5 Deconstruction, Demolition and Construction: Planning Application 1 - RBKC

Timeslice 2

Figure 5-12 Timeslice 2 [Year 2]

Key Demolition & Construction Activities
- Deconstruction of EC1 continues including ground floor and basement;
- Deconstruction of EC2 continues to top of ground floor deck;
- Removal of existing Earls Court link bridge over the WLL;
- Removal of existing transfer beams over LUL tunnels;
- Following behind and overlapping with deconstruction, construction of new substructures and basement construction commence adjacent to the Eardley Crescent and Warwick Road boundaries (WV03 and WV05);
- The subterranean pedestrian tunnel links and the escalator shaft of the Earls Court LUL Station are retained, however, modifications to the ticket hall take place, as discussed earlier in this Chapter;
- Road construction to new residential areas commences off Old West Brompton Road;
- Shell and core construction commences to parts of Illustrative Masterplan Plots WV05 and WV06; and
- Generally works proceed in a south to east and south to north direction.

Demolition & Construction Logistics
- Deconstruction and construction access and egress via G5, G2 and G1 maintained;
- Some construction access and egress via G3 Warwick Road;
- Main office and site facilities maintained;
- Existing Blue Car Park used for storage of reusable demolition material and as possible contaminated soil hospital and;
- Retained EC2 ground floor deck used for storage of reusable demolition material;
- Lorry access route established from EC1 area over the WLL to the Blue Car Park area.

Key Interfaces
- Substructure and basement construction adjacent to Eardley Crescent and Philbeach Gardens;
- Demolition of slab and structures over existing LUL tunnels;
- Construction of foundations alongside the LUL tunnels;
- Demolition of existing EC1 and EC2 link bridge over the WLL and;
- Construction of Illustrative Masterplan Plot WV06 adjacent to the WLL;
- Track enabling works in advance of new stabling works.

Existing & New Occupancies
- Existing LUL depot and Loco shed remains in use.
5 Deconstruction, Demolition and Construction: Planning Application 1 - RBKC

Timeslice 3

Figure 5-13 Timeslice 3 [Year 3]

Key Demolition & Construction Activities

- Basement / substructure construction to Illustrative Masterplan Plots WV06, WV04, BW07, NE06 commences;
- Shell and core construction continues to Illustrative Masterplan Plots WV03, WV05;
- Building finishes and services to Illustrative Masterplan Plots WV05, WV06 underway;
- Commence construction of south cover over the WLL to form Lost River Park;
- Commence road construction.

Demolition & Construction Logistics

- Construction access via G5, G2 and G1 maintained;
- Some Construction access via G3 Warwick Road;
- Main office and site facilities maintained;
- Mortar batching set up in EC1.

Key Interfaces

- Construction adjacent to Eardley Crescent and Philbeach Gardens;
- Demolition of slab and structures over existing LUL tunnels;
- Construction of foundations alongside the LUL tunnels;
- Construction of cover slab over WLL.

Existing & New Occupancies

- Existing LUL Lillie Bridge depot and Loco shed remains operational.
5 Deconstruction, Demolition and Construction: Planning Application 1 - RBKC

Timeslice 4

Figure 5-14 Timeslice 4 [Year 4]

Key Demolition & Construction Activities

- Continue basement / substructure construction to Illustrative Masterplan Plot WV04;
- Building finishes and services to Illustrative Masterplan Plots WV03 and WV05 adjacent to Warwick Road underway;
- Building finishes and services to Illustrative Masterplan Plots WV06 continue;
- Continue construction of south cover over to the WLL to form the Lost River Park;
- Continue with road construction.

Demolition & Construction Logistics

- Construction access via G3 and G1 maintained;
- Main office and site facilities maintained;
- Mortar batching set up maintained in EC1.

Key Interfaces

- Construction adjacent to Philbeach Gardens.

Existing/ New Occupancies

- New occupancies in Illustrative Masterplan Plots WV05, WV06;
- Pedestrian and vehicle access from Lillie Road and Old Brompton Road and;
- Screening between new occupied areas and construction areas;
- Existing LUL Lillie Bridge depot and Loco shed remains operational.
## Deconstruction, Demolition and Construction: Planning Application 1 - RBKC

### Timelapse 5

#### Figure 5-15 Timelapse 5 [Year 5]

**Key Demolition & Construction Activities**
- Continue basement / substructure construction to Illustrative Masterplan Plots WV04 and WV02;
- Building finishes and services to Illustrative Masterplan Plots WV06, WV04, part WV02 underway;
- Continue construction of south cover to the WLL to form the Lost River Park;
- Installation of Energy Centre 1;
- Continue with Road construction including the new High Street.

**Demolition & Construction Logistics**
- Construction access via G1 maintained;
- Main office and site facilities maintained.

**Key Interfaces**
- Construction adjacent to Philbeach Gardens.

**Existing & New Occupancies**
- New occupancies in Illustrative Masterplan Plots WV03, and part WV02;
- Pedestrian and vehicle access from Lillie Road, Old Brompton Road, Warneck Road and North End Road and;
- Possible screening extended between occupied and construction areas;
- Existing LUL Lillie Bridge depot and loco shed remains operational.
5 Deconstruction, Demolition and Construction: Planning Application 1 - RBKC

Timeslice 6

Figure 5-16 Timeslice 6 [Year 6]

Demolition & Construction Activities

- Shell and core construction to Illustrative Masterplan Plot WV02 underway;
- Continue with road construction including new High Street and Broadway and;
- Energy Centre 1 complete and operational.

Demolition & Construction Logistics

- Construction access via G1 maintained;
- Main office and site facilities maintained.

Key Interfaces

- Construction adjacent to Philbeach gardens.

Existing & New Occupancies

- New occupancies in Illustrative Masterplan Plots WV06 and WV04;
- Pedestrian and vehicle access from Lillie Road, Old Brompton Road, and Warwick Road;
- Possible screening extended between occupied and construction areas;
- Existing LUL Lillie Bridge depot and Loco shed remains operational.
5 Deconstruction, Demolition and Construction: Planning Application 1 - RBKC

Timeslice 7

Figure 5-17 Timeslice 7 [Year 7]

Key Demolition & Construction Activities
- Building finishes and services to Illustrative Masterplan Plot WV04 underway;
- Continue construction of cover to WLL to form the Lost River Park.

Demolition & Construction Logistics
- Construction access via G1 maintained;
- Main office and site facilities maintained.

Key Interfaces
- Construction adjacent to Philbeach gardens.

Existing/ New Occupancies
- New occupancies in Illustrative Masterplan Plots WV06, WV04;
- Pedestrian and vehicle access from Lillie Road, Old Brompton Road, and Warwick Road and;
- Possible screening extended between occupied and construction areas;
- Existing LUL Lillie Bridge depot and Loco shed remains operational.
5 Deconstruction, Demolition and Construction: Planning Application 1 - RBKC

Timeslice 8

Figure 5-18 Timeslice 8 [Year 8]

Key Demolition & Construction Activities
- Illustrative Masterplan Plot WV01 and WK04 substructures underway.

Demolition & Construction Logistics
- Construction access via G1 maintained;
- New access and egress via G4 off Cluny Mews;
- Main office and site facilities maintained.

Key Interfaces
- Construction adjacent to Philbeach Gardens.

Existing/ New Occupancies
- Pedestrian and vehicle access from Lillie Road, Old Brompton Road and Warwick Road and;
- Possible screening extended between occupied and construction areas;
- Existing LUL Lillie Road depot and Loco shed remains operational.
5 Deconstruction, Demolition and Construction: Planning Application 1 - RBKC

Timeslice 9

Figure 5-19 Timeslice 9 [Year 9]

Key Demolition & Construction Activities

- Illustrative Masterplan Plots WV01 and WK04 shell and core underway.

Demolition & Construction Logistics

- Access and egress via G1 and G4;
- Main offices and welfare facilities maintained.

