70016347

8 ALBERT EMBANKMENT, LONDON

SCOPING REPORT FOR ENVIRONMENTAL IMPACT ASSESSMENT [DRAFT FOR DISCUSSION]

OCTOBER 2016

WSP | PARSONS BRINCKERHOFF

8 ALBERT EMBANKMENT, LONDON

U + I Group Plc

Version 1
Confidential

Project no: 70016347
Date: October 2016

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QUALITY MANAGEMENT

ISSUE/REVISION	FIRST ISSUE	REVISION 1	REVISION 2	REVISION 3
Remarks	DRAFT	FINAL		
Date	October 2016			
Prepared by	Greg Irvine			
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Signature				
Project number	70016437			
Report number	Draft			
File reference	TBC			

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1 INTRODUCTION

1.1.1 U + I Group Plc (the 'Applicant') intends to submit a fully detailed planning application to the London Borough of Lambeth (LBL). The application proposes the mixed use redevelopment of 8 Albert Embankment, including London Fire Brigade's Lambeth Fire Station and adjoining parcels of land (hereafter referred to as the 'Site'). The Proposed Development will provide some 58,850 square metres (m²) Gross External Area (GEA) of residential, office, hotel, retail and further ancillary retail land uses.

1.1.2 The Site comprises 8 Albert Embankment, the former London Fire Brigade and Emergency Planning Authority (LFEPA) workshops and storage building on Lambeth High Street and land at Newport Street/Black Prince Road, Lambeth. The Site is formed of three parcels of land which total approximately 1.25 hectares (ha) in size.

1.1.3 The Site location and boundary are shown on **Figures 1** and **2**. The Site is bounded by Albert Embankment to the west and Black Prince Road to the south. Lambeth High Street passes between the two largest building plots within the Site. **Figure 2** represents the maximum land area (1.25 ha) above and below ground within which the built and non-built elements of the development will be situated.

1.1.4 The Site has a long history of planning negotiations and decisions. In January 2010, applications were submitted to LBL seeking planning permission and listed building and conservation area consent for the for the mixed use redevelopment of the Site (Ref. No: 10/00318/FUL & Ref. No: 10/00319/LB). These applications were withdrawn in April 2010.

1.1.5 Later in the year, in December 2010, new applications (Ref. No: 10/04473/FUL & Ref. No: 10/04475/LB) were submitted seeking planning permission, listed building consent and conservation area consent for a revision of the scheme that was withdrawn in April 2010. The December 2010 applications were subsequently refused permission by LBL and dismissed at appeal in May 2013. The appeal was dismissed due to residential amenity and impacts on the levels of daylight and sunlight received by neighbouring residential properties.

1.1.6 The Applicant is committed to delivering a scheme of the highest quality and the reasons for refusal of the previous applications will be at the heart of the Proposed Development's design evolution. To achieve this, the Applicant has employed a full Project Team, including renowned architects, Pilbrow and Partners, to design a regenerative proposal which also respects its setting. GVA Second London Wall are the project managers, Nathaniel Lichfield and Partners (NLP) are leading the Planning process with WSP Parsons Brinckerhoff (WSP | PB) commissioned as a multidisciplinary team providing structures, civil engineering, transport and environmental services working alongside Montagu Evans (Heritage, Townscape and Visual Consultants), Point 2 Surveyors (Sunlight/ Daylight/ Overshadowing) and RWDI (Environmental Wind).

1.1.7 The application will be supported by a suite of Application Reports including an Environmental Statement (ES) produced with consideration of existing information available from the previous applications. It will report the assessment of the likely significant environmental effects of the Proposed Development in line with the scope outlined herein and subject to agreement with LBL and the relevant consultees.

1.1.8 Pilbrow and Partners are currently developing the design of the Proposed Development in collaboration with the Project Team and in consultation with key stakeholders such as LBL, GLA, Network Rail and Historic England.

1.1.9 The proposed mixed use development will broadly include the following elements:

- Retention of the main building on Albert Embankment to accommodate the Fire Station and supporting space, a London Fire Brigade Museum, residential dwellings and a rooftop restaurant associated with a new hotel. The existing stand-alone building which sits between 8 Albert Embankment and Lambeth High Street will be demolished and a new circa 140 bed hotel constructed in its place, with links to the rooftop restaurant.
- The access arrangements for the Fire Station will remain generally as the existing situation with access from Lambeth High Street and emergency vehicle egress onto Albert Embankment.
- A new building will also be constructed between the northern edge of the 8 Albert Embankment building and neighbouring properties to provide ancillary accommodation associated with the fire station (e.g. back of house office accommodation, sleep-over accommodation, etc.).
- The former workshops will accommodate two residential towers (approximately 20 storeys), commercial uses (offices and retail) and a gallery. A new building on Newport Street is proposed to accommodate residential use.
- The Proposed Development intends to enhance the public realm around the Site with new surfacing on Lambeth High Street through the centre of the Site and around the new development on the workshop site.
- The proposals will also seek to introduce a new pedestrian link between the central part of the site and the Newton Street site via an existing culvert passing under the main railway line.

1.1.10 The proposed application will seek:

Proposed restoration/alteration of listed 8 Albert Embankment and Drill Tower and associated comprehensive mixed-use development comprising:

- *New Central London Fire Station (up to 2,200 sqm GEA);*
- *New London Fire Service Museum (up to 1,500 sqm GEA);*
- *Class B1(a) office workspaces (up to 10,800 sqm GEA);*
- *Class C1 Boutique Hotel and Class A3/A4 Bar and Restaurant (up to 7,350 sqm GEA);*
- *Class C3 market and affordable housing (up to 31,400 sqm GEA);*
- *Class D1 gallery space (up to 200 sqm GEA); and*
- *Class A1 retail and A3 café and A4 café/bar units (up to 500sqm GEA) with new public realm works and ancillary spaces and car parking.*

1.1.11 The ES to be submitted with the application will report on the assessment of the likely significant environmental effects of the Proposed Development based on the following key features. **Table 1** provides approximate GEA for each land use class proposed.

Table 1- Summary of Proposed Development Land Use

LAND USE	USE CLASS	TOTAL APPROX. DEVELOPMENT ENVELOPE (GEA) SQM
New Central London Fire Station	-	up to 2,200

New London Fire Service Museum	-	up to 1,500
Office workspaces	Class B1 (a)	up to 10,800
Boutique Hotel, Bar and Restaurant	Class C1, A3/A4	up to 7,350
Market and affordable housing	Class C3	up to 34,100
Gallery space	Class D1	up to 200
Retail, café and café/bar units with new public realm works and ancillary spaces and car parking	Class A1, A3, A4	up to 500

1.1.12 The Proposed Development also allows space for plant and waste storage and an energy centre.

1.1.13 The land use and layout of the development has been influenced by the constraints of the Site which includes, but is not limited to, the following:

- Listed Buildings and Conservation Areas;
- Key Industrial and Business Area (KIBA) allocation;
- Proximity to nearby residential buildings;
- Network Rail viaduct between middle and eastern parcels of the Site; and
- Access arrangements.

1.1.14 A full description of the Proposed Development including demolition and construction elements will be set out in the ES to enable the likely significant environmental effects of the temporary construction and permanent operational effects to be assessed.

1.2 THE NEED FOR AN ENVIRONMENTAL IMPACT ASSESSMENT

1.2.1 The Town and Country Planning (Environmental Impact Assessment) Regulations 2011 and 2015 Amendments (the 'EIA Regulations') require that, before consent is granted for certain types of development, an EIA must be undertaken. The EIA Regulations set out the types of development which must be subject to an EIA (referred to as Schedule 1 development) and other developments, which may require assessments if they give rise to significant environmental effects (referred to as Schedule 2 development).

1.2.2 The Proposed Development does not fall under any of the types of development set out in Schedule 1 of the EIA Regulations. However it may be considered to constitute 'Schedule 2' development, if judged to qualify as an 'Urban Development Project' in accordance with Section 10(b) and the 2015 Amendments to the Regulations. A development is considered to fall within Schedule 2 if:

- Any part of the development is to be carried out in a sensitive area; or
- Any applicable threshold or criterion in the corresponding part column 2 of the table in Schedule 2 is exceeded or met in relation to that development.

1.2.3 The Site is not located within a sensitive area (as defined in Regulation 2 (a)-(g)). The Site area of 1.25 ha is below the revised Schedule 2 10 (b) 'Urban Development Projects' threshold of 5ha, however the proposed number of residential units exceeds the 150 dwelling threshold introduced

[1] The *Town and Country Planning (Environmental Impact Assessment) (Amendments) Regulations 2015*

as part of the 2015 Amendments to the EIA Regulations and would be defined as 'EIA Development'. As such the application will be accompanied by an ES which will report the likely significant effects of the Proposed Development.

1.2.4 WSP | PB has been instructed to undertake this Scoping Study and prepare the ES in accordance with the EIA Regulations to accompany the application.

1.3 THE PURPOSE AND STRUCTURE OF THIS SCOPING REPORT

1.3.1 Under the terms of Regulation 13 (4) 13 of the EIA Regulations, LBL are required to consult with [at least] the key statutory consultation bodies identified in Regulation 2(1) of the EIA Regulations, before issuing their formal Scoping Opinion to agree the key issues and proposed methodologies proposed to be included in the ES and to provide their input and comments into the formal Scoping process. LBL is required to respond with a Scoping Opinion within 5 weeks of receipt of this Report.

1.3.2 In preparing this Scoping Report, the National Planning Practice Guidance (NPPG) 'Environmental Impact Assessment' (2014) has been considered which indicates that "*if required, they (an EIA) should limit the scope of assessment to those aspects of the environment that are likely to be significantly affected.*"

1.3.3 This EIA Scoping Report has been informed by the baseline information and assessment carried out to date.

1.3.4 **Table 2** confirms the detail provided in this Scoping Report informed by EIA Regulation 13.

Table 2 - Information provided as part of Scoping Report

INFORMATION	LOCATION IN THIS SCOPING REPORT
A Plan sufficient to identify the land	Figures 1 and 2
A brief description of the nature and purpose of the development.	Sections 1 and 2
The possible effects of the Proposed Development on the environment	Sections 4 to 15
An overview of the conditions present on site and in the surrounding area, together with a brief overview of the relevant planning history, policy context.	Section 2
How alternatives will be considered	Section 3.6
List of cumulative developments	Section 3.7
Expected scope of the proposed application reports to be submitted.	Section 2.4
The proposed approach to the EIA and an appraisal of the key environmental issues to be covered in the EIA (i.e. "scoped in") and the issues not requiring further consideration (i.e. "scoped out") in the context of the key legislative and policy documents and Part 1 of Schedule 4 of the EIA Regulations 2011 as is reasonably required to assess the likely significant environmental effects of the development.	Section 3
Outlines the scope and assessment methodology (including the significance criteria to be adopted) for assessing the likely significant environmental effects to be employed for each respective discipline to be reported in the ES.	Section 3
The proposed structure and format of the ES which will comprise four main parts – a Non-technical Summary, Volume 1 Environmental Statement Text and Figures, Volume 2 Environmental Statement Technical Appendices and Volume 3 Townscape, Visual and Built Heritage Effects.	Appendix C

2 BACKGROUND AND CONTEXT

2.1 INTRODUCTION

2.1.1 This section provides an overview of the Site, the nature and purpose of the Proposed Development and the expected scope of the proposed application reports to be submitted either as part of or in support of the proposed application.

2.2 THE SITE

2.2.1 The Site is formed of three parcels of land which total approximately 1.25 ha in size. Two parcels of land located to the west and centre of the Site are part of the Lambeth Fire Station operational and workshop site and a third parcel that is currently undeveloped is located to the east of the main raised railway viaduct.

2.2.1 For the purposes of this report and the subsequent ES, the three parcels are referred to as the 'Western Site' (8 Albert Embankment), the 'Central Site' (former workshops) and the 'Eastern Site' (Newton Street) (**Figure 2**).

2.2.2 The Western Site accommodates the Grade II listed former London Fire Brigade Headquarters that continues to operate as the Lambeth Fire Station at ground level. This is a 9-storey brick building with a basement and is separated from the River Thames to the west by the Albert Embankment (A3036) (approximately 25m wide). The upper levels were formally used for fire operative accommodation and the facilities are currently unoccupied. Car parking is provided at ground level for London Fire Brigade operatives and visitors and the space is also used for fire fighter training and the storage of London Fire Brigade plant/machinery. The car park is accessed off Lambeth High Street and provides 42 car parking spaces and 5 spaces for longer vehicles (Fire tenders). The fire station includes 4 spaces within the main building for Emergency vehicles. In the event of a 'call-out', the vehicles egress directly onto Albert Embankment and return via the Lambeth High Street access. A 3-storey concrete extension lies to the south-east of the Headquarters. In the north-east of the corner of the Western Site is a Grade II listed brick Drill Tower.

2.2.3 The Central Site located to the south of Whitgift Street and between Lambeth High Street and the raised viaduct running into London Waterloo. The Site was formally occupied by the London Fire Brigade workshops and was used for fire tender and London Fire Brigade vehicle maintenance.

2.2.4 The Central Site forecourt for the workshop site accommodates some 32 car parking spaces which are accessed off Lambeth High Street. There are an additional two access points into the building from Whitgift Street. The Central Site is currently vacant but is occasionally used for presentations and events.

2.2.5 A planning application was submitted in early 2016 to temporarily house a fire service museum within the disused workshops, with this being granted permission in September 2016 (16/03122/FUL). This will be in place until such time as the redevelopment takes place and the museum can be housed within the 8 Albert Embankment block in the Western Site.

2.2.6 The Eastern Site is located to the east of the raised viaduct and bounded by Black Prince Road to the south and Newton Street to the east. The Eastern Site is currently occupied by a small park.

2.2.7 The Site is located within the Albert Embankment Conservation Area. 8 Albert Embankment is Grade II listed, as is the detached Drill Tower. Whilst attractive architectural buildings, they are unlikely to have been listed on architectural grounds alone. The cultural significance of the buildings lies in their use, as much as their architecture. The Grade II listed Southbank House lies adjacent to the southern boundary of the Site.

2.2.8 The River Thames to the west of the Site is classified as a Site of Metropolitan Importance (SMI) for nature conservation.

2.2.9 The surrounding uses are varied in nature, including residential and commercial. The Site is located in an area historically served by industrial type activities, but these traditional activities have been declining for decades. In accordance with mayoral and council regeneration policies, much of the surrounding area is now being redeveloped for a range of uses, and comprises a mixture of residential, retail and commercial uses, with the large majority of recent developments being residential-led.

2.2.10 On the opposite side of the River Thames are the Grade II* listed Tate Britain and Grade II listed Millbank Tower, whilst further north, on the opposite side of the Grade II* listed Lambeth Bridge is the Palace of Westminster, a World Heritage Site.

2.3 PLANNING POLICY CONTEXT

2.3.1 The EIA Regulations do not require an assessment of planning policy or guidance, however the ES will confirm the policy context. The Planning Statement to accompany the Application will examine the merits of the scheme against the relevant national, regional and local planning policy documentation including:

- National Planning Policy Framework (NPPF) adopted March 2012;
- National Planning Policy Guidance issued on 6th March 2014;
- London Plan 2015;
- Lambeth Local Plan (adopted September 2015); and
- Central Activities Zone Supplementary Planning Guidance (SPG) 2016 and Vauxhall Supplementary Planning Document (SPD) 2013.

2.3.2 The Central Site and Eastern Site are designated as a Key Industrial Business Area (KIBA), for which LBL Local Plan Policy ED1 states that “development in KIBAs will be permitted only for business, industrial, storage and waste management uses, including green industries and other compatible industrial and commercial uses (excluding large scale retail) ancillary to, or providing for, the needs of the KIBA”.

2.3.3 LBL Policy PN2 relates to the Vauxhall area and contains a specific policy (Policy Site 10) that relates solely to the Albert Embankment site, identifying that the preferred uses for the site includes the:

“Retention/provision of an operational fire station. Mix of uses including residential and employment. Exceptionally, configuration of the site to include some residential within the KIBA boundary may be considered, if it can be demonstrated that this is necessary to achieve an acceptable scheme in all other respects. The amount of replacement employment should be maximised and should include space for small and medium enterprises.”

2.4 SCOPE OF APPLICATION DOCUMENTS

2.4.1 The submission will be supported by a suite of Application Reports and Plans. **Tables 3** and **4** confirms the respective details and a brief description of the purpose of each.

