

NEW CITY COURT

Environmental Statement - Non-Technical Summary


Waterman Infrastructure & Environment



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This document has been prepared and checked in accordance with Waterman Group's IMS (BS EN ISO 9001: 2008, BS EN ISO 14001: 2004 and BS EN ISO 45001:2018)

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Comments

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Contents

1. Introduction	2
2. The Existing Site and Surrounding Context	3
3. What are the Proposals?	5
4. Alternatives and Design Evolution	11
5. Approach and Environmental Impact Assessment Methodology	12
6. What are the Likely Environmental Effects and how would they be minimised?	13
6.1 Transportation and Access	13
6.2 Noise and Vibration	14
6.3 Air Quality	14
6.4 Archaeology (Buried Heritage)	15
6.5 Water Resources and Flood Risk	16
6.6 Wind	17
6.7 Daylight, Sunlight, Overshadowing, Light Pollution and Solar Glare	17
6.8 Townscape, Built Heritage and Visual	18
6.9 Cumulative Effects	20
7. What will happen next?	23

Contents

1. Introduction

This Non-Technical Summary (NTS) of the Environmental Statement (ES) has been prepared by Waterman Infrastructure & Environment Ltd ('Waterman IE') on behalf of GPE (St Thomas Street) Limited ('the Applicant') in support of a full planning application and listed building consent application for the redevelopment of a site at 4-26 St. Thomas Street in the London Bridge area, to the south of the Thames (the 'Site') within the administrative boundary of the London Borough of Southwark (LBS).

The location, existing buildings and boundary of the Site is shown in **Figure 1**. The Site occupies an area of approximately 0.36 hectares and is bounded by St. Thomas Street to the north, shops on Borough High Street (A3) to the west; King's Head Yard to the south; and Guy's Hospital buildings to the east.

The redevelopment (hereafter referred to as 'the Development') would provide an office-led, mixed use scheme (including new retail and restaurant/café floorspace) and significant, high quality public realm, along with a new access to London Bridge Underground Station. The Development would involve the demolition of all existing buildings and structures within the Site with the exception of the listed Georgian Terrace, which will undergo significant restoration. Keats House façade would be relocated approximately 6m to the west along St Thomas Street, to allow the creation of a public entrance space from St Thomas Street, whilst providing a new standalone building.

An Environmental Impact Assessment (EIA) has been undertaken by Waterman to assess the potential environmental effects of the Development. The EIA is reported in an Environmental Statement (ES) which has been prepared to accompany the planning application. The ES describes the likely significant environmental effects of the Development. This document provides a summary of the ES in non-technical language.



Figure 1 Existing Buildings and Red Line Planning Application Boundary.

2. The Existing Site and Surrounding Context

As shown in **Figure 2**, the Site comprises the following:

- Georgian terraced townhouses at Nos. 4, 6, 8, 12, 14 and 16 St. Thomas Street (No. 10 St. Thomas Street does not exist) which are grade II listed buildings (the 'Georgian Terrace');
- New City Court office building at No. 20 St. Thomas Street built in the 1980s; and
- Keats House at Nos. 24 to 26 St. Thomas Street, which was built in the 1980s with a retained 19th century façade fronting St. Thomas Street.

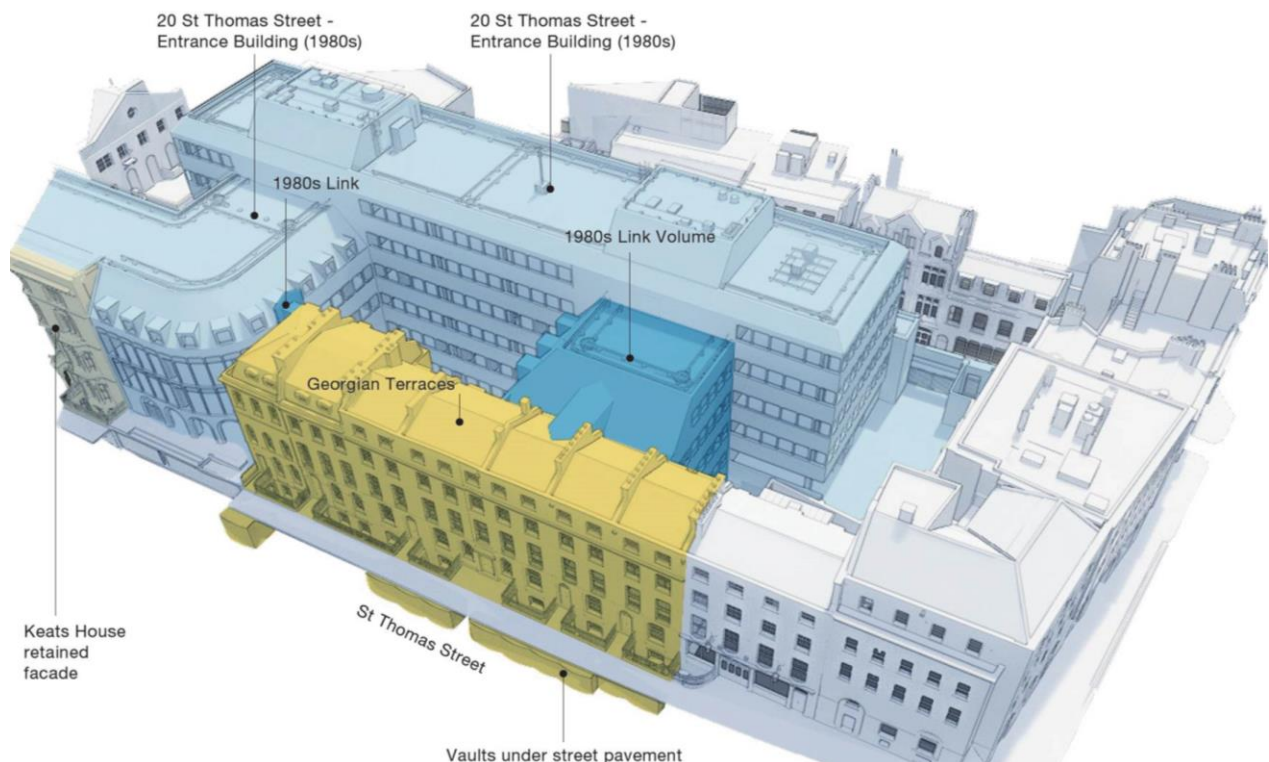


Figure 2 Existing Site Buildings. Source: AHMM

In addition to the above, there is also a central courtyard at lower ground level, which adjoins the rear of the Georgian Terrace, and a service area off King's Head Yard. There is no public open space on the Site, although a non-public pedestrian route runs through the Site from St. Thomas Street to King's Head Yard.

The Site is located in an area which has been in use by humans since the prehistoric period. The 11-14th centuries (later medieval period) saw the southern side of the Thames develop with many townhouses, churches and inns. The Site was part of St. Thomas' Hospital and was developed with backyards and outbuildings of properties lining the road. By the 18th century the Site was occupied by residential terraced buildings along the north-eastern boundary (the present Grade II listed buildings), a single building occupying the western and southern boundary and a dis-used graveyard situated in the south-east of the Site. The Site was relatively unaffected by bombing during the Second World War, with the majority of the area listed as receiving minor blast damage. The current layout was built in the 1980s which remains to the present time.

