ENVIRONMENTAL STATEMENT ADDENDUM VOLUME I: MAIN REPORT
MAY 2020

Foster + Partners JOHN McASLAN + PARTNERS Patel Taylor BARTON WILLMORE

PREAMBLE

Silvertown Homes Limited (SHL) and Greater London Authority Land and Property (GLAP) have submitted a hybrid planning application to the London Borough of Newham (LBN) for the redevelopment of the Thameside West site, accessed off Dock Road in Newham (the Site).

SHL is a property development company and joint land owners of the Site. SHL has over 65 years combined experience at delivering high quality regeneration projects across London. GLAP is a subsidiary corporation of the Greater London Authority (GLA) and took over assets and liabilities from the London Development Agency (LDA) in 2012. GLAP is primarily focused on delivering genuinely affordable homes and jobs for London.

The proposal is to construct a new high-quality residential-led mixed-use development comprising new homes, new industrial floorspace, a new local centre, a new primary school and nursery school, new community facilities, a new public park (with associated outdoor play facilities), enhanced SINC and over 800m of new riverside walk along the River Thames with ecological / biodiversity enhancements. This development has been designed to focus its community hub around the delivery of a new Dockland Light Rail (DLR) station that is proposed to be constructed on the Site by Transport for London's (TfL) in 2023.

The proposals have been designed by Foster & Partners, John McAslan & Partners, Patel Taylor and the wider project team (listed, right) taking into account comments provided by local residents during summer and public exhibition events and comments provided during pre-application discussions with a variety of statutory and non-statutory interests, including LBN and its Design Review Panel (DRP), the Greater London Authority (GLA), Transport for London (TfL), Environment Agency (EA), Port of London Authority (PLA) and London City Airport (LCA).

This document is one of a suite of planning application documents submitted to LBN, including an Environmental Statement. The planning application is available to review at LBN's office or using LBN's online services:

Search for planning application reference number 18/03557/OUT at:
https://pa.newham.gov.uk/online-applications/search.do?action=simple

The planning application can also be viewed on the GLA's website at: https://www.london.gov.uk/what-we-do/planning/planning-applications-and-decisions/public-hearings

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Thameside West

Environmental Statement Addendum Volume I: Main Report

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March 2020

Revision 00

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00	Environmental Statement Addendum Volume I: Main Report	HC	March 2020	TC

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approved	**Trevor Curson**
signature	
date	**March 2020**

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Contents of the Environmental Statement Addendum

Contents of Volume I: Main Report

1 INTRODUCTION

1.1 CONTEXT AND PURPOSE OF THIS DOCUMENT

1.1.1 In December 2018, a hybrid (part detailed, part outline) planning application (18/03557/OUT) was submitted to the London Borough of Newham (LBN) for the Thameside West development. In May 2019, revised development plans, which were assessed under the May 2019 ES Addendum, were submitted as part of the same planning application. A second set of amendments were assessed in June 2019, for the same development description outlined in May 2019. This addendum addresses the third set of amendments to the scheme in March 2020 and seeks permission for the following amended development description:

1. *"Hybrid planning application comprising: Detailed planning application for Phase 1 with works to include: The proposed demolition of existing buildings and structures, the erection of buildings, including tall buildings, comprising: ~~460~~ 401 residential Units (Use Class C3), ~~3,417~~ 3,608 sqm (GEA) of flexible employment floorspace (Use Classes ~~B1b,~~ B1c ~~B2 (restricted)~~ and B8); ~~162~~ 230 sqm (GEA) of flexible retail floorspace (Use Classes A1-A4); a new/altered access road from Dock Road/North Woolwich Road; new streets, open spaces, landscaping and public realm; car, motorcycle and bicycle parking spaces and servicing spaces; and other works incidental to the proposed development.*

2. *Outline planning application (all matters reserved) for the phased delivery of the balance of the site for the proposed demolition of existing buildings and structures; the erection of buildings, including tall buildings, comprising: a new local centre; a primary school (Use Class D1); residential and older person units (Use Class C3);; flexible employment floorspace (Use ClassesB1c, B2 and B8); flexible retail floorspace (Use Classes A1-A4); community and leisure floorspace (Use Classes D1 and D2); the construction of a new flood defence wall and delivery of ecological habitat adjacent to the River Thames and associated infrastructure; streets, open spaces, landscaping and public realm (including new park and SINC improvements); car, motorcycle and bicycle parking spaces and servicing spaces; utilities including energy centre and electricity substations; and other works incidental to the proposed development."*

1.1.2 Since the June 2019 submission, further amendments have been made to the proposed development and are therefore subject to assessment in this March 2020 ES Addendum. The proposed amendments are as follows:

- Significant reduction in the massing of Building A;
- Decreasing the overall height of Building B;
- Internal and external amendments to the Buildings A and B;
- Amendments to the landscape proposals and reduction in amount of car and cycle parking proposed for Buildings A & B;
- Decreasing the overall height of Building C;
- Reducing the massing of Building D (focusing on the wings adjacent to the Allnex site) to form a stepping down in massing and the massing redistributed to Buildings N, M and J;
- Adjusting the heights of Buildings E & F and the position of the lower podium to improve proximity between the buildings and to improve the outlook of residential units;
- Increased separation distances in Buildings H, K, L and P (Thameside Crescent) to ensure separation distances between habitable rooms for single aspect units achieve a minimum of 18m;
- Buildings S and T have increased in height;
- Increased separation distances between Buildings Q and U to improve views and access from the Station Square to the riverside walkway; and
- Reduction in height of lower parts of Buildings Q & U to increase separation distances.

1.1.3 This ES addendum should be read in conjunction with the existing 2018 ES and the May 2019 and June 2019 ES addenda.

1.1.4 The technical team who have provided this ES addendum remain the same team who provided the original 2018 ES, May 2019 and June 2019 ES addenda.

1.1.5 A full overview of the amendments to the proposed development can be found in Chapter 4 Amendments to the Proposed Development.

1.2 STRUCTURE OF THE ES ADDENDUM

1.2.1 The structure of this ES addendum and supporting documentation is outlined in Table 1-1.

Table 1-1 Structure of the Environmental Statement Addendum

Volume	Description
ES Addendum Non-Technical Summary	This provides a summary of the main ES addendum in non-technical language. The ES addendum Non-Technical Summary (NTS) is available as a separate document.
ES Addendum Volume I - Main Report	This volume introduces the proposed development amendments, the methodology which has been followed in undertaking the EIA addendum work, the assessment of potential significant environmental effects (both beneficial and adverse) and consideration of cumulative effects including effects arising as a result of other developments in proximity to the scheme.
ES Addendum Volume II – Baseline conditions and photomontages	The core Townscape and Visual Impact Assessment (TVIA) is provided in Chapter 16 of ES Addendum Volume I. The amended verifiable views that are assessed within the chapter are captured within Volume II of the ES Addendum.
ES Addendum Volume III - Technical Appendices	These technical appendices provide the detailed assessment of the proposed development in the context of specific environmental topics included within the ES addendum.

1.2.2 Volume I of the ES addendum is structured as outlined in Table 1-2.

Table 1-2 Structure of the ES Addendum Volume I - Main Report

Chapter	Description
1	Introduction: comprises an overview of the proposed development amendments and scope of additional work.
2	ES addendum methodology: provides an overview of the approach used to assess the environmental impacts of the amendments to the proposed development.
3	Planning policy context: provides a summary of the site's planning history and relevant planning policies
4	Amendments to the proposed development: provides an account of the amended proposed development plans.
5-17	Updated technical assessments. In general, these chapters present the assessment of effects during construction and operation of the proposed development for each topic area: • Traffic and Transportation; • Noise and Vibration; • Air Quality; • Water Resources and Flood Risk; • Terrestrial Ecology;

Chapter	Description
	• Waste Management; • Ground Conditions; • Wind Microclimate; • Daylight, Sunlight and Overshadowing; • Population and Human Health; • Cultural Heritage; • Townscape and Visual Amenity; and • Greenhouse Gas Emissions.
18	Review of cumulative and interactive effects: updated assessment of cumulative and interactive effects.
19	Residual effects and conclusions: identifies additional potential mitigation measures and provides a comparison against the original assessment work (and residual effects) predicted as part of the 2018 ES and subsequent May 2019 and June 2019 ES addenda.

1.2.3 A number of appendices support the technical assessments included in Volume I of the ES. These are included in Volume III of the ES, as broken down in Table 1-3.

Table 1-3 List of appendices included with Environmental Statement Addendum Volume III

Appendix Number	Topic	Description
Environmental Statement Volume III		
4-A	Amendments to proposed development	Maximum Height Limits
4-B		Horizontal Deviation Limits
4-C		Development Zones
8-A	Water Resources and Flood Risk	Revised Masterplan Drainage Strategy
8-B		Flood Risk Assessment (FRA) Statement of Conformity
8-C		Revised Phase 1 Below Ground Drainage Strategy
10-A	Waste	Outline Waste Management Strategy (OWMS) (Updated for March 2020)
10-B		Site Waste Management Plan (SWMP) (Updated for March 2020)
12-A	Wind Microclimate	RWDI Technical Memo – Phase 1
13-A	Daylight, Sunlight and Overshadowing	Site plans and 3D views of the current baseline condition (2020)
13-B		Site plans and 3D views of the future baseline condition (2022)
13-C		Site plans and 3D views of the proposed development scenario (2031)
13-D		VSC results of the current baseline (2020) vs proposed development scenario (2031)
13-E		DD results of the current baseline (2020) vs proposed development scenario (2031)
13-F		DD contours of the current baseline (2020) vs proposed development scenario (2031)
13-G		APSH results of the current baseline (2020) vs proposed development scenario (2031)
13-H		VSC results of the future baseline (2022) vs proposed development scenario (2031)
13-I		DD results of the future baseline (2022) vs proposed development scenario (2031)
13-J		DD contours of the future baseline (2022) vs proposed development scenario (2031)
13-K		APSH results of the future baseline (2022) vs proposed development scenario (2031)
13-L		ADF results of the future baseline condition (2022) vs proposed development scenario (2031)
13-M		ADF drawings for proposed development scenario (2031)
13-N		APSH results of the future baseline condition (2022) vs proposed development scenario (2031)
13-O		VSC and APSH façade mapping results of the future baseline condition (2022) vs proposed development scenario (2031)
13-P		VSC and APSH façade mapping renders for the proposed development scenario (2031)
14-A	Population and Human Health	Health Impact Assessment (HIA) Addendum
15-A	Built Heritage	Historic Environment Assessment (HEA) (Updated for March 2020)
15-B		Historic Statement (Updated for March 2020)
17-A	Greenhouse Gas Emissions	General Project Inputs

1.3 GLOSSARY

Term	Definition
EIA	Environmental Impact Assessment
ES	Environmental Statement
LBN	London Borough of Newham
NTS	Non-Technical Summary
TVIA	Townscape and Visual Impact Assessment

2 ES ADDENDUM METHODOLOGY

2.1 APPROACH TO THIS ES ADDENDUM

2.1.1 An updated Environmental Impact Assessment (EIA) has been undertaken which considers the amendments to the proposed development that have been made since the June 2019 ES addendum was submitted to the London Borough of Newham (LBN). It reviews, and where necessary updates, the mitigation requirements and predicted residual environmental effects. This has been undertaken to ensure that the GLA, LBN and other stakeholders are informed of any changes to the previous assessment in light of the proposed development amendments.

2.1.2 The list of cumulative schemes to be considered in the assessments has been updated from the June 2019 addendum and this is explained further in Chapter 18 of this ES addendum.

2.2 SCOPE OF THIS ES ADDENDUM

2.2.1 The topics scoped into this addendum remain the same as the 2018 ES, May 2019 ES addendum and the June 2019 ES addendum.

2.2.2 The amendments to the proposed development were reviewed by technical specialists, ahead of commencing the detailed assessment updates, and it was concluded that the following topics should be included in the updated assessment. This was on the understanding that the amendments to the proposed development could be material to the conclusions of the existing assessment:

- Traffic and Transport (included in Chapter 5, ES Addendum Volume I);
- Noise and Vibration (included in Chapter 6, ES Addendum Volume I);
- Air Quality (included in Chapter 7, ES Addendum Volume I);
- Water Resources and Flood Risk (included in Chapter 8, ES Addendum Volume I);
- Terrestrial Ecology (included in Chapter 9, ES Addendum Volume I);
- Waste Management (included in Chapter 10, ES Addendum Volume I);
- Ground Conditions (included in Chapter 11, ES Addendum Volume I);
- Wind Microclimate (included in Chapter 12, ES Addendum Volume I);
- Daylight, Sunlight and Overshadowing (included in Chapter 13, ES Addendum Volume I);
- Population and Human Health (included in Chapter 14, ES Addendum Volume I);
- Cultural Heritage (included in Chapter 15, ES Addendum Volume I);
- Townscape and Visual Impact Assessment (included in Chapter 16, ES Addendum Volume I); and
- Greenhouse Gas Emissions (included in Chapter 17, ES Addendum Volume I).

2.2.3 It should be noted that the issue of Daylight, Sunlight, and Overshadowing was dealt with in the previous May 2019 and June 2019 addenda through a letter of conformity to indicate that the proposed amendments under those applications would not alter the previous conclusions made. However, the nature of the proposed amendments under the current application are such that Daylight, Sunlight, and Overshadowing will be assessed by way of a dedicated ES addendum chapter.

Non-significant issues scoped out of this ES Addendum

2.2.4 The ES addendum has focussed the updated EIA on the significant effects that are possible due to the proposed development amendments and lapse in time (for instance, baseline, legislation and cumulative development changes). In doing so, some issues have not been subject to a detailed assessment update, as changes to the existing assessment and effects reported are not considered likely. These remain the same as those originally scoped out of the 2018 ES, May 2019 ES addendum and June 2019 ES addendum:

- Marine ecology;
- Electronic interference;
- Aviation;
- Sustainability and energy; and
- Major accidents and/or natural disasters.

Updates to standalone assessments

2.2.5 As well as topics assessed through the 2018 ES, May 2019 ES addendum, June 2019 ES addendum and updated in this ES addendum, a number of other standalone reports (beyond the ES) were submitted with the original 2018 application, and the subsequent May 2019 and June 2019 ES addenda. The following reports have been reviewed and updated to reflect the amended proposed development. These are in the form of an addendum, or letter of conformity, to be read alongside the original submitted statements.

- Energy and Sustainability Statement addendum;
- Transport Assessment addendum;
- River Wall Structural Survey update;
- Arboricultural Survey letter of conformity;
- Safeguarded Wharf Report letter of conformity;
- Demolition Method Statement letter of conformity;
- Piling Impact Assessment letter of conformity;
- Code of Construction Practice (CoCP) letter of conformity;
- Light Within Report update; and
- Construction Logistics Plan addendum.

May 2019 and June 2019 ES Addendum Final Review Report (FRR)

2.2.6 Temple Group carried out an independent review of the 2018 ES (18/03557/OUT) in March 2019, to identify whether the ES meets the requirements set out in Schedule 4 of the Town and Country Planning (Environmental Impact Assessment) Regulations 2017. The subsequent Regulation 25 requests and clarifications were responded to and the submitted May 2019 ES addendum included the additional information requested.

2.2.7 The May 2019 ES addendum has undergone another review by Temple Group and additional information in the form of Regulation 25 requests and clarifications had been provided (issued by LBN on the 20th June 2019). The Regulation 25 requests were responded to and submitted in the June 2019 ES addendum, including the additional information requested. All requests and clarifications were subsequently addressed and the Final

Review Report (004) published on the 30th August 2019 confirmed there were no further Regulation 25 requests or further clarifications needed in order to determine the application.

2.3 ASSESSMENT OF EFFECTS

Methodology

2.3.1 The general EIA methodology for assessing environmental effects remains unchanged from the methodology set out in the 2018 ES, May 2019 ES addendum and June 2019 ES addendum. Each updated technical assessment has been completed with due regard to the latest technical guidance and planning policy, with any changes noted by technical specialists within Chapters 5-17 and Volume II of the ES addendum.

2.3.2 This ES addendum has reported on those environmental effects arising from the amended development and changing baseline/legislative/cumulative development conditions that could be significant. There is no statutory definition for what is significant, but in many cases, there are accepted methods for quantifying effects and determining the threshold of significance. Where a more qualitative approach is needed, a significant effect can be defined for the purposes of the assessment as an effect which, either in isolation or combination with others, should be taken into account in the decision-making process.

2.3.3 Where there are institute-specific guidelines for assessment methodologies these have been followed. Where there is no specific guidance there has been a consistent approach to determination and in terminology set out as follows (in line with the 2018 ES, May 2019 ES addendum and June 2019 ES addendum):

Table 2-1 Matrix for determining effect significance

		Magnitude of change / impact			
		Large	**Medium**	**Small**	**Negligible**
Receptor sensitivity	**High**	Major	Major	Moderate/Minor	Negligible
	Moderate	Major	Moderate	Minor	Negligible
	Low	Moderate/Minor	Minor	Minor	Negligible
	Negligible	Negligible	Negligible	Negligible	Negligible

2.4 CUMULATIVE EFFECTS

2.4.1 The cumulative schemes assessed and set out in the 2018 ES were consulted upon and agreed with LBN as part of the original EIA scoping process. A review of these schemes has been undertaken for the May 2019 ES addendum, the June 2019 ES addendum and for this addendum, to ensure any changes to the design or phasing of cumulative schemes are taken into account in the updated assessment work. The review has identified any new planning applications submitted in the interim period between the submission of the June 2019 ES addendum and this ES addendum (March 2020).

2.4.2 Cumulative schemes identified in the 2018 ES or addenda which have since been completed and are in operation will now form part of the baseline conditions. Any such schemes have therefore been removed from consideration within the cumulatives assessment.

2.4.3 The schemes considered in the updated inter-project cumulative effects assessment are listed in Chapter 18 Review of Cumulative and Interactive Effects.

2.5 SPATIAL SCOPE

2.5.1 As with the 2018 ES, the geographical extent of this ES addendum includes the development site and neighbouring areas. The spatial scope remains unchanged from the 2018 ES, the May 2019 ES addendum and the June 2019 ES addendum.

2.6 TEMPORAL SCOPE AND PHASING

Baseline

2.6.1 Environmental impacts and effects (for the environmental topics that are being updated) have been described in terms of the extent of change to the baseline environment. This baseline is generally taken to mean the environmental conditions that are prevalent at the time of the assessment i.e. 2020; however, in some cases, earlier baseline data may be used, where considered appropriate.

Phasing

2.6.2 The temporal scope of the proposed development is considered to include the preparation works, demolition, construction works and the operation of the development. The construction phasing remains broadly unchanged from that assessed in the May 2019 addendum and the June 2019 addendum, with only Phase 1 amended to a later starting date (Table 2-2).

Table 2-2 Phasing programme

Phase	Blocks	Start on Site	Complete
Phase 1	A & B	~~May~~ Nov 2020	June 2022
Phase 2	D & E	Feb 2021	May 2023
Phase 3	C, F & V	Dec 2021	April 2024
Phase 4	G	Sept 2022	Sept 2024
Phase 5	J & H	July 2023	July 2025
Phase 6	M & K	June 2024	April 2026
Phase 7	N & L	April 2025	July 2027
Phase 8	R	Feb 2026	May 2028
Phase 9	U, Q & P	Jan 2027	April 2029
Phase 10	S	Jan 2028	May 2030
Phase 11	T	April 2029	Feb 2031

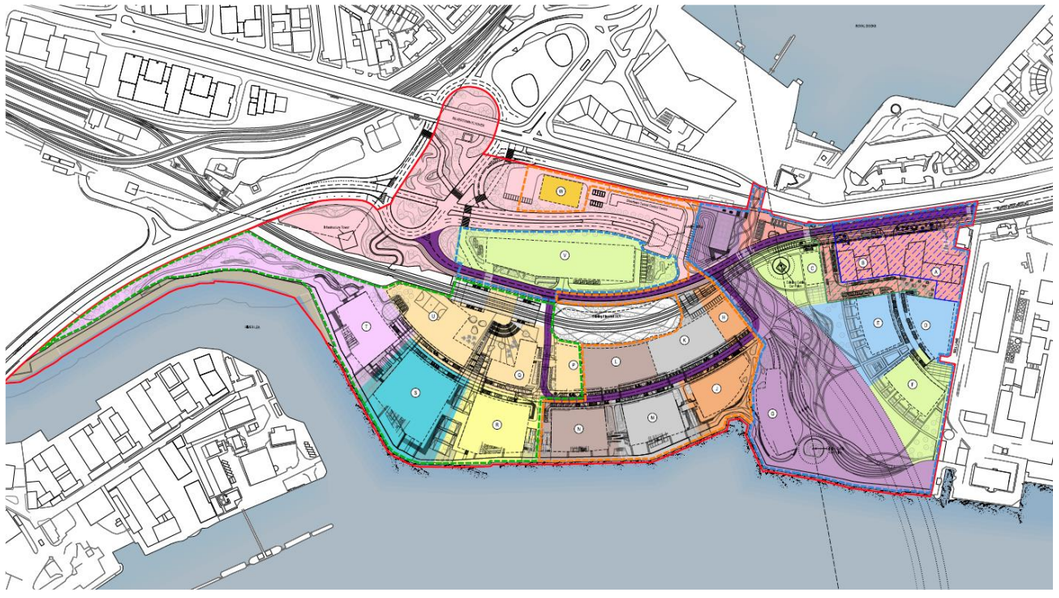


Figure 2-1 Phasing plan

Intermediate year

2.6.3 Due the phasing of development, there will be a period of time during which earlier phases of the site will have been completed and will be operational whilst others are still under construction. Therefore, an assessment of the intermediate year effects was undertaken in the 2018 ES, May 2019 and June 2019 ES addenda. Intermediate years of 2022 (when Phase 1 is due to be completed), 2025 (after the Silvertown Tunnel is completed and operational), and 2028 have been assessed to date.

2.6.4 It should be noted that as the Phasing has not changed, the previous intermediate year assessments undertaken will remain unchanged (and therefore a detailed update has not been included in this ES addendum).

2.7 CLIMATE CHANGE PROJECTIONS

2.7.1 In line with the 2017 EIA Regulations, the potential implications of climate change on the development itself, and the assessment undertaken, has been acknowledged in the relevant addendum technical chapters where there is the potential for future projections to influence the assessment undertaken.

2.7.2 IEMA guidance 'EIA Guide to Climate Change Resilience and Adaptation' (November 2015)[1] describes the significant uncertainties in the magnitude, frequency and spatial occurrence of climate change projections which makes it difficult to assess the impacts and effects specific to any one project. Detailed quantitative assessment is therefore not included in the ES addendum.

2.7.3 In accordance with IEMA guidance, climate change has been assessed through an appreciation of a potential future baseline scenario. Utilising climate change projections, the ES addendum works has qualitatively assessed how climate change may alter the predicted effects of the proposed development. The relevant assessments have taken into account the future climate change scenarios identified in the UKCP18 projections for London, in-line with IEMA guidance 'EIA Guide to Climate Change Resilience and Adaptation' (November 2015). The UKCP18 projections for temperature and rainfall for London are included in Table 2-3. Timescales of up to the end of the century (2100) have been reviewed, considering the potential long lifespan of the proposed development.

2.7.4 The relevant technical chapters in the May 2019 addendum, the June 2019 addendum and this addendum, use the 2018 climate change projections (UKCP18) regarding temperature and rainfall, sea level risks and wind speed. The 2018 data was released at the end of November 2018, just before submission of the original ES. In the original ES, the 2009 climate change projections were used.

Table 2-3 Projected change in selected climate variables in the London area (UK) for the high emissions scenario (UKCP18)

Season	Variable	Time Period	Projected Change At		
			10th percentile	50th percentile	90th percentile
Winter	Mean temperature (ºC)	2020-39	-1 - 0	0 - 1	1-2
		2040-59	0 - 1	1 - 2	2 - 3
		2060-79	0 - 1	2 - 3	4 - 5
		2080-99	1 - 2	3 - 4	5 - 6
	Mean precipitation change (%)	2020-39	-10 - 0	0 - 10	20 - 30
		2040-59	-10 - 0	10 - 20	20 - 30
		2060-79	-10 - 0	10 - 20	30 - 40
		2080-99	0 - 10	20 - 30	40 - 50
Summer	Mean temperature (ºC)	2020-39	0 - 1	1 - 2	2 - 3
		2040-59	0 - 1	2 - 3	4 - 5
		2060-79	1 - 2	3 - 4	6 - 7
		2080-99	2 - 3	4 - 5	7+
	Mean precipitation change (%)	2020-39	(-40) – (-30)	(-10) - 0	10 - 20
		2040-59	(-50) – (-40)	(-30) – (-20)	0 - 10
		2060-79	(-70) – (-60)	(-30) – (-20)	0 - 10
		2080-99	(-80) – (-70)	(-40) – (-30)	(-10) - 0

2.8 GLOSSARY

Term	Definition
CoCP	Code of Construction Practice
EIA	Environmental Impact Assessment
ES	Environmental Statement
GLA	Greater London Authority
IEMA	Institute of Environmental Management and Assessment
LBN	London Borough of Newham
NTS	Non-Technical Summary
TVIA	Townscape and Visual Impact Assessment
UKCP18	UK Climate Projections 2018

[1] Institute of Environmental Management & Assessment (2015). Guide to Climate Change Resilience and Adaptation. available at: ttps://www.iema.net/assets/templates/documents/iema_guidance_documents_eia_climate_change_resilience_and_adaptation%20(1).pdf

3 PLANNING POLICY CONTEXT

3.1 INTRODUCTION

3.1.1 This chapter of the Environmental Statement (ES) addendum outlines the updated planning policy designations relevant to the site and the planning policy context which will be considered in the determination of the hybrid planning application for the redevelopment of Thameside West. A more detailed assessment of how the proposed development complies with planning policy is contained within the Planning Statement (December 2018) and Planning Statement addendum (March 2020) prepared by Barton Willmore.

3.1.2 This chapter summarises the entire planning policy framework, as at March 2020 to provide an overall picture of the policy landscape for the ES addendum.

3.2 PLANNING POLICY DESIGNATIONS

3.2.1 The site is located within the London Borough of Newham (LBN) and comprises 18.79 hectares of land which is currently used for a variety of industrial/business/dock purposes.

3.2.2 The site benefits from a significant length of River Thames frontage and a number of existing transport infrastructure projects, including the elevated A1020 Silvertown Way/Lower Lea Crossing, the elevated Docklands Light Railway (DLR) Woolwich extension running north-west to south-east, the Jubilee Line (underground) and the Emirates Air Line (EAL) cable car running north-east to south-west across the River Thames.

3.2.3 The Development Plan confirms that the site is designated as follows (as illustrated in Figure 3-1, opposite):

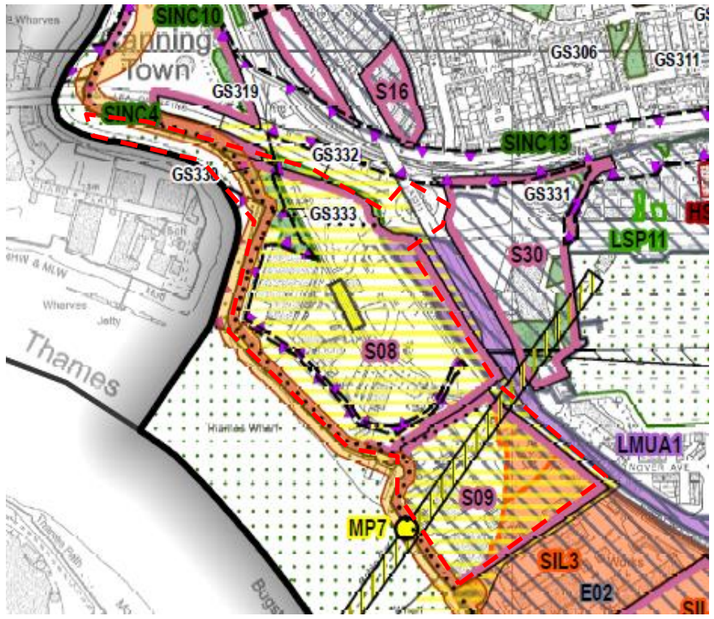
- Strategic Site S08;
- Strategic Site S09;
- Part Strategic Industrial Location (SIL);
- Silvertown Crossing Safeguarding Area;
- TE2100 Flood Defence Safeguarding;
- Safeguarded Wharf;
- Part of the Crossrail Safeguarding Area;
- Part of a Site of Importance of Nature Conservation (SINC);
- New DLR Station;
- Employment Hub;
- Cable car protection zone;
- Air Quality Management Area; and
- A mooring point that is protected for future riverbus services.

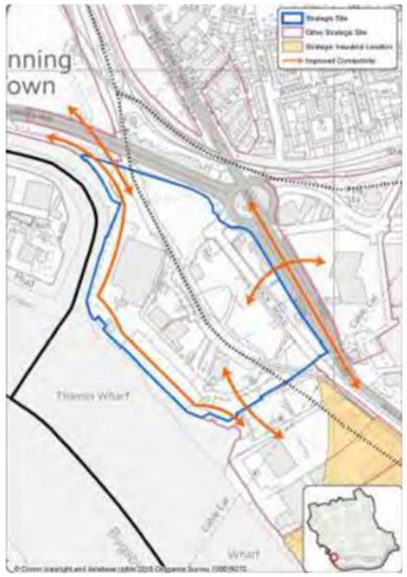
3.2.4 The site is also located within Flood Zones 2 and 3, an Archaeological Priority Area (Tier 3) and the Thames Policy Area.

3.2.5 The whole of the riverfront within the site and through the middle of the site is designated for recreational footpath network.

3.2.6 In addition to the above designations, the site is located within the Arc of Opportunity and the Royal Docks & Beckton Riverside Opportunity Area.

Figure 3-1 Planning policy mapping





Thames Wharf S08

Silvertown Landing S09

3.2.7 The Thames Wharf part of the site is subject to Strategic Site Allocation S08 (Thames Wharf). It advises that:

> *"There is scope to consolidate the safeguarded wharf at Central Thameside West (Royal Primrose Wharf) and subsequently to remove the wharf safeguarding at Thames Wharf subject to there being no net loss of functionality or wharf capacity. This and Managed Release from SIL (see Policy J2) will provide the opportunity to develop a new neighbourhood, comprising new residential and community uses including a school, and employment, leisure/ tourism grouped around a new DLR station and Local Centre, well connected by pedestrian and cycle links. Continuous riverside access; links to the Lea River Park and across to Trinity Buoy Wharf, to Royal Victoria and West Silvertown DLR stations and Canning Town town centre; North Woolwich Road active street improvements; and appropriate connectivity and integration with adjacent Silvertown Landing strategic site will be secured. Indicative building heights 0f 10 to 12 storeys with buildings of up to 18 storeys at key locations."*

3.2.8 Parts of the site are also identified as a:

- Safeguarded Wharf;
- Silvertown Tunnel Safeguarding;
- Crossrail Safeguarding Area;
- Part of a Site of Importance of Nature Conservation (SINC); and
- New DLR Station Safeguarding.

