

Earls Court Masterplan

London Borough of Hammersmith & Fulham
Application 2

N Framework Construction Logistics Plan

Prepared for EC Properties Ltd
by WSP & Halcrow

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Earls Court & West Kensington Opportunity Area
Framework Construction Logistics Plan (CLP)
EC Properties Ltd
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1 Introduction

1.1 INTRODUCTION

1.1.1 WSP has been appointed by EC Properties Ltd to provide transport consultancy advice for the redevelopment of land in the Earls Court and West Kensington Opportunity Area (ECWKO), which includes land in the London Borough of Hammersmith and Fulham (LBHF) and the Royal Borough of Kensington and Chelsea (RBKC).

1.1.2 WSP has prepared three separate Transport Assessments (TAs) to accompany planning applications to redevelop the land within RBKC (Application 1), a separate planning application for the redevelopment of the land within its Borough boundary (Application 2), and a third planning application for the redevelopment of the Seagrave Road Site (which is located to the south of the Earls Court site, south of Lillie Road). Together, Applications 1 and 2 comprise the redevelopment of the Earls Court Site, whilst all three planning applications together propose the redevelopment of the ECWKO as designated in the Draft Replacement London Plan.

1.1.3 This document is the Framework Construction Logistics Plan that is applicable to each development of the full ECWKO and will be the basis for subsequent detailed CLP documents to be developed.

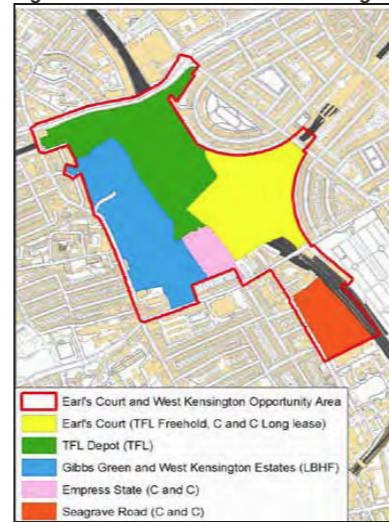
1.2 SITE LOCATION

1.2.1 The ECWKO is approximately 32 hectares (ha) in size and comprises four main landholdings:

- Earls Court Exhibition Centres One and Two – on land within RBKC and LBHF respectively;
- The West Kensington and Gibbs Green Housing Estates – on land mostly owned by LBHF. The western section of the ECWKO is occupied by two estates – West Kensington (to the south) and Gibbs Green (to the north) – which are typically 1960s in their form and character. Though a few substantial tower blocks of 9, 10 and 11 storeys are present, the estate accommodation is primarily low and medium scale density in buildings. This area also includes the Gibbs Green School, as well as a low rise factory building.
- The Lillie Bridge Depot – owned by Transport for London. This maintenance yard and rail tracks are located in the central and northern portions of the ECWKO. The depot is currently used as a maintenance facility by TfL. A nine storey office building is on the northern edge of the ECWKO and is used as a TfL training facility.
- The railway lines which pass through the main site and associated rail sidings – owned by Network Rail.
- Empress State Building – located to the west of Earls Court 2 is the 31-storey (110m) Empress State Building, which is the highest building within the immediate area and currently occupied by the Metropolitan Police Service. The ECWKO also includes the Seagrave Road car park which currently provides the car parking and exhibitor vehicle marshalling for the exhibition centres.

1.2.2 The primary land holdings and site land uses are shown in Figure 1.1 below.

Figure 1.1 Earls Court and West Kensington Opportunity Area



1.3 DEVELOPMENT PROPOSALS

1.3.1 Outline planning permission is sought for Applications 1 and 2 which when combined form the Comprehensive Scheme. The development quantum is defined by the "Site Wide Development Option" schedule which is included in Appendix A and shown in summary in Table 1.1 below.