A London Underground Limited (LUL) railway tunnel runs beneath the north-western corner of the Site.

There is a mix of land uses surrounding the Site (see **Figure 3**). These are made up of residential, retail, office, hospital, and public transport infrastructure. In particular, the larger area of the Site is bounded by:

- Commercial properties located to the north, south-east and west of the Site, including shops, restaurants, office, hotels, public houses (including The Old King's Head), banks, museums and post offices;
- Residential properties including those situated on St. Thomas Street, King's Head Yard, White Hart Yard and Borough High Street; and
- King's College University facilities, including Guy's Campus, which comprises Guy's Hospital, student centre and student accommodation, as well as a library, IT suite, and auditoriums to the south and east of the Site.

The Shard, which is a mixed-use building, is located approximately 60m to the east of the Site and includes retail, offices, hotel, apartments, restaurants and a public viewing gallery. It is a destination for tourists. Other tourist attractions in the area include Borough Market, Shakespeare's Globe theatre, Hay's Galleria and Tate Modern. Southwark Cathedral is located to the west of the Site beyond Borough High Street. The Old Operating Theatre Museum and Herb Garret is located on the opposite side of St. Thomas Street to the Site.

A newly built part 26 storey and part 16 storey tower named 'Shard Place' (formerly known as Fielden House), lies to the east of the Site and will provide 148 residential apartments along with flexible retail space.

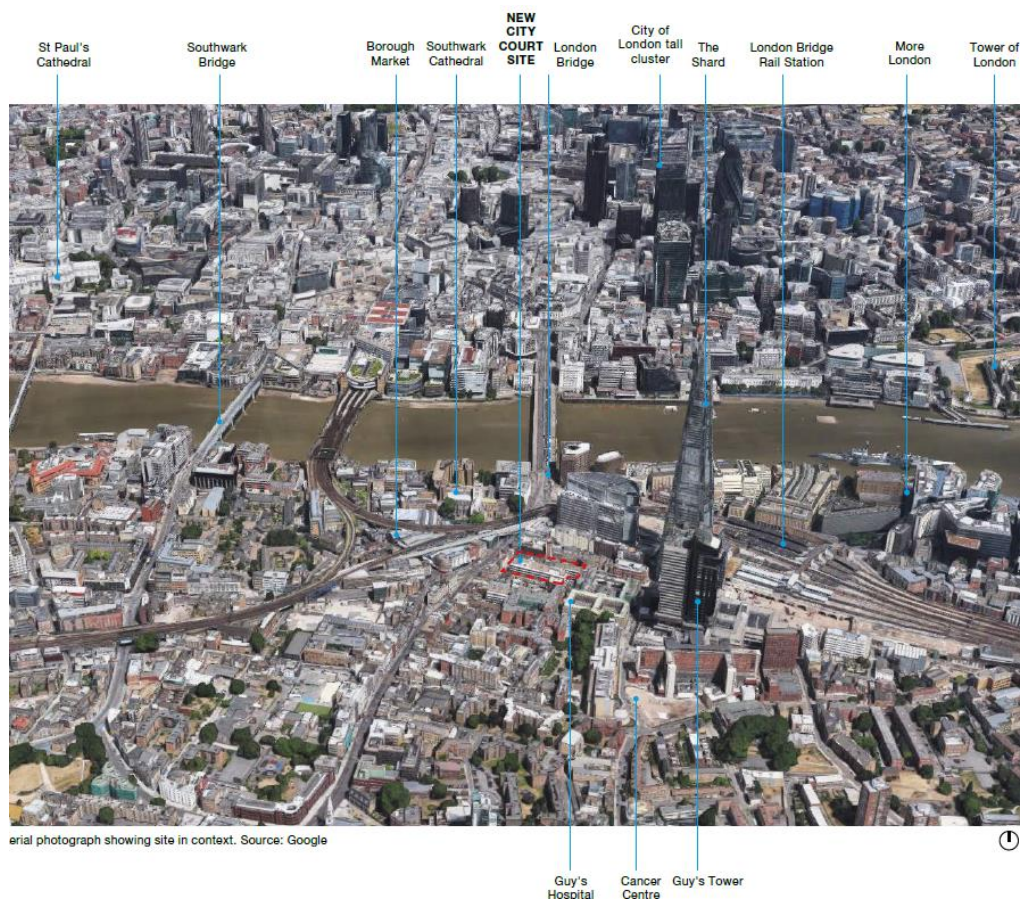


Figure 3 Aerial Photograph Showing the Site in Context of Surrounding Land Uses. Source: AHMM

3. What are the Proposals?

The detailed planning and listed building consent applications seek approval for the redevelopment of the Site for office and retail uses. Existing buildings would either be demolished (20 St. Thomas Street), restored and refurbished (the Georgian Terrace) or relocated and redeveloped (Keats House, the façade of which will be retained).

The Development would provide:

- Demolition of the existing 1980s New City Court buildings;
- Sympathetic restoration of listed Georgian Terrace buildings along St Thomas Street;
- Relocation of the Keats House façade by approximately 6m and demolition of the remainder of the building;
- Delivery of a highly sustainable 26-storey building (plus mezzanine and two basement levels) with the overall height of the extending to 108m Above Ordnance Datum (AOD) (103.0m above ground), providing high-quality office floorspace (Class E);
- Introduction of flexible office/retail floorspace at ground floor level, activating the proposed public realm;
- Provision of affordable workspace within the Georgian Terrace buildings, Keats House and levels 1 and 2 of the proposed office building, representing 10% of the overall office provision;
- Delivery of publicly accessible rooftop garden with high-quality landscaping along with a café and restaurant providing food / drink floorspace;
- Delivery of a fully accessible public realm, providing enhanced connectivity through new public routes and a new covered public arcade;
- Creation of a new entrance to London Bridge Underground Station; and
- Improved onsite servicing strategy to maximise servicing options and minimise impact on the local highway.

As shown in **Figure 4 and 5**, the Development would comprise three key elements: The Tower (at 26 storeys), the Georgian Terrace and Keats House (both four storeys). New pedestrian entrances to the Site would also be created: one off St. Thomas Street, one off King's Head Yard and one to the east of New City Court and entrances to retail units in the Georgian Terrace off the New Yard.



1. King's Head Courtyard
2. Gallery
3. St Thomas Square – Entrance
4. Beak Alley connection

Figure 4 Aerial view of buildings and public realm areas. Source: AHMM



Figure 5 Elevation Drawing of New City Court Looking South from St. Thomas Street. Source: AHMM

The façade of Keats House would re-located approximately 6m to the west along St Thomas Street. A new loading bay would be located in the south-east of the Site and would be accessible from St. Thomas Street. The Georgian Terrace would be retained and refurbished.

