Environmental Statement Clarification Document and ES Addendum

New City Court, Southwark

March 2020

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This document has been prepared and checked in accordance with
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Issue	Date	Prepared by	Checked by	Approved by
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04	March 2020	Ros Boalch Associate Director	Ellen Smith Senior Consultant	Ros Boalch Associate Director

Comments	Issue 03: Response to LUC's Draft Review Report (March 2019) Issue 04: Updated to include a response to LUC's Review Report (November 2019) and addition requests by London Borough of Southwark

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1. Introduction

Background to this Document

In December 2018, GPE (St Thomas Street) Limited, submitted a detailed planning application (reference: 18/AP/4039) to the London Borough of Southwark (LBS) for the demolition of the existing 1980s office buildings, part restoration and refurbishment of listed terrace, and redevelopment of Keats House with retention of existing façade, and construction of an office-led, mixed-use scheme (hereafter referred to as the 'Development'). The Development is proposed on a parcel of land along Thomas Street in the London Bridge area (hereafter referred to as the 'Site').

The Development was described on the planning application form as follows:

'*Comprehensive redevelopment of the site to include demolition of existing 1980s office buildings and erection of a 37-storey building (including ground and mezzanine) of a maximum height of 144m (AOD), restoration and refurbishment of existing listed terrace, and redevelopment of Keats House with retention of existing façade to provide a total of 46,374 sqm of Class B1 office floorspace, 765 sqm of Class A1 retail floorspace, 1,139 sqm of Class A3 retail floorspace, 615 sqm of leisure floorspace (Class D2), 719 sqm hub space (Class B1/D2) and a 825 sqm elevated public garden, associated public realm and highways improvements, new station entrance, cycling parking, car parking, servicing, refuse and plant areas, and all ancillary or associated works.*'

An Environmental Impact Assessment (EIA) was undertaken to identify the likely significant environmental effects of the Development, in accordance with the Town and Country Planning (Environmental Impact Assessment) Regulations, 2017 (as amended)[1]. The findings of the EIA were presented in an Environmental Statement (ES) (the 'December 2018 ES') prepared by Waterman Infrastructure & Environment Limited (Waterman IE) which was submitted with the detailed planning application (the 'December 2018 Planning Application').

As part of the determination process, LBS appointed Land Use Consultants (LUC) in association with Delva Patman Redler, Clewlow Consulting, Ricardo Energy and Environment, and Xi Engineering to undertake an independent review of the December 2018 ES; the purpose of the review being to advise LBS whether the information provided in the December 2018 ES is sufficient for the purposes of making a planning decision.

In addition, LBS have requested that additional schemes be included within the Chapter 14: Cumulative Effects of the December 2018 ES, which are as follows:

- Capital House (ref: 18/AP/0900);
- Becket House / 60 St Thomas Street (ref: 18/AP/4136);
- Vinegar Yard (ref: 18/AP/4171);
- Bermondsey Street/Snowfields (ref: 19/AP/0404); and
- 2-4 Melior Place (ref: 18/AP/3229).

Purpose of this Document

LUC have prepared two documents which report the findings of their independent review of the December 2018 ES:

- 'Review of the Environmental Statement for New City Court, St Thomas Street, Southwark, Draft

[1] 2017 No. 571 Town and Country Planning 'Town and Country Planning (Environmental Impact Assessment) Regulations 2017 (as amended)'.

Review Report'[2] (the 'March 2019 DRR'); and

- Review of the Environmental Statement for New City Court, St Thomas Street, Southwark, Draft Review Report'[3] (the 'November 2019 DRR').

To address the points of clarification' and 'potential Regulation 25 requests' in respect of the December 2018 ES made in the March 2019 DRR a draft document entitled the 'August 2019 ES Clarification Document and ES Addendum' prepared on behalf of the Applicant was submiteed to LBS, and subsequently LUC. Whilst the majority of the 'points of clarification' and 'potential Regulation 25 requests' in respect of the December 2018 ES were accepted by LUC as set out in the November 2019 DRR, there remain 'points of clarification' and 'potential Regulation 25 requests'.

This document (hereafter referred to as the 'March 2020 ES Clarification Document and ES Addendum') sets out the Applicant's response to the March 2019 DRR and November 2019 DRR and should be read in conjunction with the December 2018 ES. The December 2018 ES together with this Febriary 2020 ES Clarification Document and ES Addendum collectively contitutes the complete ES for the Development. Accordingly, in the following sections of this document the 'points of clarification' and 'potential Regulation 25 requests' are quoted with the Applicant's responses (informed by the Applicant's original December 2018 ES team) provided directly below. However, to fully understand the context of each quote, the March 2019 DRR and November 2019 DRR should be read in conjunction with this document.

In addition, this document includes an updated Chapter 14: Cumulative Effects, which supersedes that within the December 2018 ES, which includes the five additional schemes requested by LBS as outlined earlier in this report. This is presented at **Appendix B**, along with the Townscape, Visual and Built Heritage (TVIBHA) Cumulative ES Addendum.

In addition to the above, this document addresses the following further issues:

- Since submission of the December 2018 ES, the proposed roof plans have been revised following amendments to the energy strategy, resulting in a change to the flue locations and plant generation specifications. The air quality assessment has been re-modelled accordingly to take account of this and a revised ES Chapter 9: Air Quality prepared (**Appendix G**) which supersedes that within the December 2018 ES. Consequently, the Air Quality Neutral Assessment has also been updated (**Appendix G**). The only other environmental assessment considered within the December 2018 ES that could be affected by a change in energy strategy would be noise. However, to safeguard existing amenity the December 2018 ES Chapter 8: Noise and Vibration recommended suitable limits to which plant should adhere to, and this would be expected to be controlled by a standard planning condition. Therefore, the effect of noise generated from changed building plant on surrounding existing and future sensitive receptors would remain unchanged from the December 2018 ES.
- Chapter 13: Daylight, Sunlight, Overshadowing, Light Pollution and Solar Glare of the December 2018 ES and associated ES figures and appendices have also been updated (**Appendix I**) to take into account comments from LBS (which have been responded to separately from this March 2020 ES Clarification Document and ES Addendum).
- Townscape, Visual and Built Heritage Assessment (TVBHA) Supplement (**Appendix J**) which identifies further heritage assets (locally listed buildings and Scheduled Monuments) not previously included in the December 2018 TVIBHA, following the November 2019 DRR.
- Townscape, Visual and Built Heritage Assessment (TVBHA) ES Addendum (**Appendix J**) which includes three new views as requested by LBS.

An updated Non-Technical Summary (NTS) (refer to **Appendix C**), ES Chapter 7: Transportation and

[2] LUC (2019); 'Review of the Environmental Statement for New City Court, St Thomas Street, Southwark, Draft Review Report', March 2019.

[3] LUC (2019); 'Review of the Environmental Statement for New City Court, St Thomas Street, Southwark, Draft Review Report', November 2019.

Access (refer to **Appendix F**) and Chapter 15: Residual Effects and Monitoring (**Appendix K**) have also been provided which supersede and replace the ones submitted with the December 2018 ES, and picks up any changes as a result of the March 2019 DRR, November 2019 DRR and further assessment work.

To summarise, the following 2018 ES chapters have been superseded and the revised chapters included within this March 2020 ES Clarification Document and ES Addendum:

- Chapter 7: Transportation and Access (**Appendix F**);
- Chapter 9: Air Quality (**Appendix G**);
- Chapter 13: Daylight, Sunlight, Overshadowing, Light Pollution and Solar Glare (**Appendix I**);
- Chapter 14: Cumulative Effects (**Appendix B**);
- Chapter 15: Residual Effects and Monitoring (**Appendix K**); and
- Non-Technical Summary (**Appendix C**).

The figures referred to within these replacement ES chapters are contained within **Appendix A** of this March 2020 ES Clarification Document and ES Addendum.

2. Review of Regulatory Compliance

LUC have not sought any clarifications or potential Regulation 25 information requests when reviewing the December 2018 ES against IEMA's EIA Quality Mark guidance for EIA Regulatory Compliance[4].

[4] IEMA EIA Quality Mark – ES Review Criteria, COM3: EIA Regulatory Compliance.

3. Review of Context and Influence (December 2018 ES Part 1: Main Text – Chapters 1 & 5)

March 2019 DRR Clarification Requested (EC1)

'*Clarification is sought as to why full and original consultation responses from other relevant statutory and non-statutory consultees have not been included*.'

Response

Full and original consultation responses regarding the EIA methodology from relevant statutory and non-statutory consultees were provided in the following appendices of the December 2018 ES to correspond with the relevant technical ES Chapters of the December 2018 ES:

- December 2018 ES Part 4 – Appendix 2.1 (EIA Scoping Report): Appendix B – Preliminary Environmental Risk Assessment (PERA) – Consultation information provided in Appendix C of the PERA includes Landmark technical report, response from LBS Environmental Health Department and response from the London Fire and Emergency Planning Authority (LFEPA);
- December 2018 ES Part 4 – Appendix 2.2 (LBS' EIA Scoping Opinion) – Statutory consultee responses from Transport for London, Natural England and the Environment Agency (EA) are available online (refer to planning ref: 18/AP/2633), which informed LBS' EIA Scoping Opinion;
- December 2018 ES Part 4 - Appendix 2.3: EA response to the EIA Scoping Opinion regarding land contamination and flood risk;
- December 2018 ES Part 4 - Appendix 8.4: Correspondence with LBS Environmental Health Department regarding noise & vibration EIA methodology;
- December 2018 ES Part 4 - Appendix 9.1: Correspondence with LBS regarding air quality EIA methodology;
- December 2018 ES Part 4 - Appendix 10.2: MOLA letter to LBS regarding future archaeological investigation;
- December 2018 ES Part 4 - Appendix 11.1 (Drainage Strategy): Appendix 3 – Thames Water response to pre-planning enquiry, confirming sufficient sewer capacity; and
- December 2018 ES Part 4 - Appendix 11.2 (Flood Risk Assessment): Appendix C - Thames Water correspondence and Appendix E – EA Flood Data.

Correspondence with LBS on the agreed viewpoints in regards to the December 2018 TVIBHA is provided in **Appendix J**.

March 2019 DRR Clarification Requested (EC2)

'*The Applicant should include key points raised through findings gathered from the survey and meetings with local stakeholder groups*.'

Response

It is not necessary to include the key points raised through the consultation process with local stakeholder groups in an ES. This information is provided within the Statement of Community Involvement, prepared by KANDA, submitted as a standalone planning document with the December 2018 Planning Application. A summary of the pre-application consultation is also provided in the planning statement. The consultation process informed the design evolution of the Development (refer to December 2018 ES Part

1 – Chapter 4: Alternatives and Design Evolution), particularly in relation to the proposed design of the building, public realm improvements, proposed new station entrance and the proposed elevated public garden.

4. Review of EIA Presentation (December 2018 ES)

LUC have not sought any clarifications or potential Regulation 25 information requests when reviewing the EIA presentation of the December 2018 ES.

5. Review of December 2018 ES Part 1: Main Text – Chapter 6: Development Programme, Demolition, Deconstruction, Refurbishment and Construction

March 2019 DRR Clarification Requested (CD1)

'*Clarification on the scope and content and implementation of a SWMP is sought from the Applicant*.'

Response

It is expected that LBS would secure the requirement for a Site Waste Management Plan (SWMP) via planning condition. The SWMP would be prepared prior to the commencement of any demolition and construction works, setting out the approach to and targets for waste management, redirecting from landfill, and improving recycling and reuse rates.

Paragraphs 6.86-6.88 of the December 2018 ES Part 1 – Chapter 6 describe the following waste management measures to be implemented during the Works that would be investigated further and form part of the SWMP:

'The Main Contractor would ensure that construction waste is segregated into separate categories, such as timber, steel and packaging, to reduce the amount of waste sent to landfill.

The Main Contractor and trade contractors would investigate opportunities to minimise waste arisings at source and, where such waste generation is unavoidable, to maximise the recycling and reuse potential of other demolition and construction materials. Strategies including just-in-time deliveries and suitable storage of materials prior to use would also be applied to prevent spoiling.

The destination of all waste or other materials removed from the Site would be notified by the Construction Site Manager for approval. Loads would only be deposited at authorised waste treatment and disposal sites daily. Deposition would be in accordance with the requirements of the EA, the Control of Pollution Act 1974, Part IIA of the Environmental Protection Act 1990, Clean Neighbourhoods and Environment Act 2005, Hazardous Waste Regulations 2005 and the Environmental Protection (Duty of Care) Regulations 2003. The disposal of excavated materials would be carried out in accordance with relevant legislation and options for disposal are currently being investigated.'

March 2019 DRR Clarification Requested (CD2)

'*Clarify that all assessments in the ES have had regard to properties that may be occupied during the construction works and that the worst case assessments have been undertaken.*' (Note: text in paragraph 5.4 in relation to CD2 is different *"Clarification is sought on the extent of overlap and which phases of the Development overlap with each other, use of a Gantt chart would be useful (CD2)*"

Response

As requested, a Gannt chart has been provided in **Appendix D** to visually represent Table 6.1 of the December 2018 ES:

Paragraph 6.1 of the December 2018 ES states that '*The estimated start date for the Site clearance and demolition is quarter one 2022. The anticipated duration of each task within the Works is set out in Table 6.1. Although the exact weeks may vary, the approximate duration of the works means the works are expected to finish in quarter four 2025.'*

Table 1: Table 6.1 of the December 2018 ES: Indicative Programme of the Works

Activities	Anticipated Start Date	Anticipated Completion Date	Approximate Duration (Weeks)
Site set up and enabling works	Week 1	Week 37	**38**
Demolition and Site clearance	Week 1	Week 31	**32**
Piling	Week 29	Week 47	**19**
Basement construction	Week 46	Week 78	**34**
Construction of the superstructures	Week 76	Week 160	**85**
Service installation and fit-out	Week 75	Week 205	**131**
Keats House	Week 134	Week 179	**40**
Landscaping and external works	Week 171	Week 196	**26**

Please refer to the response below regarding assessing the worst-case (CD3). The assessments have identified sensitive receptors (including surrounding occupied properties) that could be affected during the Works and these are detailed in the technical ES chapters. A list of identified sensitive receptors is provided in Table 3.1 of Chapter 3: Existing Land Uses and Activities.

March 2019 DRR Clarification Requested (CD3)

'*The Applicant is to clarify that all assessments in the ES have had regard to the worst case scenario in terms of overlap between plant operating on the site as well as vehicle movements across all phases of the development.*'

Response

Based on our review of the Works programme, the most intensive period for construction vehicle activity is predicted to be during the excavation and piling works. The Applicant's construction advisors have stated that the peak daily number of Heavy Goods Vehicles (HGVs) trips during construction are likely to be 28 but could be 44 during excavation and piling, as outlined in Table 6.2 of the December 2018 ES (**Table 1** above). As a worst-case, the assessments (transport, air quality and noise & vibration) in the December 2018 ES and where relevant this document have considered the peak figure from these periods in the assessment of effects of the Works. It can also be confirmed that the peak trip figure included overlap of construction activities and programme and therefore assessments took into account the worst case scenario.

Table 6.2 of the December 2018 ES (**Table 1** above), shows the type and numbers of plant operating on the Site throughout the Works. Assessments, such as noise and vibration, are based on when the construction activity (such as demolition or piling *etc*) is being undertaken at the shortest distance (generally the site boundary) to the receptor over a 1-hour period. So for noise and vibration the assessment is therefore considered indicative of the worst case scenario. Over a 10-hour working day with periods of plant inactivity and plant working at a greater distance than is used for assessment purposes, the overall construction noise and vibration levels would be lower. Where construction activities (such as piling or earthworks) occur concurrently on Site it is considered unlikely that they would both be undertaken at the shortest distance to the sensitive receptors such as residents in the upper floors of the Bunch of Grapes Public House (immediately adjacent to the Site), and it is therefore the activity, which takes account of a number of different plant items operating concurrently, being undertaken at the shortest distance to the SR that would dominate and which forms the basis of the ES assessment. In conclusion, it can be clarified that all assessments in the December 2018 ES and where

relevant this document have had regard to the worst case scenario in terms of overlap between plant operating on the site as well as vehicle movements across all phases of the Development.

