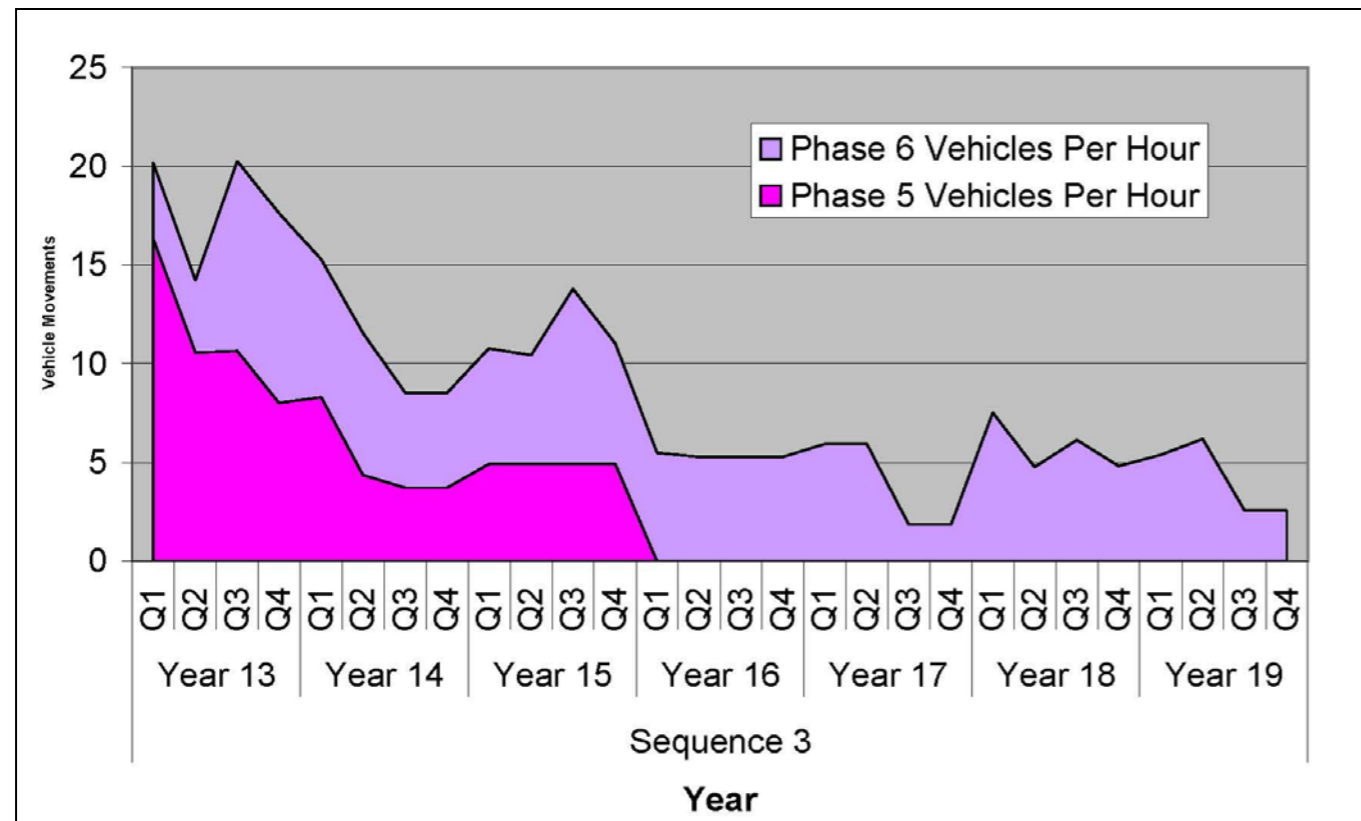


Appendix D Deconstruction, Demolition and Construction: Development Option (Site Wide)

Road Vehicle Movements

- D.143** Figure D-39 identifies the anticipated two-way vehicle movements per hour for HGVs over Sequence 3.
- D.144** 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 Earls Court Site.
- D.145** It is anticipated that vehicle movements will peak at 20 vehicle movements per hour (i.e. delivery every 6 minutes) in year 13. Over this year it is anticipated that there will be one main access gate in operation, as previously identified in the year 13 timeslice.

Figure D-40 Sequence 3 Vehicle Movements (per hour)



Site Wide

D.146 This section of the document presents the information on deconstruction / demolition and construction that is relevant to all three of the Sequences. In particular, the following sections of this document present site wide information on pre commencement surveys, investigations, consents and licenses, plant and equipment, hours of work, neighbourhood relations, anticipated labour levels, estimates waste volumes, details of car parking and travel to the site, road closures and the need for road diversions, potential demolition and construction impacts and mitigation measures.

Pre-Commencement Surveys, Investigations, Consents/ Licenses

D.147 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.

D.148 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.

D.149 All Statutory, the RBKC, the LBHF, 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) and Road Traffic Act 1998 (Ref. 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).

Appendix D Deconstruction, Demolition and Construction: Development Option (Site Wide)

Plant and Equipment

- D.150** 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. Table 7 below.
- D.151** Where required, consents will be obtained from existing and new adjoining owners for tower crane oversail. Consents will also be obtained from the RBKC and the LBHF where tower cranes oversail the public highway.
- D.152** The temporary use of tower cranes for the demolition / construction works would not exceed a height of 160m (525ft) AOD and 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 K**.

Hours of Work

- D.153** 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.
- D.154** 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 the LBHF and other relevant parties.
- D.155** 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 LBHF and the RBKC.

Labour Levels

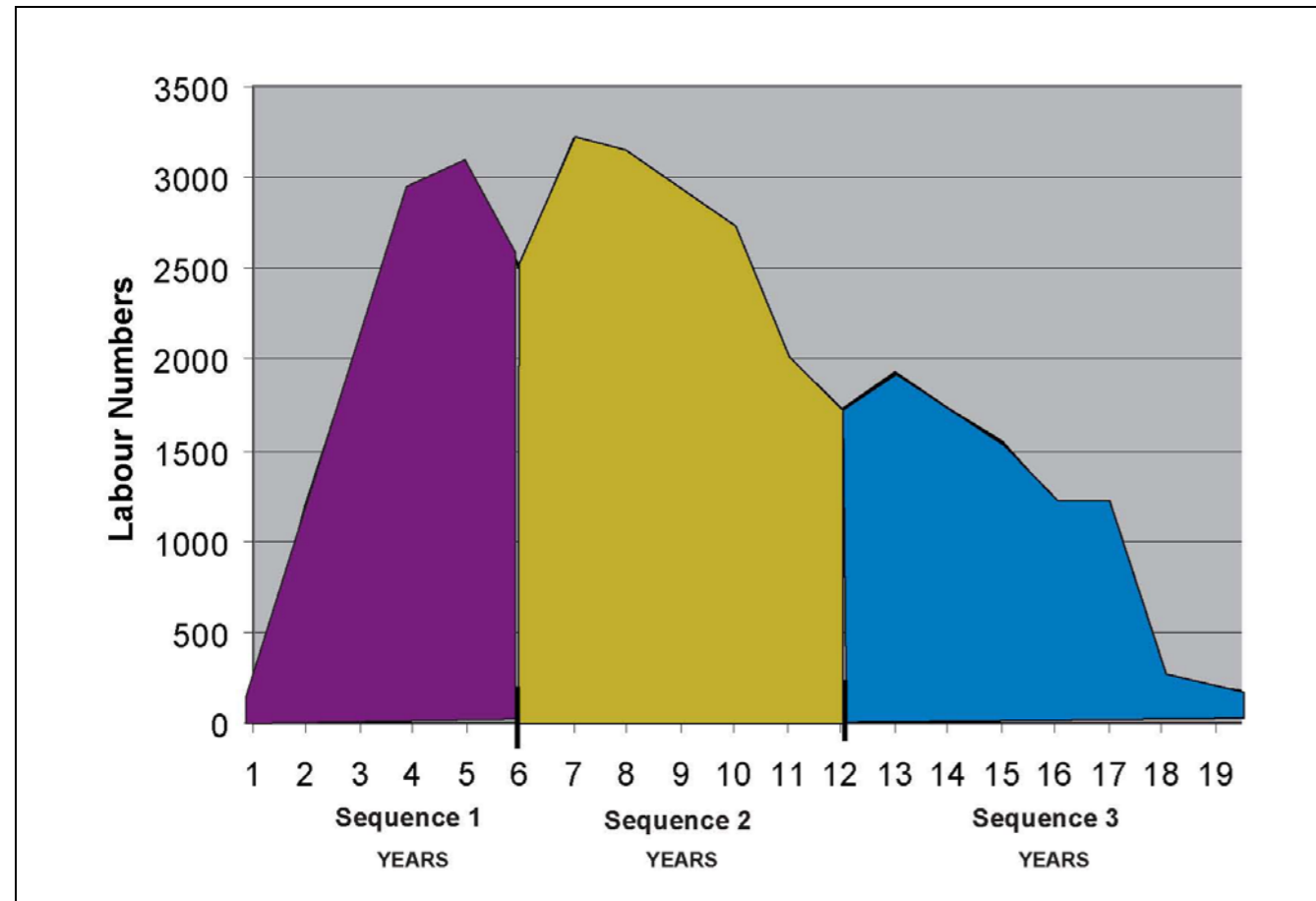
- D.156** Figure D-40, overleaf, shows the anticipated labour levels over the duration of Sequence 1, 2 and 3. It is anticipated that labour levels will peak at 3,200 operatives during Sequence 2.
- D.157** With the long term nature of the project local labour will be used where possible and viable to do so and where suitably skilled labour is available.

