One Tower Bridge

Environmental Statement: Non-Technical Summary

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Non-Technical Summary

This Non Technical Summary (NTS) provides a summary of the findings of the Environmental Statement (ES) submitted by Berkeley Homes (South East London) Ltd. for the Proposed Development of the One Tower Bridge site (‘the Site’) in the London Borough of Southwark (LBS), for residential, commercial and cultural uses. The ES has been produced in accordance with the Town and Country Planning (Environmental Impact Assessment) (England and Wales) Regulations 1999 (As Amended) (the ‘EIA Regulations’) which require that, in certain cases, development proposals should be examined to measure their likely significant environmental effects upon the environment and to identify what action should be taken to mitigate those effects.

1. SITE DESCRIPTION

1.1 The Site is approximately 1.55 hectares (ha) and is located to the south of the South Bank of the River Thames in London, to the west of the southern approaches to Tower Bridge (Figure 1).

1.2 The existing Site comprises a vacant piece of land, which has previously been used as a coach / car park. At the southern corner of the Site at the junction of Tower Bridge Road and Queen Elizabeth Street, there has been some excavation and piling has been undertaken under a previous planning permission: A detailed planning application for the development of land at Lambeth College and adjacent Coach Park.

1.3 To the north of the Site is Potters Fields Park, which is an ‘L’ shaped open space that runs east / west along the bank of the River Thames as far east as the bridge abutments to Tower Bridge, and north / south from the River Thames to Tooley Street. Opposite the Site on the north bank of the Thames is the Tower of London, which is a Grade I Listed Building and a World Heritage Site.

1.4 Adjacent to the eastern boundary, is the Bridgemasters House (Grade II Listed Building), while further east of Tower Bridge Road is the mixed residential and commercial area, known as ‘Shad Thames’ and ‘Butler’s Wharf’.

1.5 The Grade II Listed Lambeth College (formerly St Olave’s Grammar School) is located to the south of the Site, while beyond Tooley Street and Queen Elizabeth Street are a mix of residential and commercial properties.

1.6 To the west sits the Greater London Authority (GLA) building, City Hall and further commercial and retail units.

2. DESCRIPTION OF PROPOSED DEVELOPMENT

2.1 The Proposed Development is the culmination of a review of the existing character of the Site and surrounding area and consideration of the physical and environmental constraints associated with the Site.

2.2 The Proposed Development approximately comprises the following:

- 44,976 sq metres of residential floorspace comprising 356 residential units and ancillary residential floorspace including an Estate Management facility;
- 6,554 sq metres of cultural floorspace (to accommodate concert hall or gallery or exhibition space or museum uses);
- 1,707 sq metres of commercial floorspace;
- All accommodated within buildings of up to 11 storeys and a residential campanile of 20 storeys, plus roof garden and light box;
- 8,007 sq metres of communal and private amenity space, including an extension to and improvement of Potters Fields Park;
- 142 car parking spaces including one surface level parking space for car club use;
- 436 residential cycle parking spaces (in basement / in building) and 104 visitor cycle parking spaces at surface level; and
- Associated highway, access and landscape works and other associated works and uses.

2.3 The enabling works are due to start in 2010 and construction is due to be complete in approximately 2014. In order to manage the potential environmental effects during the construction works, a Construction Environmental Management Plan (CEMP) will be produced, which will address environmental construction issues, including a complaints procedure and community liaison.

2.4 The illustrative masterplan layout of the Proposed Development Ground Floor is shown in Figure 2 and the illustrative landscape masterplan of the Proposed Development Ground Floor is shown in Figure 3 below.

3. **EIA APPROACH**

3.1 The proposals for the Site have been developed following the completion of comprehensive technical studies, including a flood risk assessment, ecological surveys and various studies which have been completed to inform preparation of the ES. This NTS outlines the findings of the ES which describes the potential for significant environmental effects (both positive and negative) to arise as a result of the Proposed Development and identifies mitigation and enhancement measures to minimise any likely significant effects.

3.2 A Scoping Report was prepared by WSP Environmental in September 2008, and was submitted to LBS with a request for a scoping opinion, in accordance with Regulation 10 of the EIA Regulations (1999).

3.3 Further consultation was undertaken with statutory and non-statutory consultees throughout the EIA which has informed the ES for the Proposed Development. The purpose of consultation is to identify the
baseline conditions of the Site and therefore the likely significant environmental effects that need to be assessed and to obtain opinions on the Proposed Development which may need to be considered in the design process.