March 2019 DRR Clarification Requested (CD4)

'*Clarify whether the assessment of vehicle movements has had regard to the projected waste movements that are stated in the chapter (if not, the assessment will need to be revised).*'

Response

The Applicant's construction advisor provided the demolition and construction details that informed Chapter 6 of the December 2018 ES. The expected number of HGV movements during the Works was calculated based on the construction programme and activities, which took into account the amount of construction materials required for the Development and the waste quantities from demolition. Waste arisings were included in the construction trips over the full course of the construction programme as 1 wagon (identified as muck away lorries in Table 6.2 of the December 2018 ES Chapter 6) per day, apart from during demolition, which would result in additional trips from waste arisings. Additional waste arisings (as reported in the December 2018 ES Chapter 6) during demolition were taken into account when calculating the peak trips during the demolition works.

November 2019 DRR Clarification Requested (CD4)

'The Applicant has confirmed that the assessment of vehicle movements has had regard to the projected waste movements that are stated in the chapter. Reference is given to this detail been included in Table 6.2 of the ES. However, whilst Table 6.2 of the ES does include a line for waste vehicles (muck away lorries) the table does not suggest there are any such vehicles generated i.e. there are no numbers in Table 6.2 against this line. Further clarification is therefore sought from the Applicant to confirm the number of waste vehicles generated and how the total peak traffic numbers set out in this table have been derived.'

Response

Refer to CD18 below which re-provides Table 6.2 of the December 2018 ES and confirms that muck away lorries were included in the total peak traffic numbers assessed within the ES.

March 2019 DRR Clarification Requested (CD5)

'*Clarification is sought as to the scope of the CMP document and how it relates to the SEMP also referenced in the ES.*'

Response

In relation to paragraph 6.75 to which this clarification request arises, an outline Construction Management Plan (CMP) has been submitted to support the December 2018 Planning Application that commits the Main Contractor to dust mitigation measures. A Site Environmental Management Plan (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.

The aim of the outline CMP submitted to LBS is to identify the proposed phasing and construction methodology and highlight and addresses any potential issues during construction that the Main Contractor should consider when developing their specific SEMPs.

March 2019 DRR Clarification Requested (CD6)

'*Clarification is sought as to whether consultation on crane heights and locations has been undertaken with London City Airport.*'

Response

A response was not received from London City Airport during the EIA scoping process or prior to submission of the December 2018 ES. Since submission, the National Air Traffic Safeguarding Office has responded to the December 2018 Planning Application and confirmed that it anticipates no impact on aviation as a result of the Development and accordingly has no objections to the December 2018 Planning Application (refer to **Appendix E**).

March 2019 DRR Potential Regulation 25 Request (CD7)

'*Further information on the proposed construction and demolition works including details on the proposed programme of works, dates when the development is likely to start and finish and working hours during the demolition/construction programme should be provided in the NTS.*'

Response

The NTS has been updated accordingly and provided in **Appendix C**.

November 2019 DRR Clarification Request (CD18)

'Whilst Table 6.2 of the ES does include a line for waste vehicles (muck away lorries) the table does not suggest there are any such vehicles generated i.e. there are no numbers in Table 6.2 against this line. Further clarification is therefore sought from the Applicant to confirm the number of waste vehicles generated and how the total peak traffic numbers set out in this table have been derived.'

Response

Table 6.2 of the December 2018 ES presents vehicles including muck away lorries. Table 6.2 is re-provided here for completeness and the formatting edited to ensure clarity.

Table 6.2 Anticipated Demolition, Deconstruction, Refurbishment, and Construction Plant of Chapter 6 of the December 2018 ES

Plant and Equipment	Demolition	Excavation / Piling	Substructure	Superstructure and Envelope	Fitting out
1.5 tonne Skid Steer Loader Shovels	3				
Luffing jib tower crane	1		2	2	
30 tonne excavator with hydraulic muncher attachment	1				
30 tonne excavator with muncher attachment	1				
30 tonne excavator with bucket attachment	1				
5 tonne minis with hydraulic pulveriser/impact hammer	3				

Plant and Equipment	Demolition	Excavation / Piling	Substructure	Superstructure and Envelope	Fitting out
attachments					
Brokk		2			
Excavator		2	4		
Concrete Pump		2	2	2	
Piling Rig		2			
Crawler crane		2			
Temporary Substation		1	1	1	
Mobile access Platforms			5	4	8
Single hoist			1	1	
Twin hoist				2	2
Common Tower				1	1
Scaffolding					✓
Concrete lorry ($6m^3$)*	Peak 30 Average 20	Peak 44 Average 26	Peak 24 Average 22	Peak 43 Average 16	Peak 24 Average 8
Muck away lorry (standard 16 tonne)*					
Articulated lorry*					
Low Loader*					
Lorry*					

* all of these peak and average numbers are two-way movements e.g. Peak 44 is 22 vehicles into the Site and 22 vehicles out of the Site. These peak figures have been revised downwards by around 25% by the construction advisor, but the environmental assessments are based on the higher numbers as presented in the table to ensure assessments consider the worst-case scenario.

6. Review of December 2018 ES Part 1: Main Text – Chapter 7: Transport

March 2019 DRR Clarification Requested (T1)

'Present capacity based information for bus usage as part of the baseline conditions rather than as information introduced later as part of the assessment.'

Response

The following text has been inserted in the Baseline Conditions (Bus Network and Services) section, after Table 7.5, in the updated ES Transport Chapter appended to this document (**Appendix F**) (which replaces and supersedes Chapter 8 Transportation and Access of the December 2018 ES):

'Table 7.5 shows that during the AM peak there are approximately 128 bus services per direction and 257 bus services in both directions. Based on an average bus operational capacity of 63 persons and a weekday AM Peak frequency of 128 buses in each direction, the planning bus capacity has been calculated as 8,064 passengers per direction per hour.

In the PM peak, the planning bus capacity is approximately 8,001 passengers per direction per hour based on there being approximately 127 buses per direction and thus 253 bus services in total.'

March 2019 DRR Clarification Requested (T2)

'Present usage (load) based information for London Underground usage as part of the baseline conditions rather than as information introduced later as part of the assessment.'

Response

The following text has been inserted at paragraph 7.8 in the Baseline Conditions (Underground Services) section in the updated ES Transport Chapter (**Appendix F**):

'Planning capacity figures obtained from TfL indicate that each Jubilee Line train has a planning capacity of 960 passengers. With regard to the Northern Line, each train has a planning capacity of 800 passengers. A summary of th.e planning capacity expressed as the number of passengers per hour per direction (pphd) is set out below.

Table 2: Services & Frequencies from London Bridge Underground Station (Table 7.9 of **Appendix F**)

Service	Direction	No. of Trains		Planning Capacity (pphd)	
		0800-0900	1700-1800	0800-0900	1700-1800
Jubilee Line	Westbound	30	30	28,800	28,800
	Eastbound	30	30	28,800	28,800
Northern Line	Northbound	25	23	20,000	18,400
	Southbound	23	23	18,400	18,400

March 2019 DRR Clarification Requested (T3)

'Provide clarity in respect of the contents of paragraphs 7.9 – 7.11 and how these relate to Table 7.10.'

Response

Paragraphs 7.9 – 7.11 of Chapter 7: Transport of the December 2018 ES have been revised in the updated ES Transport Chapter (**Appendix F**) to clarify the various scenarios as follows:

1. '*The following scenarios have been considered within the assessment:*

- *Existing Baseline 2018;*
- *Assessment (Future) Baseline 2026: This scenario comprises the Existing Baseline 2018 + committed developments which are currently under construction and are expected to be completed by the Development opening year (this scenario is set out in Table 7.10). These developments are listed below:*

Tower Bridge Magistrates Court and Police Station (15/AP/3303);

175-179 Long Lane (15/AP/4072);

25-29 Harper Road (15/AP/3886);

Isis House, 67-69 Southwark Street;

1 Bank End (15/AP/3066); and

Fielden House (Shard Place) (17/AP/4008).

- *Assessment (Future) Baseline 2026 + Development; and*
- *Assessment (Future) Baseline 2026 + Development + committed developments: This scenario comprises the Assessment Baseline 2026 + Development + the remaining committed developments. The remaining committed developments are identified in Chapter 14 Cumulative Effects. It is noted that since the submission of the planning application, additional committed developments have been identified and these have been considered as part of the assessment of the cumulative effects (in the updated ES Cumulative Effects Chapter – (**Appendix B**)).*'

March 2019 DRR Clarification Requested (T4)

'*Amend apparent error in Table 7.2*.'

Response

The corrected table is provided below (changes highlighted in yellow) and in the updated ES Transport Chapter (**Appendix F**):

Table 3: Significance Criteria (Table 7.2 of **Appendix F)**

	Effect	Insignificant	Minor	Moderate	Major
Highway Network	Change in traffic flow on highway network	Increase or decrease in flows of less than 10%	Increase or decrease in flows of 10-30%	Increase or decrease in flows of 30-60%	Increase or decrease in flows of more than 60%
Bus Network	Change in passenger numbers leading to a change in journey experience	Less than 10% change in passenger numbers leading to no change in journey experience	10%-30% change in passengers leading to a change in journey experience	30%-60% change in passenger numbers leading to a change in journey experience	More than 60% change in passenger numbers leading to a change in journey experience
Underground and Rail Network	Change in passenger	Less than 10% change in	10%-30% change in	30%-60% change in	More than 60% change in

	Effect	Insignificant	Minor	Moderate	Major
	numbers leading to a change in journey experience	passenger numbers leading to no change in journey experience	passengers leading to a change in journey experience	passenger numbers leading to a change in journey experience	passenger numbers leading to a change in journey experience
Walk and Cycle Network: Severance	Change in perceived divisions within a community separated by a traffic route	Increase in traffic flows of less than 10%	Increase in traffic flows of 10-30%	Increase in traffic flows of 30-60%	Increase in traffic flows of more than 60%
Pedestrian Delay	A judgement based on the routes with two way traffic flow exceeding 1,400 vehicles per hour in context of their individual characteristics				
Pedestrian Amenity	Change in perceived pleasantness of the journey/walking route	Change in total traffic or HGV flows < 100% No change to pedestrian comfort level rating or a change that does not alter the description of the rating as per TfL's criteria.		Change in total traffic or HGV flows > 100% A change in Pedestrian Comfort Level which alters the description of the rating criteria as per TfL's criteria	
Pedestrian Fear and Intimidation	Increase in traffic flows, HGV composition and narrow footways	Increases in traffic flow, HGV composition and narrow footways		As set out in Table 7.4.	
Accidents and Safety	A judgement based on change in collision numbers over a route under consideration				
Dust and Dirt on the road	A judgement taking into account baseline construction management processes				

March 2019 DRR Clarification Requested (T5)

'Amend apparent error in Table 14.3.'

Response

This has been undertaken in the updated ES Cumulative Effects Chapter – (**Appendix B**).

March 2019 DRR Potential Regulation 25 Request (T6)

'Present information on baseline conditions for all transport modes.'

Response

The December 2018 ES Chapter 7: Transport describes the existing conditions including service provision for the local bus, underground and train services. The planning capacity is also provided but within the assessment section and has been moved to the baseline section as set out earlier in the response and in the updated ES Transport Chapter (**Appendix F**).

Additionally the existing cycle flows for links surrounding the Site are set out below and in Table 7.7 of **Appendix F**:

Table 4 Existing baseline cycle flows (no. of cyclists two-way) (Table 7.7 of **Appendix F**)

Link	AM Peak	PM Peak
Borough High Street between St Thomas Street and King's Head Yard	1,008	750
St Thomas Street	138	132
White Hart Yard	6	3
King's Head Yard	6	3
Southwark Bridge Road	369	273

Pedestrian counts have been undertaken in 2016 by Space Syntax to inform the baseline conditions at key locations surrounding the Site. These are summarised below and provided within Table 7.5 of **Appendix F**.

Table 5 Existing baseline pedestrian flows (two-way, no. of people) (Table 7.5 of **Appendix F**)

Link	AM Peak	Lunch-time peak	PM Peak
St Thomas Street north side	312	717	522
St Tomas Street south side	906	1,896	1,617
Borough High Street east side	2,562	3,357	3,444
Borough High Street west side	1,440	2,406	2,220
King's Head Yard	207	645	423
White Hart Yard	81	372	234

March 2019 DRR Potential Regulation 25 Request (T7)

'In respect of baseline conditions for pedestrians, consider use of the Pedestrian Comfort Level (PCL) pertaining to key parts of the existing walking network by reference to the report by Space Syntax.'

Response

ES Chapter 7: Transport has been updated with the following paragraphs provided (paragraphs 7.52-7.56 of **Appendix F**):

'*The pedestrian flows have been used to establish the pedestrian comfort level on the footways of St Thomas Street, Borough Street and King's Head Yard. This has been undertaken in line with TfL's Pedestrian Comfort Guidance (2010)*[5].

The Guidance outlines a benchmark for Pedestrian Comfort Level (PCL) for how footways should operate during peak hour pedestrian flows for different area types. The PCL ratings range from A to E with A indicating the highest footway capacity relative to pedestrian comfort. ***Figure 1*** *(Figure 7.1 of the updated ES Chapter) shows how the ratings correspond to the different levels of comfort for an office/retail area type which is the most suitable area choice for footways in the vicinity of the Site.*

The footways around the Site vary in width due to the presence of street furniture etc and this has been taken into account with the assessment undertaken at various locations. These locations are illustrated in ***Figure 1*** *(Figure 7.1 of the updated ES Chapter).*

The results of the PCL assessment for the existing situation and for the future baseline situation are set out in below in ***Table 7.6****.*

[5] Transport for London (2010): Pedestrian Comfort Guidance for London.

Table 6 PCL Assessment (Table 7.6 of **Appendix F**)

Link Ref	Existing PCL		Future Assessment Baseline PCL (Without NCC)	
	Average	AM Peak	Average	AM Peak
1a (St Thomas Street)	B+	A-	B	A-
1b (St Thomas Street)	F	F	F	F
1c (St Thomas Street)	B+	A-	B	A-
2a (St Thomas Street)	F	F	F	F
2b (St Thomas Street)	B-	B+	B-	B+
3a (St Thomas Street)	F	F	F	F
3b (St Thomas Street)	B	B+	B-	B+
4a (Borough High Street)	B-	B-	C+	C+
4b (Borough High Street)	B-	C+	C	C
5a (Borough High Street)	B-	C+	C	C
5b (Borough High Street)	C	C-	D	D
5c (Borough High Street)	B-	B-	C+	C+
6 (King's Head Yard)	A+	A+	A+	A+
7 (King's Head Yard)	A+	A+	A+	A+

The assessment shows that the footways around the Site generally provide comfortable to acceptable level of pedestrian comfort. However, it is noted that on Borough High Street the pedestrian comfort is described as being at risk and becoming 'uncomfortable' in the future baseline situation. Additionally, on St Thomas Street, there are localised areas of the footway width being less than 1.5m. Accordingly, this results in localised pinch points providing areas that are less comfortable but these are localised only with the majority of the footway providing acceptable level of comfort.'

March 2019 DRR Potential Regulation 25 Request (T8)

'In respect of baseline conditions for cyclists, consider use of data derived from classified counts and include classified counts as an appendix to the TA.'

