ARDENT CONSULTING ENGINEERS

HOMES FOR LAMBETH

PROPOSED RESIDENTIAL DEVELOPMENT: WOOTTON STREET, LAMBETH

OUTLINE CONSTRUCTION LOGISTICS PLAN

REPORT REF NO. 193860-02
PROJECT NO. 193860

DECEMBER 2020

PROPOSED RESIDENTIAL DEVELOPMENT:
WOOTTON STREET, LAMBETH
LONDON SE1 8LY

OUTLINE CONSTRUCTION LOGISTICS PLAN

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REV	ISSUE PURPOSE	AUTHOR	CHECKED	APPROVED	DATE
-	Work In Progress	AH	AB	WIP	12.02.20
-	Draft Issue	AH	AB	-	04.12.20
-	Final	ND	AH	ATB	21.12.20

1.0 INTRODUCTION

1.1 Ardent Consulting Engineers (ACE) has been appointed by Homes for Lambeth to prepare an Outline Construction Logistics Plan (CLP) for the proposed residential development at Wootton Street, London SE1 8LY.

1.2 This CLP has been prepared by ACE to support a planning application for 36 new residential dwellings within a five, eight and ten storey development, in addition to a ground floor community space to support a replacement community unit which currently occupies the site. The proposed site masterplan is contained within Appendix A.

1.3 This Outline CLP will be submitted to the London Borough of Lambeth (LBL) and has been prepared in consideration of Transport for London (TfL) CLP planning guidance. The aim of this report is to highlight site specific requirements in order to put in place a level of control that minimises, where practical, the impact of demolition and construction works associated with the build of the site on the surrounding area, neighbouring properties and the general public.

1.4 The objectives of the CLP are to lower emissions, enhance safety and reduce congestion. Routing of larger construction vehicles will involve use of the Principal Road Network (PRN) and liaison will take place with Transport for London (TfL) as necessary to minimise disruption to these routes during construction activities. Minimising impact on the adjacent road network is a key objective of this CLP, whilst it will also provide a framework for monitoring and controlling construction vehicle activity.

1.5 At this early stage, it is not possible to confirm full details of site management and construction methodologies since a contractor has not yet been appointed. This CLP has been prepared however to consider the anticipated programme of works associated with the proposed development and identifies a number of constraints for further consideration by the contractor (once appointed) and for the development of the Detailed CLP, likely to be conditioned as part of any consent. It provides current best estimates of working practices and anticipated vehicle numbers/movements to support construction activities.

1.6 The preliminary details provided within this CLP will be utilised to prepare a Detailed CLP for approval by LBL/TfL prior to commencement of works on site as appropriate.

1.7 This CLP gives due regard to guidance documents and policy on logistics, such as "The Traffic Management Act (2004)", "Designing for Deliveries (2006)", "The Mayors Transport Strategy (2018)", the emerging New London Plan (2019), and "The London Freight Plan (2007)". It follows the format and guidance provided within the TfL "Construction Logistics Planning Guidance" document.

Accreditation

1.8 As per TfL guidance, this report has been prepared by Aaron Hand (Senior Transport Planner) who is in possession of a 'Construction Logistics Planning Practitioner Certificate' – Practitioner ID 00319.

1.9 While ACE has prepared this Outline CLP, the implementation, monitoring and updating of this report (discussed further at Section 7.0) is the responsibility of the developer and will be co-ordinated by an appointed contractor.

1.10 Following this introduction, the remainder of this report is structured as follows: -

- Section 2.0 provides a description of the existing site conditions in relation to location and surrounding properties;
- Section 3.0 considers the anticipated construction program;
- Section 4.0 outlines anticipated vehicle routing and access arrangements;
- Section 5.0 considers potential measures and strategies to reduce the impact of demolition/construction of the proposals;
- Section 6.0 considers the likely number and type of vehicles that will serve the site in connection with the demolition/construction of the scheme; and,
- Section 7.0 considers how this document will be implemented, monitored and updated where appropriate (noting this is an outline document only at this stage).

2.0 CONTEXT, CONSIDERATIONS AND CHALLENGES

2.1 The application site is located in north Lambeth, immediately adjacent to Waterloo East Station along Wootton Street. The site is bordered by Wootton Street to the north, Greet Street to the east and Windmill Walk to the south, with Ethelm Street along the southern boundary which serves the existing day nursery / community centre at the site. The site location is shown in Figure 1.1 below and Appended Figure 1 which is attached to this report.

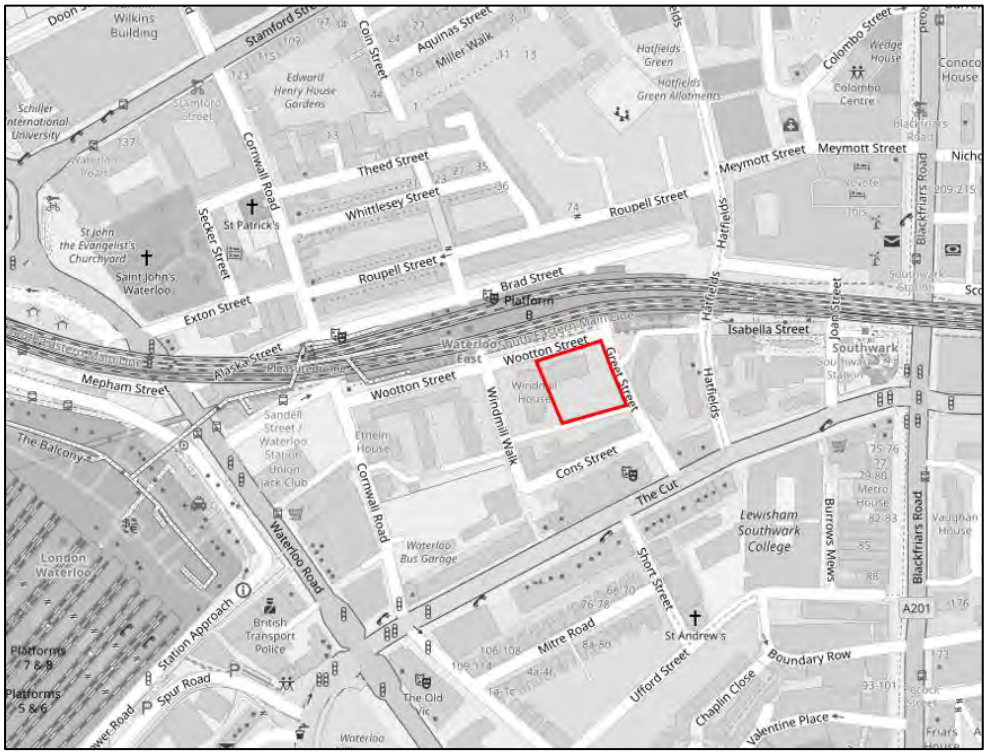

Figure 1.1 – Site Location (Source: OpenStreetMap)

2.2 The existing site comprises a vacant day nursery / community centre with outdoor amenity space and associated car parking, which adjoins the Windmill House residential block. This residential element of the wider site falls outside the proposed development boundary and will be retained through construction works. Pedestrian access into the community centre is facilitated along Wootton Street at the northern elevation, while vehicular access is provided to the south via a gated private access road and internal car parking area.

2.3 The surrounding area is primarily residential and commercial, with a number of residential streets to the south, east and west. The Cut / B300 to the south comprises a local centre, with a number of retail and leisure facilities, while Waterloo East Station is located directly to the north. Both Waterloo Station and Southwark Station are also located within 400 metres of the site to the east and west respectively. The site is highly accessible to the Transport for London (TfL) Principal Road Network (PRN), with both the A201 and A2 in close proximity.

2.4 The site location within the context of local facilities is outlined in Appended Figure 1. This highlights the connectivity of the site with the PRN and shows that there are not considered to be any constraints in terms of sensitive land uses beyond the immediate highway network which would be significantly impacted by construction logistic activities.

Site Access

2.5 Vehicular access into the existing site is located adjacent to the southern elevation via the private road which extends between Windmill Walk and Greet Street along the southern boundary (see Figure 2.1 below). This vehicular access serves a car parking area and the existing external play space which are likely to be suspended to enable construction vehicle access / loading (subject to confirmation following appointed of the contractor). Segregated pedestrian access into the existing site is available along Wootton Street at the northern elevation.