Plant	Stage			
	Demolition	Substructures Civil & External Works	Superstructure	Fit-Out
Tracked / Wheeled 360 Degree Excavators	✓	✓	✓	
Skid Steer loader	✓			
Breakers	✓	✓	✓	
Hand Held Breaker	✓	✓	✓	
Pulverisers	✓			
Crushers	✓	✓		
Compactors	✓	✓	✓	
Dumpers	✓	✓	✓	
Plate Compactors	✓	✓		
Concrete Crushing Plant	✓	✓		
Scabblers	✓	✓	✓	
Mobile Craneage / Tower Cranes	✓	✓	✓	
Muck Away Trucks	✓	✓		
Concrete Wagons		✓	✓	
Wire Cutters	✓	✓	✓	
Burning /Cutting equipment	✓			
Wheel cleaning plant	✓			
Road sweeper	✓			
Air Compressors	✓	✓	✓	
Concrete Pump		✓	✓	
Rite mixer		✓	✓	
Vibrating Poker		✓	✓	
Diamond Cutting Tools / Saws	✓	✓	✓	
Power Tools	✓	✓	✓	✓
Hand / Power Tools	✓	✓	✓	✓
Wheel Washing Plant	✓	✓		
Piling Rigs		✓		
Scaffold	✓	✓	✓	
Mobile Access Platforms	✓	✓	✓	✓
Delivery Trucks	✓	✓	✓	✓
Skips and Skip Truck	✓	✓	✓	✓
Forklift Trucks	✓		✓	✓

✓ indicates plant will be used during that stage of works

Appendix D Deconstruction, Demolition and Construction: Development Option (Site Wide)

Figure D-41 Estimated Labour levels



Construction Waste Generation

D.158 Table 8 identifies the approximate construction waste for Sequences 1, 2 and 3 and is based upon the following assumptions:

- The quantity estimates are based on the Illustrative Masterplan and so are indicative at this stage;
- Use of the BRE's 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.

Construction Sequence	Waste Forecast (T)
1	60,000
2	80,000
3	40,000

D.159 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. 23) and the Site Waste Management Report (Ref.24).

Car Parking and Travel to Site

D.160 There will be a general policy of not providing any car parking on the Site and 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 governments emphasis on cycling to work and the Earls Court Development 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

Stopping Up

D.161 Stopping up orders will be required to existing roads running through the existing West Kensington Housing Estate. These roads will be stopped up on a phased basis ahead of demolition and the commencement of new plot construction. Temporary roads may be required to maintain access routes to existing housing.

D.162 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

D.163 Highway alteration works are proposed at the existing road junctions and entrances and surrounding areas in Lillie Road, Old Brompton Way, Warwick Road and North End Road. These are fairly minor in nature and extent. More extensive highway works are required for the A4 junction.

D.164 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.

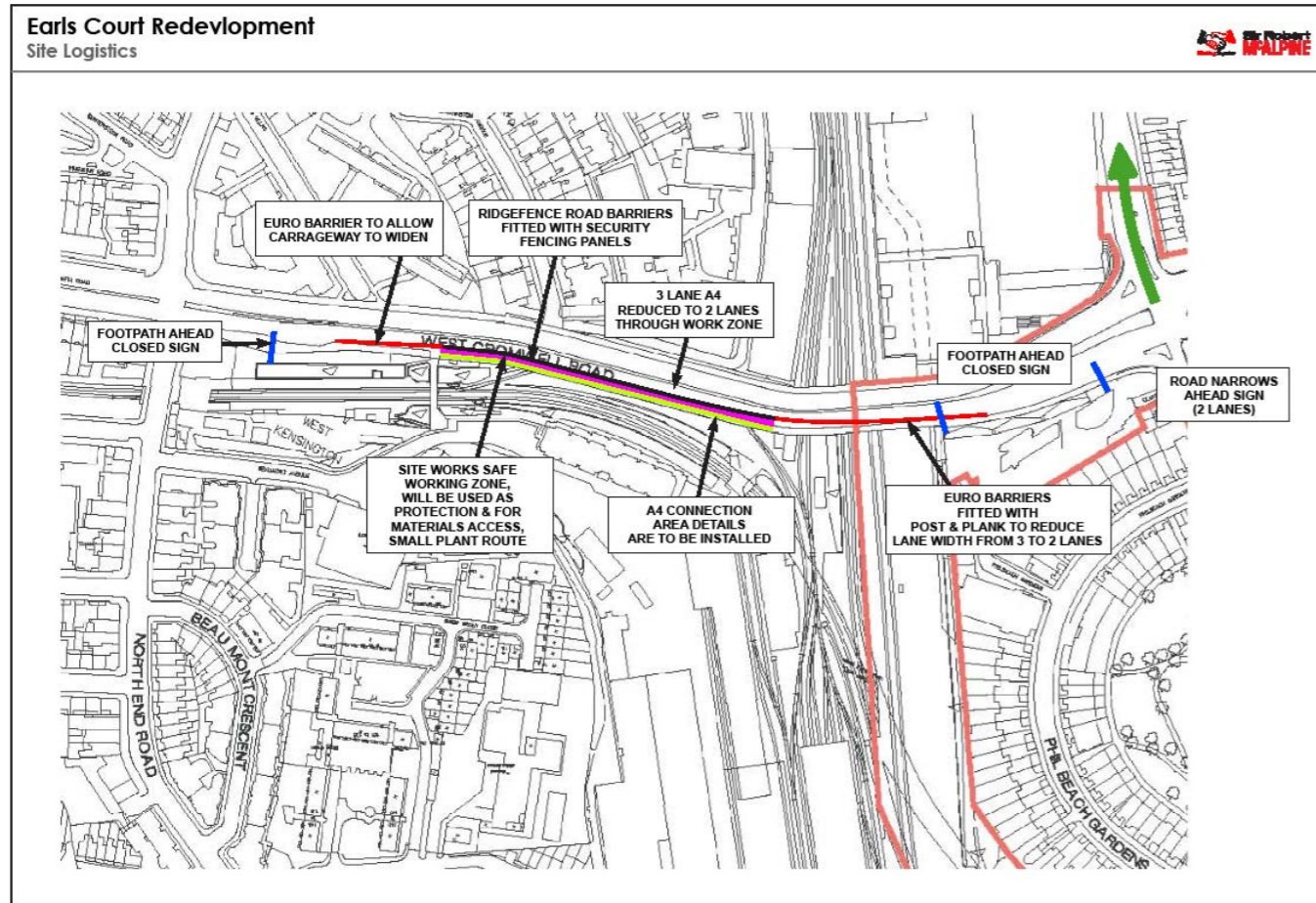
D.165 Figure D-41 below gives an indication of the highways traffic management associated with the construction of the new A4 junction works. The existing 3 lane A4 (West Compton Road) will be reduced to 2 lanes to create a working zone for the new junction. The construction of the new A4 junction and 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

D.166 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 and the LBHF 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 LBHF, the police, fire brigade and other emergency services sufficiently in advance of the required closure or diversion.

Appendix D Deconstruction, Demolition and Construction: Development Option (Site Wide)

Figure D-42 New A4 Junction Traffic Management



Potential Demolition & Construction Impacts

- D.167 Table 9 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 document.
- D.168 Within Table 9, the potential impacts are identified based on aspect, with the corresponding technical document noted which should be referred to for the detailed impact assessment.
- D.169 It is recognised that the demolition and construction works will interface with existing residential neighbours. As construction progresses across the Earls Court 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 document (paragraph D.172 onwards).
- D.170 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 D.174, of this document.

Aspect	ES Volume III to Cross Reference	Potential Impacts	Nature of Potential Impact
Employment Generation	ES Volume III: Appendix E: Socio-Economics	Employment generated for local labour workforce.	Beneficial
Traffic	ES Volume III: Appendix F Transportation and Access Deconstruction, Demolition and Construction – Paragraph D.1.125	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	ES Volume III: Appendix F Transportation and Access	Restrictions on pedestrian access to walkways, footpaths and roads.	Adverse
Artificial Light	5: Deconstruction, Demolition and Construction – Paragraph D.1.128	Position and direction in relation to neighbouring residences.	Adverse
Buried Heritage Assets	ES Volume III: Appendix K Buried Heritage Assets	Potential damage to existing buried heritage assets.	Adverse
Asbestos and Contamination	ES Volume III: Appendix L 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

Appendix D Deconstruction, Demolition and Construction: Development Option (Site Wide)

Table 9 Potential Demolition & Construction Impacts (cont)			
Aspect	ES Volume III to Cross Reference	Potential Impacts	Nature of Potential Impact
Ground movements	ES Volume III: Appendix L Ground Conditions	Potential ground heave when existing large building loads and existing earth removed during basement excavation. Lowering of the groundwater / water table – settlement / consolidation of land, subsidence, land instability, property damage. Land uplift.	Adverse
Unexploded Ordnance (UXO) and Ground Gas	ES Volume III: Appendix L Ground Conditions	Disturbance of any existing UXO's on Site Human contact with UXO / flammables, fire / blast damage	Adverse
Water	ES Volume III: Appendix M Water Resources, Drainage & Flood Risk	Increased water consumption. Potential Pollution to surface, ground or foul water systems. Increased pressure on local drainage network. Infiltration and / or run off into the local drainage / sewerage network	Adverse
Waste	ES Volume III: Appendix F Transportation and Access ES Volume III: Appendix L Ground Conditions ES Volume III: Appendix M Water Resources, Drainage & Flood Risk	Generation of waste. Increased vehicle movements from waste transport. Pollution to land, air, water.	Adverse
Dust / Air Quality	ES Volume III: Appendix N Air Quality ES Volume III: Appendix L Ground Conditions	Increased windblown dust from ground surfaces, stockpiles, vehicles, work faces and cutting and grinding of materials. Exhaust emissions from vehicle movement and plant.	Adverse
Energy Usage	Deconstruction, Demolition and Construction – Paragraph D.1.162	Increased energy usage / natural resources Emissions from heating and energy plant	Adverse
Noise	ES Volume III: Appendix O Noise and Vibration	Increased road noise levels from vehicles. Increased noise levels from plant during demolition and construction.	Adverse
Vibration	ES Volume III: Appendix O Noise and Vibration	Increased vibration levels from vehicles. Increased vibration levels from plant during demolition, piling and general construction works.	Adverse
Ecology	ES Volume III: Appendix P Ecology	Disruption to nesting birds and existing habitat. Removal of existing trees.	Adverse

Demolition and Construction Mitigation Measures

- D.171** 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 9).** Within the following sections of this document, a short summary of the mitigation measures are presented.
- D.172** As discussed in paragraphs D.170 – D.171, 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 document.