3.2.9 The Carlsberg Tetley part of the site It is also allocated for redevelopment. Strategic Site Allocation 09 (Silvertown Landing) seeks:

> *"Mixed use consolidating the community centred on the new DLR station at Thames Wharf on the western part of the site through Managed Release of SIL, and employment/strategic infrastructure development at the east of the site, where the functionality and capacity of the SIL will be protected securing buffering of both new and existing SIL and strategic infrastructure with possible scope for further limited release via Managed Intensification as per J2. Employment uses on the SIL should include modern industrial and warehousing, but may also link to the adjacent LMUA, with the scope to secure Managed Intensification (as per J2) and further release if new formats are realised, reducing the spatial footprint whilst achieving the same capacity, functionality and ability to respond to industrial and warehousing demand. The Managed Release of the western part of the site for mixed use will secure an appropriate transition from SIL and strategic infrastructure and include residential uses, green and community infrastructure meeting local need, and employment generating uses. Convenient and comfortable connections to the DLR stations at West Silvertown, Thames Wharf and Royal Victoria, and along and across North Woolwich Road will be improved as will pedestrian and cycle links through to and along the river (where public space will open out) and docks and to nearby local centres and Canning Town town centre. Indicative building heights of 10 to 12 storeys with buildings of up to 18 storeys being acceptable at key locations."*

3.2.10 It is identified as partial SIL retention and an employment hub (E2: Thameside West). It includes a cable car protection zone and contains a mooring point that is protected for future river bus services.

3.3 PLANNING POLICY FRAMEWORK

3.3.1 The relevant planning policy context which will be considered in the determination of the proposed development comprises three levels of adopted and emerging policy – national, regional and local.

3.3.2 The Development Plan documents comprise the consolidated adopted London Plan (2016) and LBN's Local Plan 2018, as well as the Joint Waste Development Plan for the East London Waste Authority Boroughs (February 2012).

3.3.3 Relevant supplementary planning guidance (SPG) comprises the following Mayor of London (MOL) SPGs:

- Housing SPG (March 2016)
- Affordable Housing and Viability SPG (August 2017)
- Social Infrastructure (May 2015)
- Sustainable Design and Construction (April 2014)
- Play and Informal Recreation (September 2012)
- Character and Context (June 2014)
- The control of dust and emissions during construction and demolition (July 2014)
- Safeguarded Wharf Review (March 2013)
- Land for Industry and Transport (September 2012)

3.3.4 There is no local emerging policy relevant at this stage given LBN has recently adopted their new Local Plan.

3.3.5 In terms of strategic emerging policy, the MOL has published the 'Intend to Publish' draft New London Plan (December 2019).

3.3.6 Also, of relevance given the site's partial designation as a safeguarded wharf, the MOL has also published a 'Safeguarded Wharf Review 2018' which was out for a 3-month public consultation in the summer of 2018.

National Planning Policies

3.3.7 National Planning Policy is contained principally in the National Planning Policy Framework (NPPF) (February 2019). Its key principles relevant to this proposal are:

- Paragraph 8 advises that the purpose of the planning system is to contribute to the achievement of sustainable development and not to hinder or prevent development. It advises that there are three dimensions to sustainable development: economic, social and environmental:
    - an economic role – to help to build a strong, responsive and competitive economy, by ensuring that sufficient land of the right type is available in the right places and at the right time to support growth, innovation and improved productivity and by identifying and coordinating the provision of infrastructure;
    - a social role – to support strong, vibrant and healthy communities, by ensuring that a sufficient number and range of homes can be provided to meet the needs of present and future generations; and by fostering a well-designed and safe built environment, with accessible services and open spaces that reflect current and future needs and support communities' health, social and cultural well-being; and
    - an environmental role – to contribute to protecting and enhancing our natural, built and historic environment; including making effective use of land, helping to improve biodiversity, using natural resources prudently, minimising waste and pollution, and mitigating and adapting to climate change, including moving to a low carbon economy.
- Paragraph 11 confirms that at the heart of the Framework is a presumption in favour of sustainable development. For decision-taking, this means:
    a. approving development proposals that accord with an up-to-date development plan without delay; or
    b. where there are no relevant development plan policies, or the policies which are most important for determining the application are out-of-date, granting permission unless: i. the application of policies in this Framework that protect areas or assets of particular importance provides a clear reason for refusing the development proposed; or ii. any adverse impacts of doing so would significantly and demonstrably outweigh the benefits, when assessed
- Paragraph 12 advises that the presumption in favour of sustainable development does not change the statutory status of the development plan as the starting point for decision making. Where a planning application conflicts with an up-to-date development plan, permission should not usually be granted. It goes on to advise that local planning authorities may take decisions that depart from an up-to-date development plan, but only if material considerations in a particular case indicate that the plan should not be followed.
- Paragraph 38 states that local planning authorities should approach decisions on proposed development in a positive and creative way; they should use the full range of planning tools available and decision-makers at every level should seek to approve applications for sustainable development where possible.
- Paragraphs 39 to 46 seek to promote pre-application engagement and front-loading. They confirm:
    - Early engagement has significant potential to improve the efficiency and effectiveness of the planning application system for all parties.
    - Good quality pre-application discussion enables better coordination between public and private resources and improved outcomes for the community.
    - Local planning authorities have a key role to play in encouraging other parties to take maximum advantage of the pre-application stage.
    - The more issues that can be resolved at pre-application stage, including the need to deliver improvements in infrastructure and affordable housing, the greater the benefits.
    - To avoid delay, applicants should discuss what information is needed with the local planning authority and expert bodies as early as possible.
    - Local planning authorities should publish a list of their information requirements for applications for planning permission. These requirements should be kept to the minimum needed to make decisions, and should be reviewed at least every two years. Local planning authorities should only request supporting information that is relevant, necessary and material to the application in question.
    - Applicants and local planning authorities should consider the potential for voluntary planning performance agreements, where this might achieve a faster and more effective application process. Planning performance agreements are likely to be needed for applications that are particularly large or complex to determine.
- Paragraph 47 states that applications for planning permission be determined in accordance with the development plan, unless material considerations indicate otherwise. Decisions on applications should be made as quickly as possible, and within statutory timescales unless a longer period has been agreed by the applicant in writing.
- Paragraph 48 advises that the weight relevant to emerging policy comes down to three factors:
    1. Its stage of preparation – the more advanced, the greater the weight;
    2. The extent of unresolved objections; and
    3. Its consistency with the NPPF – the closer they accord, the greater the weight.
- Paragraph 54 advises that Local planning authorities should consider whether otherwise unacceptable development could be made acceptable through the use of conditions or planning obligations. Planning obligations should only be used where it is not possible to address unacceptable impacts through a planning condition.
- Paragraph 55 states that planning conditions should be kept to a minimum and only imposed where they are necessary, relevant to planning and to the development to be permitted, enforceable, precise and reasonable in all other respects. Conditions that are required to be discharged before development commences should be avoided, unless there is a clear justification.
- Paragraph 56 confirms that planning obligations must only be sought if they are:
    - necessary to make the development acceptable in planning terms;
    - directly related to the development; and
    - fairly and reasonably related in scale and kind to the development.
- Paragraph 59 confirms that to support the Government's objective of significantly boosting the supply of homes, it is important that a sufficient amount and variety of land can come forward where it is needed, that the needs of groups with specific housing requirements are addressed and that land with permission is developed without unnecessary delay.
- Paragraph 64 confirms that where major development involving the provision of housing is proposed, planning policies and decisions should expect at least 10% of the homes to be available for affordable home ownership, unless this would exceed the level of affordable housing required in the area, or significantly prejudice the ability to meet the identified affordable housing needs of specific groups. It advises that there are some exceptions to this, including where a proposed development provided solely Build to Rent homes.

- Paragraph 80 advises that planning policies and decisions should help create the conditions in which businesses can invest, expand and adapt. Significant weight should be placed on the need to support economic growth and productivity, taking into account both local business needs and wider opportunities for development.
- Paragraph 91 states that planning policies and decisions should aim to achieve healthy, inclusive and safe places which:
    - promote social interactions, for example through mixed-use developments, strong neighbourhood centres, street layouts that allow for easy pedestrian and cycle connections within and between neighbourhoods, and active street frontages;
    - are safe and accessible, so that crime and disorder, and the fear of crime, do not undermine the quality of life or community cohesion – for example through the use of clear and legible pedestrian routes, and high quality public space, which encourage the active and continual use of public areas; and
    - enable and support healthy lifestyles, especially where this would address identified local health and well-being needs – for example through the provision of safe and accessible green infrastructure, sports facilities, local shops, access to healthier food, allotments and layouts that encourage walking and cycling.
- Paragraph 92 advises that to provide the social, recreational and cultural facilities and services the community needs, planning policies and decisions should (inter alia):
    - plan positively for the provision and use of shared spaces, community facilities (such as local shops, meeting places, sports venues, open space, cultural buildings, public houses and places of worship) and other local services to enhance the sustainability of communities and residential environments; and
    - ensure an integrated approach to considering the location of housing, economic uses and community facilities and services.
- Paragraph 95 confirms that planning policies and decisions should promote public safety and take into account of wider security and defence requirements.
- Paragraph 103 advocates that the planning system should actively manage patterns of growth in support of these objectives. Significant development should be focused on locations which are or can be made sustainable, through limiting the need to travel and offering a genuine choice of transport modes. This can help to reduce congestion and emissions, and improve air quality and public health.
- Paragraph 117 states that planning policies and decisions should promote an effective use of land in meeting the need for homes and other uses, while safeguarding and improving the environment and ensuring safe and healthy living conditions. Strategic policies should set out a clear strategy for accommodating objectively assessed needs, in a way that makes as much use as possible of previously-developed or 'brownfield' land. Paragraph 118 goes on to advise that planning policies should (inter alia):
    a. encourage multiple benefits from both urban and rural land, including through mixed use schemes and taking opportunities to achieve net environmental gains – such as developments that would enable new habitat creation or improve public access to the countryside;
    b. give substantial weight to the value of using suitable brownfield land within settlements for homes and other identified needs, and support appropriate opportunities to remediate despoiled, degraded, derelict, contaminated or unstable land; and
    c. promote and support the development of under-utilised land and buildings, especially if this would help to meet identified needs for housing where land supply is constrained and available sites could be used more effectively (for example converting space above shops, and building on or above service yards, car parks, lock-ups and railway infrastructure).
- Paragraph 119 advises that local planning authorities, and other plan-making bodies, should take a proactive role in identifying and helping to bring forward land that may be suitable for meeting development needs.
- Paragraph 122 seeks to achieve appropriate densities for new development. It advises that planning policies and decisions should support development that makes efficient use of land, taking into account:
    - the identified need for different types of housing and other forms of development, and the availability of land suitable for accommodating it;
    - local market conditions and viability;
    - the availability and capacity of infrastructure and services – both existing and proposed – as well as their potential for further improvement and the scope to promote sustainable travel modes that limit future car use;
    - the desirability of maintaining an area's prevailing character and setting (including residential gardens), or of promoting regeneration and change; and
    - the importance of securing well-designed, attractive and healthy places.
- Paragraph 124 states that the creation of high-quality buildings and places is fundamental to what the planning and development process should achieve. Good design is a key aspect of sustainable development, creates better places in which to live and work and helps make development acceptable to communities. Being clear about design expectations, and how these will be tested, is essential for achieving this. So too is effective engagement between applicants, communities, local planning authorities and other interests throughout the process.
- Paragraph 127 advises that planning policies and decisions should ensure that developments:
    - will function well and add to the overall quality of the area, not just for the short term but over the lifetime of the development;
    - are visually attractive as a result of good architecture, layout and appropriate and effective landscaping;
    - are sympathetic to local character and history, including the surrounding built environment and landscape setting, while not preventing or discouraging appropriate innovation or change (such as increased densities);
    - establish or maintain a strong sense of place, using the arrangement of streets, spaces, building types and materials to create attractive, welcoming and distinctive places to live, work and visit;
    - optimise the potential of the site to accommodate and sustain an appropriate amount and mix of development (including green and other public space) and support local facilities and transport networks; and
    - create places that are safe, inclusive and accessible and which promote health and well-being, with a high standard of amenity for existing and future users46; and where crime and disorder, and the fear of crime, do not undermine the quality of life or community cohesion and resilience.

- Paragraph 130 confirms that permission should be refused for development of poor design that fails to take the opportunities available for improving the character and quality of an area and the way it functions. Conversely, where the design of a development accords with clear expectations in plan policies, design should not be used by the decision-maker as a valid reason to object to development. Local planning authorities should also seek to ensure that the quality of approved development is not materially diminished between permission and completion, as a result of changes being made to the permitted scheme (for example through changes to approved details such as the materials used).
- Paragraph 131 states that in determining applications, great weight should be given to outstanding or innovative designs which promote high levels of sustainability, or help raise the standard of design more generally in an area, so long as they fit in with the overall form and layout of their surroundings.
- Paragraph 148 advises that the planning system should support the transition to a low carbon future in a changing climate, taking full account of flood risk and coastal change. It should help to: shape places in ways that contribute to radical reductions in greenhouse gas emissions, minimise vulnerability and improve resilience; encourage the reuse of existing resources, including the conversion of existing buildings; and support renewable and low carbon energy and associated infrastructure.
- Paragraph 150 states that new development should be planned for in ways that:

    a. avoid increased vulnerability to the range of impacts arising from climate change. When new development is brought forward in areas which are vulnerable, care should be taken to ensure that risks can be managed through suitable adaptation measures, including through the planning of green infrastructure; and

    b. can help to reduce greenhouse gas emissions, such as through its location, orientation and design. Any local requirements for the sustainability of buildings should reflect the Government's policy for national technical standards.

- Paragraph 155 states that inappropriate development in areas at risk of flooding should be avoided by directing development away from areas at highest risk (whether existing or future). Where development is necessary in such areas, the development should be made safe for its lifetime without increasing flood risk elsewhere.
- Paragraph 165 advises that major developments should incorporate sustainable drainage systems unless there is clear evidence that this would be inappropriate.
- Paragraph 192, 195 and 196 state that in determining planning application, local planning authorities should take account of the desirability of new development making a positive contribution to local character and distinctiveness and the level of 'harm' to the significance of a designated heritage asset compared to the public benefits of the proposal
- Paragraph 197 of the NPPF states that in weighing applications which directly or indirectly affect non-designated heritage assets a balanced judgement will be required having regard to the harm or loss and the significance of the asset.

3.3.8 In March 2014, Planning Practice Guidance (PPG) was published as a web-based resource and largely superseded former Planning Policy Guidance, Statements and Circulars. The PPG sets out technical guidance which provides further detail on the policies contained within the NPPF (2019) and is regularly updated (last updated 22nd October 2018).

ADOPTED DEVELOPMENT PLAN

Regional Planning Policy

London Plan

3.3.9 Regional policy is contained in the London Plan, the Spatial Development Strategy for London Consolidated with Alterations Since 2011 (adopted March 2016). The London Plan provides the strategic policy context for all of London and seeks to provide an integrated framework for its development until 2036.

3.3.10 The London Plan designates the site within the East London Sub-Region, outside of the Central Activities Zone (CAZ) but within the Inner London area. It also confirms that the site is within the Royal Docks and Beckton Riverside Opportunity Area. The London Plan confirms there is potential for circa 6,000 new jobs and a minimum of 11,000 new homes in the RDBR Opportunity Area.

3.3.11 Notable policies contained within the London Plan that are relevant to the proposed development include:

- Policy 2.9 'Inner London' advises that in the Inner London areas the MOL will, and boroughs and other stakeholders should, work to realise the potential of inner London in ways that sustain and enhance its recent economic and demographic growth while also improving its distinct environment, neighbourhoods and public realm, supporting and sustaining existing and new communities.
- Policy 2.13 'Opportunity Areas and Intensification Areas' states that development in opportunity areas should – inter alia – support the strategic policy directions for the opportunity areas; seek to optimise residential and non-residential output and densities, provide necessary social and other infrastructure to sustain growth, and, where appropriate, contain a mix of uses; and support wider regeneration (including in particular improvements to environmental quality) and integrate development proposals to the surrounding areas especially areas for regeneration.
- Policy 2.17 'Strategic Industrial Locations' advises that the MOL will, and boroughs and other stakeholders should, promote, manage and, where appropriate, protect the strategic industrial locations (SILs), as London's main reservoirs of industrial and related capacity, including general and light industrial uses, logistics, waste management and environmental industries (such as renewable energy generation), utilities, wholesale markets and some transport functions. It further advises that development proposals in SILs should be refused unless: they fall within the broad industrial type activities; they are part of a strategically co-ordinated process of SIL consolidation through an opportunity area planning framework or borough development plan document; the proposal is for employment workspace to meet identified needs for small and medium sized enterprises (SMEs) or new emerging industrial sectors; or the proposal is for small scale 'walk to' services for industrial occupiers such as workplace crèches or cafes. It also advises that development proposals within or adjacent to SILs should not compromise the integrity or effectiveness of these locations in accommodating industrial type activities.
- Policy 2.18 'Green Infrastructure' advises that development proposals should:

    a. incorporate appropriate elements of green infrastructure that are integrated into the wider network; and

    b. encourage the linkage of green infrastructure including the Blue-Ribbon Network, to the wider public realm to improve accessibility for all and develop new links, utilising green chains, street trees, and other components of urban greening.

- Policy 3.2 'Improving Health and Addressing Health Inequalities' new developments should be designed, constructed and managed in ways that improve health and promote healthy lifestyles to help to reduce health inequalities.

- Policy 3.3 'Increasing Housing Supply' confirms that the Mayor will seek to ensure the housing need identified in the Plan is met, with at least an annual average of 42,000 net additional homes across London.
- Policy 3.4 'Optimising Housing Potential' states that taking into account local context and character, design principles and public transport capacity, development should optimise housing output.
- Policy 3.5 'Quality and Design of Housing Developments' advises that the design of all new housing developments should enhance the quality of local places, taking into account physical context; local character; density; tenure and land use mix; and relationships with, and provision of, public, communal and open spaces, taking particular account of the needs of children, disabled and older people.
- Policy 3.6 'Children and Young People's Play and Informal Recreation Facilities' states that development proposals that include housing should make provision for play and informal recreation, based on the expected child population generated by the scheme and an assessment of future needs.
- Policy 3.7 'Large Residential Developments' advises that sites of over five hectares or capable of accommodating more than 500 dwellings should be progressed through an appropriately plan-led process to encourage higher densities and coordinate where necessary provision of social, environmental and other infrastructure and create neighbourhoods with a distinctive character, sense of local pride and civic identity.
- Policy 3.8 'Housing Choice' advises that new developments should offer a range of housing choices, in terms of the mix of housing sizes and types, taking account of the housing requirements of different groups and the changing roles of different sectors.
- Policy 3.11 'Affordable Housing Targets' states that the Mayor will, and boroughs and other relevant agencies and partners should, seek to maximise affordable housing provision and ensure an average of at least 17,000 more affordable homes per year in London over the term of this Plan. In order to give impetus to a strong and diverse intermediate housing sector, 60% of the affordable housing provision should be for social and affordable rent and 40% for intermediate rent or sale.
- Policy 3.12 'Negotiating Affordable Housing on Individual Private Residential and Mixed Use Schemes' states that the maximum reasonable amount of affordable housing should be sought when negotiating on individual private residential and mixed use schemes.
- Policy 3.18 'Education Facilities' states that proposals for new schools should be given positive consideration and should only be refused where there are demonstrable negative local impacts which substantially outweigh the desirability of establishing a new school and which cannot be addressed through the appropriate use of planning conditions or obligations.
- Policies 5.1 'Climate change mitigation', 5.2 'Minimising carbon dioxide emissions' & 5.3 'Sustainable designs and construction' require developments to make the fullest contribution to the mitigation of and adaptation to climate change, ensure sustainable design and construction and minimise carbon dioxide emissions.
- Policy 5.10 'Urban Greening' states that development proposals should integrate green infrastructure from the beginning of the design process to contribute to urban greening, including the public realm.
- Policy 5.12 'Flood Risk Management' states that the MOL will work with all relevant agencies including the Environment Agency to address current and future flood issues and minimise risks in a sustainable and cost-effective way. It further confirms that development proposals must comply with the flood risk assessment and management requirements set out in the NPPF and the associated technical Guidance on flood risk over the lifetime of the development and have regard to measures proposed in Thames Estuary 2100 and Catchment Flood Management Plans. Development adjacent to flood defences will be required to protect the integrity of existing flood defences and wherever possible should aim to be set back from the banks of watercourses and those defences to allow their management, maintenance and upgrading to be undertaken in a sustainable and cost-effective way.
- Policy 5.13 'Sustainable Drainage' confirms that development should utilise sustainable urban drainage systems (SUDS) unless there are practical reasons for not doing so, and should aim to achieve greenfield run-off rates and ensure that surface water run-off is managed as close to its source as possible
- Policy 5.16 'Waste Net Self-Sufficiency' confirms that the MOL will work with London boroughs and waste authorities, the London Waste and Recycling Board (LWaRB), the Environment Agency, the private sector, voluntary and community sector groups, and neighbouring regions and authorities to: manage London's waste; create positive environmental and economic impacts from waste processing; and work towards zero biodegradable or recyclable waste to landfill by 2026. It confirms that this will be achieved by – inter alia – minimising waste; encouraging the reuse of and reduction in the use of materials; and improving London's net self-sufficiency through reducing the proportion of waste exported from the capital over time.
- Policy 5.18 'Construction, Excavation and Demolition Waste' confirms that the MOL will ensure that major development sites are required to recycle CE&D waste on-site, wherever practicable, supported through planning conditions. It also advises that waste should be removed from construction sites, and materials brought to the site, by water or rail transport wherever that is practicable.
- Policy 5.21 'Contaminated Land' states that the MOL supports the remediation of contaminated sites and will work with strategic partners to ensure that the development of brownfield land does not result in significant harm to human health or the environment, and to bring contaminated land to beneficial use. It confirms that appropriate measures should be taken to ensure that development on previously contaminated land does not activate or spread contamination.
- Policy 6.1 'Strategic Approach' advises that the MOL will work with all relevant partners to encourage the closer integration of transport and development, by specific transport schemes and by (inter alia): encouraging patterns and nodes of development that reduce the need to travel, especially by car; seeking to improve the capacity and accessibility of public transport, walking and cycling, particularly in areas of greatest demand; and seeking to increase the use of the Blue Ribbon Network, especially the Thames, for passenger and freight use.
- Policy 6.2 'Providing Public Transport Capacity and Safeguarding Land for Transport' confirms that development proposals that do not provide adequate safeguarding for transport schemes, such as Crossrail 1 and DLR, should be refused.
- Policy 6.3 'Assessing the Effects of the Development on Transport Capacity' states (inter alia) that:
    - Development proposals should ensure that impacts on transport capacity and the transport network, at both a corridor and local level, are fully assessed. Development should not adversely affect safety on the transport network; and
    - Transport assessments will be required in accordance with TfL's Transport Assessment Best Practice Guidance for major planning applications.

- Policy 6.9 'Cycling' states that developments should (inter alia):
    - provide secure, integrated, convenient and accessible cycle parking facilities in line with the minimum standards;
    - contribute positively to an integrated cycling network for London; and
    - provide links to existing and planned cycle infrastructure projects including Cycle Superhighways, Quietways, the Central London Grid and the 'mini-Hollands'
- Policy 6.10 'Walking' states that Development proposals should ensure high quality pedestrian environments and emphasise the quality of the pedestrian and street space.
- Policy 7.1 'Lifetime Neighbourhoods' states that development should (inter alia):
    - be designed so that the layout, tenure and mix of uses interface with surrounding land and improve people's access to social and community infrastructure (including green spaces), the Blue-Ribbon Network, local shops, employment and training opportunities, commercial services and public transport;
    - enable people to live healthy, active lives;
    - maximize the opportunity for community diversity, inclusion and cohesion;
    - contribute to people's sense of place, safety and security; and
    - reinforce or enhance the character, legibility, permeability, and accessibility of the neighbourhood
- Policy 7.2 'An Inclusive Environment' states that Design and access statements submitted with development proposals should explain how, following engagement with relevant user groups, the principles of inclusive design, including the specific needs of older and disabled people, have been integrated into the proposed development.
- Policy 7.3 'Designing out Crime' confirms that development should reduce the opportunities for criminal behaviour and contribute to a sense of security without being overbearing or intimidating.
- Policy 7.4 'Local Character' confirms that development should have regard to the form, function, and structure of an area, place or street and the scale, mass and orientation of surrounding buildings. It should improve an area's visual or physical connection with natural features. In areas of poor or ill-defined character, development should build on the positive elements that can contribute to establishing an enhanced character for the future function of the area.
- Policy 7.5 'Public Realm' states that development should make the public realm comprehensible at a human scale, using gateways, focal points and landmarks as appropriate to help people find their way. Landscape treatment, street furniture and infrastructure should be of the highest quality, have a clear purpose, maintain uncluttered spaces and should contribute to the easy movement of people through the space.
- Policy 7.6 'Architecture' advises that architecture should make a positive contribution to a coherent public realm, streetscape and wider cityscape. It continues to advise that building and structures should (amongst other matters: be of the highest architectural quality, complement local architectural character and optimise the potential of sites.
- Policy 7.7 'Location and Design of Tall and Large Buildings' states that applications for tall or large buildings should include an urban design analysis that demonstrates the proposal is part of a strategy that will meet a set of design criteria (including: make a significant contribution to local regeneration.)
- Policy 7.8 'Heritage and Archaeology' advises that development should identify, value, conserve, restore, re-use and incorporate heritage assets, where appropriate. New development should make provision for the protection of archaeological resources, landscapes and significant memorials.
- Policy 7.13 'Safety, Security and Resilience to Emergency' states that development proposals should contribute to the minimisation of potential physical risks, including those arising as a result of fire, flood and related hazards. Development should include measures to design out crime that, in proportion to the risk, deter terrorism, assist in the detection of terrorist activity and help defer its effects.
- Policy 7.14 'Improving Air Quality' confirms that proposals should – inter alia – minimise increased exposure to existing poor air quality and make provision to address local problems of air quality; promote sustainable design and construction to reduce emissions from the demolition and construction of buildings; and ensure that where provision needs to be made to reduce emissions from a development, this is usually made on-site.
- Policy 7.15 'Reducing and Managing Noise' states that development proposals should seek to manage noise by (inter alia):
    - avoiding significant adverse noise impacts on health and quality of life as a result of new development;
    - mitigating and minimising the existing and potential adverse impacts of noise;
    - improving and enhancing the acoustic environment and promoting appropriate soundscapes; and
    - separating new noise sensitive development from major noise sources (such as road, rail, air transport and some types of industrial development) through the use of distance, screening or internal layout. Where this is not possible, without undue impact on other sustainable development objectives, then any potential adverse effects should be controlled and mitigated through the application of good acoustic design principles.
- Policy 7.19 'Biodiversity and Access to Nature' advises that the MOL will work with all relevant partners to ensure a proactive approach to the protection, enhancement, creation, promotion and management of biodiversity in support of the MOL's Biodiversity Strategy. It states that development proposals should wherever possible, make a positive contribution to the protection, enhancement, creation and management of biodiversity. Furthermore, give SINCs a level of protection commensurate with their importance i.e. international, metropolitan and borough/local.
- Policy 7.21 'Trees and Woodlands' explains that existing trees of value should be retained and any loss as the result of development should be replaced following the principle of 'right place, right tree'. Wherever appropriate, the planting of additional trees should be included in new developments.
- Policy 7.24 'Blue Ribbon Network' (BRN) confirms that the BRN is a strategically important series of linked spaces. It should contribute to the overall quality and sustainability of London by prioritizing uses of the waterspace and land alongside it safely for water related purposes, in particular for passenger and freight transport.
- Policy 7.25 'Increasing the Use of the BRN for Passengers and Tourism' advises that the MOL will seek to increase the use of the Blue-Ribbon Network for passenger and tourist river services, and supports the principle of additional cruise liner facilities on the Thames. It confirms that development proposals should protect existing facilities for waterborne passenger and tourist traffic; and new facilities should be supported.

- Policy 7.26 'Increasing the Use of the BRN for Freight Transport' confirms the MOL seeks to increase the use of the Blue-Ribbon Network to transport freight and development proposals should protect existing facilities for waterborne freight traffic, in particular safeguarded wharves should only be used for waterborne freight handling use.
- Policy 7.27 'Blue Ribbon Network: Supporting Infrastructure and Recreational Use' states that development proposals should enhance the use of the BRN, in particular proposals that result in the loss of existing facilities for waterborne sport and leisure should be refused, unless suitable replacement facilities are provided.
- Policy 7.28 'Restoration of the BRN' states that development proposals should restore and enhance the Blue-Ribbon Network by – inter alia – protecting the value of the foreshore of the Thames and tidal rivers and preventing development and structures into the water space unless it serves water related purpose.
- Policy 7.29 'The River Thames' states that the River Thames is a strategically important and iconic feature of London. This role should be protected and promoted.
- Policy 7.30 'London's Canals and Other Rivers and Waterspaces' states that development along London's canal network and other rivers and waterspace (such as reservoirs, lakes and ponds) should respect their local character and contribute to their accessibility and active water related uses, in particular transport uses, where these are possible.

Joint Waste Development Plan for the East London Waste Authority Boroughs (February 2012)

3.3.12 The purpose of the Joint Waste DPD is to set out a planning strategy to 2021 for sustainable waste management which enables the adequate provision of waste management facilities (including disposal) in appropriate locations for municipal and commercial and industrial waste, having regard to the London Plan Borough level apportionment and construction, excavation and demolition and hazardous wastes.

3.3.13 Within this document, policy W1 is most applicable and advises that the boroughs will aim to drive waste management up the waste hierarchy by promoting waste minimisation, materials reuse, recycling & recovery of resources and help the delivery of national and regional targets for recycling and composting set out in the Waste Strategy for England 2007 and the London Plan. To this they will – inter alia – work in partnership with the general public and the business community to provide information and advice and raise awareness; and require the reuse of construction, excavation and demolition waste during new developments, with on-site recycling and use of recycled aggregate wherever possible and encourage use of sustainable transport modes where the movement of waste is necessary.