Figure 2.1 – Private access road along southern boundary

2.6 It is anticipated that during construction, the existing access routes into the site will be utilised for loading to support construction, with necessary mitigation measures in place to ensure that disruption to residents and within the surrounding highway network is minimised. Further details are provided within Section 4.0.

Local Highway Network

2.7 Wootton Street is a two-way single carriageway road which extends along the northern site boundary, intersected by both Greet Street and Windmill Walk respectively adjacent to the site. The carriageway measures approximately 6.5 metres in width and incorporates both intermittent on-street parking bays and single / double-yellow line parking restrictions, as well as a continuous network footways along both edges. Wootton Street can only be accessed from Cornwall Road, with Greet Street providing one-way vehicular egress and Windmill Walk comprising a pedestrian route at the intersection with the B300.

2.8 Both Greet Street and Windmill Walk share similar highway characteristics with Wootton Street, as well as serving a private access road along the southern site boundary which facilitates vehicular access to the internal parking area. They include a comparable level of on-street parking opportunities which are permit-controlled and yellow-line parking restrictions around junctions and at access points / loading areas. The one-way egress arrangement onto the B300 from Greet Street includes carriageway narrowing and a raised carriageway surface to manage vehicle speeds at the junction and reduce the potential for conflict – see Figure 2.2 below.

Figure 2.2 – One-way Greet Street / B300 intersection

2.9 The private access road along the southern boundary of the site serves both the existing Wootton Street community centre / nursery site and a number of residential properties. It includes on-street parking along the southern edge and is secured by barriers at either end. There are bollards located on the northern footway to prevent obstructive parking and maintain a clear through-route.

2.10 The Cut / B300 to the south of this site is likely to accommodate a level of construction traffic. This comprises a Local Distributor Road and serves a number of retail facilities alongside residential properties. The carriageway includes a number of raised crossings and speed tables at junctions alongside extensive parking restrictions. There are a number of parking and loading bays along the street though these are located off the main carriageway and are inset within the footway. Cornwall Road is also likely to facilitate construction traffic, however it is noted that there appear to be sufficient carriageway widths and that the road currently serves large vehicles with a bus depot present in close proximity to the site.

2.11 Details on the anticipated routing to/from the site in the context of the local highway network in association with construction is provided within Section 4.0.

Construction Access/Neighbours

2.12 During construction, it is likely that all large vehicles associated with the works will be required to enter the site from Cornwall Road, via either The Cut / B300 or the A301. Routing will then be required to bring vehicles to the site via Wootton Street and Windmill Walk / Greet Street to access the site as required. Currently it is envisaged that a main temporary construction access will be located along Wootton Street, though there is the opportunity for a secondary access via the private road along the southern boundary and temporary loading on-street may be required once the site is nearing completion. Smaller vehicles will then be able to exit via the one-way arrangement at Greet Street, while infrequent larger vehicles will be required to egress via the main access route back along Cornwall Road. Any abnormal large vehicle manoeuvres will be overseen by a suitably qualified traffic marshal/banksman at all times.

2.13 During later phases of work following demolition of the existing buildings on-site, other internal loading areas and access points directly from Wotton Street will be considered to minimise the need for vehicles to park off-site or manoeuvre within the surrounding highway network. These will be considered later within this report.

2.14 Where the site cannot be served internally or via the private access road, discussions with LBL / TfL will be required if the temporary suspension of on-street parking bays or parking restrictions may need to be considered. The requirement for such measures will be reviewed as part of the Detailed CLP process following appointment of the contractor and once operational requirements are fully understood. Any displaced parking will therefore need to be mitigated and suitable alternative arrangements set in place to minimise disruption to local resident (due to local permit restrictions). Diversion signage and re-routing is not anticipated to be necessary within the external highway network, but if this should change it will be agreed with TfL / LBL, as appropriate.

2.15 The trainline and railway bridge situated to the north of the site are not expected to be impacted by the construction traffic associated with the development. Similarly, there is no anticipated to be any impact on Southwark Station, Waterloo East or Waterloo Station which are the closest stations to the site. The level of development proposed is unlikely to generate a significant number of large vehicle trips and is therefore not anticipated to disrupt any of these services or service users. If this view changes following appointment of the contractor and development of the Detailed CLP, discussions with LBL, TfL and the necessary third-parties will be required to determine what impacts and mitigation measures may be acceptable.

2.16 The nearest bus stops to the site are located to the east and west along the A301 and A201 respectively. There are no bus stops on the site frontage or within the highway network immediately adjacent to the site. The development will therefore have a negligible impact on buses will existing services retained during construction and no impact on waiting or interchange facilities expected.

2.17 Overall it is anticipated that construction activity will have no impact on railway/underground services and no impact on local bus routes since the proposals will not require any service diversions or bus stop closures, however, liaison with both LBL and TfL will be necessary should this approach change.

2.18 Should closure/suspension of any footways adjacent to the site be necessary, this will be subject to the necessary approvals from TfL / LBL including completion of temporary Traffic Regulation Order (TRO) changes, as appropriate. Footways will however be retained wherever feasible during construction to maintain pedestrian connectivity and hoarding/scaffold utilised where appropriate to protect pedestrian movements. Where internal site diversions are required for pedestrians, these will be clearly delineated and communicated to local residents in advance of implementation.

2.19 It is likely that internal footways, parking areas and amenity spaces associated with the current community centre / day nursery will be closed-off from the public and adjoining residents during the works and secured through gates and hoarding to prevent conflict. Utilisation of traffic marshals and banksmen will also be implemented as appropriate to ensure the movement of construction vehicles can be safely accommodated and reduce the potential for conflict with pedestrians in the vicinity of the site.

2.20 As part of the preparation of a Detailed CLP and following the appointment of a contractor to undertake the works, local properties that may be affected by construction will be reviewed and mitigation measures proposed, if necessary. It is anticipated that when appointed, the contractor will designate a community liaison officer to engage with residents and give neighbours the opportunity discuss any issues should they arise.

2.21 The proposals are not expected to involve any road closures that would impact on neighbour access, nor any footway/cycleway closures that would impact on key desire lines and as a result all neighbour access routes will be maintained during construction activity. Where temporary construction access points are implemented across existing footways, suitable interim crossing arrangements will be adopted to ensure the impact on vulnerable road users is minimised. Vehicles of a limited size (as shown within the swept-path analysis) may need to be utilised for the initial phases to minimise impact, however these are subject to review at the Detailed CLP stage and are considered further in Section 4.0.

2.22 As set out in Section 1.0, this Outline CLP has been prepared in accordance with Policy documents connected with managing construction activity in London, incorporating the formatting and approach recommended within the framework guidance provided by TfL. A Detailed CLP will be prepared once a contractor has been appointed and in advance of commencement on site.

3.0 CONSTRUCTION PROGRAM AND METHODOLOGY

3.1 The works associated with the development are envisaged to start in late 2021, and would take up to approximately 18 months to complete. The programme will be co-ordinated accordingly to enable the consolidation and movement of resource and materials efficiently, while minimising impact.

3.2 There will be various construction stages that the build will follow and preliminary details of these are provided utilising guidance provided by the TfL CLP tool. These six stages of construction are anticipated to be:

1. Site setup and demolition;
2. Basement excavation and piling;
3. Substructure;
4. Super-structure;
5. Cladding; and
6. Fit-out, testing and commissioning.

3.3 As a contractor is not currently appointed at this early stage, it is not possible to provide confirmed full details, but preliminary anticipated programme, activities and mitigation measures have been considered within this document. A summary of anticipated construction stages is provided within Table 3.1.

Construction phase	Start	End
Site setup and demolition	Jan-2022	Apr-2022
Basement excavation and piling	May-2022	Aug-2022
Sub-structure	Jun-2022	Dec-2022
Super-structure	Dec-2022	Mar-2023
Cladding	Mar-2023	Jul-2023
Fit-out, testing and commissioning	Jul-2023	Jan-2024

Table 3.1 – Indicative Construction Timeline

3.4 This information will be expanded upon and confirmed when a contractor is in place, supplementing and refining details provided within this outline document, including suitable liaison with TfL / LBL where appropriate.