Existing & New Occupancies

- Pedestrian and vehicle access from Lillie Road, Old Brompton Road and Warwick Road;
- Existing LUL Lillie Bridge depot and Loco shed remains operational.
Deconstruction, Demolition and Construction: Planning Application 1 - RBKC

Timeslice 10

Figure 5-20 Timeslice 10 [Year 10]

Key Demolition & Construction Activities
- Illustrative Masterplan Plots WV01 and WK04 finishes and services ongoing.

Demolition & Construction Logistics
- Access and egress via G1 and G4;
- Main office and site welfare facilities maintained.

Existing & New Occupancies
- Pedestrian and vehicle access from Lillie Road, Old Brompton Road and Warwick Road;
- Existing LUL Lillie Bridge depot and Loco shed remains operational.
5.85 Figure 5-21 below presents an illustration of the completed Development Option (RBKC) Proposals in year 11. All Illustrative Masterplan plots are completed and occupied.

Figure 5-21 Completed Development
5 Deconstruction, Demolition and Construction: Planning Application 1 - RBKC

Materials and Resource Use

Demolition

5.86 Table 5-1 provides an estimate of likely quantities of deconstruction / demolition material likely to be generated throughout the deconstruction/demolition of the existing buildings on the Development Option (RBKC) Site. Demolition quantities have been calculated using the existing on Site built drawings and information (e.g. trade articles on both Earls Court 1 and Earls Court 2) and based on professional judgement from experience on comparable projects.

<table>
<thead>
<tr>
<th>Table 5-1 Estimates of Key Demolition Quantities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Materials</td>
</tr>
<tr>
<td>-----------</td>
</tr>
<tr>
<td>Concrete</td>
</tr>
<tr>
<td>Steel</td>
</tr>
<tr>
<td>General</td>
</tr>
<tr>
<td>Asbestos Containing Materials</td>
</tr>
</tbody>
</table>

5.87 It is anticipated that circa 28% of the 140,000 tonnes of concrete material could be reused on site with storage located on site in the Blue Car Park area and the retained deck EC2 slab. Anticipated reuse on the estimated overall demolition total of 152,900 tonne will equate to circa 26% reuse. The remaining concrete and other demolition materials will be removed from site. Wherever possible materials will be recycled and reused. Estimations for the on Site reuse of existing demolition materials have been based on the use of crushed concrete as a piling mat and possibly as a fill material to the building plot areas. The amount of reuse has been restricted by the amount of on site storage available during the period of demolition i.e Blue Car Park and EC2 ground floor slab.

Construction

5.88 Estimates of bulk material quantities for key construction components are provided in Table 5-2. This table also includes earthwork cut and fill quantities.

5.89 The quantities of construction materials have been estimated from approximate quantity measurements of the drawings used in compiling the cost model. The quantities of construction materials for the buildings have been estimated by taking the principle quantities from other known building measured cost plans pro-rated to the gross internal floor areas of the Development Option (RBKC) proposed building plots – this method was utilised as at this stage there are no approximate quantity measures of the proposed building plots. The assumption has been made that excavated material will be suitable for reuse as a fill material.

5.90 Within the mitigation section of this ES Chapter, measures have been outlined to minimise the quantity of materials used and maximise recycling.

Road Vehicle Movements

5.93 Figure 5-22 identifies the anticipated two-way vehicle movements per hour for HGVs throughout the deconstruction / demolition and construction programme.

5.94 The total two-way vehicle movements per hour can be defined as: the total vehicles entering the site per hour + the total vehicles leaving the site per hour, at the designated gates. For example, if there were 30 two-way vehicles movements per hour, this could be broken down into 15 entering the Site plus 15 leaving the Site.

5.95 It is anticipated that vehicle movements will peak at 10 vehicle movements per hour (i.e. a delivery every 12 minutes) in Year 2. It is anticipated that there will be 3 to 4 vehicular access gates in operation at this time, as previously identified on the Year 2 timeslice plan. On this basis, the frequency will reduce to a delivery every 30 minutes per access gate.

Table 5-2 Estimates of Key Construction Quantities

<table>
<thead>
<tr>
<th>Estimates of Bulk Quantities</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Bulk Excavation</td>
<td>101,000m³</td>
</tr>
<tr>
<td>Earth Filling (to make up levels)</td>
<td>62,000m³</td>
</tr>
<tr>
<td>Concrete in Piles and Arisings</td>
<td>13,000m³</td>
</tr>
<tr>
<td>Concrete to Foundations and Substructures</td>
<td>17,000m³</td>
</tr>
<tr>
<td>Concrete to Infrastructures</td>
<td>23,000m³</td>
</tr>
<tr>
<td>Concrete in Road and Paving's</td>
<td>11,000m³</td>
</tr>
<tr>
<td>Concrete in Superstructures</td>
<td>45,000m³</td>
</tr>
<tr>
<td>Substructure/Infrastructure Rebar</td>
<td>5,000 tonnes</td>
</tr>
<tr>
<td>Superstructure Rebar</td>
<td>11,000 tonnes</td>
</tr>
<tr>
<td>Slabwork Frame</td>
<td>5,000 tonnes</td>
</tr>
<tr>
<td>Façade Cladding and Glazing</td>
<td>69,000m²</td>
</tr>
<tr>
<td>Roof Finishes</td>
<td>55,000m²</td>
</tr>
<tr>
<td>Internal Walls</td>
<td>351,000m²</td>
</tr>
<tr>
<td>Carings</td>
<td>186,000m³</td>
</tr>
<tr>
<td>Wall and Floor Finishes</td>
<td>880,000m²</td>
</tr>
<tr>
<td>Hard and Soft Landscaping</td>
<td>36,000m³</td>
</tr>
</tbody>
</table>

5.91 Based on excavated material being suitable for reuse as fill, it is estimated that circa 54,000m³ will be removed from site, including pile arisings and circa 62,000m³ reused. This equates to circa 55% reuse of excavated material. Some of this material may be contaminated and require remediation, hence, an on site area has been identified on the timeslices for a potential soil hospital. This area is shared with crushed concrete storage arising as a result of deconstruction / demolition which, is intended to be re-used. The designation and ratio of waste types will be determined through site specific chemical test data, including Waste Acceptance Criteria (WAC) tests (Ref. 5-26), and it will be disposed of in accordance with relevant legislation.

5.92 Key information on excavated and fill materials which fall within the Definition of Waste: Code of Practice (Ref: 5-21) will be registered with CL:AIRE (Ref: 5-22) with the intention of linking up with other project partners and services providers to make the process quicker and easier to find ‘homes’ for reuse of the soil or fill materials.
5 Deconstruction, Demolition and Construction: Planning Application 1 - RBKC

5.96 A number of surveys and investigations will need to be undertaken prior to the commencement of works on site. In addition, various consents and licenses will need to be granted. The following pre-commencement surveys and investigations are envisaged:

- Condition survey of adjoining party walls and boundary walls;
- Topographical survey to confirm existing site levels;
- Archaeological investigation;
- Condition survey of perimeter roads;
- Condition survey of adjoining buildings and gardens;
- Condition survey of Tesco access road and basement structure;
- Condition survey of LUL assets within redevelopment area;
- Condition survey of WLL assets within redevelopment area;
- Condition survey of LUL and WLL tunnels and covered ways;
- Condition survey of existing transfer (portal) beams spanning the District Line; and
- Spatial and condition surveys of existing highway structures.

5.97 Further investigations will be required in regards to the following:

- Geotechnical (soil types, ground conditions and bearing capacities);
- Existing soil contamination types and levels;
- Existing ecology;
- Existing statutory service; and
- Unexploded ordnance.

5.98 All Statutory, the RBKC, TFL LUL and Network Rail consents and licences required to commence an on site activity will be obtained ahead of the works commencing and giving the appropriate notice period. These will include:

- Network Rail and LUL possession notice periods;
- Notices for works on the highway in accordance with the Highway Acts 1980 (Ref. 5-5) and Road Traffic Act 1998 (Ref. 5-6);
- Hoarding and scaffold licences for works on the perimeter boundary;
- Construction notices;
- Connections to existing Statutory services and main sewers;
- Licence for discharge of water from the site into the public sewer;
- Party wall act notices and agreements; and
- Approval of Construction Environmental Management Plan (CEMP) including Site Waste Management Plan (SWMP).