Table 3 - Documents to be submitted for Approval

DOCUMENT	PURPOSE	AUTHOR
Planning application form, certificates and notices	To define and describe the component elements of the application compliant with validation requirements.	NLP
Community Infrastructure Levy Form (CIL)	To define the community infrastructure benefits proposed to be delivered by the applicant.	NLP
Application Location and Site Plans	To confirm the location and extent of the application site boundary.	Pilbrow and Partners
Application Plans	To define the design, layout and elevations of the scheme and proposed works both above and below ground.	Pilbrow and Partners

2.4.2 **Table 4** confirms supporting reports expected to be submitted to assist in the consideration and determination of the Application. Whilst not forming part of the application for which approval is sought, these reports are to be submitted with the aim of assisting the planning authority and consultees in both understanding and evaluating the Proposed Development.

Table 4 – Proposed Supporting Application Reports

DOCUMENT	PURPOSE	AUTHOR
Design and Access Statement including Public Realm Strategy	Sets out the design rationale and principles behind the Proposed Development including the content, layout, access and circulation proposed. Includes a description of the design evolution, strategy and principles.	Pilbrow and Partners
Planning Statement	Identifies the context and need for the development and includes an assessment of how the Proposed Development accords with relevant national, regional and local planning policies.	NLP
Office Market Report	Likely to be appended to the Planning Statement.	JLL
Financial Viability Assessment	Provides a financial viability assessment for the Proposed Development	JLL
Environmental Statement and Non-Technical Summary	To report the assessment of the likely significant effects of the Proposed Development.	WSP | PB
Heritage Statement (Appended to the ES)	Provides a summary of the heritage values and context of the Site and potential effects of the Proposed Development. This will be standalone and not appended to the ES.	Montagu Evans
Transport Assessment and Travel Plan (Appended to the ES)	Considers the major modes of transport and provides a review of the existing situation, analysis of the likely conditions after development and recommends necessary mitigation measures. The Transport Assessment will be standalone and not be appended to the ES.	WSP | PB
Delivery and Servicing Management Plan (Appended to the ES)	Outlines the current situation and the proposed delivery and servicing strategy, with objectives, measures and initiatives.	WSP | PB
Sustainability Statement	Demonstrates that the proposed scheme is considered sustainable, compared to the relevant local, regional and national planning policies.	WSP | PB
Energy Strategy	Outlines the strategy for energy centre	WSP | PB
Statement of Community Engagement	Summarises the outcome of public consultations in relation to the project.	U+I
Waste Management Strategy	Calculates expected waste generation from the development during construction and operational phases. Identifies a plan in relation to separating, collection, treatment and disposal of waste.	WSP | PB

DOCUMENT	PURPOSE	AUTHOR
Framework Construction Environmental Management Plan (Appended to the ES)	To identify how the development will be implemented, including a delivery programme, proposed activities and mitigation measures for any demolition and construction related impacts.	WSP | PB
Basement Impact Assessment (Appended to the ES)	To establish ground movements arising from the basement development and any impact on adjoining or neighbouring properties.	WSP | PB
Utilities Statement	Identifies capacity requirements for the Proposed Development in terms of water resources, gas, electricity, telecoms and oil.	WSP | PB
FRA ((Appended to the ES)	Flood Risk Assessment and Drainage Strategy	WSP | PB
Ecology Report (Appended to the ES)	Phase I Habitat Survey	WSP | PB

3 EIA APPROACH

3.1 INTRODUCTION

3.1.1 This section confirms the proposed approach to the EIA and provides an appraisal of the key environmental issues to be covered in the EIA (i.e. "scoped in") and the issues not requiring further consideration (i.e. "scoped out") in the context of the key legislative and policy documents. It outlines the approach to the EIA process, including:

- Identifying the approach to the assessment of environmental effects;
- The significance criteria which will be used within the EIA;
- The level of information required for the EIA and proposed structure of the ES; and
- Proposed consultation.

LEGISLATIVE COMPLIANCE

3.1.2 The EIA will be undertaken in the context of relevant legal requirements and current best practice guidance, including the National Planning Practice Guidance (NPPG) document 'Environmental Impact Assessment' and the following:

- Department for Communities and Local Government (DCLG) 2006 - Amended Circular on Environmental Impact Assessment: A Consultation Paper, June 2006; and
- Department for Communities and Local Government (DCLG) 2006 – Environmental Impact Assessment: A Guide to Good Practice and Procedures: A Consultation Paper.

3.1.3 Legislation, policy or guidance which relates to a specific technical discipline will be considered as appropriate within the ES and discussed within the relevant technical chapters of the ES.

3.1.4 The ES will report the likely significant environmental effects as a result of the Proposed Development, and where such effects are identified, recommend mitigation measures to prevent, reduce or remedy the effects. In addition, enhancement opportunities will be identified to optimise the benefits and positive aspects of the Proposed Development which may form inherent mitigation in the Application Plans to be submitted for approval.

3.1.5 The ES will review and provide all the environmental issues identified in Part 1 of Schedule 4 of the EIA Regulations as is reasonably required to assess the likely environmental effects of the development, specifically:

- A description of the development – including physical characteristics and the full land use requirements of the site during construction and operational phases.
- Expected residues and emissions (water, air and soil pollution, noise, vibration, light, heat, radiation, etc.) resulting from the construction and operation of the Proposed Development.
- An assessment of main alternatives studied and clear reasoning as to why the preferred option has been chosen.
- A description of the aspects of the environment likely to be significantly affected by the development (i.e. sensitive receptors), including: population, fauna, flora, soil, water, air, climatic factors, material assets including the architectural and archaeological

heritage, landscape and the interrelationship between the above factors. This is effectively the baseline position in which the Site and surrounds are considered in their current state.

- A description of the likely significant effects of the Proposed Development on the environment – this should cover direct effects but also any indirect, secondary, cumulative, short, medium and long term, permanent and temporary, positive and negative effects. Effects should relate to the existence of the Proposed Development, the use of natural resources and the emissions from pollutants. This should also include a description of the forecasting methods to predict the likely effects on the environment.
- A description of the measures envisaged to prevent, reduce and where possible offset any significant adverse effects on the environment.
- A non-technical summary of the information.
- An indication of any limitations (technical deficiencies or lack of know-how) encountered by the applicant in compiling the required information.

3.1.6 A detailed description of the Proposed Development as per the Application Plans will be provided within the ES with sufficient information about the Site, design, size and scale of the development such that LBL can reasonably be satisfied that it has sufficient information for determination in full knowledge of the proposal's likely significant effects on the environment.

3.1 BASELINE ASSUMPTIONS

3.1.1 The Site is still used by the Lambeth Fire Brigade, albeit the majority of the operations are centred on the ground and first floor of the Grade II Listed Building. The Applicant also has permission for a temporary museum in the Central Site. For the purposes of the EIA and all technical assessments, the baseline scenario (against which any likely significant effects will be assessed) will be taken to be the Site as occupied by the Lambeth Fire Brigade and the temporary museum.

3.2 POTENTIAL ENVIRONMENTAL EFFECTS

3.2.1 The Applicant is committed to ensuring that likely significant negative environmental effects potentially arising from the Proposed Development are addressed through the design process before the Application Plans for submission are fixed. The environmental specialists are currently working with the design team to offset or avoid any likely significant negative effects through early design reviews and revisions to the Proposed Development to optimise the scheme shown on the Application Plans.

3.2.2 The potential sensitive receptors of the environment likely to be significantly affected by the Proposed Development have been identified based on desktop studies, site visits and surveys in 2016 and knowledge and understanding of the Site. This provides a comprehensive environmental dataset of potential sensitive receptors, see **Table 5** below.

3.2.3 In relation to demolition and construction, the objective is to achieve best practice in management and execution of demolition and construction, with specific attention given to ensuring that the environmental effects of demolition and construction operations on neighbours and the public are managed and minimised at all times. The assessment of demolition and construction effects will be supported by a Construction Logistics Plan which will be submitted separately to the ES.

Table 5 - Potential Existing Sensitive Receptors

RECEPTORS	DESCRIPTION
Social Infrastructure	Effects of the changes to the demography and socio-economics in the area on education and school facilities, churches and places of worship; health and community facilities such as GP surgeries , child care facilities and local

RECEPTORS	DESCRIPTION
	community facilities. Receptors would also include central London tourism and cultural facilities.
Transport Network	Existing sensitive receptors comprise: ■ Local highway network; ■ Network of footway and pedestrian connections that serve the Site; ■ On-street cycle routes on Albert Embankment / Black Prince Road junction adjacent to the Site; ■ Taxi ranks situated at the Park Plaza Riverbank hotel on Albert Embankment, and the Novotel hotel on Lambeth Road; and ■ Car clubs located on Black Prince Road close to the Site, and on Juxon Street some 300m north-east of the Site.
Ecological Receptors such as fauna and flora	Effect of demolition and construction works on existing habitats within the Site. Based on the extended Phase 1 Habitat Survey and ecological desk study, the following potential ecological receptors have been identified: ■ River Thames – Site of Metropolitan Importance for Nature Conservation; ■ Nesting birds.
Heritage assets, including archaeological, heritage and landscape features	Conservation areas, Listed Buildings on-site, Scheduled Monuments in the locality. There are 2 Listed Buildings on-site, these are: ■ Lambeth Fire Station (Grade II listed); and ■ Drill Tower to the East of 8 Albert Embankment (Grade II listed). The nearest Listed Building outside of the Site is Southbank House (Grade II listed) to the immediate south of the Site. The Site is also located within the Albert Embankment Conservation Area (Western Site and Central Site).
Hydrological Receptors	Effects on water resources including ground water and surface water provision
Residential and Commercial development	■ Effect of the construction and operation of the development on the occupants and visitors of existing surrounding residential and commercial properties including noise, vibration, air quality, heritage, townscape and visual; ■ Effects on the daylight / sunlight conditions to existing or permitted residential properties in the surrounding area; ■ Presence and disturbance of any contaminated ground and hazardous materials and associated effects as a result of demolition and construction including potential effects on groundwater; ■ Existing surrounding residential and commercial properties, including Southbank House; future residents of the Proposed Development.

3.3 PROPOSED SCOPE

3.3.1 In the context of the above, the demolition, construction and operation of the Proposed Development may lead to significant environmental effects on the following aspects, although some of those effects could be limited in their temporal and geographical scope:

- Socio-economics;
- Transportation and Access;
- Local Air Quality;
- Noise & Vibration;
- Archaeology;
- Water Resources and Flood Risk (including Flood Risk Assessment);
- Ground Conditions, Hydrogeology and Contamination;
- Environmental Wind;
- Daylight, Sunlight, Overshadowing, Solar Glare and Light Pollution; and
- Heritage, Townscape and Visual Impact Assessment.

3.3.2 **Section 4** sets out the proposed scope and methodology for the identified disciplines for assessing the likely significant environmental effects of the demolition and construction and operational phases of the Proposed Development. The scope of the EIA is summarised in **Appendix B**.

3.4 NON-SIGNIFICANT ISSUES SCOPED OUT OF THE EIA

3.4.1 The following disciplines have been 'scoped out' of the EIA based on the evidence provided below and are therefore excluded from the proposed scope of the ES.

Ecology & Nature Conservation

3.4.2 An extended Phase 1 habitat survey (**Appendix A**) and ecological desk study were completed in September 2016 following Joint Nature Conservation Committee (JNCC) survey methods (2010) and extended to include consideration of protected species and species of conservation concern in accordance with good practice guidance (CIEEM, 2013)

3.4.3 In summary, the Phase 1 habitat survey and desk study found that:

- → The Site is dominated by buildings and hard standing. No significant vegetation is present, although a small amount of introduced shrub is present in a small habitat parcel to the south east of the Site.
- → The buildings, primarily the roof areas, have potential to support urban nesting birds. At the time of the survey the Site supported numerous pigeons which are likely to breed at the Site.
- → Habitat present on the Site has negligible potential to be used by other protected or notable species, including bats.
- → There are no statutory nationally-designated nature conservation sites within 2km of the Site.
- → Two internationally designated nature conservation sites occur within 10km of the Site: Wimbledon Common Special Area of Conservation is approximately 9km south west of the Site and the Lee Valley Special Protection Area (SPA) Ramsar is approximately 10km north east of the Site.

→ Several non-statutory locally-designated nature conservation sites occur within 2km of the Site. These include the River Thames and Tidal Tributaries Site of Metropolitan Importance for Nature Conservation (SMINC) which is approximately 30m from the Site.

Table 6 – Scoping of Potential Ecological Effects

POTENTIAL EFFECT	SCOPED IN	SCOPED OUT	REASONS
Effects upon Statutory designated sites during the construction or operation phases		✓	Wimbledon Common SAC and the Lee Valley SPA are both sufficiently distant from the Site to be unaffected by the Proposed Development. The nearest site is Wimbledon Common SAC which is approximately 9km from the Site.
Effects upon non-statutory designated sites during the construction or operation phases		✓	The River Thames and Tidal Tributaries Site of Metropolitan Importance for Nature Conservation SMINC is approximately 30m from the site. The Site is separated from the River Thames by the A3036 road and is located in a highly urbanised environment. Industry standard pollution prevention measures will be employed to ensure that pollution does not enter the river during the construction phase. It is understood that the Proposed Development will not result in any surface water or effluent run off into the waterbody and that as the fire station building adjacent to the river will be retained, there should be no additional over shading of the River Thames. The urban location of the Site means that any increases in recreation are likely to have a negligible impact on locally-designated sites occurring within 2km of the site. It is therefore concluded that there is no potential for significant negative effects to non-statutory designated sites.
Effects upon nesting birds during the construction or operation phases		✓	Feral Pigeon *Columba livia* is likely to breed at the Site whilst other bird species could breed on the buildings at the Site, including species of conservation concern such as herring gull which is listed as a Species of Principal Importance (SPI) in accordance with the NERC Act (2006) and a red list Bird of Conservation Concern (BoCC, Eaton *et al*, 2009). However, in the context of the Site, the possible loss of a small number of breeding sites is unlikely to constitute a significant negative effect given the presence of other similar height buildings with flat roof in the immediate vicinity of the Site. Similarly; the risk of contravention of legislation protecting bird's nests can be controlled through standard measures such as avoiding demolition during the breeding season (typically considered to be March to August inclusive). Therefore, potential effects upon birds will be scoped out of the EIA.
Effects upon on – site habitat during construction or operation phases		✓	The Site contains only a very small amount of vegetation which is dominated by non-native species. Removal of this habitat will not result in significant effects. There is scope for habitat enhancement on Site, through landscaping associated with the Proposed Development. Residual effects are likely to be neutral or positive, if habitats are created on the Site.

Aviation

3.4.4 The London Plan defines tall buildings as those that are substantially taller than their surroundings, cause a significant change to the skyline or are larger than the threshold sizes set for the referral of planning applications to the Mayor. Such issues can be dealt with by way of formal agreement with LBL, Greater London Authority (GLA) and Civil Aviation Authority (CAA). EIA best practice recognises that aviation issues do not typically constitute environmental effects and we would therefore seeks to scope this topic out of the EIA.

Telecommunications

3.4.5 Since the replacement of analogue TV with digital, there has been a reduced need to assess signal interference from new buildings, whilst mobile reception interference is unlikely to be affected in the Site locality due to the lack of surrounding tall buildings. In addition, EIA best practice recognises that telecommunication issues do not normally constitute environmental effects and that such issues can be dealt with by way of standard planning conditions. Telecommunications has successfully been scoped out from many urban regeneration EIAs in the London Boroughs, which have not subsequently been questioned or challenged in this respect. Consequently, an assessment of the impacts on interference of telecommunication services is deemed unnecessary.

Services and Utilities

3.4.6 Existing services and utilities and any required diversions or new provision are being taken into consideration as part of the design process for the Site and emerging Application Plans and suitable solutions are being agreed with the relevant service providers such that no significant effects are anticipated. A separate Utilities Statement will be submitted in support of the application.

Sustainability and Energy Statements

3.4.7 Separate application reports will be submitted with the application to address the relevant sustainability and energy planning policy context for the area at the national, regional and local level. Relevant design details relating to Energy and Sustainability will be described in the ES and used to inform various assessments to be reported in the ES such as Local Air Quality.