Response

Refer to **Table 7.7** on existing baseline cycle flows above which is also included in the updated ES Transport Chapter (**Appendix F)**.

March 2019 DRR Potential Regulation 25 Request (T9)

'Identify potential receptors and whether any of the receptors of transport impact should be considered sensitive.'

Response

Review of sensitivity of receptors was undertaken as part of the December 2018 ES Chapter 7. The Site is located in a busy central London setting with roads that carry high traffic flows. The only links that have

been assessed as being sensitive receptors for pedestrians and cyclists are White Hart Yard and King's Head Yard as these roads are shared between vehicles and pedestrians with limited footway provision.

The table below provides the sensitive receptors that were considered in Chapter 7: Transport of the December 2018 ES, and using the guidelines in Table 7.3 of the ES Chapter, identifies their type and sensitivity:

Table 7 Summary of Sensitive Receptors (Table 7.3 of **Appendix F**)

Receptor Type	Receptor Sensitivity	Sensitive Receptor
Receptors of greatest sensitivity to traffic flow: schools, colleges, playgrounds, accident clusters, retirement homes, roads without footways that are used by pedestrians.	High	Pedestrians and cyclists along White Hart Yard and King's Head Yard
Traffic flow sensitive receptors: congested junctions/links, doctors' surgeries, hospitals, shopping areas with roadside frontage, roads with narrow footways, recreation facilities.	Medium	Guy's Hospital patients
Receptors with some sensitivity to traffic flow: places of worship, public open space, tourist attractions and residential areas with adequate footway provision.	Low	Future and existing surrounding residential occupants to the west, north and east of the Development including Bunch of Grapes Public House, 43 Borough High Street, Shard Place and 6 London Bridge Street. Future and existing surrounding residential occupants to the south of the Development including Nos. 51-55 Borough High Street, 22 Southwark Street. Residential students at Iris Brook House and Orchard Lisle House

March 2019 DRR Potential Regulation 25 Request (T10)

'Review assessment of effects on pedestrians during construction in light of review of identification of potentially sensitive receptors.'

Response

The assessment of effects on pedestrians during construction included within the December 2018 ES Chapter 7: Transport has been reviewed with the pedestrian movement in mind. The transport related effects on pedestrians could arise from construction vehicles entering and leaving the Site and from local footway closures on the southern side of St Thomas Street. It has been shown within the December 2018 ES Chapter 7: Transport that the maximum addition of HGV movements an hour, during the most intense construction period, would be 4 HGVs on St Thomas Street i.e. 2 arrivals and 2 departures and even less on other roads surrounding the Site. It has been shown that this is an insignificant addition onto the existing traffic flows on those roads. Therefore, pedestrian capacity, severance, delay, amenity, fear and intimidation effects are considered to be local to immediately outside the Site, and temporary adverse effects of moderate significance in the absence of mitigation, based on professional judgement and the traffic flow changes predicted. Given the low number of construction vehicles associated with the Site and

the proposed mitigation measures, the residual effects on pedestrian movement would be insignificant as outlined in December 2018 ES Chapter 7: Transport.

It is noted that both King's Head Yard and White Hart Yard are considered sensitive receptors to any changes in HGV flows. However, construction vehicles would not enter the yards and no further assessment is necessary.

March 2019 DRR Potential Regulation 25 Request (T11)

'Review assessment of effects on cyclists during construction in light of review of identification of potentially sensitive receptors.'

Response

The assessment of effects on cyclists during construction included within the December 2018 ES Chapter 7: Transport has been reviewed with consideration of the cycle movement. The data shows that St Thomas Street and Borough High Street are well used by cyclists during the peak periods. However, cyclists already share road space with traffic in those locations. The addition of the development construction traffic onto those roads result in negligible increases in traffic and the roads are not sensitive to such a small increase in flows i.e. extra 4 movements on St Thomas Street and an extra 2 movements on Borough High Street; these are maximum numbers during the most intense construction period. This would therefore have an insignificant effect and the original assessment of effects is therefore valid.

It is noted that both King's Head Yard and White Hart Yard are considered sensitive receptors to any changes in HGV flows. However, construction vehicles would not enter the yards and no further assessment is necessary.

March 2019 DRR Potential Regulation 25 Request (T12)

'*Review the content of Table 7.2 with reference to the criteria to be applied to pedestrian delay, amenity, fear and intimidation and severance in line with use of PCL to describe baseline conditions*.'

Response

The corrected table is provided as per the response to LUC's Clarification request T4 above and in the revised ES Transport Chapter (**Appendix F**).

March 2019 DRR Potential Regulation 25 Request (T13)

'Review the assessment of effects on pedestrian delay, amenity, fear and intimidation and severance in the operational phase of the proposed development in the light of changes made to Table 7.2.'

Response

The below table shows how the pedestrian comfort levels are forecast to change significantly following the proposed Development. The following table and paragraphs are provided as Table 7.22 and paragraphs 7.141-7.142 in **Appendix F**.

Table 8 Changes to PCL (Table 7.22 of **Appendix F**)

Link Ref	Future Baseline PCL (Without NCC)		Future Assessment Baseline PCL with NCC	
	Average	AM Peak	Average	AM Peak
1a (St Thomas Street)	B	B	B	B+
1b (St Thomas Street)	F	F	F	F
1c (St Thomas Street)	B	B	B	A-
2a (St Thomas Street)	**F**	**F**	**B-**	**B**
2b (St Thomas Street)	**B-**	**B-**	**B+**	**A+**
3a (St Thomas Street)	**F**	**F**	**B-**	**B+**
3b (St Thomas Street)	B-	**B-**	B-	**B+**
4a (Borough High Street)	**C+**	**C+**	**B**	**B**
4b (Borough High Street)	C	C	B-	B-
5a (Borough High Street)	**C**	C	**B**	B-
5b (Borough High Street)	**D**	**D**	**C**	**C**
5c (Borough High Street)	C+	C+	B-	B-
6 (King's Head Yard)	A+	A+	A	A
7 (King's Head Yard)	A+	A+	A+	A+

The highlighted cells indicate where a significant change in pedestrian comfort is predicted as a result of the proposed Development. This shows that many locations will operate in accordance with the recommended level of comfort as a result of the Development which is beneficial and an improvement compared to the future baseline without the Development in place.

With the above in mind, the effects local to the Site once the Development is completed and operational are as reported in the December 2018 ES Chapter 7: Transport, with the improvement to pedestrian comfort level contributing to the permanent beneficial effect of major significance on pedestrian amenity (as highlighted below):

- **permanent beneficial** effect of **moderate significance** on pedestrian severance given that the Development would open up the existing Site to pedestrians and potentially offer a new connection to the London Bridge Underground station in future;
- **permanent beneficial** effect of **moderate significance** on pedestrian delay due to increased connectivity and permeability. This is with the exception of pedestrians on White Hart Yard where the effects are being assessed as **minor adverse** in respect of pedestrian delay.
- **permanent beneficial** effect of **minor significance** on pedestrian fear and intimidation due to provision of active frontages and improvements to and creation of public amenity spaces which is considered significant. The Development would allow for natural surveillance, provision of lighting and CCTV to provide security coverage within public and private areas.
- **permanent beneficial** effect of **major significance** on pedestrian amenity due to public realm enhancements, provision of active frontages, seating, landscaping and improvements to open spaces and improvement to pedestrian comfort level as a result of the proposed Development.

March 2019 DRR Potential Regulation 25 Request (T14)

'*Review the content of the NTS so that it reflects any changes to the Transport chapter.'*

Response

The NTS would remain unchanged as a result of the amendments to the December 2018 ES Chapter 7: Transport and clarifications above.

7. Review of December 2018 ES Part 1: Main Text – Chapter 8: Noise and Vibration

March 2019 DRR Clarification Requested (NV1)

'Clarification is required as to why the internal and external noise guidelines of BS8233:2014 have not been described for the office spaces and amenity area.'

Response

The December 2018 ES, as detailed within the Scoping Report, addresses the impact of the proposed Development on surrounding land-uses. Suitability of the Site for office use and amenity is not a direct impact of the Development and therefore does not form part of the December 2018 ES. Inclusion of the assessment of vibration from LUL on the Development, is not a direct impact of the Development and would not normally be included within an ES. Inclusion of the potential impact of LUL vibration on the Development was included within the December 2018 ES at the request of LBS.

March 2019 DRR Clarification Requested (NV2)

'Clarification of the apparent inconsistency between the assigned significance descriptions for construction noise and the definition of the construction noise threshold.'

Response

The Construction Threshold Level stated in British Standard (BS) BS5228-1:2009 Annex E ABC method[6] does not provide comment on the level of significance of exceeding the Construction Threshold Level, although it is accepted that it does state '*a significant effect is deemed to occur if the predicted construction noise level exceeds the threshold level*'. In the absence of guidance on the level of significance based on the magnitude of exceedance of the Construction Threshold Level, an exceedance of <3dB is regarded as insignificant on the basis that an increase in a noise source of less than 3dB in an environmental setting is unlikely to be discernible. Exceedance of the Construction Threshold Level above this are assigned significance levels depending on the magnitude above the Threshold Level, as detailed in Table 8.4 of the December 2018 ES. The lowest daytime Construction Threshold Level is 65dB $L_{Aeq,T}$, where T is typically 10 hours per day during the weekday period and 5 hours on a Saturday. A construction level of 67.5dB $L_{Aeq,T}$ is therefore regarded as insignificant or 'negligible', whereas a construction level of 78dB $L_{Aeq,T}$ when assessed against a Construction Threshold Level of 65dB $L_{Aeq,T}$ is regarded to be of major adverse significance.

March 2019 DRR Clarification Requested (NV3)

'A description of the full list of construction noise and vibration mitigation measures proposed to be included in the SEMP, and how this relates to the CMP.'

Response

The purpose of the SEMP referred to within Chapter 8 of the December 2018 ES is to reduce the noise and vibration effects from the Works to acceptable levels when assessed against guidance and standards. The SEMP will essentially form one element of the CMP, the latter including general construction details such as the construction programme, method of working, etc.

[6] British Standard (2009); 'BS 5228 -1:2009 'Code of practice for noise and vibration control on construction and open sites – Part 1: Noise, Annex E 'significance of noise effects''.

March 2019 DRR Clarification Requested (NV4)

'*Clarification as to why an assessment of ambient noise levels on the proposed development has not been provided*.'

Response

Refer to response to clarification response to NV1.

March 2019 DRR Clarification Requested (NV5)

'If comments on the assessment result in amendments to the effects of the scheme, this should be considered in the NTS.'

Response

Following responses to clarifications NV1, NV2, NV3 and NV4, no changes to the NTS of the December 2018 ES are considered necessary.

8. Review of December 2018 ES Part 1: Main Text – Chapter 9: Air Quality

March 2019 DRR Clarification Requested (AQ1)

'The potential impacts of New City Court upon the Mayor of London's ambition to meet World Health Organisation's PM2.5 target should be clarified.'

Response

The assessment has been undertaken for the proposed heating plant which is gas fired. For gas-fired plants emission factors are not provided for PM10 because gas-fired plants do not emit any significant level of particulates and would therefore not impact on the Mayor of London's ambition to meet the WHO PM2.5 target.

As shown in Table 9.15 of Chapter 9 Air Quality (**Appendix G**), the Development would not increase concentrations of PM10 and PM2.5. The Development would not impact on the Mayor of London's ambition to meet World Health Organisation's targets for PM_{10} and $PM_{2.5}$.

March 2019 DRR Clarification Requested (AQ2)

'*Clarify the results of trackout dust risk impacts*.'

Response

When using the IAQM criteria in Table 9 of the guidance document[7], a medium sensitivity area and a medium dust emission magnitude results in a low risk of dust impact from trackout in respect of human health and medium risk in respect of dust soiling as presented in the updated ES Chapter 9: Air Quality (**Appendix G**).

Table 9 IAQM guidance document on dust impacts

Table 9: Risk of Dust Impacts - Trackout

Sensitivity of Area	Dust Emission Magnitude		
	Large	Medium	Small
High	High Risk	Medium Risk	Low Risk
Medium	Medium Risk	Low Risk	Negligible
Low	Low Risk	Low Risk	Negligible

March 2019 DRR Clarification Requested (AQ3)

'Clarify whether mitigation consistent with IAQM "Medium" risk has been provided for earthworks, demolition, construction and trackout dust risk impacts. If so, has there been any deviation from the standard suite of mitigation measures within section 8.2 of IAQM's guidance on, the assessment of dust from demolition and construction?'

[7] Institute of Air Quality Management (2014); 'Guidance on the assessment of dust from demolition and construction.'

Response

The mitigation measures in the updated ES Chapter (**Appendix G**) are consistent with those presented in Section 8.2 of the IAQMs guidance for Medium risk sites.

March 2019 DRR Clarification Requested (AQ5)

'Clarification is required on whether overlapping construction activities, as identified within Table 6.1 of the ES, would result in more peak construction HDV movements than already assessed as the maximum movements as set out in paragraph 9.19 of the ES.'

Response

Based on the review of the Works programme, the most intensive period for construction vehicle activity is predicted to be during the excavation and piling works. The Applicant's construction advisors have stated that the peak daily number of HGVs trips during construction are likely to be 28 but could be 44 during excavation and piling, as outlined in Table 6.2 of the December 2018 ES. As a worst-case, the air quality assessment in the ES has considered the peak figure from these periods in the assessment of effects of the Works.

March 2019 DRR Potential Regulation 25 Request (AQ4)

'Table 7.26 of the Transport ES chapter shows 179 vehicle movements per day associated with the scheme on Borough High Street. Clarification is required on why these traffic changes were considered to be below the 'EPUK/IAQM criteria'. Should this require a detailed assessment, clarification is also required on whether there are any significant adverse impacts and mitigation required to offset impacts in full. If dispersion modelling of this traffic flow change is required, it should be carried out in combination with the potential impacts of emissions from the energy centre. Depending on the clarification, further information may be required.'

Response

A detailed assessment has been undertaken and an updated Air Quality ES Chapter is appended to this document (Appendix G) (which replaces and supersedes Chapter 9 Air Quality of the December 2018 ES). The figures referred to by the revised air quality ES chapter are presented within Appendix A. As indicated previously, since submission of the December 2018 ES, the proposed roof plans have been revised following amendments to the energy strategy, resulting in a change to the flue locations and plant generation specifications. The updated Air Quality ES Chapter has been updated following remodelling to take account of this.

November 2019 DRR Clarification Requested (AQ7)

'Clarification is required on the version of Defra's background maps used within the assessment.'

Response

The 2017-based background maps for years 2017 to 2030 were used within the air quality assessment.

November 2019 DRR Clarification Requested (AQ8)

'Regarding AQ5 from Table 16.11 of this report further clarification on whether the AADT generated by

construction, including overlapping phases, triggers IAQM assessment threshold is required.'

Response

As noted in response to November 2019 DRR Clarification Request CD4 and CD18 earlier within this document, there are no changes that have been acknowledged in respect of vehicle movements associated with the total peak traffic during the construction phase. As such, the assessment remains as set out within ES Chapter 9: Air Quality (**Appendix G**), i.e. the indicative criteria set out in the EPUK/IAQM assessment would not be met and no further assessment on construction vehicle exhaust emissions would be required.

November 2019 DRR Potential Regulation 25 Request (AQ9)

Whilst the November 2019 DRR deems the above response to the March 2019 DRR Potential Regulation 25 Request (AQ4) as acceptable it notes:

"… there is outstanding information to assess the short-term NO_2 air quality objective. This has led to a new Regulation 25 information request, further information request as documented within AQ9 of the ES addendum review. LAQM.TG(16) does not recommend using the 60µg/m³ as a proxy for identifying exceedances of industrial sources, as stated within paragraph 7.91 of LAQM's guidance. Consequently, estimated concentrations at existing and proposed receptors averaged over a 1-hour period should be presented and assessed against IAQM's significance criteria for the revised flue location."