- D.173** 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 Earls Court 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 and the LBHF;
 - Regular Monthly News letters will be distributed around the neighbourhood with regular updates posted on a local dedicated website.
 - Regular 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
- D.174** In advance of the CEMP and alongside the National Considerate Contractors scheme, a Code of Construction Practice will be developed and agreed with the LBHF and 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 environment are being taken into account according to current best practice. Overall it will aim to mitigate nuisance and safeguard the environment. This is discussed further in paragraphs D.232 onwards.

Traffic Routing & Road Cleanliness

- D.175** 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 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.
- D.176** Over the 19 year construction period there will be 10 access gates in use. The reliance on each gate will be dependant on the works being undertaken across the Earls Court Site at a specific point in time, however, the availability of 10 access gates mitigates the potential for a concentration of vehicles at any one access point.
- D.177** Consideration has also been given to reducing the number of vehicle movements by:
- The possible reuse of crushed concrete produced during deconstruction / demolition works;
 - 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);

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- 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.

D.178 Notices regarding any planned closures and diversion of either roads or footpaths shall be given by the principal contractor to the LBHF and the RBKC, the police, fire brigade and other emergency services sufficiently in advance of the required closure or diversion.

D.179 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.

D.180 Effective wheel cleaning facilities will be provided at all Site entrance gate 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.

Pedestrian Routing

D.181 Pedestrians, the general public, and any on Site employees associated with other existing uses across the Earls Court Site will be segregated from the deconstruction, demolition and construction works at all times. Pedestrian access points will generally be located close to the main vehicular access gates with separate pedestrian gates and footpaths provided.

D.182 It is envisaged that pedestrian routes will be maintained for public use around the perimeter of the Earls Court Site. Where temporary closures may be required for the erection of scaffolds and incoming services connections, permissions and licences will be obtained for the re routing of pedestrian thoroughfares. Where more extensive closures or diversions of the existing footpath are required, temporary proposals will be agreed with the LBHF and the RBKC.

Lighting

D.183 Artificial Site lighting for the demolition and construction works will be sensitivity positioned and directed, taking into account the neighbouring residential buildings.

Buried Heritage Assets

D.184 The archaeological assessment (*ES Volume III: Appendix K: Buried Heritage Assets*) suggests that no buried 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 Earls Court Development Proposals on any assets could be successfully mitigated by a suitable programme of archaeological investigation to be secured by means of a suitably worded planning condition. This mitigation strategy would be undertaken following demolition of the existing buildings and on a phase by phase basis, to achieve preservation by record and advance understanding of the significance of the heritage asset.

D.185 It is unlikely that a mitigation strategy could be adequately defined from the present (desk-based) study. Further information, from site-based field evaluation will be required. This will be obtained post planning application determination and will be carried out in accordance with the development programme.

D.186 Mitigation will comprise archaeological field evaluation (trial trenches/pits) designed to assess and define the presence or nature of any archaeological assets within the Earls Court Site. The evaluation results will be used to develop the mitigation strategy into a more detailed project design for preservation by recording and advancing understanding of asset significance (e.g. targeted archaeological excavation and recording and/or an archaeological watching brief for assets of lesser significance). A Written Scheme of Investigation, as referred to in standard archaeological planning conditions will be submitted to the local planning authorities (the RBKC and the LBHF) for approval prior to the commencement of archaeological works on site.

Asbestos and Contamination

D.187 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. 17).

D.188 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.

D.189 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.

D.190 Where possible and where required, a soil hospital will be established on Site for on Site remediation.

D.191 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.

D.192 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.

D.193 Selection of Appropriate methods to dewater excavations will be selected to ensure that groundwater levels do drop below the critical level

D.194 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.

D.195 For further details on ground conditions mitigation measures, refer to *ES Volume III, Appendix L: Ground Conditions* of this ES.

Ground Movements

D.196 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. .

D.197 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

D.198 Screening for UXO in areas not covered in any previous munitions clearance surveys will be undertaken by the contractor/s. Further screening by the contractor/s will be undertaken across the site after demolition of EC1 and EC2 and associated structures.

D.199 A watching brief for UXO will be maintained during excavation works.

D.200 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.

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Water

- D.201** The protection of water resources is detailed in *ES Volume III, Appendix M: 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.
- D.202** 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.
- D.203** 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.
- D.204** Incident control procedures will be developed and finalised in conjunction with the Environmental Agency, the LBHF, 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.
- D.205** 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.
- D.206** Water consumption throughout the site preparation, demolition, excavation and construction phases of the Earls Court Development Proposals will be monitored, either through sub-metering or utility bills, to allow comparison against best practice benchmarks.
- D.207** 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 'Siltbuster'.

Waste

- D.208** 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. 9), Environmental Protection Act 1990, Duty of Care Regulations 1991 (Ref. 10). Environment Act 1995 (Ref. 11) Special Waste Regulations 1996

(Ref. 12), the Duty of Care Regulations 1991 (Ref. 13), NOC Waste Regulations 2009 (Ref. 14) and the Environmental Permit Regulations 2010 (Ref. 15).

- D.209** Any waste effluent will be tested and where necessary, disposed of at the correctly licensed facility by a licensed specialist contractor/s.
- D.210** In general and in accordance with the principles of the UK Government's 'Waste Strategy 2000' (Ref. 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 by the intention is first to minimize, then to treat at source or compact and, finally, to dispose of off-site as necessary.
- D.211** 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.
- D.212** 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 signposted 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.
- D.213** 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

- D.214** A Construction Environmental Management Plan (CEMP) and Dust Management Plan will be prepared and agreed with the LBHF and 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.

Appendix D Deconstruction, Demolition and Construction: Development Option (Site Wide)

D.215 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.

D.216 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.

D.217 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

D.218 All relevant contractors will be required to investigate 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.

Noise and Vibration

D.219 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 BS5228 2010 (Ref. 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 BS5228 2010 will be adopted with regard to noise and vibration mitigation options.

D.220 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 Eardley 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 LBHF and RBKC to ensure that sensitive receptors are adequately monitored and managed; and
- A regime of voluntary quiet periods will be agreed with the LBHF and the RBKC during noisy works associated with the demolition of EC1 and EC2.

D.221 For further details on mitigation measures for potential noise impacts, refer to **ES Volume III, Appendix O: Noise and Vibration**.

Ecology

D.222 The requirements of the Wildlife and Countryside Act 1981 (Ref. 18), the Countryside and Rights of Way Act 2000 (Ref. 19), the Conservation (Natural habitats etc) Regulations 1994 (Ref. 20), and other relevant legislation and policy guidance in respect of areas of nature conservation interest and protected species will be complied with.

D.223 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.

D.224 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.

Appendix D Deconstruction, Demolition and Construction: Development Option (Site Wide)

Demolition and Construction Environmental Management

D.225 This section identifies the proposed Environmental Management measures for both demolition and construction including public and neighbourhood relations.

Construction Environmental Management Plan

D.226 A Principal Contractor will be appointed to develop and implement a site specific Construction Environmental Management Plan (CEMP) covering demolition and new construction for each phase of development. Some aspects will be common across each of the phase specific CEMPs. 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.

D.227 The phase specific CEMPs will be contractual documents 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.

D.228 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.

D.229 The CEMP will include, but will 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 the LBHF 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 and the LBHF Construction Practice and Neighbour and Public Relations Strategy;
- A procedure to ensure communication is maintained with the RBKC, the LBHF and the local community to provide information on any operations likely to cause disturbance (through, for example, meetings and newsletters);
- Provisions for affected parties to register complaints and the procedures for responding to complaints;

- Provisions for reporting to the RBKC and the LBHF;
- Details of access and egress and proposed routes for HGVs;
- An inventory and timetable of dust generating activities, dust control measures, and air quality monitoring; and
- Details of Emergency Incident procedure.

D.230 In addition to the CEMP, a Site Waste Management Plan (SWMP) will also be prepared for each Phase and implemented in order to minimize and reduce waste generation in line with the SWMP 2008 regulations (Ref: D.19).

Considerate Contractors Scheme/ Code of Construction Practice

D.231 The Site 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.

D.232 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.

D.233 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.

D.234 In addition to this national scheme on a project of this size and nature, a Code of Construction Practice will also be compiled. This code would form the basis for the development of the phased CEMPs.

Management of Trade Subcontractors

D.235 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 phase 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.

Appendix D Deconstruction, Demolition and Construction: Development Option (Site Wide)

- D.236** 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).
- D.237** 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.
- D.238** A Green Procurement Code will be used where practicable and viable to do so.

Visitor Management

- D.239** Visitors will only be allowed to enter the site via designated pedestrian access gates and a dedicated segregated footpath to the main site offices for registration and obtaining PPE prior to entering the Site itself. Visitors will also be expected to attend a specific site induction unless being accompanied by a member of the site team. Open days for local residents, schools and other members of the local community will be encouraged.