Waste

3.4.8 As part of a drive to cut red tape, central Government revoked the requirement for Site Waste Management Plans (which focused solely on construction waste) as of 1st December 2013 and as such, they are no longer a mandatory requirement.

3.4.9 Based on our extensive experience with similar developments, the application will be accompanied by a concise stand-alone Waste Management Strategy that will include estimated volumes of waste associated with construction activities together with details of how they will be managed to minimise environmental effects in accordance with guidance, legislation and local targets. The increases in traffic, dust, noise and visual intrusion associated with the transportation of construction materials to the Site and construction waste materials from the Site will be assessed appropriately within the Transportation and Access, Noise & Vibration, Local Air Quality and ES chapters; and also the Heritage, Townscape and Visual Impact Assessment.

3.4.10 Waste management during the operational phase of the Proposed Development will follow a similar approach (household waste volumes will be quantified and the handling storage and collection of this waste will be detailed). As capacity of the waste disposal sites is commercially sensitive information, it would not be possible to identify whether there is sufficient capacity for waste from the Proposed Development and cumulatively at waste disposal sites in the locality of the Proposed Development. Also, at this stage, it is unknown which specific waste disposal sites will be used. It will be ensured that there is sufficient provision of bins for refuse and recycling to serve the residential and commercial properties within the Proposed Development during operation.

Health and Wellbeing

3.4.11 Where appropriate, the technical chapters of the ES will consider the potential effects on the health and wellbeing of the existing and future residents / workers.

Climate Change

3.4.12 Where appropriate, the technical chapters of the ES as well as within the Flood Risk Assessment (to be submitted as an Application Report) will consider the potential effects on climate change. The assessments will take into account the *UK Climate Change Projections 2009* and the future climate change scenarios identified in the *Mayors Climate Change Adaption Strategy (October 2011)*.

3.5 ASSESSMENT OF THE PROPOSED DEVELOPMENT

3.5.1 The EIA will be based on the Application Plans as described above and will include inherent mitigation where possible. Environmental effects which cannot be avoided or mitigated through careful design (such as scale and massing, orientation of the buildings, open space and amenity areas etc.) will be assessed to determine their significance and the requirement for mitigation of any effects which are considered to be significant. A description of the iterative design process which has advanced the proposals to those which will form the planning application, and the effects considered, will be provided in the ES.

3.5.2 The effects of demolition and construction traffic will be assessed and reported in the Transport Assessment and the 'Transportation and Access'; 'Air Quality'; and 'Noise and Vibration' ES Chapters. It is anticipated that there will be a condition for a Construction Environmental Management Plan (CEMP), which will be inclusive of mitigation outlined within the ES and EIA process. It is expect that other appropriate planning conditions will be imposed on any planning permissions, which will require full details to be submitted for approval.

3.5.3 The EIA will be undertaken in the context of and considering the above details, and also relevant planning policy at national (National Planning Policy Framework (NPPF), strategic and local levels. Legislations, policy or guidance which relates to a specific technical discipline will be considered as appropriate within the ES and discussed within the relevant technical chapters.

3.5.4 The assessment will consider effects at the site preparation & construction and operational phases. The definitions of these are presented below:

- **Site Preparation & Construction:** Site preparation includes work required to prepare the site for construction including demolition. Earthworks, remediation (if required) and any archaeological excavation. The construction phase includes all works associated with construction. It is known that the construction of the development will extend over a number of years. Therefore, where feasible and where sufficient information exists, construction effects identified within the ES will be time bound and location specific; and
- **Operation:** This relates to effects once the development is constructed and in use or occupied.

3.5.5 Information relating to the above development phasing will not be applicable to the assessment process for all technical disciplines. For example, the TA and, therefore, the noise and air quality assessments will be based on baseline year, operating year and years subsequent to this, in accordance with relevant standards and assessment guidelines. At this stage a number of design details are still emerging, including the phasing, demolition and construction programme. Details of the phasing, demolition and construction of the Proposed Development will be included within the ES, including an opening year which will be referenced consistently throughout each of the technical chapters within the ES.

3.5.6 Each technical discipline will consider and assess effects considering the geographical extent of any given effect. For example, species movement cannot be confined to definitive boundaries and needs to be assessed based on the movement patterns of those individual species concerned.

3.5.7 The assessments of the likely significant effects for each discipline will take into account both the construction and operational phases of the Proposed Development as a whole, however the assessments will not consider specific build out stages of each phase. A number of criteria will be used to determine whether or not the potential effects of the Proposed Development are 'significant'. The effects will be assessed quantitatively wherever possible. The significance rating will take account of the following criteria:

- Likelihood of occurrence;
- Geographical extent;
- Adherence of the proposals to legislation and planning policy;
- Adherence of the proposals to international, national and local standards;
- Sensitivity of the receiving environment or other receptor;
- Value of the affected resource;
- Whether the effect is temporary or permanent;
- Whether the effect is short, medium, or long-term in duration;
- Whether the effect is reversible or irreversible;
- Inter-relationship between effects (both cumulatively and in terms of potential effect interactions); and
- The consultation responses.

3.5.8 The effects that are considered to be significant, prior to mitigation, will be identified in the ES. The significance of effects reflects judgements as to the importance or sensitivity of the affect receptor(s) and the nature and magnitude of the predicted changes. For example, a large negative effect on a feature or site of low importance will be of a lesser significance than the same effect of a feature or site of high importance.

3.5.9 The following terms will be used in the ES, unless otherwise stated within individual chapters, to determine the significance of effects:

- **Major positive or negative effect** – where the Proposed Development would cause a large improvement (or deterioration) to the existing environment;
- **Moderate positive or negative effect** – where the Proposed Development would cause a noticeable improvement (or deterioration) to the existing environment;
- **Minor positive or negative effect** – where the Proposed Development would cause a small improvement (or deterioration) to the existing environment; and
- **Negligible** – no discernible improvement or deterioration to the existing environment as a result of the development will occur.

3.5.10 Effects which are deemed to be significant for the purpose of this assessment are those which are described as being moderate or major positive or negative. How significance has been determined will be detailed within each technical chapter of the ES as appropriate.

3.5.11 Summary tables that outline the potential effects associated with an environmental topic (e.g. air quality), potential mitigation measures and residual effects will be provided in the ES. A distinction will be made between direct and indirect; short and long-term; permanent and temporary; primary and secondary; cumulative; positive and negative. The matrix provided as **Table 7** will be used during the EIA to determine the significance of any given effect.

Table 7 - Matrix for Determining the Significance of Effects

		SENSITIVITY OF RECEPTOR / RECEIVING ENVIRONMENT TO CHANGE			
		HIGH	**MEDIUM**	**LOW**	**NEGLIGIBLE**
MAGNITUDE OF CHANGE	**HIGH**	Major	Major	Moderate	Negligible
	MEDIUM	Major	Moderate	Minor to Moderate	Negligible
	LOW	Moderate	Minor to Moderate	Minor	Negligible
	NEGLIGIBLE	Negligible	Negligible	Negligible	Negligible

3.5.12 Best practice and guidance requires that certain technical disciplines are required to follow topic-specific criteria for determining significance. This includes Local Air Quality, Noise & Vibration, Landscape and Visual Effects, Archaeology and Built Heritage, and Ecology and Nature Conservation. Where this is the case, the criteria to be used will be presented clearly in the methodology section of the technical chapters within the ES. **Appendix B** confirms the proposed structure and format of the ES.

3.6 CONSIDERATION OF MAIN ALTERNATIVES

3.6.1 The EIA Regulations require that the ES contains *'…an outline of the main alternative studied by the applicant or appellant and an indication of the main reasons for his choice, taking into account the environmental effects.'* (Schedule 4: Part 1).

3.6.2 Details of the following alternative which are expected to be considered during the parameter plan approach process will be presented in the ES as follows:

- The 'Do Nothing' scenario – As the Applicant owns the Site and therefore redevelopment of the Site for the Proposed Development as opposed to another site or sites within the area is self-evident. The consequences of not developing the site for the proposed use would be a need to identify another site or sites to accommodate residential properties identified by LBL as being required in the local area;
- *Alternative Sites:* No alternatives have been considered as planning policy for this Site supports the proposed mixed use redevelopment; and

→ Alternative Site Layout and land uses – this will describe the iterative process by which the final parameter plans were agreed to identify the layout, scale, transport routes and open space provision were determined.

3.7 ASSESSMENT OF CUMULATIVE EFFECTS

3.7.1 The EIA Regulations require the likely significant cumulative environmental effects of a development to be considered. Consideration will be given to the potential cumulative effects of the Proposed Development in combination with other committed developments in the locality.

3.7.2 The technical assessments for each discipline will consider the potential for cumulative or in-combination effects (at receptor level). Cumulative effects will be considered in terms of:

- Intra-project effects: The interaction and combination of environmental effects, and indirect effects of the Proposed Development affecting the same receptor, either within the Site or in the local area; and
- Inter-project effects: The interaction and combination of environmental effects of the Proposed Development with committed projects and activities affecting the same receptor. Committed development is defined as development for which planning consent has been granted or in some instances may include foreseeable development currently under planning determination.

3.7.3 Guidance indicates that a cumulative effects assessment should only consider those schemes that can reasonably be presumed to go ahead and for which sufficient information is available.

3.7.4 The proposed projects surrounding the Proposed Development for which Inter-projects are to be considered are set out below. The schemes to be considered cumulative development as part of the EIA are those located within a 1km radius of the Site that have the benefit of planning permission, or are reasonably foreseeable (i.e. resolution to grant) and are similar in terms of use, scale and nature. The schemes which meet these criteria are set out in **Table 8** and **Figure 4**.

Table 8 - Proposed Committed Developments (TBC through discussions with LBL)

SCHEME	DESCRIPTION	PLANNING APPLICATION REFERENCE	STATUS	EIA COMPLETED?
TBC	TBC	TBC	TBC	TBC

3.7.5 There is no single widely accepted published methodology for the assessment of cumulative environment effects. However, a number of best practice guidance documents are available, including those published by Department of Communities and Local Government and the European Commissions and these will be referred to during the completion of this element of the ES. The *'Guidelines for the Assessment of Indirect and Cumulative Impacts as well as Impact Interactions'* provides the following guidance on cumulative effects.

- *'In practical terms, the extent of the assessment in terms of how far into the past and into the future will be dependent upon the availability and quality of information…'*; and
- *'…it is only reasonable to consider current events and those that will take place in the foreseeable future. Furthermore, the assessment can only be based on the data that is readily available'*.

3.7.6 The guidance above identifies that a cumulative effects assessment should only consider those schemes that can reasonably be presumed to go ahead and for which sufficient information is available. This is usually taken to be those schemes that have a benefit of Planning Permission as identified on LBL's Planning Application Register.

3.7.7 Cumulative effects will be identified and assessed through a desk based study using professional expertise to make a judgement as to the likely significance of changes in baseline conditions in the area surrounding the Site arising from the completion of the Proposed Development together with relevant committed developments. A quantitative assessment approach will be adopted where appropriate and possible, and where data is available. Consideration will be given to the timing and spatial influence of the Proposed Development and the identified committed developments.

3.7.8 The result of the cumulative effects will be provided in the ES which will summarise the interactions between effects (as assessed in the individual chapters for each topic) and will describe the findings of the assessment of cumulative effects arising from the combination of the development together with relevant committed developments in the locality.

3.7.9 It would be appreciated if LBL could please confirm within their formal EIA Scoping Opinion the committed or permitted schemes that they believe should be included as part of any cumulative assessment.

3.7.10 The key potential cumulative effects for consideration in the ES are expected to include the following:

- → Road traffic generation during construction and operation;
- → Effect on landscape character, including built heritage assets and their setting and visual amenity; and
- → Potential effects arising from demolitions and construction works, including disturbance from dust, noise and vehicle movements.

3.7.11 The assessment of interaction between effects that may occur between different environmental components (such as air, noise and road traffic) will be inherent within the EIA process and will be presented in the ES chapter specific to each topic, with cross references made between topics where appropriate.

3.7.12 The traffic assessment and traffic data utilised for the assessment of road traffic effects in respect of local air quality and noise will include the predicted future traffic generation on the local highway network (including relevant committed developments within the local area).

3.8 APPROACH TO MITIGATION MEASURES

3.8.1 Good practice dictates that the EIA process should influence the location and basic design of a Proposed Development in order to limit adverse effects on receptors and this should be reported in the ES. Environmental effects which cannot be avoided or mitigated through careful design will be assessed to determine their significance and where required mitigation will be recommended for both development scenarios (demolition, construction and operation).

3.8.2 The mitigation measures/ enhancement measures reported within the ES chapters will be identified and may be secured through planning conditions.

3.9 EIA CONSULTATION

3.9.1 Under the terms of Regulation 13(4) we ask the local planning authority to consult with at least the consultation bodies identified in Regulation 2(1) of the EIA Regulations, including Natural England and the Environment Agency before issuing their Scoping Opinion to enable the above organisation to provide their input into the formal Scoping process.

3.9.2 Consultation with both statutory and non-statutory consultees will be undertaken in future stages of the EIA. Initially, this EIA Scoping Request will provide the basis for consultation on the nature of the Proposed Development, its potential environmental effects, and the scope and methodology proposed for the EIA. To this end, LBL is expected to, on receipt of this EIA Scoping Request:

3.9.3 *'Notify the consultation bodies in writing of the name and address of the person who intends to submit an Environment Statement and of the duty imposed on the consultation bodies by paragraph (4) to make information available to that person; and inform in writing the person who intend to submit an Environmental Statement of the names and addresses of the bodies to be notified.'*

3.9.4 At this stage, it is envisaged that, as a minimum, the following consultation bodies will be notified:

- LBL / GLA Officers:
  - Archaeology Officer;
  - Conservation & Design Team;
  - Biodiversity Officer;
  - Environmental Protection Team [Noise / Air Quality / Land Contamination];
  - Planning Policy;
  - Transport Planning Team; and
  - Waste Management.
- Environment Agency;
- Historic England;
- Greater London Archaeological Advisory Service (GLAAS);
- Natural England;
- Thames Water; and
- Network Rail.

4 SOCIO-ECONOMICS

4.1 EXISTING CONDITIONS

4.1.1 The National Office of Statistics (ONS) indicates that LBL has an estimated resident population of 324,400 as of 2015. The proportion of the total population aged 16 – 64 in LBL is 74.6%, which is above the average across London (68.1%) and Great Britain (63.3%).

4.1.2 The proportion of individuals classified as 'economically active' is 84.8% in LBL, compared with 77.9% across London and 77.8% across Great Britain (April 2015 – March 2016). However, the job density (i.e. the ratio of jobs to individuals aged 16-64) in LBL (0.76) is lower than the averages across London (0.96) and Great Britain (0.82). The employee jobs profile (2015) indicates that the majority of the workforce is employed in the Services Industry (Sectors G – S), which accounts for 95.2% of all jobs. The sub-sectors which account for the largest proportion of jobs within the Services sector are N - Administration and Support Service Activities (16.4%) and Human Health and Social Work Activities (21.7%). Employment within construction (Sector F) in LBL is 1.6%.

4.1.3 In terms of qualification attainment, 65.0% of the resident population aged 16-64 has achieved NVQ Level 4 or equivalent, which is higher than the average across London (49.8%) and Great Britain (37.1%) (2015). An initial search has identified 36 primary schools and nine secondary schools within 2km of the Site.

4.1.4 The health status of the resident population reported by the 2011 Census indicates that 85% class themselves to be in 'Very Good Health' or 'Good Health'. This is higher than the regional and national averages. Conversely, 4.7% of the resident population consider themselves to be in 'Bad Health' or 'Very Bad Health', less than the both the regional and national averages. An initial search has identified 25 GP surgeries, 22 dentists, 53 pharmacists and one hospital within 2km of the Site.

4.1.5 There are 46 leisure facilities situated within 2km of the Site boundary which are spread out across LBL and surrounding Boroughs. Whilst there are open spaces present across LBL, accessibility to small spaces is greatest in the north of the Borough, where access to the larger District and Metropolitan spaces is greater in the south/central areas of Lambeth. There is an under provision of sports/ground playing fields and games courts in the north Lambeth. Generally the quality of open spaces is moderate/good with a number of isolated pockets of poor quality space.

4.2 SCOPE OF ASSESSMENT

Likely Significant Effects

Construction Phase

- Generation of direct employment opportunities during construction;
- Generation of indirect and induced employment opportunities during construction; and
- Increase in spending in the local area during construction.