3.4 The following organisations were consulted during the preparation of the ES:

- LBS (various departments);
- British Geological Survey;
- Environment Agency;
- Greater London Historic Environment Record (GLHER);
- Greater London Archaeology Advisory Service (GLAAS);
- Greater London Authority (GLA); and
- Local wildlife groups;
- Natural England;
- Thames Water; and
- Transport for London (TfL).

4. **ENVIRONMENTAL EFFECTS OF THE PROPOSED DEVELOPMENT**

4.1 Studies undertaken to assess the likely significant effects of the Proposed Development include the following:

- Transportation;
- Noise and Vibration;
- Local Air Quality;
- Ecology;
- Archaeology;
- Historic Buildings and Cultural Heritage;
- Ground Conditions and Contamination;
- Water Quality and Resources;
- Townscape and Visual;
- Socio-economics;
- Daylight, Sunlight and Overshadowing;
- Wind; and
- Telecommunications.

4.2 These and other studies have also advised on engineering aspects including building design measures, measures to minimise transport effects, drainage and services for the Proposed Development and integration of sustainability principles.

5. **TRANSPORTATION AND ACCESS**

5.1 It is considered that the Site has excellent access to sustainable modes of transport and the public transport provision available to the Site is consistent with the objective of PPG 13. Moreover, the Site is situated in an area which is highly accessible to a large range of employment, retail and leisure opportunities. It is considered that this will further encourage residents to walk, cycle or to use public transport and will facilitate convenient access to local facilities and amenities.
5.2 The Site complies with the guidance contained within PPS 3, as it provides a mixed use development that is located on a previously developed Site and in an area of excellent accessibility.

5.3 The Proposed Development is compliant with the overall transport related aims of policies within the Southwark Plan. The Site is situated close to London Bridge underground and mainline station and Tower Hill underground station and Tower Gateway DLR station and hence is strategically located to benefit from a wide range of public transport facilities.

5.4 A total of 142 basement residential car parking spaces will be provided at a ratio of 0.4 spaces per residential unit, 14 of which will be designated disabled spaces. The level of parking represents a decrease in parking provision over the Extant Permission and is consistent with the aims of guidance contained within the London Plan and Southwark Plan. Full justification for the car parking provision on the site is provided within the Transport Assessment.

5.5 The Site benefits from excellent access to employment, local facilities, services and amenities. A large number of destinations can be reached on foot with local convenience shopping available on Borough High Street. The Site location has a high level of accessibility to public transport facilities, being well served by a wide variety of public transport modes including frequent bus services on Tooley Street and Tower Bridge Road, London underground stations at London Bridge and Tower Hill and mainline rail services at London Bridge station.

5.6 The effect of the Proposed Development on the surrounding transport infrastructure has been assessed as new trips on the network, and takes no account of the trip generation associated with the extant permission.

5.7 The Proposed Development will have a negligible effect on the capacity of the existing high quality pedestrian and cycle networks in vicinity of the Site. The pedestrian and cycle environment within the Proposed Development will be of high quality with the provision of attractive open spaces, well-maintained and legible routes, lighting, signage and the use of quality materials. Cycle parking within the Site is provided in accordance with LBS and TfL standards to encourage cycling as a mode of sustainable transport. In terms of public transport, the Proposed Development is estimated to generate a small number of additional public transport trips that could be comfortably accommodated by the existing public transport infrastructure in vicinity of the Site. In terms of vehicular trips, PICADY analysis has demonstrated that there is sufficient spare capacity in the local road network to accommodate the additional traffic generated by the Proposed Development during the peak hours. In addition, the Proposed Development will generate a net decrease in vehicular trips than previously considered acceptable for the Extant Permission on the Site.

5.8 It has also been demonstrated that net change in vehicular trip generation attributable to the Proposed Development is sustainable and can be accommodated within the existing highway network with no material effect upon the operation of the surrounding junctions. Additionally, the junctions within the vicinity of the Site have also been shown to have adequate available capacity to accommodate the cumulative change in traffic flows associated with the Proposed Development and committed developments within the immediate surrounding area.

5.9 In summary, it is considered that the Proposed Development’s location would both reduce the need to travel and also promote the use of public transport. As such, it is concluded that the Proposed Development complies with the overall aims of GLA and LBS policy guidance.

6. **NOISE AND VIBRATION**

6.1 The ES considered potential noise and vibration effects during the construction works and operation of the Proposed Development.