The Tower would provide 26 storeys of office space, with a double height ground floor. Flexible office and retail space would be provided at ground level. Food and drink floorspace would be provided at the Terrace Level (levels 24 and 25) as part of the publicly accessible rooftop garden.

The Georgian Terrace would provide affordable workspace from lower ground up to second level, with access to each unit from St. Thomas Street at the ground level. Keats House would provide affordable workspace from ground level to level 2.

The existing basement below the Site would be extended to a two-storey basement. Basement level B1 would comprise cycle parking and changing facilities. Keats House basement B1 would be dedicated to building management and staff mess room. The lower level basement B2, instead, would comprise plant, storage tanks and a refuse and recycling holding area with spare storage space and tenant plant for the retail use under Keats House.

Figures 6-10 are artists impressions of how the scheme would look.



Figure 6 Visualisation of The Development's Main Entrance Looking South from St. Thomas Street. Source: AHMM



Figure 7 Visualisation of The Development Looking East Along King's Head Yard. Source: AHMM



Figure 8 Visualisation of Keats House Relocated and Rebuilt (with Original Façade) to be a Standalone Building. Source: AHMM



Figure 9 Visualisation of The Development Looking South East from St. Thomas Street with Refurbished Georgian Terrace Visible. Source: AHMM



Figure 10 Visualisation of The Development from London Bridge in Context of Surrounding Buildings. Source: AHMM

There are three areas of public realm proposed:

- **Public Squares** – Two large public squares are proposed: St Thomas Square (which would sit between the existing fabric of the Georgian Terrace and Keats House) and King's Head Yard Courtyard (which would be adjacent to the London Bridge Underground Station exit and facing The Old Kings Head Pub across the yard);
- **Public Roof Garden** – Consists of a rooftop garden encouraging exploration of a variety of green spaces, including a round and glazed pavilion for educational purposes.
- **Passages and Yards** – The original passage through the Georgian Terrace would be opened up to provide better connection into the Site and restore another element of the historic grain of the Site.



Figure 11 St Thomas Square. Source: AHMM

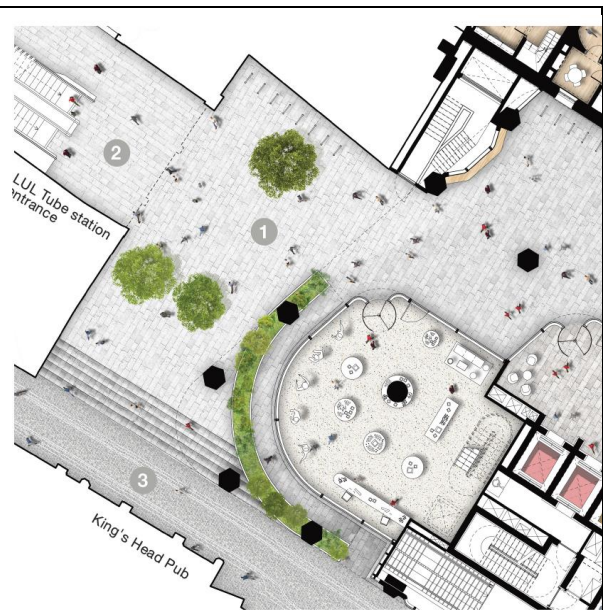


Figure 12 King's Head Courtyard. Source: AHMM



Figure 13 Covered Gallery. Source: AHMM

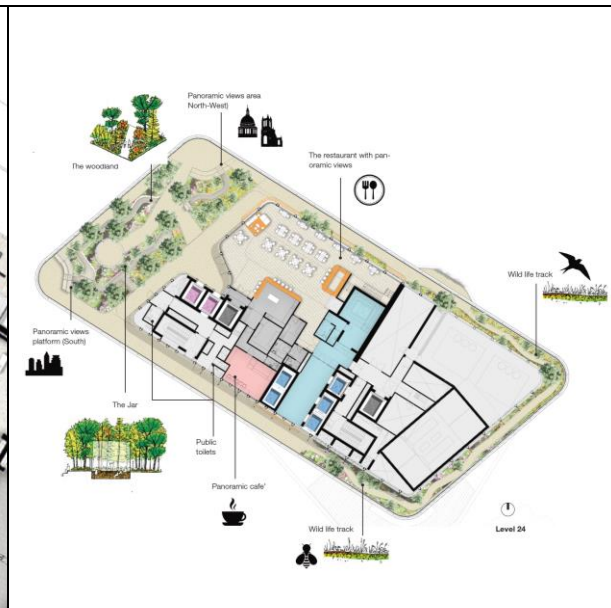


Figure 14 Rooftop Terrace. Source: AHMM

Figure 12 Public Realm Areas Plans

Servicing and goods deliveries, utilising Light Goods Vehicles only, would arrive from St. Thomas Street and park in the designated loading bay. Refuse trucks would access the Site from St. Thomas Street and park within the loading bay at ground level in the south-eastern part of the Site.

No car parking is proposed, with the exception of 2 spaces for disabled users. The Development would provide a total of 1,322 cycle spaces (1,103 long stay spaces and 219 short stay spaces).

Ecological enhancements would be proposed as part of the Development, including native trees and plants, which would be of local provenance where practicable. This planting would be of substantial benefit to biodiversity by providing food and shelter to a range of bird and insect species. Climbers and ornamental non-native plant species would also be proposed. Provision of bird nest boxes would be also incorporated as part of the Development.

Typically, rainwater attenuation would be integrated into soil and an attenuation layer under permeable paving.

The waste and foul water, including sewage, from the Development would be discharged to the existing public sewers. In order to reduce the surface water discharge rate to greenfield rate (the rate of run-off of the Site in an undeveloped state), some storage would be required on Site using attenuation tanks and blue roofs, allowing gravity discharge to the sewers.

The Development has been designed in line with the latest sustainable design principles set out within the London Plan. To this aim, the Development has adopted a net zero carbon strategy and minimise embodied carbon, by the adoption of the following actions:

- A lean and simple construction approach, by minimising basement sizes and material waste;
- Embedded cooling pipes, providing cooling to the majority of the office space. This solution uses less energy than conventional office systems and significantly reduces the embodied carbon of the Development;
- Openable windows, reducing the need for mechanical ventilation, thus reducing the energy demand;

- Air Source Heat Pumps (ASHPs) with chillers for cooling on the upper levels. The use of Air Source Heat Pumps combined with thermal storage solutions enable significant reductions in total greenhouse gas emissions.
- Solar panels on level 26 on the Tower providing further carbon savings.

The Energy Strategy indicates that the overall predicted reduction in CO₂ emissions beyond Part L 2013 (2016 amendments) of the Building Regulations, as a result of the above measures, is approximately 47% which represents an annual saving of approximately 279.7 tonnes of CO₂.

The Development is targeting the following BREEAM (Building Research Establishment Environmental Assessment Method) ratings:

- BREEAM New Construction Shell and Core 2018 (offices) rating of 'Excellent' - for the retail and offices in the Tower and offices in Keats House;
- BREEAM Non Domestic Refurbishment and Fit-out 2014 (office and retail) 'Very Good' for the refurbishment rating for the proposed office use - or the Georgian Terrace.