3.5 General site working hours are envisaged to be as follows and will be written into all supply chain sub-contractor orders:-

- Monday to Friday - 08:00 to 18:00 hours
- Saturday - 08:00 to 13:00 hours
- Sundays and Bank Holidays - No working to take place

3.6 It is proposed that delivery restrictions will be considered during weekday peak hours if required by TfL / LBL as part of the Detailed CLP to prevent possible disruption in the surrounding highway network at sensitive times. This will apply to large delivery vehicles and incorporated into the delivery scheduling system to ensure compliance. Where the operational need for deliveries within these hours may be required, this will be discussed and agreed with LBL and TfL in advance of works taking place.

3.7 This profile of vehicle deliveries anticipated to serve the site on a typical day is reflected in the proposed vehicle distribution of vehicles shown in Appendix B.

3.8 These program details are preliminary at this stage but will be confirmed in full in preparation of the Detailed CLP and in consultation with TfL / LBL as appropriate.

4.0 VEHICLE ROUTING AND ACCESS

Routing

4.1 Access to the site will primarily be via Cornwall Road, with vehicles able to approach from the The Cut / B300 in the south or the A301 in the west. Egress from the site will be via the Greet Street / B300 for smaller vehicles, or back along Wootton Street / Cornwall Road for larger vehicles (if required).

4.2 Cornwall Road and The Cut / B300 provide direct access to the TfL PRN via the A301 and A201 respectively, within close proximity of the site. These routes connect to a number of roads which form part of a continuous strategic and trunk road network, including access to the A5, A40 and A501 to the north of the site which form key vehicle corridors.

4.3 It is therefore considered that there are suitable options for vehicle routing using the PRN, subject to the point of origin for delivery vehicles from the wider area. Both local and adjoining strategic roads accommodate regular bus servicing and delivery vehicle movements and are therefore suitable to accommodate demolition and construction vehicle associated with the site.

4.4 Appended Figures 2 and 3 demonstrate the key advisory routes to and from the site within the local and wider highway networks, utilising the A301 and B300 as discussed. It is noted that there are a number of options with may be suitable, therefore these will be refined once exact construction programmes and vehicle requirements have been determined by the appointed contractor as part of the Detailed CLP. Deviations from the agreed routes along side roads will not be permitted and appropriate monitoring / enforcement will take place to ensure that all contractors adhere to approved routes.

4.5 The routes that vehicles will use during demolition and construction are provisional at this stage and will be fully co-ordinated with LBL / TfL by the contractor when appointed. The location of the site within the surrounding highway network and close proximity to the PRN ensures sufficient access for key routes in the wider area is possible.

Access

4.6 Access into the site and the methodology of taking deliveries during the works will evolve as the scheme builds out in order to help contractors to optimise procedures and minimise impact on local residents. The following sets out the options for access arrangements and intended delivery methodologies, which will be refined as appropriate to choose the most appropriate strategy as part of the final CLP.

4.7 Throughout the works, it will be possible for construction vehicles to enter the site via temporary construction access points either via Wootton Street directly (considered to be the primary site access) or potentially along the existing private access road into the rear car park / external amenity area. The potential for a secondary site access along the private access road on the southern boundary will need to be agreed and co-ordinated with the relevant third parties due to the secure barriers in place.

4.8 ACE Drawing 193860-002 shows the indicative extent of the development site and possible loading manoeuvres to serve the indicative initial and later phases, including anticipated building lines and loading areas. Please note that as exact construction and vehicle requirements are not currently known, these are indicatively only and subject to confirmation at the Detailed CLP stage. The swept-path analysis shows what appear to be the largest vehicle sizes which can safely access the site, without significant mitigation or impact on the surrounding highway network.

4.9 Once the site has been largely built-out, particularly the landscaping, there will be limited space for loading / turning on-site, therefore the temporary suspension of a small number of on-street parking bays may be needed to support loading on-street. The exact nature of any restrictions required will be reviewed as part of the Detailed CLP and agreed with LBL, however they will be timed such that impact on the local highway network is minimised. The proposed parking area to serve the new site (via the southern private road) may also provide some scope for loading / unloading once the main site is built-out.

4.10 Larger vehicles may overrun the footway in accessing the site, with any damage to the footway repaired as part of the development works utilising the findings of a condition survey as appropriate. It is likely that there will be a limited number of the largest vehicles required to serve the site, which will therefore minimise the impact, including that on neighbouring properties and the surrounding area.

4.11 The provision of individual access / phasing / loading plans should be included for each construction stage within the Detailed CLP once the contractor has been appointed. This enable the co-ordination of a full access strategy and suitable mitigation measures to be set in place. This should be developed in line with known constraints such as parking, in addition to further constraints which may require further investigation and are currently unknown.

4.12 To support large or non-standard vehicle movements, qualified banksmen will be present to oversee all arrival and departure manoeuvres to ensure no conflict will occur between construction related traffic and members of the public. Wherever necessary and subject to agreement and licencing, hoardings will be fixed around the site. This will minimise any impact on existing users in the vicinity and will help to ensure footways are retained during construction activity.

5.0 STRATEGIES TO REDUCE IMPACTS

5.1 The below sets out the anticipated procedures and mitigation required to offset logistical impacts which are expected to be associated with the scheme. As this only forms an Outline CLP, these indicative measures will be reviewed following the appointment of a contractor and confirmed as part of the revised Detailed CLP.

Measures Influencing Construction Vehicles and Deliveries

Safety and Environmental Standards and Programmes

5.2 All suppliers that the contractor/developer employs, will be obligated to adhere to a number of safety and environmental standards and programmes. The exact standards required will be confirmed as part of the Detailed CLP, but these are likely to comprise the following:

- Construction Logistics and Community Safety (CLOCS);
- Fleet Operator Recognition Scheme (FORS) (Specific Level To Be Confirmed)
- HGV Direct Vision Standard

5.3 In addition to the above, it is recommended that certain measures are put in place that ensures that vehicles travel to the site safely and efficiently. For example, some contractors pay suppliers per load, and therefore encourages reckless / unsafe driving to maximise the number of loads that can be achieved. In lieu of this, it is recommended that suppliers have a set number of deliveries with no extra fee for bonus loads.

Adherence to Designated Routes

5.4 The routes outlined within this report, once agreed with LBL and TfL, will be adhered to by any supplier and contractor. The requirement to adhere to agreed routes will be written into appointment contracts as appropriate.

Delivery Scheduling

5.5 Through the works any vehicles travelling to the site for deliveries will be booked in advance to ensure that no over congestion occurs within or in the vicinity of the site.

5.6 When vehicles arrive and depart the site, an accredited Site Access Traffic Marshall will oversee each manoeuvre to ensure that these manoeuvres can be undertaken safely and work is being carried out properly.

5.7 A delivery management system will be consider to fully control vehicle access and deliveries by the contractor when appointed. This will detail as appropriate vehicle routes and timeslots for vehicle arrival, dwell time (anticipated to be no more than 30 – 45 minutes per vehicle) and associated routes and restrictions.

Re-timing for Out of Peak Deliveries

5.8 The potential delivery hour restrictions have been reviewed and in the first instance it is anticipated delivery restrictions will be in place during the week to minimising the impact on local highway network and surrounding area at sensitive times (to be confirmed as part of the Detailed CLP).

Re-timing for Out of Hours Deliveries

5.9 Certain large or abnormal deliveries (i.e. cranes) may also require deliveries out of the designated construction hours. While these are not expected during the works, should the need arise then consultation with LBL / TfL will be undertaken.

Use of Holding Areas and Vehicle Call Off Areas

5.10 It is considered that the development is not large enough to warrant the requirement to utilise holding areas as long as a strict delivery programme will be set in place.

Use of Logistics and Consolidation Centres

5.11 The use of consolidation centres has been explored during the preparation of this Outline CLP. Utilising TfL's document "The Directory of London Construction Consolidation Centres", the closest centres are Premier Carriers (Bow) and Avondale: The Assertive Centre. The centres would present opportunities to increase the effectiveness of deliveries and ensure that vehicles are utilised as best as possible. The use of consolidation centres will be determined as the proposals progress further and ultimately will be the decision of the contractor and developer. Details will be incorporated into the Detailed CLP as appropriate.