Local Planning Policy

Newham Local Plan 2018

3.3.14 LBN adopted their new Local Plan on 10th of December 2018. It sets out the 15-year plan for the borough to 2033.

3.3.15 Policies contained within the Local Plan that are relevant to the proposed development, beyond Strategic Site Allocations S08 and S09 (discussed earlier in this chapter), include:

- The Policy S1 'Spatial Strategy & Strategic Framework' sets out the strategic principles for development in LBN, including:
  - Securing transformational change for the borough and its residents with the overriding priority to build and reinforce communities and places that work and to ensure that growth contributes to achieving convergence and personal and community resilience, with new and existing communities, jobs, homes, services, spaces and facilities well integrated in connected, distinctive, successful, quality places;
  - Realising the potential and making best use of Newham's land, green space, and blue-ribbon network and heritage assets, connectivity, existing and emerging economic strengths, working to enable the delivery of at least 43,000 homes and 39,000-60,000 jobs between2018 and 2033 to place Newham at the heart of London's march eastward and its global presence; and
  - Higher density, genuinely mixed use, context sensitive development will achieve good growth, and the creating and sustaining new and rejuvenated inclusive, stable, healthy, mixed and balanced communities where people choose to live, work and stay and a borough where homes are not created at the expense of jobs, environmental and housing quality, provision and protection of family housing , or liveable scales of development, where employment uses can sit comfortably with housing and supporting services and do not undermine town and local centres and where population growth is accompanied by jobs growth and timely delivery of supporting physical, social and green infrastructure, including that to address existing deficits and cumulative impacts.

It also seeks a vision based spatial strategy as follows:

- The greatest opportunities for change will come forward within the Arc of Opportunity which will be the primary focus for new job creation, infrastructure development, new town and local centres, carefully located tall buildings at public transport nodes, and the vast majority of new housing on large sites in Beckton, the Royal Docks, Canning Town and Custom House, West Ham and Stratford, reconnecting residents with the rivers and docks;
- Successful mixed-use areas will emerge and be sustained, notably in town centres, LMUAs and on Strategic Sites;
- A major but managed shift from traditional industrial activity will be achieved on Strategic Sites and LMUAs and more broadly along the Lower Lea Valley and in the Royal Docks Enterprise Zone towards employment uses in emerging growth sectors such as high technology and creative industries, night time, visitor, retail, leisure and cultural economy, business and financial services, making best use of heritage and other assets in the area;
- Heavier industrial uses, warehouses and utilities will continue to be concentrated, but will evolve and intensify in the Strategic Industrial Locations (SIL) in Beckton, Thameside East and West and Cody Road and smaller locally significant industrial areas (LILs) elsewhere, supported by appropriate environmental enhancements, buffering, and active but consolidated wharves;
- New and enhanced open spaces and walking and cycling routes will be created throughout the borough, making best use of the borough's waterways and green spaces; and
- All new development will be well integrated with its surroundings to create successful high quality and well-connected areas, including the limitation of tall buildings to identified suitable locations.

- Policy S3 'Royal Docks' confirms that the area will become a unique and high-quality waterfront mixed use urban quarter, realising the value of its many locational advantages and limited, plan-led, carefully Managed Release of employment land in combination with co-location, intensification and sensitive infill, and innovative responses to flood risk. It states that the delivery of at least 8404 new additional homes and significant numbers of the borough's targeted jobs growth will add to existing employment and communities and create new neighbourhoods. It continues to advise that the majority of these will come forward on the strategic sites, including S09 Silvertown Landing. In terms of spatial strategy for the area, the policy advises as follows (relevant to the site):
    - Today's fragmented residential development will become consolidated into distinct but interconnected neighbourhoods, and benefiting from a network of new and enhanced green and open spaces and continuous waterfront access, and good access to stations, buses (including riverbuses) and an enhanced walking and cycling network;
    - New street-based local centres will to be developed at Thames Wharf;
    - Industrial areas will re-vitalise in consolidated form at Thameside East and West; and
    - Consolidation of the four safeguarded wharves in the Royal Docks (Thames, Peruvian, Manhattan, and Sunshine) at Central Thameside West on Peruvian and Royal Primrose Wharves will achieve no net loss of functionality or wharf capacity.
- Policy S4 'Canning Town and Custom House' sets out the strategic principles for the area, including:
    - Achieve an enhanced, integrated, mixed and balanced neighbourhood including new waterside quarters, with and an expanded successful town centre at its heart and secondary focuses and intensification at Thames Wharf, West Ham and Custom House/Freemasons Local Centres, together with strengthened employment areas;
    - The area's regionally-significant economic role will be reinforced through further development of the existing warehousing, engineering and green industry, and visitor economy, business and conference clusters with good access to the Strategic Road Network; and
    - Major new housing (at least 15,608 additional units), jobs growth and infrastructure provision will be delivered through a comprehensive programme of regeneration and renewal and managed release of SIL and associated wharf consolidation primarily on 12 Strategic Sites (including Thames Wharf).

  In relation to spatial strategy, it further advises (in relation to Thames Wharf) that:
    - New local centres and community uses focused around West Ham and Thames Wharf stations will become resource hubs for new neighbourhoods and surrounding areas, marked by new tall buildings and well-used by new and existing residents, local workers and others passing through the area, with visitors drawn into the sites, towards the rivers by attractive parkland routes and onward connections.
- Policy SP1 'Borough-wide Place-making' confirms that high quality development will be expected, and they should deliver LBN's duty to promote community safety.
- Policy SP2 'Healthy Neighbourhoods' states that the Council supports health care partners' efforts to promote healthy lifestyles and reduce health inequalities and recognises the role of planning in doing so through the creation of healthy neighbourhoods and places. It states that proposals will need to respond to a number of factors including the need to promote healthy eating; improve LBN's air quality and improve employment levels. It also confirms that all major developments should be supported by a Health Impact Assessment.
- Policy SP3 'Quality Urban Design within Places' confirms that all developments will be expected to follow a number of strategic principles and spatial strategy, including: realising high quality design; genuinely mixed-use area; the need to avoid bad neighbours and the importance of minimising environmental impact.
- Policy SP4 'Tall Buildings') confirms that tall buildings (of 6 or more storeys) will, through their managed location, height, design, form and impact contribute to best effect in promoting regeneration and creating successful places; and increased densities in the right locations will generally be encouraged, however, the appropriateness, added value and positive contribution of tall elements, particularly standalone tall towers will require robust justification and demonstration in relation to successful place-making and sustainable, mixed and balanced communities principles. It advises that Strategic Sites within both the Arc of Opportunity and Urban Newham are regarded as suitable locations in principle for tall buildings with scale reflecting place hierarchy and ensuring sufficient space between clusters, as indicated in site allocations. It continues to advise that all tall buildings schemes will through masterplanning, detailed designs, modelling and expert and independent design scrutiny demonstrate appropriateness, added value and positive contributions relative to lower-rise alternatives. Tall building developments will need careful consideration of a number of matters including: scale, proportion and silhouette, impact on cityscape and legibility.
- Policy SP5 'Heritage and other Successful Place-making Assets' states that urban design should recognise the strengths and weaknesses of local character and seeks to contribute positively to the composition of the townscape, achieving better integration and enhancement of new and old, natural and built environments, infrastructure and living environments. It states that proposals should refer to and draw on the borough's Character Study which includes Areas of Townscape Value, and where relevant, Conservation Area Appraisals and Archaeological Priority Areas to help identify heritage and other assets relevant to their scheme, and strengths and weaknesses of local character.
- Policy SP6 'Successful Town and Local Centres' states that Town and Local Centres should be vibrant, vital and valued as components of local neighbourhoods and the borough as a whole, being successful in social and economic terms; and should act a as community foci, showcases, employment hubs and as destinations through their particular character, offer and connectivity to their hinterlands.
- Policy SP7 'Quality Movement Corridors and Linear Gateways' confirms its spatial strategy as:
    - The desirability of reclaiming the streets for people through introducing active frontage to their edges that stimulates social activity and interaction along them;
    - The importance of consolidating ribbon developments of commercial and community uses into defined Local and Town Centres and Local Shopping Parades; and
    - Designating key movement corridors and linear gateways (including Silvertown Way and Silvertown Viaduct/North Woolwich Road/Connaught Bridge/Royal Albert Way/Royal Docks Road (A1020)).

  In terms of design and management criteria, it advises that the general principles of good design are expected. With edge treatment positively contribution to the street scene and way finding; the need in these environments to enclose the street and reduce the noise and air pollution impacts of passing traffic, without creating a 'tunnel' effect; and the need to significantly raise and easily maintain the quality of the public realm.
- Policy SP8 'Ensuring Neighbourly Development' states that all development is expected to achieve good neighbourliness and fairness from the outset by avoiding negative and maximising positive social, environmental and design impacts for neighbours on and off the site; benefits of development and regeneration will be spread beyond the context of individual development proposals; and change brought about by development must not cause problems for existing lawful neighbours, otherwise known as an 'agent of change' approach. It sets out a number of detailed criteria to promote neighbourliness.

- Policy SP9 'Cumulative Impact' confirms that all development proposals will be expected to avoid creating or adding to problematic cumulative impacts, helping instead to engender healthy, successful places, creating sustainable development, recognising the cumulative effect individual units and specific uses can have on the success of places.
- Policy J1 'Business and Jobs Growth' confirms that proposals should address a number of strategic principles, spatial strategy and design and technical criteria in order to be supported. These include (inter alia):
    - Realise the benefits of the borough's connectivity, international profile and existing and emerging sectoral strengths to secure a supply of land, infrastructure, premises and successful places capable of attracting investment in growth sectors and supporting the existing business base, facilitating the continued diversification of the borough economy;
    - Promote employment, industry and logistics as an important component of sustainable, mixed use places;
    - Continued development and promotion of the Arc of Opportunity and employment hubs;
    - Major industrial development will be directed to and where appropriate intensified (including support for displaced businesses) at Strategic Industrial Locations and Local Industrial Locations;
    - New employment-generating development should demonstrate, especially when outside of LILs and SILs, that it can exist in close proximity to housing with minimal amenity impact; and
    - New housing must demonstrate neighbourliness, in respect of existing and potential employment uses.
- Policy J2 'Providing for Efficient Use of Employment Land' states its strategic principles are to:
    - Achieve [more] efficient use of employment land to support economic growth sectors and wider growth needs through the retention of suitable locations and capacity, intensification with no net loss of functionality, and limited, plan-led managed release of land; and
    - Manage the positive and negative impacts of employment-generating uses to ensure a managed transition to successful mixed-use places at the large and small scale, helping to secure a balanced mix of jobs and homes.

  It continues in its spatial strategy to confirm (inter alia) that:
    - Strategic Industrial Locations (SIL) and Local Industrial Locations (LIL) are designated for protection, Managed Intensification and as suitable in principle for Use Classes B1(b) B1(c) B2, B8, appropriate sui generis employment uses including waste, utilities and transport depots, with other supporting facilities including B1a uses, where ancillary in scale and function; and
    - Thames Wharf and Silvertown Landing (part) will be released from SIL protection subject to managed release criteria.
- Policy J3 'Skills and Access to Employment' seeks for more Newham residents will share in the increasing wealth associated with the expanding local and London-wide economy. It advises that this can be achieved through employability projects; promotion of labour agreements and support for start-up.
- Policy H1 'Building Sustainable Mixed Communities' seeks the net increase of additional quality homes exceeding 43,000 between 2018 and 2033; quality neighbourhoods being created and a step change in residential quality, and the delivery of a mix and balance of housing types.
- Policy H2 'Affordable Housing' advises that 50% of the number of all new homes built over the plan period are affordable units and these should not be delivered at the expense of quality. It confirms that on sites with capacity for 10 units of more, between 35-50% of the number of proposed units should be affordable housing comprising a tenure mix of 60% social housing and 40% intermediate homes.
- Policy H3 'Specialist Accommodation Needs' advises that an overall managed delivery of housing mix will be required to that ensures that the local and strategic needs of all types of households are considered and that appropriate forms of accommodation are provided in the right locations, where this need has been clearly demonstrated. It also states (amongst other matters) that older people's housing (falling outside Use Class C2) should forming be delivered as part of the housing mix (and sit comfortably with conventional housing) on Strategic Sites.
- Policy SC1 'Environmental Resilience' confirms that in design, construction, and operation, development must respond to the known effects of climate change, including the likelihood of extreme weather events, geohazard risks, increased water scarcity and warmer temperatures. It also sets out a number of standards developments will need to achieve.
- Policy SC2 'Energy & Zero Carbon' states that all development will be expected to minimise and reduce carbon emissions by following the lean, clean, green energy hierarchy; all major development will meet London Plan zero carbon targets.
- Policy SC3 'Flood Risk & Drainage' confirms that development proposal should reduce flood risk (the likelihood of flooding plus the severity of its impacts) and not increase flood risk to any location; development and decision making should be informed by a SFRA; FRAs should be provided in line with national requirements and there is a presumption against impermeable hard standing on domestic gardens and public open space. From a spatial strategy perspective, it advises that development will be located in areas with the lowest risk of flooding, demonstrated via passing of the sequential test and, if necessary, exceptions test; and will be set back 16m from tidal flood defences and 8m from river defences. It continues to advise that all development should enable separation of foul and surface flows and incorporate Sustainable Urban Drainage Systems (SUDS).
- Policy SC4 'Biodiversity' confirms that biodiversity, including aquatic and riparian habitats, will be protected and enhanced, with all development contributing to the achievement of a net gain, and where compatible, improvements to access to nature.
- Policy SC5 'Air Quality' states that all development should be at least air quality neutral, supporting a net decrease in specified pollutants and making design, access, energy, and management decisions that minimise air pollution generation and exposure at demolition, construction, and operation stage; and support the implementation of Newham's AQAP.
- Policy INF1 'Strategic Transport' states that major physical barriers to movement will be overcome without having an unacceptable impact on residents, development/regeneration potential or existing service users; and secure investment in, and the ongoing safe and viable operation of strategic transport networks that will lever investment and regeneration into Newham.
- Policy INF2 'Sustainable Transport' seeks to secure a more sustainable pattern of movement in Newham, maximising the efficiency and accessibility of the borough's transport network on foot, cycle and public transport, maximising positive health impacts, and enabling development.
- Policy INF3 'Waste and Recycling' states that the management of waste will follow the waste hierarchy; priority rail and water transport over road; observe the proximity principle and minimise spatial impact.

- Policy INF4 'Utilities Infrastructure' confirms that sufficient utilities infrastructure capacity (including energy and water supply, wastewater handling, and telecoms) will be established to meet the needs of development over an appropriate time horizon, with projects identified in the IDP receiving in principle support.
- Policy INF6 'Green Infrastructure & the Blue-Ribbon Network' states that green infrastructure and the Blue Ribbon Network will be protected and enhanced; the multiple roles and benefits of designated and undesignated Green Infrastructure will be maximised and a 'green grid' approach will be promoted, with new and enhanced spaces.
- Policy INF7 'Open Space & Outdoor Recreation' confirms that LBN will encourage active use, including through improvements to the quantity, quality, accessibility and connectivity of open space and the blue-ribbon network throughout the borough. New open spaces and outdoor recreation opportunities will be delivered primarily on Strategic Sites and along the Blue Ribbon Network.
- Policy INF8 'Community Facilities' states that new community should be accessible, welcoming, inclusive and open and available to all members of the local community, with sufficient capacity and flexibility to meet a range of local needs. Co-locating facilities and services, and encouraging mixed use formats incorporating new or enhanced community facilities and other compatible and policy compliant uses notably housing to help support viability, security and efficient land use.
- Policy INF9 'Infrastructure Delivery' confirms that all development will be required to demonstrate infrastructure sufficiency accounting for existing deficits as well as new needs arising, with new infrastructure delivered alongside housing and other growth.

Draft New London Plan

3.3.16 The MOL has published the 'Intend to Publish' Draft New London Plan (December 2019). This document has been examined, with further suggested changes proposed.

3.3.17 Notable policies contained within the Draft New London Plan that are relevant to the proposed development include:

- Policy GG1 'Building Strong and Inclusive Communities' seeks to ensure that all changes to the physical environment achieve an overall positive contribution to London, to support and promote the creation of a London where all Londoners can move around with ease and enjoy the opportunities the city provides.
- Policy GG2 'Making the Best Use of Land' requires brownfield land, Opportunity Areas, surplus public land, sites which are well-connected to existing or planned Tube stations, sites within and on the edge of Town Centres, and small sites to be prioritised for redevelopment. Opportunities to pro-actively intensify the use of land to accommodate additional homes and workspaces should be explored.
- Policy GG3 'Creating a Healthy City' requires the 'Healthy Streets' approach to be used in all planning decisions to prioritise health. The potential impacts of new developments on both physical and mental health should be assessed, and any potential negative impacts mitigated. As part of this, new development should aim to improve London's air quality, and the quality of green spaces (including facilities for children's play and recreation).
- Policy GG4 'Delivering the Homes Londoners Need' requires those involved in planning and development to ensure that more homes are delivered and support the delivery of the strategic target of 50% of all new homes being "genuinely affordable".
- Policy GG5 'Growing a Good Economy' requires those involved in planning and development to promote the strength and potential of the wider city region, and to seek to ensure that London's economy diversifies. LPAs should plan for sufficient employment and industrial space in the right locations to support economic development and regeneration, whilst also ensuring that sufficient high-quality and affordable housing and physical/social infrastructure is provided to support London's growth.
- Policy GG6 'Increasing Efficiency and Resilience' requires those involved in planning and development to seek to improve energy efficiency and support the move towards a low-carbon circular economic, and ensure that buildings and infrastructure are designed to adapt to a changing climate. This should be delivered as part of an integrated and smart approach where public, private, community, and voluntary sectors are able to plan and work together.
- Policy SD1 'Opportunity Areas' states that the MOL will provide support and leadership for the collaborative preparation and implementation of planning frameworks to guide the redevelopment of Opportunity Areas ("OAs"). LPAs should support development which creates employment opportunities and housing choice for Londoners and consider opportunities to intensify and make more efficient use of land within SIL.
- Policy SD10 'Strategic and Local Regeneration' requires development proposals to contribute to regeneration by tackling spatial inequalities and the environmental, economic, and social barriers that affect the lives of people in the area.
- Policy D1 'London's Form and Characteristics' requires new development proposals to:
    a. Use land efficiently by optimising density, connectivity, and land use patterns;
    b. Enhance local context by delivering buildings and spaces that positively respond to local distinctiveness through their layout, orientation, scale, appearance, and shape, with due regard to existing and emerging street hierarchy, building types, forms, and proportions;
    c. Encourage and facilitate active travel;
    d. Be street-based with clearly defined public and private environments;
    e. Facilitate efficient servicing and maintenance of buildings and the public realm;
    f. Achieve safe, secure, and inclusive environments;
    g. Provide active frontages to generate liveliness and interest;
    h. Deliver appropriate outlook, privacy, and amenity;
    i. Provide conveniently located green and open spaces for social interaction, play, and relaxation;
    j. Help prevent or mitigate the impacts of noise and poor air quality;
    k. Respond to the existing character of a place by identifying the special and valued features that are unique to the locality and respect, enhance, and utilise the heritage assets and architectural features that contribute to the local character;
    l. Be of high quality, with architecture that pays attention to detail; and
    m. Provide spaces and buildings that maximise opportunities for urban greening to create attractive resilient places that can also help the management of surface water.
- Policy D2 'Delivering Good Design' requires the following steps to be taken to ensure the delivery of "good design":

a. Initial evaluation – to identify an area's capacity for growth and understand how to deliver it in a way which strengthens what is valued in a place;

b. Determining capacity for growth – the findings of the initial evaluation should be taken together with the other policies in the Draft London Plan to inform sustainable options for growth and establish the most appropriate form of development for an area;

c. Design analysis and visualisation – where appropriate, visual, environmental, and movement modelling/assessment should be undertaken to analyse the potential design options;

d. Design quality and development certainty – masterplans and design codes should be used to help bring forward development and ensure it delivers high quality design;

e. Design scrutiny – the design of development proposals should be thoroughly scrutinised by planning, urban design, and conservation officers, utilising the analytical tools set out in the policy, local evidence, and expert advice where appropriate; and

f. Maintaining design quality – the design quality should be retained through to completion by ensuring the maximum detail appropriate for the design stage is provided to avoid the need for later design amendments and to ensure scheme quality is not adversely affected by later decisions on construction, materials, landscaping details, or minor alterations to layout or form of the development.

- Policy D3 'Inclusive Design' requires development proposals to achieve the highest standards of accessible and inclusive design by ensuring that they can be entered and exited safely, are convenient and welcoming with no disabling barriers, and are designed to incorporate safe emergency evacuation for all building users.
- Policy D4 'Housing Quality and Standards' requires new housing development to be of high quality design and provide adequately-sized rooms with comfortable and functional layouts which are fit for purpose and meet the needs of Londoners without differentiating between tenures. The provision of dual aspect dwellings should be maximised, and sufficient daylight and sunlight to new and surrounding housing that is appropriate for its context should be provided.
- Policy D5 'Accessible Housing' requires residential development to ensure that at least 10% of dwellings meet Building Regulation requirement M4(3) 'wheelchair user dwellings', and all other dwellings to meet Building Regulation requirement M4(2) 'accessible and adaptable dwellings'.
- Policy D6 'Optimising Density' requires development proposals to make the most efficient use of land and be designed at the "optimum density". Particular consideration should be given to the site context (including surrounding built form, uses, and character), the site's connectivity and accessibility by walking, cycling and existing/planned public transport to jobs and services, and the capacity of surrounding infrastructure when determining the optimal development density.
- Policy D7 'Public Realm' requires development proposals to ensure that the public realm is well-designed, safe, accessible, inclusive, attractive, well-connected, related to the local and historic context, and easy to understand, service and maintain.
- Policy D8 'Tall Buildings' states that tall buildings should only be developed in sustainable locations that are identified in Development Plans. The impacts of a tall building can be visual, functional, and environmental, all of which must be addressed and suitably mitigated by new developments which include tall buildings.
- Policy D9 'Basement Development' requires proposals for basement development to demonstrate that there would be no unacceptable harm to neighbouring developments caused by any disturbance and disruption arising from basement excavation and construction.
- Policy D10 'Safety, Security, and Resilience to Emergency' requires development proposals to maximise building resilience and minimise potential physical risks, including those arising as a result of fire, flood, and related hazards. Development should include measures to design out crime that, in proportion to the risk, deter terrorism, assist in the detection of terrorist activity, and help mitigate its effects.
- Policy D11 'Fire Safety' requires development proposals to achieve the highest standards of fire safety. All major development proposals should be submitted with a Fire Statement produced by a third-party suitably qualified assessor.
- Policy D12 'Agent of Change' places the responsibility for mitigating impacts form existing noise and other nuisance-generating activities or uses on the proposed new noise-sensitive development. New development should therefore be designed to ensure that established noise and other nuisance-generating uses remain viable and can continue to grow without unreasonable restrictions being placed on them.
- Policy D13 'Noise' states that residential proposals should manage noise by reflecting the Agent of Change principle, mitigating and minimising the existing and potential impacts of noise on new development, and improving and enhancing the acoustic environment.
- Policy H1 'Increasing Housing Supply' sets Newham a ten-year housing delivery target of 38,500 new homes (an average of 3,850 per year) to be delivered between 2018/19 and 2028/29, which is the highest delivery target of any London Borough. New homes should be delivered on sites with existing or planned PTAL scores of 3-6 or which are located within 800m of a station or town centre boundary.
- Policy H5 'Delivering Affordable Housing' states that the strategic target is for 50% of all new homes delivered across London to be "genuinely affordable". To achieve this, industrial land appropriate for residential use will be required to deliver at least 50% affordable housing where the scheme would result in a net loss of industrial capacity.
- Policy H6 'Threshold Approach Applications' requires SIL to deliver 50% affordable housing where a scheme would result in a net loss of industrial capacity. Where an application does not provide 50% affordable housing, it must follow the Viability Tester Route and submit financial viability information with the planning application submission. The scheme will also be subject to an Early and/or Late Stage Viability Review depending on the rate of development progress post-decision.
- Policy H7 'Affordable Housing Tenure' requires affordable housing to comprise the following tenure split:

  a. A minimum of 30% low cost rented homes, as either London Affordable Rent or Social Rent;

  b. A minimum of 30% intermediate products including London Living Rent and London Shared Ownership tenures; and

  c. The remaining 40% to be delivered as low cost rented homes or intermediate products based on identified need in the relevant Borough.

- Policy H12 'Housing Size Mix' states that scheme should generally consist of a range of unit sizes, with provision based on the range of housing need and demand identified in the London Strategic Housing Market Assessment 2017 and the nature and location of the site.
- Policy H15 'Specialist Older Persons Housing' requires any provision of specialist older persons housing (Use Class C3) to include an element of affordable housing, and be designed to the highest standards of accessible and inclusive design.
- Policy S1 'Developing London's Social Infrastructure' states that development proposals that provide high quality, inclusive social infrastructure that addresses a local or strategic need and supports service delivery strategies will be supported.

- Policy S2 'Health and Social Care Facilities' states that development proposals that support the provision of high quality new and enhanced health and social care facilities to meet an identified need and new models of care will be supported.
- Policy S3 'Education and Childcare Facilities' requires development proposals for childcare facilities to be in areas of identified need, in accessible locations with good public transport accessibility and access by walking and cycling. These facilities should be located next to parks or green spaces where possible.
- Policy S4 'Play and Informal Recreation' requires development proposals for schemes that are likely to be used by children and young people to increase opportunities for play and informal recreation, and to provide at least 10sqm of playspace per estimated child yield (particularly doorstep play for children aged 0-4).
- Policy S5 'Sports and Recreation Facilities' requires development proposals for sports and recreation facilities to increase or enhance the provision of facilities in accessible locations that are well-connected by public transport, walking, and cycling routes.
- Policy E4 'Land for Industry, Logistics and Services to Support London's Economic Function' states that any release of industrial capacity on SIL-designated sites should be focused in locations that are (or are planned to be) well-connected by public transport, walking and cycling and contribute to other planning priorities including housing (and particularly affordable housing), schools, and other infrastructure.
- Policy E5 'Strategic Industrial Locations' states that development proposals within SILs will be supported where the uses proposed fall within the broad industrial-type activities set out below:
    a. Light industrial (Use Class B1c);
    b. General industrial uses (Use Class B2);
    c. Storage and logistics/distribution uses (Use Class B8);
    d. Other industrial-type functions, services, and activities;
    e. Flexible B1c/B2/B8 premises suitable for occupation by SMEs;
    f. Research and development of industrial and related products or processes (Use Class B1b); and
    g. Small-scale "walk-to" services for industrial occupiers such as workplace creches or cafes.

  Development proposals for uses other than those listed above (including residential development) should be refused except in areas released through a strategically co-ordinated process of SIL consolidation.
- Policy E7 'Industrial Intensification, Co-location and Substitution' requires the industrial uses within SILs to be intensified to deliver an increase (or at least no overall net loss) of capacity in terms of industrial, storage, and warehousing floorspace with appropriate provision of yard space for servicing alongside the co-location of residential uses.
- Policy E9 'Retail, Markets and Hot Food Takeaways' requires development proposals to identify areas under-served in local convenience shopping and related services and support additional facilities to serve existing or new residential communities. Large-scale commercial development proposals containing over 2,500sqm gross A Class floorspace should support the provision of small shops and other commercial units.
- Policy E11 'Skills and Opportunities for All' requires development proposals to support employment, skills development, apprenticeships, and other education and training opportunities in both the construction and end-use phases of development.
- Policy HC1 'Heritage Conservation and Growth' requires development proposals affecting heritage assets and their settings to conserve their significance, by being sympathetic to the assets' significance and appreciation within their surroundings. Development proposals should avoid harm and identify enhancement opportunities by integrating heritage considerations early on in the design process.
- Policy HC2 'World Heritage Sites' requires development proposals in World Heritage Sites and their settings (including any buffer zones) to conserve, promote, and enhance their Outstanding Universal Value, including the authenticity, integrity, and significance of their attributes, and support their management and protection.
- Policy HC3 'Local and Strategic Views' states that the MOL will identify and protect aspects of views that contribute to a viewer's ability to recognise and appreciate a World Heritage Site's authenticity, integrity, and attributes of Outstanding Universal Value.
- Policy G1 'Green Infrastructure' requires development proposals to incorporate appropriate elements of green infrastructure that are integrated into London's network of green open spaces.
- Policy G4 'Open Space' requires development proposals to create areas of publicly accessible open space, particularly in areas of deficiency, where possible. The loss of protected open space will be resisted in areas of deficiency, and outside these areas equivalent or better-quality provision will be required to be re-provided within the local catchment area.
- Policy G5 'Urban Greening' requires major development proposals to contribute to the greening of London by including urban greening as a fundamental element of site and building design, and to incorporate measures such as high-quality landscaping (including trees), green roofs, green walls, and nature-based sustainable drainage.
- Policy G6 'Biodiversity and Access to Nature' states that Sites of Importance for Nature Conservation ("SINCs") should be protected. Development proposals should aim to secure net biodiversity gain and be informed by the best available ecological information which should be considered from the start of the development process.
- Policy G7 'Trees and Woodlands' requires development proposals to ensure that, wherever possible, existing trees of value are retained. The planting of additional trees should generally be included in new developments.
- Policy S1 'Improving Air Quality' requires development proposals to use design solutions to prevent or minimise increased exposure to existing air pollution and make provision to address local problems of air quality. Major development proposals must be at least air quality neutral and be submitted with an Air Quality Assessment.
- Policy S2 'Minimising Greenhouse Gas Emissions' states that major development should be net zero-carbon, demonstrated by way of a detailed energy strategy. A minimum on-site reduction of at least 35% beyond Building Regulations is required for major development. Residential development should achieve 10% and non-residential development should achieve 15% through energy efficiency measures alone.
- Policy S3 'Energy Infrastructure' requires major development proposals within Heat Network Priority Areas to have a communal low-temperature heating system.
- Policy S4 'Managing Heat Risk' requires development proposals to minimise adverse impacts on the urban heat island through design, layout, orientation, materials, and the incorporation of green infrastructure. Major development proposals should demonstrate by way of an Energy Strategy how they will reduce the potential for internal overheating and reliance on air conditioning systems.