Plant and Equipment

5.99 Consideration has been given to the types of plant that are likely to be used during the deconstruction / demolition and construction works. The plant and equipment associated with the construction process is set out in Table 5-3, overleaf.

5.100 Where required consents will be obtained from existing and new adjoining owners for tower crane oversail. Consents will also be obtained from the RBKC where tower cranes oversail the public highway.

5.101 The temporary use of tower cranes for the demolition / construction works would not infringe any safeguarding obstacle limitation surface. Fixed red aeronautical obstacle lighting to the jibs of the tower cranes will be provided. The construction programme and precise requirements for the obstacle lighting will be discussed with London Heathrow Airport and The Civil Aviation Authority when the construction programme and the crane methodology is finalized and prior to work starting on the tallest buildings on Site. For further details on aviation requirements, refer to ES Volume III: Appendix J, Annex 1.
Deconstruction, Demolition and Construction: Planning Application 1 - RBKC

Hours of Work

5.102 The anticipated core working hours (excluding Engineering Hours & Possession Periods which are to be negotiated / discussed with LUL and Network Rail) for demolition and construction are:

- 08:00 – 18:30 hours on weekdays;
- 08:00 – 13:00 hours on Saturdays; and
- No working on Sundays, Bank or Public Holidays.

5.103 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 the RBKC and other relevant parties.

5.104 Certain operations carried out in close location to existing Network Rail assets and London Underground tunnels will be agreed with Network Rail and LUL as well as with the RBKC.

Labour Levels

5.105 Figure 5-23 shows the anticipated labour levels over the duration of the deconstruction / demolition and construction programme for the Development Option (RBKC) Proposals. It is anticipated that labour levels will peak at 1,200 operatives in year 2.

5.106 With the long term nature of the project local labour will be used where possible and viable to do so and where suitably skilled labour is available.

Figure 5-23 Estimated Labour levels

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Table 5-3 Plant & Equipment Associated with the Demolition and Construction Activities

<table>
<thead>
<tr>
<th>Stage</th>
<th>Plant</th>
</tr>
</thead>
<tbody>
<tr>
<td>Demolition</td>
<td>Substructures:</td>
</tr>
<tr>
<td>Tracks / Wheeled 360 Degree Excavators</td>
<td>✓</td>
</tr>
<tr>
<td>Skid Steam loader</td>
<td>✓</td>
</tr>
<tr>
<td>Breakers</td>
<td>✓</td>
</tr>
<tr>
<td>Hand Held Breaker</td>
<td>✓</td>
</tr>
<tr>
<td>Pile Drivers</td>
<td>✓</td>
</tr>
<tr>
<td>Crushers</td>
<td>✓</td>
</tr>
<tr>
<td>Compactors</td>
<td>✓</td>
</tr>
<tr>
<td>Dumpers</td>
<td>✓</td>
</tr>
<tr>
<td>Plate Compactors</td>
<td>✓</td>
</tr>
<tr>
<td>Concrete Crushing Plant</td>
<td>✓</td>
</tr>
<tr>
<td>Scylla</td>
<td>✓</td>
</tr>
<tr>
<td>Mobile Craneage / Tower Cranes</td>
<td>✓</td>
</tr>
<tr>
<td>Muck Away Trucks</td>
<td>✓</td>
</tr>
<tr>
<td>Concrete Wagons</td>
<td>✓</td>
</tr>
<tr>
<td>Wire Cutters</td>
<td>✓</td>
</tr>
<tr>
<td>Burning / Cutting equipment</td>
<td>✓</td>
</tr>
<tr>
<td>Wheel cleaning plant</td>
<td>✓</td>
</tr>
<tr>
<td>Road Sweeper</td>
<td>✓</td>
</tr>
<tr>
<td>Air Compressors</td>
<td>✓</td>
</tr>
<tr>
<td>Concrete Pump</td>
<td>✓</td>
</tr>
<tr>
<td>Ria mixer</td>
<td>✓</td>
</tr>
<tr>
<td>Vibrating Poker</td>
<td>✓</td>
</tr>
<tr>
<td>Diamond Cutting Tools / Saws</td>
<td>✓</td>
</tr>
<tr>
<td>Power Tools</td>
<td>✓</td>
</tr>
<tr>
<td>Hand / Power Tools</td>
<td>✓</td>
</tr>
<tr>
<td>Wheel Washing Plant</td>
<td>✓</td>
</tr>
<tr>
<td>Piling Rigs</td>
<td>✓</td>
</tr>
<tr>
<td>Scaffolding</td>
<td>✓</td>
</tr>
<tr>
<td>Mobile Access Platforms</td>
<td>✓</td>
</tr>
<tr>
<td>Delivery Trucks</td>
<td>✓</td>
</tr>
<tr>
<td>Steps and Skip Truck</td>
<td>✓</td>
</tr>
<tr>
<td>Forklift Trucks</td>
<td>✓</td>
</tr>
</tbody>
</table>

* ✓ indicates plant will be used during that stage of works

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Earls Court Redevelopment - Estimated Labour Levels

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Earls Court Project Application 1 | Royal Borough of Kensington & Chelsea | Environmental Statement Volume I | June 2011

87
5  Deconstruction, Demolition and Construction: Planning Application 1 - RBKC

Construction Waste Generation

5.107 The approximate construction waste associated with the Development Option RBKC Proposals is 35,000 tonnes. This figure is based upon the following assumptions:
- Use of the British Research Establishment’s (BRE) waste benchmarking data (m³/100m³);
- EA conversion rates from m³ to Tonnes; and
- Construction of a scheme comparable to the Illustrative Masterplan, with the below ground area designated as commercial use under the BRE Waste Benchmarks.

5.108 Investigation into various means of transport (Road, Rail, River) for the delivery of construction materials, and removal of demolition arisings and construction waste, has been undertaken by WSP, Halcrow, and Mace Ltd. It has been concluded that road would be the most practical option. For further details on how this conclusion was reached, please refer to the Transport Assessment (Ref. 5-23) and the Site Waste Management Report (Ref. 5-24).

Car Parking and Travel to Site

5.109 There will be a general policy of not providing any car parking on the Site, the Site labour force will be encouraged to use public transport, which is very good with Earls Court, West Kensington and Brompton Road LUL stations relatively close by and a good bus service locally from Greater London. Provisions will be made within the Site for essential on site parking if required for emergencies etc. and a minibus set down point. With the Government’s emphasis on cycling to work and the Development Option (RBKC) Proposals’ sustainability commitments, the use of bicycles as a form of transport will be encouraged with bicycle storage and shower facilities made available on Site.

Traffic Management and Diversions

Traffic Management

5.110 Highway alteration works are proposed at the existing road junctions and entrances and surrounding areas in Lillie Road, Old Brompton Way, and Warwick Road. These are fairly minor in nature and extent. 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 1999.

Road Closures

5.111 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 the RBKC prior to commencement. Notices regarding any planned closures and diversion of either roads or footpaths shall be given by the principal contractor to the RBKC, the police, fire brigade and other emergency services sufficiently in advance of the required closure or diversion.
5.108 (Ref. 5-24). was reached, please refer to the Transport Assessment (Ref. 5-23) and the Site Waste Management Report.

Investigation into various means of transport (Road, Rail, River) for the delivery of construction materials, and the suitable variety of plant and equipment to be used. It is anticipated that cranes or to deliver large items of building plant and infrastructure items. This will be agreed with the RBKC.

Road closures are not anticipated however they may be required in order to establish and remove the tower cranes. Notice of closure will be given in a timely manner.

Details of traffic management proposals associated with works to the highway and footpaths will be given under Lillie Road, Old Brompton Way, and Warwick Road. These are fairly minor in nature and extent. Notices and information about how traffic will be affected will be given in good time.

Liaison with the local community and the City will be undertaken prior to any construction work commencing. Neighbourhood / community liaison is discussed further in paragraph 5.118 of this Chapter.

There will be a general policy of not providing any car parking on the Site, the Site labour force will be encouraged to use public transport, which is very good with Earls Court, West Kensington and Brompton Road.