Operational Phase

- Generation of direct employment opportunities during operation;

- Generation of indirect and induced employment opportunities during operation;
- Change in local service demand (healthcare, education and leisure facilities) during operation;
- Change in demand for open / recreational space during operation; and
- Provision of new housing, including affordable housing, during operation.

4.3 ASSESSMENT METHODOLOGY

4.3.1 A desk study will be undertaken, which will include a review of available baseline information to determine the baseline conditions in the study area. This will focus on demographic, economic and employment data and location / capacity of community facilities (including education, healthcare and leisure / open space). Data sources utilised will include the ONS NOMIS report, ONS Business Register and Employment Survey and relevant reports produced by the GLA and LBL. Consultation will be undertaken with the relevant technical officers at LBL to agree the scope and approach for the assessment.

4.3.2 The assessment will be qualitative in nature, although it will draw upon calculations to inform employment and community effects. The overall significance of an effect will be determined qualitatively by measuring the magnitude of change effect against: the number of receptors affected, which will consider the scale of an effect (i.e. whether it is local or regional); the reversibility and duration of the effect; the type and sensitivity of the receptor affected; and the type of effect.

4.3.3 The assessment of likely significant effects relating to employment opportunities during construction and operational stages will be undertaken using Excel based analysis. All of the data sources used will be publicly available. The effects associated with the construction phase will be quantified based on information on the estimated construction value of the project. The assessment of employment associated with the operational phase will be informed by relevant Homes and Community Agency guidance (e.g. Additionality Guidance (4th edition) and Employment Density Guidelines (3rd edition). These figures will be evaluated against the total number of employees in the relevant Industry Sectors to determine the magnitude of change. In order to assess construction spend, it is assumed that 60% of construction workers spend £10.30 a day for 220 days a year. This will allow a calculation of the anticipated spend per year based on the anticipated construction employees. These figures will then be evaluated against the anticipated construction spend associated with total number of employees in Sector F (Construction) to determine the magnitude of change. The study area for employment opportunities and construction spend will use two study areas to inform the assessment of effects: 'local study area' of LBL and the 'regional study area' will be set as Greater London.

4.3.4 The population yield and child yield of the Proposed Development will be quantified to inform the assessment of changes in local service demand. In terms of education, the effects associated with the operational phase will be quantified based on the estimated child yield of the Proposed Development and the availability of school places in the surrounding area. Child yield will be calculated utilising the ratios provided in the GLA's Shaping Neighbourhoods: Play and Informal Recreation SPG (2012). In terms of health, the effects associated with the operational phase will be quantified based on the estimated population yield of the Proposed Development and the availability of GPs in the surrounding area. Expected population will be calculated using the GLA Population Yield Calculator (2014). The whole time equivalent (WTE) GP numbers plus existing patient list sizes will be requested from LBL for the primary care service area.

4.3.5 Impacts on leisure facilities and open / recreational space will be considered based on the estimated population yield evaluated against relevant GLA / LBL standards, taking into account LBL's Open Space Strategy (2013) and other relevant reports. The assessment will use a study area of 2km around the Site boundary to identify the existing education, healthcare, leisure and

open / recreational space resources. As such, it will include parts of the adjoining Boroughs of Westminster, Southwark, Wandsworth and Kensington and Chelsea.

4.3.6 Increase in housing stock will be evaluated by using the quantum of proposed residential units compared with the housing targets and Objectively Assessed Need identified for LBL. The study area will be LBL.

4.4 MITIGATION

4.4.1 Mitigation measures integral to the development proposals (i.e. inherent mitigation) would be reported within the potential effects section, whilst any additional mitigation measures will be recommended, where necessary, to reduce the magnitude of the impacts.

5 TRANSPORTATION AND ACCESS

5.1.1 A Transport Assessment (TA) will accompany the planning application that will assess the impact of the Proposed Development on the surrounding traffic (highway) and transport (public transport) networks to accord with the policy requirements of both the London Plan and Local Plan. The TA has been the subject of a separate Scoping Study that will be submitted to both TfL and LBL which outlines the main details of the Proposed Development for TfL and the transport aspects that will need to be examined as part of the TA. In addition, discussions have been held with LBL Officers, in order to ensure that they agree with the assessment methodology and, where appropriate, assumptions incorporated to the study of the traffic and transport effects of the development of the Site.

5.2 EXISTING CONDITIONS

- Based on TfL information the public transport accessibility level (PTAL) of the site is 6a. This represents an ‘’excellent’ level of accessibility. The site’s excellent accessibility is based on its proximity to regular bus services on Albert Embankment, and National Rail and London Underground services at Vauxhall Station. The Site is located within the Transport for London Congestion Charge Zone, and within Kennington “K” Controlled Parking Zone (CPZ).
- Bus services operate along Albert Embankment with stops close to the Site. South-West Trains operate National Rail services from Vauxhall Station, serving Waterloo Station and suburban destinations. London Underground (LUL) services are provided at Vauxhall station, the Victoria Line providing services between Brixton and Walthamstow via central London.
- An established network of footways and pedestrian connections serve the Site. Pedestrian access is provided from Albert Embankment and Lambeth High Street. Controlled pedestrian crossings are provided at the Albert Embankment / Black Prince Road junction adjacent to the Site.
- On-street cycle routes are present on Albert Embankment, and London Cycle Network, National Cycle Network, and Cycle Superhighway 5 pass close to the Site. A Santander docking station is located on Albert Embankment close to the Site. River services operate from St George’s Wharf Pier.
- The A3036 Albert Embankment runs north/south past the Site and is part of the Transport for London Road Network (TLRN). Albert Embankment in the vicinity of the Site comprises two through lanes for general traffic and a bus lane in each direction. Lambeth High Street runs north-south through the site. Black Prince Road forms the southern boundary of the main Site, and Whitgift Street forms the northern boundary of the main Site.
- Taxi ranks are situated at the Park Plaza Riverbank hotel on Albert Embankment, and the Novotel hotel on Lambeth Road.
- Car clubs operated by Zipcar are located on Black Prince Road close to the Site, and on Juxon Street some 300m north-east of the Site.

5.3 SCOPE OF ASSESSMENT

5.3.1 The Transport Chapter of the ES will draw upon the findings of the TA and will consider the following key transportation issues:

- Accessibility of the Site;

- Policy compliance;
- Servicing and refuse collection provisions;
- The number of trips generated by the development during the peak hours and their directional distribution onto the surrounding traffic and transport networks, compared to the existing permitted development on the Site;
- Effect of the development on the local pedestrian and cycle infrastructure and local public transport services;
- Effect of the development on the surrounding highway network;
- Identification of the net effects of the development, compared to the existing development on the Site;
- The effects of construction traffic on the local highway network;
- Mitigation measures and proposals for encouraging sustainable travel, including the preparation of a Travel Plan, a servicing and delivery plan, and a construction traffic management plan; and
- The scope of work for the Transport Chapter will be driven by the delivery of the key issues outlined above and in consultation with both LBL and TfL as appropriate.

5.3.2 The output for the Transport ES Chapter of the EIA will identify the development effects, the severity of the effects and any necessary mitigation; as well as describing the transportation benefits that the Proposed Development will deliver.

5.4 ASSESSMENT METHODOLOGY

5.4.1 The methodology for the transportation work will be based on the appropriate sections of the *Transport* Assessment *Best Practice Guidance* (TfL)) and *Guidelines for the Environmental Assessment of Road Traffic* (Institute of Environmental Management and Assessment (IEMA), 1993).

5.4.2 A full review of the baseline conditions observed on the surrounding public highway and public transport networks will be set out within the Transport and Access ES Chapter. The baseline studies will include a review of the existing levels of accessibility of the Site and will also consider relevant consented and committed developments within the surrounding area.

5.4.3 The Transport Chapter will provide a robust assessment of the trip generation of the Proposed Development based on surveys of representative developments included within the TRICS databases or, potentially, based on comparable survey data of completed and occupied developments; and demonstrate how the Proposed Development complies with relevant policies within the London Plan particularly in terms of car / cycle parking and provisions for servicing and refuse collection.

5.4.4 The effect of the development on each mode of transport will also be assessed in detail with mitigation measures being proposed, where appropriate. The impacts of trip generation movements on the road network will be shown as a percentage increase in trips over the baseline, and the impact on junction capacity illustrated if deemed if appropriate. Due consideration will also be given to the net impact of the development, compared to the existing development on the Site.

5.4.5 Consideration of the effect of construction traffic will also be included within the TA and measures to militate against the potential adverse impacts arising from the construction process will be identified. Likely construction traffic routes will be established to enable receptors to be appropriately assessed. The construction traffic assessment will consider vehicles bringing material / equipment to / from the Site, as well as all modes construction staff will use to travel to / from the Site and the effects that this will have on the network capacity. A framework Construction Traffic Management Plan will be appended to the TA.

5.4.6 In addition, a framework Travel Plan will be appended to the TA for both the residential and commercial land uses within the Site. The Travel Plans will be produced in accordance with current DfT and TfL guidance and will include proposed measures to encourage and promote sustainable methods of transport.

5.5 MITIGATION

5.5.1 Mitigation measures integral to the development proposals (i.e. inherent mitigation) would be reported within the potential effects section, whilst any additional mitigation measures will be recommended, where necessary, to reduce the magnitude of the transport impacts and the potential exposure of future site users/visitors of the Proposed Development to transport related impacts. Residual effects will be assessed and reported taking account of these mitigation measures.

6 LOCAL AIR QUALITY

6.1 EXISTING CONDITIONS

6.1.1 In 2007 LBL declared the whole borough Air Quality Management Area (AQMA) due to widespread exceedances of Air Quality Strategy (AQS) objectives (to protect public health) for nitrogen dioxide (NO_2) and PM_{10} concentrations. For the EIA, relevant publically available information concerning Local Air Quality Management activities (LBL), emission sources (London Atmospheric Emissions Inventory (LAEI)), ambient air quality monitoring (London Air Quality Network (LAQN)) and dispersion modelling will be collated and reviewed to determine current and likely future baseline local air quality conditions. Existing sensitive locations with relevant exposure to ambient pollutant concentrations in the surrounding area will also be identified.

6.1.2 This baseline information will be used to inform the evolving design of the Proposed Development and the assessment of potentially significant effects.

6.2 SCOPE OF ASSESSMENT

6.2.1 The potential effects of the development on the local air quality include:

- Dust and particulate matter (PM_{10} and $PM_{2.5}$) generation during the construction phase;
- Emissions of nitrogen oxides (NO_x), PM_{10} and $PM_{2.5}$ from construction vehicles using the local road network;
- Emissions of NO_x, PM_{10} and $PM_{2.5}$ from traffic using the local road network during the operation of the Proposed Development; and
- Emissions of NO_x from any proposed on-site energy generating / heating plant during the operation of the Proposed Development.

6.2.2 The potential for future occupants to be exposed to poor air quality, given the location within an Air Quality Management Area (AQMA), will also require consideration, as will the 'air quality neutrality' of the proposals, in-line with current GLA policy.

6.3 ASSESSMENT METHODOLOGY

6.3.1 The assessment of likely construction phase (including demolition) impacts will be undertaken as a desk study following the Institute of Air Quality Management (IAQM) 'Guidance on the Assessment of Dust from Demolition and Construction' (February 2014), and with regard to the GLA's requirements as given in 'Sustainable Design and Construction Supplementary Planning Guidance' (2014) and associated published documents. The assessment will provide an evaluation of the relative risks with regard to the scale and nature of the activities expected to take place and sensitivities in the receiving environment. The assessment will inform an appropriate level of mitigation to minimise the risk of a significant effect.

6.3.2 The assessment of likely operational phase impacts will be undertaken as a desk study following Environmental Protection UK (EPUK) and IAQM guidance 'Land-Use Planning & Development Control: Planning for Air Quality' (May 2015). The assessment will examine all potential affected sources of local air pollutants and consider their potential to contribute to a significant effect.

6.3.3 Where quantification of impacts is appropriate, ADMS-Roads dispersion modelling software would be used to estimate pollutant concentrations contributed by road traffic sources, and ADMS 5.1 dispersion modelling software would be used to estimate pollutant concentrations contributed by energy centre (point) sources with account of building effects on dispersion. Where necessary, consideration will be given to any proposed car park vent located within 20m of a relevant receptor.

6.3.4 In accordance with the GLA's requirements given in 'Sustainable Design and Construction Supplementary Planning Guidance' (2014), an assessment of air quality neutrality will be undertaken with regard to building and transport emissions.

6.3.5 The assessment will assess the local air quality impacts at both existing and future receptor locations.

Legislative Context

6.3.6 Relevant legislation, policy and guidance for the Local Air Quality assessment are listed below:

- Air Quality Directive 2008/50/EC;
- The Air Quality (England) Regulations 2000 - Statutory Instrument 2000 No.928;
- The Air Quality (England) (Amendment) Regulations 2002 - Statutory Instrument 2002 No.3043;
- The Air Quality Standards Regulations 2010 - Statutory Instrument 2010 No. 1001;
- The Environmental Protection Act 1990;
- The Environment Act 1995;
- National Planning Policy Framework (2012);
- Air Quality Strategy for England, Scotland, Wales and Northern Ireland;
- The London Plan (2015);
- The Mayor's Air Quality Strategy for London;
- London Borough of Lambeth Air Quality Action Plan, 2017 – 2022 (Draft for Consultation);
- IAQM, 'Guidance on the Assessment of Dust from Demolition and Construction' (February 2014);
- GLA, 'Sustainable Design and Construction Supplementary Planning Guidance' (2014); and
- EPUK & IAQM, 'Land-Use Planning & Development Control: Planning for Air Quality' (May 2015).

6.4 MITIGATION

6.4.1 The need for mitigation will depend on the findings of the air quality assessment. Mitigation measures will be recommended if required to address any potential negative significant effects due to emissions to air that may be identified in the EIA process.

7 NOISE AND VIBRATION

7.1 EXISTING CONDITIONS

7.1.1 The main sources of existing sound are the road traffic on Albert Embankment and rail traffic on the various lines on the viaduct. The latter may also be a source of groundborne vibration.

7.1.2 In addition to these, main sources, there is the road traffic on other local roads and the wider road network, building services plant noise from surrounding buildings and the Lambeth Fire Station on the site itself. As to be expected, for the majority of the time, there is little sound associated with the operation of the Fire Station, but where it is responsible for the use of sirens on a regular basis, together with some, localised sound during the twice-daily equipment tests at shift-handover, and also from the occasional drills within the yard.

7.1.3 Baseline sound monitoring has been carried out in a number of locations during September 2016. Vibration monitoring was also undertaken in proximity to the railway viaduct. A plan of the locations is provided as **Figure 5**, whilst they are described below.

UNATTENDED SOUND MONITORING

- S1a: On the western/ front façade of the Fire Brigade Headquarters, via a window on the 6th floor. This location was selected in order to capture sound from, in particular, the road traffic on Albert Embankment.
- S1b: As above, but on the 3rd floor. This location was selected in order to check the variation, if any, between sound levels at different heights in relation to the road traffic on Albert Embankment and beyond.
- S2: On the 3rd floor balcony on the eastern/ rear façade of the Fire Brigade Headquarters. This location was selected in order to capture sound from any activities within the yard below, whilst also providing data for the future façades screened from Albert Embankment.
- S3: On the western/ front façade of the “works” building, via a window on the 3rd floor. This location was selected in order to capture sound from any road traffic on Lambeth High Street, and since it will be relevant in terms of the ambient and background conditions of both existing, neighbouring receptors and proposed receptors.
- S4: On the northern/ side façade of the “works” building, via a window on the 1st floor. This location was selected in order to capture sound from any road traffic on Whitgift Street, and will be relevant in terms of the ambient and background conditions of both existing, neighbouring receptors and proposed receptors.
- S5: On the eastern façade of Southbank House, via a window on the 4th floor. This location, which is in the absence of a similar location on site, was selected in order to capture worst case sound from the railway movements in terms of the effect on the Proposed Development.
- S6: On the western boundary of the “Rear” section of the Site. This location was selected in order to capture sound from, in particular, the road traffic on Black Prince Road, and will be relevant in terms of the ambient and background conditions of both existing, neighbouring

receptors and proposed receptors.