Construction Sustainability

- D.240** 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 reuse 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.
- D.241** 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.
- D.242** In addition to the CEMPs, a Traffic Management Plan and 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.
- D.243** 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 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

- D.244** Following consideration of the demolition and construction related mitigation measures, as summarised within this document and detailed within the relevant technical Chapters of this ES, and considering the environmental management measures that will be implemented, the resultant significance of the residual impact has been assessed.
- D.245** Table 10 presents a **summary** of the residual impacts that result from the demolition and construction phases of the Earls Court Development Proposals. **Note, for detailed residual impact conclusions, refer to the relevant technical Chapters of this ES.**

Table 10 Table 10 Demolition & Construction Residual Impacts			
Aspect	ES Volume III to Cross Reference	Potential Impacts	Residual Impact (post mitigation)
Employment Generation	ES Volume III: Appendix E: Socio-Economics	Employment generated for local labour workforce.	Minor Beneficial
Traffic	ES Volume III: Appendix F Transportation and Access Deconstruction, Demolition and Construction – Paragraph D.1.125	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.	Negligible
Pedestrian Access	ES Volume III: Appendix F Transportation and Access	Restrictions on pedestrian access to walkways, footpaths and roads.	Minor Adverse
Artificial Light	5: Deconstruction, Demolition and Construction – Paragraph D.1.128	Position and direction in relation to neighbouring residences.	Negligible
Buried Heritage Assets	ES Volume III: Appendix K Buried Heritage Assets	Potential damage to existing buried heritage assets.	Negligible
Asbestos and Contamination	ES Volume III: Appendix L 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	Negligible – Minor Adverse
Ground movements	ES Volume III: Appendix L Ground Conditions	Potential ground heave when existing large building loads and existing earth removed during basement excavation. Lowering of the groundwater / water table – settlement / consolidation of land, subsidence, land instability, property damage. Land uplift.	Negligible
Unexploded Ordnance (UXO) and Ground Gas	ES Volume III: Appendix L Ground Conditions	Disturbance of any existing UXOs on Site Human contact with UXO / flammables, fire / blast damage	Minor Adverse
Water	ES Volume III: Appendix M Water Resources, Drainage & Flood Risk	Increased water consumption. Potential Pollution to surface, ground or foul water systems. Increased pressure on local drainage network. Infiltration and / or run off into the local drainage / sewerage network	Negligible

Appendix D Deconstruction, Demolition and Construction: Development Option (Site Wide)

Aspect	ES Volume III to Cross Reference	Potential Impacts	Residual Impact (post mitigation)
Waste	ES Volume III: Appendix F Transportation and Access ES Volume III: Appendix L Ground Conditions ES Volume III: Appendix M Water Resources, Drainage & Flood Risk	Generation of waste. Increased vehicle movements from waste transport. Pollution to land, air, water.	Negligible
Dust / Air Quality	ES Volume III: Appendix N Air Quality ES Volume III: Appendix L Ground Conditions	Increased windblown dust from ground surfaces, stockpiles, vehicles, work faces and cutting and grinding of materials. Exhaust emissions from vehicle movement and plant.	Minor Adverse
Energy Usage	Deconstruction, Demolition and Construction – Paragraph D.1.162	Increased energy usage / natural resources Emissions from heating and energy plant	Negligible – Minor Adverse
Noise	ES Volume III: Appendix O Noise and Vibration	Increased road noise levels from vehicles. Increased noise levels from plant during demolition and construction.	Negligible – Moderate Adverse
Vibration	ES Volume III: Appendix O Noise and Vibration	Increased vibration levels from vehicles. Increased vibration levels from plant during demolition, piling and general construction works.	Negligible – Moderate Adverse
Ecology	ES Volume III: Appendix P Ecology	Disruption to nesting birds and existing habitat. Removal of existing trees.	Negligible – Minor Beneficial

Cumulative Impact Assessment

Combined Effects of Individual Impacts

- D.246** During the deconstruction / demolition and construction works, potential impacts exist for the sensitive receptors, as detailed with *ES Volume I - Chapter 2: EIA Methodology* of this ES. The receptors considered most sensitive to cumulative impacts during the deconstruction / demolition and construction phases are pedestrians, motorists and cyclists on the surrounding rights of way; nearby residences (including those residences located in the Gibbs Green and West Kensington Housing Estates); local schools; those employees of nearby commercial premises; new receptors introduced as a result of the Development Proposals; below ground archaeology (*ES Volume III, Appendix K: Buried Heritage Assets*); and ecology (*ES Volume III, Appendix P: 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.
- D.247** 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 for each phase of the Development Proposals. A commitment will be made to periodically review the phase by phase CEMPs and undertake regular environmental audits of its implementation during the deconstruction / demolition and construction programme.
- D.248** 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 *ES Volume III, Appendix N: Air Quality* and *ES Volume III, Appendix O: Noise and Vibration* of this ES.
- D.249** 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

temporary 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 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

- D.250** 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. Therefore, the Principal Contractor/s will undertake regular liaison meetings and reviews with neighbouring sites to plan works so that they do not cause unnecessary disruption.
- D.251** Within each technical Chapter of this ES, an assessment is undertaken of cumulative impacts from sources such as other demolition and construction sites. Therefore, in addition to the assessment of the Earls Court Development Proposals alone, these Chapters consider the potential for cumulative impacts. The following Cumulative Impact Assessment Scenarios are considered:
- SCENARIO 1: The Earls Court Development Proposals PLUS other Cumulative Schemes; and
 - SCENARIO 2: The Earls Court Development Proposals PLUS the Seagrave Road Development Proposals PLUS other Cumulative Schemes.
- D.252** Further details on the cumulative impact assessment scenarios can be found within *ES Volume I - Chapter 2: EIA Methodology of this ES*.

Demolition of the Earls Court Development Proposals - End of Life

- D.253** 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.
- D.254** 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 existing steelwork frame on a member by member basis 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.

Appendix D Deconstruction, Demolition and Construction: Development Option (Site Wide)

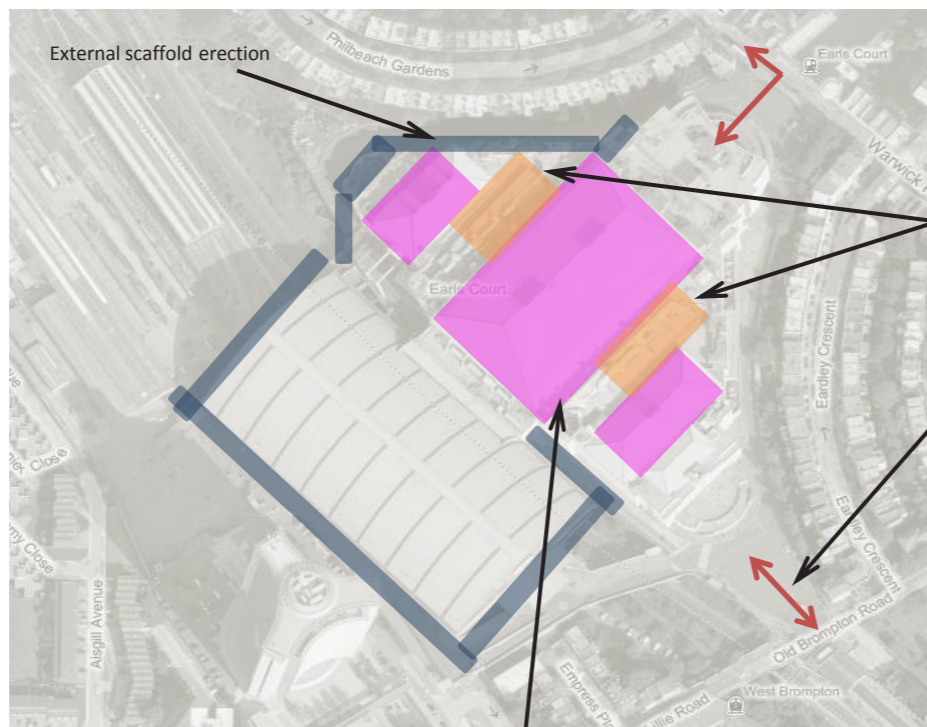
References

- Ref. 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. 2** Ove Arup and Partners on behalf of Earls Court Properties Ltd, 2011;'Network Rail Design Brief for No Objection to Planning'.
- Ref. 3** HMSO (2006) 'Control of Asbestos at work Regulations
- Ref. 4** HMSO (2009) ' Hazardous Waste Regulations
- Ref. 5** HMSO (1980) 'Highway Act'
- Ref. 6** HMSO (1998) 'Road Traffic Act'
- Ref. 7** BSI (2010) BS5528 Parts 1 and 2 ' Noise and Vibration control on construction and open sites'
- Ref. 8** GLA (2006) ' The control of dust and emission from construction and demolition' best practice guidance
- Ref. 9** HMSO (1974) Control of Pollution Act (COPA)
- Ref. 10** HMSO (1991) Duty of Care Regulations
- Ref. 11** HMSO (1995) Environment Act
- Ref. 12** HMSO (1996) Special Waste Regulations
- Ref. 13** HMSO (1991) The Duty of Care Regulations
- Ref. 14** NOC (2009) Waste Regulations
- Ref. 15** HMSO (2010) Environmental Permit Regulations
- Ref. 16** HMSO (2000) Waste Strategy
- Ref. 17** DEFRA (Environment Agency's Model Procedures for the Management of contamination
- Ref. 18** HMSO (1981) The requirements of the Wildlife and Countryside Act
- Ref. 19** HMSO (2000) The Countryside and Rights of Way Act
- Ref. 20** HMSO (1994) The Conservation (Natural habitats etc) Regulations
- Ref. 21** CL:AIRE (2011) Definition of Waste: Development Industry Code of Practice
- Ref. 22** CL:AIRE (2011) Register of Materials
- Ref. 23** WSP on behalf of Earls Court Properties Ltd, 2011; 'Transport Assessment'.
- Ref. 24** Halcrow on behalf of Earls Court Properties Ltd, 2011; 'Waste Strategy'.
- Ref. 25** British Standards Institute (2005), 'British Standard (BS5837): Trees in Relation to Construction.'
- Ref. 26** Earls Court Properties Ltd, 2011; 'Housing Statement'.
- Ref. 27** HMSO, 2010; 'Schedule 10 of the Environmental Permitting (England and Wales) Regulations 2010'.