Table 1.1 Site Wide Development Option Quantum of Development

Land Use	Use Class	Max GEA M ²	Units
Residential	C3	763,872	6775
Office	B1	120,615	-
Retail	A1-5	30,339	-
Hotel	C1	22,445	-
Leisure	D2	13,936	-
Medical	C2	11,687	-
Education / Community / Culture	D1	18,641	-

1.3.2

1.3.3 The breakdown of the residential space by unit sizes is:

Unit Type	Maximum Number
Studio	2% - 5%
1 bed	29% - 35%
2 bed	30% - 40%
3 bed	20% - 25%
4 bed +	5% - 10%

1.4 REPORT PURPOSE

1.4.1 This CLP will form the basis of agreeing the construction arrangements with RBKC and LBHF, as appropriate. The logistics will be dependent on the suppliers, working methodology and programme to be co-ordinated by the principal contractor.

1.4.2 It is envisaged that this Construction Logistics Plan will be conditioned as part of any forthcoming planning consent.

1.4.3 This CLP provides a framework to better manage all types of freight vehicle movement to and from the Earls Court construction sites.

1.5 REPORT STRUCTURE

1.5.1 The report is set out as follows:

- Chapter 2 presents the proposed construction and servicing provision on the site including details of construction site management.
- Chapter 3 identifies the objectives of the Construction Logistics Plan;
- Chapter 4 presents the measures and initiatives to be employed to increase construction servicing efficiency for the Earls Court site; and
- Chapter 5 presents the proposed methodology for monitoring and review.

2 Construction Proposals

2.1 INTRODUCTION

2.1.1 This Chapter provides an overview of the preliminary construction strategies for the Earls Court site. This Chapter provides an overview, with the details to be expanded and finalised for the final version of the CLP.

2.1.2 Due to the scale of redevelopment, the development proposals have been divided into a number of phases. Each phase has been subdivided into yearly 'timeslices'. To account for the overlap in phases, the 'timeslices' have been grouped to form three Deconstruction / Demolition and Construction Sequences.

2.1.3 Planning for enabling works, deconstruction, demolition and construction is broad at this stage and may be subject to modification during the detailed enabling planning. This initial assessment is based on reasonable assumptions at this early stage and experience on similar projects.

2.2 PHASING PROGRAM

2.2.1 Deconstruction and demolition of the existing buildings and infrastructure and construction of the Site Wide Development Option is divided into 6 phases and an overall 19-year deconstruction / demolition and construction program is anticipated.

2.2.2 The anticipated timing of each of the 6 phases are set out below:

- Phase 1 – Year 1 to Year 8 inclusive;
- Phase 2 – Year 3 to Year 10 inclusive;
- Phase 3 – Year 3 to Year 10 inclusive;
- Phase 4 – Year 7 to Year 11 inclusive;
- Phase 5 – Year 9 to Year 15 inclusive; and
- Phase 6 – Year 13 to Year 19 inclusive.

2.2.3 The 6 phases of development have been sub divided into one year 'timeslices' which have then been grouped into logical 'Deconstruction / Demolition & Construction Sequences' as follows:

- Sequence 1 – Phases 1, 2 and 3, which equates to a 6-year time period;
- Sequence 2 – The remainder of Phases 1, 2 and 3 plus Phases 4 and 5, which equates to a 6-year time period; and
- Sequence 3 – the remainder of Phases 5 and 6, which equates to a 7-year time period.

2.3 CONSTRUCTION ACCESS

ACCESS GATES

2.3.1 Site access gates will be established around the perimeter of the Earls Court Site and will be used for construction access and egress to the site over the anticipated 19-year construction program.

2.3.2 Different gate positions will be used to suit the location of the demolition and construction works throughout the phases:

-
- G1 – located on the Northern Access Road accessed via the existing Tesco basement;
 - G2 – located off Old Brompton Road;
 - G3 – located off Warwick Road;
 - G6 – located on Lillie Road;
 - G7 – located at the new proposed permanent junction off the A4;
 - G8 – located on Lillie Road;
 - G9 – located on Beaumont Avenue off North End Road; and
 - G10 – located in Cluny Mews off Warwick Road.