ATTENDED SOUND MONITORING

- Sa: Within the Fire Station yard. This location (which actually included various positions within the yard and appliance bay) was selected in order to capture source data for any “noisy” activities relevant to the future operation of the Fire Station.

- Sb: Outside 2 Whitgift Street. This location was selected in order to capture ambient and background sound data at the nearest dwellings screened from the train movements (and nearest to the “Middle” section of the Proposed Development).

- Sc: Outside 21 to 67 Newport Street. This location was selected in order to capture ambient and background sound data at the nearest dwellings to the “Rear” section of the Proposed Development.

- Sd: Outside the northern façade of 9 Albert Embankment. This location was selected in order to capture ambient and background sound data at the nearest dwellings to the “Front” section of the Proposed Development.

7.1.4 It should be noted that the intention was to cover, through a combination of the attended and unattended measurements, the worst case locations in terms of the effect of existing sources of sound ‘upon’ the Proposed Development and the effect of sound ‘from’ the Proposed Development on existing receptors. In terms of the former, the measured data will be used to produce a 3-D noise model of the Site and surrounding area for the prediction of sound levels around the Proposed Development as a whole.

UNATTENDED VIBRATION MONITORING

- V1: On the area of hardstanding between the “works” building and the railway viaduct, approximately 10 m from the viaduct. This location was selected in order to capture vibration data, where present, from the passage of trains on the viaduct in the vicinity of the nearest element of the Proposed Development.

ATTENDED VIBRATION MONITORING

- Va: As per V1 above.

- Vb: As per V1, but 15 m from the viaduct. This location was selected in order to help confirm the attenuation of any measureable vibration from the viaduct with distance.

- Vc: As per V1, but 5 m from the viaduct. This location was selected in order to further help confirm the attenuation of any measureable vibration from the viaduct with distance.

- Vd: As per V1, but at a different point on the area of hardstanding (10 m from the viaduct). This location was selected in order to check if vibration levels varied across the area of hardstanding.

SOUND MONITORING RESULTS

7.1.5 The unattended monitoring data have been processed and a summary is presented in the following table. Full details will be provided within the ES, together with the attended data, which has yet to be processed. A correction of -3 dB has been applied where the measurements were undertaken in "façade" conditions to determine the equivalent "free-field" values for use in the assessment. In terms of the measurements over multiple days (which is the case for all positions with the exception of S1b), the highest recorded level is presented, with the exception of the LAF90 data, where the lowest is presented. The data will be further analysed for the purpose of the EIA to ensure the most appropriate data are used.

Position	$L_{AF10,18h}$ (dB)	$L_{Aeq,16h}$ (dB)	$L_{Aeq,8h}$ (dB)	15th Highest Event $L_{AFmax,T}$ (dB)	Lowest Modal $L_{AF90,15m}$ (dB)		
					Day (07-19)	Eve. (19-23)	Night (23-07)
S1a (6th Floor, overlooking Albert Embankment)	67	67	64	84	55	55	50
S1b (3rd Floor, overlooking Albert Embankment)	69	69	64	84	60	57	50
S2 (3rd Floor, overlooking Fire Station yard)	-*						
S3 (3rd Floor, overlooking Lambeth High Street)	60	60	51	72	49	45	40
S4 (1st Floor, overlooking Whitgift Street)	56	54	49	71	41	39	39
S5 (4th Floor, overlooking the railway viaduct)	71	67	60	80	45	42	40
S6 (Grd Floor, overlooking Black Prince Road)	69	67	61	80	51	47	39

* The equipment failed at this location, and whilst this isn't one of the more critical locations, the measurements will be repeated in due course.

7.1.6 It can be seen that the daytime $L_{Aeq,16h}$ and night-time $L_{Aeq,8h}$ values range from 54 to 69 dB and 49 to 64 dB, respectively, with, generally, the highest levels measured overlooking Albert Embankment, and the lowest along Whitgift Street. However, the daytime levels at S5 (overlooking the viaduct) and S6 (overlooking Black Prince Road and close to the viaduct) are actually the same as that measured at S1a (on the 6th floor, overlooking Albert Embankment); although, the night-time ($L_{Aeq,8h}$ and L_{AFmax}) levels are lower.

7.1.7 The fact that the $L_{Aeq,16h}$ and $L_{AF10,18h}$ levels are the same for S1a and S1b – where "normally" the latter would be higher by at least a 2-3 dB – would suggest the influence of particularly "noisy" events, presumably sirens, associated with both the operation of the Fire Station and other passing emergency vehicles. Likewise, the fact that the daytime and night-time $L_{Aeq,T}$ levels at S1a and S1b are relatively close, indicates that Albert Embankment remains relatively busy at night and/or with there being some influence from "noisy" events. This is reflected in the L_{AFmax} noise levels being 4 dB higher than those shown for S5 and S6, even though the microphone at S6 was significantly closer to the passing traffic on Black Prince Road than those at S1a, S1b and S2 were to the traffic on Albert Embankment.

7.1.8 All of which will be taken into account in the construction of the 3D noise model and the

determination of the glazing and ventilation requirements for the habitable rooms associated with the Proposed Development.

VIBRATION MONITORING RESULTS

7.1.9 The vibration data have yet to be processed. However, impressions on site were that vibration wasn't perceptible and unlikely to be a significant factor.

EXISTING SENSITIVE RECEPTORS

7.1.10 As part of the baseline monitoring exercise, the surrounding noise- and vibration-sensitive receptors have been identified. The receptors are shown in **Figure 6** and listed below:

Residential:

1. 44A Lambeth High Street (3 flats) – 4-storey
2. 15, 16 & 17 Lambeth High Street (incl. 16 flats) – 2-storey
3. Whitgift House, Whitgift Street (24/25 flats) – 5-storey
4. 2 Whitgift Street (17 flats) – 7-storey
5. 17 Newport Street (5 flats) – 5-storey
6. 21-67 Newport Street (25 flats) – 3-storey)
7. 69-85 Newport Street (9 flats) – 2-storey)
8. Arden House, Black Prince Road (35 flats) – 4-storey
9. 73-79 Black Prince Road (11 flats) – 4-storey
10. 81 Black Prince Road (104 flats) – up to 17-storey
11. 9 Albert Embankment (196 flats) – up to c12-storey

Non-residential:

A. 4 Albert Embankment (International Maritime Organisation – offices) – up to 9-storey

B. The Windmill PH, 44 Lambeth High Street

C. Beaconsfield Gallery, Newport Street – 2-3-storey

D. Railway Arches 130-133, Newport Street (commercial)

E. Arden House, Black Prince Road (retail - grd. fl.)

F. The Queens Head Café Bistro, 71 Black Prince Road (restaurant, offices – grd./1st/2nd floor)

G. Southbank House, Black Prince Road (offices) – 5-storey (Note: tall floors)

H. 9 Albert Embankment (offices, retail, college – grd./ 1st floor)

7.2 SCOPE OF ASSESSMENT

7.2.1 The site preparation and construction phases of the Proposed Development have the potential to generate potentially significant levels of noise and vibration (particularly during activities such as demolition and piling) resulting in disturbance to neighbouring receptors.

7.2.2 In terms of the operation of the Proposed Development, it will include inherent mitigation measures as appropriate, which may include, but will not necessarily be limited to, increasing the separation distance between existing and future sound sources and sensitive receptors; the layout to protect amenity space; the layout and location of habitable rooms; and the use of appropriately specified glazing and ventilation units within habitable rooms.

7.2.3 For the most part, sound from the operation of the Proposed Development will be limited to building services plant and road traffic movements, but neither of which being unusual for the area. However, a key aspect of the Proposed Development with respect to noise is, of course, the retention of the existing Fire Station. The potential for this to significantly affect existing receptors is thought to be limited due to its historical use; however, this is clearly a significant factor in terms of the design of the sensitive elements of the Proposed Development itself.

7.2.4 Accordingly, the following noise and vibration issues will be considered and assessed:

- Temporary noise and vibration during on site preparation and construction works;
- Post-completion noise associated with the operation of the Proposed Development with respect to the Fire Station, building services plant and off-site road traffic; and
- Suitability of the Site for the intended residential uses with respect to existing and future sources of noise, and vibration from the railway viaduct.

7.3 ASSESSMENT METHODOLOGY

LEGISLATIVE CONTEXT

7.3.1 Relevant legislation, policy and guidance relative to the noise and vibration assessment are listed below:

- Control of Pollution Act 1974, Part III;
- Environmental Protection Act (1990);
- National Planning Policy Framework (NPPF) (2012);
- Planning Practice Guidance on Noise (PPGN) (2014);
- Noise Policy Statement for England (NPSE) (2010);
- The London Plan: Spatial Development Strategy for Greater London (2011);
- London Ambient Noise Strategy (2004);
- Lambeth Local Plan (2015);
- Vauxhall Supplementary Planning Document (SPD) (2013);

- Ambient noise – community neighbour policy, London Fire Brigade (2014)
- BS 5228 'Code of practice for noise and vibration control on construction and open sites – Part 1: Noise & Part 2: Vibration' (2014);
- 'Calculation of Road Traffic Noise', Department of Transport and Welsh Office (1988);
- Design Manual for Roads and Bridges (DMRB), Volume 11, Section 3, Part 7, HD 213/11 revision 1. 'Noise and Vibration', The Highways Agency, Scottish Government, Welsh Assembly Government and the Department for Regional Development Northern Ireland (2011);
- BS 4142 'Methods for rating and assessing industrial and commercial sound' (2014)
- BS 8233 'Guidance on sound insulation and noise reduction for buildings' (2014);
- 'Guidelines for Community Noise', World Health Organisation (WHO) (2000);
- BS 6472-1 'Guide to evaluation of human exposure to vibration in buildings. Vibration sources other than blasting' (2008); and
- ANC Guidelines 'Measurement and Assessment of Ground-borne Noise and Vibration', Association of Noise Consultants (2001)

CONSTRUCTION AND OPERATIONAL NOISE AND VIBRATION ASSESSMENT

7.3.2 Subject to the level and type of response to this Scoping Report, consultation will be undertaken with the Environmental Health Department at Lambeth Council to identify any particular areas of concern the Council may have. Relevant policies and guidelines will be agreed, with due consideration given to the NPPF, the PPGN and the NPSE.

7.3.3 To facilitate the assessment(s), discussions will be held with the project team to gain an appreciation of the over-arching proposals and to determine the likely clearance/demolition and construction methodologies and phasing programme.

7.3.4 The assessment of noise and vibration effects arising during the demolition and construction phases of the Proposed Development will be undertaken in accordance with the methodologies outlined in BS 5228:2014 Parts 1 and 2. Existing ambient noise levels for the identified receptors will be determined based on the recent survey data, which will be used to inform the assessment criteria.

7.3.5 The change in road traffic sound from the surrounding roads as a result of the operation of the Proposed Development will be predicted using the methodology contained in the Calculation of Road Traffic Noise (CRTN). The significance of predicted changes will be determined using the magnitude of impact scales contained in HD 213/11 of the DMRB.

7.3.6 In terms of the operation of any fixed/ building services plant associated with the Proposed Development, noise emission limits will be determined in accordance with the guidance in BS 4142:2014 and any other relevant criteria adopted by Lambeth Council. As a minimum, the aim will be that rating levels (i.e. the cumulative sound from the plant including any appropriate correction for acoustic/ noticeable characteristics) do not exceed representative background sound levels outside the nearest existing dwellings.

7.3.7 The background sound levels will be determined using the results of the baseline survey; in particular, the lowest of the most regularly occurring $L_{AF90,15m}$ levels for the daytime, evening and

night-time periods.

7.3.8 The assessment of the suitability of the Site will draw upon the results from the noise and vibration surveys and will consider the constraints placed upon the habitable rooms of the residential elements of the Proposed Development by road and above ground railway sources, as well as the operation of the Fire Station. The aim will to avoid basing the assessment on the highest measured, absolute worst case conditions, but to determine what could be considered to best account for the typical conditions.

7.3.9 The assessment will be guided by the NPPF, PPGN and NPSE, but primarily by BS 8233:2014, BS 6472-1:2008, the London Fire Brigade's 'Ambient noise' policy, and any other relevant criteria adopted by Lambeth Council. Where necessary, in addition to the assessment of tactile vibration, consideration will be given to groundborne noise (i.e. re-radiated noise as a result of any vibration from the passage of trains entering into the Proposed Development being radiated as sound). The assessment and criteria will primarily be formed by the guidance in the ANC Guidelines 'Measurement and Assessment of Ground-borne Noise and Vibration'.

7.4 MITIGATION

7.4.1 The need for, and extent of, mitigation measures will depend on the findings of the noise and vibration assessment. Consequently, measures to prevent, reduce and offset any adverse effects will be determined through the EIA process.

7.4.2 It should be noted that any mitigation measures presented in the noise and vibration ES chapter will be outline in nature, with final specifications subject to detailed design, where necessary.

8 ARCHAEOLOGY

8.1 EXISTING CONDITIONS

8.1.1 The Western and Central Sites lie within the Albert Embankment Conservation Area, and the eastern parcel falls within the Vauxhall Gardens Conservation Area. The Western Site also contains two Grade II listed buildings, the Fire Station headquarters and the Drill Tower. The Site lies within an Archaeological Priority Zone as defined by LBL.

8.1.2 No archaeological investigations have taken within the Site. The archaeological potential in the Western and Central Sites is for the remains 19th Pottery manufactories as well as the potential for pottery waste dumps. There is also some potential at the eastern parcel for similar dumped deposits of post-medieval date. The Central Site has high potential for the remains of a late 18th century Starch/Mustard manufactory. In the Western and Central Sites there is potential for features related to the late medieval settlement of Lambeth Water. All three portions of the Site have low potential for earlier archaeological remains.

8.2 SCOPE OF ASSESSMENT

8.2.1 The following are considered to be the key historic environment issues which will be assessed as part of the EIA:

- Impact of construction works on known and unknown archaeological and cultural heritage resources;
- Cumulative impact of the potential loss of archaeological deposits on the archaeological baseline of the area and / or change in the immediate built environment which may impact upon cultural heritage built resources; and
- Impact in general on any statutorily designated sites (whether designated on archaeological and / or cultural heritage grounds) via construction and residual impacts.

8.3 ASSESSMENT METHODOLOGY

8.3.1 An archaeological desk based assessment will be carried out in accordance with the requirements of the National Planning Policy Framework (NPPF) (DCLG 2012, 2014) and to standards specified by the Chartered Institute for Archaeologists (CIfA Dec 2014a, 2014b), Historic England (EH 2008, 2015), and the Greater London Archaeological Advisory Service (GLAAS 2014). In accordance with the CIfA's standards, the aim of the desk based assessment will be to determine, as far as is reasonably possible from existing records, the nature of the archaeological resource within the Site.

8.3.2 In summary, the methodology for the archaeological impact assessment will comprise:

- A review of relevant policy considerations and legislative requirements;
- A detailed review of information held by the Greater London Historic Environment Records (GLHER), including known archaeological sites, built heritage features, and locations and results of previous archaeological investigations;
- Examination of relevant publications, articles, historic maps (including tithe maps) and plans;

- Examination of Historic England data relating to statutory designations including scheduled monuments and listed buildings, along with identified Heritage at Risk;
- Examination of available ground investigation reports and the engineering design to assess the impact on potential archaeology;
- Examination of MOLA's in-house Geographical Information System (GIS) with statutory designations GIS data, the locations of all key indicators of known prehistoric and Roman activity across Greater London, past investigation locations, projected Roman roads and burial grounds from the Holmes burial ground survey of 1896; georeferenced published historic maps; Defence of Britain survey data, in-house archaeological deposit survival archive; and archaeological publications;
- Examination of the proposed ground levels and the likelihood of survival of archaeological remains;
- A site walkover to assess the visible archaeological and built heritage resource and the archaeological potential of the Site; and
- An evaluation of likely impacts based upon the potential for archaeological resources to be present at the Site and on the potential for indirect impacts on built heritage resources present in the local area.

8.4 MITIGATION

8.4.1 Given the Site's potential for remains of 18th to 19th century pottery manufacture and other industry it is considered likely that archaeological work would be required. Although the precise details would need to be agreed with the local authority's archaeological advisor, it is suggested that the most appropriate investigation strategy is likely to entail archaeological evaluation trenches/pits. A preliminary investigation could also include the archaeological monitoring of geotechnical pits dug for engineering purposes. The results of the evaluation would allow an informed decision to be made in respect of an appropriate mitigation strategy for any significant archaeological assets.