Annex 2: Keltbray EC1 and EC2 Deconstruction Timeslices

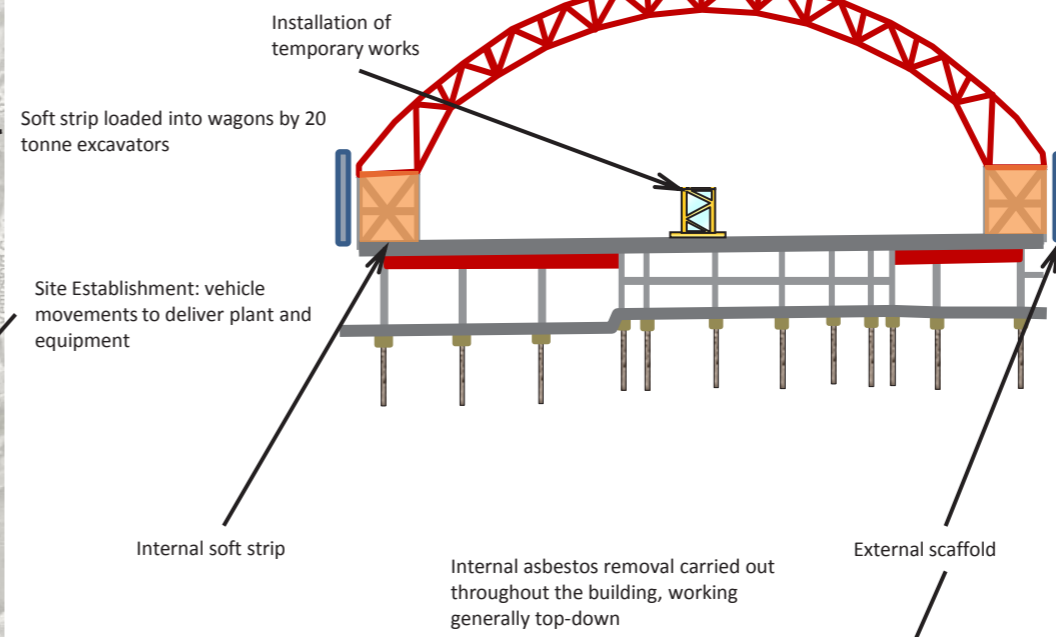
Planning Application 1 - RBKC
Environmental Statement
Volume III

Time Slice Wk 1-8



External and internal installation of 100ft temporary works. Internal erection of scaffold birdcages

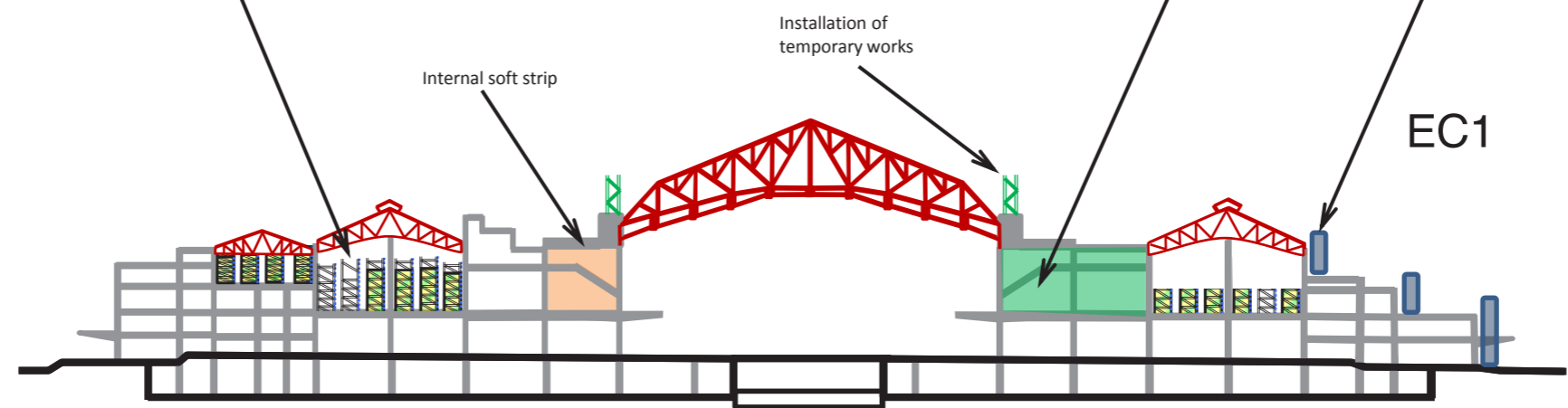
EC2



Internal soft strip

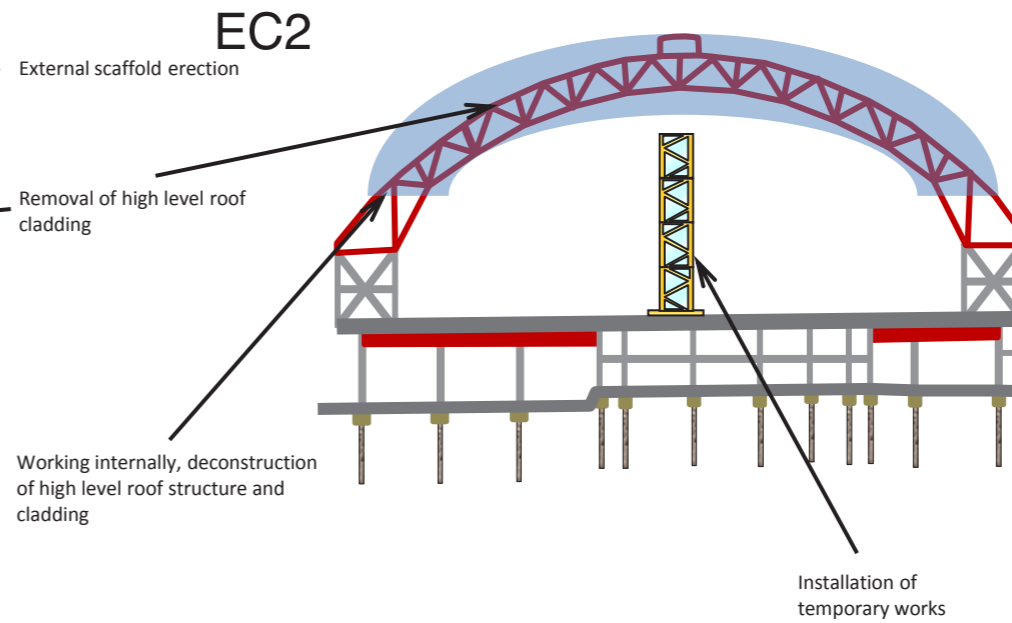
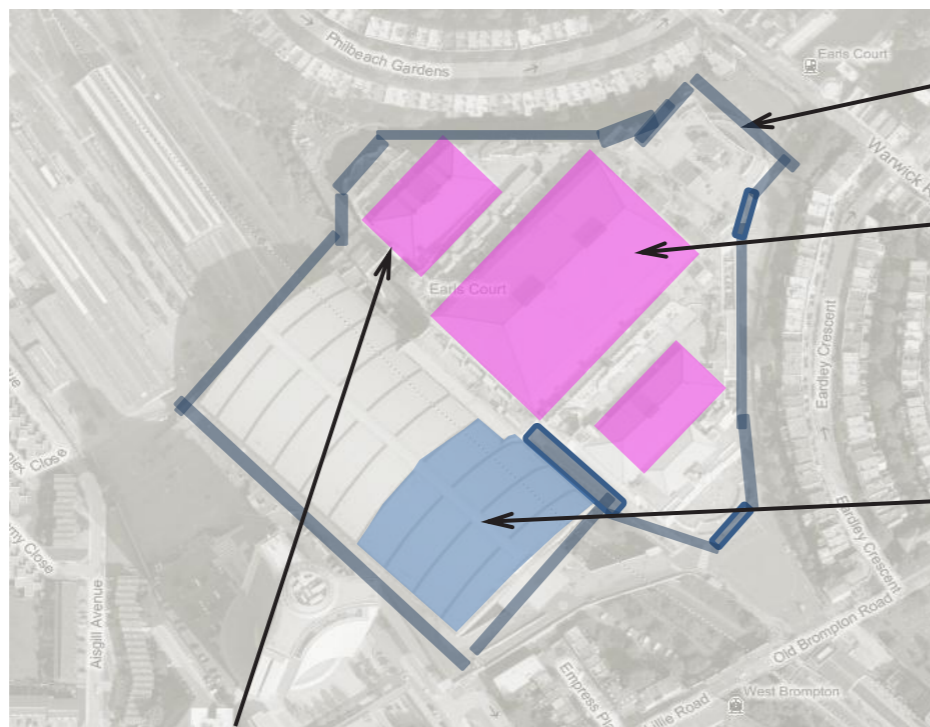
Internal asbestos removal carried out throughout the building, working generally top-down