Response

Dispersion modelling has been undertaken to predict estimated concentrations at existing and proposed receptors averaged over a 1-hour period. The predicted concentrations have been assessed against IAQM's significance criteria.

The assessment methodology and significance criteria used is the same as presented in Chapter 9: Air Quality of the 2018 ES Air Quality and updated 2019 Chapter 9: Air Quality (**Appendix G**). The NO_2 short-term objective level is set at no more than 18 hourly exceedences of 200µg/m³ per annum.

For the determination of the short-term impact, the IAQM guidance criteria in **Table 10** was used to describe the impact on the short-term concentrations.

Table 10 Impact Descriptors for Individual Receptors of the Short-Term Objective

% Change in concentration relative to Air Quality Assessment Level (AQAL)			
≤10	**11-20**	**21-50**	**≥51**
Insignificant	Minor	Moderate	Major

The NO_2 short-term objective level is set at no more than 18 hourly exceedences of 200µg/m³ per annum. The results in **Tables 11 and 12** show the 99.8th percentile of hourly mean NO_2 concentrations. If the 99.8th percentile of 1-hour mean concentrations is less than 200µg/m³ then the 1 hour mean objective is not exceeded.

The results from the dispersion modelling of traffic and heating plant emissions are presented in **Table 11 and Table 12**. The short-term NO_2 concentrations were considered to account for 35% of the total NO_X concentrations, which is considered a worse-case scenario in the Environment Agency's Conversion Ratios for NO_X and NO_2 Guidance[8].

[8] Environment Agency. Conversion Ratios for NO_X and NO_2. Air Quality Modelling and Assessment Unit. Cardiff

Table 11 presents the predicted 99.8th percentile 1-hour mean NO_2 concentrations at relevant existing receptors and receptors introduced as part of the Development, assuming a progressive reduction in forecast emission rates and background concentrations from 2017 to 2026.

Table 11 Results of the Detailed Air Quality Modelling at Sensitive Receptors- 1-Hour Mean

ID	Address	Without Development (µg/m³)	With Development (µg/m³)	Change (µg/m³)	% Change in Hourly Mean Concentration relative to Air Quality Assessment Level	Impact Descriptor
R1	Orchard Lisle House	76.4	76.4	0.0	0%	Insignificant
R2	Orchard Lisle House	81.9	82.0	0.1	0%	Insignificant
R3	Boland House	71.0	71.1	0.1	0%	Insignificant
R4	Guy's Hospital	68.2	68.2	0.0	0%	Insignificant
R5	The Shard	75.8	76.0	0.2	0%	Insignificant
R6	Nuffield House	58.5	58.5	0.0	0%	Insignificant
R7	26 Park Street	65.5	65.5	0.0	0%	Insignificant
R8	21 Park Street	65.8	65.8	0.0	0%	Insignificant
R9	31-41 Park Street	64.8	64.9	0.1	0%	Insignificant
R10	St. Thomas Church	100.9	101.2	0.3	0%	Insignificant
R11	2 St. Thomas Street	105.4	105.6	0.2	0%	Insignificant
R12	70 Southwark Bridge Road	88.7	88.9	0.2	0%	Insignificant
R13	Ilfracombe Flats	74.8	75.0	0.2	0%	Insignificant
R14	Maple Building	77.3	77.3	0.0	0%	Insignificant
R15	57 Borough High Street	158.7	158.8	0.1	0%	Insignificant
P1	Proposed: West Tower	97.1	97.2	-	-	-
P2	Proposed: Georgian Terrace	122.5	122.7	-	-	-

Using the impact descriptors outlined in **Table 10,** the Development is predicted to result in an 'insignificant' impact on NO_2 concentrations at all existing sensitive receptors modelled. Using professional judgement, based on the magnitude of the impact and the concentrations predicted at sensitive receptors, it is considered that the effect of the Development on NO_2 concentrations would be **insignificant**.

Sensitivity analysis considers the potential effect of the Development against 2017 baseline conditions. The results of this sensitivity analysis in relation to NO_2 are presented in **Table 12**.

Table 12 Results of the Detailed Air Quality Modelling Assuming No Improvement in NO_x and NO_2- 1-Hour Mean

ID	Address	Without Development (µg/m³)	With Development (µg/m³)	Change (µg/m³)	% Change in Hourly Mean Concentration relative to Air Quality Assessment Level	Impact Descriptor
R1	Orchard Lisle House	99.4	99.5	0.1	0%	Insignificant
R2	Orchard Lisle House	111.3	111.5	0.2	0%	Insignificant
R3	Boland House	87.8	88.0	0.2	0%	Insignificant
R4	Guy's Hospital	80.7	80.8	0.1	0%	Insignificant
R5	The Shard	104.5	105.0	0.5	0%	Insignificant
R6	Nuffield House	72.5	72.6	0.1	0%	Insignificant
R7	26 Park Street	71.8	71.8	0.0	0%	Insignificant
R8	21 Park Street	73.0	73.1	0.1	0%	Insignificant
R9	31-41 Park Street	70.5	70.5	0.0	0%	Insignificant
R10	St. Thomas Church	151.9	152.6	0.7	0%	Insignificant
R11	2 St. Thomas Street	159.0	159.7	0.7	0%	Insignificant
R12	70 Southwark Bridge Road	154.2	154.5	0.3	0%	Insignificant
R13	Ilfracombe Flats	125.1	125.6	0.5	0%	Insignificant
R14	Maple Building	133.8	133.9	0.1	0%	Insignificant
R15	57 Borough High Street	286.6	287.0	0.4	0%	Insignificant
P1	Proposed: West Tower	-	142.3	-	-	-
P2	Proposed: Georgian Terrace	-	191.0	-	-	-

Assuming NO_X and NO_2 concentrations are not declining as expected, the predicted 99.8th percentile 1-hour mean NO_2 concentration exceeds 200µg/m^3 at Receptor 15 both 'without' and 'with' the Development Scenario. This result is consistent with the Development being located within the London Borough of Southwark AQMA and the London Bridge at Borough High Street TfL NO_2 Focus Area.

Using the impact descriptors outlined in **Table 10,** the Development is predicted to result in a 'insignificant' impact on NO_2 concentrations at all sensitive receptors modelled, when assuming no improvement to NO_x and NO_2. Using professional judgement, based on the magnitude of the impact and the concentrations predicted at the receptor locations, it is considered that the effect of the Development on NO_2 concentrations, when assuming no improvements to NOx and NO_2, would be **insignificant**. As such, there conclusions of the updated ES Chapter (**Appendix G**) remain valid.

9. Review of December 2018 ES Part 1: Main Text – Chapter 10: Archaeology

March 2019 Potential Regulation 25 Request (ARCH1)

'The Applicant is to revisit the assessment of residual effects and to ensure that they are internally consistent and accurately reflect that the potential total loss of buried archaeology within the site is not fully mitigated by the strategy of preservation by record proposed.'

Response

There has been no change to the assessment of the potential for, and significance of, baseline archaeological assets at the Site, nor to the physical impacts of the Development since the December 2018 ES Chapter 10: Archaeology. No buried heritage assets of Very High or High significance are anticipated in the Site which would merit a mitigation strategy of permanent preservation *in situ*, and under such circumstances it is standard practice to mitigate the loss of archaeological remains through appropriate excavation, recording and dissemination of the results to achieve ***preservation by record*.**

It has been indicated by LBS's Archaeological Advisor that the archaeological interest of the Site can be protected by the implementation of an agreed phased programme of archaeological investigation under a planning condition. This will comprise evaluation (if feasible this will be combined with any geotechnical works) following removal of the basement slab. The results will inform the need and scope for any necessary subsequent targeted excavation and recording, and/or a watching brief during ground reduction, as appropriate.

LUC has however queried the conclusions of the assessment regarding residual effects (i.e. that effects remaining after the implementation of an appropriate programme of archaeological mitigation, approved by LBS's Archaeological Advisor, would be insignificant).

Whilst the exact significance of archaeological remains (and therefore scale of likely residual significance of effect) is not known until further site field investigation is undertaken, as a precaution, residual effects have been reassessed as follows on the basis that preservation by record offsets the environmental effect but does not prevent or change the physical loss of the archaeological resource.

Without mitigation, the effects of the scheme are as follows:

- on archaeological remains of **Medium significance** (i.e. Isolated and truncated prehistoric and/or Roman cut features) the effects would be of **major adverse** significance;
- on archaeological remains of **Low significance** (redeposited prehistoric and/or Roman artefacts, truncated post-medieval remains, and disarticulated human bone) the effects would be of **moderate adverse** significance.

On completion of the programme of archaeological investigation to the satisfaction of the LBS's Archaeological Advisor it is considered that the residual effects on any truncated prehistoric and/or Roman cut features will be **moderate adverse**, and on any redeposited prehistoric and/or Roman artefacts, truncated post-medieval remains, and disarticulated human bone will be **minor adverse**.

March 2019 Potential Regulation 25 Request (ARCH2)

'The Applicant is to revisit the assessment of cumulative effects and to ensure that they are internally consistent and accurately reflect that the potential total loss of buried archaeology within the site is not fully mitigated by the strategy of preservation by record proposed.'

Response

With the completion of the construction works of Shard Place, previously included as a cumulative scheme but now considered as part of the baseline for archaeology, no nearby development scheme, including the additional cumulative scheme requested by LBS, is located within the study area used for the archaeological assessment of the Development Site. No elevated effects are therefore predicted that are greater than those identified in relation to the Development alone i.e. moderate and minor adverse.

However, any development project that has an impact on archaeology contributes to the cumulative erosion of this resource.

March 2019 Potential Regulation 25 Request (ARCH3)

'The Applicant is to clarify if the cumulative assessment with Shard Place has been correctly undertaken given that it is stated that the development will already be completed and is considered as part of the baseline in paragraphs 14.12-13'

Response

It is understood that construction of Shard Place is now completed and therefore forms part of the baseline for the archaeological assessment rather than a potential cumulative impact. This change does not give rise to a material change to the baseline nor a change in the assessment of impacts and effects.

November 2019 Potential Regulation 25 Request (ARCH4)

'Review of the updated NTS shows that there is no mention of the residual effects being 'significant' in line with the methodology presented in the 2018 ES (e.g. that any residual effect minor or above is significant). In order to comply with EIA regulations, the Applicant is requested to update the NTS to clearly state that there are significant effects and outline what they are.'

Response

The NTS has been updated to state the significance of effects.

10. Review of December 2018 ES Part 1: Main Text – Chapter 11: Water Resources and Flood Risk

March 2019 DRR Clarification Requested (WR1)

'The Applicant should provide a more detailed list and references to the applicable legislation and relevant planning policies and how this has informed the scheme and the process of the development of the ES.'

Response

It is not a legal requirement to provide in an ES a summary of applicable legislation and relevant planning policies and how this has informed the Development or relates to assessments. Policies and guidance that specifically influence assessment methodology are provided in the assessment methodology section of ES chapters, i.e. they are included where directly relevant to the ES assessment within the Assessment Methodology section of the ES Chapter.

March 2019 DRR Clarification Requested (WR2)

'Clarification is sought as to the mitigation measures related to water resources that will be included in the SEMP.'

Response

Please refer to response to CD5 regarding how the outline CMP relates to the SEMP.

Paragraph 11.82-11.88 of Chapter 11 of the December 2018 ES set out the mitigation measures related to water resources during the Works that will be included in the SEMP, which have been repeated below for ease:

- **Groundwater flooding** - Groundwater management measures would be set out within the SEMP. Appropriate dewatering and disposal, using standard techniques such as sumps and pumps would likely be required.
- **Surface water (pluvial) flooding** - The SEMP developed for the Works would include temporary measures to control surface water runoff from the Site. Such measures would include the provision of adequate drainage to manage surface water run-off. Construction of the drainage system should be designed and managed to comply with BS 6031:2009 'The British Standard Code of Practice for Earthworks'[9], which details methods that should be considered for the general control of drainage on construction sites. Discharge rates and volumes of water discharged would be agreed with the EA and Thames Water.
- **Effects to Controlled Waters from ground contamination** - The Works would be undertaken in accordance with the SEMP to negate adverse risks to Controlled Waters. Protective measures would include:

Handling and storing any potential hazardous liquids/materials in accordance with relevant legislation and Environment Agency (EA) pollution prevention guidance;

The use of appropriately tanked and bunded storage areas for fuels, oils and other chemicals;

Procedures for the management of materials, spillage and spill clean-up, use of best practice construction methods and monitoring;

Surface drainage would pass via settlement and oil interception facilities, where required, and discharge

[9] British Standards (2009): BS 6031:2009 'The British Standard Code of Practice for Earthworks', December 2009.

arrangements would be agreed with the EA and Thames Water Utilities Limited (TWUL);

The provision of adequate drainage to manage surface water run-off and minimise contaminated water reaching the groundwater;

The stockpiling of contaminated materials would be avoided, wherever possible. Stockpiles would be located on areas of hard standing or on plastic sheeting to prevent mobile contaminants infiltrating into the underlying ground; and

Potentially hazardous liquids on the Site, such as fuels and chemicals, would be managed and stored in accordance with best practice guidance, such as that published by the EA. Storage tank and container facilities would be appropriately bunded with designated areas and located away from surface water drains.

- **Potable water demand** – all relevant contractors would be required to investigate opportunities to minimise and reduce the use of water in accordance with the SEMP. These would include:

selection and specification of equipment;

implementation of staff-based initiatives such as turning off taps, plant and equipment when not in use;

use of recycling water systems in functions such as wheel washes and toilets; and

where possible, water from excavation would be used for dust suppression during construction.

March 2019 DRR Clarification Requested (WR3)

'With regards to the proposed drainage strategy, the Applicant should confirm that consultation has taken place and the local authority/Thames Water are satisfied with the proposed attenuation of flows.'

Response

Appendix 3 of December 2018 ES Part 4 - Appendix 11.1 (Drainage Strategy prepared by AKTII) contains Thames Water's response to AKTII's pre-planning enquiry, which confirms that there is sufficient sewer capacity for the proposed foul flows of the Development.

March 2019 DRR Clarification Requested (WR4)

'The Applicant should include an outline of the likely evolution of the baseline environment and review the assessment accordingly.'

Response

It is acknowledged in Chapter 4: Alternatives and Design Evolution of the December 2018 ES (paragraph 4.10 and Table 4.1) that the EIA Regulations require the consideration of the likely evolution of the baseline conditions of the Site without implementation of the Development as a result of natural changes occurring. The existing conditions of the Site are reported in **Chapter 7** to **Chapter 14** of the December 2018 ES (and any additional information contained within this document) and relate to conditions identified at the time the surveys and desk-based research were undertaken between 2017 and 2018. The December 2018 ES Chapter 4: Alternatives and Design Evolution outlines that the baseline conditions without the Development are expected to evolve for a number of the environmental issues considered, as outlined in Table 4.1 of the December 2018 ES. The December 2018 ES Chapter 4: Alternatives and Design Evolution also states that where no evolution of the baseline conditions as a result of natural changes occurring is anticipated, the baseline conditions would remain as reported in the technical chapters of the December 2018 ES (and any additional information contained within this document).

Water resources and flood risk are not considered to evolve, and therefore the 'future' baseline conditions would remain as reported in Chapter 11: Water Resources and Flood Risk of the December 2018 ES. The flood risk baseline information used the latest available EA data, which considers the impact of climate change on future flood levels.

March 2019 Potential Regulation 25 Request (WR5)

'The Applicant does not discuss the sensitivity of receptors in Chapter 11. The sensitivity value (and criteria) of a receptor should be clear, or justified reasoning provided for not using this terminology as part of the assessment. Further information in regards to the sensitivity of receptors, i.e. the River Thames, underlying geology and local infrastructure should be provided.'