8.4.2 The results of the evaluation would enable an informed decision in respect of an appropriate mitigation strategy for any significant archaeological assets. This might comprise targeted archaeological excavation in advance of construction, and/or a watching brief during ground works for remains of lesser significance. This would ensure that significant archaeological assets are not removed without record. Any archaeological work would need to be undertaken in accordance with an approved Written Scheme of Investigation (WSI) and could be carried out under the terms of a standard archaeological planning condition set out under the granting of planning consent.

9 WATER RESOURCES AND FLOOD RISK

9.1 EXISTING CONDITIONS

9.1.1 The nearest watercourse within, or adjacent to, the Site, is the River Thames which is located approximately 40m to the west.

9.1.2 The Site lies within Flood Zone 3, within the tidal floodplain of the River Thames, where the probability of tidal flooding is classified as 'high', assuming no flood defences. However, the area is defended to a high standard of protection by the Thames Barrier and associated Thames Tidal Flood Defences.

9.1.3 The Site is currently still occupied for firefighting services and therefore foul water drainage discharge is currently being generated from the Site. Surface water is also currently discharged from the Site which is largely impermeable.

9.1.4 As the Site is currently in use there is an existing water demand.

9.2 SCOPE OF ASSESSMENT

The key issues relating to water resources and flood risk as a result of the Proposed Development comprise the following:

- Impact of the development on flood risk elsewhere and of flood risk on the development itself;
- Changes in quality of surface water (public drainage network or nearby River Thames);
- Alteration to the drainage regime (from surface water run-off, sewers, and groundwater);
- Changes in demand on public drainage services and impact on their capacity; and
- Changes in demand for potable water through the change of use of the Site.

9.2.1 Please note that the groundwater quality issues are discussed as part of the Ground Conditions, Hydrogeology and Contamination assessment, although the findings will also inform this chapter.

9.2.1 Cumulative effects are only likely to arise from schemes on land in proximity to the Proposed Development. Due to the location within Flood Zone 3, the expected implementation of surface water drainage strategies including SuDS and compliance with relevant policy, legislation and best practice for new developments in London it is not expected that the scheme will have a negative cumulative effect however this will be reviewed as part of the study.

9.2.2 The assessment of water quality, drainage and flood risk will be undertaken in the context of and considering the following:

- Water Resources Act 1991;
- Environment Act 1995;
- Water Act 2003;
- The Water Act 2014;
- The Water Industry Act 1991;
- Land Drainage Act 1991;
- The Anti-Pollution Works Regulations 1999;
- Groundwater Directive;
- Water Framework Directive;
- Flood and Water Management Act (2010);
- National Planning Policy Framework (NPPF) (2012); and
- The London Plan and LBL policies.

9.3 ASSESSMENT METHODOLOGY

9.3.1 A Flood Risk Assessment (FRA) and outline surface water drainage strategy will be produced, in parallel, and will be in line with the National Planning Policy Framework (NPPF) recommendations as the Site lies in Flood Zone 3. Where feasible, Sustainable Drainage Systems (SuDS) will be incorporated into the proposed drainage solutions. The FRA and outline surface water drainage strategy will inform the development of suitable mitigation measures proposed within the ES.

9.3.2 A desk-based assessment will be carried out in order to establish potential sensitive receptors and impacts in terms of flood risk, water quantity and quality, drawing on information collected through the FRA, outline surface water drainage strategy and ground conditions assessment. The desk-based review of baseline information will comprise of the following:

- Determination of Site geology and hydrogeology;
- Review of existing sources of data relating to the water regime and flood risk;
- Review of the development proposals and reports from other technical studies being undertaken for the planning application (e.g. FRA);
- Recommendations as to mitigation measures to avoid, minimise and reduce effects on the water environment and flood risk: these are likely to include design measures to mitigate flood risk (e.g. raised flood water levels) the use of sustainable drainage techniques, water efficiency methods and consideration of best practice guidance; and
- Liaison with the project team.

9.3.3 This desk-based assessment will be carried out in parallel with the ground conditions assessment, as ground conditions and water quality/quantity issues are closely interrelated.

9.3.4 A qualitative assessment of construction and operational effects will be completed, taking into consideration the supporting technical studies. Where feasible, a quantitative assessment will be undertaken (based on other studies' results including FRA and capacity checks among others) to assess for example volume of surface water storage and discharge rates (which would be investigated as part of the Drainage Strategy).

9.3.5 As part of the desk study, consultation will be carried out with relevant organisations, such as the Environment Agency (EA), Thames Water (TW) and LBL if required to complete the information obtained through the various studies available.

9.3.6 The significance of effects on the water environment will be determined by combining the sensitivity of the identified receptors with the predicted magnitude of change.

9.3.7 The assessment of the effects of the Proposed Development on Water Resources and Flood Risk will involve consideration of the following:

CONSTRUCTION PHASE

- Effects on/of flooding with reference to:
  - Construction Workers
  - Residents and occupants of the surrounding area (staff and public) and any occupants of the
- Effects on public drainage network:
  - Water Quality
  - Water Quantity (capacity)
- Effect on water quality (to the River Thames)
- Effects on potable water demand/water supply

OPERATIONAL PHASE

- Effects on flooding with reference to:
  - Site Occupants (staff, residents and public)
  - Residents and occupants of the surrounding area (staff and public)
- Effects on public drainage network:
  - Water Quality
  - Water Quantity (capacity)
- Effect on water quality (to the River Thames)
- Effects on potable water demand/water supply

9.4 MITIGATION

9.4.1 Mitigation measures (e.g. surface water attenuation, SuDS, raised thresholds, etc.) will be discussed based on the findings of the FRA and outline surface water drainage strategy and other relevant documentation. Consideration will also be given to implementing water minimisation measures across the development to conserve water resources e.g. rainwater harvesting.

9.4.2 In addition, the nature of mitigation measures to prevent, reduce and offset any significant adverse effects will be determined through the EIA process. These are likely to include best practice measures to minimise pollution of surface water and groundwater on site.

10 GROUND CONDITIONS, HYDROGEOLOGY AND CONTAMINATION

10.1 EXISTING CONDITIONS

10.1.1 The published geology for the area, combined with a review of the available borehole logs in the vicinity of the Site, indicates that the Site is likely to be underlain by Made Ground, Kempton Park Gravels, London Clay, Lambeth Group Beds, Thanet Sands and Chalk.

10.1.2 The nearest surface water feature is the River Thames which is approximately 20m to the west of the Site.

10.2 SCOPE OF ASSESSMENT

10.2.1 The ES chapter on ground conditions and contamination will assess the Proposed Development in relation to potential effects on soil, geology and groundwater, as well as determining the potential effects of the ground / groundwater conditions on sensitive receptors, which may be exposed to such effects during the construction and operational phases. The assessment will be undertaken in accordance with current industry best practice including the provisions of *CLR11: Model Procedures for the Management of Land Contamination* (Environment Agency / Defra, 2004).

10.2.2 The assessment will include the impacts on the following receptors:

- Demolition and construction workers;
- Controlled waters (groundwater, surface waters);
- Future site users (including occupiers, visitors and maintenance works);
- Off-site receptors in the immediate vicinity (third parties including nearby residents and members of the public); and
- Underground services infrastructure.

10.3 ASSESSMENT METHODOLOGY

10.3.1 The baseline assessment (Phase 1) will include the completion of a desk study including a review of existing site information, and an assessment of the results of a baseline site investigation.

10.3.2 The desk study will include the following aspects:

- A site walkover survey of accessible areas, to document the current land use and site setting;
- A review of relevant previous reports pertaining to the Site (if any);
- A review of publicly available historical maps and site plans (where available) to identify former land uses and potential contaminative activities on and surrounding the Site;

- A review of relevant regulatory databases and informal enquiries with relevant regulatory authorities including: LBL planning website, the Contaminated Land Officer (CLO), Environment Agency;
- A review of relevant publicly available information relating to hydrological features, hydrogeology, neighbouring land use, ecologically sensitive uses and geology in order to establish the environmental setting and of the Site and the sensitivity of the location;
- Develop a preliminary conceptual site model via the source-pathway-receptor contaminant linkage approach; and
- Outline the environmental risks and / or opportunities, with respect to ground, groundwater and ground gas conditions, which may potentially arise as liabilities or constraints associated with the ongoing use of the Site for residential purposes.

10.3.3 Following the completion of the baseline assessment, the effect of the Proposed Development on ground and groundwater conditions during the construction and operation will be assessed.

10.4 MITIGATION

10.4.1 A targeted ground investigation will be undertaken to inform the Proposed Development, and will be undertaken at the start of the construction phase. The ground investigation will provide certainty regarding the presence or absence of contamination. The ground investigation will consider contamination within shallow soils and groundwater. Should contamination be encountered during the ground investigation, any required remediation and / or mitigation identified will be undertaken.

11 ENVIRONMENTAL WIND

11.1 EXISTING CONDITIONS

11.1.1 Wind environment is defined as the wind flow experienced by people and the subsequent influence it has on their activities. It is concerned primarily with wind characteristics at pedestrian level. Other potential wind effects include wind loads, structural response and natural ventilation, however, these are unrelated to the wind environment and do not fall within the scope of the wind environment study for the purposes of the ES.

11.2 SCOPE OF ASSESSMENT

11.2.1 The likely significant effect of the Proposed Development on the local microclimate within the Site and its surroundings will be assessed against best practice guidelines or pedestrian comfort and safety in the context of relevant local, regional and national planning policy and guidance. Pedestrian comfort and safety are two aspects associated with pedestrian use of public open spaces and it is important to ensure that the design follows national good practice design guidelines developed to minimise associated negative effects. The wind study will determine the expected wind environment around the Site and predict how the changes resulting from the development may affect pedestrian safety and comfort for the expected pedestrian activities in and around the Site.

11.3 ASSESSMENT METHODOLOGY

11.3.1 The focus of the wind study is to compare the wind environment within the Site and its immediate surroundings between the baseline scenario and the development scenario.

11.3.2 The method for the study will combine the use of Computational Fluid Dynamics (CFD) and a wind tunnel assessment to predict wind velocities and air flow patterns through the Site, wind data from the nearest suitable meteorological station and the recommended comfort and safety standards. The Lawson criteria for pedestrian safety and comfort will be used for the study and is a widely recognised and adopted in the industry both in the UK and internationally. The recommended guidance is based on the frequency of exceedance of wind speeds for all incoming wind directions; therefore, in addition to the wind modelling a statistical procedure to combine all occurrences on site will be carried out to determine the suitability of the receptors for the various pedestrian categories (sitting, standing strolling and business walk).

11.3.3 A full 3 dimensional model of the Site and surrounding areas will be constructed for the assessment. The extent of the model will comprise the Site and a surrounding context within a radius of approximately 360 metres.

11.3.4 The wind analysis will focus on the potential variation of the wind velocities arising as a result of the Proposed Development. The assessment of effects will be conducted based on a comparison of the modelling results of the ‘Baseline Scenario’ and the ‘Proposed Scenario’ and will include the following key steps:

- **Wind Climate Analysis:** This study focuses on the wind data and how this is affected by the terrain and surrounding context.
- **Assessment of Baseline Scenario**: Assessment of the existing site including surroundings with all relevant existing, consented and reasonable foreseen buildings but without the Proposed Development on the site.

- **Assessment of Proposed Scenario:** As above but with the final Proposed Development on the Site.

- **Statistical Frequency Analysis** A statistical procedure to combine all occurrences on site will be carried out to determine the suitability of use according to the various pedestrian categories (sitting, standing strolling and business walk).

11.3.5 It should be noted that effects on pedestrian comfort and safety are only considered externally to the building. No assessment will be made of the potential effects of the wind environment inside buildings as microclimate studies are only intended to address external conditions. However wind effects within proposed balconies will be included.

11.3.6 The model will be tested without landscaping in the first instance. Should the need to mitigate adverse effects arise, then trees and landscape features will be added together with additional mitigation measures where appropriate.

11.3.7 The results of the study will be reported in the ES chapter which will contain a discussion of the wind activity around the Proposed Development in terms of pedestrian comfort and safety.

11.4 MITIGATION

11.4.1 The wind studies are informing the scale and massing of the development to identify expected areas of wind acceleration which could exceed the recommended criteria. Local mitigation measures such as building canopies, entrance recesses, landscape structures, wind screens, tree planting, street furniture and other landscape features are expected to form inherent mitigation in the design. The final mitigation strategy will be tested to determine to ensure its ability to provide the required comfort conditions on and around the site.

13 DAYLIGHT, SUNLIGHT, OVERSHADOWING, SOLAR GLARE AND LIGHT POLLUTION

13.1 EXISTING CONDITIONS

13.1.1 The Site currently comprises an existing 8 storey Listed Building and other buildings associated with fire station uses. The buildings situated along Whitgift Street are lower than the surrounding buildings by circa 10 to 20m. As a result, the surrounding residential buildings enjoy a level of daylight and sunlight in excess of those found in a typical central London location.

13.2 SCOPE OF ASSESSMENT

13.2.1 The development is likely to have an effect on the level of daylight and sunlight to surrounding residential properties and open spaces. In these situations it is recommended to assess daylight, sunlight and overshadowing separately. In addition the assessment will include the level of daylight within the Proposed Development. Therefore the proposed scope comprises 3 main elements of work:

- Effects of the development on the available sunlight and daylight to the existing properties and open spaces adjacent to the Site; and
- Daylight to habitable rooms within the Proposed Development and
- Shadowing to new open spaces within the Site.

13.3 ASSESSMENT METHODOLOGY

13.3.1 This assessment considers the daylight, sunlight, overshadowing, solar glare and light pollution effects of the Proposed Development on any adjacent existing residential buildings and amenity areas surrounding the development site.

13.3.2 The assessment will be based on the following documents:

- Building Research Establishment 'Site Layout Planning for Daylight and Sunlight - A Guide to Good Practice 2nd Edition, 2011 (BRE Guidelines);
- British Standard 8206 Part 2: 2008 – Code of Practice for Daylighting (BS 8206); and
- ILP Guidance Notes for the Reduction of Obtrusive Light GN01:2011 (ILP Guidance).

13.3.3 The BRE Guidelines provide advice and target values on site layout planning to achieve good sunlight, daylight and overshadowing levels at buildings and at open spaces such as amenity areas. The LBL have not set such alternative target values. The BRE Guidelines are intended to be used in conjunction with the interior daylight recommendations in the British Standard (BS) 8206 Part 2: 2008. The BRE Guidelines state that the numerical target values are purely advisory, and that the target values given may be varied to meet the needs of the development and its location. The document also states in its own introduction on page 1 that:

"The guide is intended for building designers and their clients, consultants and planning officials. The advice given here is not mandatory and this document should not be seen as an instrument of planning policy".

13.3.4 The technical analyses carried out to inform the daylight, sunlight, overshadowing, light pollution and solar glare assessment have been undertaken by creating a digital 3D model of the existing Site and Proposed Development and the Site's existing surroundings, based on measured survey data.

13.3.5 The 3D model uses Waldram Diagrams to establish the VSC and 3D geometric calculations for NSL. This model, which is orientated to north by the use of Ordinance Survey (OS) information, also enables the path of the sun to be tracked throughout the year to establish the shadow cast by the existing and Proposed Development.

13.3.6 In relation to room layouts, assumptions have been made in regards to the likely use and internal configuration of the rooms behind the fenestration observed. In such cases a standard 4.2 metre (m) (14ft) room depth has been assumed, unless the building form dictated otherwise. This is common practice where access for surveying is unavailable.

13.3.7 Floor levels have been assumed for those adjoining properties where access has not been obtained. This dictates the level of the working plane which is the point at which rights of light assessments are carried out. It is also relevant for the No Sky Line assessments

13.3.8 The effects of the Proposed Development on the daylight, sunlight, overshadowing, in relation to the identified receptors around the Site, have been based on a comparison of the baseline conditions and the predicted conditions with the Proposed Development in place.

13.3.9 Only those surrounding properties which have windows facing towards the Site were included for assessment. If a nearby property has no windows facing the Site, these properties would not be affected by the Proposed Development in terms of light.