Measures to Encourage Sustainable Freight

5.12 Consideration has been given to undertake freight by water or by rail. While the site is located close to a number of railway lines, the underground is not appropriate and the scale of development is not suitable for freight by this mode, given cost / practicality implications. In addition, the site is not of a sufficient scale to justify freight movements by water. Therefore considering the location and scale of the site, it is not possible to undertake freight by alternative means.

Material Procurement Measures

DfMA and Off-Site Manufacture

5.13 Once a more detailed construction programme is prepared, a review of Design for Manufacture and Assembly (DfMA) and off-site manufacture will be explored to reduce the level of traffic.

Re-Use of Material On-Site

5.14 During all phases, suitable on-site measures will be put in place to maximise recycling potential. The contractors will aim to maximise the recycling of materials within the development, thereby minimising vehicles carrying waste whilst also benefiting the environment. This may involve using materials within the site or for materials to be taken off-site to recycling facilities.

Smart Procurement

5.15 Materials used to construct the development could be locally sourced and shared with other nearby sites (where practical) to reduce the distance travelled from the suppliers to the site, and also to boost the local economy.

Other Measures

Collaboration Amongst Other Sites in the Area

5.16 As part of the consultation of this Outline CLP, it is envisaged that LBL advise on any sites in the surrounding area with which collaboration could be sought. This will include sharing deliveries or other sites utilising materials that are no longer needed (e.g. muck, etc), and vice versa.

Implement a Staff Travel Plan

5.17 No on-site parking for contractors or sub-contractors is to be provided (except for loading / unloading or where operationally necessary) and the area presents excellent opportunities to travel by non-car modes, thus travel by car will be extremely low from the offset. Nevertheless, to ensure this remains the case a Staff Travel Plan is proposed that promotes sustainable transport with construction staff.

Freight by Rail / Water

5.18 Given the limited scale of the site and likely nature of the deliveries, freight by rail and water is considered to be cost-prohibitive and therefore not practical for this development.

Summary of Measures

5.19 In addition to the above, a summary of matters considered is provided in Table 5.1 below, although it should be noted that whilst some measures have been "considered" they are not feasible and so will not be implemented as part of the CLP. Any "proposed" measures will be reviewed further as part of the Detailed CLP. These reflect the guidance provided by the TfL CLP recommendations.

Planned Measures	Committed	Proposed	Considered
Measures influencing construction vehicles and deliveries			
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	
Measures to encourage sustainable freight			
Freight by Water			x
Freight by Rail			x
Material procurement measures			
DfMA and off-site manufacture		x	
Re-use of material on site		x	
Smart procurement		x	
Other Measures			
Collaboration amongst other sites in the area		x	
Implement a staff travel plan		x	

Table 5.1 – Summary of Planned Measures

Other Considerations

Environmental Controls

5.20 In order to effectively control pollution from the site the developer/contractor will work in accordance with the requirements of LBL / TfL in relation to dust, emissions and noise monitoring during the demolition and construction works.

Dust Monitoring

5.21 The removal and construction of buildings materials are activities prone to generating dust. This may become problematic during prolonged spells of dry weather. A strict regime of dust control measures may be implemented by the developer/contractor, subject to discussions with the LBL environmental health team including:-

- Dust monitoring at the site boundary;
- Encapsulating the building with light scaffold sheeting during demolition and new build activities; and
- Damping down with water and vapour sprays during dust generating activities.

5.22 In the event of variable weather patterns, the on-site management will monitor conditions to ensure the correct measures are implemented and emissions are controlled.

Road Sweeping and Wheel Washing

5.23 To ensure that the highway is kept clear of mud or debris, the following measures could be implemented, subject to discussion with LBL / TfL: -

- Highway cleaning of the site and/or highway of any mud or debris deposited by site vehicles in the vicinity of the site;
- Adequate sheeting will be required on all vehicles carrying waste materials; and
- Measures will be taken to prevent mud/debris from being swept into gullies.

Noise and Vibration Monitoring/Control

5.24 Construction works have the potential to generate noise/disturbances. The site's location will demand that careful controls are put in place to minimise noise impact, particularly surrounding the site. The developer will work closely with LBL and any local resident groups to agree systems of work that minimise the impact to the surroundings.

5.25 Noise monitoring may be carried out prior to any works commencing (to understand baseline levels), subject to discussions with LBL environmental health, as well as throughout the duration of the works where issues arise. This will include checks by an independent representative to ensure on-going compliance with agreed noise level thresholds. Any non-compliances will be recorded and notified to the site manager and development director so that immediate remedial action can be taken.

5.26 The following measures may be implemented to reduce the noise generated by on-site operations, where significant issues occur:-

- Noise control technology will be used where appropriate in accordance with current best practice;
- Plant used for breaking down materials will use crushing techniques rather than by using air driven impact or drop hammering where practical e.g. for cutting down piles;
- Where practical all fixings and holes will be formed/cast into concrete to minimise drilling and cutting on site;
- Off-site manufacturing will be utilised where possible to reduce production activity on site; and
- Where extremely loud activities are unavoidable, methods of working will be agreed with LBL / TfL.

Site Contact Details

5.27 No contractor has currently been appointed to undertake the construction works for the development. Once appointed, it is anticipated that details of a designated Community Liaison Officer will be placed on the hoardings at the site frontages to facilitate contact with the local community where necessary. The hoarding will also provide details of the developer including the website to allow residents (and others) to find out more about the scheme including the anticipated construction programme, works and progress.

5.28 Notice boards and signage will be provided prior to any works commencing in order to keep local residents informed about the works taking place. The notices will provide contact details of the Site Manager to allow residents to find out more information and notify them of any issues if required.

Disruption to Public Highway

5.29 Vehicles will be brought off the main carriageways kept behind hoardings wherever possible, in order to minimise disruption to the public highway. The Contractor will maintain engagement with LBL officers and establish a work programme to reduce the potential for conflicts on the highway network.

5.30 The details of vehicle routing and arrivals will be confirmed as part of the Detailed CLP and agreed with LBL and TfL as necessary, though this Outline CLP sets out a number of options considering local constraints. It is estimated that this would occur within the first week of the construction phase to minimise disruption to the existing highway network.

Pedestrian Conflict

5.31 To minimise the impact on pedestrians, footway access along the public highway will be maintained wherever possible during the demolition and construction phases. In this instance, it is envisaged no closures to off-site footways will be required, though the creation of temporary construction access points / vehicle crossovers may occur. Details of any closures or temporary amends which arise once further details on methodology have been confirmed will be discussed with LBL/TfL prior to commencement of works and in advance of any closures or the creation of temporary accesses.

Measures to Reduce the Need to Travel

5.32 No on-site parking spaces will be provided during construction activity since construction workers will be encouraged to travel to the site by sustainable means. The local area has excellent public transport opportunities to accommodate any demands for non-car travel. If there are any requirements for staff members to travel to the site by car or van, car/van sharing will be encouraged. In addition to this, a Staff Travel Plan is be provided at the site to further encourage sustainable transport.

5.33 Drivers of delivery vehicles travelling to the site will be informed of the appropriate routing arrangements which should be used to ensure that the most direct and efficient routes are taken, thereby reducing vehicle emissions and any potential disruption.

6.0 ESTIMATED VEHICLE MOVEMENTS

6.1 The number of vehicles anticipated to serve the site during the works has been considered within this Outline CLP utilising the information available. It is anticipated that this Outline CLP will be updated with full details once a contractor has been formally appointed and the details revisited in liaison with TfL as appropriate. This includes update vehicle and programme estimates as set out within as appropriate.

6.2 As set out in Section 3.0 it is anticipated that the works will take approximately 18 months to complete, with the breakdown of construction provided within Table 3.1.

6.3 The hours of restriction relating to deliveries for construction activity have been considered in Section 3.0 and utilised in summarising the estimated number of vehicles within this section. The number of vehicles anticipated to serve the site, allowing for overlap of stages of works, has been summarised in Table 6.1 and derived from estimates of similar scale developments. These will need to be confirmed following the appointment of the contractor.