6.2 A baseline noise survey was undertaken at the Site over a 5 day period (Friday 27th June – Tuesday 1st July 2008).

6.3 The baseline noise survey data were used to assess the effect of noise from construction and from the operation of the Proposed Development on the Site on local properties and other sensitive receptors.
6.4 It was not possible to determine the exact noise levels associated with construction plant, as specific items of equipment to be used and their locations are not known at this stage of the Proposed Development. However, a generic assessment of construction noise effects has been undertaken based on noise levels likely to be emitted from construction plant which is generally used on similar sites. Construction noise is likely to have a minor to major negative effect on local receptors; although the effect will be temporary, and will occur during construction hours only in accordance with LBS Environmental Code of Construction Practice (Monday to Friday 0800 to 1800 hours and Saturday 0800 to 1300 hours). Best practice measures will be implemented at the Site to minimise any effect on local receptors.

6.5 Construction noise will have a negligible effect during all night time periods, and will therefore not cause sleep disturbance to the majority of local residents.

6.6 The effect of vibration from construction plant cannot be accurately predicted at this time, as the specific piling equipment and methodology to be used is unknown, however it is considered to be highly unlikely that any negative effects will arise from ground-borne vibration at the Proposed Development during the operational phase at local receptors.

6.7 Using supplied traffic data for the existing conditions and predicted flows with the Proposed Development operational, it has been shown that predicted traffic volume increases from the Proposed Development will have a negligible effect on traffic noise levels on the local roads around the Site. The access road within the Proposed Development will, as expected, be subject to increased traffic noise levels. However, these traffic noise levels are within the baseline levels already measured at the Site due to traffic on other local roads.

6.8 The noise from plant at the commercial premises within the Proposed Development has been considered and measures have been identified to ensure that the noise effect from such equipment will be minor negative to negligible. Mitigation measures will be implemented as necessary.

7. LOCAL AIR QUALITY

7.1 The ES has considered the likely significant effects of the Proposed Development on local air quality during both the construction and operational phases. It is likely that dust arising from the construction of the Proposed Development would be limited to the immediate vicinity of the activities undertaken even without specific control measures due to the predominantly course nature of dust particles and prevailing wind direction.

7.2 Implementation of dust prevention and control measures, and implementation of the London Councils Best Practice Guidance and LBS Environmental Code of Construction Practice, will ensure that dust emissions are controlled to a level where the potential for dust nuisance will be minimal temporary, short and local in effect. The residual effects of the dust generation and deposition during the construction phase of the Proposed Development are considered to be of minor negative significance.

7.3 During construction, traffic associated with the construction of the Proposed Development will contribute to existing traffic emissions from the surrounding road network. The increase in traffic emissions will be variable during the construction phase and only likely to impact on areas near the principle means of access to the Site. Any negative effects resulting from construction traffic emissions are likely to be temporary, short to medium term and of minor negative significance.

7.4 The results show that once operational the Proposed Development would cause a small increase in pollutant concentrations as a result of the generated traffic movements, but would not cause any exceedences of the statutory objectives. The residual effects are considered to be minor negative for NO₂ concentrations and negligible for PM₁₀ concentrations at the nearest sensitive receptors.

8. ECOLOGY

8.1 The Site supports the following London Borough of Southwark Local Biodiversity Action Plan (BAP) habitats and flagship plant species.

- Hedgerows (under Woodland) (also UK BAP Hedgerows);
Amenity grassland (under Parks and Open Spaces) and London BAP Parks & Urban Green Spaces; and
Oak species, flagship species.

8.2 It supports or has the potential to support the following LBS Local BAP priority and flagship species.
- Bats, priority species (also London and UK BAP) via dense scrub, hedgerows and tall ruderal vegetation;
- Blackbird, flagship species via amenity grassland dense scrub and hedgerows and tall ruderal vegetation; and
- House sparrow, flagship species (also London and UK BAP) via bare earth, dense scrub and hedgerows.

8.3 It also has the potential to support foraging black redstart which is a London BAP species, via bare earth, tall ruderal and ephemeral vegetation.

8.4 The existing semi-natural habitat will be cleared and partially replaced in the Proposed Development by the planting of individual trees and herbaceous species in the proposed rooftop gardens. Bird boxes and bat boxes will be incorporated into each of the buildings within the Proposed Development which along with the proposed habitat replacement and landscape planting will enhance the Site for biodiversity.

8.5 Although there is a net gain in soft landscaped area of 16.7m² with respect to Potters Fields Park, there will be a reduction in biodiversity and a small reduction of foraging and commuting habitat suitable for breeding birds and bats due to the removal of bare earth / ephemeral vegetation (and increase in hardstanding) and linear scrub. This reduction is not likely to be significant as the replacement individual trees will provide new commuting habitat between Lambeth College and the Thames and ground cover planting will encourage the biodiversity and number of insects upon which bats and birds forage. Negative effects of habitat loss, disturbance and fragmentation would be significant only in the short-term. There is likely to be an increase in operational night-time lighting which has the potential to affect foraging and commuting bats although a degree of screening through planting and habitation by light tolerant pipistrelles would reduce the significance of negative effects. The only long-term significant effect of the Proposed Development is that of operational lighting significant at the Site level.