External scaffold

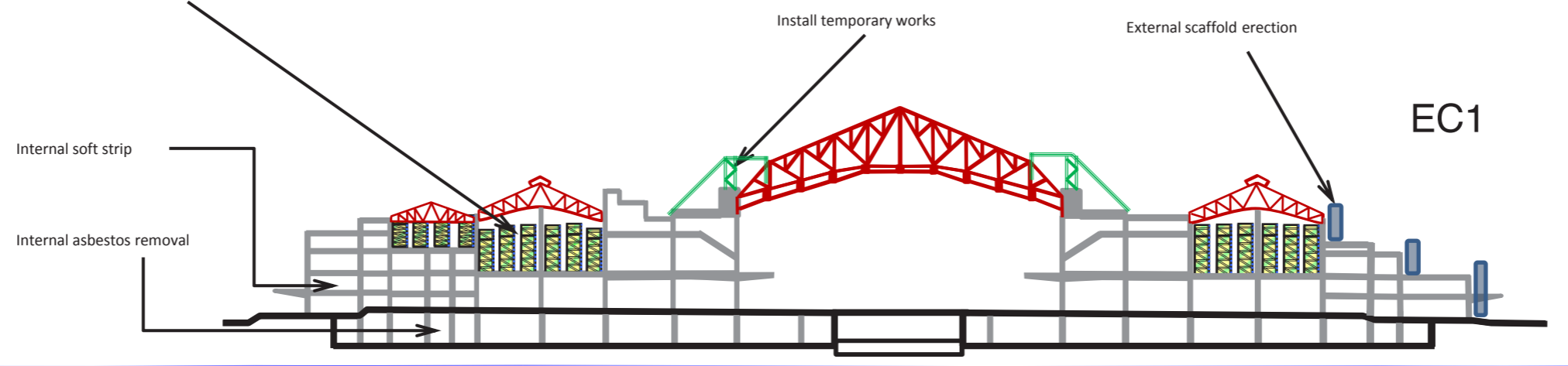


EC1

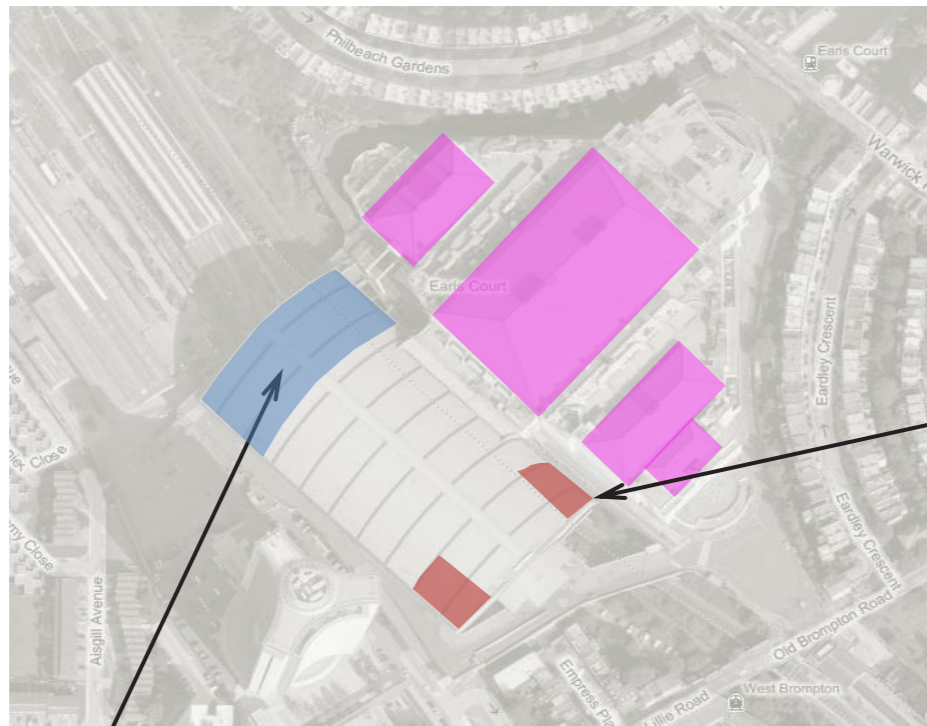
Time Slice Wk 9-16



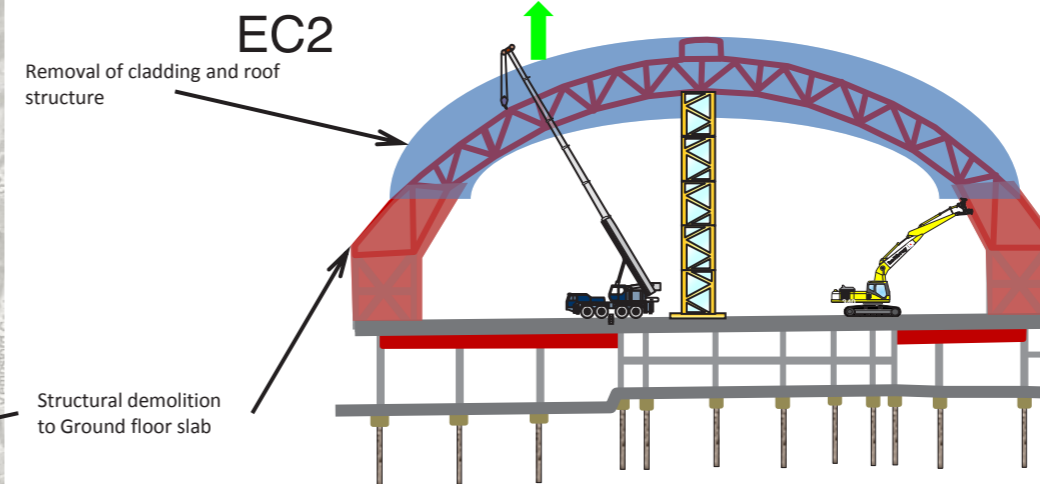
Internal erection of birdcage scaffolds



Time Slice Wk 17-24



Removal of cladding and roof structure

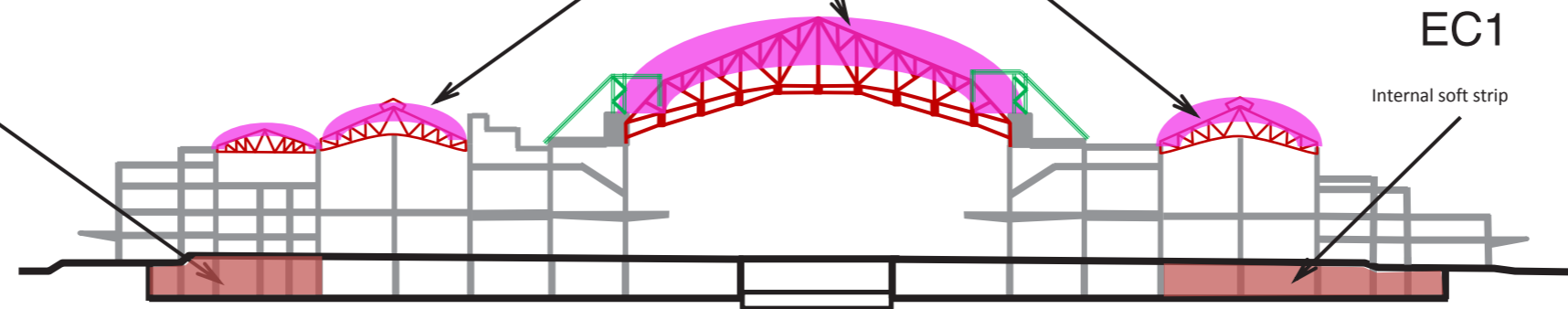


Removal of high level roof cladding

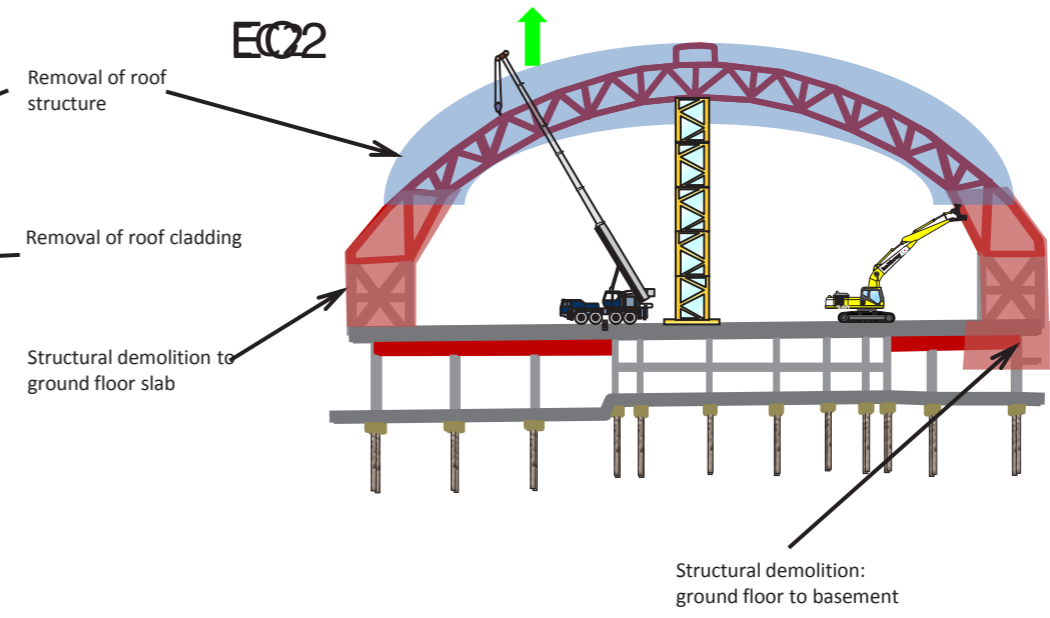
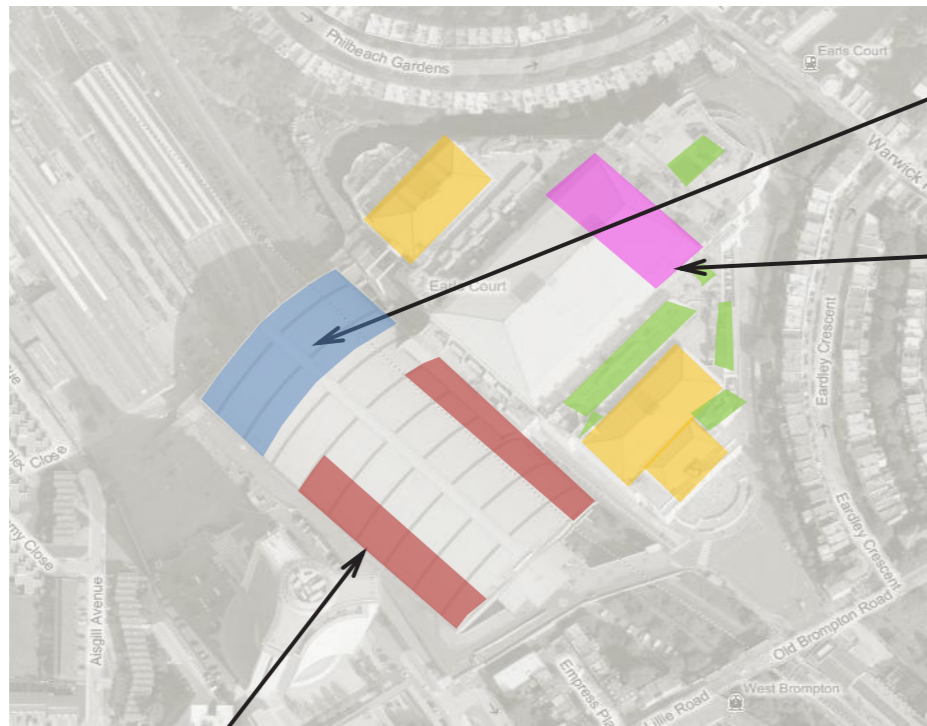
Internal soft strip

EC1

Internal soft strip



Time Slice Wk 25-32



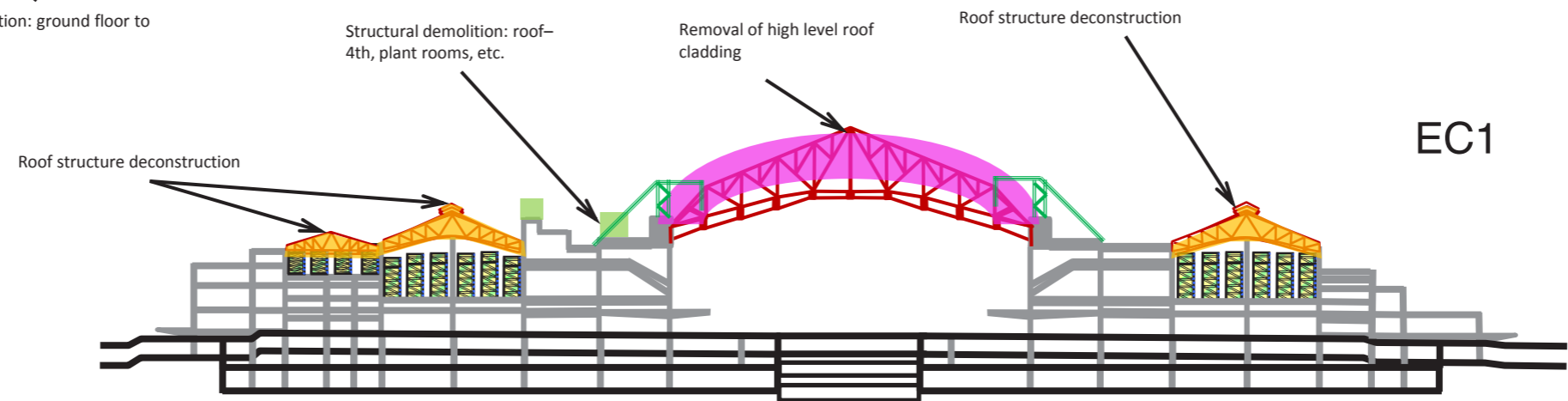
Structural demolition: ground floor to basement

Structural demolition: roof-4th, plant rooms, etc.