Construction phase	Period of stage	No. of trips (monthly)	Peak no. of trips (daily)
Site setup and demolition	Q1 2022 - Q2 2022	100	4
Basement excavation and piling	Q2 2022 - Q3 2022	80	3
Sub-structure	Q2 2022 - Q4 2022	50	2
Super-structure	Q4 2022 - Q1 2023	70	3
Cladding	Q1 2023 - Q3 2023	55	2
Fit-out, testing and commissioning	Q3 2023 - Q1 2024	110	4
Peak period of construction	Q3 2023 - Q3 2023	150	6

Table 6.1 – Number of vehicles in peak construction

6.4 The total number of vehicles anticipated to serve the site through the construction programme has been considered and is summarised in Figure 6.2, whilst the number of vehicles by type is summarised in Figure 6.3.

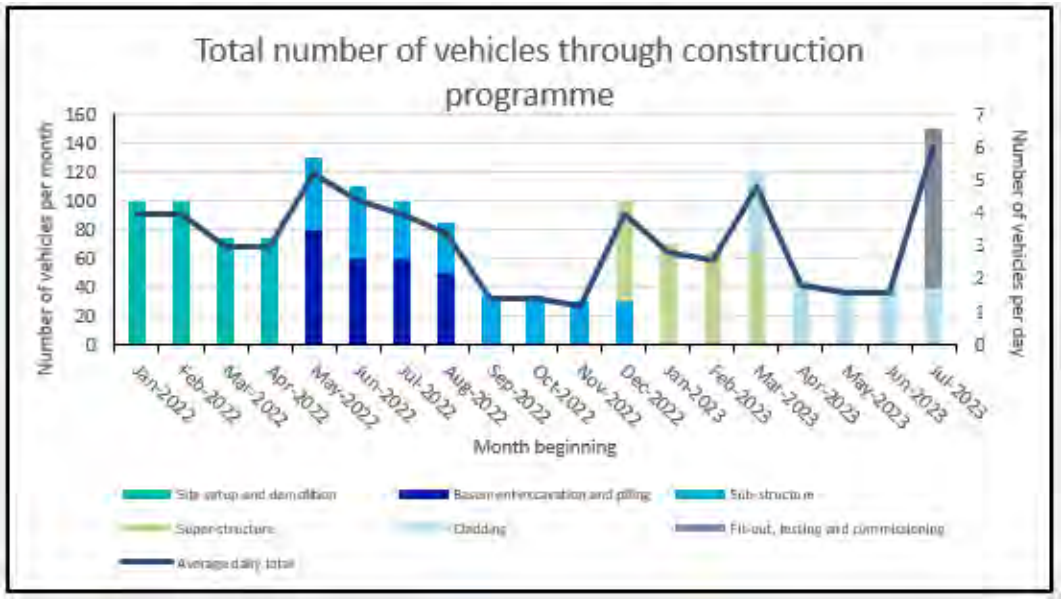

Figure 6.2 – Total vehicles through construction

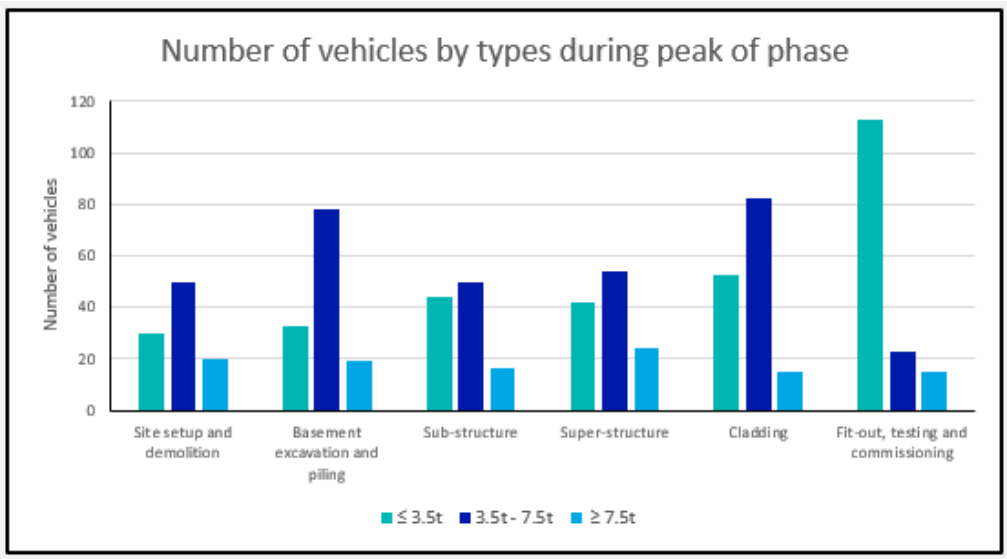

Figure 6.3 – Number of vehicles by type

6.5 The number of vehicles serving the site during the peak month of construction, including the peak number of vehicles anticipated in any one hour, is summarised in Figure 6.4.

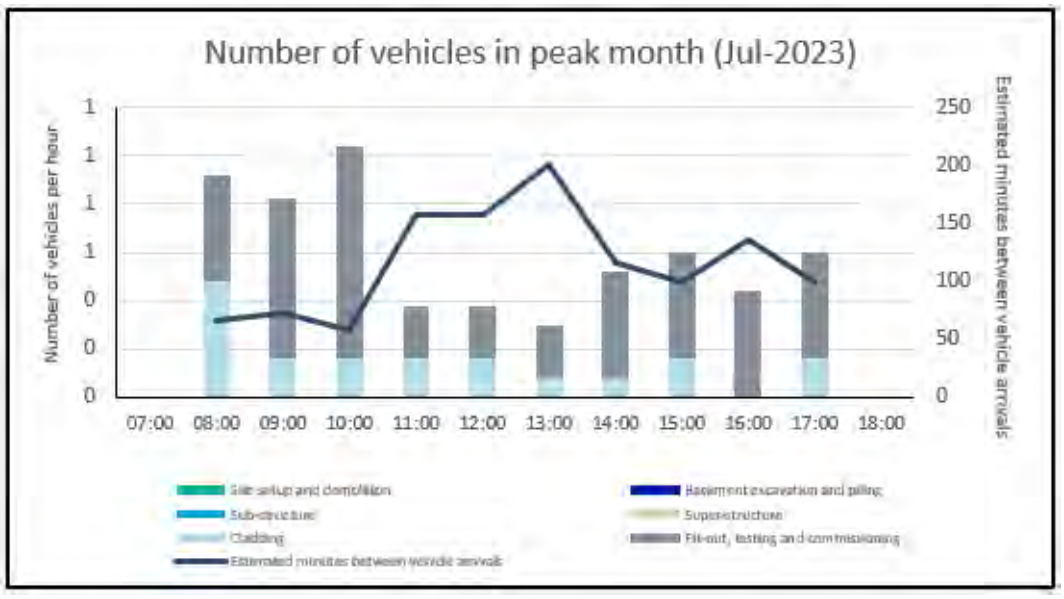

Figure 6.4 – Number of vehicles in peak month of construction

Summary

6.6 The number of larger vehicles serving the site will be higher in the early stages due to the likely need to move excavated materials and delivering plant/materials to site, but this will reduce in terms of overall vehicle numbers and vehicle size as the scheme progresses. It is however noted that the number of large vehicles accessing the site will be limited during all phases given the nature of the scheme and this will be reviewed as part of the Detailed CLP process.

6.7 As the scheme progresses towards the completion phases, a larger number of smaller vehicles delivering the final materials and undertaking the fit-out will likely be present, with a reduction in larger vehicles serving the site. The site compound may be revised at different phases to accommodate the different requirements for each.

6.8 It is anticipated that the delivery scheduling system will ensure that at any one time a single vehicle will need to stop at the site, thereby minimising the impact of the works. The mitigation measures incorporated into this document and the revised Detailed CLP will act to ensure vehicle movements do not severely impact on the operation of the adjacent highway network.

7.0 IMPLEMENTING, MONITORING AND UPDATING

7.1 The measures and actions outlined within this Outline CLP will form the basis of a more detailed document that will be prepared by the appointed contractor. This will include a review of all proposed measures, vehicle estimations and routing / construction methodologies to ensure accuracy.