- Policy S5 'Water Infrastructure' requires development proposals to minimise the use of mains water in line with the Optional Requirement of the Building Regulations (residential development) and achieve at least the BREEAM "Excellent" standard for the WAT 01 water category or equivalent (commercial development).
- Policy S7 'Reducing Waste and Supporting the Circular Economy' states that referable applications should promote circular economy outcomes and aim to be net zero-waste.
- Policy S13 'Sustainable Drainage' states that development proposals should aim to achieve greenfield runoff rates and ensure that surface water runoff is managed as close to its source as possible. Proposals which include impermeable paving should be refused unless they can be shown to be unavoidable.
- Policy S15 'Water Transport' states that development proposals to facilitate an increase in the amount of freight transported on London's waterways should be supported. Safeguarded wharves should only be used for waterborne freight-handling use, including consolidation centres.
- Policy S16 'Waterways – Use and Enjoyment' states that development proposals adjacent to waterways should protect and enhance inclusive public access to and along the waterway front and explore opportunities for new, extended, improve and inclusive access infrastructure to/from the waterways.
- Policy S17 'Protecting and Enhancing London's Waterways' states that development proposals along London's river space should respect their local character, environment, and biodiversity and should contribute to their accessibility and active water-related uses.
- Policy T1 'Strategic Approach to Transport' states that all development should make the most effective use of land, reflecting its connectivity and accessibility by existing and future public transport, walking and cycling routes, and ensure that any impacts on London's transport networks and supporting infrastructure are mitigated.
- Policy T2 'Healthy Streets' states that development proposals should deliver patterns of land use that facilitate residents making shorter, regular trips by walking or cycling. In Opportunity Areas, new and improved walking, cycling, and public transport networks should be planned at an early stage, with delivery phased appropriately to support mode shift towards active travel and public transport.
- Policy T3 'Transport Capacity, Connectivity and Safeguarding' requires development proposals to support capacity, connectivity, and other improvements to strategic transport schemes including upgrades to Underground line, Crossrail 2, the Bakerloo line extension, river crossings, and an eastwards extension of the Elizabeth line.
- Policy T4 'Assessing and Mitigating Transport Impacts' requires Transport Assessments to be submitted with development proposals to ensure that any impacts on the capacity of the transport network (including impacts on pedestrians and the cycle network), at the local, network-wide, and strategic level, are fully assessed.
- Policy T5 'Cycling' states that development proposals should help to remove barriers to cycling and create a healthy environment in which people choose to cycle. This should include the provision of appropriate levels of cycle parking which should be fit for purpose, secure, and well-located in accordance with the minimum standards set out in Table 10.2 of the Draft London Plan.
- Policy T6 'Car Parking' states that "car-free" development should be the starting point for all development proposals in places that are (or are planned to be) well-connected by public transport. Car-free development has no general parking but should still provide disabled persons parking for Blue Badge holders in line with the minimum standards set out in the Draft London Plan.
- Policy T7 'Deliveries, Servicing and Construction' requires development proposals to facilitate sustainable deliveries and servicing, including through the provision of adequate space for servicing, storage, and deliveries off-street. Developments should be designed and managed so that deliveries can be received outside of peak hours and in the evening or night-time.
- Policy T9 'Funding Transport Infrastructure Through Planning' states that the MOL will charge the Mayoral Community Infrastructure Levy ("MCIL") to secure funding towards transport infrastructure of strategic importance. Planning obligations, including financial contributions, will be sought to mitigate impacts from development, which may be cumulative.

SUPPLEMENTARY PLANNING DOCUMENTS AND GUIDANCE

LBN Supplementary Planning Documents

3.3.18 None relevant to the proposed development.

GLA Supplementary Planning Documents/Guidance

Housing SPG (March 2016)

3.3.19 This SPG provides guidance on the implementation of housing policies in the adopted London Plan. The relevant topics covered include housing supply (strategic approach to increase it), housing quality (key MOL planning priority is to improve standards) , housing choice (promoting a real choice of homes for Londoners), social infrastructure (accommodating the required infrastructure for housing growth) and mixed-use and large-scale developments (making efficient and sustainable use of London's constrained land).

Affordable Housing and Viability SPG (August 2017)

3.3.20 This SPG focuses on affordable housing and viability. The SPG is broken up into four distinct parts – background and approach, the threshold approach to viability assessments, detailed guidance on viability assessments, and a specific approach to Build to Rent schemes.

3.3.21 The first part of the SPG sets out its rationale and aim. It confirms the MOL's commitment to a long-term strategic aim of half of all new homes in London being affordable.

3.3.22 The second part of the SPG sets out the 'threshold approach' to viability, which is where the approach to viability information differs depending on the level of affordable housing being provided. It explains the fast track route and viability tested routes.

3.3.23 The third part of the SPG provides detailed guidance on viability assessments, aiming to establish a standardised approach.

3.3.24 The fourth part of the SPG provides specific guidance on Build to Rent developments, recognising that they differ to the traditional build for sale model.

Social Infrastructure SPG (May 2015)

3.3.25 This SPG provides guidance on the implementation of London Plan Policies 3.16 (Protection and Enhancement of Social Infrastructure), 3.17 (Health and Social Care Facilities), 3.18 (Education Facilities), and 3.19 (Sports Facilities). It particularly focused on those elements of social infrastructure that face the biggest strategic challenges – health, education, sport, faith and burials. It provides guidance to developers and their consultants in preparing planning applications in order to ensure that schemes respond to social infrastructure requirements, enabling them to recognise the role of social infrastructure provision in place making and its potential as a driver of value in development projects.

Sustainable Design and Construction SPG (April 2004)

3.3.26 This SPG aims to support developers, local planning authorities, and neighbourhoods to achieve sustainable development. It provides guidance on how to achieve the London Plan objectives effectively and supporting the MOL's aims for growth (including the delivery of housing and infrastructure).

Shaping Neighbourhoods: Play and Informal Recreation SPG (September 2012)

3.3.27 This SPG relates to the implementation of London Plan Policy 3.6 and those on shaping neighbourhoods in Chapter 7 of the London Plan. It provides more detailed guidance and proposes benchmark standards for the provision of children's playspace.

Character and Context SPG (June 2014)

3.3.28 This SPG provides specific guidance on the physical, cultural, social, economic, perception, and experience attributes of character and context in London. It also includes information on resources that inform an understanding of character and context in London and provides an analysis of the interrelationships between different aspects of character, and how it can be articulated and presented to others.

The control of dust and emissions during construction and demolition SPG (July 2014)

3.3.29 This SPG seeks to reduce emissions of dust, PM_{10} and $PM_{2.5}$ from construction and demolition activities in London. It also aims to manage emissions of nitrogen oxides (NOx) from construction and demolition machinery by means of a new non-road mobile machinery ultra low emissions zone (ULEZ). The SPG:

- Provides more detailed guidance on the implementation of all relevant policies in the London Plan and the MOL's Air Quality Strategy to neighbourhoods, boroughs, developers, architects, consultants and any other parties involved in any aspect of the demolition and construction process;
- Sets out the methodology for assessing the air quality impacts of construction and demolition in London; and
- Identifies good practice for mitigating and managing air quality impacts that is relevant and achievable, with the overarching aim of protecting.

Land for Industry and Transport SPG (September 2012)

3.3.30 This Supplementary Planning Guidance (SPG) provides guidance on the implementation of policies relating to land for industrial type activities and transport in the MOL's London Plan. The SPG provides guidance to:

- ensure an adequate stock of industrial capacity to meet the future needs and functional requirements of different types of industrial and related uses in different parts of London;
- plan, monitor and manage the release of surplus industrial land so that it can better contribute to strategic and local planning objectives, especially those to provide more housing (including affordable housing); and
- ensure the provision of sufficient land, suitably located, for the development of an expanded transport system to serve London's needs.

Safeguarded Wharves Review 2018

3.3.31 The MOL issued a Safeguarded Wharves Review in August 2018 for 3-month public consultation. This report recommends the release of Safeguarded Wharf Status from Thames Wharf (SO9) on the basis that it is consolidated into the Peruvian Wharf (an no net loss of Wharf capacity).

3.4 ASSESSMENT OF THE PROPOSALS

3.4.1 Section 38(6) of the Planning and Compulsory Purchase Act 2004, requires proposals to be determined in accordance with the Development Plan unless material considerations indicate otherwise.

3.4.2 The assessment of the Proposed Development in light of the Development Plan and other relevant national, regional and local planning policy guidance is considered in detail in the Planning Statement (December 2018) and Planning Statement addendum (March 2020) prepared by Barton Willmore. These documents form part of the planning submission.

3.4.3 In summary, it is considered that the principle of the proposed development, in terms general land use, design, scale, appearance and access arrangements, broadly accords with the Development Plan and should be considered acceptable. Areas that do not strictly accord with policy, such as SIL and tall buildings, have been robustly justified through evidence and design based documents and other material considerations, including planning and regeneration benefits that outweigh any purported harm.

REFERENCES

3.4.4 Barton Willmore Planning Statement, December 2018 and Update March 2020.

4 AMENDMENTS TO THE PROPOSED DEVELOPMENT

4.1 SITE STATUS

4.1.1 The site boundary and status position set out in the December 2018 ES and subsequent addenda remain unchanged. Further information can be found in the Design and Access Statements (both Phase 1 and Outline Masterplan), parameter and layout plans, drawings, and Design Codes accompanying the planning application and subsequent addenda.

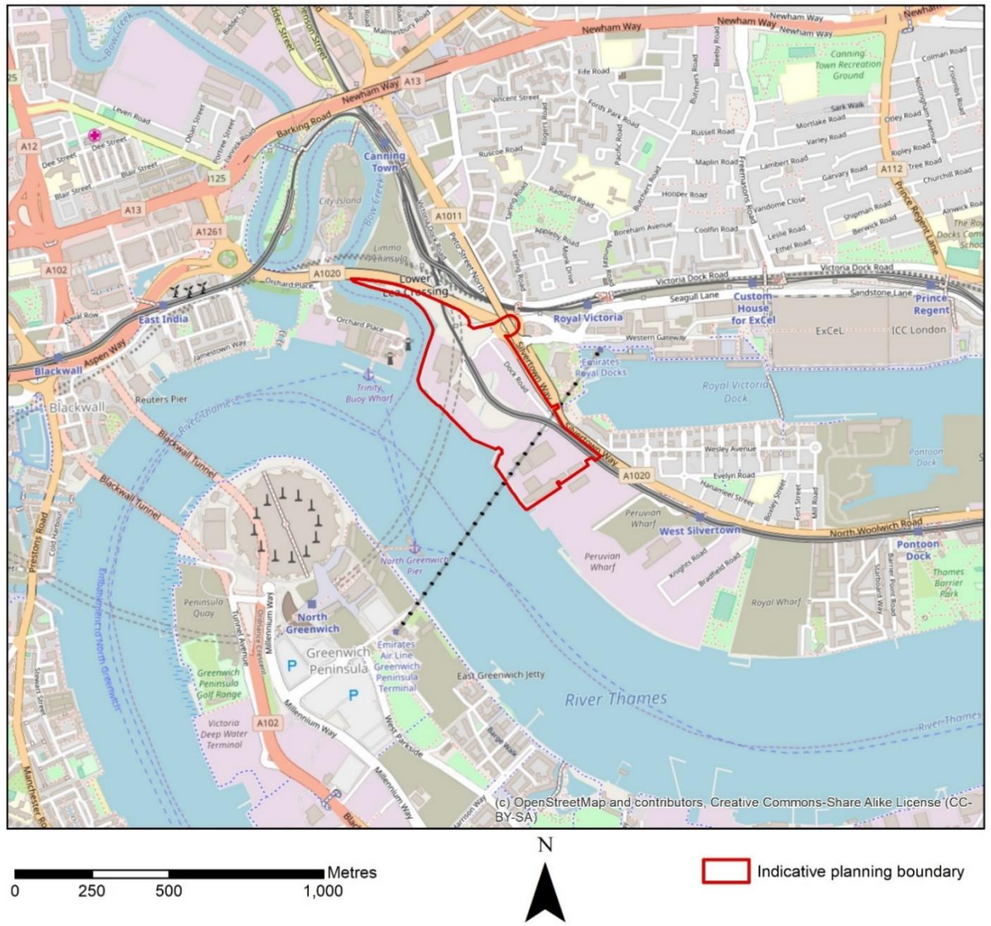


Figure 4-1 Site location plan

4.2 OVERVIEW OF THE AMENDED PROPOSED DEVELOPMENT

Development description

4.2.1 In December 2018, a hybrid (part detailed, part outline) planning application (18/03557/OUT) was submitted to the London Borough of Newham (LBN) for Thameside West development. In May 2019, revised development plans, which were assessed under the May 2019 ES Addendum, were submitted as part of the same planning application. A second set of amendments were assessed in June 2019, for the same development description outlined in May 2019. This addendum addresses the third set of amendments to the scheme in March 2020 and seeks permission for the following amended development description:

1. *"Hybrid planning application comprising: Detailed planning application for Phase 1 with works to include: The proposed demolition of existing buildings and structures, the erection of buildings, including tall buildings, comprising: ~~460~~ 401 residential Units (Use Class C3), ~~3,417~~ 3,608 sqm (GEA) of flexible employment floorspace (Use Classes ~~B1b,~~ B1c ~~B2 (restricted)~~ and B8); ~~162~~ 230 sqm (GEA) of flexible retail floorspace (Use Classes A1-A4); a new/altered access road from Dock Road/North Woolwich Road; new streets, open spaces, landscaping and public realm; car, motorcycle and bicycle parking spaces and servicing spaces; and other works incidental to the proposed development.*

2. *Outline planning application (all matters reserved) for the phased delivery of the balance of the site for the proposed demolition of existing buildings and structures; the erection of buildings, including tall buildings, comprising: a new local centre; a primary school (Use Class D1); residential and older person units (Use Class C3);; flexible employment floorspace (Use ClassesB1c, B2 and B8); flexible retail floorspace (Use Classes A1-A4); community and leisure floorspace (Use Classes D1 and D2); the construction of a new flood defence wall and delivery of ecological habitat adjacent to the River Thames and associated infrastructure; streets, open spaces, landscaping and public realm (including new park and SINC improvements); car, motorcycle and bicycle parking spaces and servicing spaces; utilities including energy centre and electricity substations; and other works incidental to the proposed development."*

4.2.2 A scenario of up to 5,000 units has been considered in application documents, including this ES addendum. This remains consistent with the original ES by representing the 'worst case' scenario from an EIA perspective.

4.2.3 The application is submitted in outline with all matters reserved, with the exception of Phase 1, which is submitted in detail. The principal means of vehicular access will be Dock Road, which will be re-routed as part of the Silvertown Tunnel works. This has not changed from the original 2018 ES and subsequent addenda.

4.3 AMENDMENTS TO THE PROPOSED DEVELOPMENT

4.3.1 The following set of amendments have been made to the proposed development since the June 2019 ES addendum was prepared:

- Significant reduction in the massing of Building A;
- Decreasing the overall height of Building B;
- Internal and external amendments to the Buildings A and B;
- Amendments to the landscape proposals and reduction in amount of car and cycle parking proposed for Buildings A & B;
- Decreasing the overall height of Building C;
- Reducing the massing of Building D (focusing on the wings adjacent to the Allnex site) to form a stepping down in massing and the massing redistributed to Buildings N, M and J;

- Adjusting the heights of Buildings E & F and the position of the lower podium to improve proximity between the buildings and to improve the outlook of residential units;
- Increased separation distances in Buildings H, K, L and P (Thameside Crescent) to ensure separation distances between habitable rooms for single aspect units achieve a minimum of 18m;
- Buildings S and T have increased in height;
- Increased separation distances between Buildings Q and U to improve views and access from the Station Square to the riverside walkway; and
- Reduction in height of lower parts of Buildings Q & U to increase separation distances.

4.3.2 As the massing of buildings: A, B, C, D, E, F, J, M, N, S, T, Q and U are changing, the maximum parameters for the proposed development have subsequently changed. Updated parameter plans can be found in the DAS re-submission and the relevant parameter plans are appended to this chapter. Appendix 4-A outlines the maximum height limits for the development that have changed due to the proposed amendments and are most likely to have an effect on the assessments undertaken in the ES addendum.

4.3.3 Figure 4-2 shows the phasing plan and indicates the naming of the blocks as referenced in the original ES. The phasing plan remains unchanged from the May 2019 and June 2019 ES addendum. The addition of the dark purple area to the phasing plan shows works to be undertaken by Riverlinx (the Silvertown Tunnel contractor) to Dock Road, prior to Phase 4. Table 4-1 below outlines the phasing plan and build sequence.

4.3.4 The blocks within each phase of the development remain unchanged, but some stages of development have minor updates. Stage 1 and stage 2 have been extended to include Dock Road and follow the perimeter of Dock Park. Phase 4 has been updated to highlight Dock Park as its own entity. Dock Road and Thameside Crescent have been added and are to be installed by Riverlinx (Silvertown Tunnel contractor) prior to Phase 4.

Table 4-1 Phasing Plan and Build Sequence (updated since June 2019)

Phase	Blocks	Start on Site	Complete
Phase 1	A & B	~~May~~ Nov 2020	June 2022
Phase 2	D & E	Feb 2021	May 2023
Phase 3	C, F & V	Dec 2021	April 2024
Phase 4	G	Sept 2022	Sept 2024
Phase 5	J & H	July 2023	July 2025
Phase 6	M & K	June 2024	April 2026
Phase 7	N & L	April 2025	July 2027
Phase 8	R	Feb 2026	May 2028
Phase 9	U, Q & P	Jan 2027	April 2029
Phase 10	S	Jan 2028	May 2030
Phase 11	T	April 2029	Feb 2031

4.3.5 Reference should be made to 2018 ES chapter 2 (development description) and ES chapter 5 (methodology) of the 2018 ES for full details of how the proposed development plans have been assessed within the EIA work undertaken.

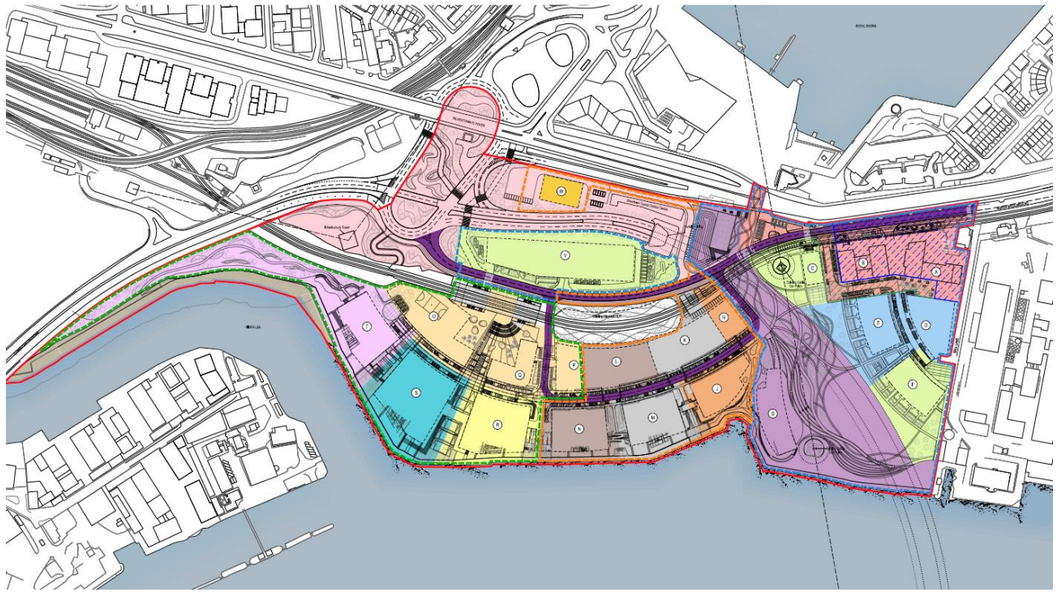


Figure 4-2 Phasing plan

4.4 AMENDMENTS TO THE MAXIMUM QUANTUM OF THE PROPOSED DEVELOPMENT

4.4.1 The EIA has assessed the fixed quantum of development for Phase 1 and maximum floor space for the future phases in outline development. The maximum quantum was updated in the June 2019 ES addendum and updated for March 2020, as shown in table 4-2.

Table 4-2 Maximum quantum of the proposed development, March 2020 (updated from June 2019)

Land Use	Use classes	Maximum floorspace (GEA) m^2
Residential and Ancillary	C3	441,141
Flexible employment floorspace	~~B1b~~, B1c, B2, and B8	15,000
Flexible employment floorspace	B1b, B1c, B2 (Restricted), and B8	~~1,024~~ 4,441
Flexible retail floorspace	A1-A4	~~7,206~~ 7,368
Community and Leisure	D1-D2	7,055
Maximum Total	**All**	**475,005**

4.5 AMENDMENTS TO DETAILED COMPONENTS OF THE PROPOSED DEVELOPMENT (PHASE 1)

4.5.1 As identified in section 4.3.1, there have been reductions in the overall heights and massing of Phase 1, with internal and external changes to both buildings, including GEA and unit mix. Landscape proposals have been amended to reflect a decreased requirement for cycle and car parking spaces. The changes to Phase 1 are summarised in paragraphs 4.5.3 and 4.5.4, which highlights a change to the total GEA.

4.5.2 The Design and Access Statement, submitted as a standalone document with the planning application, provides context on how the design development has evolved in response to preliminary technical studies and in consideration of feedback from the LBN and GLA through the Design Review Panel (DRP) process.

Quantum and use of the proposed development (Phase 1)

4.5.3 Table 4-3 shows the schedule of accommodation for Phase 1 only which has changes since the 2018 ES and the 2019 May ES addendum, reflecting a reduction in total GEA. The mix of residential and affordable units has been updated for this addendum and is reflected below in paragraph 4.5.4.

Table 4-3 Schedule of accommodation – Phase 1 (Development plots A & B)

Land Use	Use classes	Total m² (GEA) in 2018 ES	Total m² (GEA) in May 2019 ES addendum	Total m² (GEA) in March 2020 ES addendum
Residential and Ancillary	C3	43,526	43,448	37,951
Flexible employment floorspace	B1b, B1c, B2 (Restricted), and B8	3,417	3,417	3,608
Flexible retail floorspace	A1-A4	162	162	230
Total	**All**	**50,069**	**50,348**	**41,789**

4.5.4 Phase 1 of the development (Blocks A and B) comprises 401 residential units (C3 dwellings), a mix of studios (1), one bed (184), two bed (156), three bed (56), and four bed apartments (4). Of these residential units, 206 will be private (previously 296 in the 2018 ES) and 195 will be affordable (previously 164 in the 2018 ES).

4.6 AMENDMENTS TO THE OUTLINE COMPONENTS OF THE PROPOSED DEVELOPMENT

4.6.1 The updated schedule of accommodation for the outline components of the proposed development, excluding basement, is included in Table 4-4. This sets the maximum quantum of each use class across the outline components of the proposed development.

4.6.2 The schedule of accommodation has been updated since the June 2019 ES addendum. The amendments made are illustrated in Table 4-4.

Table 4-4 Outline component – maximum floorspace (updated from June 2019 ES addendum)

Development Plot	Residential Floorspace m² (GEA)	Non-Residential Floorspace m² (GEA)
C	~~12,096~~ 11,520	0
D	~~26,795~~ 22,007	~~1,024~~ 833
E	~~21,208~~ 21,900	0
F	~~25,901~~ 26,617	0
G	~~25,745~~ 25,785	~~1,202~~ 1,247
J	~~17,034~~ 17,664	~~435~~ 414
M	~~15, 594~~ 16,726	~~640~~ 0
N	~~23,297~~ 25,559	~~620~~ 457
Q	~~19,574~~ 22,174	~~2,220~~ 2,316
R	42,960	~~1,099~~ 1,084
S	~~49,680~~ 50,360	~~2,170~~ 2,165
T	~~30,080~~ 34,518	~~690~~ 499
U	~~16,888~~ 19,489	~~760~~ 746
H	~~12,674~~ 13,343	0
K	~~19,661~~ 22,433	0
L	~~19,657~~ 22,433	0
P	~~8,838~~ 7,702	0
Heavy Industrial Site	0	15,000
Nursery	0	~~995~~ 993
4FE School	0	~~4,260~~ 4,272
Total (excl. block A & B)	**~~387,782~~ 403,190**	**~~34,694~~ 30,026**

4.6.3 The outline component of the development has been updated to comprise of 4,599 residential units (C3 dwellings), a mix of studios (417), one bed (957), two bed (2,139), three bed (948), and four bed apartments (138). Of these residential units, 3,094 will be private (previously 3,238 in the 2018 ES) and 1,505 will be affordable (previously 1,301 in the 2018 ES).

4.7 ACCESS, CIRCULATION AND PARKING

4.7.1 The design and access statement incorporate details of access, circulation and parking.

4.7.2 The proposed development will be well connected to existing transport infrastructure and local services serving the site. Unrestricted pedestrian movement is encouraged and has been improved across site, with the enhancement of site connections to maximise capacity and visibility. Pedestrians can freely move throughout the development, with all open space being publicly accessible.

4.7.3 The main vehicular access road serving Thameside West is the existing Dock Road, which connects to the wider Royal Docks area. Thameside Crescent and Lea Crescent run through the centre of the site and will play an important role in connecting the main areas of public realm. Whilst vehicle movement will be restricted across the masterplan, it is expected that the site's PTAL rating will improve substantially, in particular with additions of the Silvertown tunnel, new bus routes and the new Thameside West DLR station.

4.7.4 The development proposals provide dedicated residential podium parking and residential/industrial street parking, together with servicing and refuse provision. It should be noted that on-street parking for the plots within Phase 1 will be relocated to the podium (under the raised street level – which has changed from the 2018 ES) during the completion of Phase 2. As agreed with TfL, this area of parking is to be used as additional 5% blue badge car parking and/or other uses ancillary to the residential floorspace (e.g. storage space, additional cycle storage, motorcycle storage space, scooter storage space).

4.7.5 Two servicing bays are located at ground level (not lower ground level as stated in the 2018 ES) within the phase to allow for servicing of the building, for both industrial and residential/loading. Delivery vehicle access, and space for taxis to stop for short periods of time is located at ground floor level.

4.7.6 Access to the 'front-of-house' bin rooms and the bulky waste (for commercial waste) is done via the industrial units located within plots A and B of Phase 1, with access via the north-east along Dock Road. The residential units have other waste collections points and 'front-of-house' bin rooms in different locations based on the core. This information is an addition to the 2018 ES.

4.7.7 The provision of cycle and car parking spaces is presented in Table 4-5.

Table 4-5 Cycle parking and car parking space provision across the proposed development (March 2020)

Phase	Cycle Parking Spaces		Total Cycle Spaces	Car Parking Spaces		Total Car Spaces
	Residential	Commercial		Residential	Commercial	
Phase 1 (Detailed)	720	33	753	32	3	38
Phases 2 to 11 (Outline)	8,427	653	9,080	423	10	470
Total	**9,147**	**686**		**455**	**13**	
Grand Total			**9,833**			**508**

4.8 LAYOUT, MASSING AND HEIGHT

4.8.1 An updated set of plans can be found in the 2020 addendum Design and Access Statement for Phase 1.

4.8.2 It should be noted that the *maximum* building heights of the proposed development remain unchanged from the 2018 ES. However, as detailed in section 4.3, the massing of some buildings has changed and the maximum parameters for the proposed development have subsequently also changed.

4.8.3 Since the June 2019 ES addendum, there have been several DRP meetings to discuss the masterplan. These are detailed more within the DAS, but the key changes include the reduction in units proposed from c. 5,800 to 5,000; introduced variation in heights of buildings across the masterplan with clearly defined tall buildings to improve density; reduction and redistribution of massing from block D to blocks N, M and J (and others); reduction and redistribution of massing from blocks A and B to other masterplan phases; and, adjustment to the separation distance between blocks Q and U.

Landscape and open space

4.8.4 The landscaping and open space strategy remains unchanged from the 2018 ES.

4.8.5 The landscape masterplan has evolved alongside developments in the masterplan and in responses to comments from the GLA and DRP. It has been designed to ensure the key priorities are met: creation of clear and permeable access, to overcome the severances in the site; maximisation of connectivity to the riverside; and creation of clear linkages through existing and future infrastructure including the Silvertown Flyover, The Lower Lea Crossing (A1020), Dock Road, DLR flyover, Cable Car and the proposed Silvertown Tunnel.

4.8.6 The masterplan for the proposed development contains several landscape character areas. These can broadly be defined in three categories: Soft Landscapes, Waterfront Neighbourhoods and Active Yards. Soft Landscape areas provide neighbourhood parks (including two riverfront parks) for amenity and ecology, providing green infrastructure for the development and the wider community. The Waterfront Neighbourhoods form the core residential, community and commercial heart of the masterplan. They have been arranged to connect to the Thames and the Lea, with a variety of ways to interact with the river along a continuous promenade. The Active Yards are mixed neighbourhoods with significant working industrial space and a more robust, urban feel in contrast to the character of the parks and waterfront.

4.8.7 Amenity and open spaces are provided across site in private, semi-private and communal, publicly accessible areas. Each home will be provided with private amenity space in the form of a balcony or terrace directly accessed from the dwelling. In addition, most of the homes will have access to semi-private shared gardens, typically raised up to podium level. a significant area of publicly accessible open space will be provided for the benefit of residents and the wider community. This is predominantly provided in the form of Leaway Park SINC and surrounds, the Riverfront walk and gardens, and Dock Park and urban sports area.

4.9 INDICATIVE DEMOLITION AND CONSTRUCTION PROGRAMME

4.9.1 The construction of the proposed development will be phased, as detailed in section 4.3.

4.9.2 The overall build start and finish years remain the same as the original construction programme, however the start date for Phase 1 has been updated from May 2020, to November 2020.

4.10 ENERGY AND SUSTAINABILITY

4.10.1 An Energy and Sustainability Statement is submitted as a standalone document in support of the planning application in 2018. An addendum has been submitted in March 2020 to be read alongside the original Energy and Sustainability Statement.

4.10.2 The addendum is in response to changes to phase 1 and the outline elements of the proposed development. The text provides either further explanation of the original submission or changes to the proposed commitments.

4.11 GLOSSARY

Term	Definition
EIA	Environmental Impact Assessment
ES	Environmental Statement
GLA	Greater London Authority
LBN	London Borough of Newham

4.12 LIST OF APPENDICES

Reference	Title
4-A	Maximum Height Limits
4-B	Horizontal Deviation Limits
4-C	Masterplan Development Zones

5 TRAFFIC AND TRANSPORT

5.1 INTRODUCTION

5.1.1 This chapter of the ES Addendum includes an updated assessment for Traffic and Transport from the June 2019 ES Addendum, in light of the proposed development amendments. The assessment includes a review of any relevant changes in legislation since the previous assessment in June 2019; a review of the baseline conditions in order to ensure the assessment is based on up-to-date site and surrounding area conditions; a review of any further supplementary mitigation measures required; and reports on any changes to the likely residual environmental effects after these measures have been adopted.

5.1.2 An updated cumulative and interactive effects assessment has additionally been considered for Traffic and Transportation and can be found in Chapter 18 Review of Cumulative and Interactive Effects.

5.2 METHODOLOGY

Assessment approach

5.2.1 The assessment approach and methodology remain unchanged from the 2018 ES, May 2019 and June 2019 ES Addendums.

5.3 REVIEW OF PLANNING POLICY CONTEXT (CHANGES SINCE JUNE 2019 ADDENDUM)

Regional Policy

5.3.1 Since the June 2019 ES Addendum was submitted, the Intend to Publish Draft London Plan was issued in December 2019. The document provides minor clarifications to the London transport policies, but does not fundamentally change the Draft London Plan policies that were originally described in the 2018 ES.

Local Policy

5.3.2 Changes to local policy include the formal adoption of policies set out in Newham's Local Plan 2018.

5.4 CURRENT BASELINE CONDITIONS 2020

5.4.1 This section sets out any changes to the baseline conditions since the 2018 ES and May 2019 ES Addendum.

Bus

5.4.2 The bus stop nearest to the site is Charrington Steps, which is approximately 350 metres walking distance from the Site. Canning Town bus station is also within reasonable walking distance located 750m north of the site boundary.

