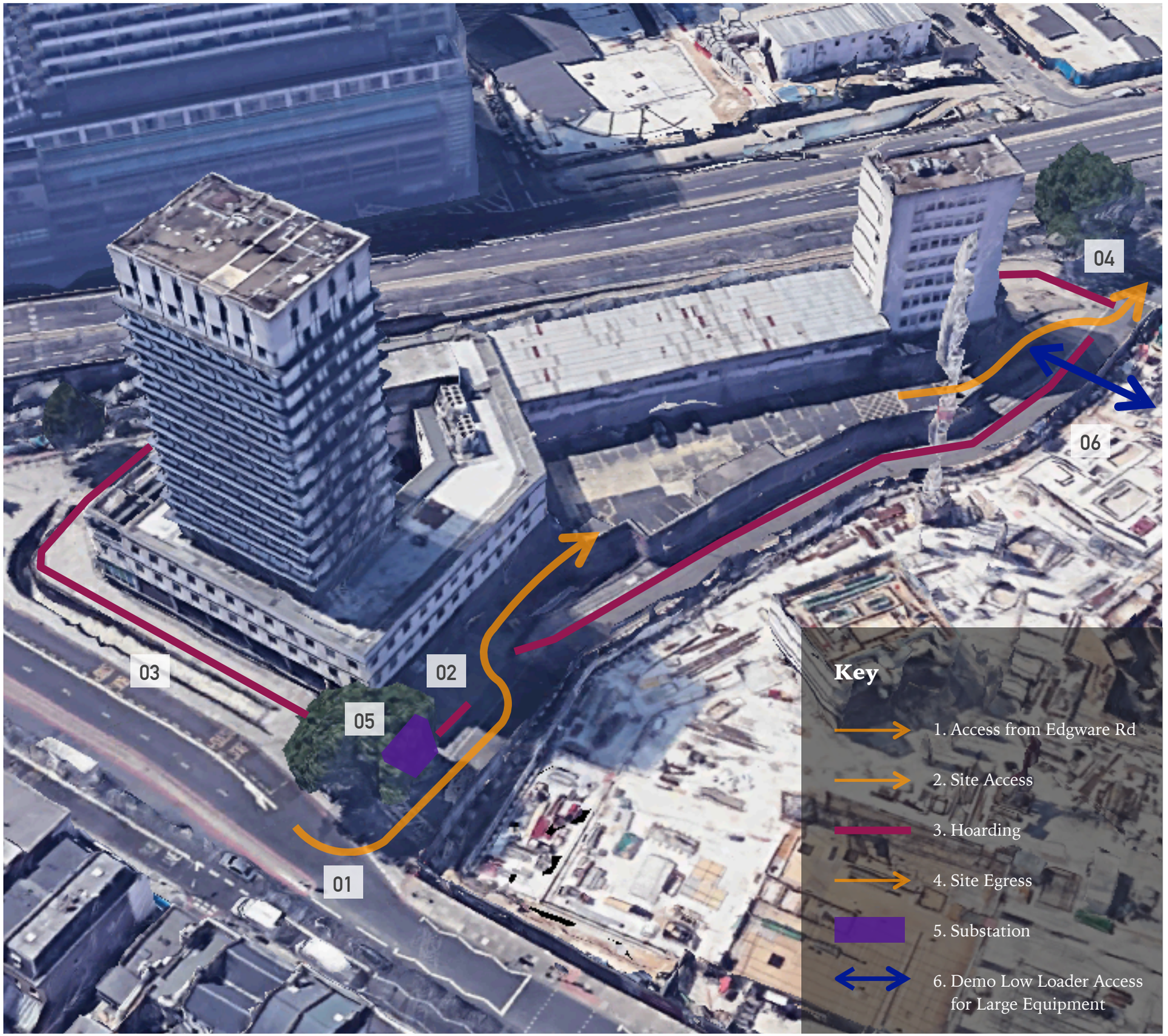
Intial site access has to be from Edgware Road to commence demolition from the existing PGPS courtyard.

Access in this location would be kept to a minimum and limited to 7.5t vehicles as this area is high trafficked by pedestrians, cyclists and people waiting for the bus.