9. **ARCHAEOLOGY**

9.1 The archaeological assessment has confirmed that while little evidence is available pertaining directly to the Site, there are a number of archaeological sites adjacent or near to the Site, mostly indicating prehistoric or Medieval / Post Medieval occupation and / or industry. The intrusive evaluation work has corroborated this conclusion, though did not identify any specific significant archaeological remains.

9.2 The presence of an alluvial substrate across part or the entire Site allows for the preservation of waterlogged remains of the prehistoric period which in nearby locations has been shown to include wooden features (trackways), though the presence of such remains has been shown to be unlikely given the results of the intrusive evaluation.

9.3 The evaluation is consistent with recent investigations (Figure 4) completed to the south of the Site in demonstrating that the anticipated depth beneath the ground surface of potential archaeological deposits and features will enhance their integrity and minimise the potential that they have been truncated.

9.4 The presence, extent, character, date, state of preservation and significance of potential buried archaeological remains on the Site has been assessed.

Figure 4: On Site Archaeological Investigations
through evaluation which has been completed in parallel to this EIA, to enabling the potential for unknown buried archaeological remains explored prior to commencement of construction activities. This has concluded that additional targeted evaluation may be required within the basement area to resolve the location of specific archaeological features including the location of the Medieval drain.

10. HISTORIC BUILDINGS AND CULTURAL HERITAGE

10.1 This chapter has assessed the likely effects of the Proposed Development on built heritage assets under the following designations: world heritage sites, statutory listed buildings / structures and conservation areas. It was informed by a detailed Baseline Built Heritage Assessment, in which the significance, settings, and key views to / from cultural heritage assets in the vicinity of the Site were considered. The appended Baseline Assessment also lists the policies (both local and regional) which are relevant to this chapter.

10.2 Part of the Site falls within the Tower Bridge conservation area, but there are no other built heritage assets within the Site. Built heritage assets within a 500m study area of the Site’s centre point were assessed for potential indirect effects (e.g. effects upon the setting of listed buildings). It was agreed with LBS that not all built heritage assets within this distance would be affected; instead the focus of the assessment was agreed to include the closest assets and other key assets that are located further away.

10.3 Mitigation measures for indirect constructional effects comprise the phasing of the works and hoarding around the Site perimeter; both would be standard practice for a development of the type proposed.

10.4 Mitigation measures relating to operational effects on built heritage assets have been incorporated within the design of the Proposed Development; as such they are integral to the Proposed Development. Additional mitigation measures are neither necessary nor desirable.

11. SOILS, GEOLOGY AND CONTAMINATION

11.1 Consideration has been given to soils, geology and contamination at the Site in support of the Proposed Development, highlighting the main effects arising during construction and operation, proposed mitigation measures and subsequent residual environmental effects. Potential sources of ground contamination in and around the Site have been examined to determine the likelihood of significant levels of contamination affecting the Proposed Development.

11.2 Legislation and guidance on the assessment of contaminated Sites are provided under Part IIA of the EPA 1990 and the Environment Act 1995. The potential for harm to occur requires three conditions to be satisfied:

- The presence of substances (potential contaminants / pollutants) that may cause harm (source of pollution);
- The presence of a receptor which may be harmed, (e.g. the water environment or humans, buildings, fauna and flora) (the receptor); and
- The existence of a linkage between the source and the receptor (the pathway).

11.3 The concept behind this approach is that, without each of the three fundamental elements (source, pathway, and receptor) there can be no potential contamination risk. Thus the mere presence of a contamination hazard at a particular Site does not necessarily imply the existence of associated risks.

11.4 The underlying ground conditions beneath the Site are identified as Made Ground covering superficial deposits of Alluvium (Minor Aquifer) and River Terrace Deposits (Minor Aquifer), overlying the solid geology of the London Clay (Non Aquifer), Lambeth Group (Minor Aquifer) over Upper Chalk (Major Aquifer). In addition to the above Controlled Water receptors, the River Thames is located some 40m north of the Site.

11.5 Records indicate that the subject Site has been historically utilised as warehouses; wharfs; residential housing with associated gardens and a playground; a school; dying & calendaring works; and a fellmongers, more currently as a coach, car and lorry park and a college.
11.6 The Site is considered to be of medium environmental sensitivity due to the underlying Minor and Major Aquifers and the nearby River Thames.