Commitments, the use of bicycles as a form of transport will be encouraged with bicycle storage and shower facilities made available on Site.

Within the Development Option RBKC Proposals' sustainability commitments, the Government's emphasis on cycling to work and the Development Option (RBKC) Proposals' sustainability within the Site for essential on site parking if required for emergencies etc. and a minibus set down point.

It is recognised that the demolition and construction works will interface with existing residential neighbours. As construction progresses across the Development Option (RBKC) Site, there will also be interfaces with new residents as well. A number of measures will be taken, as applicable, to mitigate the affects of demolition and construction noise, vibration, dust and the control of water on the nearby residents, and to minimise any visual impacts. These mitigation measures are discussed within the Mitigation Measures section of this Chapter (paragraph 5.116 onwards).

The Applicant recognises that a key aspect of the successful management of the project will be the maintenance of good relations with the local community / nearby residents. Hence, a dedicated Community Liaison Manager will be appointed as part of the management team, who will be focused on engaging with the community to provide the appropriate information and to be the first line of response to resolve issues of concern. Neighbourhood / community liaison is discussed further in paragraph 5.118, of this Chapter.

Potential Demolition & Construction Impacts

5.112 Table 5-4 identifies potential impacts (adverse or beneficial) arising as a result of deconstruction, demolition and construction activities. The potential impacts are those prior to any mitigation measures being incorporated. Details of the mitigation measures that will be implemented to reduce or eliminate potentially adverse impacts are discussed in subsequent sections of this ES Chapter.

5.113 Within Table 5-4, the potential impacts are identified based on aspect, with the corresponding ES Chapter noted which should be referred to for the detailed impact assessment.

5.114 It is recognised that the demolition and construction works will interface with existing residential neighbours. As construction progresses across the Development Option (RBKC) Site, there will also be interfaces with new residents as well. A number of measures will be taken, as applicable, to mitigate the affects of demolition and construction noise, vibration, dust and the control of water on the nearby residents, and to minimise any visual impacts. These mitigation measures are discussed within the Mitigation Measures section of this Chapter (paragraph 5.116 onwards).

5.115 The Applicant recognises that a key aspect of the successful management of the project will be the maintenance of good relations with the local community / nearby residents. Hence, a dedicated Community Liaison Manager will be appointed as part of the management team, who will be focused on engaging with the community to provide the appropriate information and to be the first line of response to resolve issues of concern. Neighbourhood / community liaison is discussed further in paragraph 5.118, of this Chapter.

<table>
<thead>
<tr>
<th>Aspect</th>
<th>ES Chapter to Cross Reference</th>
<th>Potential Impacts</th>
<th>Nature of Potential Impact</th>
</tr>
</thead>
</table>

**Traffic**

| 7: Transportation and Access | 5: Deconstruction, Demolition and Construction – Paragraph 5.125 | Increased vehicle movements. Increased traffic congestion from site traffic and road diversions. Increase pressure on local road network at site access gates. Road closures and highway alteration works. Transfer of mud and material from vehicles onto the public highway. | Adverse |

**Pedestrian Access**

| 7: Transportation and Access | 5: Deconstruction, Demolition and Construction – Paragraph 5.125 | Restrictions on pedestrian access to walkways, footpaths and roads. | Adverse |

**Artificial Light**

| 7: Transportation and Access | 5: Deconstruction, Demolition and Construction – Paragraph 5.125 | Position and direction in relation to neighbouring residences. | Adverse |

**Buried Heritage Assets**

| 11: Buried Heritage Assets | | Potential damage to existing buried heritage assets. | Adverse |

**Asbestos and Contamination**

| 12: Ground Conditions | | Discovery of unexpected asbestos and contaminates. Creation of preferential pathways and mobilisation of contamination. Ground contamination as a result of spillages. Pollution to land, air, water. Human health exposure. Migration of asbestos fibres and other contaminants. Deterioration and contamination of new materials and built structures, utilities and infrastructure | Adverse |
Demolition and Construction Mitigation Measures

5.116 For those potential impacts that are adverse in nature, mitigation measures will be implemented to reduce or eliminate them. Details of the mitigation measures are discussed within the relevant technical Chapters of this ES (as noted within Table 5.4). Within the following sections of this Chapter, a short summary of the mitigation measures are presented.

5.117 As discussed in paragraphs 5.114 – 5.115, it is recognised that the demolition and construction works will interface with existing residential neighbours. The closeness of the Site boundaries and the proximity of the residential housing on Philbeach Gardens and Eardley Crescent in particular, will require a fully encapsulated perimeter scaffold to EC1 to provide a visual shield, and also to provide human and environmental protection during deconstruction operations. Further mitigation measures that will be implemented to reduce any nuisance from demolition and construction noise, vibration, dust, and the control of water to nearby residents are discussed in the following sections of this ES Chapter.

5.118 The Applicant recognises that a key aspect of the successful management of the project is the maintenance of good relations with neighbours and implementation of a programme of ongoing liaison and respect with regards to the local environment and residences. In this regard a dedicated Community Liaison Manager will be appointed as part of the management team. The Community Liaison Manager will be focused on engaging with the community to provide the appropriate information and to be the first line of response to resolve issues of concern. The following actions will be taken:

- Consultation with the general public and local community on the proposals for the redevelopment of the Development Option (RBKC) Site and input into the Construction Environmental Management Plan (CEMP). Once planning consent has been obtained, formal contact will be established with residential neighbours and those who could potentially be affected by demolition of the existing buildings on Site and the construction / build out of the Development Proposals plots;
- Outside normal working hours, Site security will act as the main point of contact via a dedicated phone number / hot line. Security will alert the Community Liaison Manager if necessary (available 24 hours). Any complaints will be logged, fully investigated, and responded to quickly, advising what action has been taken. If necessary, complaints will be reported to the relevant department of the RBKC;
- Regular Monthly News letters will be distributed around the neighbourhood with regular updates posted on a local dedicated website.
- Local Neighbourhood forums and exhibitions will be held to explain the proposed works in the short term and key activities and milestones; and
- Public notice boards will be established at Site entrances.

5.119 In advance of the CEMP and alongside the National Considerate Contractors scheme, a Code of Construction Practice will be developed and agreed with the RBKC prior to commencing demolition and construction works on Site. One of the aims of this code will be to assure residents and other affected parties that impacts to the 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.

Traffic Routing & Road Cleanliness

5.120 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 Development Option (RBKC) Site will be implemented through a Construction Logistics Plan. Construction deliveries will also be carefully planned with delivery times agreed with each contractor using a booking system. 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 utilized efficiently.

5.121 Over the 10 year construction period there will be 5 access gates in use. The reliance on each gate will be dependent on the works being undertaken across the Development Option (RBKC) Site at a specific point in time, however, the availability of 5 access gates mitigates the potential for a concentration of vehicles at any one access point.

5.122 Consideration has also been given to reducing the number of vehicle movements by:

- The possible reuse of circa 28% of the crushed concrete produced during deconstruction of EC1 and EC2;
- Reuse of excavated material for filling (based on its suitability);
- Potential provision of an on site soil hospital to remediate soil on site (the current extent of contamination and remediation required is unknown at this point);
- Potential provision of a mortar batching facility on Site;
- The use of reusable hoardings where they can be used in non aesthetic locations; and
- The potential for the use of prefabrication techniques and modern methods of construction where practical and viable to do so without compromising quality.

Pedestrian Routing

5.123 Notices regarding any planned closures and diversion of either roads or footpaths shall be given by the principal contractor to the RBKC, the police, fire brigade and other emergency services sufficiently in advance of the required closure or diversion.

5.124 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.

5.125 Effective wheel cleaning facilities will be provided at all Site entrance gateway locations together with a concrete hard standing. Recycled water will be used wherever possible. 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.

Lighting

5.128 Artificial Site lighting for the demolition and construction works will be sensitively positioned and directed, taking into account the neighbouring residential buildings.

Buried Heritage Assets

5.129 Current desk top studies have indicated that the Development Option (RBKC) Site does not contain any nationally designated sites such as scheduled monuments, listed buildings or registered parks and gardens except for EC1 which has been given immunity from listing until January 2016.