5.4.3 A summary of the bus routes and frequencies at these locations are shown in Table 5-1 and Table 5-2.

Table 5-1 Bus Routes and Service Frequencies from Charrington Steps (Average Buses per hour)

Route number	Direction	Weekday AM/PM Peak	Weekend Saturday/Sunday Peak
474	Canning Town, Hermit Road	5	5
	Manor Park Station	5	5
Total Buses per Hour (Two-way)=		**10**	**10**

Table 5-2 Bus Routes and Frequencies from Canning Town Bus Station (Average Buses per hour)

Route number	Direction	Weekday AM/PM Peak	Weekend	
			Saturday Peak	Saturday Peak
5	Romford	9	7	0
69	Walthamstow	8	6	5
115	Aldgate	7	7	5
	East Ham	7	7	5
241	Canning Town, Hermit Rd	7	6	3
	Stratford City Bus Station	6	6	3
300	East Ham	5	4	3
309	Bethnal Green	5	5	4
323	Mile End	4	4	3
330	Wanstead Park	6	6	4
474	Manor Park	6	6	4
Total Buses per Hour (Two-way) =		**70**	**64**	**39**

London Underground

5.4.4 The frequency of Jubilee line services at Canning Town station is shown in Table 5-3.

Table 5-3 Frequency of Trains Serving Canning Town Underground Station (Average Trains per Hour)

Line	Direction	Weekday AM/PM Peak	Weekend Saturday Peak	Weekend Sunday Peak
Jubilee	Stratford (NB)	24	24	5
	Stanmore (SB)	18	18	5

Docklands Light Railway (DLR)

5.4.5 The frequency of DLR services from Royal Victoria and West Silvertown are shown in Table 5-4 and Table 5-5.

Table 5-4 Frequency of Trains Serving Royal Victoria DLR Station (Average Trains per Hour)

Line	Direction	Weekday AM/PM Peak	Weekend Saturday Peak	Weekend Sunday Peak
DLR	Beckton	8	12	5
	Tower Gateway	8	6	5

Table 5-5 Frequency of Trains Serving West Silvertown DLR Station (Weekday Peaks)

Line	Direction	Weekday AM/PM Peak	Weekend Saturday Peak	Weekend Sunday Peak
DLR	Woolwich Arsenal	15	12	5
	Stratford International	7	6	5
	Bank	8	6	5

Royal Wharf River Services

5.4.6 The Royal Wharf Pier, which is located approximately 15-minutes' walk south-east of the Site, opened in October 2019. It forms part of the Royal Wharf development and supports the Royal Docks regeneration area.

5.4.7 The Royal Wharf Pier is served by Thames Clipper river bus services. The RB1 route provides services between Woolwich Arsenal and Bankside, which operate every 20 to 30 minutes on weekdays with limited services at weekends. The RB5 route provides services between Woolwich Arsenal and North Greenwich, which operate every 30 minutes on weekends.

5.5 UPDATED POTENTIAL EFFECTS AND MITIGATION MEASURES

Demolition and construction effects

Changes to original assessment

5.5.1 There has been a minor change to the month start date for Phase 1 (changed from May to November 2020). Table 5-6 below sets out the preliminary construction phasing.

Table 5-6 Preliminary Construction Phasing

Phase	Start	End
Phase 1	November 2020	June 2022
Phase 2	February 2021	May 2023
Phase 3	December 2021	April 2024
Phase 4	September 2022	September 2024
Phase 5	July 2023	July 2025
Phase 6	June 2024	April 2026
Phase 7	April 2025	July 2027
Phase 8	February 2026	May 2028
Phase 9	January 2027	April 2029
Phase 10	January 2028	May 2030
Phase 11	April 2029	February 2031

5.5.2 There have also been some minor alterations to the deliverables, which has resulted in the changes shown in Table 5-7 for each assessment year.

Table 5-7 Phasing Deliverable Changes

Assessment Year	Residential (units)	Retail (A1-A4) GEA	B1b, B1c, B2, B8 (sqm GEA)	B1b, B1c, B2 (Restr.), B8 (sqm GEA)
2022	-59 units	+68sqm	0	+191sqm
2025	-160 units	+92sqm	0	0
2028	-98 units	-86sqm	0	0
2031 (Full Build-out)	**0**	**0**	**0**	**0**

5.5.3 These changes result in less traffic being generated for each of the intermediate assessment years and it would be unchanged for 2031 (full build-out of the development). Therefore, the construction effects described in the May 2019 ES Addendum remain valid.

Changes to intermediate year assessment

5.5.4 The intermediate years of 2022 (when Phase 1 is due to be completed), 2025 (after the Silvertown Tunnel is completed and operational), and 2028 remain unchanged from the 2018 ES.

5.5.5 The assessment of construction effects described in the May 2019 ES Addendum remain valid.

Climate change and adaptation

5.5.6 There are no climate change effects assessed in relation to traffic and transport.

Further supplementary mitigation required

5.5.7 None required.

Operational effects

Changes to original assessment

5.5.8 The effect of operational traffic assessed in the 2018 ES Traffic and Transportation Chapter has been based on the full build-out of the development and assesses its impact against the 2031 future baseline situation. This assessment is unchanged and remains valid.

5.5.9 It is noted that since the 2018 ES was issued, further traffic modelling of development traffic has been carried out on the request of TfL using TfL's Silvertown VISSIM traffic model and the results are being discussed with TfL. As the modelling only considers the peak time traffic, not the daily AADT and AAWT flows considered in the ES, and uses lower baseline traffic flows than those used in the 2018 ES assessment which effectively make it a worst case assessment, it has not been considered necessary to undertake further assessment of effects on the local highway network using the new modelled traffic data. This approach is consistent with the noise and air quality addendum assessments.

Climate change and adaptation

5.5.10 There are no climate change effects assessed in relation to traffic and transport.

Further supplementary mitigation required

5.5.11 None required.

5.6 UPDATED RESIDUAL EFFECTS AND CONCLUSIONS

5.6.1 The residual effects set out in the 2018 ES and subsequent addenda in 2019 are unchanged and remain valid. A summary of this is set out below.

Table 5-8 Summary of Residual Effects during Demolition and Construction during all Assessment Years

Receptor and sensitivity	Effect	Last assessment (i.e. June 2019 Addendum)	Amended Proposed Development residual effects	
		Effect Significance	Further Supplementary Mitigation	Effect Significance
All local roads and road users	Construction Impact on Road Users	Negligible	No further mitigation required.	Unchanged

Receptor and sensitivity	Effect	Last assessment (i.e. June 2019 Addendum)	Amended Proposed Development residual effects	
		Effect Significance	Further Supplementary Mitigation	Effect Significance
			Framework CLP should be implemented, and a full CLP will be secured through condition.	

Table 5-9 Summary of Residual Effects During Operation in 2031 (with all phases)

Receptor and sensitivity	Effect	Last assessment (i.e. June 2019 Addendum)	Amended Proposed Development residual effects	
		Effect Significance	Further Supplementary Mitigation	Effect Significance
All local roads	Traffic Impact on Road Users - Severance/Driver Delay/Pedestrian and Cycle Delay/Accidents and Safety	Negligible	No further mitigation required	Unchanged
All local roads	Improvements to public realm and cycle/pedestrian amenity (which for the purposes of this assessment includes fear and intimidation)	Minor beneficial	No further mitigation required	Unchanged
Public Transport Capacity	Additional Demand on Public transport	Minor beneficial	Financial contributions towards public transport services, are being discussed with LBN and TfL.	Unchanged

5.7 FUTURE MONITORING OF SIGNFICIANT RESIDUAL ENVIRONMENTAL EFFECTS

5.7.1 There are no significant residual environmental effects identified in this chapter.

6 NOISE AND VIBRATION

6.1 INTRODUCTION

6.1.1 This chapter of the ES addendum includes an updated assessment for noise and vibration in light of the proposed development amendments. The assessment includes a review of any relevant changes in legislation since the last ES Addendum was prepared in June 2019; a review of the baseline conditions in order to ensure the assessment is based on up-to-date site and surrounding area conditions; a review of any further supplementary mitigation measures required; and reports on any changes to the likely residual environmental effects after these measures have been adopted.

6.1.2 An updated cumulative and interactive effects assessment associated with this chapter has additionally been considered within the ES addendum and can be found in Chapter 18 Review of Cumulative and Interactive Effects.

6.2 METHODOLOGY

Assessment approach

6.2.1 The methodology for the assessment remains unchanged from the 2018 ES, May 2019 and June 2019 ES Addendums. However, due to the amendments to the massing and heights of the proposed development for the ES 2020 Addendum, a new 3D model was built and used to analyse any potential changes to the noise levels on the facades of various blocks which are now higher or lower than previously. The amendments are as follows:

- Significant reduction in the massing of Building A;
- Decreasing the overall height of Building B;
- Internal and external amendments to Buildings A and B;
- Amendments to the landscape proposals and reduction in amount of car and cycle parking proposed for Buildings A & B;
- Decreasing the overall height of Building C;
- Reducing the massing of Building D (focusing on the wings adjacent to the Allnex site) to form a stepping down in massing and the massing redistributed to Buildings N, M and J;
- Adjusting the heights of Buildings E & F and the position of the lower podium to improve proximity between the buildings and to improve the outlook of residential units;
- Increased separation distances in Buildings H, K, L and P (Thameside Crescent) to ensure separation distances between habitable rooms for single aspect units achieve a minimum of 18m;
- Buildings S and T have increased in height;
- Increased separation distances between Buildings Q and U to improve views and access from the Station Square to the riverside walkway; and
- Reduction in height of lower parts of Buildings Q & U to increase separation distances.

6.3 REVIEW OF PLANNING POLICY CONTEXT (CHANGES SINCE JUNE 2019 ADDENDUM)

Draft New London Plan

6.3.1 A new update of the Draft New London Plan was released in December 2019; however, the policies that apply to noise and vibration have not changed. These have been summarised below:

6.3.2 Policy D12 'Agent of Change' places the responsibility for mitigating impacts form existing noise and other nuisance-generating activities or uses on the proposed new noise-sensitive development. New development should therefore be designed to ensure that established noise and other nuisance-generating uses remain viable and can continue to grow without unreasonable restrictions being placed on them.

6.3.3 Policy D13 'Noise' states that residential proposals should manage noise by reflecting the Agent of Change principle, mitigating and minimising the existing and potential impacts of noise on new development, and improving and enhancing the acoustic environment

6.4 CURRENT BASELINE CONDITIONS 2020

6.4.1 The baseline conditions for the assessment remain unchanged from the conditions set out in the 2018 ES, May 2019 ES Addendum and June 2019 ES Addendum.

6.5 UPDATED POTENTIAL EFFECTS AND MITIGATION MEASURES

Demolition and construction effects

Changes to original assessment

6.5.1 The phasing programme submitted for the June 2019 ES addendum has been slightly amended. There are minor updates to the deliverables within each phase and the construction timeframes remain unchanged from the June 2019 scheme updates and addendum (except for the minor change of Phase 1 starting in November 2020 instead of May 2020).

Table 6-1 Indicative phasing programme for Thameside West

Phase	Blocks	Start on Site	Complete
Phase 1 • 401 units • 3,608 sqm GEA of industrial (B1b, B1c B2 (restricted) & B8) • 230 sqm GEA of Retail (A1-A4)	A & B	~~May~~ Nov 2020	June 2022
Phase 2 • 473 units • 833 sqm GEA of industrial (B1b, B1c, B2 (restricted) & B8)	D & E	Feb 2021	May 2023
Phase 3 • 471 units • 15,000 sqm GEA of industrial (B1c, B2, B8)	C, F & V	Dec 2021	April 2024
Phase 4 • 320 units • 1,247 sqm GEA of retail (A1-A4)	G	Sept 2022	Sept 2024
Phase 5 • 361 units • 414 sqm GEA of retail (A1-A4)	J & H	July 2023	July 2025

Phase	Blocks	Start on Site	Complete
Phase 6 • 412 units	M & K	June 2024	April 2026
Phase 7 • 524 units • 457 sqm GEA of retail (A1-A4)	N & L	April 2025	July 2027
Phase 8 • 542 units • 1,084 sqm GEA of retail (A1-A4)	R	Feb 2026	May 2028
Phase 9 • 498 units • 1,272 sqm GEA of retail (A1-A4) • 4,272 sqm GEA Primary School (D1/D2) • 1,790 sqm GEA of community & leisure uses (D1/D2)	U, Q & P	Jan 2027	April 2029
Phase 10 • 575 units • 2,165 sqm GEA of retail (A1-A4)	S	Jan 2028	May 2030
Phase 11 • 423 units • 499 sqm GEA of retail (A1-A4) • 993 sqm GEA nursery (D1/D2)	T	April 2029	Feb 2031

6.5.2 Given that there have been no changes to the phasing programme or distances between phases, it is considered that the effects derived from demolition and construction activities, including the original and intermediate year assessments, remain unchanged from the 2019 ES addendum.

6.5.3 No further supplementary mitigation is required.

Changes to intermediate year assessment

6.5.4 During the 2018 ES and May and June 2019 ES addendum, intermediate assessments were carried out for 2022 (assessment year 1), 2025 (assessment year 2) and 2028 (assessment year 3).

6.5.5 During the assessment of this 2020 ES addendum, the following has been observed:

- For assessment year 1, there are 59 fewer residential units, but a slight increase in retail and industrial floor compared to previous assessment;
- For assessment year 2, there are 160 fewer residential units and a slight increase in retail use compared to before;
- For assessment year 3, there is a drop in residential and retail land use from before; and
- Full build out remains the same.

6.5.6 It is confirmed that for the purpose of this 2020 ES addendum, there is less traffic being generated for each of the intermediate assessment years (full build remains as before). Therefore, the previous assessments are representative of a worst case and the conclusions remain unchanged.

Climate change and adaptation

6.5.7 The climate change effects remain unchanged from the May 2019 ES Addendum and June 2019 ES addendum.

Further supplementary mitigation required

6.5.8 None required.

Operational effects

Changes to original assessment

6.5.9 Massing and building heights of Phase 1 have changed; therefore, a new assessment of the suitability of the site for residential use has been carried out.

6.5.10 All other operational effects assessments (operational noise from fixed plant and operational traffic noise), including the original and intermediate year assessments, remain unchanged from the 2018 ES, and May 2019 and June 2019 ES addendums.

Suitability of the site for residential use - noise

6.5.11 The suitability of the site for residential occupation will be determined if internal ambient noise levels (IANL) meet the internal noise criteria set out during the 2018 ES that stipulates that the maximum $L_{Aeq,T}$ during the night-time in bedrooms is 30 dB(A), and 35 dB(A) during the daytime in bedrooms and living rooms.

6.5.12 After updating 3D computer noise modelling of noise impacts to Thameside West to reflect the new massing and building heights, façade noise levels on Phase 1 have remained similar. Therefore, the assessment of suitability of the site for residential use due to noise remains valid and the glazing performance requirements remain unchanged.

Figure 6—1 Predicted daytime ambient noise levels at 1 m from façade on Phase 1

Figure 6—2 Predicted night-time ambient noise levels at 1 m from façade on Phase 1

External noise criteria from external noise sources

6.5.13 For external recreational areas such as gardens, patios and parks, it is desirable that the external noise level does not exceed 50 dB $L_{Aeq,T}$ with an upper guideline value of 55 dB(A) $L_{Aeq,T}$ (BS 8233:2014). The upper value which would be acceptable in noisier environments; however, neither value should be seen as definite and must be considered in context.

6.5.14 As per the May 2019 ES addendum, Phase 1 of Thameside West is located less than 10 m away from the elevated DLR tracks and approximately 30 m away from the elevated Silvertown Way road (Type A road); therefore, ambient noise levels in the area are elevated, but the development will have the convenience of multiple transport links nearby.

6.5.15 With the exception of the south west elevation in Phase 1, calculations show that balconies on all other elevations are anticipated to be exposed to ambient noise levels above 55 dB(A) $L_{Aeq,T}$ (Figure 6—1 and Figure 6—2). Likewise, it has been shown that noise levels on the podium of Phase 1 are likely to be above guidance noise values (Figure 6—3 and Figure 6—4). It should be noted that the grid is located at 1.5 m high above the relative street or roof level, to represent the noise level that a standing person would likely be subjected to in these areas.

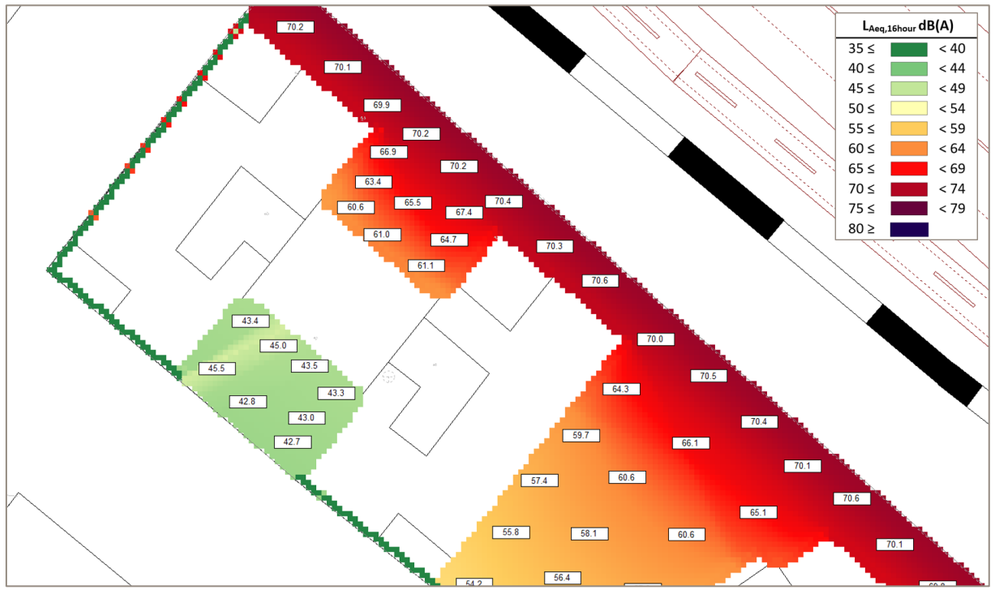


Figure 6—3 Daytime ambient noise levels on the podium (without any mitigation methods) (i)

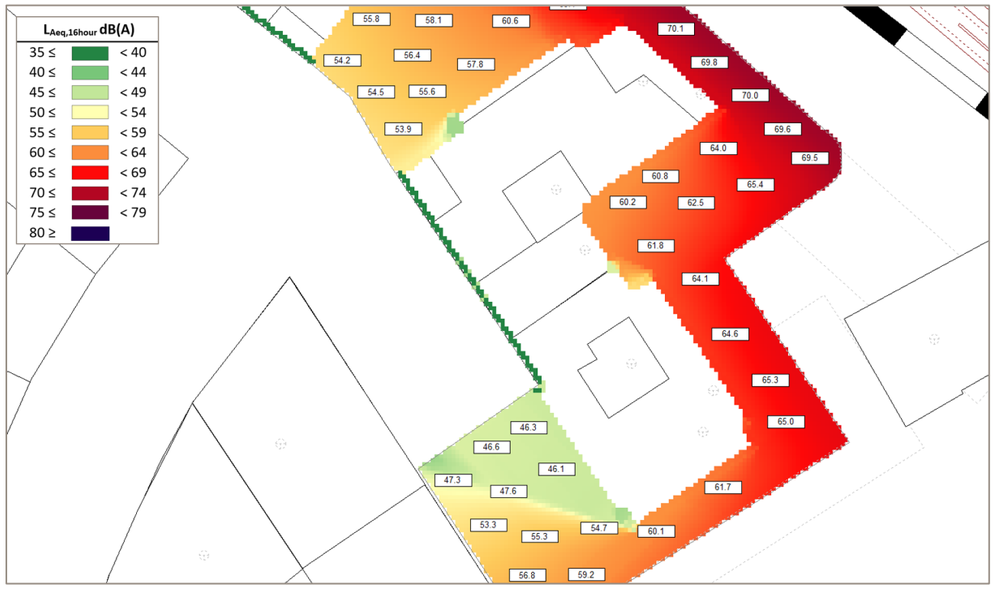


Figure 6—4 Daytime ambient noise levels on the podium (without any mitigation methods) (ii)

6.5.16 Calculations demonstrate that ambient noise levels on the podium can be reduced to noise levels within the desirable range of external noise levels as recommended in BS 8233 with the introduction of a 2m high barrier around the perimeter of the podium (Figure 6—5 and Figure 6—6).

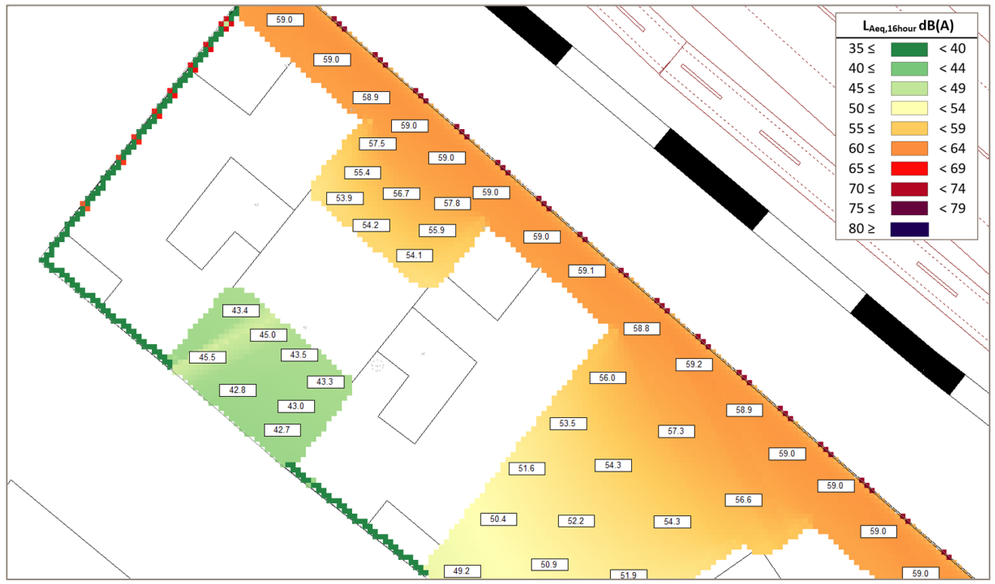


Figure 6—5 Daytime ambient noise levels on the podium (with 2m barrier around the perimeter of the podium) (i)

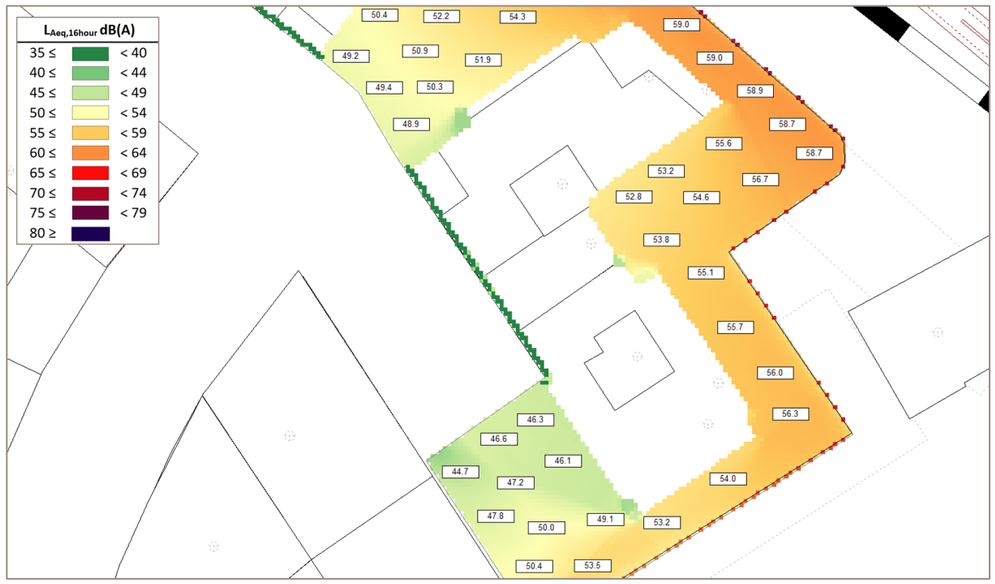


Figure 6—6 Daytime ambient noise levels on the podium (with 2m barrier around the perimeter of the podium) (ii)

6.5.17 Furthermore, noise levels on the communal terrace of Block A in Phase 1 (Figure 6—7) and the play area between Phase 1 and Phase 2 (Figure 6—8) have been calculated to be below 55 dB(A) dB(A) $L_{Aeq,T}$ without the need of any mitigation measures..

6.5.18 Very few external elevations which front transport networks in central London are fortunate enough to experience noise levels below 55 dB(A) $L_{Aeq,T}$. However, it is generally accepted that residents still prefer the option of having a balcony and being able to access external space even in this external noise climate.

6.5.19 As a conclusion, although noise levels in the balconies of most elevations of Phase 1 (except for the south west elevation) have been calculated to be above 55 dB(A) $L_{Aeq,T}$, residents will have the possibility of accesing external amenity areas where noise levels are below 55 dB(A) $L_{Aeq,T;}$ therefore, the site is considered appropriate for residential use.

6.5.20 The operational effects, including the original and intermediate year assessments, remain unchanged from the June 2019 ES addendum.

6.5.21 The conclusions remain unchanged from the May 2019 ES assessment. No further supplementary mitigation is required.

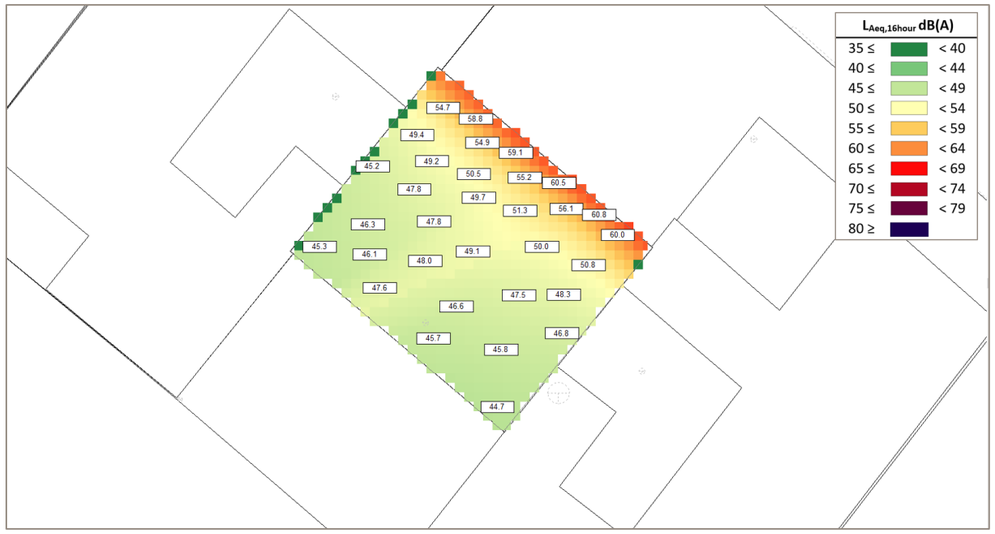


Figure 6—7 Ambient noise levels on top of the communal terrace of Block A in Phase 1

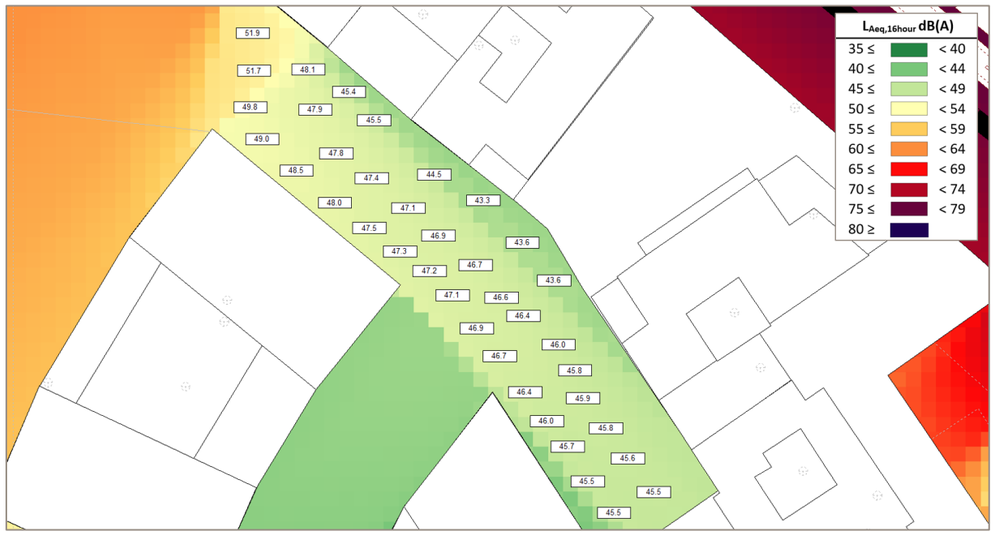


Figure 6—8 External ambient noise levels Phase 1

Climate change and adaptation

6.5.22 The climate change effects remain unchanged from the May 2019 ES Addendum and June 2019 ES addendum.

Further supplementary mitigation required

6.5.23 In order to meet the recommended external noise levels as recommended in BS 8233:2014 on the podium, the predictions suggest that the inclusion of a 2m high barrier is recommended. However, BS 8233:2014 recognises that if noise levels in external amenity spaces of the development are above 55 dB(A) $L_{Aeq,T}$ due to being adjacent to a strategic transport network, a compromise between elevated noise and the convenience of living in such location should be made. The development should be designed (throughout further detailed planning applications) to achieve the lowest practicable noise levels in these external amenity spaces but should not be prohibited.