7.2 The appointed Contractor will utilise the details within this outline document as a basis and build upon the measures incorporated in order to suitably mitigate the construction activity associated with the site. This will involve liaison with TfL and LBL as appropriate to agree any required changes or temporary relaxations.

7.3 If during progression of construction activities, timescales are changed then updates to the CLP will be made to reflect this and discussions help with TfL / LBL if appropriate.

7.4 The Contractor will appoint a Construction Logistics Manager who will be in charge of implementing the Detailed CLP. Their job description will include, but will not be limited to, collecting the following data:

- Number of vehicles movements to site; collected through a delivery booking-in system;
- Breaches and complaints;
- Safety;
- Description of the contractor's handbook;
- Descriptions of the driver's handbook.

Figures

KEY:

- INDUSTRIAL (INCL. REGULAR HEAVY VEHICLES I.E. BUSES)
- LEISURE, RETAIL AND EDUCATION
- UNDERGROUND / RAIL STATION
- INDICATIVE SITE BOUNDARY
- CYCLE SUPERHIGHWAY 6

Rev	Description	Drn	Chk	App	Date

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Client

HOMES FOR LAMBETH

Project Title:

WOOTTON STREET, LAMBETH

Drawing Title:

SITE LOCATION AND CONTEXT PLAN

A3 Scale	Date	Designed by
NTS	04.12.20	AH
Drawn by	Checked by	Approved by
AH	AB	SH

Drawing Number: FIGURE 1 — Rev: -

KEY:

- INDICATIVE SITE ACCESS / EGRESS ROUTES
- EGRESS ROUTE ONLY
- INDICATIVE SITE BOUNDARY

Rev	Description	Drn	Chk	App	Date

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Client

HOMES FOR LAMBETH

Project Title:

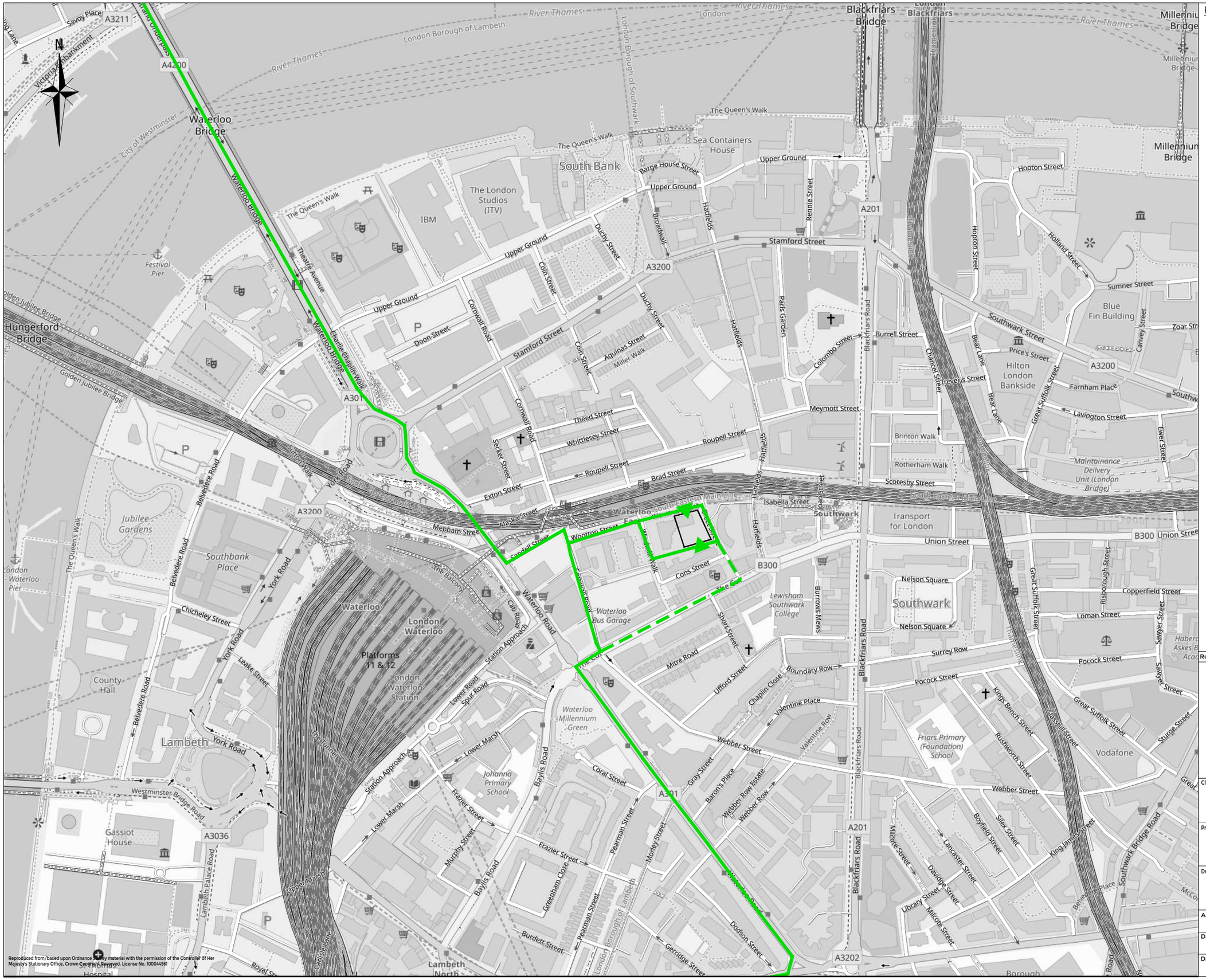
WOOTTON STREET, LAMBETH

Drawing Title:

INDICATIVE SITE ROUTING PLAN (REGIONAL)

A3 Scale	Date	Designed by
NTS	04.12.20	AH
Drawn by	**Checked by**	**Approved by**
AH	AB	SH

Drawing Number: FIGURE 2 — Rev -



KEY:

- INDICATIVE SITE ACCESS / EGRESS ROUTES
- EGRESS ROUTE ONLY
- INDICATIVE SITE BOUNDARY
- INDICATIVE CONSTRUCTION ACCESS POINTS

Rev	Description	Drn	Chk	App	Date

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Client: HOMES FOR LAMBETH

Project Title: WOOTTON STREET, LAMBETH

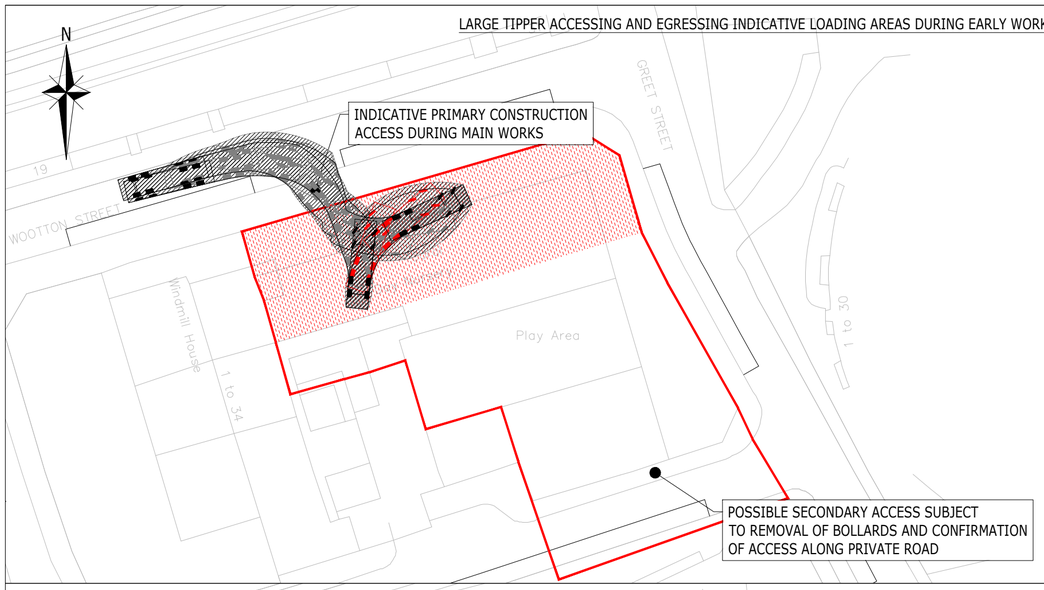
Drawing Title: INDICATIVE SITE ROUTING PLAN (LOCAL)