5.130 In light of the extensive truncation across the Development Option (RBKC) Site, the archaeological assessment (Chapter 11: Buried Heritage Assets) suggests that no heritage assets of very high significance are anticipated that might merit permanent preservation in situ. It is therefore considered that the environmental impact of the Development Option (RBKC) Proposals on any surviving (19th/20th-Century) assets could be successfully mitigated by an archaeological watching brief prior to/during demolition, excavation and
section. This would ensure that any assets which may survive were not removed without preservation by record and advance understanding of the significance of the heritage asset. This would be carried out in accordance with a Written Scheme of Investigation, referred to in standard archaeological planning conditions.

Asbestos and Contamination

5.131 Ongoing site investigation and remediation work will be undertaken during the demolition and site preparation phases of the project in accordance with Planning Policy Statement 23: Planning and Pollution Control and DEFRA’s / Environment Agency’s Model Procedures for the Management of contamination (CLR11) (Ref: 5-17).

5.132 Construction works will be carried out in such a way as to prevent, contain or limit, as far as reasonably practicable, any adverse impacts arising from the presence of contaminated land or material.

5.133 The results of the site investigations will allow a remediation framework to be developed for the identification, assessment, and mitigation of contamination risks associated with in situ soils and reuse of excavated materials. The remediation framework will identify remediation requirements for protection of human health and controlled waters as well as identifying any areas that require remediation to be undertaken.

5.134 Where possible and where required, a soil hospital will be established on Site for on Site remediation.

5.135 Appropriate use of Personal Protective Equipment (PPE) will be enforced and implementation and adherence to Health & Safety Protocols, Plans and Procedures. Demolition and construction workers will remain vigilant of ground conditions at all times and will report to the Principal Contractor, any suspect areas of potential contamination.

5.136 Oils and hydrocarbons will be stored in designated locations with specific measures to prevent leakage and release of their contents, include the siting of storage area away from surface water drains, on an impermeable base with an impermeable bund that has no outflow and is of adequate capacity to contain 110% of the contents. Valves and trigger guns will be protected from vandalism and kept locked up when not in use. Details of appropriate storage and handling measures will be presented within the CEMP and the phase specific CEMP.

5.137 Selection of Appropriate methods to dewater excavations will be selected to ensure that groundwater levels do drop below the critical level

5.138 Ground investigations will be undertaken prior to the commencement of works on site and will inform the Foundation / Piling Works Risk Assessment which will define the appropriate piling methods and foundation design to mitigate risk.

5.139 For further details on ground conditions mitigation measures, refer to Chapter 12: Ground Conditions of this ES.

Ground Movements

5.140 Affects of potential ground heave to surrounding boundary areas is considered to be minimal at this early stage. Nevertheless earth movements over the Site and to London Underground tunnels and the Network Rail WLL and assets will be careful monitored during demolition and basement construction based on an agreed monitoring regime and for an appropriate and agreed period after finalisation of the works .

5.141 Prior to commencing demolition, potential movements caused by heave will be considered further and if required, methods adopted for deconstruction and basement construction that limits ground movement to acceptable limits by controlling the removal of existing loads will be implemented.

Unexploded Ordnance / Ground Gas

5.142 Screening for UXO in areas not covered in any previous munitions clearance surveys will be undertaken by the contractors. Further screening by the contractor's will be undertaken across the site after demolition of EC1 and EC2 and associated structures.

5.143 A watching brief for UXO will be maintained during excavation works.

5.144 An assessment for the potential for ground gas will be completed during the further intrusive site investigation work. If necessary, gas monitoring of confined spaces, together with appropriate supervision and Confined Space Entry (CSE) training for site personnel will be adopted.

Water

5.145 The protection of water resources is detailed in Chapter 13: Water Resources, Drainage and Flood Risk and includes measures to ensure the appropriate storage of oils, and prevention of leakages of contaminants into the existing drainage network.

5.146 To ensure that all water resources (surface, ground and controlled) are protected from pollution incidences, namely spillages, control measures will be adopted to mitigate such environmental impacts. This will be achieved through ensuring that the necessary consents and permits are in place for discharging trade effluence, as well ensuring that substances are appropriately stored and sited away from sensitive areas.

5.147 Appointed contractors will be required to develop a drainage plan that highlights spill hazards, and therefore put in place the necessary measures to mitigate this risk. The use of spill kits and drain covers will be used to protect sensitive receptors.

5.148 Incident control procedures will be developed and finalised in conjunction with the Environmental Agency, the RBKC and essential emergency services. The control procedures in outline will include:

- Immediate containment of the pollution at source;
- Reporting the incident immediately to the site management team;
- Raising the alarm to the emergency pollution control response team;
- Summoning emergency services where appropriate;
- Safe disposal of pollution waste;
- Notifying the local Environmental Agency Regional Office; and
- Site management to undertake an investigation and complete an environmental incident report.

5.149 All relevant contractors will be required to investigate opportunities to minimise and reduce the use of water, such as:

- Selection and specification of equipment;
- Implementation of staff-based initiatives such as turning off taps, plant and equipment when not in use both onsite and within site offices;
- Use of recycling water systems such as wheel washes, site toilets hand wash; and
- Use of a rainwater harvesting system for use in equipment and vehicle washing.

5.150 Water consumption throughout the site preparation, demolition, excavation and construction phases of the Development Option (RBKC) Proposals will be monitored, either through sub-metering or utility bills, to allow comparison against best practice benchmarks.

5.151 On-site concrete mixing and the washing down of mixing areas results in large volumes of contaminated wastewater, which can end up in the local sewer network. A number of precautions will be taken on site to reduce potential for impact. These include:

- Should the mixing of concrete be undertaken on Site, the mixing and handling of wet concrete will be undertaken in designated and properly managed areas;
- A designated area will be used for any washing down or equipment cleaning associated with concrete or cementing processes with contaminated waters directed into the foul drainage connection, subject to agreement with TWUL; and
- Run-off water will be gathered in a series of settlement tanks to allow solids to settle in the bottom before the water enters the drainage system. These will be monitored to ensure clean water emerges from the end of the system. The tanks will be cleaned out regularly and sludge removed, it is expected that there will be use of a ‘Silbuster’. 

Earls Court Project Application 1 | Royal Borough of Kensington & Chelsea | Environmental Statement Volume I | June 2011
5 Deconstruction, Demolition and Construction: Planning Application 1 - RBKC

Waste

5.152 The disposal of all waste or other materials removed from the site will be in accordance with the requirements of the Environment Agency, Control of Pollution Act (COPA), 1974 (Ref. 5-9), Environmental Protection Act 1990, Duty of Care Regulations 1991 (Ref. 5-10), Environment Act 1990 (Ref. 5-11), Special Waste Regulations 1996 (Ref. 5-12), the Duty of Care Regulations 1991 (Ref. 5-13), NOC Waste Regulations 2009 (Ref. 5-14) and the Environmental Permit Regulations 2010 (Ref. 5-15).

5.153 Any waste effluent will be tested and where necessary, disposed of at the correctly licensed facility by a licensed specialist contractor/s.

5.154 In general and in accordance with the principles of the UK Government’s ‘Waste Strategy 2000’ (Ref. 5-16) a principal aim during demolition and construction will be to reduce the amount of waste generated and exported from site. This approach complies with the waste hierarchy where the intention is first to minimize, then to treat at source or compact and, finally, to dispose of off-site as necessary.

5.155 All principal and trade contractors will be required to produce a construction Site Waste Management Plan (SWMP) which will contain:

- Classification of all wastes;
- Performance measures and target setting against estimated waste forecasts;
- Measures to minimise waste generation;
- Opportunities for reuse and recycling;
- Provision for the segregation of waste streams on site that are clearly labelled;
- Recording of proposed carriers and licences for disposal 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 alternatives means of removing waste other than by road.

5.156 All relevant contractors will be required to investigate opportunities to minimise and reduce waste generation in line with WRAP’s ‘Halving waste to Landfill’ initiative by:

- 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 of 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 maximize 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 signdeposcit to reduce risk of cross contamination 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.