13.3.10 The methodologies used in the daylight, sunlight, overshadowing, light pollution and solar glare analyses are:

13.3.11 **Daylight:** The principles set out in section 2 of the BRE Guidelines (Light From The Sky) together with the concept of Average Daylight Factor (ADF) as set out in both Appendix C of the BRE Guidelines (Interior Daylighting Recommendations) and in BS 8206. Each neighbouring residential property will be assessed for the Vertical Sky Component (VSC), No Sky Line (NSL) and Average Daylight Factor (ADF);

13.3.12 **Sunlight:** The sun light protractor method and sunlight availability indicator for 51.50 N as set out in Appendix A of the BRE Guidelines. Each neighbouring residential property will be assessed for the Total and Winter Annual Probable Sunlight Hours (APSH) for sunlight;

13.3.13 **Sun on Ground:** The method for assessing sun on the ground is the 'sun-on-ground indicator'. The BRE Guidelines suggest that the Spring Equinox (March 21st) is a suitable date for the assessment. Using specialist software, the path of the sun is tracked to determine where the sun would reach the ground and where it would not. This assessment reviews the total percentage of an area that receives at least 2 hours of direct sunlight on March 21st;

13.3.14 **Transient Overshadowing:** The BRE Guidelines suggest that where large buildings are proposed which may affect a number of gardens or open spaces, it is useful to plot a shadow plan to illustrate the location of shadows at different times of the day and year. For the purpose of this assessment the overshadowing was mapped for the following three key dates in the year:

- 21st March (Spring Equinox);

- 21st June (Summer Solstice);
- 21st December (Winter Solstice).

13.3.15 September 21st (Autumn Equinox) provides the same overshadowing images as March 21st (Spring Equinox) as the sun follows the same path at these corresponding times of year.

13.3.16 For each of these dates, the overshadowing is calculated at hourly intervals throughout the day from 08:00 to 19:00. Some images are not included because the sun would not be present during these times (e.g. from approximately 16:00 onwards on 21st December) and thus no shadow can be cast. The indicators are calculated for different latitudes, London being at 51.5° north.

13.3.17 **Solar Glare:** Page 28 of the 2011 BRE Guidelines, makes the following statement in regards to the potential for reflected solar glare from a proposed development:

13.3.18 *"Glare or solar dazzle can occur when sunlight is reflected from a glazed façade. This can affect road users outside and the occupants of adjoining buildings. The problem can occur either when there are large areas of reflective glass or cladding on the façade, or when there are areas of glass or cladding which slope back so that high altitude sunlight can be reflected along the ground. Thus solar dazzle is only a long term problem only for some heavily glazed (or mirror clad) buildings…".*

13.3.19 Solar glare is particularly relevant at pedestrian and vehicular junctions, where glare can cause temporary blinding of drivers or pedestrians. Therefore the assessment considers potentially sensitive viewpoints surrounding the Site. The viewpoints are generally located at the minimum stopping distance and at the driver's eye height. The focal point is a relevant traffic element, such as signals or incoming traffic.

13.3.20 The potential for reflected solar glare or dazzle from the glazed or reflective façades of the development are assessed using specialist lighting software. The assessment shows the path of the sun for the entire year around the development. From this computer generated angular images are produced for each selected viewpoint, indicating the area which sees the reflection of the sun path at any point during the year. A modified diagram portraying a standardised extent of human vision is then overlaid onto the image.

13.3.21 **Internal daylight:** The BRE recognises the importance for receiving adequate daylight within the proposed residential accommodation. The use of the Average Daylight Factor (ADF) is used to determine the average illuminance on the working plane in a room, divided by the illuminance on an unobstructed surface outdoors. This analysis is undertaken in accordance with BS 8206 Part 2:2008.

13.3.22 Owing to the significant number of habitable rooms within the Proposed Development that would have very open aspects, it is recommended that a representative sample of room-types are tested on the lowest floor levels, where the potential for daylight would be at its lowest.

13.3.23 Sensitive receptors currently identified include:

- 44 Lambeth High Street (Windmill PH)
- 17 Lambeth High Street
- 16 Lambeth High Street
- 15 Lambeth High Street
- Whitgift House

- 2 Whitgift Street
- 17 Newport Street
- 21-67 Newport Street
- 69-71 Newport Street
- 53-69 Black Prince Road
- 71 Black Prince Road (PH)
- 73-79 Black Prince Road
- Parliament House, 81 Black Prince Road
- 5-7 Salamanca Place
- 8 Salamanca Place
- 9 Salamanca Place

13.3.24 The results of the daylight/sunlight and overshadowing assessments and of the light spillage and solar glare assessments will be incorporated into an ES Chapter with supporting technical appendices.

13.4 MITIGATION

13.4.1 If required mitigation measures will be recommended that will be adopted as part of the scheme design.

14 HERITAGE, TOWNSCAPE AND VISUAL IMPACT ASSESSMENT

14.1 EXISTING CONDITIONS

14.1.1 The Heritage, Townscape and Visual Impact Assessment Environmental Chapter (the 'HTVIA') identifies the likely significant direct and indirect effects of the Proposed Development on built heritage, townscape and visual receptors.

14.1.2 Effects are referred to as 'likely significant', meaning the assessment approach is proportional to the scale of the project that is being assessed and the nature of its likely effects. It is important to distinguish between the term 'impact', defined as the action taken, and the 'effect', defined as the change resulting from that action.

14.1.3 The HTVIA provides an assessment of the impact of the Proposed Development on the surrounding townscape. It will consider the Proposed Development within it urban context, including the buildings, the relationships between them, the different types of urban open spaces, including green spaces and the relationship between buildings and open spaces.

14.1.4 (Built) heritage effects will be assessed in terms of the Proposed Developments' interaction with the particular significance, including the contribution made by setting to this significance, of built heritage assets in the context of the relevant statutory duties of the Planning (Listed Buildings and Conservation Areas) Act 1990, the NPPF, Development Plan and relevant guidance.

14.1.5 The assessment will consider the impact upon visual receptors, informed by a detailed assessment of the impact upon local views. Viewpoint locations are to be informed by architectural and historic accounts of the area, an appraisal of the existing Site and surroundings, and relevant policy designations. The locations are to be agreed in advance with officers.

Heritage

14.1.6 The Site includes the Grade II listed Fire Brigade Building and Grade II listed Drill Tower. The Site is also located within the Albert Embankment Conservation Area. There are further designated heritage receptors within the wider setting of the site, including the Westminster World Heritage Site, Vauxhall Gardens and Millbank Conservation Areas, the Grade II listed Southbank House and other listed buildings (for example the Grade II listed Lambeth Bridge).

14.1.7 There are several locally listed buildings identified by the Council located within the wider setting of the site. Locally listed buildings are not statutorily designated although they, and their setting, are protected by policies within the development plan.

14.1.8 The assessment will consider the impact of the Proposed Development upon identified heritage assets and the setting of identified heritage assets and the consequent impact on their significance.

Townscape and Visual

14.1.9 The assessment would consider the proposed development within its urban context, including the buildings, the relationships between them, the different types of urban open spaces, including green spaces and the relationship between buildings and open spaces.

14.1.10 The existing townscape character of the Site and surrounding area is defined by the River Thames to the west, the railway to the east and Lambeth Road to the north. The essentially post war townscape is of varied quality and incorporates earlier elements such as isolated historic buildings and parts of the historic street pattern. The area to west of the railway, which includes the majority of the site, is characterised primarily by large commercial buildings facing the river interspersed with other uses including hotels and residential uses. The area to the east of the railway retains more of an industrial character, though some of these industrial uses are now redundant. The building stock generally dates from the 19th Century through to the post war era and varies considerably in townscape quality and is generally lower in height than the development on the western side of the railway viaduct.

14.1.11 The application site itself comprises three parts: the London Fire Brigade HQ building fronting onto Albert Embankment; the workshops fronting onto Lambeth High Street and Whitgift Street, and a vacant site to the east of the railway viaduct.

14.1.12 The application Site is located within protected vistas from Parliament Hill and Primrose Hill, which are identified by the London View Management Framework (LVMF) (2012). The Site is also located within locally designated views identified by Policy Q25 of the Lambeth Local Plan (2015).

14.1.13 The assessment will be supported by local viewpoints agreed with the Council (see Section 4 – Assessment Methodology), which will include the identified LVMF protected vistas and locally designated views.

14.1.14 In addition views to, from and through the application site, the setting of heritage assets including relevant CAs and listed buildings, could also potentially be altered as a result of the Proposed Development. As such, the EIA will address the following potential townscape and visual impacts and likely effects:

- Temporary change in townscape character, heritage setting and visual intrusion during demolition and construction works;
- Changes to the character, context and quality of the application site and the local townscape;
- Changes to selected key views; and
- Changes to the settings of heritage assets including listed buildings, unlisted buildings of merit and CAs.

14.2 SCOPE OF ASSESSMENT

14.2.1 Site observations, a manual desk-based review of OS maps, characterisation studies and relevant heritage receptors have been used to determine the study area. The study area has been informed by building locations and heights, topography and townscape features, and an understanding of the scale of the Proposed Development. The study area incorporates:

- All heritage receptors within a 500m radius from the centre of the site, including listed buildings, conservation areas, World Heritage Sites scheduled monuments, registered parks and gardens and locally listed buildings. All Grade I and II* listed buildings, World Heritage Sites, scheduled monuments, and Grade I and II* registered parks and gardens within the wider area up to a 1km radius from the centre of the Site. The application of a two-tiered study area for heritage receptors is proportionate to the receptors' significance and is typical in EIA assessment.
- A townscape study area to include the townscape within a 1km radius from the centre of the Site.

- A visual effect study area determined by the visual envelope of the Site between. The assessment also considers further long distance views where identified and relevant.

14.2.2 The assessment will be supported by accurate visual representations ('AVR') of the application Site from locations that have been agreed with the Council during the pre-application stage.

14.2.3 Each viewpoint will be reproduced in the following formats:

- Existing – baseline photography;
- Proposed – 'existing' plus wire line (AVR1) or grey block render (AVR2) or render (AVR3) of the Proposed Development;
- Cumulative – 'proposed' plus material consents surrounding the Site.

14.2.4 The AVRs will be prepared to industry standard by independent visualisation consultants. The methodology will be in accordance with Appendix C of the London View Management Framework (2012), which is considered best practice.

14.3 ASSESSMENT METHODOLOGY

14.3.1 The assessment will be informed by the principles set out in the Landscape Institute and Institute of Environmental Management and Assessment 'Guidelines for Landscape and Visual Assessment – Third Edition' (GLVIA) (2013), although as the GLVIA guidelines are better suited to assessing landscape than townscape, they can form only a general guide to the method to be used. Reference will also be made to key national, regional and local guidance and policies.

14.3.2 Other guidance used in the assessment will include Historic England's, The Setting of Heritage Assets: Historic Environment Good Practice Advice in Planning (GPA3) (2015), and Conservation Principles Policies and Guidance (2008).

14.3.3 Townscape and heritage effects will be assessed in terms of the Proposed Development's interaction with the form and character of the existing townscape, as well as the setting of above ground heritage assets.

14.3.4 The visual assessment will be supported by Accurate Visual Representations (AVRs), which will provide the basis for the assessment of the Proposed Development and its effect on agreed key views. It is important to note, however, that AVRs, even the most 'realistically' rendered, have limitations. They are 2-D representations from a fixed point of scenes which are perceived as one moves around.

14.3.5 Critically, they lack depth cues and are rendered in clear lighting conditions at times of greatest visibility (generally). Neither do they capture transient significant effects arising from noise or traffic on perception, or that wider range of expectations and associations that anyone in an urban scene may have.

14.3.6 The text accompanying each view will seek to contextualise it. Inevitably one must accept that judgment is involved in this specialist area on the basis of the above and the importance of design quality in the operation of policy. In preparing any written assessment, allowances are made for these factors as well as the assessor's knowledge of the scheme.

14.3.7 Professional judgement will be used to gauge the likely extent of significant visibility of the proposed development, on the basis of site visits and prior knowledge of the urban form around the application Site.

14.3.8 The study area for the visual assessment will be limited to locations from which the application Site can be seen, or from which new buildings on the application site would be seen. Within the study area, four types of viewing location have been identified:

- Views that are considered significant by LBL or other stakeholders, e.g. in planning policy and guidance documents and CA appraisals;
- Other locations or views of particular sensitivity, including those viewpoints in which the proposed development may significantly affect the settings of World Heritage Sites, Listed Buildings and Conservation Areas;
- Representative townscape locations from which the Proposed Development would be visible; and
- Locations where there is extensive open space between the viewer and the Proposed Development so that it would be prominent rather than obscured by foreground buildings. This includes areas of open space that are important in a local context, e.g. for leisure and recreational purposes.

14.3.9 The viewpoints have been chosen so that they cover:

- The full range of points of the compass from which the Proposed Development will be visible;
- A range of distances from the application Site;
- Different types of townscape areas; and
- Any key viewpoints/views identified by LBL.

14.3.10 The viewpoints proposed for assessment purposes, which have been agreed in consultations with LBL, are as follows:

- 24 Views, which related to the previous applications and comprise:
  - Parliament Hill: east of the summit - 750mm west of LVMF 2B.
  - Parliament Hill: east of the summit - at the prominent oak tree [LVMF 2B.1]
  - Primrose Hill: the summit [LVMF 4A.1]
  - Westminster Bridge: at the centre of the bridge [LVMF 18A.2]
  - Hungerford Footbridges: City of Westminster bank [LVMF 17A.2]
  - Millbank: Victoria Tower Gardens (opposite no.11)
  - Millbank: Victoria Tower Gardens (south gateway)
  - Millbank: Opposite Millbank Tower
  - Black Prince Road: Panorama (assembled)
  - Black Prince Road: Close to Vauxhall Walk
  - Whitgift Street Park: Panorama (assembled)

- Lollard Street Park
- Vauxhall Bridge
- Lambeth Palace Gardens
- Lambeth Bridge
- St Thomas' Hospital
- Victoria Tower Gardens
- Millbank: roundabout junction with Lambeth Bridge
- Millbank: riverside, level with Tate Britain
- Black Prince Road: junction with Lambeth Walk
- Lambeth High Street
- Albert Embankment 2: looking down Black Prince Road
- Pedlar's Park
- Albert Embankment 1: looking down Black Prince Road

- Additional views identified:
  - Local Plan View: North North West from Brockwell Park of Brixton landmarks (Lambeth Town Hall's tower and St Matthew's Church tower); and views North and North North East to the city (panorama)
  - Local Plan View: North from Brockwell Park to the Victoria Tower of the Houses of Parliament (landmark silhouette).

14.3.11 There are 26 viewpoints proposed in total (**Figure 7**).

14.3.12 It is noted that the Local Plan (2015) identifies the view East South East from Millbank to 8 Albert Embankment as a 'landmark' view. The scope of the original November 2010 ES covers this view comprehensively.

14.3.13 The assessment will report on cumulative impacts and effects and illustrate cumulative schemes within the AVRs where appropriate. A summary of the cumulative effects will be provided in the cumulative assessment chapter of the ES.

Planning Guidance and Material Considerations

14.3.14 In addition to legislation and policy, the assessment will take into consideration relevant planning guidance and any material considerations, including:

- National Planning Practice Guidance (Online);
- Conservation Principles: English Heritage (2008);
- Guidelines for Landscape and Visual Impact Assessment Third Edition (GLVIA) (2013);

- An Approach to Landscape Character Assessment (2014);
- Managing Significance in Decision-Taking in the Historic Environment, Historic Environment Good Practice Advice in Planning 2, Historic England (2015);
- The Setting of Heritage Assets, Historic Environment Good Practice Advice in Planning 3, Historic England (2015);
- Vauxhall Nine Elms Battersea Opportunity Area Planning Framework (2012);
- Vauxhall Supplementary Planning Document (2013);
- Lambeth Local Views Study (2012);
- Lambeth Tall Building Study (2014);
- Lambeth Local Distinctiveness Study (2012);
- Draft Albert Embankment Conservation Area Statement (2016); and
- Draft Lambeth Palace Conservation Area Statement (2013).

14.4 MITIGATION

14.4.1 Measures proposed to prevent, reduce or where possible offset any significant negative effects will be identified and developed as part of the design process and will be identified within the ES.