6.6 UPDATED RESIDUAL EFFECTS AND CONCLUSIONS

6.6.1 The residual effects and conclusions remain unchanged from the 2018 ES, May 2019 and June 2019 ES addenda.

6.6.2 Table 6-2 to Table 6-4 re-summarise the permanent position and effects.

Table 6-2 Summary of residual effects during demolition and construction

Receptor and sensitivity	Effect	Last assessment (June 2019 Addendum)	Amended Proposed Development residual effects	
		Effect Significance	Further Supplementary Mitigation	Effect Significance
1	Demolition of existing buildings	Minor adverse	None required	Unchanged
	Construction Phase 1	Minor adverse	None required	Unchanged
	Construction Phases 2 -11	Negligible	None required	Unchanged
	Construction vibration – effect on humans	Minor adverse	None required	Unchanged
	Construction vibration – effect on buildings	Negligible	None required	Unchanged
	Construction traffic noise	Negligible	None required	Unchanged
2 -5 & 7-9	Demolition of existing buildings	Negligible	None required	Unchanged
	Construction Phase 1 to 11	Negligible	None required	Unchanged
	Construction vibration – effect on humans	Negligible	None required	Unchanged
	Construction vibration – effect on buildings	Negligible	None required	Unchanged
	Construction traffic noise	Negligible	None required	Unchanged
6	Demolition of existing buildings	Negligible	None required	Unchanged
	Construction Phase 1 -10, 12	Negligible	None required	Unchanged
	Construction Phases 11	Minor adverse	None required	Unchanged
	Construction vibration – effect on humans	Negligible	None required	Unchanged
	Construction vibration – effect on buildings	Negligible	None required	Unchanged
	Construction traffic noise	Negligible	None required	Unchanged

Table 6-3 Summary of residual effects during construction on future receptors

Receptor	Effect	Last assessment (June 2019 Addendum)	Amended Proposed Development residual effects	
		Effect Significance	Further Supplementary Mitigation	Effect Significance
Phase 1	Construction of Phase 2	Minor adverse	None required	Unchanged
	Construction of Phase 3	Minor adverse	None required	Unchanged
	Construction of Phase 4 to 11)	Negligible	None required	Unchanged
	Construction vibration – effect on humans	Minor adverse	None required	Unchanged
	Construction vibration – effect on buildings	Negligible	None required	Unchanged
Phase 2	Construction of Phase 3	Minor adverse	None required	Unchanged
	Construction of Phase 4 to 11)	Negligible	None required	Unchanged
	Construction vibration – effect on humans	Minor adverse	None required	Unchanged
	Construction vibration – effect on buildings	Negligible	None required	Unchanged
Phase 3	Construction of Phase 4 to 11)	Negligible	None required	Unchanged
	Construction vibration – effect on humans	Minor adverse	None required	Unchanged
	Construction vibration – effect on buildings	Negligible	None required	Unchanged
Phase 4	Construction of Phase 5	Minor adverse	None required	Unchanged
	Construction of Phase 6 to 11)	Negligible	None required	Unchanged
	Construction vibration – effect on humans	Minor adverse	None required	Unchanged
	Construction vibration – effect on buildings	Negligible	None required	Unchanged
Phase 5	Construction of Phase 6 – 7	Minor adverse	None required	Unchanged
	Construction of Phase 8 to 11)	Negligible	None required	Unchanged
	Construction vibration – effect on humans	Minor adverse	None required	Unchanged

Receptor	Effect	Last assessment (June 2019 Addendum)	Amended Proposed Development residual effects	
		Effect Significance	Further Supplementary Mitigation	Effect Significance
	Construction vibration – effect on buildings	Negligible	None required	Unchanged
Phase 6	Construction of Phase 7	Minor adverse	None required	Unchanged
	Construction of Phase 8 to 11	Negligible	None required	Unchanged
	Construction vibration – effect on humans	Minor adverse	None required	Unchanged
	Construction vibration – effect on buildings	Negligible	None required	Unchanged
Phase 7	Construction of Phase 8 – 9	Minor adverse	None required	Unchanged
	Construction of Phase 10 to 11	Negligible	None required	Unchanged
	Construction vibration – effect on humans	Minor adverse	None required	Unchanged
	Construction vibration – effect on buildings	Negligible	None required	Unchanged
Phase 8	Construction of Phase 9 – 10	Minor adverse	None required	Unchanged
	Construction of Phase 11	Negligible	None required	Unchanged
	Construction vibration – effect on humans	Minor adverse	None required	Unchanged
	Construction vibration – effect on buildings	Negligible	None required	Unchanged
Phase 9	Construction of Phase 10 – 11	Minor adverse	None required	Unchanged
	Construction vibration – effect on humans	Minor adverse	None required	Unchanged
	Construction vibration – effect on buildings	Negligible	None required	Unchanged
Phase 10	Construction of Phase 11	Minor adverse	None required	Unchanged
	Construction vibration – effect on humans	Minor adverse	None required	Unchanged
	Construction vibration – effect on buildings	Negligible	None required	Unchanged

Table 6-4 Summary of residual effects during operation

Receptor	Effect	Last assessment (June 2019 Addendum)	Amended Proposed Development residual effects	
		Effect Significance	Further Supplementary Mitigation	Effect Significance
1	Operational noise from fixed plant and equipment	Negligible	None required	Unchanged
	Traffic related noise, year of opening full occupation	Minor adverse	None required	Unchanged
	Traffic related noise, 15 years after opening full occupation	Negligible	None required	Unchanged
2 to 9	Operational noise from fixed plant and equipment	Negligible	None required	Unchanged
	Traffic related noise, year of opening full occupation	Negligible	None required	Unchanged
	Traffic related noise, 15 years after opening full occupation	Negligible	None required	Unchanged

6.7 FUTURE MONITORING OF SIGNIFICANT RESIDUAL ENVIRONMENTAL EFFECTS

6.7.1 The future monitoring of significant residual environmental effects remains unchanged from the 2018 ES and the 2019 ES Addenda.

7 AIR QUALITY

7.1 INTRODUCTION

7.1.1 This chapter of the ES addendum includes an updated assessment for air quality in light of the proposed development amendments. The assessment includes a review of any relevant changes in legislation since the last ES Addendum was prepared in June 2019; a review of the baseline conditions in order to ensure the assessment is based on up-to-date site and surrounding area conditions; a review of any further supplementary mitigation measures required; and reports on any changes to the likely residual environmental effects after these measures have been adopted.

7.1.2 An updated cumulative and interactive effects assessment associated with this chapter has additionally been considered within the ES addendum and can be found in Chapter 18 Review of Cumulative and Interactive Effects.

7.2 METHODOLOGY

Assessment approach

7.2.1 The methodology for the assessment remains unchanged from the 2018 ES, May 2019 and June 2019 ES Addendum.

7.3 REVIEW OF PLANNING POLICY CONTEXT (CHANGES SINCE JUNE 2019 ADDENDUM)

7.3.1 The planning policy context remains unchanged from the 2018 ES, May 2019 and June 2019 ES Addendum.

7.3.2 There have been no significant changes to the planning policy context for air quality since June 2019. The NPPF has been updated (in February 2019) and reference is made to it in this section with regards to air quality. Reference is also made to the Draft New London Plan, which was updated in December 2019.

7.3.3 The National Planning Policy Framework (NPPF) was updated in February 2019 and underlines the importance of local authorities contributing towards improving and protecting the environment. Section 9: Promoting Sustainable Travel and Section 15: Conserving and Enhancing the Natural Environment state the following with regards to air quality:

7.3.4 'Significant development should be focused on locations which are or can be made sustainable, through limiting the need to travel and offering a genuine choice of transport modes. This can help to reduce congestion and emissions and improve air quality and public health.''

7.3.5 'Planning policies and decisions should sustain and contribute towards compliance with relevant limit values or national objectives for pollutants, taking into account the presence of Air Quality Management Areas and Clean Air Zones, and the cumulative impacts from individual sites in local areas. Opportunities to improve air quality or mitigate impacts should be identified, such as through traffic and travel management, and green infrastructure provision and enhancement. So far as possible these opportunities should be considered at the plan-making stage, to ensure a strategic approach and limit the need for issues to be reconsidered when determining individual applications. Planning decisions should ensure that any new development in Air Quality Management Areas and Clean Air Zones is consistent with the local air quality action plan.'

Draft New London Plan

7.3.6 In December 2019, the Mayor issued his Intend to Publish London Plan to the Secretary of State. Policy SI 1 on 'Improving Air Quality' states that '*London's air quality should be significantly improved and exposure to poor air quality, especially for vulnerable people, should be reduced*'. The policy states that development proposals should not:

- *'Lead to further deterioration of existing poor air quality*
- *Create any new areas that exceed air quality limits, or delay the date at which compliance will be achieved in areas that are currently in exceedance of legal limits;*
- *Create unacceptable risk of high levels of exposure to poor air quality.'*

7.3.7 in order to meet these requirements, the policy indicates that as a minimum:

- *Development proposals must be at least Air Quality Neutral;*
- *Development proposals should use design solutions to prevent or minimise increased exposure to existing air pollution and make provision to address local problems of air quality in preference to post-design or retrofitted mitigation measures;*
- *Major development proposals must be submitted with an Air Quality Assessment. Air quality assessments should show how the development will meet the requirements set out above; and*
- *development proposals in Air Quality Focus Areas or that are likely to be used by large numbers of people particularly vulnerable to poor air quality, such as children or older people should demonstrate that design measures have been used to minimise exposure.*

7.4 CURRENT BASELINE CONDITIONS 2020

7.4.1 The baseline conditions section has been updated to reflect latest baseline conditions in March 2020.

Air quality monitoring

7.4.2 London Borough Newham (LBN) undertakes monitoring of air quality at a number of locations throughout the borough using both diffusion tubes and automatic monitoring. Monitoring locations in the vicinity of the site are presented in

7.4.3 Figure 7-1. This also includes three nearby monitoring sites located to the west of the site which are located within the London Borough of Tower Hamlets (LBTH).

7.4.4 No monitoring data has been published by LBN since 2017, however monitoring data from LBTH has been updated and is presented in

7.4.5

7.4.6

7.4.7 Table 7-1 Automatic monitoring data for the Wren Close background monitoring site has been obtained from the air quality England website and is presented in Table 7-2. Monitoring data indicates that concentrations at the three nearby LBTH roadside monitoring sites have reduced in recent years, and all sites now meet the annual mean objective for NO_2.

7.4.8 With regards to air quality results collected from the nearby background automatic monitoring station, there have been no exceedances of the annual mean objective for NO_2 and PM_{10}. Hourly and daily mean objectives have also been met consistently in the last few years for NO_2 and PM_{10} respectively.

Table 7-1 Diffusion tube monitoring data

Borough	Site number	Location	Site type	NO_2 concentration (µg/m^3)		
				2017	2018	2019
Newham	10	Tant Avenue	Background	30	-	-
Newham	19	Beckton Arms, Newham Way	Roadside	**59**	-	**-**
Newham	20	Canning Town Roundabout	Roadside	**56**	**-**	**-**
Tower Hamlets	73	John Smith Mews	Roadside	39	31.9	30.5
Tower Hamlets	85	Portree Street	Roadside	**47**	**44.8**	38.3
Tower Hamlets	86	Newport Avenue	Roadside	33	29.6	27.8

Figures in **bold** indicate an exceedance of the air quality objective.

Table 7-2 Automatic monitoring data

Site name (ID)	Site type	Annual mean NO_2 concentration (µg/m^3)			Number of hourly mean NO_2 exceedances (18 allowable)		
		2017	2018	2019	2017	2018	2019
Wren Close (NM3)	Background	30	28	28	13	0	0
		Annual mean PM10 concentration (µg/m^3)			Number of 24-hourly mean PM_{10} exceedances (35 allowable)		
		2017	2018	2019	2017	2018	2019
		19	19	18	0	2	4

Figures in **bold** indicate an exceedance of the air quality objective.

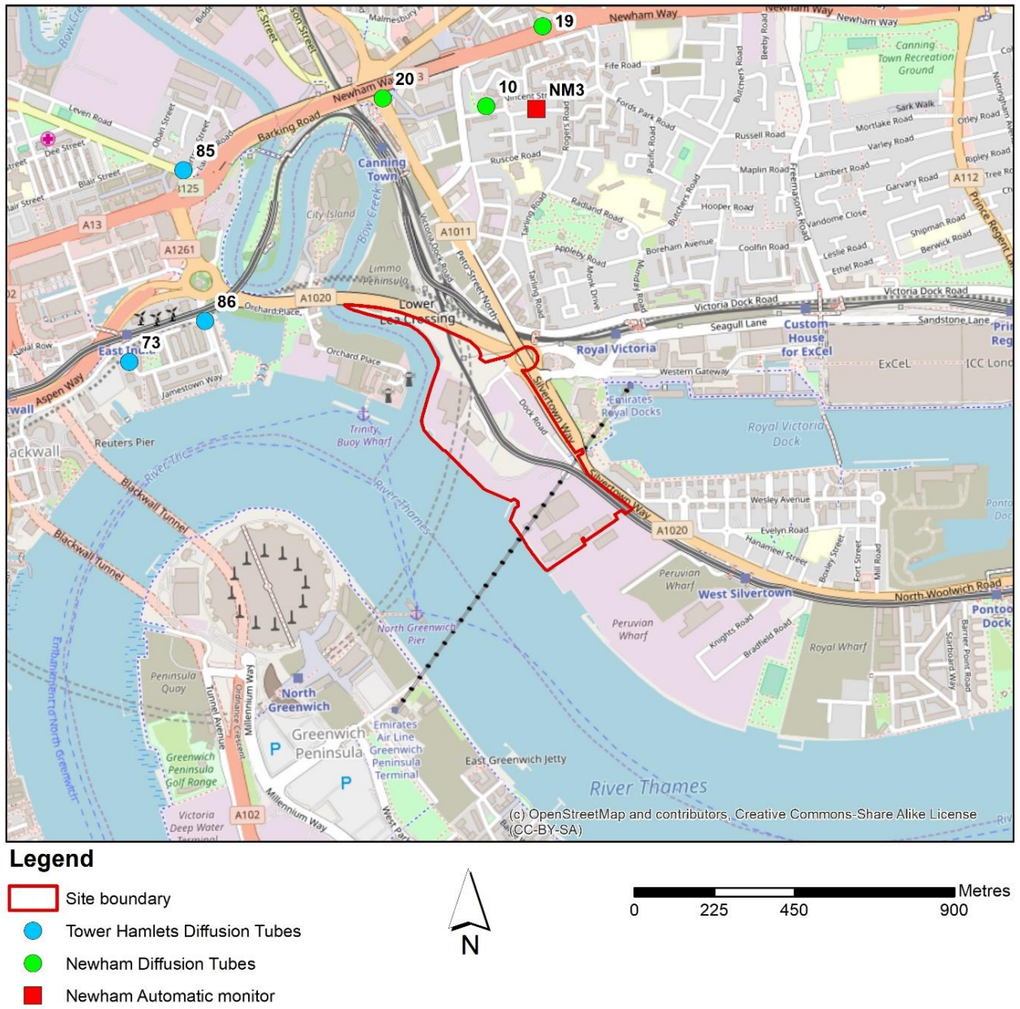


Figure 7-1 Nearby air quality monitoring sites

National background mapping

7.4.9 The Defra website includes estimated background air pollution data for NO_2, PM_{10}, and $PM_{2.5}$ for each 1km by 1km OS grid square. Background pollutant concentrations are modelled from the base year of 2017 based on ambient monitoring and meteorological data from 2017 and the website includes projections for future years. Estimated pollutant concentrations for 2020 in the OS grid square in which the proposed development site lies (centred at 539500, 180500) are shown in Table 7-3. Annual mean concentrations of NO_2, PM_{10}, and $PM_{2.5}$ meet their relevant objectives.

Table 7-3 Predicted Defra mapped background concentrations of NOx, NO_2 and PM_{10} for 2020

Pollutant	Annual mean background concentrations ($\mu g/m^3$)
Nitrogen dioxide, NO_2	31.9
Particulate matter, PM_{10}	18.1
Particulate matter, $PM_{2.5}$	12.2

7.5 UPDATED POTENTIAL EFFECTS AND MITIGATION MEASURES

Demolition and construction effects

Changes to original assessment

7.5.1 The assessment of construction phase effects for the development will remain the same as the May and June 2019 ES addenda.

7.5.2 The demolition and construction effects, including the original and intermediate year assessments, remain unchanged from the May and June 2019 ES addenda.

7.5.3 No further supplementary mitigation is therefore required.

Changes to intermediate year assessment

7.5.4 The intermediate year assessment remains unchanged from the May and June 2019 ES addendum

Climate change and adaptation

7.5.5 The climate change effects remain unchanged from the May and June 2019 ES addendum.

Further supplementary mitigation required

7.5.6 None required.

Operational effects

Changes to original assessment

7.5.7 The following scheme changes are relevant to the air quality assessment:

- A reduction in the massing of Building A;
- Reduction in height of Building B;
- Reduction in the number of car parking spaces proposed for buildings A & B;
- Decreasing the height of Building C;
- A reduction in the massing of Building D; and
- Adjustment of heights of Buildings E & F.

<u>Combustion plant emissions</u>

7.5.8 The proposed phase 1 boiler flue will also be relocated so it will continue to terminate 1m above finished roof level of the tallest block on Phase 1 (this remains on Block A). The previously located flue is presented in Figure 7-2, and updated proposed flue location is presented in Figure 7-33. The maximum predicted phase 1 NO_2 concentration was 24.4µg/m^3. Whilst it is acknowledged that the relocated flue may have a minor impact on the predicted pollutant concentration at receptors in the vicinity of the flue, it is not expected that the scale of change would lead to any exceedances of air quality objectives within phase 1. It is also of relevance that it was previously agreed that the Local Authority will require by condition an assessment for outline phases to reflect the final energy strategy and any further design changes to the Development, with particular attention paid to buildings in close proximity to the onsite energy centres. It is therefore expected that these scheme changes would not significantly affect any of the conclusions of the ES chapter.

Figure 7-2 Previously located boiler flue

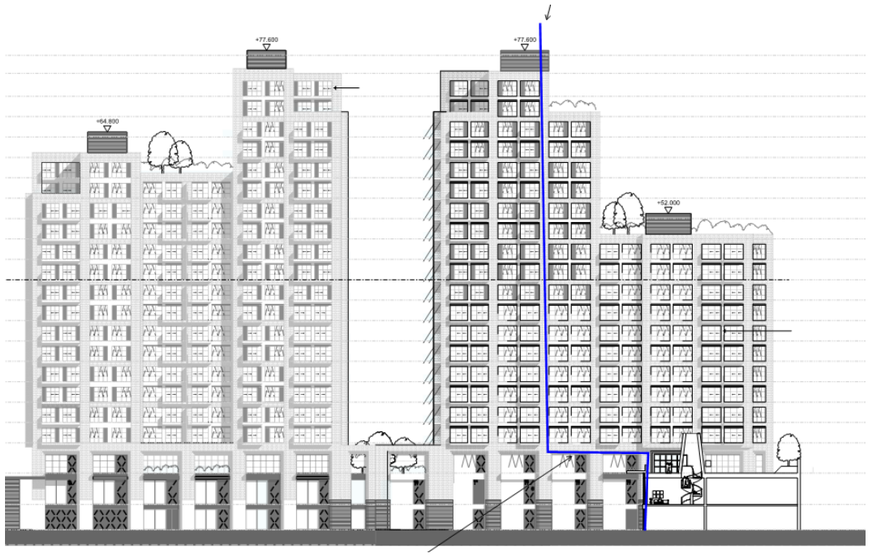


Figure 7-3 Diagram showing relocated flue termination (March 2020)

Traffic emissions

7.5.9 In terms of the traffic emissions assessment years considered in the previous assessment, the following is of relevance:

- For assessment year one, there are 59 fewer residential units proposed and a slight increase in retail and industrial floor spaces;
- For assessment year two, there are 160 fewer residential units proposed and a slight increase in retail floor space;
- For assessment year three, there is a reduction in residential units and retail floor spaces; and
- For full build out, provision remains the same as previously assessed.

7.5.10 Owing to these changes, the transport consultant has confirmed that there will now be less traffic generated for each of the intermediate assessment years, and therefore the conclusions of the previous assessment will remain valid as a worst-case assessment of the likely impact. In terms of cumulative impacts, as TfL's future strategic highways model has been utilised to determine future traffic flows, there will be no changes to predicted traffic flows from additional cumulative developments.

Exposure of future site occupants

7.5.11 Receptors assessed for the detailed phase 1 continue to be representative of proposed receptors locations. Whilst there may be changes to receptors heights owing to changes in building massing in the outline phases, an assessment of these phases will be assessed at the detailed design stage, taking into account any further scheme changes, and the final energy strategy. It is therefore expected that these scheme changes would not significantly affect any of the conclusions previously made.

Air quality neutral

7.5.12 Air quality neutral calculations have been updated based on the revised scheme, and results are presented for both phase 1 and at full build out in Table 7-4 to Table 7-7 below. Results show that development emissions continue to be below air quality neutral benchmarks, and therefore the previous conclusions made remain valid.

Table 7-4 Updated air quality neutral calculations for traffic emissions (phase 1)

NOx (g/annum)	
Total Transport Emissions	311.8
Total Benchmarked Transport Emissions	**315.3**
Difference	-3.5
PM_{10} (g/annum)	
Total Transport Emissions	56.0
Total Benchmarked Transport Emissions	56.5
Difference	-0.5

Table 7-5 Updated air quality neutral calculations for traffic emissions (phase 1)

NOx (kg/annum)	
Total Building Emissions	102.4
Total Benchmarked Building Emissions	1,084.7
Difference	-982.3

Table 7-6 Updated air quality neutral calculations for traffic emissions (full build out)

NOx (g/annum)	
Total Transport Emissions	2932.3
Total Benchmarked Transport Emissions	**4625.2**
Difference	-1692.9
PM_{10} (g/annum)	
Total Transport Emissions	527.0
Total Benchmarked Transport Emissions	829.4
Difference	-302.4

Table 7-7 Updated air quality neutral calculations for traffic emissions (full build out)

NOx (kg/annum)	
Total Building Emissions	563.6
Total Benchmarked Building Emissions	13,745.1
Difference	-13,181.5

Climate change and adaptation

7.5.13 The climate change effects remain unchanged from the May 2019 ES Addendum and June 2019 ES addendum.

Further supplementary mitigation required

7.5.14 None required.

7.6 UPDATED RESIDUAL EFFECTS AND CONCLUSIONS

7.6.1 The residual effects and conclusions remain unchanged from the May 2019 and June 2019 ES addenda. For clarity, the effects are listed in the tables below and show that the effect significance remains unchanged.

Table 7-8 Summary of residual effects during demolition and construction

Receptor and sensitivity	Effect	Last assessment (June 2019 ES addendum)	Amended Proposed Development residual effects	
		Effect Significance	Further Supplementary Mitigation	Effect Significance
Surrounding dust sensitive receptors	Nuisance from dust deposition and impact from elevated PM_{10} concentrations on human health	Major adverse	Best practice mitigation measures for controlling dust/emissions during construction (as detailed in 2018 ES).	Unchanged

Table 7-9 Summary of residual effects during operation

Receptor and sensitivity	Effect	Last assessment (June 2019 ES addendum)	Amended Proposed Development residual effects	
		Effect Significance	Further Supplementary Mitigation	Effect Significance
Existing residential properties adjacent to roads predicted to see changes in traffic flow as a result of the development	Pollutant emissions associated with onsite energy centres and construction/operational traffic generated by the proposed development	Negligible	None required	Unchanged
Onsite residential properties and amenity space	Pollutant emissions associated with traffic from the surrounding road network and onsite energy centre emissions	All relevant air quality objectives met i.e. not significant	None required	Unchanged

7.7 FUTURE MONITORING OF SIGNFICIANT RESIDUAL ENVIRONMENTAL EFFECTS

7.7.1 No significant residual environmental effects have been identified in this chapter.

7.7.2 The future monitoring of significant residual environmental effects remains unchanged from the 2018 ES and May 2019 and June 2019 ES addenda.

8 WATER RESOURCES AND FLOOD RISK

8.1 INTRODUCTION

8.1.1 This chapter of the ES addendum includes an updated assessment for water resources and flood risk in light of the proposed development amendments. The assessment includes a review of any relevant changes in legislation since the previous assessment in June 2019; a review of the baseline conditions in order to ensure the assessment is based on up-to-date site and surrounding area conditions; a review of any further supplementary mitigation measures required; and reports on any changes to the likely residual environmental effects after these measures have been adopted.

8.1.2 An updated cumulative and interactive effects assessment associated with water resources and flood risk has additionally been considered within the ES addendum and can be found in Chapter 18 Review of Cumulative and Interactive Effects.

8.2 METHODOLOGY

Assessment approach

8.2.1 The methodology for the assessment remains unchanged from the 2018 ES, May 2019 ES Addendum and June 2019 ES Addendum.

8.3 REVIEW OF PLANNING POLICY CONTEXT (CHANGES SINCE JUNE 2019 ADDENDUM)

Draft New London Plan (2019)

8.3.1 Following the Examination in Public of the Draft New London Plan between January and May 2019 the Draft New London Plan was amended with the Panel of Inspectors' suggested changes. In October 2019, the Panel issued its report and recommendations to the Mayor of London who subsequently published the 'Intend to Publish' Draft New London Plan in December 2019, having given consideration to the Inspectors' recommendations.

8.3.2 The Intend to Publish Draft New London Plan has been reviewed to identify any changes to the policy relating to water resources and flood risk since the submission of the June 2019 ES Addendum.

8.3.3 It has been noted that the Panel of Inspectors' further suggested changes have resulted in amendments being made to water resources/flood risk related policies since the 2018 Draft London Plan (Minor Suggested Changes). All these amendments to water related policies have been adopted in the Intend to Publish Draft London Plan and are generally minor in nature (i.e. change in wording or inclusion of clarifications). Nevertheless, the policies of relevance to the proposed development that have been materially amended include:

- Policy SI 14 (Waterways – Strategic Role): This policy has been amended to include a statement ensuring that development plans/proposals address the strategic importance of London's network of linked waterways, including the River Thames, and should seek to maximise their multifunctional social, economic, and environmental benefits.

8.3.4 Beyond the inclusion of this statement to Policy SI 14, there have been no further changes to the water related policies of the Draft New London Plan that would materially change the conclusions of the June 2019 ES addendum.

8.4 CURRENT BASELINE CONDITIONS 2020

8.4.1 The baseline conditions for the assessment remain unchanged from the May and June 2019 ES Addenda.

8.4.2 The following areas relating to the baseline conditions at the site have not changed from those detailed within the June 2019 ES Addendum:

- Existing surface water drainage;
- Existing foul water drainage;
- Local combined sewer capacities and overflow locations;
- Nearby surface water features;
- Bow Creek and River Thames water quality;
- Groundwater;
- Water supply and existing demand;
- On-site flood risk; and
- Flooding from surface water and sewers, groundwater, reservoirs, canals, and other artificial sources.

8.4.3 The existing baseline risk of flooding remains unchanged from the 2018 ES.

8.5 UPDATED POTENTIAL EFFECTS AND MITIGATION MEASURES

Demolition and construction effects

8.5.1 The construction phases for the development have changed marginally since the June 2019 ES Addendum. Construction of Phase 1 is now anticipated to begin in November 2020 (previously May 2020). The construction end date, for phase 1 remains the same. Construction of all other phases is unchanged from the May and June 2019 ES Addenda.

8.5.2 The demolition and construction effects, including the original and intermediate year assessments, remain unchanged from the 2018 ES, May 2019 ES and June 2019 ES Addendum.

Climate change and adaptation

8.5.3 The climate change adaptation measures remain unchanged from the May and June 2019 ES addenda.

Further supplementary mitigation required

8.5.4 No further supplementary mitigation is required.

Operational effects

Changes to original assessment

8.5.5 The following sources of potential impact during operation were identified in the 2018 ES (and restated in the 2019 ES Addenda):

- Pollutants contained in surface water;
- Increased flood risk on and off-site;

- Changes to water demand;
- Changes to foul water drainage demand; and
- Flood risk to site users.

8.5.6 The conclusions of the Masterplan Drainage Strategy remain the same as that submitted in the June 2019 ES, including figures for the flow rate of surface water being discharged to the TW sewer, which is restricted to the calculated greenfield runoff rate of 3.9 l/s/ha. This will be achieved through a combination of above and below ground attenuation, with a total volume of 5,350-6,850m³ (as calculated in the June 2019 Masterplan Drainage Strategy), designed for storm events up to and including the 1 in 100 year flood event, including an additional 40% allowance for the predicted increase in rainfall intensity as a result of climate change. The document has been updated to reflect the amended phasing of the proposed development.

8.5.7 No changes to the Flood Risk Assessment are anticipated in light of amendments to the proposed development and therefore the assessments made in the May 2019 ES Addendum, as referenced in the June 2019 Addendum, remain valid with regards to flood risk. This is stated in the Flood Risk Assessment Statement of Conformity (Appendix 8-B of this ES Addendum Volume III).

8.5.8 There are no amendments to the surface water drainage calculations, and none of the design changes to the proposed development are anticipated to change the overall impacts and associated effect significances as previously predicted.

Climate change and adaptation

8.5.9 The climate change adaptation measures remain unchanged from the May and June 2019 ES addenda.

Further supplementary mitigation required

8.5.10 No further supplementary mitigation is required.

8.6 UPDATED RESIDUAL EFFECTS AND CONCLUSIONS

8.6.1 The residual effects and conclusions remain unchanged from the 2018 ES and May and June 2019 ES Addenda.

Table 8-1 Summary of residual effects during demolition and construction

Receptor and sensitivity	Effect	Last assessment (June 2019 ES addendum)	Amended Proposed Development residual effects	
		Effect Significance	Further Supplementary Mitigation	Effect Significance
Bow Creek	Increased sediment loads	Negligible	None required	Unchanged
	Accidental release of hydrocarbons	Negligible	None required	Unchanged
	Accidental release of hazardous materials	Negligible	None required	Unchanged
	Leak or breakage of the temporary sewerage system	Negligible	None required	Unchanged
	Dust and debris	Negligible	None required	Unchanged
	Direct pollution and/or disturbance from river wall works	Minor adverse	None required	Unchanged
River Thames	Increased sediment loads	Negligible	None required	Unchanged
	Accidental release of hydrocarbons	Negligible	None required	Unchanged
	Accidental release of hazardous materials	Negligible	None required	Unchanged
	Leak or breakage of the temporary sewerage system	Negligible	None required	Unchanged
	Dust and debris	Negligible	None required	Unchanged
	Direct pollution and/or disturbance from river wall works	Minor adverse	None required	Unchanged
Royal Victoria Dock	Dust and debris	Negligible	None required	Unchanged
Future on-site water feature (future receptor)	Dust and debris	Negligible	None required	Unchanged
Water Services Infrastructure (supply)	Increased demand during construction	Negligible	None required	Unchanged
Water Services Infrastructure (surface water capacity)	Increased sediment loads	Negligible	None required	Unchanged
	Dewatering of excavations	Negligible	None required	Unchanged
Site users (construction workers and plant)	Flood risk	Negligible	None required	Unchanged

Table 8-1 Summary of residual effects during operation

Receptor and sensitivity	Effect	Last assessment (June 2019 ES addendum)	Amended Proposed Development residual effects	
		Effect Significance	Further Supplementary Mitigation	Effect Significance
Bow Creek (water quality)	Pollutants contained in surface water	Negligible	None required	Unchanged
River Thames (water quality	Pollutants contained in surface water	Negligible	None required	Unchanged
Future on-site water feature (future receptor) (water quality)	Pollutants contained in surface water	Negligible	None required.	Unchanged

Receptor and sensitivity	Effect	Last assessment (June 2019 ES addendum)	Amended Proposed Development residual effects	
		Effect Significance	Further Supplementary Mitigation	Effect Significance
Water Services Infrastructure (surface water capacity)	Increased flood risk and exceedance of the capacity of the on-site surface water drainage network	Negligible	None required. Measures stipulated in Drainage Strategy Addendum provided as part of this ES Addendum, Appendix 9-B and 9-C, ES Addendum Volume III should be implemented.	Unchanged
	Flows from the development and flood risk in the combined sewer network	Negligible	None required. Measures stipulated in Drainage Strategy Addendum provided as part of this ES Addendum, Appendix 9-B and 9-C, ES Addendum Volume III should be implemented.	Unchanged
Water Services Infrastructure (supply)	Increase in potable water demand from the site	Minor adverse	None required.	Unchanged
Water Services Infrastructure (foul)	Increase in foul water demand from the site	Minor adverse	None required.	Unchanged
Site users (flood risk)	Flood risk	Negligible	None required.	Unchanged

8.6.2 If the supplementary mitigation measures identified within the 2018 ES are implemented, along with good site practice, the residual demolition and construction impacts to the water environment are considered to be negligible and temporary for the duration of the demolition and construction period.