5.157 Minimal risk of infestation by pests or vermin will be put in place by making adequate arrangements for the disposal of food and other material that may attract pests. Where there is a local infestation then the local environmental officer will be consulted about the action to be taken.

Dust/Air Quality

5.158 A Construction Environmental Management Plan (CEMP) and Dust Management Plan will be prepared and agreed with the RBKC prior to the commencement of any on-site works. The plans will include details of proposed dust monitoring during demolition and construction works.

5.159 The CEMP will present measures for controlling emissions to the environment from the works. In particular, construction vehicle emissions would be minimised or rendered harmless through:

- The use (where appropriate) of catalytic converters; and
- The regular maintenance of vehicle engines.

5.160 Construction dust is expected to only represent a nuisance to exposed human receptors in immediate proximity to the construction site and would be controlled through the application of a series of best practice measures including, but not necessarily limited to:

- Site Planning:
  - No bonfires;
  - Site layout will be planned – machinery and dust causing activities will be located away from sensitive receptors where possible;
  - All site personnel will be fully trained;
  - Trained and responsible manager on site during working times to maintain logbook and carry out site inspections; and
  - Hard surface site haul routes.
- Construction traffic:
  - All vehicles to switch off engines when not in use – no idling vehicles;
  - Regular vehicle cleaning and specific fixed wheel washing on leaving site and damping down of haul routes;
  - All loads entering and leaving site will be covered;
  - On-road vehicles to comply to national and EU emission standards;
  - All non road mobile machinery (NRMM) to use ultra low sulphur diesel (ULSD) where available and be fitted with appropriate exhaust after-treatment from the approved list;
  - Minimise movement of construction traffic around site; and
  - Hard surfacing and effective cleaning of haul routes and appropriate speed limit around site.
- Construction Works:
  - Use water as dust suppressant where appropriate during dry weather;
  - Cutting equipment to use water as suppressant or suitable local extract ventilation; and
  - Use enclosed chutes and covered skips, where applicable.

5.161 There will be a general policy of not providing any car parking on the Site, the Site labour force will be encouraged to use public transport.

Energy Usage

5.162 All relevant contractors will be required to investgate opportunities to minimize and reduce the use of energy and water, such as:

- Use of alternative fuels where practicable to do so;
- Selection and specification of energy efficient plant and equipment;
- Implementation of staff-based initiatives such as turning off taps, plant and equipment when not in use both on-site and within site offices; encouraging a paper-reduced office and encouraging double-sided printing and photocopying;
- Use of recycling water systems such as wheel washes; and
- Use of a rainwater harvesting system for use in equipment and vehicle washing.
5.156 In order to mitigate potential impacts upon breeding birds, the clearance of the vegetation and buildings will be undertaken outside the bird-breeding season (i.e. between August and February inclusive). However, should this not be practicable, and if it is necessary to undertake these works between the months of March to July inclusive, then a survey for all nesting birds will be undertaken by an experienced ornithologist, prior to clearance, to check for the presence/absence of any bird’s nests. The removal of vegetation will also result in a short-term loss of foraging and breeding habitat for birds, while the landscaping is being implemented.

Demolition and Construction Environmental Management

5.169 This section identifies the proposed Environmental Management measures for both demolition and construction including public and neighbourhood relations.

Construction Environmental Management Plan

5.170 A Principal Contractor will be appointed to develop and implement a site specific Construction Environmental Management Plan (CEMP) covering demolition and new construction. These plans will deal with the potential impacts arising from these activities and identify the implementation of effective management controls, for example, the employment of dust suppression methods and use of properly maintained plant. This plan would set out the management, monitoring auditing and training procedures in place to ensure compliance with the relevant legislation and ensure significant impacts on the surrounding environment are mitigated. Thus the site specific CEMP will:

- Identify environmental aspects;
- Specify measurable limits and targets to be adhered to; and,
- Detail mitigation measures to be undertaken and management tools and procedures required for environmental management.

5.171 The specific CEMP will be a contractual document outlining the different procedures to be undertaken in order to complete the various works. Individual development plot principal contractors and trade contractors will incorporate requirements for environmental control, based on good working practice, such as careful programming, resource conservation, adhering to environmental regulation and quality procedures. In this way those involved with the demolition and construction phase, including trade contractors and site management, will be committed to adopting the agreed best practice and environmentally sound methods.

5.172 The trade contractors will be required to demonstrate how they will meet the requirements of the CEMP and how the potential impacts will be mitigated, reduced or minimized.

5.173 The CEMP will include, but not be limited to, the following main items:

- Programme and phasing details of the works;
- A broad plan of the demolition and construction works, highlighting the various stages and their context within the project, including a full schedule of materials and manpower resources, as well as plant and equipment schedules;
- Detailed site layout arrangements (including requirements for temporary works), plans for storage, accommodation, vehicular movements, delivery and access;
- Site working hours;
- Prohibited or restricted operations (locations, hours, etc.);
- Details of plant to be used and associated noise levels;
- Details of operations that are likely to result in disturbance, with an indication of the expected duration of each phase with key dates, including a procedure for prior notification to the RBKC and relevant statutory and non-statutory (including neighbours) parties so that local arrangements can be agreed;
- Environmental impacts and EIA Mitigation Measures Register;
- Training to ensure that all workforce and employees are aware of procedures to reduce and mitigate impacts;
- Responsibilities under the RBKC Construction Practice and Neighbour and Public Relations Strategy;

5.168 For further details on mitigation measures for potential noise impacts, refer to Chapter 15. Noise and Vibration of this E6.

Ecology

5.166 The requirements of the Wildlife and Countryside Act 1981 (Ref. 5-18), the Countryside and Rights of Way Act 2000 (Ref. 5-19), the Conservation (Natural habitats etc) Regulations 1994 (Ref. 5-20), and other relevant legislation and policy guidance in respect of areas of nature conservation interest and protected species will be complied with.

5.167 All reasonably practicable measures will be taken to minimise harm and disturbances to wildlife or their habitats caused by any work, light, noise, dust and vibration.

Noise and Vibration

5.163 Best Practicable Means will be employed to keep the level of noise and vibration generated on site as low as reasonably practicable. Measures to be considered in implementing best practicable means will be consistent with recommendations of BSS228 2010 (Ref. 5-7) and include one or more of the following as appropriate:

- Considerate selection of plant and construction methods. Only plant conforming to relevant national, EU or international standards or directives will be used;
- Careful programming to ensure activities which may generate significant noise are planned with regard to local occupants and sensitive receptors; and
- The recommendations set out in Annex 4 of the BSS28 2010 will be adopted with regard to noise and vibration mitigation options.

5.164 Measures currently planned include:

- Use of a solid hoarding around the entire perimeter of the site to assist in the screening of noise generation from low-level sources;
- Provision of an acoustic screen on the boundary with Philbeach Gardens and Earlsfield Crescent;
- Use of encapsulated scaffolds when works are close to the site boundaries;
- Localised acoustic screening will be provided to demolition and construction plant for noisy operations carried out in the open;
- Deconstruction and hydraulic demolition will be used in preference to percussive techniques where practical to do so;
- Use of acoustic quilts in conjunction with encapsulated scaffolding during deconstruction / demolition;
- The existing EC1 external walls will be maintained as long as possible to provide an additional barrier to noise and dust whilst Stage 1 internal demolition takes place;
- New building massing to act as buffer between deconstruction / demolition and construction works and nearby noise sensitive receptors;
- All plant and equipment to be used for the works will be properly maintained, silenced where appropriate, and operated to prevent excessive noise. Engines will be switched off when not in use and where practicable to do so;
- Construction plant will be carefully positioned in relation to the boundary;
- All trade contractors will be made familiar with current noise legislation and the guidance in BS 5228 2010 (parts 1 and 2) which will form a prerequisite of their appointment;
- Loading and unloading of vehicles, dismantling of equipment such as scaffolding or moving equipment or materials around the site will be conducted in such a manner as to minimize noise generation and where practical will be conducted away from noise sensitive areas;
- A noise and vibration monitoring programme will be developed in accordance with the RBKC to ensure that sensitive receptors are adequately monitored and managed; and
- A regime of voluntary quiet periods will be agreed with the RBKC during noisy works associated with the demolition of EC1 and EC2.