The estimated start date for the Site clearance and demolition ('the Works') is quarter three 2022. Although the exact weeks may vary, the works are expected to finish in the first half of 2026.

The Works would include:

- Site set up and enabling works;
- Demolition and Site clearance;
- Piling;
- Basement construction;
- Construction of the superstructures;
- Service installation and fit-out;
- Testing and commissioning;
- Keats House façade relocation; and
- Landscaping and external works.

Normal core working hours for the Works would be agreed with London Borough of Southwark. They are anticipated to be as follows:

- 08:00 - 18:00 hours Monday to Friday;
- 08:00 - 14:00 hours Saturday; and
- No working on Sundays or Bank Holidays.

An outline Construction Management Plan (CMP) has been prepared and is submitted with the application. The CMP aims to identify the proposed phasing and construction methodology and addresses any potential issues during construction that the Appointed Contractor should consider when developing their specific Site Environmental Management Plan (SEMP). The SEMP will be issued to any demolition or construction contractors and in line with best practice on construction sites a range of environmental management controls would be implemented, for example for mitigating dust, noise and vibration.

4. Alternatives and Design Evolution

Chapter 4 Alternatives and Design Evolution of the ES provides a description of the main alternatives to the Development which were considered by the Applicant.

Guidance on the preparation of EIA suggests that it is good practice to consider ‘alternative sites’, where relevant. However, given the Applicant has owned the Site for ten years and due to the Site being located within an ‘Opportunity Area’ (i.e. London’s major source of brownfield land which have significant capacity for development), the Applicant has not considered alternative locations for the Development.

EIA guidance also suggests that the option of doing nothing (the ‘Do Nothing’ scenario) is considered in an ES. The ‘Do Nothing’ scenario would entail leaving the Site in its current state. Much of the Site is not an efficient use of space or pedestrian friendly and does not connect well to its surroundings. It is considered that under this scenario, the planning policy aims for redevelopment of the Site would not be realised leading to a number of missed opportunities for the Site.

Masterplanning of the Development commenced in 2014 and since this time the design has evolved in response to extensive public consultation, consultation with London Borough of Southwark, and other statutory consultees (such as Historic England and the Greater London Authority), together with the findings of environmental and other technical studies. Key environmental considerations in the evolution of the Development have included:

- London View Management Framework (LVMF) height constraints and other key viewpoints identified;
- heritage setting effects to Borough High Street Conservation Area, as well as other conservation areas and listed buildings;
- daylight, sunlight and overshadowing effects to neighbouring residential properties;
- wind microclimate effects at ground level;
- considering the location of the Tower element to respond to the scale of neighbouring properties as well as to height constraints;
- improving connectivity within the surrounding area and assisting in reducing crowding outside the London Bridge Underground Station on Borough High Street;
- facilitating a new entrance and exit from the London Bridge Underground Station directly into the Site;
- assistance with reducing crowded pavements of Borough High Street outside the underground station;
- retention of key listed buildings and returning them closer to their original design;
- increasing active frontages along St. Thomas Street and King’s Head Yard; and
- considering effects on, and ensuring appropriate conditions at sensitive receptors, for example by undertaking wind studies and noise and vibration assessments.

5. Approach and Environmental Impact Assessment Methodology

EIA is a process which aims to ensure that the likely significant environmental effects of a proposed development are given due consideration in the determination of a planning application. Effects can be beneficial (positive) or adverse (negative). In accordance with the relevant legislative requirements and best practice guidelines, the EIA was undertaken using established methods and assessment criteria. This involved visits to the Site, along with surveys, data reviews, consultation with relevant statutory authorities, computer modelling and specialist assessment undertaken by a team of qualified and experienced consultants.

The first stage of the EIA process involved undertaking 'EIA scoping studies'. The purpose of the study was to identify the potentially significant environmental effects associated with the Development and therefore provide the focus or scope of the EIA. An EIA Scoping Report - which presented the findings of the scoping studies - was submitted in 2018 to Southwark Council, to support a request for their 'Scoping Opinion' in relation to a former application for a development proposal within the same Site. Southwark Council issued their Scoping Opinion on 4 October 2018. In light of the limited change in scale and nature of the Development – compared to the 2018 application - an informal EIA Scoping letter was submitted on 19 February 2021 to provide London Borough of Southwark with an opportunity to comment on the content and broad EIA methodology and identify where further information or changes may be required from the previously agreed scope.

It was agreed with London Borough of Southwark that the EIA would need to include an assessment of the following environmental topics:

- Transportation and Access;
- Noise and Vibration;
- Air Quality;
- Archaeology (Buried Heritage);
- Water Resources and Flood Risk;
- Wind Microclimate;
- Daylight, Sunlight, Overshadowing, Light Pollution and Solar Glare;
- Townscape, Built Heritage and Visual Impact Assessment; and
- Cumulative Effects.

Each of the above topics are addressed in the ES, with a chapter dedicated to each topic (with Townscape and Visual and Built Heritage impact assessments presented within ES Part 3, separate from the main text in ES Part 1 due to its size). In each chapter, a description of the assessment methodology is given together with the relevant environmental conditions on and adjacent to the Site and the likely significant effects of the Development (both beneficial and adverse). The significance of likely effects is graded on a scale as either insignificant, minor, moderate or major (with any effects minor and above considered to be 'significant', with the exception of townscape and visual where, due to a difference in methodology and terminology, effects of moderate and major are considered 'significant'). Each chapter also describes a range of measures that would be incorporated to avoid, reduce, or offset any identified likely adverse effects, and / or enhance likely beneficial effects. Such measures are referred to as 'mitigation measures'. The resulting effects (known as 'residual effects'), following the implementation of mitigation measures, are also described.

The likely significant cumulative effects of the Development in combination with other 'reasonably foreseeable' redevelopment proposals are set out in the replacement **Chapter 14 Cumulative Effects** appended to the ES Addendum.

6. What are the Likely Environmental Effects and how would they be minimised?

6.1 Transportation and Access

As set out in **Chapter 7** of the ES and, an assessment of the transportation effects of the Development in terms of effects on road users, pedestrians, cyclists and public transport users was undertaken. This has been based upon a range of information sources and includes baseline surveys and computer models.

During the demolition, refurbishment and construction phase there would be a short-term increase in traffic flow, particularly heavy goods vehicles (HGVs), associated with general plant and materials deliveries and the removal of waste from the Site. To effectively manage this traffic management measures would be set out within a Site Environmental Management Plan (SEMP) and Construction Logistics Plan (CLP). This would be agreed with London Borough of Southwark prior to the commencement of works and would include measures such as the use of agreed appropriate routes to and from the Site for construction vehicles. Appropriate signage would be implemented around the Site as well as communication methods for keeping local residents informed of activities. With these mitigation measures in place, the likely residual effect on transport and access during the Works would be negligible (**not significant**).

The Site has a high level of accessibility to public transport, with London Bridge Mainline and Underground Stations in close proximity to the Site. Several bus services pass close by the Site. However, current pedestrian provision within the Site itself is poor.