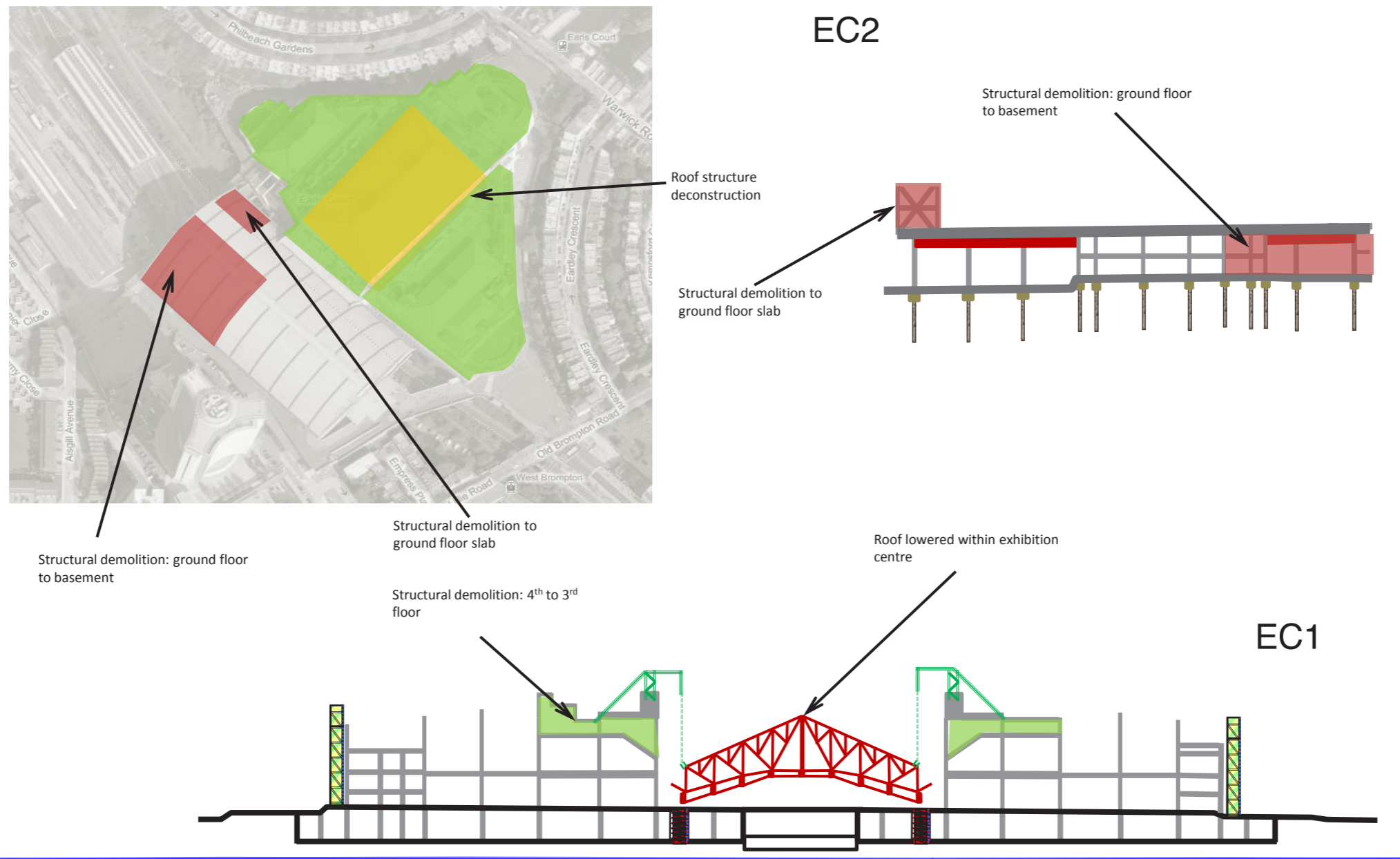
Removal of high level roof cladding

Roof structure deconstruction

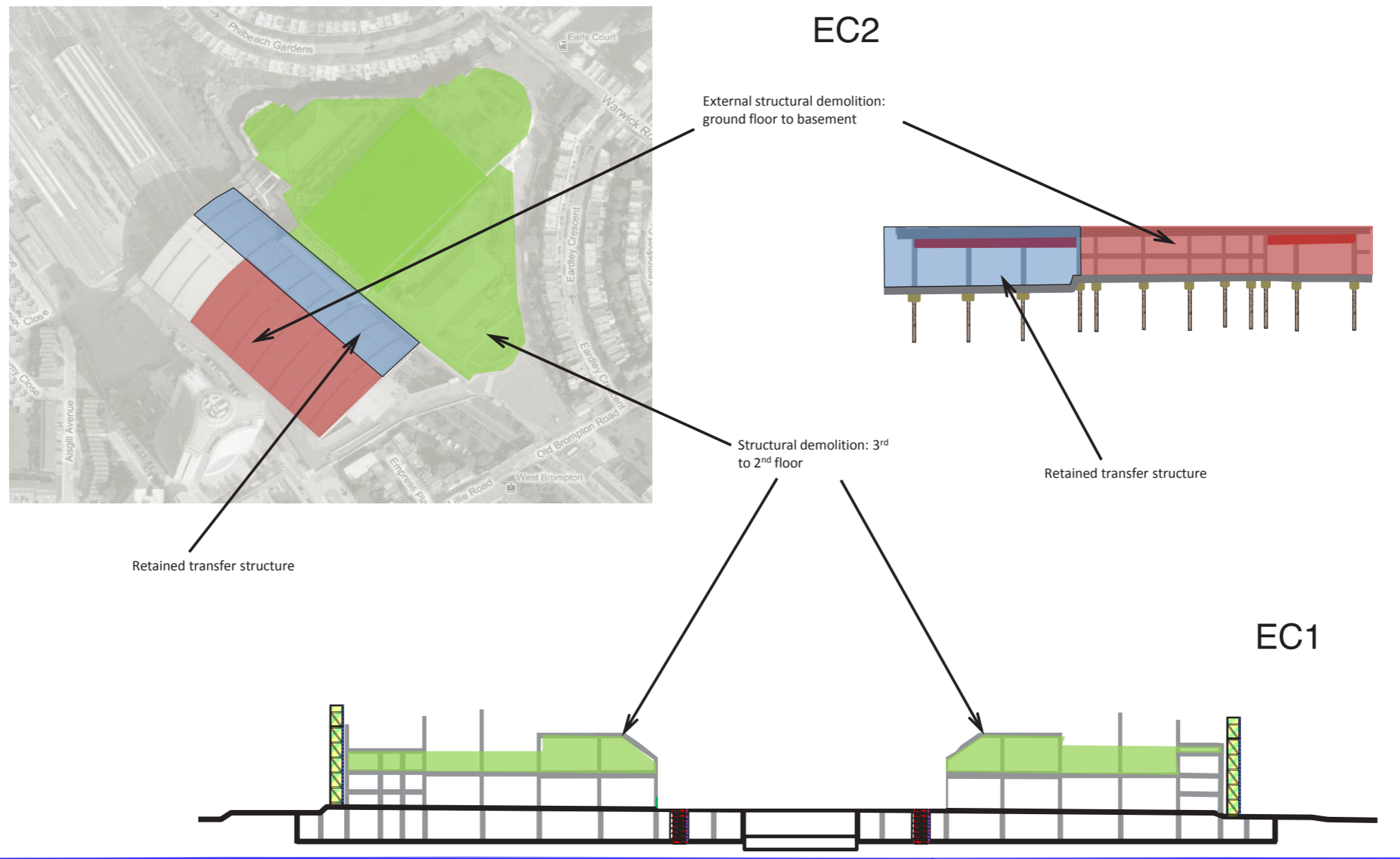
Roof structure deconstruction



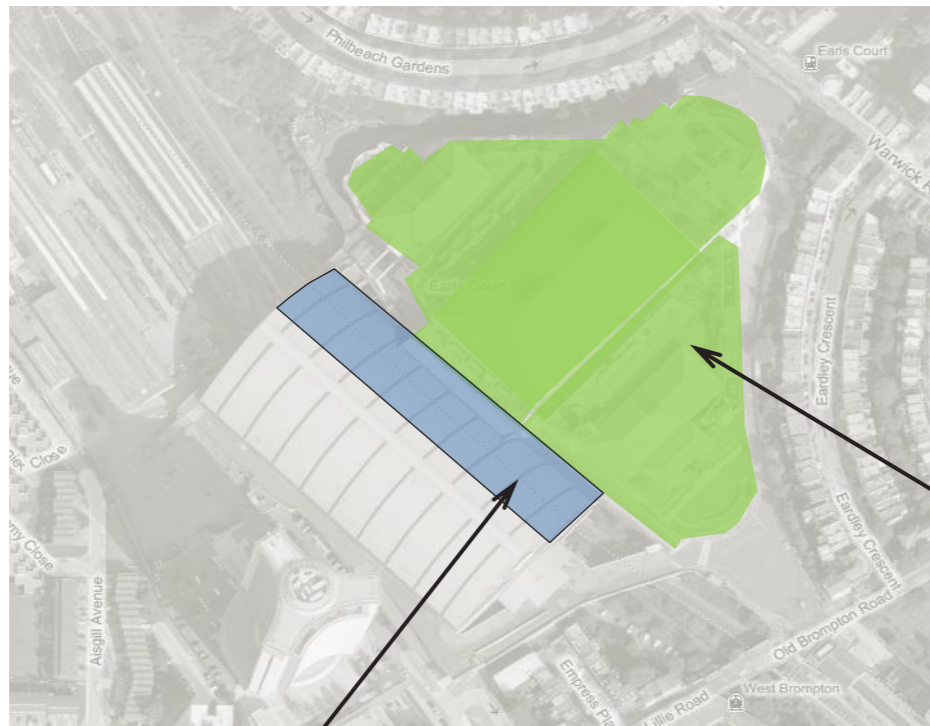
Time Slice Wk 33-40



Time Slice Wk 41-48