Response

A review of the sensitivity of receptors in Chapter 11 of the December 2018 ES is provided in **Table 13** below.

Table 13 Sensitivity of Receptor

Receptor	Commentary	Sensitivity (H/M/L)
River Thames	The River Thames forms part of the River Thames and Tidal Tributaries Site of Metropolitan Importance for nature conservation. The section of River Thames nearest to the Site is also known as the Middle Thames and is located within the Thames River Basin Management Area. It has been assessed by the EA as having a 'Moderate' Ecological Potential (failure against the Water Framework Directive, 2000 (WFD)[10]). It also fails with regard to Chemical Quality. Owing to the historic physical habitat modifications of the river throughout this reach, the Middle Thames is classified as a Heavily Modified Waterbody (HMWB). As the current chemical quality of the Middle Thames has been recorded as 'Fail' and the ecological status is Moderate, the surface water quality receptor is assessed as being of high importance / sensitivity.	High
Existing surface and foul water sewers	Thames Water combined public sewers are located adjacent to the Site. It is believed that all surface water and foul water from the existing building currently discharges to one or more of these public sewers. Given these sewers are public (rather than private) these are considered to be have high importance / sensitivity.	High
Existing water mains	Thames Water public water supplies are located adjacent to the Site. Given these water mains are public (rather than private) these are considered to be have high importance / sensitivity.	High
Deep Principal Aquifer	As stated in Table 11.3 of the December 2018 ES, a deep Principal Aquifer lies within the Chalk Group stratum. This aquifer classification has a high intergranular and/ or fracture permeability – meaning they usually provide a high level of water storage and likely to be used for potable water abstraction. This Principal Aquifer therefore has high sensitivity.	High
Secondary Aquifers	As stated in Table 11.3 of the December 2018 ES, the shallow aquifers (Secondary Undifferentiated Aquifer in the Alluvium and Secondary A Aquifer in the Kempton Park Gravel Formation) above the low permeable London Clay Formation (Unproductive Stratum) underneath the Site may be important in supporting local abstractions or in providing baseflow to rivers and streams. As such these aquifers have medium sensitivity. Secondary A Aquifers lie within the Lambeth Group and Thanet Formation stratum underneath the Site. These Secondary A Aquifers are permeable layers capable of supporting water supplies at a local rather than strategic scale and as such have medium sensitivity.	Medium

[10] European Union, (2000), '*Council Directive 2000/60/EC establishing a framework for Community action in the field of water policy (Water Framework Directive)*'.

Receptor	Commentary	Sensitivity (H/M/L)
Groundwater quality	The Site is not located in a groundwater Source Protection Zone. Groundwater vulnerability is therefore classified as medium-low.	Medium-Low

On review of the above, the sensitivity value of the identified receptors in **Table 13.** do not affect the significance criteria in Table 11.1 of Chapter 11 of the December 2018 ES. The sensitivity of a receptor is often based on its spatial scale (i.e. locality to the Site and its local or regional importance), which is inherently considered within Table 11.1 of Chapter 11 of the December 2018 ES and used for determining the significance of effect (e.g. a major adverse effect if there were was an increase in water supply which would exceed the water resource capacity of the region versus a minor adverse effect if it placed additional pressure on existing local supplies and existing water supply infrastructure).

11. Review of December 2018 ES Part 1: Main Text – Chapter 12: Wind

March 2019 DRR Clarification Requested (W1)

'Clarification is sought to which software was used for the CFD analysis

Response

The software that Wirth Research use is ANSYS Fluent.

March 2019 DRR Clarification Requested (W2)

'Clarification is sought as to how the wind gust analysis takes place and how this is benchmarked against the wind tunnel test'

Response

The Gust Equivalent Mean (GEM) for these results is calculated using a proprietary method which uses the Turbulent Kinetic Energy (TKE) field and the velocity field from the Computational Fluid Dynamics (CFD) to estimate the gust velocity across the Site and surrounds.

The use of TKE has been questioned due to the known limitations of Reynolds-averaged Navier–Stokes (RANS) in predicting absolute TKE values, but for the purposes of generating GEM only the additional TKE generated by the flow structures within the Site and surrounds is relevant.

There is published literature which demonstrates that discrepancies between mean velocities from CFD and GEM from wind tunnels are only marked when concerned with the gustiness associated with flow accelerations around the corners of buildings.

The CFD method has been correlated against wind tunnel data. The studies used for this are confidential, but an anonymised section is shown in **Figure 2** to demonstrate the benefits from changing from mean velocity to GEM.

November 2019 DRR Clarification Requested (W4)

"Other than mentioning that in both the December 2018 ES and the current Addendum CFD was used, the Applicant does not specify if and how the currently used methodology is different from the December 2018 ES and further clarification is requested. Further clarification is also sought, if and how the significance criteria and the assumptions and limitations of the methodology are different from the December 2018 ES."

Response

The methodology used in the ES Addendum does not differ to the approach undertaken for the December 2018 ES.

November 2019 DRR Potential Regulation 25 Request (W5)

'In item 14.3. on page 17 of the ES Part 1: Main Text the Applicant states that the results of the assessment are shown in Figures 14.2-14.7. However, within Updated Chapter 14: Cumulative Effects, ES Part 1: Main Text (nor within Updated Chapter 14: Cumulative Effects, ES Part 1: Main Text, References) no Figures 14.2-14.7. are shown. As these results have not been provided a judgement about the validity of the results and conclusions based on them cannot be formed. It is requested that these results be provided. In particular, the conclusion by the applicant that the cumulative effects on

wind microclimate are insignificant (which also appears in a conclusion in the non-technical summary) cannot be verified.'

Response

Figures 14.2 – 14.7 are presented within **Appendix A** of this report.

12. Review of December 2018 ES Part 1: Main Text - Chapter 13: Daylight, Sunlight, Overshadowing, Solar Glare and Light Pollution

March 2019 DRR Clarification Requested (DS1)

'Consider whether it would be more appropriate to categorise the effects on daylight to The Old Kings Head as minor to moderate beneficial rather than insignificant.'

Response

On balance, due to both adverse and beneficial effects, the insignificant effects to the Old Kings Head is considered to be appropriate.

March 2019 DRR Clarification Requested (DS2)

'*It is recommended that the Applicant provides clarification on the likelihood of the ILP guidelines being exceeded to some of the windows that are shown to be close to guideline levels before any account is taken of existing baseline levels of light trespass.*'

Response

The Light Pollution assessment (**Appendix H**) assumes all floors are fully lit with lighting of 500 lux which is a worst-case scenario. In reality, owing to the occupancy sensors being proposed, fewer floors would be fully lit, especially post-curfew (after 11pm), and the effects would likely be lower than those reported within the December 2018 ES and as demonstrated by the 300 Lux light pollution assessment for 9 St Thomas St (**Appendix H**). Including baseline light pollution, it is unlikely that windows marginally under the guidance, would exceed the ILP maxima. In addition, as the detailed lighting design progresses, it will do so using the ILP Guidelines. In addition to this, the lower floors will contain restaurants and other retail uses, which typically use a lighting design far lower than 500 lux. Therefore, any windows affected by the lower floors of the Development, will be lower than those reported within the December 2018 ES.

March 2019 DRR Clarification Requested (DS3)

'Revise the description in paragraph 13.226 of the number and magnitude of impacts on sunlight to the dwellings in Shard Place that exceed the BRE guidelines.'

Response

The text in paragraph 13.225 of Chapter 13: Daylight, Sunlight, Overshadowing, Light Pollution and Solar Glare (**Appendix I**) relating to total annual probable sunlight hours (APSH) for Shard Place has been amended from the December 2018 ES to state *'For total APSH, four rooms would experience alterations between 20-29.9% which is considered a Minor Adverse effect, and 16 would experience an alteration between 30-39.9% which is considered a Moderate Adverse effect. The remaining 11 rooms would experience an alteration in excess of 40% which is considered a Major Adverse effect.'* However, the effect should remain the same.

March 2019 DRR Clarification Requested (DS4)

'Consider whether it would be more appropriate to categorise the effects on post-curfew light intrusion to Orchard Lisle House as minor adverse significance rather than insignificant.'

Response

Owing to the response to clarification request **DS2**, GIA consider the effect to Orchard Lisle House to remain insignificant.

March 2019 Potential Regulation 25 Request (DS1)

'An assessment of light intrusion to the residential element of St Thomas Church ought to be undertaken.'

Response

As requested an additional light pollution assessment for the residential element at 9 St Thomas Street has been undertaken (**Appendix H**). Overall the results show that the levels of light trespass seen on sensitive receptors at 9 St Thomas Street pre-curfew are acceptable and below those recommended by the ILE. Post-curfew potential light pollution issues have been identified on some of the tested windows. However, in reality, the proposed lighting system will include occupancy sensors which would detect the presence of a person to automatically control the lighting system, turning artificial lights off when rooms are unoccupied. Therefore, as demonstrated by additional assessments with a 300 Lux maximum output (pages 12 to 15 of **Appendix H**), the proposed lighting system is unlikely to cause any significant nuisance post-curfew upon 9 St Thomas Street and therefore the effect of the Development is considered insignificant. The conclusion of the December 2018 ES Chapter 13: Daylight, Sunlight, Overshadowing, Solar Glare and Light Pollution that the residual effect of light pollution would be insignificant to all properties therefore remains valid.

In addition to the above clarification requests from LUC, LBS have provided additional comments on the December 2018 ES Chapter 13: Daylight, Sunlight, Overshadowing, Light Pollution and Solar Glare which has resulted in an updated ES Chapter 13 and ES Figures 13.1 and 13.2 (**Appendix I**) and amendments to the NTS (**Appendix C**). The response to the LBS comments have been provided separately to this document and are entitled 'GIA Letter to Victoria Crosby (London Borough of Southwark) Ref: 1234_ISXX August 2019' and 'GIA Letter to Victoria Crosby (London Borough of Southwark) Ref: 1234_ISXX February 2020' and where relevant the ES and NTS have been updated accordingly.

13. Review of December ES Part 3: Built Heritage, Townscape and Visual Impact Assessment

Here follows a response to LUC's review of the December 2018 ES Townscape, Visual Impact and Built Heritage Assessment (TVIBHA) set out in the March DDR and the November DDR. Where necessary the responses below refer the reader to information either submitted in the December 2018 ES or detailed in separate documents that have been provided at the request of LUC appended to this response.

Reference is made below to the following reports submitted in the December 2018 ES:

- Part 3: Townscape, Visual and Built Heritage Assessment of the December 2018 ES.
- Part 4: Appendices of the December 2018 ES:

Appendix BHTVIA: KM Heritage Listed Building Heritage Assessment.

Appendix BHTVIA: Peter Stewart Consultancy Heritage Limited.

Reference is also made below to the following documents, provided at the request of LUC:

- Updated NTS (**Appendix C**);
- Updated Figure 3-7 of the TVBHIA (**Appendix J**);
- TVBHIA Erratum Notice (**Appendix J**);
- Correspondence with LBS on the agreed viewpoints (**Appendix J**);
- Detailed response to LUC item BH1 – Parts 1 and 2 (**Appendix J**);
- Supplement to the December 2018 TVBHIA (**Appendix J**); and
- TVBHIA ES Addendum (**Appendix J**).

Part 1 of this response comprises table BH1, which sets out:

- The significance of effect for individual heritage assets considered in the December 2018 ES TVIBHA, including grouped assets referred to in Table 3-6 of the December 2018 ES TVIBHA;
- A clear statement of whether the effect is significant or not significant EIA terms relating to the 'Works' and once the Development is completed and operational; and
- Further detail on the mitigation to be undertaken on the Site during the Works, including control measures, as requested in item BH23.

Part 2 of this response to BH1 provides further clarification regarding the Development's effect on the significance of heritage assets lying within the study area. This provides further information on those attributes of each heritage asset and/or its setting that contribute to significance.

March 2019 DRR Clarification Requested (TVIA1)

'Clarification is sought on the impact on View 51 which is stated as beneficial when it looks similar to view 50 which is deemed to be adverse.'

Response

The commentary on these views is provided in the December 2018 ES TVIBHA, which explains the reasons for the difference. As noted, at paragraph. 5.635, by comparison with View 50, the 'as proposed' image for view 51 illustrates that:

- the public realm benefits of the Development would become more apparent the closer one gets to it;
- the removal of the unsatisfactory 20th century office building currently fronting St Thomas Street allows

for a better appreciation of the Georgian terrace and Keats House; and

- the new opening in the street frontage signals the location of the main point of entry to the office development and to the new public space within the Development, and the new route to the underground station.

Further it is noted at paragraph 5.636 that by contrast with View 50, the proposed tower is less visually dominating, since this viewpoint is closer and the upper parts are peripheral to the viewer's field of vision.

November 2019 DRR Clarification Requested (TVIA1)

'Acceptable'

March 2019 DRR Clarification Requested (TVIA2)

'The NTS should be updated to clarify which effects are considered to be significant.'

Response

It is considered that stating the significance of the effects would result in the NTS failing to be 'non-technical' in nature. Despite this, on this occasion, the NTS has been updated throughout to state the significance (minor, moderate or major) of effects and whether these are significant or not significant in order to respond to November 2019 DDR Potential Regulation 25 BH24 and ensure consistency throughout the NTS.

November 2019 DRR Clarification Requested (TVIA2)

'Acceptable'

March 2019 DRR Clarification Requested (BH2)

'The function of the ES chapter is to provide an objective assessment of the effect to the heritage significance of assets. It is therefore requested that the Applicant remove all references to defining public benefit and discussion of 'balance' (particularly those at 12.63-13.2 and 13.6 onwards, as well as those in the NTS and Heritage Statements)'

Response

The Built Heritage Assessment (BHA, within the December 201 8ES TVIBHA) has been informed by the findings of the KMH Listed Building Heritage Statement (LBHS) (an appendix to the December 2018 TVIBHA). The BHA quotes from the LBHS (paragraphs 12.62-63), which in turn quotes the NPPF when discussing the potential for 'substantial' harm to the listed buildings on the Site. This is entirely appropriate.

Elsewhere, where the December 2018 BHA quotes the NPPF (such as in the concluding paragraphs on residual effects 13.2 and 13.12) this is also appropriate – the point being made in these instances is that we have been mindful of the NPPF in carrying out our assessment according to our methodology, setting out our assessment in the context of the national policy framework which includes consideration of public benefit.

On the question of 'balance', PSC's methodology states when referring to effects being assessed qualitatively, that 'an effect on an HA or its setting can enhance its heritage significance (a beneficial effect), harm its heritage significance (an adverse effect) or leave its heritage significance unchanged (a neutral effect).' (paragraph 10.22). At paragraph 10.25, it states 'The general conclusions about the effect

of the Development on HAs include consideration of the overall effect on the historic environment considered in the round'. The balancing exercise carried out in line with PSC's methodology weighs any harm against benefits and comes to a conclusion based on professional judgement.

In referring to 'consideration in the round', this simply means that while there may be an adverse effect on a view of a HA that has been chosen to illustrate general townscape effects, and not a special view of that HA, it is one of many views of that HA, and this does not affect any element of setting that contributes to the significance of the asset.

November 2019 DRR Clarification Requested (BH2)

'Acceptable – The Applicant has explained that consideration in the round relates to their discussing of townscape/ visual effects in the historic environment assessment. This is inappropriate and again highlights the conflation of the three assessments, which fall under separate legislation, policy and guidance areas.

The Applicant has declined to remove the references to defining public benefit and balance citing their own methodology. This is problematic because the assessment findings that have been weighed/ balanced are incomplete/ erroneous (see BH1) and overall the ES assessment fails to fulfil EIA regulation 18 4 B.