2.3.3 It is intended that Gates G1, G2, G3 and G5 will be used to serve demolition and construction works within the RBKC land. G1 is an optional access point and may not be used, however this access gate will be determined at a later stage. Should G1 not be used as an access point to the RBKC land, access to plots within the RBKC land will be gained via G2, G3 and G5 only, with the works reorganised and reprogrammed to suit.

2.3.4 Access to the southern and central areas of the LBHF land will be shared between Gates G4, G5, G6 and G8. Some access may also be required from these locations to the north area of the LBHF land until the new A4 junction, and hence G7, is available for use.

2.3.5 Gates G5 and G9 will be used to access the TfL land areas, and Gate G10 will be used for the final plot construction to the RBKC land.

2.3.6 In order to minimise impact wheel washing facilities for all construction vehicles will be implemented at the site entrance locations and site management will monitor and manage construction traffic to ensure that vehicles do not block the highway on entry and exiting.

2.4 MAIN ACCESS ROUTES

2.4.1 The main access / egress route to the Earls Court Site is along the A4.

2.4.2 If G1 is utilised, construction vehicles will access the gate via a left hand turn off the Eastbound A4 onto Warwick Road and a left hand turn into Fenelon Place leading into Tesco's basement. Vehicles egressing G1 will leave via Fenelon Place with a left hand turn into Warwick Road across the junction leading onto Holland Road (A3320) followed by a left hand turn at Holland Park Avenue onto the A40.

2.4.3 The approach to the other site access gates, (except G7, which would have direct access to the Earls Court Site from the new A4 junction) will be via a right hand turn off the Eastbound A4 onto North End Road. Demolition and construction traffic can then enter the Earls Court Site at any of the gates around the perimeter of the site using Lillie Road, Old Brompton Road, and Warwick Road. Vehicles leaving the Earls Court Site will do so via the same route with a left hand turn off Warwick Road onto the Westbound A4 junction away from the site.

2.4.4 Secure access points with wheel cleaning facilities will be established at the site entrance locations. Pedestrian access points will generally be located close to the main vehicular access gates with separate pedestrian gates and footpaths provided.

2.4.5 The possible servicing routes available for construction vehicles have been reviewed, with the opportunities identified above. The final routing will be subject to review and finalisation by the principal contractor and confirmed in the final CLP.

2.5 PARKING

2.5.1 On-site parking for construction workers will be restricted to an absolute minimum as there will be a general policy of not providing any car parking on the site. The construction workers will be encouraged to use the highly accessible public transport services available at Earls Court, West Kensington and West Brompton stations and the large number of bus services provided locally. Provisions will be made within the site for essential on-site parking if required for emergencies etc. and a minibus set down point.

2.5.2 With the government's emphasis on cycling to work and the development's sustainability commitments the use of bicycles as a form of transport will be encouraged with bicycle storage and shower facilities made available on site.

2.5.3 These aspects will also be considered in the Construction Environmental Management Plan for the site. Through these measures no impact on residential roads will result from construction workers parking their vehicles.

2.6 DELIVERIES

2.6.1 To minimise the likelihood of congestion during the demolition and construction period, strict monitoring and control of vehicles entering and egressing and travelling across the Earls Court Site will be implemented. All on-site construction deliveries will be pre-arranged and pre-booked as part of the efficient operation of construction work. The use of a booking system and having the delivery times agreed with each contractor means that vehicles are not caused to wait prior to entering the site.

2.6.2 Delivery schedules will be produced in order to look at the profiles of up and coming deliveries and to regulate deliveries and eliminate bottle necks. A holding area close to the M4 / Heathrow corridor may be used to control the number of construction deliveries coming into the area. Contractors will be issued with a project route map to pass on to their delivery drivers. A delivery vehicle could be held in the offsite holding area until the site is ready to receive the delivery. Radio contact links will be provided and maintained between the site and the holding area to call vehicles into the site area on a controlled basis. Specific time slots will be allocated to contractors for the use of cranes and hoists, to ensure that the main plant will be utilised efficiently.