FIGURE 1

SITE LOCATION PLAN

FIGURE 2

SITE BOUNDARY PLAN

FIGURE 3

PLAN OF EXISTING BUILDINGS

FIGURE 4

COMMITTED DEVELOPMENT LOCATIONS

FIGURE 5

NOISE MONITORING LOCATIONS

FIGURE 6

NOISE SENSITIVE RECEPTORS

FIGURE 7

PROPOSED HTVIA VIEWPOINTS

APPENDIX A

PHASE 1 HABITAT SURVEY

APPENDIX B

SCOPE OF THE EIA FOR THE APPLICATION

ES DISCIPLINE	CONSULTANT	POTENTIAL EFFECT	SCOPED IN	SCOPED OUT	REASONS
Socio Economics	WSP | PB	Generation of direct employment opportunities during construction	✓		The Proposed Development is anticipated to have a positive effect on direct employment opportunities due to the increased provision of jobs during the construction phase.
		Generation of indirect and induced employment opportunities during construction	✓		The Proposed Development is anticipated to have a positive effect on indirect and induced employment opportunities due to supply chain purchases.
		Increase in spending in the local area during construction	✓		The Proposed Development is anticipated to have a positive effect on the economy of the area and will increase local spend from workers during the construction phase.
		Disturbance / disruption to existing local residents and businesses during construction		✓	Local residents may experience disruption during the construction phase. This is considered in the other technical chapters (i.e. Transportation and Access, Local Air Quality and Noise and Vibration). Whilst temporary closure of the streets surrounding the Site is anticipated for health and safety purposes during the construction period, there is not anticipated to be a significant reduction in footfall. As such, it is not considered that disruption to local businesses due to a reduction in footfall in the locality during construction would result from the Proposed Development.
		Change in local service demand (healthcare, education and leisure facilities) during the construction phase		✓	It is assumed that the majority of direct employment opportunities will be made available to economically active individuals that reside in Lambeth or within London. Therefore, the anticipated increase in demand for local services (including healthcare, education and leisure facilities) and accommodation is not considered to be significant during the construction phase.
		Increase in crime / perception of crime		✓	The site security arrangements will be in line with the requirements set out within the Construction (Design and Management) Regulations 2015. The Proposed Development will incorporate the 'Secured by Design' principles and undertaken liaison with the Police Architectural Liaison Officer to ensure that the design incorporates appropriate safety / security measures.
		Change in the health status of the local population surrounding the Site		✓	Effects related to health are considered in the other technical chapters (i.e. Local Air Quality and Noise and Vibration).
		Generation of direct employment opportunities during operation	✓		The Proposed Development is anticipated to have a positive effect on employment opportunities due to the increased provision of jobs during its operation.
		Generation of indirect and induced employment opportunities during operation	✓		The Proposed Development is anticipated to have a positive effect on indirect and induced employment opportunities due to supply chain purchases during operation.
		Change in local service demand (healthcare	✓		The assessment will consider the effect of the operational phase

ES DISCIPLINE	CONSULTANT	POTENTIAL EFFECT	SCOPED IN	SCOPED OUT	REASONS
		and education, and leisure facilities) during the operation			of Proposed Development on the capacity of existing healthcare (doctors' surgeries), educational (including primary and secondary schools) and leisure facilities..
		Change in demand for open / recreational space during operation	✓		The assessment will consider the effect of the operational phase of Proposed Development on the capacity of existing open / recreational space.
		Increase in spending in the local area during operation		✓	Whilst the Proposed Development is anticipated to have a positive effect on the economy of the area, given the anticipated number of residential units the additional spend generated is unlikely to be significant compared with the existing spend from existing residents during the operation phase.
		Provision of new housing , including affordable housing, during operation	✓		The Proposed Development will provide new dwellings in a mix of sizes, types and tenures.
Transportation and Access	WSP | PB	Severance - the perceived division that can occur within a community when it becomes separated by a major traffic route (existing or proposed)	✓		The Proposed Development will include mitigation measures to reduce the risk of severance and ensure access to off-site facilities for the new community.
		Driver delay	✓		The capacity of the local road network and the nature of junctions and roundabouts may be affected by the additional traffic generated during the construction phase and may cause increased congestion.
		Pedestrian delay	✓		Increases in the volume or changes in the composition of traffic during the construction phase may affect the ability of people to cross roads.
		Pedestrian amenity	✓		The 'relative pleasantness' of a pedestrian journey may be affected during the construction phase by traffic flow, traffic composition and footway width / separation from traffic. As necessary, footpaths will be included within the Proposed Development to minimise the potential for adverse effects on pedestrian amenity or alternative means to maintain pedestrian access agreed with LBL.
		Fear and intimidation – effect on the perceived vulnerability of pedestrians	✓		There may be a fear and intimidation effect on pedestrians during the construction phase, depending on the volume of traffic, its HGV composition, proximity to people or the sense of vulnerability caused by such factors as narrow footway widths and the degree of natural surveillance.
		Accidents and road safety	✓		There may be an effect arising from site works (including highway works) and additional traffic from the Proposed Development on the existing accident record. Visibility, speed restrictions and the suitability of junctions to cope with increased traffic flows will be

ES DISCIPLINE	CONSULTANT	POTENTIAL EFFECT	SCOPED IN	SCOPED OUT	REASONS
					considered.
		Hazardous loads		✓	No hazardous loads are anticipated as a result of the Proposed Development.
Local Air Quality	WSP | PB	Emissions of dust and PM_{10} from construction activities on-site	✓		Deposited dust and particulate matter may cause soiling of property during construction activities and consequently increase the potential for complaints attributed to nuisance within 350m from the Site.
		Emissions of NO_2 and PM_{10} from construction vehicles accessing and leaving the Site	✓		Construction traffic associated with the Proposed Development will contribute to existing traffic levels on the surrounding road network and therefore increase of emissions of NO_x and PM_{10}. These effects have the potential to occur throughout the construction phase. The number of construction vehicles will be compared with the IAQM Guidance for Construction and Demolition and a qualitative assessment will be made.
		Emissions of NO_2, PM_{10} and $PM_{2.5}$ from traffic associated with the Proposed Development	✓		Changes in traffic flows as a result of operational phase could affect concentrations of NO_2 and PM_{10} at existing receptors around the Site. A detailed air quality assessment will be undertaken using ADMS Roads to assess the effect at the proposed receptors on the development Site. An "air quality neutral" assessment will therefore be carried out for transport emissions.
		Effects of emissions to air associated with energy generation during operation of the proposed development	✓		The Proposed Development includes on-site energy generation (gas fired boiler, CHP and if necessary back-up diesel generators). Their emissions to air will require further consideration within the air quality assessment. An "air quality neutral" assessment will therefore be carried out for building emissions.
Noise and Vibration	WSP | PB	Noise and vibration associated with the construction works affecting neighbouring residential properties.	✓		Inevitably noise and vibration will occur during the construction of the Proposed Development and will therefore need to be assessed using such construction programme information as may be available.
		Noise from traffic associated with the construction of the Proposed Development affecting neighbouring residential properties.	✓		Noise generated by construction traffic has the potential to affect existing residents and other sensitive receptors and will be considered in the assessment, using details of expected traffic movements, if available.
		Change in traffic noise associated with the operation of the Proposed Development affecting neighbouring residential properties and other sensitive receptors.	✓		The potential effect of changes in traffic flows affecting sensitive receptors during the operational phase will be considered.

ES Discipline	Consultant	Potential Effect	Scoped In	Scoped Out	Reasons
		Noise from building services plant introduced by the Proposed Development affecting neighbouring residential properties and future residents.	✓		Building services plant (e.g. chillers, generators, boilers etc) has potential to cause disturbance at existing and future dwellings, particularly at night.
		Suitability of the Site for the proposed uses (i.e. residential accommodation).	✓		The suitability of the Site for noise sensitive development will be determined based on the results of a baseline noise survey and from noise modelling. The assessments will be in accordance with BS 8233, the WHO guidelines and any other relevant criteria adopted by LBL.
		An assessment of vibration levels from the railway viaduct (connecting Vauxhall and Waterloo stations) on the proposed residential development	✓		Vibration from the railway viaduct has the potential to cause disturbance at the proposed residential receptors. An assessment will be undertaken in accordance with BS 6472 and will be based on the results of a baseline vibration survey.
		Vibration from the operation of the Proposed Development affecting neighbouring residential properties.		✓	No sources of vibration from the operation of the Proposed Development have been identified.
Archaeology	MoLA	Effect on known, suspected, or potential but unknown heritage assets on the Site or in a position where their setting(s) might be affected during construction.	✓		The Proposed Development could potentially damage or destroy archaeological deposits or affect their settings.
		Effect on known, suspected, or potential but unknown heritage assets on the Site or in a position where their setting(s) might be affected during operation.		✓	Any mitigation adopted for the construction phase will negate any effects during the operational phase; there would be no residual effects.
Water Resources and Flood Risk	WSP | PB	Impact on flood risk at the site and elsewhere	✓		To ensure that the Proposed Development/Local Residents/Construction Workers/Site Occupants are not affected by flooding and also to ensure that the development does not increase downstream/local flood risk for the lifetime of the development. This assessment will be heavily influenced by the Flood Risk Assessment and outline surface water drainage strategy, which are both being submitted as part of the application.
		Effects on surface water runoff quality during construction and operational phases	✓		To ensure that the Proposed Development does not adversely affect the quality of surface water and associated receptors to where the site is currently understood to discharge surface water to and where , in future. Effects on groundwater quality will be considered within the Ground Conditions, Hydrogeology and Contamination assessment.
		Effects on water supply during the construction and operation of the Proposed	✓		To ensure that consideration is given to the availability of water resources in the area and potential effects on this resource as a

ES Discipline	Consultant	Potential Effect	Scoped In	Scoped Out	Reasons
		Development.			result of the Proposed Development.
		Effects on the public drainage network during the construction and operational phase of the Proposed Development.	✓		The Proposed Development may increase demand on the public drainage network, which may have adverse effects on the existing public network. Mitigation measures will need to be explored to ensure the development can discharge without increasing the risk of sewer flooding.
Ground Conditions, Hydrogeology and Contamination	WSP | PB	Potential exposure to future site users, construction workers, and the general public from contamination associated with historical land use	✓		To determine whether there is likely to be a significant health effect to future site users, construction workers, and the general public during the construction phases of the Proposed Development only.
		Potential release / migration of contamination to controlled waters	✓		To determine whether there is likely to be a significant effect on controlled waters during the construction phases of the Proposed Development only. This effect will be assessed in conjunction with the Water Resources and Flood Risk chapters of the ES.
		Potential effect of contaminated land on underground services (such as potable water supply)	✓		To ensure that there is no significant effect on potential future potable water supply during the operational phase of the Proposed Development only.
		Potential exposure to future site users, maintenance workers, and the general public from contamination associated with historical land use		✓	It is anticipated that any contaminants found during the construction phase will be remediated in line with the proposed uses and mitigation measure prior to occupation. Therefore, the potential exposure of future Site users and third parties to contamination during the operational phase will be insignificant and will not be assessed.
		Potential risk of hazardous ground gas		✓	It is assumed that any potential affects arising from ground gas (including radon) will be appropriately mitigated prior to the completion of the construction phase. Therefore, the potential for the presence of ground gas to pose an increased risk to future Site users (explosive and asphyxiant) during the operational phase will be insignificant and will not be assessed.
Environmental Wind	RWDI	Potential effect associated with any changes in wind strength at ground level, particularly in public areas, open spaces and building entrances.	✓		Wind effects can adversely impact on pedestrian comfort and safety. These two aspects are associated with use of public open spaces and it is important to ensure that the design follows national good practice design guidelines aimed at minimising associated adverse effects.
Daylight, Sunlight, Overshadowing, Solar Glare and Light Pollution	Point 2 Surveyors	Loss of daylight or sunlight to the surrounding residential properties.	✓		To ensure that any potential adverse effects on the daylight or sunlight to adjacent existing properties are identified and corrective measures recommended as necessary.
		Overshadowing effects on existing surrounding amenity spaces.	✓		To ensure that any potential overshadowing effects to existing properties and proposed open amenity are identified and

ES Discipline	Consultant	Potential Effect	Scoped In	Scoped Out	Reasons
					corrective measures recommended as necessary.
		Levels of daylight to be enjoyed within the proposed habitable rooms.	✓		To ensure that the proposed habitable rooms will receive acceptable levels of daylight, or identify and recommend corrective measures where this is not the case.
		Levels of sunlight to be enjoyed to the proposed amenity spaces.	✓		To ensure that the proposed amenity space will receive acceptable levels of sunlight, or identify and recommend corrective measures where this is not the case.
Heritage, Townscape and Visual Impact Assessment	Montagu Evans	Effect on surrounding townscape character areas.	✓		The Proposed Development of the scale envisaged may have a significant effect on surrounding townscape character areas.
		Effect on a range of views.	✓		The scale of the Proposed Development envisaged may have a significant effect on a range of views.
		Effect on Conservation Areas and relevant statutory designated built heritage assets identified within the Heritage, Townscape and Visual Impact Assessment (HTVIA) Report.	✓		The Proposed Development of the scale envisaged may have a significant effect on the current townscape setting and views from of built heritage assets within the surrounding townscape. Part of the Site is located within a Conservation Area and will be appropriately considered and assessed following the baseline study.
		Effect on the setting of listed buildings within the 1km study area.	✓		A number of listed buildings have been identified within approximately 1km of the Site.
		Effect of the Proposed Development on the setting of non-designated sites of known potential built heritage and historic landscape interest.	✓		The Conservation Officer and GLAAS will be consulted and locally listed buildings will be appropriately considered and assessed following the baseline study, as will historic landscape character areas
Cumulative Effects	All	Effects arising from relevant committed developments within the local area in combination with effects from the Proposed Development (during construction and operation).	✓		Environmental effects during both construction and operation of other committed developments within the local area in combination with effects from the Proposed Development may result in additional or indirect effects which may be of greater significance than when considered separately.
		Potential for several environmental effects from the Proposed Development to impact on certain sensitive receptors within and adjacent to the Site at the same time (during construction and operation).	✓		The interaction of several effects on a sensitive receptor occurring at the same time and in the same location may result in indirect, secondary or cumulative effects which may together be of greater significance than when the effects are assessed individually.

APPENDIX C

PROPOSED STRUCTURE OF THE ES

The structure proposed for the ES is in line with Schedule 4 of the *EIA Regulations* and other relevant good practice guidance. Essentially, the ES will comprise four main parts:

VOLUME 1 – ENVIRONMENTAL STATEMENT

Front End

1.0 Introduction

- 1.1 Description of the Site and Surrounding Area
- 1.2 Legal Framework for the ES
- 1.3 Structure of the ES

2.0 Approach to the Assessment

- 2.1 Objectives
- 2.2 Scope of the ES
- 2.3 Consultation
- 2.4 Assessment Criteria

3.0 Alternatives

- 3.1 Introduction
- 3.2 Description of the Proposed Development

4.0 The Proposed Development

- 4.1 Introduction
- 4.2 Description of the Proposed Development

5.0 Demolition and Construction

- 5.1 Introduction
- 5.2 Programme and Phasing
- 5.3 Proposed Vehicle Movements
- 5.4 Proposed Vehicle Routes
- 5.4 Materials and Resource
- 5.5 Plant and Equipment

Technical Chapters

Each technical Chapter will be structured as follows:

- Introduction

- Legislation, Policy and Guidance
- Assessment Methodology and Significance Criteria
- Baseline Conditions
- Assessment of Effects, Mitigation and Residual Effects
- Summary and Summary Table
- References

6.0 Socio-Economics

7.0 Transportation and Access

8.0 Local Air Quality

9.0 Noise & Vibration

10.0 Archaeology

11.0 Water Resources and Flood Risk

12.0 Ground Conditions, Hydrogeology, and Contamination

13.0 Environmental Wind

14.0 Daylight, Sunlight, Overshadowing, Solar Glare and Light Pollution

Concluding Chapters

15.0 Cumulative Effects

16.0 Summary of Effect and Mitigation Measures

17.0 Summary of Residual Effects

VOLUME 2 – TECHNICAL APPENDICES

For example, Flood Risk Assessment & outline Surface Water Drainage Strategy; Phase 1 Habitat Survey, Archaeological Desk-Based Assessment, Framework CEMP, BIA.

VOLUME 3 – HERITAGE, TOWNSCAPE AND VISUAL IMPACT ASSESSMENT

VOLUME 4 – NON-TECHNICAL SUMMARY (NTS)