5.165 For further details on mitigation measures for potential noise impacts, refer to Chapter 15. Noise and Vibration of this E6.
Considerate Contractors Scheme/ Code of Construction Practice

5.175 The scheme will be registered with the UK’s “Considerate Contractors Scheme” and any local requirement. This scheme is a voluntary code of practice that ensures contractors and trade contractors carry out their operations in a safe and considerate manner; with due regard to passing pedestrians, road users and neighbouring properties.

5.176 This code of practice seeks to:
- Minimise any disturbance or negative impact (in terms of noise, dirt and inconvenience) sometimes caused by construction sites to the immediate neighbourhood;
- Eradicate offensive behaviour and language from construction sites; and
- Recognise and reward the contractor’s commitment to raise standards of site management, safety and environmental awareness beyond statutory duties.

5.177 The scheme requires contractors and trade contractors to adhere to a code of practice that includes:
- Be considerate to the needs of all those who are affected by the construction process and of its impact to the environment. Special attention to be given to the needs of those with sight, hearing or mobility difficulties;
- Be environmentally aware in the selection and use of resources. Pay particular attention to pollution avoidance and waste management. Use local resources wherever possible and keep to a minimum at all times noise from construction activities;
- Keep the site clean and tidy and well presented to give a positive impression of the industry;
- Be a good neighbour by undertaking full and regular consultation with neighbours regarding site activities from prestart to final handover. Provide site information and viewing facilities where practical;
- Promote respectable and safe standards of behaviour and dress. Derogatory behaviour will not be tolerated under threat of disciplinary action;
- Be safe. All construction and vehicle operations and vehicle movements to be carried out with care for health and safety of passers by, neighbours and site personnel; and
- Be a responsible employer to the operatives on site and the general public. Support staff health and wellbeing and contribute to progressing the industry; and
- Be accountable to the public by providing site contact details and be available to deal with their concerns and develop good local relations.

5.178 In addition to this national scheme on a project of this size and nature, a Code of Construction Practice will also be compiled in conjunction with the RBKC.

Management of Trade Subcontractors

5.179 Individual contractor’s contracts (for example groundwork’s) will incorporate relevant requirements in respect to environmental controls. This will be based largely on the standard of good working practice and statutory requirements and as outlined within the specific CEMPs. All trade contractors will be required to demonstrate how they will adhere to procedures set out in the CEMPs, satisfying regulations and best practices regarding environmental control.

5.180 All appointed contractors will be required to produce and submit method statements which address the sequencing, methodology and the controls / precautions which they will use to control and mitigate the risks in respect to the health and safety of those who may be put at risk (i.e. workforce, public and visitors etc) in connection with their scope of works but also to address the protection and risk mitigation in respect to the environmental aspects which could otherwise result insignificant impacts upon the local environment and community (i.e. noise dust pollution, natural habitats etc).

5.181 The contractor’s method statements will be reviewed for adequacy by the principle contractor prior to their being permitted to commence works on site. All contractor method statements will be required to be supported by suitable and sufficient safety, health and environmental risk assessments, which address the relevant impacts, associated with the work activities.

A Green Procurement Code will be used where practicable and viable to do so.

Construction Sustainability

5.184 Phase specific CEMPs will be developed for the construction phases which shall 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 environment performance (e.g. ISO 14001 or equivalent) and options for 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 Voltic Cells and Solar Thermal Units where feasible.

5.185 The following tools will be used to ensure that alternative materials with a recycled content and low embodied carbon are specified where possible:
- The Green Guide to Building Specification will be used to ensure that major building elements are specified which have higher Green Guide Ratings (A-C); and
- WRAP’s net waste toolkit will be used to ensure that ‘quick wins’ and opportunities to increase recycled content are identified at early stages of the design.

5.186 In addition to the CEMPs, a detailed Logistics Plan will be developed that will include details of how construction phase traffic such as staff and visitors will access the Site. Travel to Site by car will be discouraged and access for trade vehicles will be monitored and assessed on an individual basis.

5.187 A Community Liaison officer will be appointed to maintain an active dialogue with residents, to ensure that the neighbourhood is not detrimentally impacted by the construction works. Employment, training, education and procurement opportunities for local residents and business will be made available. The following proactive approaches will be taken to facilitate this:
- 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.

Residual Impact Assessment

5.188 Following consideration of the demolition and construction related mitigation measures, as summarised within this Chapter and detailed within the relevant technical Chapters of this ES, and considering the environmental
5 Deconstruction, Demolition and Construction: Planning Application 1 - RBKC

management measures that will be implemented, the resultant significance of the residual impact has been assessed.

5.189 Table 5-5 presents a summary of the residual impacts that result from the demolition and construction phases of the Development Option (RBKC) Proposals. Note, for detailed residual impact conclusions, refer to the relevant technical Chapters of this ES.

<table>
<thead>
<tr>
<th>Table 5-5 Deconstruction/Demolition &amp; Construction Residual Impacts</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Aspect</strong></td>
</tr>
<tr>
<td>Traffic</td>
</tr>
<tr>
<td>Pedestrian Access</td>
</tr>
<tr>
<td>Artificial Light</td>
</tr>
<tr>
<td>Buried Heritage Assets</td>
</tr>
<tr>
<td>Asbestos and Contamination</td>
</tr>
<tr>
<td>Ground movements</td>
</tr>
<tr>
<td>Unexploded Ordnance (UXO) and Ground Gas</td>
</tr>
<tr>
<td>Water</td>
</tr>
</tbody>
</table>

Table 5-5 Deconstruction/Demolition & Construction Residual Impacts (Continued)

<table>
<thead>
<tr>
<th>Aspect</th>
<th><strong>ES Chapter to Cross Reference</strong></th>
<th><strong>Potential Impacts</strong></th>
<th><strong>Residual Impact (post mitigation)</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Dust / Air Quality</td>
<td>14: Air Quality</td>
<td>Increased windblown dust from ground surfaces, stockpiles, vehicles, work faces and cutting and grinding of materials. Exhaust emissions from vehicle movement and plant.</td>
<td>Minor Adverse</td>
</tr>
<tr>
<td>Energy Usage</td>
<td>14: Air Quality; 5: Deconstruction, Demolition and Construction – Paragraph 5.162</td>
<td>Increased energy usage / natural resources. Emissions from heating and energy plant.</td>
<td>Negligible</td>
</tr>
<tr>
<td>Noise</td>
<td>14: Air Quality; 5: Deconstruction, Demolition and Construction – Paragraph 5.162</td>
<td>Increased road noise levels from vehicles. Increased noise levels from plant during demolition and construction.</td>
<td>Negligible – Moderate Adverse</td>
</tr>
<tr>
<td>Vibration</td>
<td>15: Noise and Vibration</td>
<td>Increased vibration levels from vehicles. Increased vibration levels from plant during demolition, piling and general construction works.</td>
<td>Negligible – Moderate Adverse</td>
</tr>
</tbody>
</table>

Cumulative Impact Assessment

**Combined Effects of Individual Impacts**

5.190 During the deconstruction / demolition and construction works, potential impacts exist for the sensitive receptors, as detailed with Chapter 2: EIA Methodology of this ES. The receptors considered most sensitive to the cumulative impacts during the deconstruction / demolition and construction phases are pedestrians, motorists and cyclists on the surrounding roads of way; nearby residences; local schools; those employees of nearby commercial premises; new receptors introduced as a result of the Development Proposals; below ground archaeology (Chapter 11: Buried Heritage Assets); and ecology (Chapter 16: Ecology). The criteria for identifying those receptors that are considered to be potentially sensitive include the nature of the receptor, proximity to the works, and the extent and duration of exposure to impacts and impact interactions.

5.191 Key potential impact interactions are largely related to construction traffic and associated emissions; air quality (dust); and noise/vibration. The mitigation commitments stated within this Chapter and within the relevant technical Chapters of this ES will be incorporated into a CEMP. A commitment will be made to periodically review the CEMP and undertake regular environmental audits of its implementation during the deconstruction / demolition and construction programme.