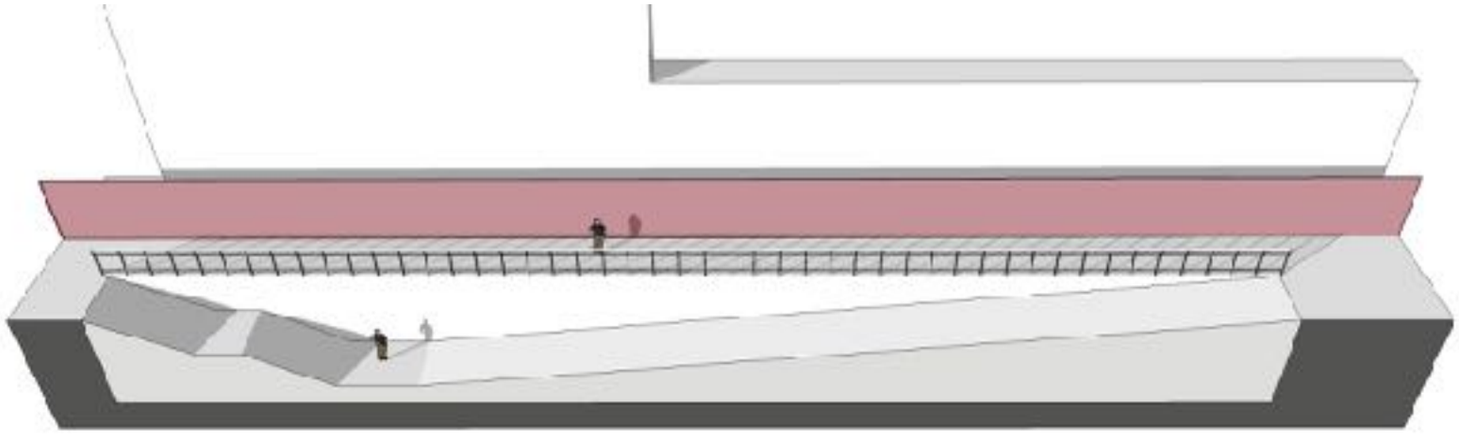
As well as limiting the size of vehicle turning left from Edgware Road to Newcastle place it is anticipated that it would only be approx 30 vehicles a day and be vans of contractors.

In order to mitigate risks to people in this area traffic Marshalls will be employed manage the traffic and left turn onto Newcastle Place.

As set out with the CLP guidance document issued by TFL the intention is to use the site next door to provide access for large plant for the initial stage of the demolition.



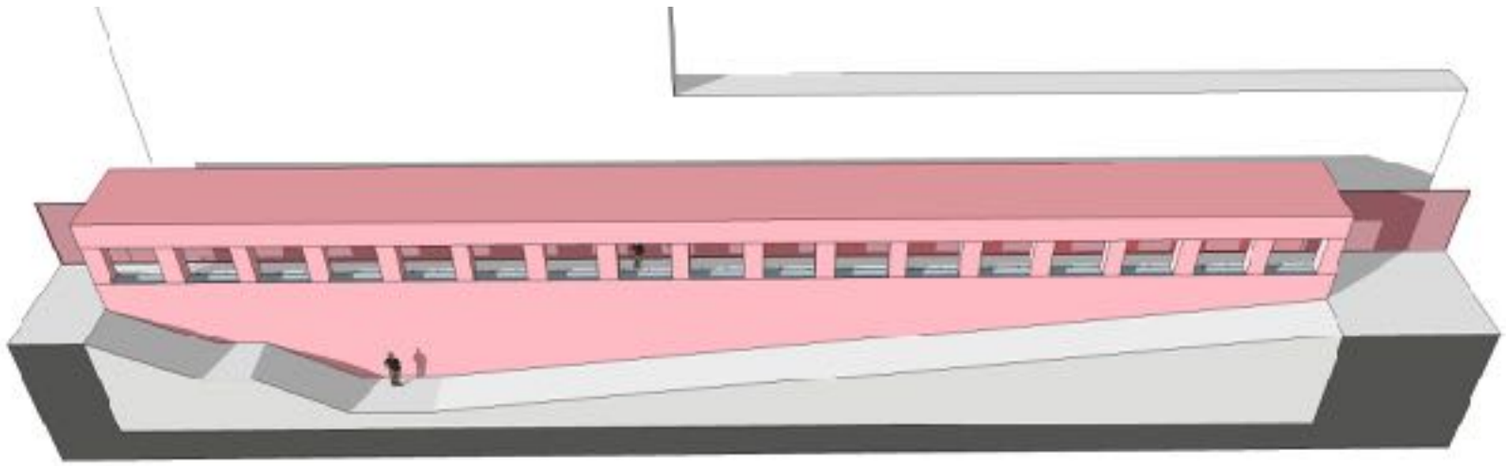
Harrow Road - Subway Pedestrian Access



Enabling Phase

The Hoarding is established to allow 2.5m pedestrian walkway.