Overall, once the Development is completed and occupied, it is predicted to result in negligible (**not significant**) increases in traffic flows on the local road network. The two blue badge car parking spaces and cycle parking spaces provided are in accordance with relevant policy guidelines and have been agreed in consultation with London Borough of Southwark and Transport for London (TfL). A Travel Plan has been developed in support of the planning application. This sets out a framework for the delivery of new transport initiatives and measures for users of the Site that would travel to and from the Development on a regular basis and how they can minimise reliance on private vehicle use and maximise the use of more sustainable modes of transport.

With regard to the increased use of public transport in the area, the predicted net increase in passengers using London Bridge Mainline and Underground stations and local buses would not be significant resulting in negligible (**not significant**) likely residual effects on the public transport users.

The Development is predicted to generate additional walking and cycle trips on the local network surrounding the Site. However, the Development provides a new pedestrian route through the Site and enhances the Site's permeability and connectivity for pedestrians and cyclists. The pedestrian environment within the Site would be of high quality with the provision of attractive open spaces, well maintained and legible pathways, lighting and active ground floor uses, thus providing natural surveillance. The new pedestrian route linked to the proposed new exit/entrance to the Underground station would reduce the existing pedestrian overcrowding on the pavements on Borough High Street. Likely residual effects of the Development on pedestrians would result in beneficial minor to moderate effects (**significant**). Cycling will be encouraged via the provision of 1,322 cycle parking spaces for users of the Development, which would have a negligible (**not significant**) effect on cyclists using the local cycle network.

6.2 Noise and Vibration

As set out in **Chapter 8** of the ES, the noise and vibration effects of the Development have been established in accordance with published guidelines and included a comprehensive baseline monitoring survey at the Site. The assessment used calculations based on the baseline monitoring survey and the proposed layout of the Development.

The baseline noise survey found the noise climate to be dominated by road traffic noise from the surrounding road network, construction activities on nearby sites as well as distant mainline railway and aircraft noise. The baseline vibration monitoring found that the LUL Jubilee Line tunnel underneath the Site had no material effect on existing occupants.

Demolition, refurbishment and construction works would include activities that would be likely to temporarily increase noise levels and potentially cause vibration within and immediately adjacent to the Site (particularly demolition activities, breaking activities and piling). In particular, when activities are occurring closest to the Site boundary, this could result in temporary effects on occupants in surrounding properties, including residents.

The implementation of noise and vibration control and management measures through the SEMP, during demolition and construction phase, would help to reduce noise disturbance to occupants of existing and future properties. Such measures would include using low-noise machinery and equipment, enclosing and screening machinery, using low-vibratory foundation methods and the use of appropriate hoarding to the required height and density. Demolition and construction traffic is not predicted to result in significant noise increases (insignificant likely residual effect) on local roads and would be managed through the CLP. As a result, disturbance from vibration is anticipated to be negligible for all the sensitive receptors considered. Similarly, noise disturbance is likely to be negligible for most of the receptors, except for the Guy's Hospital, the Bunch of Grapes Public House and Iris Brook House / Orchard Lisle House where effects are likely to range from negligible (**not significant**) to, at worst, temporary moderate adverse (**significant**), depending on the construction activity.

Once the Development is complete, the fixed building services plant installed would have the potential to generate noise. Suitable noise level limits have therefore been proposed, to ensure that noise from plant would not cause disturbance to existing or future receptors in the surrounding area or future occupants of the Development, resulting in negligible (**not significant**) likely residual effect for these receptors.

Although predicted potential effects arising from servicing and delivery are likely to be negligible (**not significant**), a Delivery, Servicing and Waste Management Plan (DSWMP) submitted to support the application would be implemented to manage the arrival and departure of delivery and servicing vehicles and their activities when on-site, and therefore assist in mitigating noise emissions.

6.3 Air Quality

As set out in **Chapter 9** of the ES, the air quality within the administrative boundary of the London Borough of Southwark exceeds the Air Quality Strategy (AQS) objectives and, as a result, the entire northern part of the Borough has been designated as an Air Quality Management Area (AQMA).

The Site is located within this AQMA; therefore, an assessment was undertaken to determine the likely effects of the Development on local air quality.

The main likely effects on local air quality during the demolition and construction works would relate to the generation of dust and to exhaust emissions from construction vehicles. Although effects are anticipated to be negligible (**not significant**), a range of measures to minimise or prevent dust would be implemented through the SEMP, to further control the dust generation. Measures would include for

example the use of dust suppression techniques such as water sprays, appropriate hoardings and dust monitoring.

A detailed modelling exercise has been undertaken to assess the likely effects associated with the traffic from the operational Development on local air quality. The modelling indicates the Development would have negligible effects (**not significant**) on local air quality for all nearby properties in terms of nitrogen dioxide and particulate matters; therefore, no specific mitigation measures are required. Given that air source heat pumps would be used for the provision of heating and hot water, a detailed assessment on combustion plant was not required. The Development is considered to be air quality neutral.

It should be noted that the Development incorporates a number of measures that would benefit local air quality. These include:

- The ability to accommodate a new entrance/exit to the London Bridge Underground Station, which would reduce pedestrian footfall on Borough High Street and encourage the use of public transport;
- New open space surrounding the area identified as a potential new entrance /exit to the London Bridge Underground Station, which would be planted with medium and tall trees which would absorb carbon dioxide and vehicle and heating plant emissions;
- The provision of 1,322 cycle spaces, to encourage sustainable forms of transport;
- Implementation of a Delivery, Servicing and Waste Management Plan (DSWMP) to manage the arrival and departure of delivery and servicing vehicles and their activities when on-site; and
- Implementation of a Travel Plan to encourage employees to use sustainable transport.

6.4 Archaeology (Buried Heritage)

As set out in **Chapter 10** of the ES, an assessment of the effects of the works on the archaeological (below ground heritage asset) resource within the Site was undertaken. This was assessed qualitatively based on professional judgement using a desk study and review of historical archaeological fieldwork undertaken at the Site.

The Site does not contain any statutorily designated heritage assets, but does contain the Grade II listed Georgian Terrace on St. Thomas Street. The Site lies within an archaeological priority zone (Borough, Bermondsey and Rivers APZ) designated by London Borough of Southwark. The Site is therefore recognised as being in an area of significant known archaeological interest or potential.

Due to the construction of the existing building and associated basement on the Site, archaeological survival is expected to be very limited and localised and may include isolated and truncated (partially removed) prehistoric cut features, isolated and truncated Roman cut features, redeposited Roman artefacts or Roman pits/ditches, and truncated post-medieval remains. All of these, if present, would range from low to medium significance.

Aspects of the Development which will potentially have an effect on buried heritage assets are those which involve ground disturbance associated with the proposed construction of a further basement level, as the physical impacts for such activities will truncate or remove entirely any archaeological remains within the area affected in the Site.