A3 Scale	Date	Designed by
NTS	04.12.20	AH
Drawn by	**Checked by**	**Approved by**
AH	AB	SH

Drawing Number: FIGURE 3 — Rev -

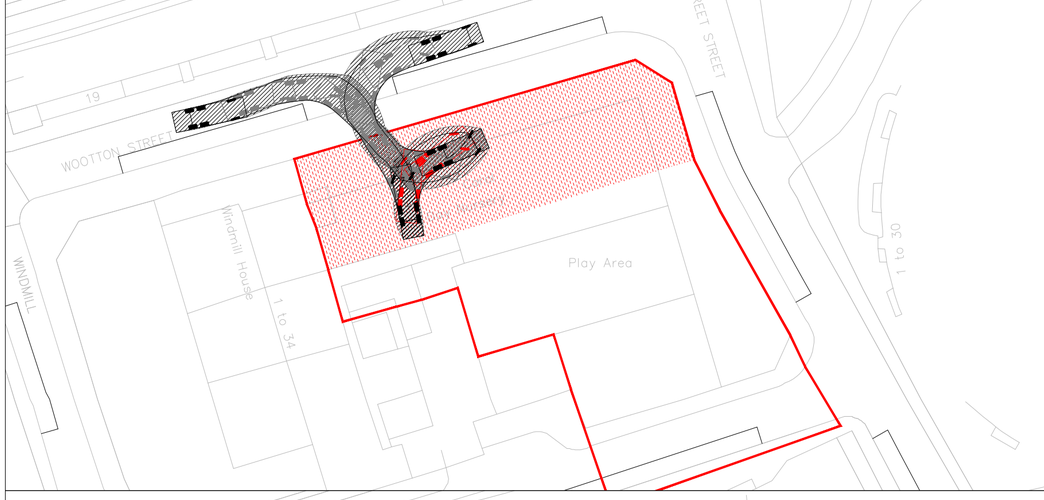
Drawings

LARGE TIPPER ACCESSING AND EGRESSING INDICATIVE LOADING AREAS DURING EARLY WORKS

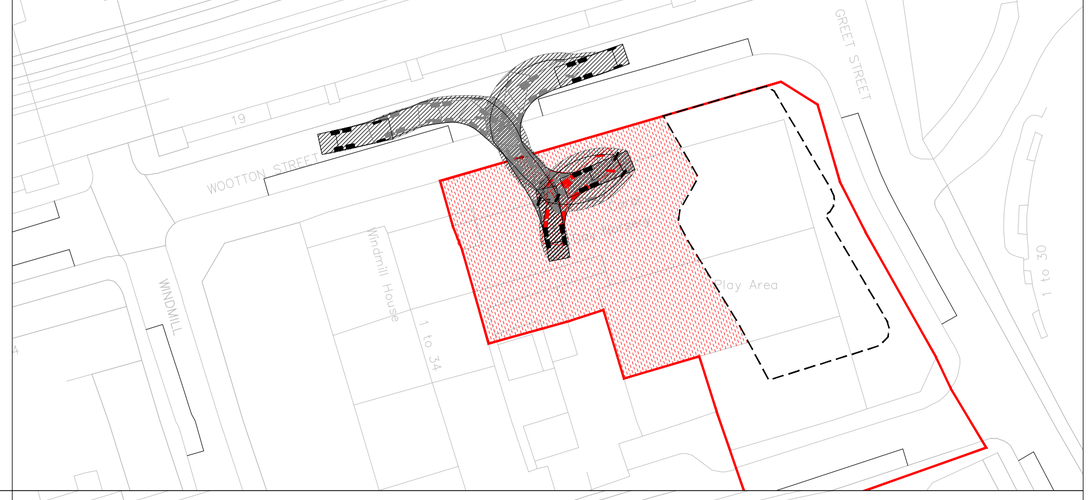


LARGE TIPPER ACCESSING AND EGRESSING LOADING AREAS DURING LATER CONSTRUCTION WORKS

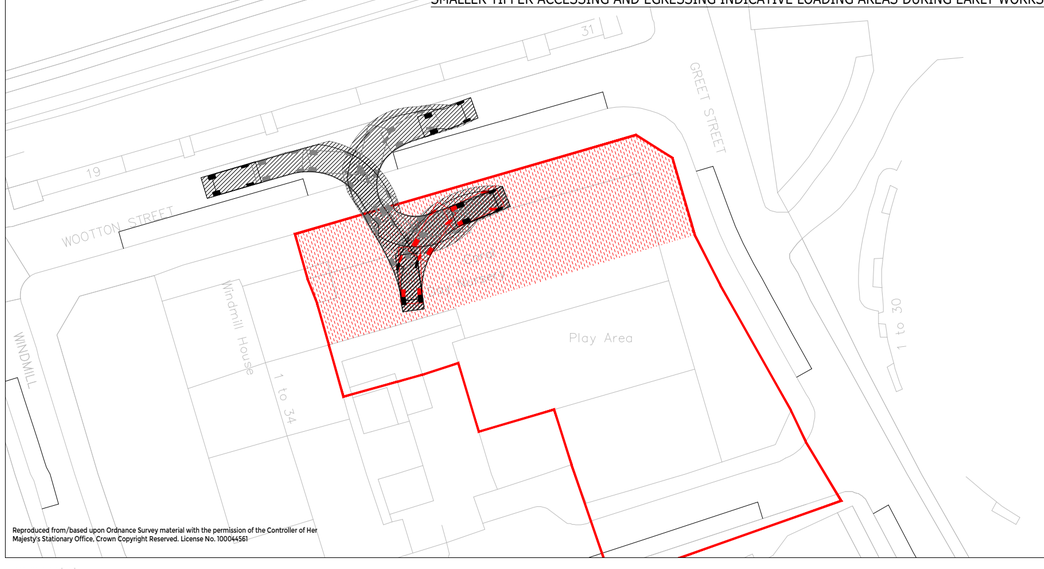
8.4m RIGID TRUCK (CONCRETE MIXER) ACCESSING AND EGRESSING INDICATIVE LOADING AREAS DURING EARLY WORKS



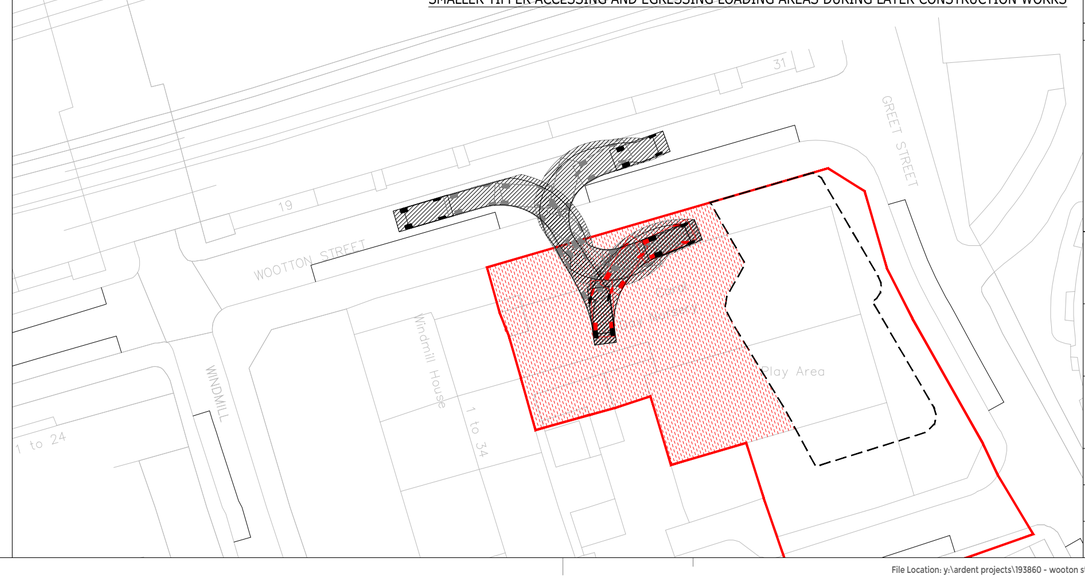
8.4m RIGID TRUCK (CONCRETE MIXER) ACCESSING AND EGRESSING LOADING AREAS DURING LATER CONSTRUCTION WORKS



SMALLER TIPPER ACCESSING AND EGRESSING INDICATIVE LOADING AREAS DURING EARLY WORKS



SMALLER TIPPER ACCESSING AND EGRESSING LOADING AREAS DURING LATER CONSTRUCTION WORKS



NOTES:

1) INDICATIVE ACCESS AND VEHICLE REQUIREMENTS SHOWN ONLY - SUBJECT TO CONFIRMATION FOLLOWING APPOINTMENT OF CONTRACTOR AND AS PART OF THE DETAILED CLP.