11.7 The likely significant effects identified comprise:
- Construction workers, maintenance workers and future Site users who may be exposed to on-Site contamination;
- Potential contaminants in the unsaturated zone may migrated vertically downwards into the saturated zone (Minor and Major Aquifers) beneath the Site;
- The risk of direct exposure to potential contamination present within the unsaturated zone by the exposure to contaminants via dermal contact, ingestion and / or inhalation of contaminated dust, soils or vapours;
- The adsorption of contaminants into plants, which may be ingested by on Site residents or inhibit plant growth; and
- Construction plant or future vehicle use on Site which may potentially contaminate soils or groundwater.

11.8 Mitigation measures comprise:
- Completion of an intrusive investigation to assess the contamination and geotechnical characteristics of the Site;
- Appropriate use of Personal Protective Equipment (PPE) during construction and maintenance;
- Appropriate Site drainage including use of interceptor systems;
- Implementation of appropriate gas protection measures in the construction design;
- Completion of a pilling risk assessment; and
- Appropriate remediation of contamination, if required.

11.9 Residual effects have all been assessed as negligible to minor positive significance, based upon the above mitigation measures being implemented appropriately.

12. WATER RESOURCES

12.1 A desk study was undertaken to determine the water resources and flood risk conditions within and around the Site. A review of the contamination and geotechnical reports previously prepared for the Site and Flood Risk Assessment (FRA) was also undertaken. An assessment was then made of the effect of the Proposed Development on water resources and the potential effect on fluvial and sewer flood risk and measures to prevent or minimise any negative effects were determined. Therefore, the residual effects after these measures were implemented have been assessed.

12.2 The River Thames is the main surface water feature in the local area and is located approximately 40m to the north of the Site. Both the freshwater (non-tidal) Thames and the tidal Thames (downstream of Teddington Weir) are classified by the Environment Agency. The tidal reach of the River Thames, however, sustains different ecosystems and is therefore classified differently, on the basis of fewer criteria, including dissolved oxygen and aesthetic pollution. There is no information currently available on the water quality of the River Thames adjacent to the Site, however overall the tidal reach of the River Thames is currently (2008) considered to be ‘Good’ (General Quality Assessment Grade B).

12.3 The Site generally slopes from south to northeast, with the highest part of the Site being located in the southeast corner, near the intersection of Queen Elizabeth Street and Tower Bridge Road. While the Site generally drains in the direction of the River Thames, due to the presence of the landscape embankment adjacent to the riverside walkway, there is unlikely to be a direct surface water discharge from the Site to the River Thames. Nevertheless it is important that appropriate mitigation measures are adopted to protect the River Thames. Without mitigation, the most significant potential effects on surface water
resources associated with the Proposed Development are likely to be the contamination of surface water and an alteration of the drainage regime.

12.4 To mitigate against the contamination of surface water and alteration of the drainage regime, a CEMP will be developed, in consultation with the LBS, to manage and control all the construction activities on the Site. The CEMP will be developed in accordance with all relevant legislation and guidance, including the Environment Agency’s Pollution Prevention Guidance Notes, and will include, but is not limited to, measures for the effective management of surface water run-off and the appropriate storage of construction materials and fuels.

12.5 Following the implementation of the above mitigation measures, and with a Sustainable Drainage System and all piped surface water discharged through pollution prevention interceptors, prior to discharge to the sewer, an overall permanent, direct, long term residual effect of negligible to minor positive significance is anticipated during operation of the Proposed Development. The Proposed Development would also comply with relevant legislation and guidance.

13. TOWNSCAPE AND VISUAL

13.1 Based on the assessment of townscape areas and the visual effects, it is clear that the Proposed Development offers high quality architecture that is appropriate in terms of its scale, form and architectural expression, and it offers significant benefits to the local area in terms of urban design. It has the most significant townscape effect on local views and views from the north where it can be appreciated as a coherent overall scheme, consistent with the existing built development along the south bank of the River Thames.

13.2 The Proposed Development is appropriate in terms of the height and scale of its constituent parts. The lower blocks address Potters Fields Park, Tower Bridge Road and Queen Elizabeth Street and are an appropriate height for their surroundings. The taller blocks, in the middle of the Site, establish a visual relationship with the large buildings of More London when seen in medium and longer distance views.

13.3 In terms of urban design, the Proposed Development opens up a previously inaccessible site and improves permeability through the provision of new routes. It provides active uses lining its routes and facing Potters Fields Park. It strengthens the definition of surrounding streets and of Potters Fields Park. The ‘campanile’ of Block 5 acts as a landmark for the Proposed Development and the cultural uses it contains.

13.4 The architecture of the Proposed Development is of a high quality. The elevational treatment creates a horizontal emphasis in most of the elevations, and together with the stepping back of top floors in most blocks, this works well in terms of reducing the perception of the Proposed Development’s scale.