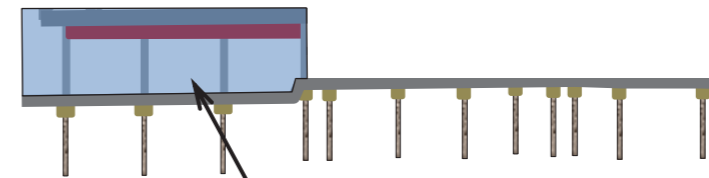


Time Slice Wk 49-56



EC2

EC2: Works complete



Structural Demolition: 2nd floor to 1st floor

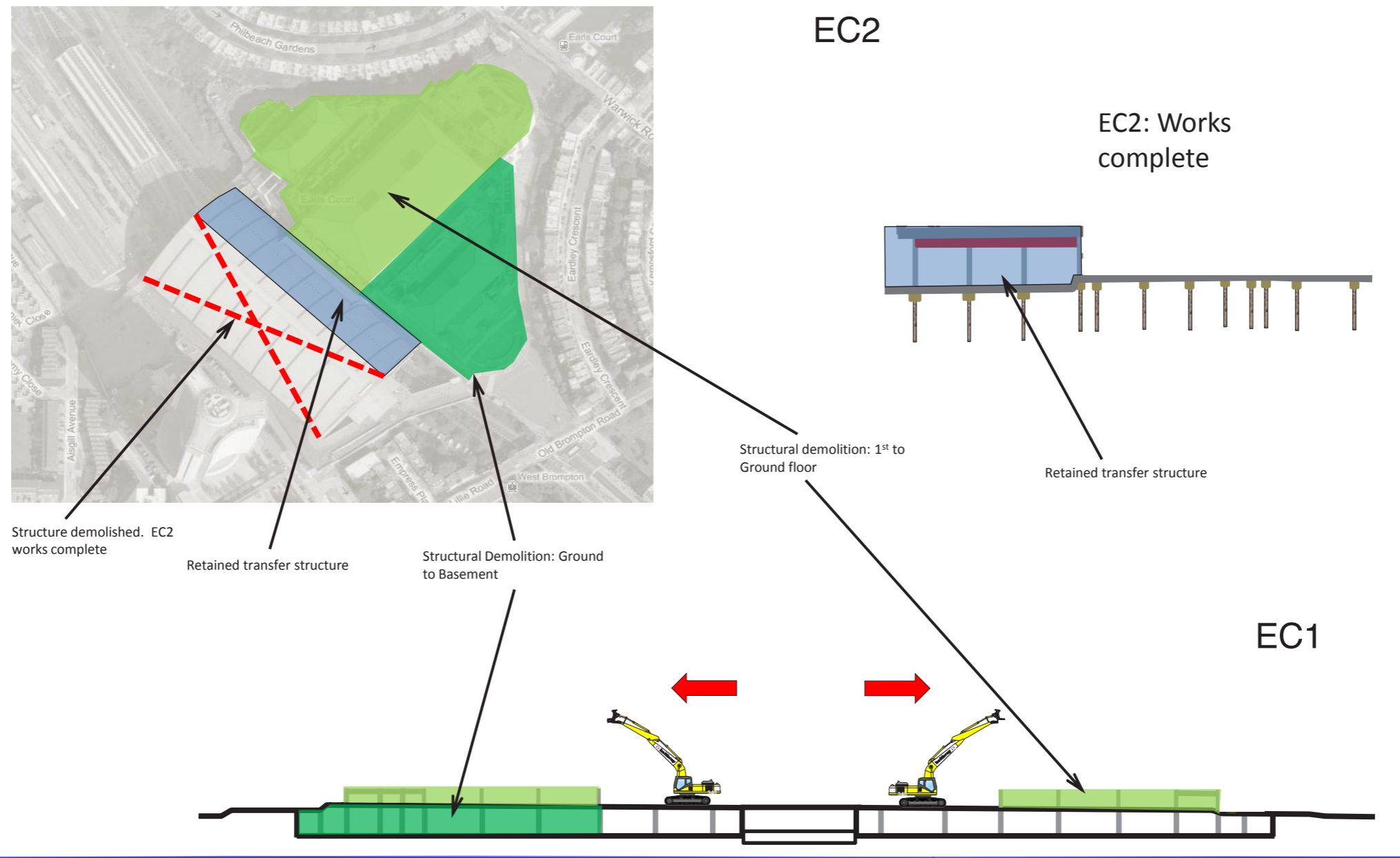
Retained transfer structure

Retained transfer structure

EC1



Time Slice Wk 57-64



Time Slice Wk 65-83