The archaeological survival potential at the Site is very limited, and no buried heritage assets of Very High or High significance are anticipated which would merit a mitigation strategy of permanent preservation in situ. It is therefore considered that the likely adverse effects of Moderate to Major significance can be successfully mitigated by a suitable programme of archaeological investigation before demolition and / or during groundworks, to advance understanding of asset significance and achieve preservation by record.

Archaeological monitoring of any initial ground investigations would also help to clarify the potential for archaeological survival should the scale of any ground disturbance in this area require it.

The mitigation measures described above would help to reduce the effects associated to the construction of the Development on any archaeological remains; therefore, the resulting residual effects are anticipated to range from minor to moderate adverse (**significant**).

There would be no likely effects on archaeological assets once the Development is complete and occupied.

6.5 Water Resources and Flood Risk

The assessment in **Chapter 11** of the ES was supported by a Flood Risk Assessment and Drainage Strategy (**Appendix 11.1** and **11.2** in Part 4 of the ES).

The lowest point of the Site is the south eastern corner near where King's Head Yard and White Hart Yard meet. The nearest surface water to the Site is the River Thames, approximately 200m to the north.

The Site is protected by the Thames Tidal Defences, and as such, tidal and fluvial flood risk at the Site is considered to be low. However, in the event that the tidal defences fail, flooding may occur for the basement and the ground level.

Surface water flooding may occur as a result of either overland flow or ponding, such as following heavy or prolonged rainfall, snow melt, or where intense rainfall is unable to soak into the ground or enter drainage systems due to blockages or capacity issues.

There is not a history of flooding from sewers in the vicinity of the Site and the risk of flooding to the Site from surcharged (overloaded) sewers is therefore considered low.

During the demolition and construction phase, residual effects associated with the risk of flooding are likely to be negligible (**not significant**) following the implementation of the of a SEMP which will include a number of mitigation measure specific to flooding, for example, appropriate dewatering and disposal, using standard techniques such as sumps and pumps, an adequate temporary drainage system.

In relation to the risk of flooding of the completed and operational development, it should be noted that plant, management and servicing uses only been located at ground floor and basement levels as part of the design; therefore, the occupiers would be able to safely evacuate to a 1st floor level and above. In addition, temporary flood barriers would be used in the event of the River Thames tidal defences failing In order to prevent flood water entering the property and causing damage. Due to the risk associated with the surface water flooding in King's Head Yard (the lowest point of the Site), permanent flood resistant doors are proposed as part of the design. In addition, the basement would be appropriately waterproofed to enable it to remain watertight throughout the lifetime of the Development. Therefore, once complete and operational, the Development is likely to result in negligible residual effects (**not significant**) on flood risk.

Measures to prevent ground contamination and adverse effects on groundwater quality would be included within the SEMP; therefore, the likely residual effects on the quality of the controlled waters are anticipated to be negligible (**not significant**).

The likely effects of the Works upon water demand and foul and potable water infrastructure capacity were identified as being negligible. Therefore, no specific mitigation measures are considered necessary and the likely residual effect would remain as per the likely effect (negligible – **not significant**). However best practices will be implements as part of the SEMP.

The Development is likely to result in a negligible effect in respect of the capacity of foul water drainage

infrastructure and sewage treatment works. As such, no mitigation measures are required and the residual effect would remain as per the likely effect, that is negligible (**not significant**). In addition to the measures embedded within the design, future users of the Development would be encouraged to adopt a more responsible attitude to water use. They would be provided with a non-technical guide which details the operation and performance of the building, including information on water efficient fittings, recommendations for their most efficient usage.

6.6 Wind

As set out in **Chapter 12** of the ES, an assessment of the likely wind conditions as a result of the Development and the suitability of these in terms of pedestrian comfort has been undertaken. The assessment has been informed by appropriate meteorological data and computational fluid dynamics (CFD) modelling. CFD is a computer based modelling technique, which simulates the effect of wind on the built environment. This modelling technique has been also been used to inform the design of the Development.

The meteorological data for the Site shows that prevailing winds blow from the south-west throughout the year, which is typical for many areas of southern England, with the strongest winds during the winter season. There is a secondary peak from the north-east during the late spring and early summer. The winds from the north-east are not as strong as the prevailing winds from the south-west. The wind microclimate conditions throughout and surrounding the Site are generally as would be expected within an urban environment, ranging from acceptable for sitting use to leisure walking use during the windiest season.

The demolition of the existing buildings would not be expected to have a significant effect on the wind conditions within, and immediately surrounding, the Site. As construction of the Development proceeds, the wind conditions of the Site would gradually change to the conditions of the completed Development.

Following completion of the Development, and with specific mitigation measures in place (such as the inclusion of planned planting and landscaping measures both restricting access to extremities in addition to mitigation from tree planting) the wind conditions likely to be experienced at all locations within, and immediately surrounding, the Site have been found to be suitable for the intended uses. These locations include pedestrian thoroughfares, entrances, and amenity spaces including above ground level terraces. It is therefore considered that wind conditions following completion of the Development would have negligible residual effects (**not significant**) on pedestrian comfort or safety either within the Development or for the streets or buildings in proximity to the Site.

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

As set out in the **Chapter 13** of the ES, an assessment has been made of the likely effect of the Development on the daylight, sunlight, overshadowing, and light pollution on neighbouring properties and amenity spaces. A solar glare assessment has also been undertaken by identifying sensitive viewpoints for road and train drivers surrounding the Site.

The technical analysis has been undertaken quantitatively via the creation of a digital three-dimensional model of the Site and surroundings, based on dedicated surveys and site photographs.

The likely effects in relation to the daylight and sunlight amenity, overshadowing, solar glare and light pollution for the surrounding properties and amenity areas would vary throughout the demolition and construction works, depending on the level of obstruction caused. The effects would almost certainly be less than that of the completed Development, given that the extent of permanent massing would increase throughout the construction stage, until the buildings are complete. As such, the overall effect would range from being negligible (**not significant**) at the start of the works to effects ranging from **negligible**

(not significant) to long-term, permanent, adverse of major significance **(significant)**, once the Development is complete, as set out in the assessment of the complete and operational Development below.

In terms of daylight measures including massing alterations were implemented during the design process to minimise the impacts on daylight and sunlight to surrounding sensitive receptors as much as possible while still ensuring the provision of a viable scheme. However, owing to the densely populated urban context, the scale of the Development in comparison to the existing buildings, its close proximity and low existing daylight and sunlight levels, changes in conditions would be unavoidable. Therefore, overall, the likely residual daylight effects on the selected sensitive properties would therefore be negligible **(not significant)** to 8 properties, minor adverse **(significant)** to 9 properties, moderate adverse **(significant)** to 8 properties and moderate to major adverse to 1 property **(significant)**. The sunlight effects, instead, would be negligible **(not significant)** to the majority of the receptors (19 properties), minor adverse **(significant)** to 1 property, moderate adverse to 3 properties **(significant)**.

The Development is predicted to have negligible effects (not significant) on the surrounding amenity areas in terms of overshadowing, except for the front open spaces at 9 and 20 St Thomas Street which would experience moderate adverse **(significant)** effects.