Given that it is not the role of the ES to define public benefit and discuss the balance of the scheme and, furthermore, that the built heritage assessment is not robust, it is recommended that, along with the assessment findings (see BH1), the reader/ decision maker disregard any such references to public benefit and balance.

Response

Please refer to the updated response to BH1 below and **Appendix J**. This sets out the approach and methodology with regard to the discussion of townscape / visual effects in the historic environment assessment confirming it is appropriate.

In carrying out an assessment of effect on a given HA, it is only heritage benefits brought about by the Development that are taken into account. The decision as to what constitutes a heritage benefit is based on professional judgement and considers the condition of that HA as found today. The December 2018 TVIBHA draws to the reader's attention that existing condition. This will in some cases include both positive and negative qualities. Borough High Street CA is used here as an example. At paragraph 1.411 of Appendix A7 of the December 2018 TVIBHA (Statements of Significance) it is stated:

'Although the present-day form of the yards, entered below buildings fronting Borough High Street which open onto narrow passages open to the sky, clearly reflects their historic origins, their physical form today is in many cases run down and disappointing once one is beyond the frontage buildings. Fragments of older buildings and street surfaces remain but even in the best of the yards there is no sense of an intact historic setting, and there is clearly considerable room for improvement; the BHSCAA notes at 3.2.7 of the yards, after discussing the George yard, that 'other yards and alleys have generally been reduced to no more than utility and service accesses for frontage buildings, but retain potential for more active use.'

It is clear from inspection that there is considerable scope for improvement to the part of the CA within which the Site lies, not least to the public realm, to enhance one's experience and appreciation of the heritage significance of the CA. The December 2018 TVIBHA considers that the Development does just that, enhancing the quality of the public realm, including the new routes and spaces on the Site. These are heritage benefits brought about by the Development and they were taken into account in determining the assessment of effect on the CA as a whole.

March 2019 DRR Clarification Requested (BH3)

'The Applicant is asked to provide a rationale for:

1) why a ZTV was not used and:

2) for the use of a 1km study area.'

Response

The area of study was informed by professional experience, including a good knowledge of the area and of other developments in planning, site visits, and desktop research. A Zone of Theoretical Visibility (ZTV) was commissioned as part of the December 2018 ES TVIBHA to inform the process of agreeing townscape viewpoints with LBS (refer to correspondence with officers detailed in the response to BH20 below). It was only used to confirm decisions taken regarding the extent of coverage of the study area.

PSC exercised their professional judgment in determining which HAs were reasonable to include within the 1km radius. For example, decisions concerning the area of coverage to the north of the Thames took into account the densely developed townscape of the City of London beyond the built up edge of the north bank. It was considered appropriate to include HAs lying on streets aligned on the Site (e.g. along Gracechurch Street) within the radius, a decision that was supported by the results of the ZTV.

A map detailing Built Heritage Assets included in the study area was supplied to officers in mid-October 2018, following a request by LBS' consultant's, LUC, in its review of the EIA Scoping Report (September 2018, Appendix 2.1 of the December 2018 ES). This was provided specifically to be read alongside the ZTV map, which was also requested by LUC. No further correspondence was received from LBS/LUC in relation to the heritage baseline prior to planning submission.

November 2019 DRR Clarification Requested (BH3)

'Acceptable'

March 2019 DRR Clarification Requested (BH4a/b)

'It is unclear as to how heritage assets have been scoped in/ out of the assessment (or indeed if any have actually been scoped out). Therefore, the Applicant is to provide a plan of the ZTV (if used) overlaid with a plan of all the heritage assets within that area, including those that are scoped out of the assessment (BH4a). The heritage assets on the plan should be clearly labelled and cross-referenceable to a gazetteer of all of the assets (again including those scoped out)'. If a ZTV was not used then the Applicant is asked to provide a rationale for the process by which assets were scoped in/ out (BH4b).'

Response

Refer to response to BH3.

The December 2018 TVBHIA Figure 3-7 (listed building groups considered in the assessment) has been updated, which now lists those assets falling within each group. No heritage assets have been scoped out.

Figure 3-7 (as updated, refer to **Appendix J**) should be read alongside the ZVI report (re-provided in this response to the ES review) and the following figures submitted in the December 2018 ES TVIBHA:

- Figure 3-4 (Townscape Character Areas);
- Figure 3-5 (Townscape Character Areas with Heritage Assets); and
- Figure 3-6 (Built Heritage Assets considered in the assessment).

November 2019 DRR Clarification Requested (BH4a/b)

'Acceptable'

March 2019 DRR Clarification Requested (BH5)

'The Applicant is asked to clarify whether the GLHER was examined and, if not, they are asked to provide a rationale as to why.'

Response

As noted at paragraph.10.7 of the December 2018 TVIBHA, PSC made use of data available on LBS's website and Historic England's online database: 'The Heritage List' (officially the National Heritage List for England or NHLE at http://www.historicengland.org.uk/listing/the-list)[11] - the official and up to date record of all nationally protected historic buildings or sites in England.

With regard to Scheduled Monuments (SMs), paragraph 10.1 of the December 2018 BHA notes under 'Scope' that only those lying above ground that are also listed grade II* or higher were included in the assessment. In the Applicant's response to the scoping review, LBS was made aware that:

'*The scope of this assessment covers above-ground SAMs in the study area that are also grade I/ II* LBs (or a WHS in the case of the Tower of London). These comprise the following:*

- Remains of Winchester Palace;
- Vintners Hall;
- Fishmongers Hall;
- The Monument;
- Portion of Old London Wall, Tower Hill, and
- Tower of London.'

Given that the effect on above ground SMs that are also listed grade II* or higher was considered as part of the assessment of effect on the subject listed buildings (as noted in paragraph 12.467), it was judged appropriate to use the sources noted above. There was no need to extend the source material to include the GLHER.

November 2019 DRR Clarification Requested (BH5)

'Not Acceptable'

Response

The contents of the GLHER are set out on pages 3 and 4 of the Greater London Historic Environment Record Information and Recording Policy[12] produced by HE.

The TVIBHA does not cover below ground archaeology which is covered by Chapter 10: Archaeology of the ES of the 2018 ES, section 9 of this report and associated appendices.

Of the resource types mentioned within the GLHER contents, those relevant to the heritage assessment of the Development are:

1. World heritage sites;

[11] Historic England's (2019): 'The Heritage List' (officially the National Heritage List for England or NHLE at http://www.historicengland.org.uk/listing/the-list

[12] Historic England (2015). Greater London Historic Environment Information and Recording Policy, January 2015.

2. Scheduled monuments (SM) (above ground SMs only);

3. Listed buildings;

4. Historic parks and gardens;

5. Conservation areas; and

6. Locally listed heritage assets (note the GLHER is stated to have only partial coverage of these).

Information on all of these resource types can be found elsewhere, in the sources referred to in our report:

- Items 1-4 are available on the HE website, via the map search function.
- Items 5 and 6 are available on the LPA website.

The other contents of the GLHER relate to archaeology, which is not covered by the TVIBHA.

There is no information relevant to the TVIBHA that is available in the GLHER that is not available in the sources we have used to compile our baseline, so the baseline compilation undertaken is equivalent to consulting the GLHER. However, for completeness since the preparation of the December 2018 TVIBHA, the HE National Heritage List (which includes SMs) has been revisited to identify any above-ground SMs within the study area to ensure all are included. As a result, we have now included an additional listed building, two further SMs within the City of London that include above ground remains, namely Smiths' Wharf and Queenhithe Dock. Similarly, the LBS Draft Local List (2018)[13] has been consulted to identify locally listed buildings not previously included in the December 2018 TVIBHA. Further details, and an assessment of the Works and the proposed Development of the additional SM and LLB are detailed within the TVIBHA Supplement (**Appendix J**). As detailed within the TVIBHA Supplement, the conclusions of the December 2018 TVIBHA do not change with the inclusion of these additional heritage assets.

March 2019 DRR Clarification Requested (BH9)

'The Heritage Statement includes a broadly appropriate range of images and photos to help understand the site, its development and the nearby assets. However, a figure with the 1746 map to evidence the alley layout that is to be reinstated would be useful.'

Response

This map can be found in Chapter 2 of the December 2018 Design and Access Statement (DAS), as noted at Paragraph 4.12 of the December 2018 TVIBHA.

November 2019 DRR Clarification Requested (BH9)

'Acceptable'

March 2019 DRR Clarification Requested (BH11)

'The Applicant is asked to clarify their use of the terms setting 'quality' and 'visual setting'.'

Response

The assessment is not based solely on the quality of a visual setting of a heritage asset. For example, the assessment has regard for the dense urban context of heritage assets assessed and their distance from the Site. A case in point is the characterisation of the setting of LBs lying with Group vii – '*Southwark Street, east end and streets to the north (grade II)*' (paragraph 12.129) This notes that *'The Development will be seen as an addition to the evolving urban landscape, consistent with the character of the existing*

[13] Southwark Council (2018). Draft Locally Listed Buildings List.

setting of these listed buildings. That setting includes large scale and tall post-war and modern buildings at London Bridge, including The Shard, The Place, Guy's Hospital tower, and the recently completed Shard Place on St Thomas Street. This is illustrated in TVIA views 41 and 42 from Southwark Street'. Views are referenced here as they help to illustrate the point, demonstrating the relevance of visual considerations in making an assessment.

Notwithstanding, further details has been provided regarding those aspects of the HAs' settings that contribute to their heritage significance, if any. This information can be found in the response to BH1.

November 2019 DRR Clarification Requested (BH11)

'Not Acceptable'

Response

Please see the updated response to BH1 below and **Appendix J**. This sets out the approach and methodology with regard 'quality' and 'visual setting'.

March 2019 DRR Clarification Requested (BH12)

'The Applicant should provide further information on how judgements 'in the round' have been reached.'

Response

Refer to response to BH2 above.

A case in point is the assessment of effect on St Saviours Southwark War Memorial, Borough High Street (grade II*).

The war memorial has a very local setting, dominated by the busy main road today, and the development, as a consequence of its distance from the Site and the nature of the context of the heritage asset would not affect any element of setting that contributes to its significance. The principal views of the memorial is from the south, looking directly at it, with grade II listed mid-19th century former Town Hall Chambers in the background, within which there is a clear civic association, and the principal reason for the 'GV' specifically noted in the list description (see Statement of Significance (SOS) at appendix A of the December 2018 TVIBHA)).

In referring to 'consideration in the round', this simply means that while there is an adverse effect on view 43 (in Section 1 of the December 2018 TVIBHA), the effect on this view chosen to illustrate general townscape effects and not a special view of the war memorial (simply one of many views of the war memorial) does not affect any element of setting that contributes to the significance of the asset.

November 2019 DRR Clarification Requested (BH12)

'Acceptable - The response again demonstrates the conflation of assessments: see response to BH1.'

Response

Please see the updated response to BH1 below and **Appendix J**. This sets out the approach and methodology with regard to the discussion of townscape / visual effects in the historic environment assessment which demonstrates conflation of assessment is has not occurred.

March 2019 DRR Clarification Requested (BH14)

'The Applicant is to provide clarification on the purpose of the apparent duplication of assessment for the Tower of London.'

Response

There is no duplication. One assessment was undertaken for the purposes of the ES. Our assessment is carried out at paragraphs 12.30-12.32 of the December 2018 TVIBHA. The text at paragraphs 12.34-12.58 demonstrates how PSC's assessment at 12.30 - 12.32 relates to guidance in the Mayor's SPG: '*London's World Heritage Sites – Guidance On Settings*' (Ref. 3-38 in the December 2018 TVIBHA)[14].

This example demonstrates there can be more than one way of carrying out such an assessment, and that different methodologies can be equally valid.

November 2019 DRR Clarification Requested (BH14)

'Acceptable'

March 2019 DRR Clarification Requested (BH15)

'The Applicant is asked to provide a rationale for why an exception has been made in relation to the measuring of significant effects in relation to built heritage.'

Response

PSC applied our standard methodology, which has been found to be acceptable when tested at public inquiry. Our approach was agreed in consultation with the Environmental Impact Assessment consultants, Waterman IE.

PSC methodology is consistent with the guidance set out in Guidelines for Landscape and Visual Impact Assessment (Third Edition)[15], which states (at paragraph 3.32) that '*There are no hard and fast rules about what effects should be deemed 'significant' by LVIAs should always distinguish clearly between what are considered to be the significant and non-significant effects.*' At paragraph 3.34 the Guidance states '*When drawing a distinction between levels of significance is required (beyond significant /not significant) a word scale for degrees of significance can be used (for example, a four-point scale of major/moderate/minor/negligible). Descriptions should be provided for each of the categories to make clear what they mean, as well as a clear explanation of which categories are considered to be significant and which are not. It should also be made clear that effects not considered to be significant will not be completely disregarded.'* Our assessment draws a distinction between levels of significance, providing descriptions for each of the categories (see Table 3.4, Ch10). The distinction between significant and non-significant effects is made clear at paragraph 10.20 and Table 3-5 in Chapter 10 of the December 2018 BHA.

November 2019 DDR Point of Clarification (BH27) related to March 2019 DDR Point of Clarification (BH15)

'The fact that the criteria for significant effects are different for the historic environment than that of others (e.g. moderate and above, as opposed to minor and above) should also be clearly be stated to ensure transparency to the reader.'

Response

Paragraph 2.33 in Chapter 2: EIA Methodology of the December 2018 ES states:
'For the purposes of this ES, minor, moderate and major are all considered as significant effects. The exception to this is in the Townscape, Visual Impact and Built Heritage Assessment where minor or

[14] Mayor of London (2012); Supplementary Planning Guidance: 'London's World Heritage Sites – Guidance On Settings'.
[15] Landscape Institute (2013); 'Guidelines for Landscape and Visual Impact Assessment (Third Edition)'.

minor/moderate effects are considered to be not significant; moderate and major effects are considered as significant effects'

To ensure further transparency, ES Chapter 14 Cumulative Effects (**Appendix B**) and ES Chapter 15: Residual Effects and Monitoring (**Appendix K**) have been updated to explain this difference.

Whilst the explanation of what constitutes a 'significant effect' is typically considered too technical for the NTS, the NTS has been reviewed accordingly and where applicable clarity, commensurate with the purpose of the document to be non technical, has been provided.

March 2019 DRR Clarification Requested (BH16)

'The Applicant is requested to clarify what has been taken into account in weighing the effects and to include all effects to heritage assets in the table requested [BH1] with individual levels of significance to make their consideration in the round transparent to the reader/ decision-maker.'

Response

Refer to responses to BH2 and BH12 in relation to how judgements 'in the round' have been reached for an explanation of what has been taken into account in weighing the effects.

The grouping of heritage assets is common practice and has been accepted on other assessments by LUC when working with them as the EIA consultant on a recent planning submission (Shoreditch High Street).

Grouping is carried out in part for the benefit of the reader, avoiding unnecessary repetition in an assessment.

Nevertheless, in response to this request, Table BH1 notes individual levels of significance for those assets located in groups.

November 2019 DRR Clarification Requested (BH16)

'Not acceptable'

Response

All effects to heritage significance have now been assessed and reported taking account of an additional listed building, two further above ground SMs and LLBs. See updated Table BH1 and the TVIBHA Supplement (**Appendix J)**.

March 2019 DRR Clarification Requested (BH19)

'The Applicant is to provide further information explaining the neutrality of effect on the Tower of London WHS.'

Response

The submitted assessment provides clear reasoning behind the finding of a neutral effect on the WHS, as stated in paragraphs 12.25 – 12.29 of the December 2018 TVIBHA. This followed PSC's stated methodology (see paragraph 10.22 of the December 2018 TVIBHA). The assessment has regard for the guidance in the Mayor's SPG: '*London's World Heritage Sites – Guidance On Settings*'.