2.6.3 The proposed construction vehicle access routes avoid using minor roads as far as possible, and have specifically avoided residential roads adjoining the sites. These measures will ensure that delivery vehicles have minimal impact on surrounding residential roads to the site. In addition, waiting vehicles will be avoided through strict management of delivery times.]

2.6.4 The form of delivery management of vehicles will be set out at the tender stage and reinforced onsite. The success of the proposals will be monitored through the Construction Environmental Management Plan for the scheme.

2.7 CONSTRUCTION VEHICLE MOVEMENTS

SEQUENCE 1

2.7.1 The anticipated construction vehicle movements throughout Sequence 1 will peak at 22 to 28 vehicle movements per hour (i.e. a delivery every 4 to 6 minutes) in years 5 and 6. It is anticipated that there will be 3 to 4 vehicular access gates in operation during this period. On this basis, the frequency will reduce to a delivery every 12 to 18 minutes per access gate.

SEQUENCE 2

2.7.2 Construction vehicle movements are anticipated to peak at 37 movements per hour (i.e. a delivery every 3 – 4 minutes) in year 8, during which 2 vehicular access gates will be operational. On this basis, the frequency will reduce to a delivery every 6 to 8 minutes per access gate.

SEQUENCE 3

2.7.3 It is anticipated that construction vehicle movements will peak at 20 movements per hour (i.e. a delivery every 6 minutes) in year 13. During this period one main access gate will be in operation.

3 Construction and Logistics Plan Objectives

3.1 OBJECTIVES

3.1.1 Construction and Logistics Plans (CLPs) developed through the planning process seek to support sustainable development.

3.1.2 This CLP will therefore seek to achieve the following objectives:

- Demonstrate that construction materials can be delivered, and waste removed, in a safe, efficient and environmentally-friendly way;
- Identify deliveries that could be reduced, re-timed or even consolidated, particularly during peak periods;
- Help cut congestion on local roads and ease pressure on the environment;
- Improve the reliability of deliveries to the site; and
- Reduce freight operators' fuel costs.

4 Delivery and Servicing Management Measures

4.1 INTRODUCTION

4.1.1 This Chapter outlines the overarching measures and initiatives included within the CLP.

4.1.2 This CLP will specifically aim to ensure that construction and servicing of the Earls Court Site can be carried out efficiently, minimising negative impacts upon the local highway network, residents and commercial occupiers within and surrounding the site, and the environment. In order to ensure impact is minimised the contractor will commit to the 'considerate contractor' code of practice.

4.1.3 The proposed management measures and initiatives have been grouped into the following areas:

- Design;
- Procurement Strategy;
- Operational Efficiency;
- Waste Management;
- Traffic Management and Diversions;
- Pedestrian Routing; and
- Construction Sustainability.

4.2 DESIGN

4.2.1 The final CLP will:

- Illustrate the on site delivery and collection points off street;
- Complete a swept path analysis showing how freight vehicles will access the site;
- Conduct a risk assessment of the loading points.

4.2.2 The following initiative will be considered:

- Secure drop off facilities to reduce the number of failed trips and encourage out-of-hours deliveries.

4.3 PROCUREMENT STRATEGY

4.3.1 The procurement process should demonstrate an awareness of all vehicle activity associated with the site, its impacts and appropriate measures to reduce it. This will be undertaken by site management.

4.3.2 The strategy should demonstrate a commitment to safer, more efficient and more environmentally friendly distribution by contracting operators registered with a best practice scheme, such as FORS.

4.3.3 It is also encouraged that contractors source items locally, or from the same supplier, to reduce the number of deliveries required.

FREIGHT OPERATOR RECOGNITION SCHEME

4.3.4 FORS members, or those who can demonstrate that they meet FORS membership standards, will where possible be the contracted suppliers.

4.4 OPERATIONAL EFFICIENCY

4.4.1 The anticipated core hours of construction (excluding Engineering Hours & Possession Periods) for demolition and construction will be:

- 08:00 – 18:30, Monday to Friday excluding Bank Holidays and weekends; and
- 08:00 – 13:00, Saturdays.