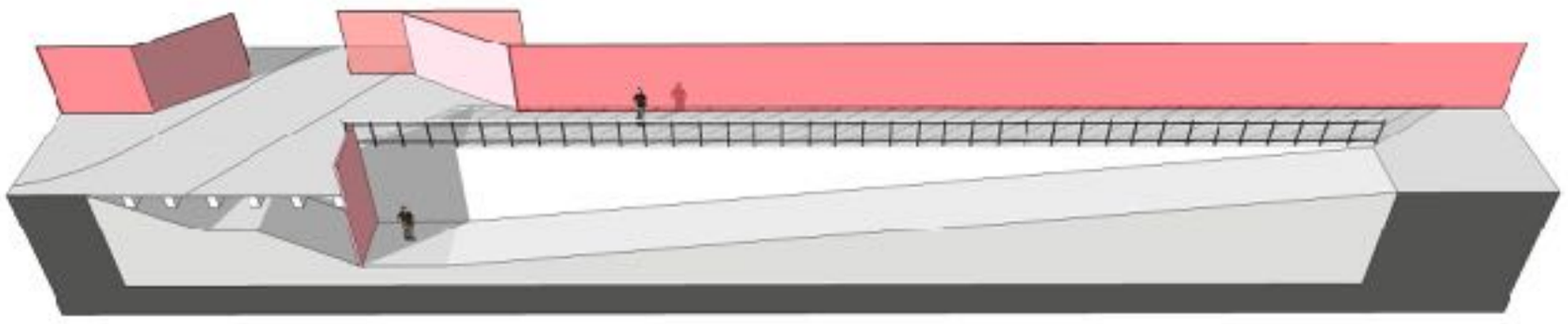
The subway remains in use.



ow 2.5m pedestrian walkway.

Crash deck over pedestrian walkway based out on subway ramp.

Subway remains in use but reduced in width to 1.8m



Site Access Gate Established

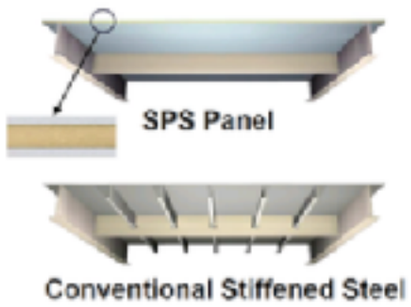
The Hoarding is established to allow 2.5m pedestrian walkway. The crash deck is removed following demolition

Subway remains in use with Access via the ramp and the stairs are covered using deck temporarily to form a bell mouth.

Access Egress Control Measures

Bridging over the underpass

The bridge over the under pass to facilitate the West Gate would be designed by a temporary works engineer with a Cat III check undertaken. The use of a steel sandwich panel would be proposed to minimise loads imposed on the subway



Access Management

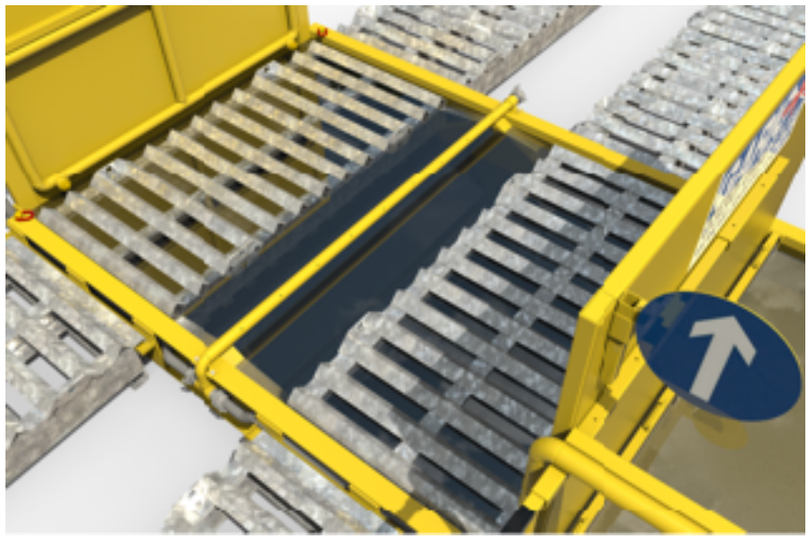
Each gate would have traffic Marshalls when in operation.