8.6.3 If the mitigation measures outlined in the 2018 ES and the revised drainage strategies in ES Addendum Volume III are implemented during operation, then residual effects are likely to be minor adverse to negligible (not significant).

8.7 FUTURE MONITORING OF SIGNFICIANT RESIDUAL ENVIRONMENTAL EFFECTS

8.7.1 No significant residual environmental effects were identified as a result of the proposed development amendments since the June 2019 ES addendum. Therefore, this review concludes that no further monitoring is required.

8.8 LIST OF APPENDICES

Reference	Title
8-A	Masterplan Drainage Strategy
8-B	Masterplan Flood Risk Assessment Statement of Conformity
8-C	Phase 1 Below Ground Drainage Strategy

9 TERRESTRIAL ECOLOGY

9.1 INTRODUCTION

9.1.1 This chapter of the ES addendum includes an updated assessment for terrestrial ecology in light of the proposed development amendments. The assessment includes a review of any relevant changes in legislation since the last ES Addendum was prepared in June 2019; a review of the baseline conditions in order to ensure the assessment is based on up-to-date site and surrounding area conditions; a review of any further supplementary mitigation measures required; and reports on any changes to the likely residual environmental effects after these measures have been adopted.

9.1.2 An updated cumulative and interactive effects assessment associated with this chapter has additionally been considered within the ES addendum and can be found in Chapter 18 Review of Cumulative and Interactive Effects.

9.2 METHODOLOGY

Assessment approach

9.2.1 The methodology for the assessment remains unchanged from the 2018 ES, May 2019 and June 2019 ES Addenda.

9.3 REVIEW OF PLANNING POLICY CONTEXT (CHANGES SINCE JUNE 2019 ADDENDUM)

National planning policy and guidance

National Planning Policy Framework (MHCLG) 2019

9.3.1 The revised National Planning Policy Framework (NPPF), published in July 2018 and updated in February 2019, sets out the Government's planning policies for England and how these should be applied. The revised NPPF continues to stress the importance of the local authority contribution to improving and protecting the environment through development of a systematic approach to enhancing biodiversity, minimising waste and pollution, and mitigation/adaptation to climate change impacts.

9.3.2 Chapter 15 requires that local planning authorities, when considering planning applications, should aim to conserve and enhance biodiversity by applying the following principles:

- 'Planning policies and decisions should contribute to and enhance the natural and local environment by protecting and enhancing valued landscapes and sites of biodiversity, (in a manner commensurate with their statutory status or identified quality and minimising impacts and providing net gains for biodiversity by establishing coherent ecological networks that are more resilient to current and future pressures';
- 'To protect and enhance biodiversity and geodiversity, plans should identify and map components of local wildlife-rich habitats and wider ecological networks including the hierarchy of international, national and locally designated sites of importance for biodiversity, wildlife corridors and stepping stones that connect them… and promote the conservation, restoration, and re-creation of priority habitats, ecological networks and the protection and recovery of priority species; and identify and pursue opportunities for securing measurable net gains for biodiversity';
- 'If significant harm to biodiversity resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused';
- Development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons and a suitable compensation strategy exists'; and
- 'Development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to incorporate biodiversity improvements in and around developments should be encouraged, especially where this can secure measurable net gains for biodiversity'.

Regional policy and guidance

Draft New London Plan (Greater London Authority (GLA), 2019)

9.3.3 The updated Draft New London Plan includes clarifications, corrections and factual updates to the Consultation Draft Plan which was referenced in the ES May 2019 Addendum.

9.3.4 In reference to terrestrial ecology, there are no changes in this update that affect the assessment in the May 2019 and June 2019 ES Addenda and as such remains unchanged.

9.4 CURRENT BASELINE CONDITIONS 2020

9.4.1 The baseline conditions for the assessment remain unchanged from the conditions set out in the 2018 ES, May 2019 and June 2019 ES Addenda, with no significant or material changes to land use or habitats on site since the 2018 ES and the 2019 Addenda. With work yet to start on the Silvertown Tunnel, both Thameside West and Silvertown Tunnel sites remain in active use by a variety of commercial and industrial businesses. Habitats comprise mainly buildings surrounded by hardstanding or bare ground. Semi-natural vegetation continues to be limited to scattered habitat mosaics (scrub, trees, coarse grassland, ephemeral-short perennial, tall ruderal vegetation) which occur along roads and railway lines with pockets of vegetation in undisturbed areas.

9.4.2 The results of a number of protected surveys undertaken in June 2019 did not alter the identified ecological features scoped into the assessment nor those which have been excluded from further assessment in accordance with CIEEM guidance (2018).

9.5 UPDATED POTENTIAL EFFECTS AND MITIGATION MEASURES

Demolition and construction effects

Changes to original assessment

9.5.1 The construction phases for the development have changed slightly since the June 2019 ES Addenda, with an anticipated 'on Site' date for Phase 1 now being November 2020 (originally anticipated May 2020). The anticipated completion date of Phase 1 remains unchanged from the June 2019 ES Addenda (June 2022).

9.5.2 As the change to the construction phasing is minimal as outlined in Section 9.5.1, the demolition and construction effects, including the original and intermediate year assessments, remain unchanged from the 2018 ES, May 2019 and June 2019 ES Addenda.

Changes to intermediate year assessment

Update to previous assessment

9.5.3 The intermediate year assessment remains unchanged from the May 2019 and June 2019 ES Addenda.

Climate change and adaptation

9.5.4 The climate change effects remain unchanged from the May 2019 and June 2019 ES Addenda.

Further supplementary mitigation required

9.5.5 No further supplementary mitigation is required.

Operational effects

9.5.6 The proposed development alterations, described in detail in Chapter 4, which involve changes in building heights, internal and external amendments to a small number of buildings including revised layouts and increased separation distances and road realignments, do not in themselves materially alter the original assessment of the potential ecological effects nor require changes to recommended mitigation as detailed within the 2018 ES and 2019 Addenda.

9.5.7 The above alterations have resulted in a small number of proposed changes to soft landscaping between the 2018 ES and the revised soft landscaping plans as submitted for this 2020 Addendum (Patel Taylor Architects Drawing 522-PT-MP-TYP-DR-L-PL-1020_S2-P11, 522-PT-MP-TYP-DR-L-PL-1016-S2-P09 and other associated proposed landscape drawings). These changes are summarised in Table 9-1. In addition, a temporary delay in providing part of the soft landscaping in Phase 1 will occur. No changes to the proposed soft landscaping in significant public open spaces or to the Thames Wharf Site of Importance for Nature Conservation (SINC) are expected.

9.5.8 The Phase 1 changes relate to temporary provision of disabled parking bays for Phase 1 during construction of Phase 2 (Patel Taylor Architects drawing 522-PT-MP-TYP-DR-L-PL-1014_S2-P10 and other associated proposed landscape drawings, April 2020). This will cause a short-term delay of one year (June 2022 completion of Phase 1 to May 2023 completion of Phase 2) in providing the total amount of soft landscaping for Phase 1. In the short-term, on completion of Phase 1, the soft landscaped area for Phase 1 will be 156m^2. On completion of Phase 2, the temporary disabled parking bays in Phase 1 will be relocated to the basement parking level of Phase 2, and the long-term soft landscaped area will be increased to 465m^2. The total area of soft landscaping for Phase 1 will be similar to the level assessed in the 2018 ES and do not alter the conclusions in the 2018 ES.

9.5.9 Further detail has also been provided relating to the Phase 1 soft landscaping proposed at different levels which includes ground, podium and roof levels. The ground floor/mezzanine level soft landscaping is included in the site-wide soft landscaping values shown in Table 9-1. At podium level, a further 1526 m^2 of planting is provided, consisting of grasses and primarily native shrubs and hedges of both amenity and biodiversity value, as well as 64 no. native and non-native tree species, including *Cornus mas,* a species of known benefit to UK pollinators.

9.5.10 At roof level, primarily native hedges and raised planters, as well as grasses and other groundcover planting, make up 260 m^2 of the roof area across the two blocks, in conjunction with the planting of 7 no. tree species, some of which are assumed to be native based on the list provided by Patel Taylor.

9.5.11 The plans also show three extensive biodiverse roofs, featuring a rocky/crushed brick/sand/stone substrate to allow for the establishment of UK native, drought-tolerant plant species. This will in turn provide 1062 m^2 of potentially high value habitat of pollen rich species providing overwintering habitat and cover for invertebrates and foraging opportunities for birds including black redstart.

9.5.12 As a result of these measures, while a minor beneficial impact for local fauna is expected, these additions do not alter the effects and conclusions from the 2018 ES.

Table 9-1 Soft landscape 2020 scheme update (Drawing 522-PT-MP-TYP-DR-L-PL-1020_S2-P11) area changes from 2018 ES assessed areas

Habitat	2018 soft landscaping (m^2)	2020 soft landscaping (m^2)	Change (m^2)
Amenity lawn	7700.04	7705.58	+5.54
Ground cover and ornamental planting	10682.38	4833.15	-5849.23
Native planting	-	7048.00	+7048.00
Tall perennials	1594.81	1617.62	+22.81
Grassland meadow	15572.73	14277.21	-1295.52
Wildflower meadow	1604.32	1266.80	-337.52
Wetland and marginal planting	944.64	890.49	-54.15
Dry suds channel Dock Park	888.66	1337.02	+448.36
Dry suds channel for privacy frontage	202.84	239.15	+36.31
Buffer planting for privacy frontage	1731.33	1253.3	-478.03
Buffer planting for infrastructure frontage	9760.13	9865.85	+105.72
Thames intertidal planting	4454.01	4304.24	-149.77
Existing intertidal flooding	2340.38	2340.34	-0.04
Total	**57,476.27**	**56,979.25**	**-497.02**

9.5.13 In terms of the overall area of soft landscaping on the site, the total change in area between the assessed 2018 soft landscaped area of 57,476.27m^2 and the 2020 proposed soft landscaped area of 56,979.25m^2 represents 0.86% reduction in total area of soft landscaping on completion of construction. This reduction in soft landscaping is considered to be of negligible significance when considered in the context of the total quantity and type of soft landscaping which will be provided and the corresponding benefits to biodiversity that the enhanced and newly created habitats and improved habitat connectivity are expected to deliver.

9.5.14 The reduction in grassland and wildflower meadow planting (-1,295.52 m^2 and -337.52 m^2 respectively) will result in less species-rich, native nectar and pollen-rich wildflower planting as part of the proposed development. The 2018 ES assessed this planting (among other ecological enhancements) as having a minor beneficial impact for local fauna, including black redstart, bats, generalist birds and invertebrates. Given that 14,277.21 m^2 of grassland meadow and 1,266.8 m^2 wildflower meadow is still to be provided, the effect of this reduction is considered minimal and the conclusions from the 2018 ES remain unchanged.

9.5.15 It should also be highlighted that more than half of the ground cover and ornamental planting proposed in the 2018 soft landscaping is being replaced by native planting in the 2020 soft landscaping which is likely to be of greater benefit local fauna including pollinators than ornamental planting alone.

9.5.16 The 149m^2 reduction in the area of Thames intertidal planting shown is Table 9-1 is due to correction of a discrepancy between the 2018 soft landscape plan and river wall engineering design plans. It is not due to an reduction in the proposed extent of intertidal terrace being provided. This discrepancy has been corrected on the 2020 drawing, with a revised total area of 4,304m^2 intertidal planting to be provided. This correction does not alter the effects and conclusions in the 2018 ES with regards to this habitat. The remaining changes to habitats outlined in Table 9-1 are considered to be minimal and do not alter the assessment of effects or conclusions in the 2018 ES.

9.5.17 As outlined above, the changes to the proposed soft landscaping for the site are minimal and a negligible effect overall is anticipated. As a result, the conclusions relating to soft landscaping made in the 2018 ES and the May 2019 and June 2019 ES Addenda remain unchanged.

Climate change and adaptation

9.5.18 The climate change effects remain unchanged from the May 2019 and June 2019 ES addenda.

Further supplementary mitigation required

9.5.19 None required.

9.6 UPDATED RESIDUAL EFFECTS AND CONCLUSIONS

9.6.1 The residual effects and conclusions remain unchanged from the 2018 ES, May 2019 ES Addendum and June 2019 ES addendum.

Table 9-2 Summary of residual effects during demolition and construction

Receptor and sensitivity	Effect	Last assessment (June 2019 ES addendum)	Amended Proposed Development residual effects	
		Effect Significance	Further Supplementary Mitigation	Effect Significance
River Thames and Tidal Tributaries SINC	Damage from run-off and siltation of river	Negligible	None required	Unchanged
	Damage and disturbance from noise/vibration, light, dust and run-off during demolition and construction	Negligible	None required	Unchanged
Thames Wharf SINC	Loss of SINC area	Minor adverse	None required	Unchanged
	Damage and disturbance from noise/vibration, light, dust and run-off during demolition and construction	Negligible	None required	Unchanged
Railside Land SINC	Damage and disturbance from noise/vibration and dust during demolition and construction	Negligible	None required	Unchanged
Scattered scrub / scattered broadleaved tree mosaics	Loss of habitat	Negligible	None required	Unchanged
Black redstart	Temporary loss of habitat	Minor beneficial	None required	Unchanged
	Disturbance – noise and light	Negligible	None required	Unchanged
	Damage of habitat from airborne dust	Negligible	None required	Unchanged
Terrestrial invertebrates	Loss of habitat	Minor beneficial	None required	Unchanged
	Damage of habitat from airborne dust	Negligible	None required	Unchanged
Breeding birds	Possible killing and injury of birds, by the destruction of active nests	Negligible if recommendations are followed	None required	Unchanged
Roosting bats	Possible killing and injury of bats and destruction of bat roost by building demolition	Negligible if recommendations are followed	None required	Unchanged
Intertidal terrace of replacement river wall (future receptor)	Indirect impacts from vibration, dust and run-off during demolition and construction	Negligible	None required	Unchanged

Table 9-3 Summary of residual effects during operation

Receptor and sensitivity	Effect	Last assessment (June 2019 ES addendum)	Amended Proposed Development residual effects	
		Effect Significance	Further Supplementary Mitigation	Effect Significance
Nearby SINCs, retained rail-side habitats and intertidal terrace of replacement river wall (future receptor)	Impacts from noise, human disturbance and lighting	Negligible	None required	Unchanged
River Thames and Tidal Tributaries SINC	Shading by overhanging deck structures	Negligible	None required	Unchanged
Intertidal terrace of replacement river wall (future receptor)	Shading by overhanging deck structures	Negligible	None required	Unchanged
	Site-wide biodiversity enhancements	Moderate beneficial	None required	Unchanged
Local fauna including black redstart, bats, generalist birds and invertebrates	Impacts from noise, human disturbance and lighting	Negligible	None required	Unchanged
	Site-wide biodiversity enhancements	Minor beneficial	None required	Unchanged

9.7 FUTURE MONITORING OF SIGNFICIANT RESIDUAL ENVIRONMENTAL EFFECTS

9.7.1 The future monitoring of significant residual environmental effects remains unchanged from the 2018 ES, May 2019 and June 2019 ES addenda.

10 WASTE MANAGEMENT

10.1 INTRODUCTION

10.1.1 This chapter of the ES addendum includes an updated assessment for waste management in light of the proposed development amendments. The assessment includes a review of any relevant changes in legislation since the last ES Addendum was prepared in June 2019; a review of the baseline conditions in order to ensure the assessment is based on up-to-date site and surrounding area conditions; a review of any further supplementary mitigation measures required; and reports on any changes to the likely residual environmental effects after these measures have been adopted.

10.1.2 An updated cumulative and interactive effects assessment associated with this chapter has additionally been considered within the ES addendum and can be found in Chapter 18 Review of Cumulative and Interactive Effects.

10.2 METHODOLOGY

Assessment approach

10.2.1 The methodology for the assessment remains unchanged from the 2018 ES and the subsequent May 2019 ES Addendum and June 2019 ES addenda. However, the expected waste arisings from the proposed development have been re-estimated in light of minor changes to the deliverables in each phase.

10.3 REVIEW OF PLANNING POLICY CONTEXT (CHANGES SINCE JUNE 2019 ADDENDUM)

Draft New London Plan

10.3.1 Since the June 2019 ES Addendum, the Mayor of London has published the 'Intend to Publish' Draft New London Plan.

10.3.2 Policy SI 7 states that the Mayor, waste planning authorities and industry should work in collaboration to encourage waste minimisation and the use of fewer resources.

10.3.3 Developments should also be designed with adequate, flexible and easily accessible waste storage space and collection systems that support, as a minimum, the separate collection of dry recyclables and food.

10.3.4 Referable applications should promote circular economy outcomes and aim to be net zero-waste. A Circular Economy Statement should be submitted to demonstrate the following:

- How materials arising from demolition and remediation works will be re-used and/or recycled;
- How the proposal's design and construction will reduce material demands and enable building materials, components and products to be disassembled and re-used at the end of their useful life;
- Opportunities for managing as much waste as possible on site;
- Adequate and easily accessible storage space and collection systems to support recycling and re-use.
- How much waste the proposal is expected to generate, and how and where the waste will be managed in accordance with the waste hierarchy; and
- How performance will be monitored and reported.

10.4 CURRENT BASELINE CONDITIONS 2020

Construction, demolition and excavation waste

10.4.1 In the June 2019 ES Addendum, it was estimated that 1,270,105 tonnes of construction, demolition and excavation (CD&E) waste would be generated in the East London Waste Authority (ELWA) boroughs in 2019. This value was based on the ELWA Joint Waste Development Plan (ELWA, 2012) and the assumption that CD&E waste generation would decrease at a constant annual rate. Following the same approach, in 2020, it is estimated that approximately 1,267,281 tonnes of CD&E waste will be generated in the ELWA boroughs.

10.4.2 Despite this slight decrease, the estimated spare capacity of CD&E waste management infrastructure (34%) remains unchanged from the original 2018 ES and the subsequent May 2019 ES Addendum and June 2019 ES Addendum.

Municipal solid waste

10.4.3 The municipal solid waste (MSW) receptors are the same as those used in the 2018 ES and subsequent May 2019 ES Addendum and June 2019 ES Addendum, with potential waste effects assessed for the following two ELWA facilities: the Frog Island site in Rainham and the Jenkins Lane site in Beckton.

10.4.4 The current levels of MSW generation and spare capacity of MSW receptors are also the same as those used in the original ES, with these values deemed to represent a suitable baseline for the revised assessment. The sensitivity of MSW receptors remains unchanged from the 2018 ES and the subsequent May 2019 ES Addendum and June 2019 ES Addendum.

10.5 UPDATED POTENTIAL EFFECTS AND MITIGATION MEASURES

Demolition and construction effects

Changes to original assessment

10.5.1 The forecasted tonnage of CD&E waste generated in the ELWA boroughs in the future baseline year (2031) is the same as that used in the original 2018 ES and June 2019 ES Addendum (1,237,275 tonnes).

10.5.2 The assumed sensitivity of CD&E waste receptors (i.e. low) also remains unchanged from the original assessment.

10.5.3 Since the June 2019 ES Addendum, a number of amendments have been made to the scheme, including the redistribution of massing between some buildings and updates to the floor areas in the accommodation schedule.

10.5.4 CD&E waste arisings have been re-estimated in light of these amendments. It is anticipated that the amended Thameside West development will generate a total of 450,516 tonnes of CD&E waste throughout its construction programme.

10.5.5 The distribution of waste generation across the construction programme has also been re-estimated in light of the changes to the accommodation schedule. The approach for estimating CD&E waste arisings for each phase remains the same as in the original assessment.

10.5.6 The revised phase-by-phase breakdown of CD&E waste generation is shown in Table 10-1.

Table 10-1 Estimated CD&E waste generation per phase

Phase	Estimated % of total GFA	Total estimated construction waste generated (tonnes) [a]	Estimated construction waste generated (tonnes/year)	Estimated demolition waste generated (tonnes)	Estimated excavation waste generated (tonnes)
1	9%	7,100	3,550	1,160	12,449
2	9%	7,601	3,800		42,280
3	11%	9,027	3,009		45,287
4	6%	4,592	2,296		20,639
5	7%	5,338	2,669		23,359
6	8%	6,653	3,326		29,596
7	10%	8,231	4,115		35,271
8	9%	7,483	3,741		33,764
9	12%	9,633	4,816	1,877	39,745
10	11%	8,923	4,462		38,730
11	8%	6,118	3,059		24,632
Total	**100%**	**80,698**		**3,037**	**345,752**

[a] Total does not include the 21,029 tonnes of CD&E waste generated from the river wall replacement works

10.5.7 Based on the revised accommodation schedule, it is expected that an annual peak of 100,029 tonnes of CD&E waste will occur in 2021, when the river wall replacement works are ongoing, excavation works for Phases 2 and 3 are expected to occur, and Phases 1-3 are under construction.

10.5.8 As in the original assessment and June 2019 ES Addendum, this represents a small proportion of the projected 1,237,275 tonnes of CD&E waste that will be generated in the ELWA boroughs in 2031. As such, it is concluded that the proposed development will contribute relatively little towards projected waste arisings in the region, amounting to an increase in waste arisings of c.8%. The impact magnitude is therefore considered to be small.

10.5.9 Based on the estimated spare capacity of CD&E waste facilities in the ELWA, the receptor sensitivity has been considered to be low.

10.5.10 In combining the impact magnitude with receptor sensitivity, it is concluded that there will be minor effects in relation to the generation and management of CD&E waste from the proposed development. This conclusion remains unchanged from the 2018 ES and the subsequent May 2019 ES Addendum and June 2019 ES Addendum.

Changes to intermediate year assessment

10.5.11 Since the June 2019 ES Addendum, the phasing of the development has altered, with minor changes made to the deliverables in each phase. While this is the case, the time slices for the original intermediate year assessment remain unchanged. These are as follows:

- Completion of Phase 1, with Phases 2 – 4 under construction in 2022;
- Completion of Phases 2 – 5, with Phase 6 under construction and Phase 7 commencing in 2025; and
- Completion of Phases 6 – 8, with Phases 9 and 10 under construction in 2028.

Slice year 2022

10.5.12 It is estimated that 31,848 tonnes of CD&E waste will be generated from the river wall replacement works and Phase 2 – 4 construction works in this year. This number is slightly higher than in the June 2019 ES Addendum. Despite the increase, the anticipated CD&E waste arisings are likely to have a negligible impact on local and regional construction waste generation. The significance of the environmental effect will therefore also be negligible.

10.5.13 Meanwhile, it is anticipated that 100 tonnes of recyclables and 565 tonnes of residual waste will be generated from the operational elements of the outline masterplan in this slice year, again having a negligible impact on MSW generation in the borough.

Slice year 2025

10.5.14 It is estimated that 44,816 tonnes of CD&E waste will be generated from the river wall replacement works and Phase 6 – 7 construction works in this year. This is likely to have a negligible impact on local and regional construction waste generation.

10.5.15 It is anticipated that 598 tonnes of recyclables and 3,125 tonnes of residual (and organic) waste will be generated from the operational elements of the outline masterplan in this slice year. These numbers are lower than in the June 2019 ES Addendum and are likely to have a negligible impact on MSW generation in the borough.

Slice year 2028

10.5.16 It is estimated that 50,111 tonnes of CD&E waste will be generated from the river wall replacement works and Phase 9 – 10 construction works in this year. This is likely to have a negligible impact on local and regional construction waste generation.

10.5.17 It is anticipated that 983 tonnes of recyclables and 5,182 tonnes of residual (and organic) waste will be generated from the operational elements of the outline masterplan in this slice year, having a negligible impact on MSW generation in the borough.

Climate change and adaptation

10.5.18 The climate change effects remain unchanged from the June 2019 ES Addendum.

Further supplementary mitigation required

10.5.19 None required.

Operational effects

Changes to original assessment

10.5.20 Since the June 2019 ES Addendum, a number of scheme amendments have been made, including the redistribution of massing between some buildings and updates to the floor areas in the accommodation schedule. MSW arisings have been re-estimated in light of these amendments.

10.5.21 In the future baseline year (2031), it is anticipated that the proposed development will generate a total of 9,692 tonnes of MSW, of which 7,939 tonnes will be residual waste (and 547 tonnes organic waste).

10.5.22 As in the 2018 ES and the subsequent May 2019 ES Addendum and June 2019 ES Addendum, this represents a relatively small proportion of the 211,573 tonnes of residual waste that The London Plan (2016) forecasts will be generated in LBN in the future baseline year. For the future baseline year, this represents an increase of less than 5%. The magnitude of change/impact is therefore considered to be negligible.

10.5.23 As indicated in the original 2018 ES, the sensitivity of residual waste infrastructure in the ELWA area is considered to be moderate.

10.5.24 In combining these two measures (magnitude of change/impact and receptor sensitivity), it can be seen that there will be negligible effects in terms of the generation and management of residual MSW.

10.5.25 It is estimated that the proposed development will generate a total of 1,753 tonnes of recyclables in the future baseline year. This represents less than 5% of the 35,427 tonnes of recyclables that The London Plan (2016) forecasts will be generated in LBN in the future baseline year. As in the 2018 ES and the subsequent May 2019 ES Addendum and June 2019 ES Addendum, the magnitude of change/impact is therefore considered to be negligible.

10.5.26 As indicated in the original 2018 ES, the sensitivity of recycling waste infrastructure in the ELWA area is considered to be low.

10.5.27 In combining the magnitude of change/impact with the low receptor sensitivity, it can be seen that there will be negligible effects in terms of the generation and management of recyclable MSW.

Climate change and adaptation

10.5.28 The climate change effects remain unchanged from the June 2019 ES addendum.

Further supplementary mitigation required

10.5.29 None required.

10.6 UPDATED RESIDUAL EFFECTS AND CONCLUSIONS

10.6.1 The residual effects are the same as those outlined in the original 2018 ES and the subsequent May 2019 and June 2019 ES addenda.

Table 10-2 Summary of residual effects during demolition and construction

Receptor and sensitivity	Effect	Last assessment (June 2019 ES addendum)	Amended Proposed Development residual effects	
		Effect Significance	Further Supplementary Mitigation	Effect Significance
CD&E waste management infrastructure in LBN and the ELWA area	Pressure on local waste management infrastructure to collect and manage CD&E waste arisings from the construction of the proposed development	Minor	None required	Unchanged

Table 10-3 Summary of residual effects during operation

Receptor and sensitivity	Effect	Last assessment (June 2019 ES addendum)	Amended Proposed Development residual effects	
		Effect Significance	Further Supplementary Mitigation	Effect Significance
MSW infrastructure to treat residual waste in LBN and the ELWA area	Pressure on LBN and the wider ELWA area to collect, transfer and manage residual waste arisings from the proposed development.	Negligible	None required	Unchanged
MSW infrastructure to treat recyclable waste in LBN and the wider ELWA area	Pressure on LBN and the wider ELWA area to collect, transfer and manage recyclable waste arisings from the proposed development.	Negligible	None required	Unchanged

10.7 FUTURE MONITORING OF SIGNFICIANT RESIDUAL ENVIRONMENTAL EFFECTS

10.7.1 There are no significant residual environmental effects identified in this chapter and therefore no changes from the position reported in the June 2019 ES Addendum.

10.8 LIST OF APPENDICES

Reference	Title
10-A	Operational Waste Management Strategy (revised for May 2020)
10-B	Site Waste Management Plan (revised for May 2020)

11 GROUND CONDITIONS

11.1 INTRODUCTION

11.1.1 This chapter of the ES addendum includes an updated assessment for Ground Conditions in light of the proposed development amendments. The assessment includes a review of any relevant changes in legislation since the last ES Addendum was prepared in June 2019; a review of the baseline conditions in order to ensure the assessment is based on up-to-date site and surrounding area conditions; a review of any further supplementary mitigation measures required; and reports on any changes to the likely residual environmental effects after these measures have been adopted.

11.1.2 An updated cumulative and interactive effects assessment associated with this chapter has additionally been considered within the ES addendum and can be found in Chapter 18 Review of Cumulative and Interactive Effects.

11.2 METHODOLOGY

Assessment approach

11.2.1 The methodology for the assessment remains unchanged from the 2018 ES, May 2019 and June 2019 ES addenda.

11.3 REVIEW OF PLANNING POLICY CONTEXT (CHANGES SINCE JUNE 2019 ADDENDUM)

11.3.1 The planning policy context remains unchanged from the May 2019 and June 2019 ES Addenda.

Draft New London Plan

11.3.2 The Draft New London Plan (December 2019) has been reviewed. Policy CG2 A is relevant to Ground Conditions and reiterates the previous policy with respect to enabling the development of brownfield land as one of the policy elements designed to make the best use of land.

11.4 CURRENT BASELINE CONDITIONS 2020

11.4.1 The baseline conditions for the assessment remain unchanged from the May 2019 and June 2019 ES addenda.

11.4.2 As stated in 12.4.1 of the May 2019 ES addendum, the chapter is now supplemented by an updated 'Phase 1 Geoenvironmental and Geotechnical Assessment' (6 June 2019) which includes the findings of investigations for the Silvertown Tunnel carried out by TfL / WSP in 2018/19.

11.4.3 As stated in the May 2019 ES Addendum, a proportion of these recent investigations were undertaken on the Thameside West area and comprised a series of observation and trial pits, penetration tests and boreholes, sampling and testing, geotechnical and chemical. However, although the data is constrained to a small proportion of the site area it does supplement the previously existing information, it reduces the uncertainty associated with the ground conditions, but has not significantly changed the existing baseline description.

11.5 UPDATED POTENTIAL EFFECTS AND MITIGATION MEASURES

Demolition and construction effects

Changes to original assessment

11.5.1 The construction phases for the development remain the same as the May 2019 and June 2019 ES addenda.

11.5.2 The demolition and construction effects, including the original and intermediate year assessments, remain unchanged from the 2018 ES, May 2019 and June 2019 ES addenda.

11.5.3 No further supplementary mitigation is required.

Changes to intermediate year assessment

11.5.4 The assessment remains unchanged from the 2018 ES, May 2019 and June 2019 ES addenda.

Climate change and adaptation

11.5.5 The climate change effects remain unchanged from the May 2019 and June 2019 ES addenda.

Further supplementary mitigation required

11.5.6 None required.

Operational effects

Changes to original assessment

11.5.7 The operational effects, including the original and intermediate year assessments, remain unchanged from the 2018 ES, May 2019 and June 2019 ES addenda.