November 2019 DRR Clarification Requested (BH19)

'Acceptable'

March 2019 DRR Clarification Requested (BH21)

'The ES should be updated to clarify that hoardings are a standard control measure that provide no amelioration of effects to the heritage significance of assets in the sense that the hoarding itself is likely to give rise to a measure of setting change, in addition/combination to that created by the works it seeks to hide.'

Response

Noted. This will be a temporary state of affairs. Refer to response to BH1 (Part 1 - Table BH1) which provides further detail on the proposed mitigation measures during the Works, in addition to the use of hoardings on the Site.

November 2019 DRR Clarification Requested (BH21)

'Acceptable'

March 2019 DRR Clarification Requested (BH22)

'The Applicant is to revisit the wording of paragraph 13.2 (in relation to mitigation by design) so that it accurately explains that the proposed development will result in harm to a number of heritage assets and that there is no mitigation that can be undertaken to reduce that harm.'

Response

The December 2018 TVIBHA has drawn to the attention of the decision maker those instances where harm would result from the Development. PSC consider the commentary in paragraph 13.2 to be sound, highlighting where adverse effects would occur. It does not state that the harm identified would be offset by mitigation. It does state that '*The adverse effects noted in respect of the hospital and the Cathedral have been considered in the context of the impact of the Development overall, which would result in a number of benefits to other HAs, as detailed above*', a point that is valid in this context.

November 2019 DRR Clarification Requested (BH22)

'Acceptable – Since not all effects to heritage significance have been assessed or reported properly in line with relevant policy and guidance, it cannot be claimed that all effects have been mitigated by design. Therefore, as per BH1 the findings of' the assessment should be afforded little weight by the decision-maker as there is insufficient information for the authority to ensure that they comply with the EIA Regulation, and effectively discharge their duties under sections 66 and 72 of the Planning (Listed Buildings and Conservation Areas) Act 1990, as amended'.

Response

All effects to heritage significance have now been assessed and reported, taking account of an additional listed building, two further above ground SMs and LLBs. See updated Table BH1 and the TVIBHA Supplement (**Appendix J**).

March 2019 Potential Regulation 25 Request (TVIA3)

'LBS has advised that as there are four applications for tall buildings along St Thomas Street (ie the three on Bermondsey Street/Snowsfield/Melior Street to the east, of which two are in as new planning applications, and the one at Beckett House is a scoping opinion, and this New City Court), they are asking all the applicants to do an updated cumulative assessment that takes them all into account. This

includes the New City Court applicant'

Response

Refer to the Addendum to the December 2018 TVIBHA (**Appendix B**), which provides the requested updated cumulative assessment.

November 2019 Potential Regulation 25 Request (TVIA3)

'Acceptable'

March 2019 Potential Regulation 25 Request (BH1)

'The Applicant is requested to submit a table in which the significance of each heritage asset potentially affected in any way (whether at distance or not and whether designated or not), the potential change to that significance, and the residual effect and mitigation is set out. To clarify, this table is to include a full baseline of all heritage assets potentially affected by the development, specifically including those that appear to have been omitted due to distance (e.g. St Paul's Cathedral) or because they are non-designated. It is to include separate assessments of effects and they are not to be weighed in the round (as this is for the decision-maker to do). All effects, including physical ones, must clearly relate to the heritage significance of the assets.'

Response

Concerning the baseline coverage, please refer to our response to BH3 above.

In response to this request, Table BH1 (refer to **Appendix J**: Part 1 of response to BH1) notes individual levels of significance for those assets located in groups.

The effect of the Development on those positive contributors located within the conservation area within which the Site lies (Borough High Street) is considered as part of the assessment of effect on that conservation area, which is the designated heritage asset.

November 2019 Potential Regulation 25 Request (BH1)

'Not Acceptable'

Response

Table BH1 has been updated (refer to **Appendix J**: Part 1 of response to BH1) to cover:

- A full baseline of HAs (taking account of an additional listed building, two further above ground SMs and LLBs); and
- A statement of heritage significance for every HA, including the contribution of setting to heritage significance (if any).

Please also refer to New City Court TVIBHA Supplement (**Appendix J**) for the assessment of those additional HAs considered in response to the November 2019 DRR.

The following provides further explanation of the Built Heritage Assessment methodology.

1. Heritage Significance and Significant Effects

The method set out in the TVBHIA notes that there are two different uses of the words 'significance' / 'significant' in heritage assessments for ES (for example, the introduction of a prominent building within the setting of a listed building could be a significant effect, but it would not necessarily affect the heritage significance of the listed building).

The term 'heritage significance', which is an aspect of sensitivity to change (i.e. an 'input' in the assessment process), has been used when referring to heritage significance as set out in the NPPF; elsewhere, the term 'significance' is used in the sense used generally in EIA i.e. the significance of an effect, in relation to a change (an 'output' of the assessment process).

The method of assessment is a staged process.

The assessment first identifies significant effects by considering (1) the combination of sensitivity to change of a heritage asset (receptor) (which has been informed by consideration of heritage significance) and (2) magnitude of change brought about by the proposed development. However, magnitude of change is not necessarily magnitude of change to heritage significance, and significant effects are not necessarily significant effects on heritage significance.

The next stage is to consider whether the significant effect identified has any effect on heritage significance, and if so whether this is beneficial or adverse.

This method of assessment identifies effects that are likely to be of interest to the local authority, HE and consultees, because they are noticeable. The method then goes on, as a second stage, to consider whether or not those noticeable effects are effects on heritage significance.

This method is transparent and helpful to planning authorities and members of the public because reactions to new development in historic settings are strongly influenced by the scale of visual impact, even though this does not necessarily determine the nature or scale of impact on heritage significance (see also the next paragraph). Visual effects are not the only effects considered. The assessment process corresponds to the way that proposed developments are considered and discussed by applicants and local authorities and HE officers.

2. Consideration of Visual Effects in Assessing Effects on Heritage Significance

With regards to effects on the setting of heritage assets, the principal guidance document is the HE planning advice note 'The Setting of Heritage Assets[16]'. This states (p2) that:

'The extent and importance of setting is often expressed by reference to visual considerations. Although views of or from an asset will play an important part, the way in which we experience an asset in its setting is also influenced by other environmental factors such as noise, dust and vibration from other land uses in the vicinity, and by our understanding of the historic relationship between places. For example, buildings that are in close proximity but are not visible from each other may have a historic or aesthetic connection that amplifies the experience of the significance of each.'

Visual effects are the primary effects by which effects on the setting of a heritage asset are assessed with regards to their effect on heritage significance of that asset. Townscape and urban design considerations are also relevant, and so are other aspects noted in the HE guidance. The HE guidance also notes that (p4) that:

'Consideration of setting in urban areas, given the potential numbers and proximity of heritage assets, often overlaps with considerations both of townscape/urban design and of the character and appearance of conservation areas.'

The HE guidance is consistent with the approach of HE officers in practice in consultation responses and LPAs in response to application schemes for new developments, which is to consider visual effects as the primary consideration in assessing effects on setting. It is common, for example, for assessment of 'harm' in responses from HE and LPAs, to limit themselves to questions of whether a proposed development is visible, without any accompanying cross-reference to heritage significance.

[16] Historic England (2017). The Setting of Heritage Assets. Historic Environment Good Practice Advice in Planning: 3 (2nd Edition).

3. Narrative vs. Tables

The HE guidance on 'The Setting of Heritage Assets' notes (p8) that:

'Cases involving more significant assets, multiple assets, or changes considered likely to have a major effect on significance will require a more detailed approach to analysis, often taking place within the framework of Environmental Impact Assessment procedures. Each of the stages may involve detailed assessment techniques and complex forms of analysis such as viewshed analyses, sensitivity matrices and scoring systems. Whilst these may assist analysis to some degree, as setting and views are matters of qualitative and expert judgement, they cannot provide a systematic answer. Historic England recommends that, when submitted as part of a Design and Access Statement, Environmental Statement or evidence to a public Inquiry, technical analyses of this type should be seen primarily as material supporting a clearly expressed and non-technical narrative argument that sets out 'what matters and why' in terms of the heritage significance and setting of the assets affected, together with the effects of the development upon them.'

The method used for heritage assessment reports provided by PSC as part of Environmental Statements is informed by this advice and is consistent with it. The method has been accepted at many public inquiries without criticism.

March 2019 Potential Regulation 25 Request (BH6)

'The Applicant should clarify that assets of low value have been considered beyond those on the Local List. They should also update their assessment to include all non-designated assets or to provide a statement to indicate where non-designated assets have been considered, but are judged not to be the recipients of significant effects.'

Response

PSC's approach to non-designated heritage assets was consistent with that sought in the LUC response to the scoping submission. That response requested at paragraph 3.28 that the applicant's Heritage Statement *'covers the direct effects (physical and setting change) to the non-designated heritage asset on the site, namely the façade of Keats House'.* It went on to state in paragraph 3.29 that *'The heritage assessment must present a full consideration of significant effects on the designated and non-designated assets on site, as well as any heritage assets in the wider area'.* At paragraph 3.30, the LUC response noted with reference to the HAs mentioned in the scoping submission that *'…non-designated heritage assets are not mentioned, and these should be given due consideration in the assessment. If there are none within the study area, this should be clearly stated in the assessment'.*

Under the title 'Scope' in Chapter 10 (Assessment Methodology and Significance Criteria) of the December 2018 TVIBHA, it is noted at paragraph 10.2 '*Registered Parks and Gardens of Special Historic Interest (RPGSHI) are also considered as HAs but none were identified at a distance close enough to be affected by the Development. The same is true of Locally Listed Buildings, which are considered as non-designated HAs'.* In Chapter 11 (Baseline Conditions) of the December 2018 TVIBHA, it is confirmed that *'No Registered Parks and Gardens of Special Historic Interest (RPGSHI) or Locally Listed Buildings lie within the study area'.*

Notwithstanding, the December 2018 TVIBHA acknowledges the status of both Keats House and no.20 St Thomas Street (New City Court) on the Site, as defined in the Borough High Street Conservation Area Appraisal (BHSCAA), which characterises each as an *'unlisted building that makes a positive contribution'* (i.e. a positive contribution to the character and appearance of the conservation area). The PSC Heritage Statement, located in Part 4: Appendices of the December 2018 ES, considers the impact of the Development on the Site's positive contributors to the Borough High Street Conservation Area (Chapter

6), applying the methodology set out in the English Heritage document, 'Understanding Place: Conservation Area Designation, Appraisal and Management' (2011). The main text of the December 2018 TVIBHA considers the effects of the Development on the Site's 'positive contributors' in its assessment of the direct effect on the Borough High Street Conservation Area as the designated heritage within which they lie (Refer to paragraphs 12.8-12.15 and 12.391 -12.397). Reference should also be made to the Listed Buildings Heritage Statement by KMHeritage in ES Part 4: Appendices, which provides further detail on the works to both Keats House and no.20 St Thomas Street's screen wall to King's Head Yard (paragraphs 2-17 – 2.23).

November 2019 Potential Regulation 25 Request (BH6)

'Not Acceptable'

Response

Table BH1 has been updated (refer to **Appendix J**) to cover:

- A full baseline of HA (taking account of an additional listed building, two further above ground SMs and LLBs); and

- A statement of heritage significance for every HA, including the contribution of setting to heritage significance (if any).

Please also refer to the TVIBHA Supplement (**Appendix J**) for the assessment of those additional HAs considered in response to the November 2019 DRR.

March 2019 Potential Regulation 25 Request (BH7)

'For the sake of transparency, and to aid reader understanding of how the magnitude of effects and their nature have been derived, the Applicant is to provide more detailed information on the nature of the effects to the heritage significance for each heritage asset. This would be best included in the table requested at BH1.'

Response

Refer to the further details provided regarding those aspects of the HAs' settings that contribute to their heritage significance, if any. This information can be found in the response to BH1.

November 2019 Potential Regulation 25 Request (BH7)

'Not Acceptable - See response to BH1'

Response

It is considered that there is sufficient detail on the nature of the effects on each HA, which is now supported by a clear statement of the heritage significance of each HA and those attributes of setting (if any) that contribute to the HA's heritage significance. Please refer to updated BH1 Table and TVBHIA Supplement (**Appendix J**).

March 2019 Potential Regulation 25 Request (BH8)

'*The Applicant should provide updated figures in which all assets are labelled or at least another set of figures that includes labels for those assets not labelled on the existing figures.*'

Response

The heritage assets falling under each group are clearly listed in the assessment text.

Refer to the updated Figure 3-7 (Listed building groups considered in the assessment in **Appendix J**), which now lists those assets falling within each group.

November 2019 Potential Regulation 25 Request (BH8)

'Acceptable'

March 2019 Potential Regulation 25 Request (BH10)

'There is no clear breakdown of the attributes of setting that are important to the significance of the heritage assets and sensitivity cannot be said to be clearly evaluated. The Applicant is therefore requested to provide further information on the attributes of each asset's setting that contribute to its significance. This information should be presented in the table requested previously, both for the convenience of the reader and ease of the Applicant [BH1].'

Response

Refer to the further details provided regarding those aspects of the HAs' settings that contribute to their heritage significance, if any. This information can be found in the response to BH1.

November 2019 Potential Regulation 25 Request (BH10)

'See response to BH1'

Response

Please see updated BH1 Table (**Appendix J**) for a clear statement of the heritage significance of each HA and those attributes of setting (if any) that contribute to the HA's heritage significance.

March 2019 Potential Regulation 25 Request (BH13)

'The Applicant is requested to provide further information on the potential effects to the individual assets within the WHS site.'

Response

Individual assets lying within the WHS were identified under the Tower of London WHS Listed Buildings group (p357 of the December 2018 TVIBHA). It was made clear in the paragraph that followed (paragraph 12.390) that *'The effect of the Development on the listed buildings located within this group is considered as part of the assessment of effect on the Tower of London WHS, which also takes account of the Tower of London's designation as a SM. That assessment can be found at the start of this chapter'*.

Paragraph 12.49 states that *'With regard to other heritage assets within the WHS, there is no significant potential for any effect on the significance of other heritage assets not already considered as part of the WHS'.*

In effect, the assessment considered the 'worst case' by assessing HAs of all grades under the umbrella of the most highly graded asset: the WHS.

Notwithstanding, for clarification, Table BH1 (**Appendix J**: Part 1 of response to BH1) now presents an individual assessment of the Listed Buildings falling within this group to fulfil this request.

November 2019 Potential Regulation 25 Request (BH13)

'Not Acceptable - See response to BH1'

Response

We have provided an individual assessment of all HAs lying within the WHS, as requested. This can be found at page 81 onwards of the updated BH1 Table (**Appendix J**).

March 2019 Potential Regulation 25 Request (BH17)

'The Applicant is to clarify the nature, magnitude and significance of the harmful effects where both adverse and beneficial effects are stated to occur.'

Response

Where beneficial and adverse effects have been identified, PSC have provided more information on the nature of these in the response to BH1 (Refer to Part 2 of PSC's response to BH1 in **Appendix J**).

November 2019 Potential Regulation 25 Request (BH17)

'Not acceptable -See response to BH1'

Response

Refer to response to BH1 regarding the methodology, the December 2018 TVIBHA draws to the reader's attention those areas where harm is considered to result to a HA. To illustrate this point, the following examples are given (these HAs are referred to in LUC's supporting text for BH17):

Group (i) – The Site: Nos. 4-8 and 12-16 St Thomas Street and attached railings (grade II).

Paragraph 12.68 of the TVIBHA notes *'the degree to which the Development dominates the existing street scene from some viewpoints would be considerable, disrupting the coherent quality of the view of the terrace from the corner with London Bridge Street, as TVIA view 50 illustrates'.* The adverse effect is acknowledged. The reader can cross-refer to the before and after images and assessment of effect on View 50 to inform their understanding of the effect on this HA.