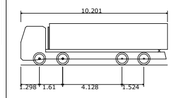
2) ALL ACCESS ROUTES SUBJECT TO AGREEMENT WITH RELEVANT AUTHORITIES AND PARTIES.

3) PARKING BAYS, ACCESS AND ON-SITE FEATURES SHOWN INDICATIVELY - SUBJECT TO REVIEW ALONGSIDE TREE SURVEY AND REMOVAL OF OBSTRUCTIONS / BOLLARDS.

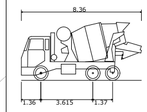
KEY:

- INDICATIVE OVERALL SITE BOUNDARY
- INDICATIVE NEW BUILDING LINE
- INDICATIVE LOADING / UNLOADING AREA
- EXTENT OF TEMPORARY ACCESS WORKS REQUIRED

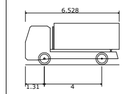
VEHICLES USED:



Large Tipper	
Overall Length	10.201m
Overall Width	2.495m
Overall Body Height	2.890m
Min Body Ground Clearance	0.341m
Track Width	2.471m
Lock to lock time	6.00s
Kerb to Kerb Turning Radius	11.550m



Concrete Mixer	
Overall Length	8.360m
Overall Width	2.390m
Overall Body Height	4.027m
Min Body Ground Clearance	0.358m
Max Track Width	2.413m
Lock to lock time	6.00s
Kerb to Kerb Turning Radius	8.210m



Small Tipper	
Overall Length	6.528m
Overall Width	2.500m
Overall Body Height	2.877m
Min Body Ground Clearance	0.327m
Track Width	2.393m
Lock to lock time	6.00s
Kerb to Kerb Turning Radius	7.850m

Rev	Description	Drn	Chk	App	Date

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Client

HOMES FOR LAMBETH

Project Title:

WOOTTON STREET, LAMBETH

Drawing Title:

INDICATIVE INTERNAL LOADING PLAN

A2 Scale	Date	Designed by
1:500	21.12.20	AH
Drawn by	**Checked by**	**Approved by**
AH	AB	SH

Drawing Number: 193860-002 | Rev: -

Appendix A

Site Layout Plan

KEY

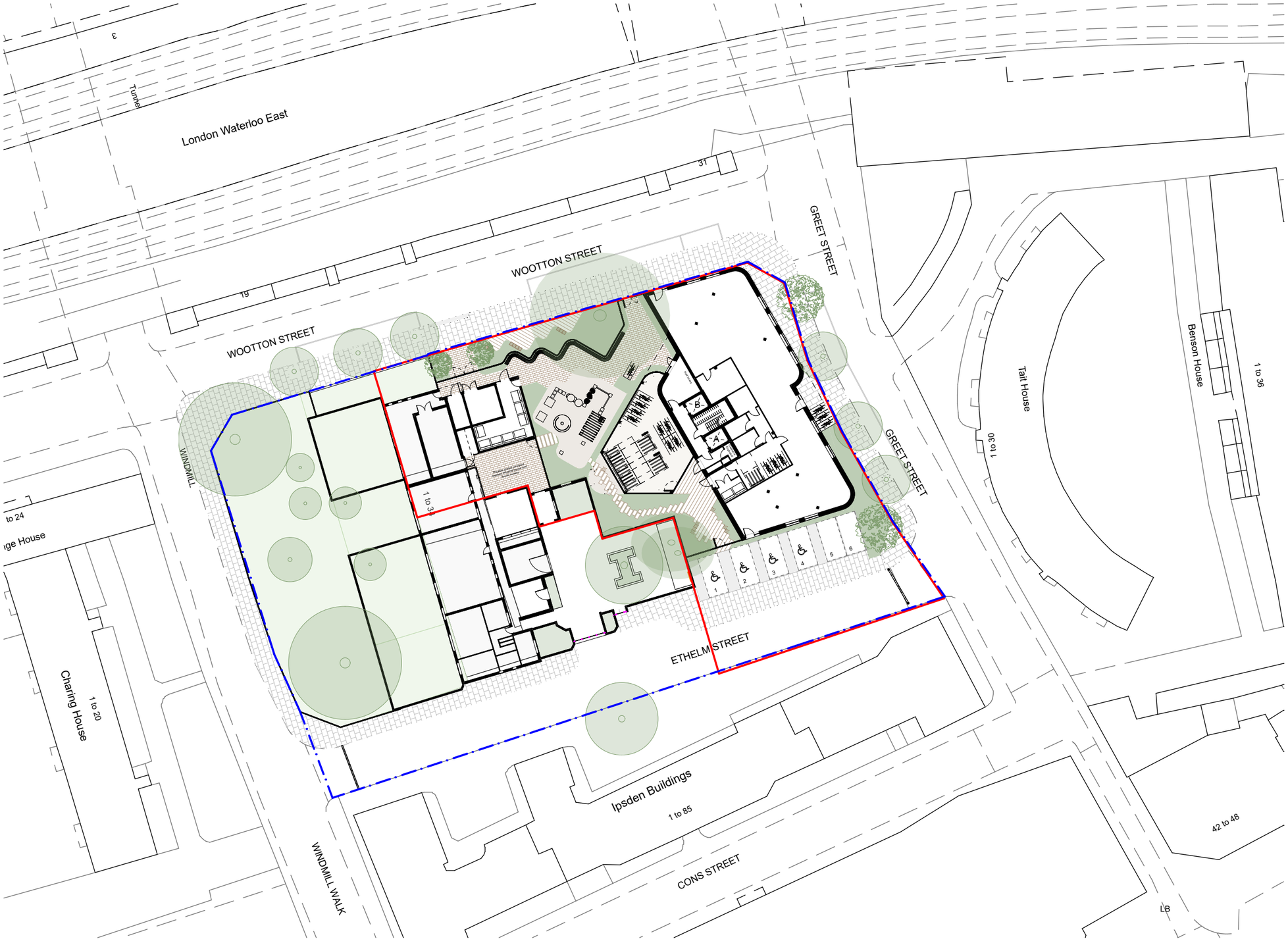
Existing tree maintained

New tree

Application boundary

Land owned by LBL

N



P1 - WIP Work in Progress P1

rev	date	description

0 5 10 15m

HFL HOMES FOR LAMBETH

stockwool

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info@stockwool.co.uk

Client
HOMES FOR LAMBETH

Project
WOOTTON STREET

Drawing
PROPOSED SITE PLAN - GROUND LEVEL

Status
PLANNING

Scale **1:500@A3**
CAD File 3496W-Wootton-MainModel
Date **14/12/2020**
Drawn **AB/DF**
Checked **PM**

Project no_Drawing no_Revision
3496W_PL(90)101_P1 - WIP

Appendix B

Hourly Vehicle Profile

Construction phase	Input hourly distribution of vehicles on typical day																								Total
	00:00	01:00	02:00	03:00	04:00	05:00	06:00	07:00	08:00	09:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	
Site setup and demolition									30%	10%	10%	10%	10%	5%	5%	10%	0%	10%							100%
Basement excavation and piling									20%	0%	25%	15%	15%	0%	10%	10%	0%	5%							100%
Sub-structure									15%	0%	10%	10%	20%	5%	15%	15%	0%	10%							100%
Super-structure									5%	15%	25%	5%	5%	5%	0%	10%	15%	15%							100%
Cladding									30%	10%	10%	10%	10%	5%	5%	10%	0%	10%							100%
Fit-out, testing and commissioning									10%	15%	20%	5%	5%	5%	10%	10%	10%	10%							100%