FORS Silver and CLOCS

All deliveries will be by FORS silver accreditation and be CLOCS compliant

Mud Control

Use of wheel washes will be used through the demolition and bulk dig phases.

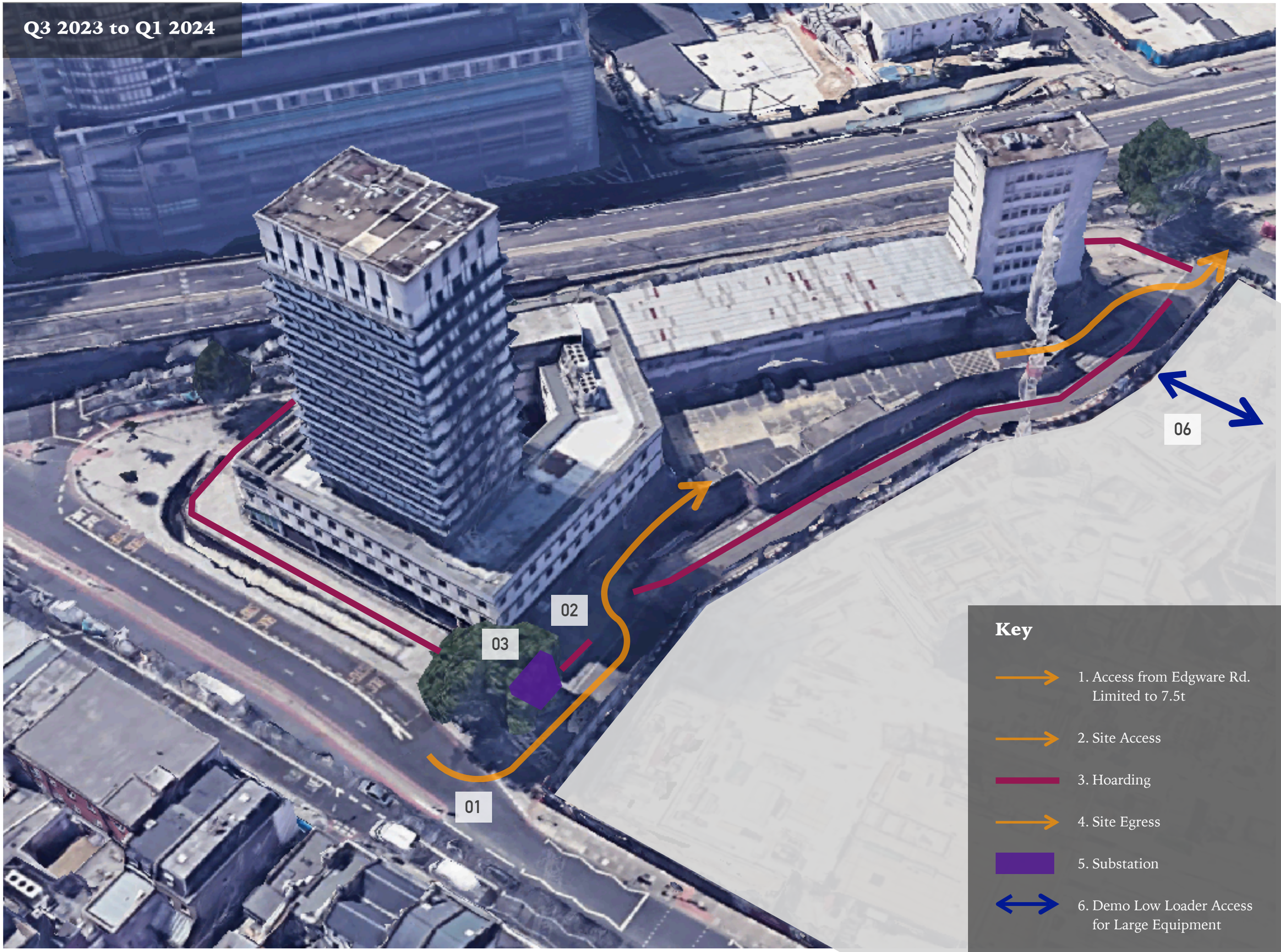


CONSTRUCTION SEQUENCE

Demolition to Completion

Berkeley
Designed for life

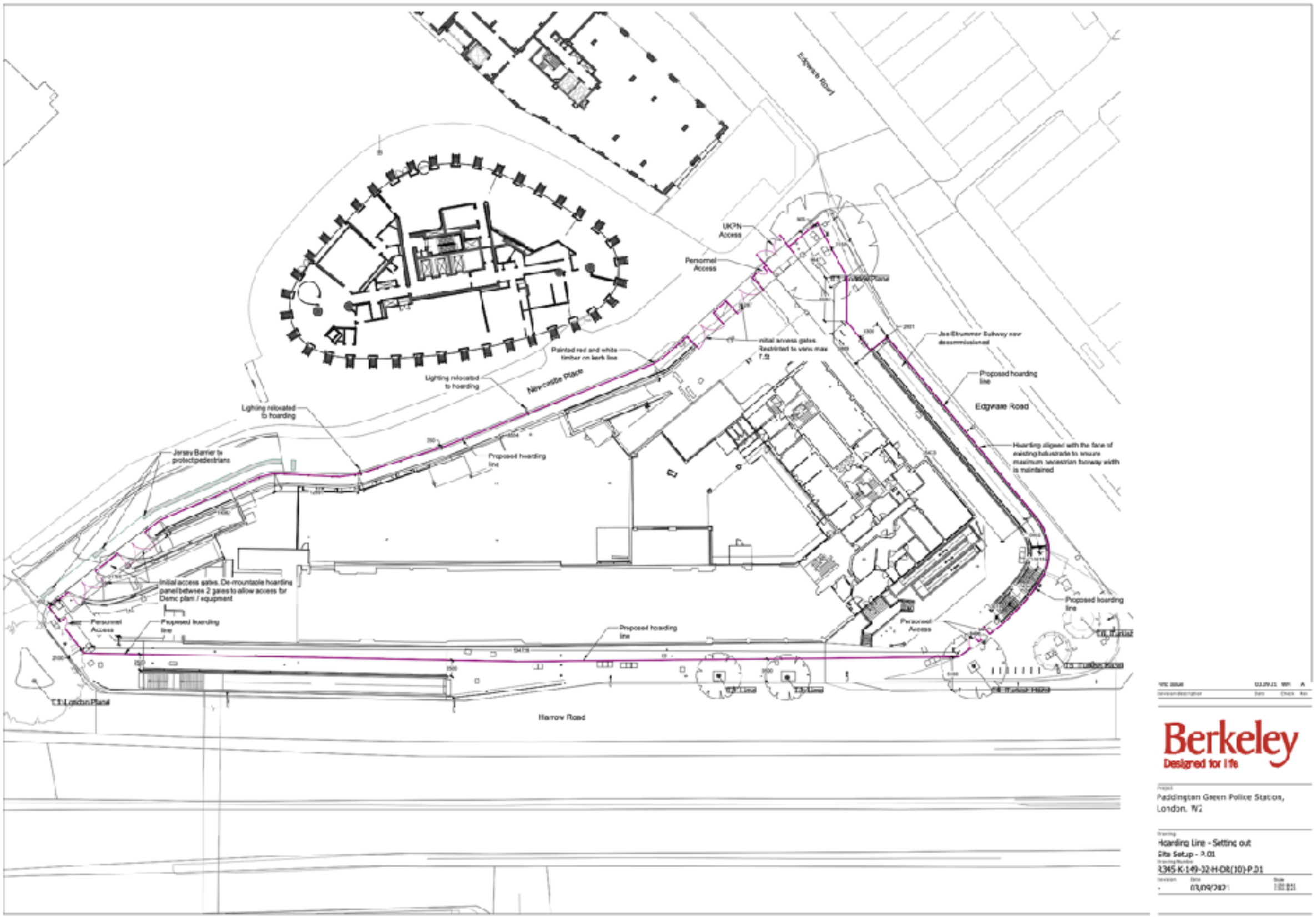
Q3 2023 to Q1 2024



Key

1. Access from Edgware Rd. Limited to 7.5t
2. Site Access
3. Hoarding
4. Site Egress
5. Substation
6. Demo Low Loader Access for Large Equipment

Site Enabling - Establishing Hoarding Line



Berkeley
Designed for life

Paddington Green Police Station, London. W2

Hoarding Line - Setting out
Site Setup - P.01
3345-K-149-32-H-DR(10)-P.01