Borough High Street CA

Paragraph 12.393 of the TVIBHA states *'… the Development would result in some harm to the visual quality of a limited number of views within the CA'.* This takes into account the effect of the Development on views such as View 43 and 44 from Borough High Street and View 50, as noted above. The reader can cross-refer to the before and after images and assessment of effect on such views to inform their understanding of the effect on this HA.

St Saviours Southwark War Memorial (grade II*)

The assessment of effect on this HA draws to the reader's attention the adverse effect of the Development on the view of this HA from Borough High Street (View 43). The assessment of effect on this HA notes at paragraph 12.119 *'The visual effect of the Development in that view was found to be adverse, in part due to the unfortunate visual relationship between The Shard and the Development'.* The reader can cross-refer to the before and after images and assessment of effect on this view to inform their understanding of the effect on this HA.

March 2019 Potential Regulation 25 Request (BH18)

'The Applicant is to either provide an individual rationale explaining specifically how the reported beneficial effects relate to the heritage significance of the assets, or the beneficial findings should be revisited. Only benefits that are demonstrably related to heritage significance should be included in the assessment overview table [BH1]. Given the importance of the assets affected, and the potential for significant adverse effects, transparency is critical.'

Response

Where beneficial effects have been identified, PSC have provided more information on the nature of these, and how they relate to heritage significance in their response to BH1.

November 2019 Potential Regulation 25 Request (BH18)

'Not acceptable -See response to BH1'

Response

Refer to response to BH1 regarding the methodology.

The December 2018 TVIBHA draws to the reader's attention the condition of the HAs within the study area as found today. This will in some cases include both positive and negative qualities. Borough High Street CA is used here as an example. At paragraph 1.411 of Appendix A7 of the December 2018 TVIBHA (Statements of Significance) it is stated:

'Although the present-day form of the yards, entered below buildings fronting Borough High Street which open onto narrow passages open to the sky, clearly reflects their historic origins, their physical form today is in many cases run down and disappointing once one is beyond the frontage buildings. Fragments of older buildings and street surfaces remain but even in the best of the yards there is no sense of an intact historic setting, and there is clearly considerable room for improvement; the BHSCAA notes at 3.2.7 of the yards, after discussing the George yard, that 'other yards and alleys have generally been reduced to no more than utility and service accesses for frontage buildings, but retain potential for more active use.'

It is clear from inspection that there is considerable scope for improvement to the part of the CA within which the Site lies, not least to the public realm, to enhance one's experience and appreciation of the heritage significance of the CA. The December 2018 TVIBHA considers that the Development does just that, enhancing the quality of the public realm, including the new routes and spaces on the Site. These are heritage benefits brought about by the Development and they were taken into account in determining the assessment of effect on the CA as a whole.

March 2019 Potential Regulation 25 Request (BH20)

'It is requested that view 29 be updated to include a wireframe so that the effect of the proposed development is clearly legible [BH20a]. This is important as it is in this view that 'the silhouette of the Tower can be appreciated against an open skyline' (with the exception of the Shard), enabling appreciation of its many layers and dominance in the local townscape. The Management Plan notes that the contrast between the Tower and the surrounding city is more apparent at night, when the foreground is characterised by a continuous stream of traffic and vehicle lights yet no night time visualisations have been prepared. A night-time photomontage should also be provided [BH20b].'

Response

The LUC DRR incorrectly quotes the views assessment text for this view. It is stated at paragraph 5.383 under 'View as proposed' that *'The top levels of the Development would be glimpsed beyond the Tower of London, seen to the right The Shard, as illustrated here'.*

No night time views were requested by LBS officers at the application stage. Nevertheless, a number of additional images will be prepared to demonstrate the likely impact of the scheme from selected view points at night time. These will be Accurate Visual Representations (AVRs), but at this stage the final design of the external lighting is not known and so will be estimated. The lighting design would be subject to agreement with the Council via planning condition in due course. The lighting (both internal and external) will also vary significantly depending on the time of day/night and levels of occupancy of the building. These AVRs will be prepared in due course and circulated to assist the Council in its consideration of the application.

The request for a view from Trinity Church Square was accommodated in the December 2018 TVIBHA (Refer to View 62).

November 2019 Potential Regulation 25 Request (BH20)

'Not acceptable'

Response

Please refer to **Appendix J**: TVIBHA ES Addendum. This comprises the following:

- TVIA View 10: LBS Borough View 2 – St Paul's Cathedral from Nunhead Cemetery. In response to the request from LBS officers, these AVRs identify the protected view corridor and wider assessment area for reference; and
- TVIA View 29: Wireline and night views. The assessment for the daytime view provided in the December 2018 TVIBHA also applies to the daytime wireline and night time views provided in this Addendum: This is a change of insignificant to minor magnitude to a view of high sensitivity. The significance would be minor to moderate. The effect would be neutral. The effect is at regional level and long term.

March 2019 Potential Regulation 25 Request (BH23)

'The Applicant is to update the mitigation section with information briefly outlining any mitigation to be undertaken in relation to the heritage assets on the site and to clarify whether any control measures will be in place.'

Response

Please see Table BH1 (**Appendix J**) for this information. For more detailed information on the above measures reference should be made to the submitted Outline Construction Management Plan (December 2018), Chapter 6 of ES Volume 1 - Development Programme, Demolition, Deconstruction, Refurbishment and Construction; and Chapter 8 of ES Volume 1 - Noise and Vibration.

November 2019 Potential Regulation 25 Request (BH23)

'Acceptable'

March 2019 Potential Regulation 25 Request (BH24)

'The Applicant should update the NTS to clearly state what level of effects is predicted.'

Response

It is considered that stating the significance of the effects would result in the NTS failing to be 'non-technical' in nature. Furthermore, this would result in an overly long (not summary) document which would not fulfil the primary purpose of an NTS. Reference to 'direct' and 'indirect' built heritage effects has been removed from the updated NTS (**Appendix C**) as it is agreed that this could be considered technical language and that the wording regarding indirect and direct effects was incorrect.

November 2019 Potential Regulation 25 Request (BH24)

'Not acceptable'

Response

The NTS has been updated throughout to provide reference to significance of effects (minor, moderate and major) for all topics and whether these effects are considered to be significant or not significant.

March 2019 Potential Regulation 25 Request (BH25)

'The NTS currently states that adverse effects will occur to 'the settings of two heritage assets'. The NTS should be updated to clearly state that the effect is to the heritage significance of the assets not their setting.'

Response

This has been updated in the revised NTS (**Appendix C**).

November 2019 Potential Regulation 25 Request (BH25)

'Acceptable'

March 2019 Potential Regulation 25 Request (BH26)

'The NTS should also be updated to reflect any other changes to the chapters findings as a result of the feedback provided within this review.'

Response

There are no changes to any of the findings of the TVIBHA, an updated summary is provided in **Appendix C**.

November 2019 Potential Regulation 25 Request (BH26)

'Not acceptable'

Response

Where applicable the NTS has been updated to reflect the changes made to the TVIBHA and **Appendix J** contained within this document.

14. Review of December 2018 ES Part 1: Main Text - Chapter 14: Cumulative Effects

March 2019 DRR Clarification Requested (CE1)

'The Non-Technical Summary should be updated to state the significance, scale and projected duration and reflect any points noted in this review.'

Response

A revised NTS is provided in **Appendix C**. The projected duration of the Works and anticipated opening year of the Development has been added to the revised NTS. It is considered that stating the significance and scale of the effects would result in the NTS failing to be 'non-technical' in nature. Furthermore, this would result in an overly long (not summary) document which would not fulfil the primary purpose of an NTS.

LBS Additional Cumulative Assessment

LBS have requested that the following additional cumulative schemes provided in **Table 14** are considered in the Type 2 cumulative assessment:

Table 14 Additional Cumulative Schemes to be considered since submission of the December 2018 ES

Additional Cumulative Scheme	Planning Ref	Description	Distance from Site	Status
Capital House (revised scheme)	18/AP/0900	Redevelopment of the site to include the demolition of Capital House and the erection of a 39-storey building (3 basement levels and ground with mezzanine and 38 storeys) of a maximum height of 137.9m (AOD) to provide up to 905 student accommodation units (Sui Generis use), flexible retail/café/office floorspace (Class A1/A3/B1), cycle parking, servicing, refuse and plant areas, public realm improvements and other associated works incidental to the development. The application is accompanied by an Environmental Statement.	269m southeast	Approved May 2019
Becket House / 60 St Thomas Street	18/AP/4136	Request for an Environmental Impact Assessment Scoping Opinion relating to the redevelopment of the site for a commercial building up to 24 storeys in height.	286m southeast	Pre-application

Additional Cumulative Scheme	Planning Ref	Description	Distance from Site	Status
Vinegar Yard	18/AP/4171	Redevelopment of the site to include the demolition of the existing buildings and the erection of a 5 to 19 storey building (plus ground and mezzanine) with a maximum height of 86.675m (AOD) and a 2 storey pavilion building (plus ground) with a maximum height of 16.680m (AOD) with 3 basement levels across the site providing a total of 30,292 sqm (GIA) of commercial floorspace comprising of use classes B1, A1, A2, A3, A4, D2 and sui generis (performance venue), cycle parking, servicing, refuse and plant areas, public realm (including soft and hard landscaping) and highway improvements and all other associated works.	356m southeast	Validated April 2019, not yet determined
Bermondsey Street/Snowfields	19/AP/0404	Demolition of existing buildings at 40-44 Bermondsey Street including partial demolition, rebuilding and refurbishment of existing Vinegar Yard Warehouse and erection of three new buildings (two linked) with up to two levels of basement and heights ranging from five storeys (24.2m AOD) to 17 storeys (67m AOD) to provide office space (Class B1); flexible retail space (Classes A1/A2/A3/A4/A5); new landscaping and public realm; reconfigured pedestrian and vehicular access; associated works to public highway; ancillary servicing; plant; storage and associated works. The application is accompanied by an Environmental Statement.	392m southeast	Validated March 2019, not yet determined
2-4 Melior Place	18/AP/3229	Redevelopment of the site involving the construction of a 6-storey plus basement building, comprising a retail art gallery (Class A1) on the ground floor and 3 x 2 bed, 2 x 3 bed and 2 x 4 bed residential units on the upper floors.	350m southeast	Approved June 2019

Response

An update to the December 2018 ES Type 2 cumulative assessment has been undertaken, which considers the combined effects of the Development with the previous cumulative schemes assessed and the five additional schemes in **Table 11** above. A replacement Chapter 14: Cumulative Effects has been provided at **Appendix B**. ES Figure 14.1 in the December 2018 ES has been replaced to show the location of these new cumulative schemes, refer to **Figure 14.1 (Appendix A)**. As reported in the replacement ES Chapter 14, additional ES figures have been prepared illustrating the results of the wind cumulative assessment considering the above additional cumulative schemes. These figures are listed below and located in **Appendix A**:

- Figure 14.1: Location of Cumulative Schemes Assessed;
- Figure 14.2 - Configuration 5: The Site (as existing) with the baseline and original cumulative schemes, plus further cumulative schemes (Summer Season);

- Figure 14.3 - Configuration 5: The Site (as existing) with the baseline and original cumulative schemes, plus further cumulative schemes (Winter Season);
- Figure 14.4 - Configuration 5: The Site (as existing) with the baseline and original cumulative schemes, plus further cumulative schemes (Annual Wind Safety);
- Figure 14.5 - Configuration 6: The completed and operational Development with landscaping and mitigation measures, with the baseline and original cumulative schemes, plus further cumulative schemes (Summer Season);
- Figure 14.6 - Configuration 6: The completed and operational Development with landscaping and mitigation measures, with the baseline and original cumulative schemes, plus further cumulative schemes (Winter Season); and

  Figure 14.7 - Configuration 6: The completed and operational Development with landscaping and mitigation measures, with the baseline and original cumulative schemes, plus further cumulative schemes (Annual Wind Safety).

The methodology of the revised cumulative assessments remains unchanged from that used for the December 2018 ES.

It is considered that the cumulative effects remain the same as reported in the December 2018 ES for a number of topics owing to the distance of these additional cumulative schemes from the Development. Therefore there would be no further cumulative effect from then, as the following:

- Noise and vibration;
- Water Resources and Flood Risk; and
- Daylight, Sunlight, Overshadowing, Solar Glare and Light Pollution.

The December 2018 ES Chapter 14: Cumulative Effects has been updated in regard to:

- Transport (revised assessment taking into account the revised traffic flows as a result of the additional cumulative schemes);
- Air Quality (revised assessment taking into account the combined traffic flows as a result of the cumulative schemes (note – modelling of traffic emissions was not undertaken in the 2018 ES, therefore, this is a new assessment));
- Archaeology (noting that as the construction of Shard Place is now complete, this should no longer form part of the cumulative assessment);
- Wind (revised assessment to take into account the additional cumulative schemes that fall within the wind model context Snowsfield / Bermondsey Street; Vinegar Yard; Becket House, 60 St Thomas Street; and 2-4 Melior Place. It should be noted that as the results of this revised cumulative assessment were found not to be materially different from the results reported in ES Chapter 12: Wind Microclimate, Chapter 12 of the December 2018 ES has not been revised and remains valid); and
- Townscape, Visual and Built Heritage (this is provided in **Appendix B** as a separate ES Addendum document with revised Accurate Visual Representations (AVRs) and commentary)).

15. Review of December 2018 ES Part 1: Main Text - Chapter 15: Residual Effects and Monitoring

LUC have requested that ES Chapter 15 should be updated if any of the assessment findings change as a result of comments made in the DRR. An updated Chapter 15: Residual Effects and Monitoring is appended to this report as **Appendix K**.

In response to the March 2019 DRR clarification request ARCH2 on re-visiting the likely residual archaeological effects, Chapter 15 of the December 2018 ES has been updated on a precautionary basis to change the archaeology likely residual effects from insignificant to **moderate adverse** on any truncated prehistoric and/or Roman cut features, and **minor adverse** on any redeposited prehistoric and/or Roman artefacts, truncated post-medieval remains, and disarticulated human bone.

The likely residual effect on Townscape Area 5 (North Bank) has also been updated from minor to **moderate** significance, in correspondence to the TVIBHA Erratum Notice in **Appendix J**.

Built heritage likely residual effects on individual heritage assets is provided in full in **Appendix J**: Part 1 for BH1 (which were not previously included in the December 2018 ES Chapter 15), which also includes additional Heritage Assets identified following the November 2019 DRR (Grade I listed St Paul's Cathedral and Churchyard, Smiths' Wharf Scheduled Monument, Queenhithe Dock Scheduled Monuments and a number of locally listed buildings). A summary of built heritage likely residual effects is included in the updated Chapter 15 (**Appendix K**)).

APPENDICES

A. Figures

B. Updated ES Chapter 14: Cumulative Effects and TVIBHA Cumulative ES Addendum

C. Updated ES Non-technical Summary

D. Construction Phasing Gantt Chart

E. Post-planning Response the National Air Traffic Safeguarding Officer

F. Updated ES Chapter 7: Transport

G. Updated ES Chapter 9: Air Quality

H. Further Light Pollution Assessment on 9 St Thomas Street

I. Updated ES Chapter 13: Daylight, Sunlight, Overshadowing, Solar Glare and Light Pollution

J. Townscape, Visual and Built Heritage Appendices

- Updated Figure 3-7 of the TVBHIA
- TVBHIA Erratum Notice
- Correspondence with LBS on the agreed viewpoints
- Detailed response to LUC item BH1 – Parts 1 (v2) and 2
- Supplement to December 2018 TVIBHA
- TVBHIA ES Addendum (Additional Views)

K. Updated ES Chapter 15: Residual Effects and Monitoring

UK and Ireland Office Locations