5.192 A full assessment of activities with the potential to generate high levels of dust, noise, and/or vibration has been undertaken and mitigation measures / strategies confirmed. The full assessments are presented in Chapter 14: Air Quality and Chapter 15: Noise and Vibration of this ES.

5.193 As deconstruction / demolition and construction activities are predicted to result in impacts ranging from negligible to moderate adverse for noise, air quality and dust emissions, it is reasonable to predict that there will be adverse impacts on nearby sensitive receptors for the combined effect of individual impacts. This impact will temporarily in nature (i.e. reversible), lasting for the duration of the deconstruction / demolition and construction programme and is considered to be normal for such a large-scale development. It is considered that the benefits to the local community and wider Opportunity Areas once the development is complete will outweigh
5 Deconstruction, Demolition and Construction: Planning Application 1 - RBKC

the temporary adverse nuisance impacts experienced through the deconstruction / demolition and construction programme of works.

Combined Impacts of the Earls Court Development Proposals with the Cumulative Schemes

5.194 It is considered that the demolition and construction phase will have the greatest potential to contribute to cumulative impacts. It is not unusual however for construction to take place on more than one site in close proximity to each other, particularly in London, and the contractor will undertake regular liaison meetings and reviews with neighbouring sites to plan works so that they do not cause unnecessary disruption.

5.195 Within each technical Chapter of this ES, an assessment is undertaken of cumulative impacts from sources such as other demolition and construction sites. The following cumulative impact assessment scenarios are considered:

- SCENARIO 1: Development Option (RBKC) PLUS other Cumulative Schemes;
- SCENARIO 2: Development Option (RBKC) PLUS the Seagrave Road Development Proposals PLUS other Cumulative Schemes;
- SCENARIO 3: Development Option (RBKC) PLUS Ears Court Site – Planning Application 2 (i.e. Development Option (Site Wide));
- SCENARIO 4: Development Option (Site Wide) PLUS other Cumulative Schemes; and
- SCENARIO 5: Development Option (Site Wide) PLUS Seagrave Road Development Proposals PLUS other Cumulative Schemes.

5.196 In relation to SCENARIO 3 (i.e. the assessment of impacts associated with the Earls Court Development Proposals / Development Option (Site Wide)), ES Volume III presents the details of the impact assessment work undertaken of this Development Option for each technical Chapter.

5.197 Further details on the cumulative impact assessment scenarios and schemes considered can be found within Chapter 2: EIA Methodology of this ES.

Demolition of Development Option (RBKC) Proposal - End of Life

5.198 The main structure of the development has been designed with a minimum design life of 60 years, with shorter design life periods for interior elements. The buildings will be designed to use eco friendly materials for disassembly and recycling/ reuse of materials.

5.199 At the end of its life it is anticipated that the demolition of the new buildings will use similar methods to those used during construction and for the demolition of the existing buildings on the site. Safe working practices will be devised and implemented during the demolition period. The stages of demolition of the proposed development are:

- Erect hoardings;
- Soft strip;
- Remove existing services plant and lifts;
- Remove roof finishes;
- Remove existing façade cladding and glazed units;
- Demolish existing external walls and partitions;
- Remove concrete cores and,
- Remove existing concrete frame and floors by cutting, pulverising and crushing or lifting by crane and or;
- Remove concrete cores and,
- Remove existing steelwork frame on a member by member unbolting connections or with the use of burning gear and lifting members to ground level by crane until the superstructure is down to ground level; and
- Install temporary supports to basement retaining walls where required and remove ground floor and basement internal walls and floor.

References

Ref. 5-1 Ove Arup and Partners on behalf of Earls Court Properties Ltd, 2011; ‘Description of the scope and nature of the proposed works in relation to LUL assets’.
Ref. 5-2 Ove Arup and Partners on behalf of Earls Court Properties Ltd, 2011; ‘Network Rail Design Brief for No Objection to Planning’.
Ref. 5-3 HMSO, 2006; Control of Asbestos at work Regulations
Ref. 5-4 HMSO, 2009; ‘Hazardous Waste Regulations
Ref. 5-5 HMSO, 1980; ‘Highway Act’
Ref. 5-6 HMSO, 1998; ‘Road Traffic Act’
Ref. 5-7 BSI, 2010; BS5528 Parts 1 and 2 ‘Noise and Vibration control on construction and open sites’
Ref. 5-8 GLA, 2006; ‘The control of dust and emission from construction and demolition’ best practice guidance
Ref. 5-9 HMSO, 1974; Control of Pollution Act (COPA)
Ref. 5-10 HMSO, 1981; Duty of Care Regulations
Ref. 5-11 HMSO, 1995; Environment Act
Ref. 5-12 HMSO, 1996; Special Waste Regulations
Ref. 5-13 HMSO, 1991; The Duty of Care Regulations
Ref. 5-14 NOC, 2009; Waste Regulations
Ref. 5-15 HMSO, 2010; Environmental Permit Regulations
Ref. 5-16 HMSO, 2000; Waste Strategy
Ref. 5-17 DEFRA (Environment Agency’s Model Procedures for the Management of contamination
Ref. 5-18 HMSO, 1981; The requirements of the Wildlife and Countryside Act
Ref. 5-19 HMSO, 2000; The Countryside and Rights of Way Act
Ref. 5-20 HMSO, 1994; The Conservation (Natural habitats etc) Regulations
Ref. 5-21 CL:AIRE, 2011; Definition of Waste: Development Industry Code of Practice
Ref. 5-22 CL:AIRE, 2011; Register of Materials
Ref. 5-23 WSP on behalf of Earls Court Properties Ltd, 2011; ‘Transport Assessment’.
Ref. 5-24 Halcrow on behalf of Earls Court Properties Ltd, 2011; ‘Waste Strategy’.
Ref. 5-25 British Standards Institute, 2005; ‘British Standard (BS5837): Trees in Relation to Construction.’
Ref. 5-26 HMSO, 2010; ‘Schedule 10 of the Environmental Permitting (England and Wales) Regulations 2010’.
Combined Impacts of the Earls Court Development Proposals with the Cumulative work undertaken of this Development Option for each technical Chapter.

In relation to SCENARIO 3 (i.e. the assessment of impacts associated with the Earls Court Development programme of works.

the temporary adverse nuisance impacts experienced through the deconstruction / demolition  and construction development are:

Install temporary supports to basement retaining walls where required and remove ground floor and

Refer to the ear view of the adjacent Seagrave Road development to assess any potential cumulative impacts.

The buildings will be designed to use eco friendly materials for disassembly and recycling/ reuse of materials.

The main structure of the development has been designed with a minimum design life of 60 years, with shorter design life periods for interior elements.  The buildings will be designed to use eco friendly materials for disassembly and recycling/ reuse of materials.

It is considered that the demolition and construction phase will have the greatest potential to contribute to

Further details on the cumulative impact assessment scenarios and schemes considered can be found within

SCENARIO 5: Development Option (Site Wide) PLUS Seagrave Road Development Proposals PLUS

SCENARIO 4: Development Option (Site Wide) PLUS other Cumulative Schemes; and

SCENARIO 3: Development Option (Site Wide));

SCENARIO 2: Development Option (RBKC) PLUS the Seagrave Road Development Proposals PLUS

other Cumulative Schemes.

SCENARIO 1: Development Option (RBKC) PLUS other Cumulative Schemes;

Demolition of Development Option (RBKC) Proposal - End of Life Schemes

Install temporary supports to basement retaining walls where required and remove ground floor and

Remove existing steelwork frame on a member by member basis unbolting connections or with the use of

Remove existing concrete frame and floors by cutting, pulverising and crushing or lifting by crane and or;

Remove concrete cores and,

Remove existing external walls and partitions;

Remove roof finishes;

Remove services plant and lifts;

Soft strip;

Erect hoardings;

Demolish existing  external walls and partitions;

Remove existing façade cladding and glazed units;

Remove roof finishes;

Remove services plant and lifts;

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