4.4.2 In order to maintain the above working hours, the Principal Contractor may require at certain times a period of up to one hour before and after normal working hours to start and close down activities (this will not include works that are likely to exceed agreed maximum construction works noise levels). Specialist construction operations and deliveries may also be required to be carried outside these core hours in agreement with RBKC and LBHF and other relevant parties.

4.4.3 Certain operations carried out close to existing Network Rail assets and London Underground tunnels will need to be undertaken during engineering hours, weekends or blockage periods (including night time working). The timing of these operations will be agreed with Network Rail, LUL, RBKC and LBHF.

4.5 WASTE MANAGEMENT

4.5.1 In general and in accordance with the principles of the UK Government's 'Waste Strategy 2000' a principal aim during demolition and construction will be to reduce the amount of waste generated and exported from the site. This approach complies with the waste hierarchy whereby the intention is first to minimise, then to treat at source or compact and, finally, to dispose of off-site as necessary.

4.5.2 All principal and trade contractors will be required to produce a construction Site Waste Management Plan (SWMP) on a phase by phase basis which will contain:

- Classification of all wastes;
- Performance measures and target setting against estimated waste forecasts;
- Measures to minimise waste generation;
- Opportunities for re-use and recycling;
- Provision for the segregation of waste streams on site that are clearly labelled;
- Recording of proposed carriers and licences for disposals sites;
- An audit trail encompassing waste disposal activities and waste consignment notes;
- Measures to avoid fly tipping by others on land being used for construction;
- Measures to provide adequate training and awareness through toolbox talks; and
- Considerable alternative means of removing waste other than by road.

4.5.3 All relevant contractors will be required to investigate opportunities to minimise and reduce waste generation by:

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- Agreements with material suppliers to reduce the amount of packaging or to participate in a packaging take-back scheme;
 - Implementation of a 'just-in-time' material delivery system to avoid materials being stockpiled, which increases the risk of their damage and disposal as waste;
 - Use standard size components in design detailing to eliminate risk at source where possible to do so;
 - Attention to material quantity requirements to avoid over-ordering and generation of waste materials;
 - Re-use of materials wherever feasible, e.g. re-use of crushed concrete from demolition process for fill (crushed using an off-site concrete crusher); re-use of excavated soil for landscaping. Concrete will be taken off site for crushing and re-use. The Government has set broad targets of the use of reclaimed aggregate, and in keeping with best practice, contractors will be required to maximise the proportion of materials recycled;
 - Segregation of waste at source where practical;
 - Re-use and recycling of materials off-site where re-use on-site is not practical (e.g. through use of an off-site waste segregation facility and re-sale for direct re-use or re-processing);
 - Skips will be colour coded and signposted to reduce the risk of cross examination and covered to prevent dust and debris blowing around the site, these will be cleared on a regular basis; and
 - Burning of wastes or unwanted materials will not be permitted on site.

4.6 TRAFFIC MANAGEMENT AND DIVERSIONS

4.6.1 As previously discussed, the A4 will be used as the main northern approach for all construction delivery vehicles. The use of the Northern Access Road for demolition and construction works to the east will help alleviate the impact of construction traffic on surrounding residential areas as will the new A4 junction formed in Sequence 1 to serve the west of the site. Access points will be provided along Lillie Road and North End Road to serve the south western side of the site until the new A4 junction is in place. Demolition and construction deliveries will be carefully planned with a booking system implemented to regulate delivery. A holding area close to the M4 / Heathrow corridor will be used to control the number of construction vehicles coming into the Earls Court Site.

4.6.2 Effective wheel cleaning facilities will be provided at the main entrance gate locations together with concrete hard standing. Recycled water will be used wherever possible and supplementary cleaning will be provided as necessary using suitable means to keep the surrounding highway clean. Collected debris will be disposed of as controlled waste at a licensed waste disposal facility.

Stopping Up

4.6.3 Stopping up orders will be required to existing roads running through the existing West Kensington Housing Estate. These roads will be stopped up ahead of demolition and the commencement of new plot construction. Temporary roads may be required to maintain access routes to existing housing.