In terms of solar glare, the assessment considered the worst-case potential occurrence of solar reflections from the Development and proximity to a driver's line of sight. A total of 12 out of the 26 locations were predicted to experience negligible effects **(not significant)** whilst the minor adverse effects **(significant)** were anticipated for the remaining 14 locations.

The Development would implement occupancy sensors and reduced level of internal illuminance during curfew hours; therefore, the likely residual effects of the on light pollution are expected to be negligible **(not significant)** on the residential receptors assessed.

6.8 Townscape, Built Heritage and Visual

As set out within Part 3 (**Townscape, Visual Impact and Built Heritage Assessment**) of the ES and Townscape, Visual Impact and Built Heritage Assessment which forms Part 3 of the ES, the Site is located within Borough High Street Conservation Area and there are listed buildings – the Grade II Georgian Terrace - on the Site. There are several conservation areas surrounding the Site and numerous listed buildings. Five Townscape Character Areas (TCAs) have been identified as being relevant to the assessment. A TCA is an area which has readily identifiable characteristics in common, for example building form or patterns of land use.

In the visual assessment, the suitability of the design of the Development has been assessed using 56 different viewing positions, including 11 London View Management Framework (LVMF) viewpoints; all viewpoints were agreed with London Borough of Southwark. Other statutory bodies, such as the GLA, Historic England and Historic Royal Palaces, were also consulted.

The likely significant effects on visual amenity and townscape character would vary according to the nature of the demolition and construction works over time, with certain operations having more perceptible effects than others. The most significant visual effect would be the presence of tower cranes which would be likely to be visible from all viewpoints where the Development is visible. Visible construction activities would be likely to form only small to medium features of most views and in many instances would be seen in combination with the existing buildings and other local construction activities. With mitigation in place, including appropriate hoarding and following best construction industry standards, visual effects would range from **no effect** on distant views to major adverse **(significant)** effects on some local views and TCAs.

The Development would transform the Site from a disparate collection of buildings, varied in quality, into a major new development in which the best buildings are retained, a major and substantial new building of high quality is added, and the buildings are brought together into a coherent whole with a significant new contribution to the public realm of the conservation area which provides useful new routes and connections, and a variety of new landscaped spaces open to all. The Development would encourage more use and enjoyment of King's Head Yard, benefitting the conservation area in which it lies. The Development's office Tower would be at a height and scale that would reflect the landmark significance of the Site at the intersection of Borough High Street and St. Thomas Street, in close proximity to London Bridge Station. It would take advantage of the townscape opportunities offered by the Site, to the benefit of the local and wider area around it.

Seven out of the 56 views were anticipated to have moderate to major beneficial effects (**significant**), six of the views were considered to have **no effects**, 36 views were considered to have neutral effects ranging from negligible/minor (**not significant**) to major (**significant**) and only seven had adverse effects ranging from moderate to major significance (**significant**).

The assessment concluded that the townscape effects on the Townscape Character Area (TCA) 1 – Bankside, Borough and Potters Fields are anticipated to be moderate to major beneficial effect (**significant**) whilst on the remaining TCAs they would range from neutral minor (**not significant**) up to neutral moderate (**significant**).

The built heritage assessment assesses the likely effect of the Development on heritage assets on and around the Site including listed and locally listed buildings, conservation areas, World Heritage Sites and above-ground scheduled monuments. Extensive data have been collected on the heritage assets, ensuring that a full assessment can be made.

There will be direct effects associated with the construction of the Development upon the Borough High Street Conservation Area. The main effects would be related to the demolition of the existing 1980s office buildings at no.20 St Thomas Street, reconstruction of Keats House, restoration of the listed terrace at nos. 4-8 and 12-16 St Thomas Street, construction of a 26-storey building and provision of a new public realm. The direct effects on this heritage asset would be moderate to major in significance (**significant**) and adverse but it is would be short to medium term necessary to deliver the proposals.

There would be also indirect effects to the setting of other heritage assets, due to the detrimental appearance of the construction activities resulting in moderate to major adverse effects (**significant**), however this would be temporary and measures to protect heritage assets during the works would be set out in the SEMP.

Once the Development is complete and operational, it is anticipated that effects on the Tower of London World Heritage Site would be neutral effect (indirect) of minor significance (not significant). Direct effects are anticipated on the Borough High Street Conservation Area and would be long-term, local, beneficial effect of moderate to major significance (significant) has a result of the new proposals. The remainder of the conservation areas would experience indirect effects which have been found to be neutral and range from minor to (**not significant**) to significant moderate (**significant**).

In relation to the listed buildings, the effects have been found to be beneficial or neutral, with the exception of Guy's Hospital (grade II*) and Southwark Cathedral (grade I), where adverse effect (indirect) ranging from moderate to major significance (**significant**) are predicted.

6.9 Cumulative Effects

As set out in **Chapter 14** of the ES, two types of cumulative effects have been assessed in relation to the Development:

- Type 1 Cumulative Effects: The interaction of individual effects from the Development upon a set of defined sensitive receptors. For example, noise and dust during the demolition and construction works; and
- Type 2 Cumulative Effects: The combination of effects from several developments (in this case, the Development together with other reasonably foreseeable schemes (hereafter referred to as 'cumulative schemes'), which individually might be insignificant, but when considered together could create significant cumulative effects.

A number of cumulative developments have been identified within the vicinity of the Site. Each technical environmental topic has considered the cumulative effects of these schemes all taking place in combination with the Development (both during construction and demolition works and once the Development is completed). The 19 cumulative schemes included in the assessment were agreed with London Borough of Southwark (refer to **Figure 14** below for the location of the schemes).

During the demolition, refurbishment and construction works (approximately four years), a combination of effects arising from the Development in isolation (i.e. Type 1 Effects) would likely arise from noise from demolition and construction plant and machinery and traffic, vibration, and townscape, heritage and visual effects. In addition, effects from daylight, sunlight and solar glare would change as the existing buildings on the Site are demolished and there is a gradual change to a situation where the effects will be as per the completed Development. The implementation of mitigation measures through the SEMP would minimise the effects to existing and future residents and occupants and users of existing commercial and education uses surrounding the Site.

In relation to the Type 2 Effects, the cumulative operational effects of the Development in conjunction with the schemes were found to be negligible (**not significant**) for noise and vibration and wind and negligible to minor (**not significant**) for the visual effect.

The cumulative transport assessment for the completed Development showed that the resultant increase of traffic flows may increase is expected to be negligible except for St Thomas Street where the cumulative effect is expected to be minor adverse (**significant**) during afternoon peak times. Other cumulative effects (i.e. cyclists, public transport users) are all expected to be negligible, whilst negligible to moderate beneficial (**significant**) effects are anticipated on pedestrians in respect of movement, capacity, severance, delay, fear, intimidation and amenity.

In terms of air quality all affects are considered negligible except for the residual cumulative effect of construction vehicles, which would be predicted to be short-term, local adverse of minor significance (**significant**).