13.5 The treatment of the elevations successfully responds to neighbouring historic contexts. The use of brick and projecting balconies in Blocks 6, 7 and 8 echoes the appearance of historic warehouse buildings in the Shad Thames area. Blocks 2, 3 and 4 have a calm architectural expression which is appropriate given their location adjacent to the Lambeth College building.

13.6 The most significant townscape effects are from local views, where elements of the Proposed Development are seen in proximity to historic buildings, and from the north, where the Proposed Development can be appreciated overall as a coherent scheme.

13.7 In local views from the south along Tooley Street and Tower Bridge Road, the Proposed Development improves the townscape by strengthening the definition of streets and providing a coherent urban context and calm backdrop for historic buildings.

13.8 In views from the north, the skill with which the overall massing of the Proposed Development has been considered is apparent. The Proposed Development not only successfully mediates between the differing scales of Shad Thames and More London without detracting from Tower Bridge, it also has a self-contained compositional order which is coherent and attractive. The most striking example of this is the interplay between the horizontality of Block 1 and the verticality of Block 5. These blocks are also linked through the use of similar materials.
13.9 Block 5 is a quirky and elegant addition to the existing skyline. The townscape of this part of the southern riverfront, as viewed from the north, is currently dominated by buildings of a similar height and scale, with a number of tall buildings of mediocre design visible in the background. By virtue of its slender proportions and high quality architecture, Block 5 acts as a piece of punctuation in the townscape and has an effect in its townscape setting that is comparable to that of traditional towers, such as those of churches or industrial buildings, rather than that of bulky tall buildings.

13.10 The effect of the Proposed Development on the Tower of London world heritage site varies considerably across views from the world heritage site. The effect is negligible to minor positive from within the Tower and from the areas immediately to the north and east as it is a minor presence or can barely be discerned from these points. From the Tower’s immediate environs to the west and from the Thames Path and other areas to the south, it forms a high quality piece of architecture that adds visual interest to the view of the south bank of the River Thames, and its effect is ‘moderate’ to ‘major positive’.

13.11 The effect of the Proposed Development on the nearby conservation areas is positive in overall terms. This is in part due to the high quality architecture of the Proposed Development. In views from the more distant conservation areas on the north side of the River Thames, the Proposed Development is seen to coherently complete development on the southern river front and to provide a coherent backdrop to views. In the conservation areas closer to the Site, the Proposed Development’s key achievement is its repair of the urban fabric, which gives key historic buildings an improved setting.

13.12 The Proposed Development improves the townscape context of a number of listed buildings, including Lambeth College, No. 201 Tooley Street and the Bridgemaster’s House, by providing them with a stronger street setting and a high quality piece of neighbouring architecture. The Proposed Development improves the setting of Tower Bridge by framing views towards it from the south and by relating well to it in terms of form and scale in views from the north.

13.13 The Proposed Development is consistent with national, regional and local policy. The way in which the Proposed Development improves permeability across the Site and within the wider area, provides a stronger definition of Tower Bridge Road and Queen Elizabeth Street and aids legibility by marking the Proposed Development and its cultural uses is consistent with the guidance contained in By Design. In proposing buildings that are of an appropriate height and scale for their surroundings, the Proposed Development is in line with local policy and relevant Conservation Area Appraisals. In terms of its overall high quality architecture and its carefully considered relationship to context, the inclusion of a taller element within the Proposed Development is consistent with the CABE/ EH Guidance on tall buildings.

13.14 The Proposed Development is a high quality piece of architecture, provides significant urban design benefits, and will have a positive effect on the townscape of the surrounding character areas and views in which it is most prominent. The main townscape benefits of the Proposed Development are to strengthen the definition of surrounding streets and public space in local views, and to mediate between the differing scales of Shad Thames and the More London development in medium and longer range views. It will have a positive or negligible effect on surrounding world heritage sites, conservation areas and listed buildings. Overall, the Proposed Development will make a significant contribution to enhancing the quality of this part of Southwark while respecting the distinct character of its surroundings.

13.15 Overall, the Proposed Development has the potential to contribute positively towards the overall socio-economic profile of the Ward and Borough both temporarily and over the longer term. Most of the socio-economic effects have been assessed to be minor (either positive or negative) and can be reduced or enhanced following the implementation of appropriate mitigation measures.

13.16 With the current economic downturn, assessments such as these must be approached with caution. Assumptions made do not take account of the current uncertain, prevailing economic conditions and house market. Hence making an assessment of the effects on the local economy, house purchase and employment, a reasonable, yet conservative approach has been adopted.