4.6.4 New highways will be constructed internally to the site boundary utilising existing junctions with the surrounding roads or the forming of new junctions onto Lillie Road and North End Road. These junctions and roads will be constructed early to provide construction site access and egress.

Traffic Management

4.6.5 Highway alteration works are proposed at the existing road junctions and entrances and surrounding areas in Lillie Road, Old Brompton Road, Warwick Road and North End Road. These are fairly minor in nature and extent. More extensive highway works are required for the A4 junction.

4.6.6 Notices and details of traffic management proposals associated with works to the highway and footpaths will be given under the Highway Acts 1980 and Road Traffic Act 1998.

4.6.7 The existing 3 lane A4 will be reduced to 2 lanes to create a working zone for the new junction. The construction of the new A4 junction and associated traffic management will be carried out in accordance with notices for works on the highway in accordance with the Highway Acts 1980 and Road Traffic Act 1998 and agreed with TfL to minimise the impact on the surrounding area.

Road Closures

4.6.8 Road closures are not anticipated however they may be required in order to establish and remove the tower cranes or to deliver large items of building plant and infrastructure items. This will be agreed with RBKC and LBHF prior to commencement. Notices regarding any planned closures and diversion of either roads or footpaths shall be given by the principal contractor to RBKC, LBHF, the police, fire brigade and other emergency services sufficiently in advance of the required closure or diversion.

4.7 PEDESTRIAN ROUTING

4.7.1 Pedestrians, the general public and any on site depot employees, rail operatives, local residents and employees associated with other existing uses across the site will be kept separate from the deconstruction, demolition and construction activities at all times.

4.7.2 It is envisaged that pedestrian routes will be maintained for public use around the perimeter of the site. Where temporary closures may be required for the erection of scaffolds and incoming services connections, permissions and licences will be obtained for the rerouting of pedestrian thoroughfares. Where more extensive closures or diversions of the existing footpath are required, temporary proposals will be agreed with RBKC and LBHF.

4.7.3 During construction works, existing pedestrian routes and footpaths crossing the West Kensington and Gibbs Green Housing Estates will be maintained as far as is reasonably practicable. Temporary footpaths may be required in the interim until permanent footpaths are available.

4.8 CONSTRUCTION SUSTAINABILITY

4.8.1 Phase specific CEMPs will be developed for the construction phases and will include a strategy for minimising carbon emissions. The CEMPs will detail the approach for a range of resource efficiency principles including locally sourcing materials and services, auditing materials to demonstrate environmental performance and options for

the re-use of supplies. The CEMPs will be carried out alongside a carbon foot printing procedure that will minimise carbon demands of the development, identify the use of renewable resources of energy and incorporate efficient energy supply and low carbon technologies such as Photo Voltaic Cells and Solar Thermal Units where feasible.

4.8.2 The potential for sustainable construction and transport practices to be shared with local community groups is one of the proactive approaches that will be explored in the Community Strategy.

4.8.3 The Community Strategy will detail how full and fair employment opportunities, training, education and procurement opportunities for local residents and businesses are made available and how these are monitored. The community strategy has successfully been implemented on previous projects through the following proactive approaches:

- Established links with local schools and businesses to offer training and employment opportunities via work experience and apprentice schemes; and
- Establishment of a learning centre offering language, maths and other courses to the site workforce.

4.8.4 A Community Strategy and Community Liaison officer will be appointed to maintain an active dialogue with residents, ensure that the neighbourhood is not detrimentally affected by the construction works and to maintain the proactive approaches outlined in the Community Strategy.

5 Monitoring and Review

5.1.1 A programme of monitoring and review will be implemented to generate information by which the success of the CLP can be evaluated against the objectives set out within Chapter 3.

5.1.2 Monitoring and review of construction activity to the site will be the responsibility of the principal contractor for each development of the full ECWKOA.

5.1.3 This process will provide the opportunity for construction operations and procedures on the site to be reviewed and new management measures to be implemented (if necessary) to achieve the objectives set out within Section 3. Monitoring will be documented and available to RBKC and LBHF upon request.