The construction of the Development is likely to have a minor adverse cumulative effect (**significant**) on Paleoenvironmental remains. Although there is no evidence to suggest that the sites share a distinct Roman feature, the construction of the developments would contribute to the gradual removal of the asset within the immediate area and, therefore, is considered to have a moderate adverse cumulative effect (**significant**).

The effects of the Development in combination with other cumulative developments would be negligible in terms of potable water demand, foul water capacity and controlled water quality. The overall likely residual Type 2 cumulative effect in relation to flood risk is considered to range from **negligible to permanent, local and of minor beneficial significance**, as a result of the surface drainage improvements achieved by each individual scheme.

In terms of daylight, sunlight, and overshadowing, it should be noted that Shard Place (Fielden House) was included in the baseline assessment as the physical mass that affects daylight, sunlight and overshadowing measures is already present. The other cumulative schemes are too distant from the Site to result in any cumulative daylight, sunlight, overshadowing effects, therefore, a separate cumulative effects assessment has not been undertaken. In terms of solar glare and light pollution, cumulative schemes have the potential to obstruct the view of the proposed Development in relation to the relevant receptors, which would reduce the scale of effects occurring as a result of the proposed Development. Therefore, the proposed Development represents the worst-case scenario in terms of solar glare and light pollution effects and a separate cumulative effects assessment is not considered applicable.

With regard to TCAs, the overall effect of the Development taking into account cumulative schemes would be unchanged compared to that of the Development considered on its, as the visibility, townscape and urban design effects of the Development would not be altered sufficiently by the presence of cumulative schemes to change the overall effect of the Development in respect of each TCA.

With regard to heritage receptors, the effect of the Development on each asset or group of assets in the context of cumulative schemes would be the same as that set out for the Development considered on its own, **adverse to beneficial effects of up to major significance.**

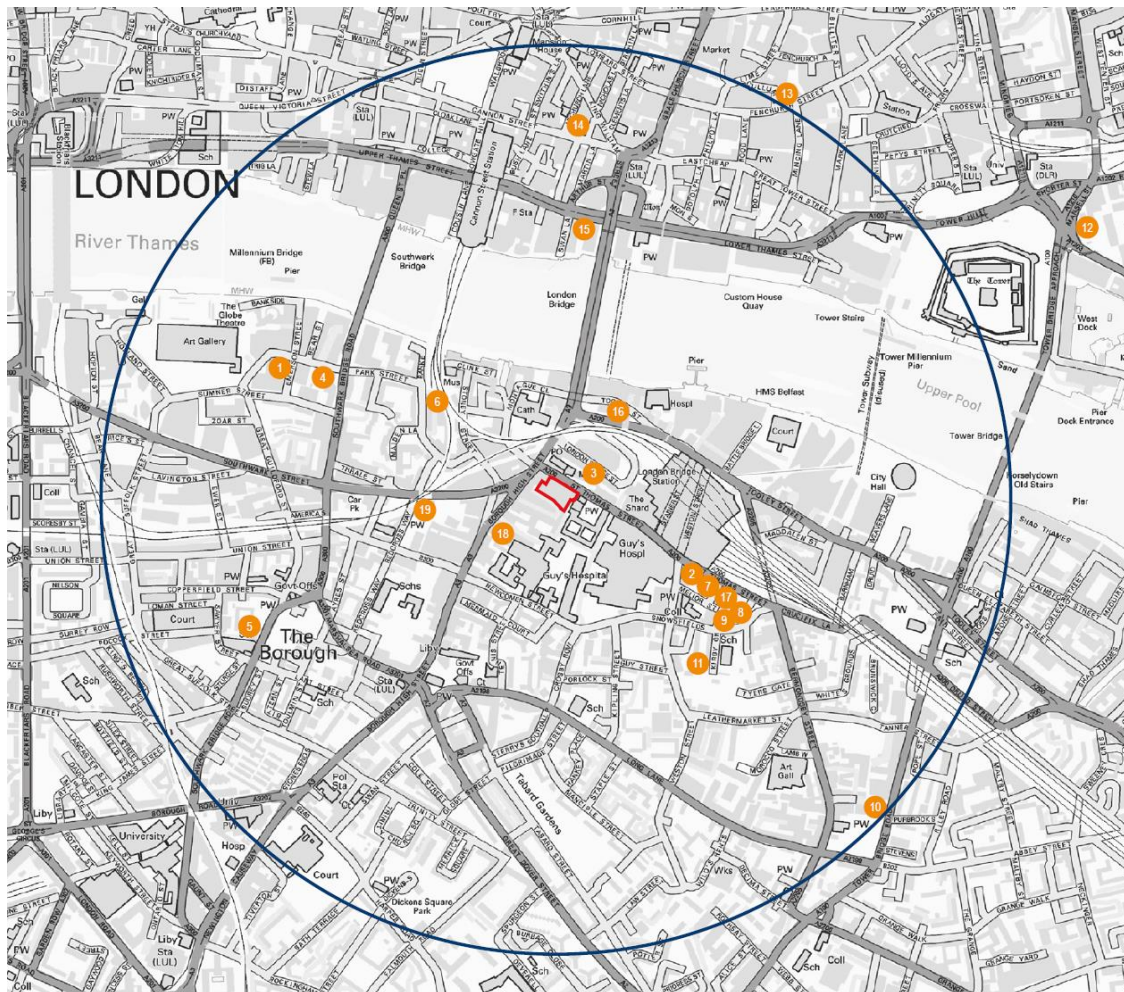


Figure 14 Plan of Cumulative Schemes Around the Development

1	185 Park Street
2	Capital House
3	Shard Place (Fielden House) 28-42 St Thomas Street
4	133 Park Street
5	Southwark Fire Station, 94 Southwark Bridge Road;
6	1 Bank End
7	Becket House / 60 St Thomas Street (Edge London Bridge)
8	40-44 Bermondsey Street, Vinegar Yard Warehouse, 9-17 Vinegar Yard and land adjacent to 1-7 Snowsfields
9	2-4 Melior Place
10	151-157 Tower Bridge Road
11	Guinness Court, Snowsfields Street
12	Royal Mint Court
13	130 Fenchurch Street, City of London
14	Site Bounded by King William Street, Cannon Street, Abchurch Lane & Nicholas Lane.
15	Seal House 1 Swan Lane, City of London
16	Colechurch House, London Bridge Walk
17	Land bounded by St Thomas Street, Fenning Street, Vinegar Yard and Snowsfields including no. 1-7 & 9 Fenning Street
18	King's College London, Land rear of 89-111 Borough High Street
19	Landmark Court, land bounded by Southwark Street, Redcross Way and Cross Bones Graveyard

7. What will happen next?

Following the submission of the planning application, there will be an opportunity for any interested parties to comment on the proposals.

The ES is available for public viewing on London Borough of Southwark's website: www.southwark.gov.uk. Copies of the ES are also available for viewing by the public at New City Court, between the hours of 9am and 5pm weekdays, by prior appointment only. Comments on the planning application should be made on London Borough of Southwark's website:

<https://www.southwark.gov.uk/planning-and-building-control>

Additional copies of the ES can be purchased from Waterman on request (contact details below).

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