14. MICROCLIMATE - DAYLIGHT, SUNLIGHT AND OVERSHADOWING

14.1 The Site was cleared of any buildings some years ago. Consequently, with the exception of the first floor windows of the flats in 2 Fair Street, which are obstructed by their walkway roof, the surrounding
dwellings receive very good levels of daylight over the clear Site in the baseline condition. The main sources of overshadowing of the nearby public amenity spaces are the buildings at More London and the GLA headquarters. Development on cleared sites can often result in greater effects than the BRE guidelines recommend because of the low level of obstruction in the baseline condition. Consequently, care must be taken when applying the BRE numerical guidelines to clear sites.

14.2 In the vast majority of cases (i.e. 92% of windows and 98% of rooms) the BRE numerical guidelines for effect on daylight will be satisfied. Overall the effect of the Proposed Development on daylight to surrounding dwellings will be of minor negative significance.

14.3 Any effect of the Proposed Development on sunlight to surrounding dwellings will be negligible because the windows in these properties all satisfy BRE Report 209’s preliminary 25º/90º test.

14.4 The effect on permanent overshadowing of the existing surrounding public amenity spaces satisfies the numerical guidelines in BRE Report 209 and will be negligible. The effect on temporary overshadowing of these spaces will be minor to moderate negative.

14.5 The level of overshadowing of the public and semi private amenity spaces within the Proposed Development will be negligible and will satisfy the BRE guidelines.

14.6 Mitigation measures cannot be employed to reduce or compensate for the effects on daylight, sunlight and overshadowing, so the residual effects remain the same as the pre-mitigation effects identified above. However, where possible mitigation has been integrated into the scheme design to minimise the daylight and overshadowing effects. For example, the proposed Blocks 6, 7 & 8 on the corner of Tower Bridge Road and Tooley Street will be lower than Blocks 2, 3, 4 and 5 with the top floor set back to minimise the effect on the residential properties opposite. Furthermore, Block 1 is lower than Blocks 2, 3 and 4 so as to reduce the potential overshadowing of Potters Fields Park and the River Thames.

14.7 In ‘The Southwark Plan’ (2007), Policy 3.1 – Environmental effects and Policy 3.2 – Protection of amenity states that proposed developments should seek to avoid material adverse effects on the environment and on the amenity of occupiers of surrounding buildings. LBS’s Supplementary Planning Document - ‘Residential Design Standards’ (2008) refers to the guidelines presented in BRE Report 209. The results of the detailed technical analyses confirm that the numerical guidelines on daylight will be satisfied at the vast majority of receptors in the ‘with Development’ condition and the numerical guidelines on sunlight and overshadowing will be satisfied at all receptors.

15. MICROCLIMATE - WIND

15.1 The meteorological data for the Site indicates that the prevailing winds are from the southwesterly quadrant throughout the year, and secondary winds are from the northeasterly direction during spring and winter.

15.2 Based on consideration of the Lawson criteria the wind conditions at the ground level and podium level within and around the Proposed Development are likely to be suitable for leisure walking or better during the windiest season (i.e. winter).

15.3 All ground floor thoroughfares and most of the entrances are expected to be suitable for their intended pedestrian use throughout the year. Mitigation in the form of vertical side screening or recessing is required at entrance Locations 20, 26 and 52, in order to achieve the desired standing / entrance conditions throughout the year.

15.4 Location 65, on the south end of the podium, experiences wind conditions one category windier than desired throughout the year. Suitable vertical screening or planting is required, in order to locally enhance the wind microclimate.

15.5 The wind tunnel model was tested without planting, in order to obtain a set of conservative (i.e. relatively windy) results. Planting / landscaping are useful means of mitigation, and would improve the wind conditions on Site.
16. TELECOMMUNICATIONS

16.1 An assessment of the existing broadcast television and radio usage and reception has been undertaken for the Site and a defined surrounding area, known as the study area through a combination of desk study and visual survey. The services detailed in Table 17.1 were noted as being present within the study area:

Table 16.1: Broadcast Type & Service Overview

<table>
<thead>
<tr>
<th>Broadcast Type</th>
<th>Services Available</th>
</tr>
</thead>
<tbody>
<tr>
<td>Terrestrial TV - Analogue</td>
<td>BBC 1-2, ITV, CH4 &amp; Five</td>
</tr>
<tr>
<td>Terrestrial TV - Digital</td>
<td>Freeview</td>
</tr>
<tr>
<td>Satellite TV</td>
<td>Sky &amp; Freesat</td>
</tr>
<tr>
<td>Cable Services</td>
<td>Virgin Media</td>
</tr>
<tr>
<td>TV over ADSL</td>
<td>ADSL(0.5-2mbps)</td>
</tr>
<tr>
<td></td>
<td>ADSL Max (0.5-8mbps)</td>
</tr>
<tr>
<td></td>
<td>ADSL 2/2+ (0.5-24mbps)</td>
</tr>
<tr>
<td>Terrestrial Radio - Analogue</td>
<td>BBC Radio – FM/MW/LW</td>
</tr>
<tr>
<td></td>
<td>Commercial Radio - FM</td>
</tr>
<tr>
<td>Terrestrial Radio - Digital</td>
<td>BBC Radio - DAB</td>
</tr>
<tr>
<td></td>
<td>Commercial Radio - DAB</td>
</tr>
<tr>
<td>Satellite Radio</td>
<td>Sky &amp; Freesat (BBC &amp; Commercial DAB)</td>
</tr>
</tbody>
</table>

16.2 During the construction phase the use of tower cranes and temporary structures on the Site may cause interference to both satellite and terrestrial TV / Radio broadcasts. This interference will affect properties to the north west of the Site. Fixing the tower crane in a fixed position when not in use will limit the negative effects to the broadcast signals, although little can be done to mitigate against the effects of temporary structures used during construction on telecommunications reception. Due to the temporary nature of the construction phase of the Proposed Development and low receptor sensitivity, the residual effect will be of negligible significance.

16.3 There is small risk that cable and ADSL services to be affected in the area during the construction process, if the cabling used for the services is disrupted through excavation works. However this can be correctly mitigated against by obtaining cabling route information from the service providers, as found with power and gas utilities. The overall residual effect is therefore negligible.

16.4 Once the Proposed Development becomes operational, properties to the north east may experience a reduced terrestrial television signal, due to the transmission shadow created by the Proposed Development. Although this may cause disruption to users within the shadow path, with the recommended mitigation in place the residual effect will be negligible.

16.5 Satellite television interference caused by the operational phase of the Proposed Development will only affect an undeveloped park area directly to the northwest. Based on this no mitigation has been recommended as the residual effect will be negligible.

16.6 Terrestrial radio transmissions are less affected by broadcast shadows from tall buildings due to their lower frequency signal, which easily diffracts around buildings. Based on this there will be a negligible residual effect on this type of transmission.

16.7 Once in operation the Proposed Development will not require any further excavation works that may disrupt the cabling used for both cable and ADSL services in the area. As the buried cabling is immune from the transmission shadows created by structures within the Proposed Development, the overall effect will be negligible.
16.8 The main satellite radio transmissions received in the UK are broadcast using the same satellites as the Sky and Freesat television services. Therefore both satellite TV and radio are affected by interference in the same way. In the case of the Proposed Development the transmission shadow will only affect the undeveloped park area directly to the north west of the Site. The residual effect of which will be negligible.

16.9 Through the implementation of appropriate mitigation measures, described in 16.5, the Proposed Development will accord with the requirements of PPG8 by minimising negative effects on telecommunications interference. The significance of potential effects on telecommunications has been assessed using the standards set by national guidance from the BBC, Office of Communications (OfCom) and professional judgement based on good practice.

17. **SUMMARY**

17.1 The preparation of the ES has been an iterative process, undertaken in parallel with the design process. As a consequence, many measures to mitigate potential negative environmental effects have been incorporated into the scheme design in order to avoid, reduce or offset such effects.

17.2 Where mitigation through the design process has not been possible it will be achieved by one of the following means:

- Mitigation through controls on demolition and construction activities; or
- Mitigation to be applied through on-going management and monitoring once development commences.

17.3 It is anticipated that the mitigation measures identified will be secured by planning obligations or conditions, to ensure that the high quality scheme proposed by the Applicant is fully implemented. The key benefits of the Proposed Development are considered to be:

- Compliance with national, regional and local planning policies;
- Contribution to the housing requirements (including affordable in the Corporation of London proposed development) in LBS;
- Opportunities for local businesses;
- Improvement in the economic profile of the LBS;
- Buildings designed to incorporate sustainability principles;
- Creation of landmark buildings, incorporated into the existing townscape;
- Remediation of any existing contamination on the Site;
- Improved links for pedestrians and cyclists;
- Provision of local facilities and areas of open space; and
- Ecological enhancement measures.

17.4 In addition, the Proposed Development acts as a catalyst for regeneration of the immediate and surrounding area.
This Non-Technical Summary provides a general description and account of the environmental, social and economic effects of the Proposed Development. The full details of the assessment of likely significant environmental effects is presented in the Environmental Statement (Volume 1 – Text and Figures and Volume 2 – Appendices).

If you wish to order further copies of this document or a copy of the Environmental Statement please contact:

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