Climate change and adaptation

11.5.8 The climate change effects remain unchanged from the May 2019 and June 2019 ES addenda.

Further supplementary mitigation required

11.5.9 None required.

11.6 UPDATED RESIDUAL EFFECTS AND CONCLUSIONS

11.6.1 The residual effects and conclusions remain unchanged from the 2018 ES, May 2019 and June 2019 ES addenda.

11.6.2 The following tables re-summarise the permanent position and effects.

Table 11-1 Summary of residual effects during demolition and construction

Receptor and sensitivity	Effect	Last assessment (June 2019 ES addendum)	Amended Proposed Development residual effects	
		Effect Significance	Further Supplementary Mitigation	Effect Significance
Construction workers/ visitors	Contact with contaminated materials	Negligible	None required	Unchanged
Neighbours	Inhalation of contaminated dusts and/or gases.	Negligible	None required	Unchanged

Receptor and sensitivity	Effect	Last assessment (June 2019 ES addendum)	Amended Proposed Development residual effects	
		Effect Significance	Further Supplementary Mitigation	Effect Significance
Groundwater [Secondary Aquifer]	Derogation of quality	Negligible	None required	Unchanged
Groundwater [Principal Aquifer]	Derogation of quality	Negligible	None required	Unchanged
River Thames	Derogation of quality	Negligible	None required	Unchanged

Table 11-2 Summary of residual effects during operation

Receptor and sensitivity	Effect	Last assessment (June 2019 ES addendum)	Amended Proposed Development residual effects	
		Effect Significance	Further Supplementary Mitigation	Effect Significance
Site occupiers and visitors	Direct contact / exposure to hazardous gas	Negligible	None required	Unchanged
Neighbours	Exposure to hazardous gas	Negligible	None required	Unchanged
Groundwater [Secondary Aquifer]	Derogation of water quality	Negligible	None required	Unchanged
Groundwater [Principal Aquifer]	Derogation of water quality	Negligible	None required	Unchanged
River Thames	Derogation of water quality	Negligible	None required	Unchanged
Flora	Impeded plant growth	Negligible	None required	Unchanged
Built environment	Aggressive attack on below ground infrastructure	Negligible	None required	Unchanged

11.7 FUTURE MONITORING OF SIGNFICIANT RESIDUAL ENVIRONMENTAL EFFECTS

11.7.1 There are no significant residual environmental effects identified in this chapter (unchanged from the 2018 ES, May 2019 and June 2019 ES addenda).

12 WIND MICROCLIMATE

12.1 INTRODUCTION

12.1.1 This chapter of the ES addendum includes an updated assessment and associated technical appendix for Wind Microclimate in light of the proposed development amendments. The assessment includes a review of any relevant changes in legislation since the previous assessment in June 2019; a review of the baseline conditions in order to ensure the assessment is based on up-to-date site and surrounding area conditions; a review of any further supplementary mitigation measures required; and reports on any changes to the likely residual environmental effects after these measures have been adopted.

12.1.2 An updated cumulative and interactive effects assessment associated with this chapter has additionally been considered within the ES addendum and can be found in Chapter 18 Review of Cumulative and Interactive effects.

12.2 METHODOLOGY

12.2.1 The methodology for the assessment remains unchanged from the 2018 ES, May 2019 and June 2019 ES Addendums.

12.3 REVIEW OF PLANNING POLICY CONTEXT (CHANGES SINCE 2019)

12.3.1 The planning policy context remains unchanged from the May 2019 ES Addendum, with exception from the Draft New London Plan. This has been reviewed and the policies that apply to the wind microclimate assessment have been listed below.

Draft New London Plan

12.3.2 Policy D7 mentions that 'Public Realm' requires development proposals to ensure that the public realm is well-designed and safe among other characteristics.

12.3.3 Policy D8 states that the environmental impact of tall buildings must be addressed and suitably mitigated.

12.4 CURRENT BASELINE CONDITIONS 2020

12.4.1 The baseline conditions for the assessment remain unchanged from the conditions set out in the 2018 ES, May 2019 ES Addendum and June 2019 ES Addendum.

12.5 UPDATED POTENTIAL EFFECTS AND MITIGATION MEASURES

Demolition and construction effects

Changes to original assessment

12.5.1 There are no predicted material changes to the demolition and construction effects, therefore the effects remain unchanged from the 2018 ES and May 2019 ES addendum.

Changes to intermediate year assessment

12.5.2 There are no predicted material changes to the demolition and construction effects, therefore the effects remain unchanged from the 2018 ES and May 2019 ES addendum.

Climate change and adaptation

12.5.3 The climate change effects remain unchanged from the May 2019 ES Addendum and June 2019 ES addendum.

Further supplementary mitigation required

12.5.4 None required.

Operational effects

Relevant aspects of the scheme and revised proposed mitigation (Phase 1 detailed planning application)

12.5.5 The updated Proposed Development in March 2020, shows a reduction in massing of one level on Block B and the cut out of part of Block A to the East, as shown in Figure 12-1 below.

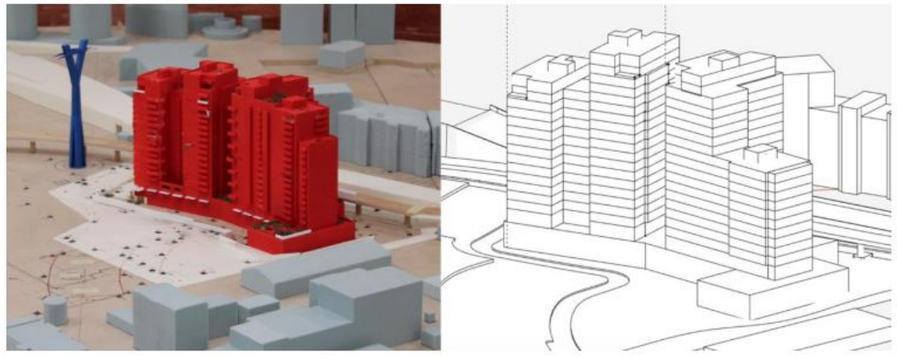


Figure 12-1 South view, January 2019 Assessment (left) and Proposed Development March 2020 (right)

12.5.6 At ground level, wind conditions are not expected to change with the updated design of Phase 1. Therefore, the committed mitigation detailed in the May 2019 ES addendum (second wind tunnel workshop) remain effective. However, as stated in the previous addenda (May and June 2019), further Wind Tunnel testing is required to mitigate safety offsite conditions at probe 272 (2.5 hours exceedance, with the criteria being 2.2 hours). In addition to this, the replacement of the sculptural element for a larger 50% porous screen, will require further wind tunnel testing, in order to determine wind conditions at this location.

12.5.7 At podium level, no changes to wind conditions are expected with the updated design in comparison with the May 2019 ES addendum. The committed mitigation measures made in 2019 remain effective for the podium level.

12.5.8 At Block B roof terrace levels, no changes to wind conditions are expected with the updated design to Phase 1 and the updated Landscape Design, in comparison with the May 2019 ES addendum. Wind conditions at the terraces are expected to be suitable for the intended use and no supplementary mitigation is required.

12.5.9 The rooftop at the Block A is expected to have no changes in wind conditions in comparison with the May 2019 ES addendum. Therefore, no additional mitigation is required.

12.5.10 The East terrace of Block A has been modified whereby the updated building massing creates a large area facing East that can produce wind downwash and therefore, windier conditions at this terrace. Therefore, further mitigation has been integrated in the March 2020 landscape proposals. This includes 5m tall trees next to the façade, a chamfered south west corner, planting at the northwest corner preventing pedestrian access, restricted sitting activity to the eastern portion of the terrace, 1.5m planters and a glass balustrade of 1.5 to 1.7m height around the terrace., as discussed in Appendix 12-A, in order to provide acceptable conditions. The updated landscape scheme is shown in Figure 12-2 below. Further testing is suggested in order to optimize and verify this strategy.

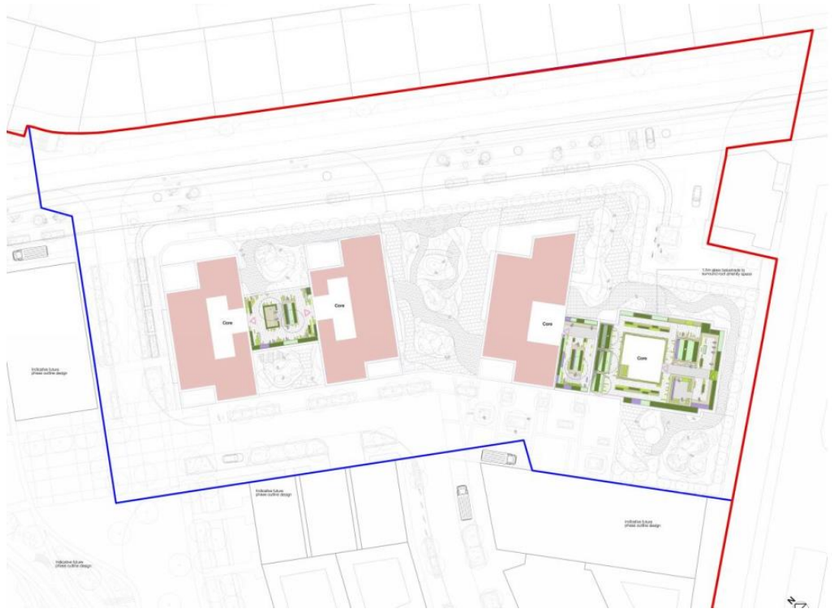


Figure 12-2 Proposed Landscape Scheme for East terrace Block A (March 2020)

Table 12-1 Committed mitigation from December 2018, reviewed for January 2019 Assessment (in May 2019 ES addendum) and amended for March 2020

Committed mitigation for Phase 1 from last assessment (December 2018)	Amended mitigation for Phase 1, from January 2019 assessment (included in May 2019 ES addendum)	Amended mitigation for Phase 1 from RWDI Technical Note (March 2020)
1. 5m deep solid canopy at the south-western corner of the Phase 1 Building, (near probe 280) at first level height	1. 5m deep solid canopy at the at the south-western corner (near probe 280) at first level height	Unchanged from January 2019 assessment
2. A 3m wide 50% porous screen beneath the canopy at full height at the south-western corner of the Phase 1 Building,	2. A 2.5m wide 50% porous screen beneath the canopy 4m height	Unchanged from January 2019 assessment
3. 50% porous covered walkway at the northwest corner of the Phase 1 Building, to podium height, where the western thoroughfare is covered from the side and above, and the northern thoroughfare is covered from above only	3. Replaced by a Solid north west canopy with a 50% 4m tall baffle at a diagonal to the corner (above the canopy). Landscape strategy with six 4m tall trees and 1m shrub planter at the north west corner.	Unchanged from January 2019 assessment
4. 1m tall shrubs on the western thoroughfare	4. Replaced by 50% porous screen at the western thoroughfare (south car park spaces) 2m tall and 2m wide	Unchanged from January 2019 assessment
5. 2m tall hoarding around the outline future phases, with 4m tall hoarding to the south of Phase 1	2m tall hoarding around the outline phases, 4m tall porous hoarding starting aligned with the south west corner of the building, and continued to 2m tall hoarding around the corner of the neighbouring site	Unchanged from January 2019 assessment
6. 2.5m tall 50% porous sculpture near the residential entrance of the Phase 1 Building,	6. 2.5m tall 50% porous sculpture near the residential entrance and 2m 50% porous screen for bin storage.	Changed for a larger vertical 50% porous hoarding (8m by 6m and 2m height) and three planters and remove of the porous screen for bin storage (this mitigation will require verification by further WT testing).
7. Two additional 5m trees at the podium level between the towers	7. Two additional 5m trees at the podium level between the towers	Unchanged from January 2019 assessment
8. 1.5m balustrades at balcony probe locations 371, 372, 373, 374 and 375, to the west and south of the west Tower of Phase 1 building.	1.1m balustrades at balcony probe locations 373, 374 and 372 1.5m balustrades at balcony probe locations 371, 375	Unchanged from January 2019 assessment
9. Full height solid side screens at balcony locations 371, 373, 374 and 375 to the west and south of the west Tower of Phase 1 building.	9. Modified to Full height solid side screen at balcony location 375	Unchanged from January 2019 assessment
10. 2.5 m parapet and three additional trees on the southeast side of the podium of Phase 1 building.	10. 2.5 m parapet and three additional trees on the southeast side of the podium	Unchanged from January 2019 assessment
11. Enclosed balconies / winter gardens at locations 371 and 472. (Design Subjected to revision after further testing) to the west side of the west Tower of Phase 1 building.	11. Enclosed balconies / winter gardens at locations 371 and 472. (Design revised and confirmed in second wind tunnel workshop)	Unchanged from January 2019 assessment
12. Existing sound barrier at TfL elevated rail track.	12. Existing sound barrier at TfL elevated rail track.	Unchanged from January 2019 assessment
N/A	13. 50% porous bin store screening (2m tall)	Unchanged from January 2019 assessment
N/A	N/A	14. East Terrace at Block A, three 5m tall trees, 1.5m tall hedges and standing area (restricted seating).

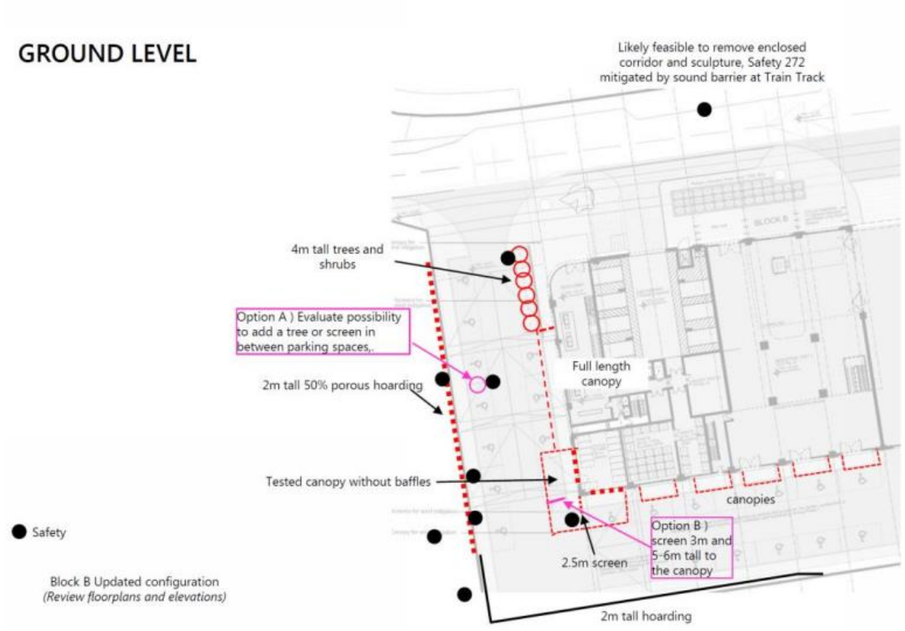


Figure 12-3 Mitigation at ground level south west corner for January 2019 Assessment (Screen and tree in pink removed from 2018 assessment)

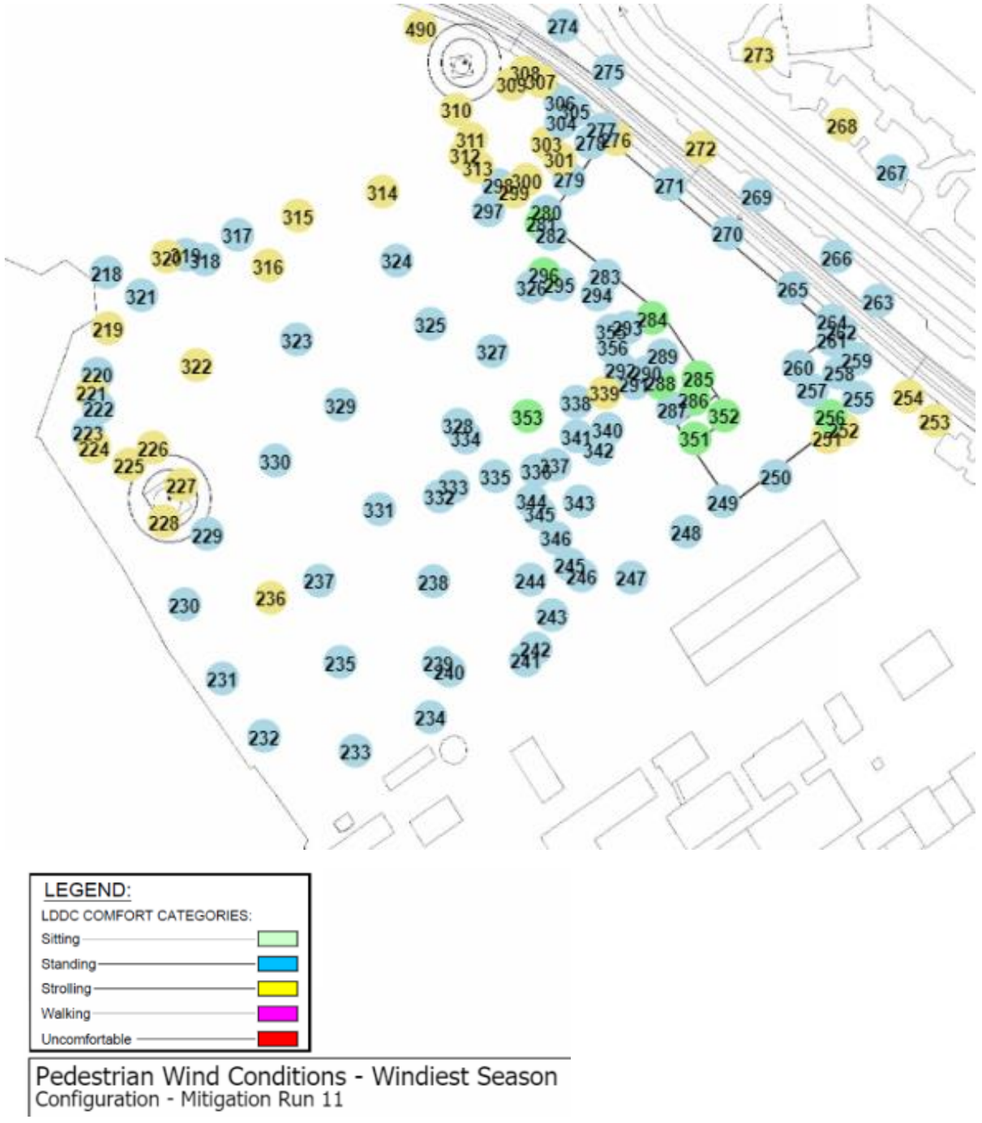


Figure 12-4 Board 1 Configuration WT2- Mitigation of Phase 1 with existing surrounding buildings ground level (windiest season)

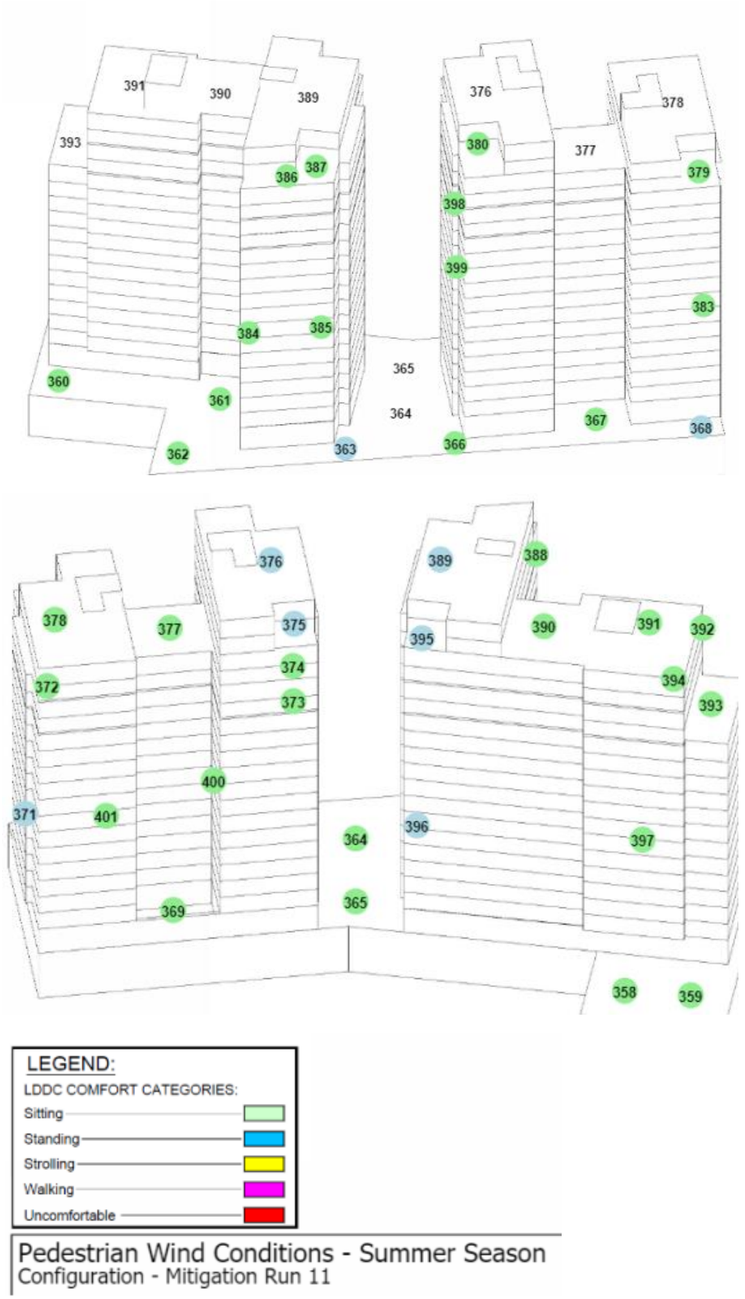


Figure 12-5 Board 1 Configuration WT2- Mitigation of Phase 1 with existing surrounding buildings balconies and terraces (summer season)

Changes to original assessment

Revised proposed mitigation (Phase 1 detailed planning application)

12.5.11 Mitigation amended at the January 2019 Assessment is still relevant for the updated proposed development at Phase 1. However, additional mitigation is proposed for the East terrace of Block A, this includes a series of hedges 1.5m tall, three 5m tall trees and an area of standing views (unsuitable for sitting) as shown in Figure 12-2. Further testing is required to solve offsite safety at probe 272 and is recommended in order to optimize and verify this strategy (via planning condition).

Effects to Phase 1 as a result of outline components

12.5.12 The outline components and future phases have significantly changed and are likely to produce different wind conditions at Phase 11 building locations. These would require further testing, as the phases enter the detailed application stages, in order to assess the magnitude and kind (adverse or beneficial) of change of impact.

Effects within the outline components

12.5.13 Future phases show significant changes in the height of the buildings; therefore, future wind tunnel testing is required to assess the changes in these wind effects. This will be undertaken as each phase develops into the detailed design application stages.

Climate change and adaptation

12.5.14 The climate change effects remain unchanged from the May 2019 ES Addendum and June 2019 ES addendum.

Further supplementary mitigation required

Phase 1

12.5.15 In line with the scheme changes, additional mitigation is proposed by RWDI for the East terrace of Block A, this includes a series of hedges 1.5m tall, three 5m tall trees and an area of standing views (unsuitable for sitting) as shown in Figure 12-2.

Table 12-2 Summary of further supplementary operational mitigation measures

Adverse effect	Mitigation measure	Responsibility / Mechanism for implementation	Timing
East Terrace of Block A downwash wind acceleration.	East Terrace at Block A, three 5m tall trees, 1.5m tall hedges and standing area (restricted seating).	Landscape architect and wind tunnel consultant.	To be delivered as an appropriately worded planning condition attached to the Phase 1 consent.

12.6 UPDATED RESIDUAL EFFECTS AND CONCLUSIONS

Table 12-3 Summary of residual effects during demolition and construction

Receptor and sensitivity	Effect	Last assessment (May 2019 ES addendum)	Amended proposed development residual effects	
		Effect Significance	Further Supplementary Mitigation	Effect Significance
Construction site / empty site	Localised wind acceleration is likely to result in a gradual transition to the new conditions	Negligible	None required	Unchanged

Effects summary for Phase 1 in isolation

Table 12-4 Summary of residual effects during operation

Receptor and sensitivity	Effect	Last assessment (June 2019 ES addendum)	Amended proposed development residual effects		
		Residual Effect Significance	Updated effects (with revised committed mitigation for Phase 1)	Further Supplementary Mitigation	Residual Effect Significance
Thoroughfare beyond TfL location 272	Wind acceleration from above TfL without TfL existing sound barrier	Safety (significant)	Unchanged	Further measures to be included, which should be conditioned via the way of further wind tunnel testing to ensure that the safety issue is resolved.	Unchanged
Thoroughfare at East corner location 252	Wind corner acceleration produced by façade downwash.	Negligible	Unchanged	None required	Unchanged
Safety exceedance location 301	Mainly wind corner acceleration produced by façade downwash.	No Safety	Unchanged		Unchanged
Thoroughfares at locations 277, 281, 298, 299, 300, and 313.	Wind corner acceleration produced by façade downwash.	Negligible	Unchanged		Unchanged
Entrance location 277	Wind corner acceleration produced by façade downwash.	Negligible	Unchanged		Unchanged
Safeties at ground level locations 250, 252, 272, 277, 281, 298, 299, 300, 303, 311 and 313	Mainly wind corner acceleration produced by façade downwash.	Safety 272	Unchanged		Unchanged
Thoroughfare at East corner location 252	Wind corner acceleration produced by façade downwash.	Negligible	Unchanged		Unchanged
Podium locations 364 and 365	Wind façade downwash and funnelling between two towers.	Negligible	Unchanged		Unchanged
Corner balconies and terrace locations 371, 373 and 375	Wind acceleration and corner acceleration	Negligible	Unchanged		Unchanged
Locations at balconies and terraces 383, 386, 372, 374, 395 and 396		Negligible	Unchanged		Unchanged
Corner terraces and balconies 371, 372, 373 374 and 375.		No safety	Unchanged		Unchanged

Effects summary for areas around Phase 1 in combination with the outline components

Table 12-5 Summary of operational effects during operation (outline planning phases)

Receptor and sensitivity	Effect	Last assessment (June 2019 ES addendum)	Amended proposed development residual effects	
		Effect Significance	Further Supplementary Mitigation	Updated effects (with revised committed mitigation for Phase 1)
Pedestrian walkthrough areas, sitting/entrances, balconies and terraces	Wind corner acceleration produced by façade downwash and funnelling acceleration	Negligible to minor adverse (subject to testing at reserved matters stage)	To be determined after further wind tunnel testing	Unchanged
Wind acceleration at ground level, in locations 283 and 284				Unchanged
Entrance location 283		No safety (subject to testing at reserved matters stage)		Unchanged

Effects summary for outline components

Table 12-6 Summary of operational effects during operation (outline planning phases)

Receptor and sensitivity	Effect	Last assessment (May 2019 ES)	Amended proposed development residual effects	
		Effect Significance	Further Supplementary Mitigation	Effect Significance
Wind acceleration at thoroughfares minor to major adverse effects at ground level	Wind corner acceleration produced by façade downwash.	Negligible to minor adverse (subject to testing at reserved matters stage)	To be determined after further wind tunnel testing	Unchanged
Safety exceedances at ground level				Unchanged

12.7 FUTURE MONITORING OF SIGNFICIANT RESIDUAL ENVIRONMENTAL EFFECTS

12.7.1 No changes are applicable from the December 2018 ES, May 2019 and June 2019 ES addenda.

12.8 GLOSSARY

Term	Definition
WT	Wind Tunnel

12.9 LIST OF APPENDICES

Reference	Title
Appendix 12-A	RWDI Technical Memo – March 2020

13 DAYLIGHT SUNLIGHT AND OVERSHADOWING

13.1 INTRODUCTION

13.1.1 This chapter of the ES addendum includes an updated assessment for daylight, sunlight and overshadowing in light of the proposed development amendments. The assessment includes a review of any relevant changes in legislation since the last ES Chapter was prepared in December 2018; a review of the baseline conditions in order to ensure the assessment is based on up-to-date site and surrounding area conditions; a review of any further supplementary mitigation measures required; and reports on any changes to the likely residual environmental effects after these measures have been adopted.

13.1.2 An updated cumulative and interactive effects assessment associated with this chapter has additionally been considered within the ES addendum and can be found in Chapter 18 Review of Cumulative and Interactive Effects.

13.2 METHODOLOGY

Assessment approach

13.2.1 The methodology for the assessment remains unchanged from the 2018 ES. The guidance document BS8206-:2008 "Lighting for Buildings" (British Standards Institute, 2008) has now been superseded by BS EN 17037:2018 "Daylight in buildings" (British Standards Institute, 2018). As the methodology for assessment is not based directly on the guidelines provided in these documents, the update has no bearing on the method of assessment or results reported in this addendum.

13.2.2 The assessment has been undertaken using computer modelling. simulation and the methodology as set out in the 2018 ES.

13.2.3 The updated information for the proposed buildings used during the compilation of the computer model is as follows:

Proposed buildings:

- The massing for the outline element of the proposed development was provided by Foster and Partners Architects on 3 March 2020.

13.3 REVIEW OF PLANNING POLICY CONTEXT (CHANGES SINCE DECEMBER 2018 ES)

National policy and guidance

National Planning Policy Framework (MHCLG, 2019)

13.3.1 The National Planning Policy Framework was revised in February 2019. Paragraph 123C remains unchanged from the previous version and states the following:

"… when considering applications for housing, authorities should take a flexible approach in applying policies or guidance relating to daylight and sunlight, where they would otherwise inhibit making efficient use of a site (as long as the resulting scheme would provide acceptable living standards)."

Regional policy and guidance

The Intend to Publish Draft London Plan (GLA, 2019)

13.3.2 The Intend to Publish Draft London Plan was updated in December 2019.

13.3.3 Policy D6 Housing quality and standards states:

"The design of development should provide sufficient daylight and sunlight to new and surrounding housing that is appropriate for its context, whilst avoiding overheating, minimising overshadowing and maximising the usability of outside amenity space."

13.3.4 Policy D9 Tall Buildings states in paragraph 3 "Environmental impact":

"Wind, daylight, sunlight penetration and temperature conditions around the building(s) and neighbourhood must be carefully considered and not compromise comfort and the enjoyment of open spaces, including water spaces, around the building…."

13.3.5 Paragraph 4 "Cumulative impacts" states:

"The cumulative visual, functional and environmental impacts of proposed, consented and planned tall buildings in an area must be considered when assessing tall building proposals and when developing plans for an area. Mitigation measures should be identified and designed into the building as integral features from the outset to avoid retro-fitting".

Local policy and guidance

London Borough of Newham Local Plan (LBN, 2018)

13.3.6 The London Borough of Newham's Local Plan was adopted in 2018 and provides a 15 year plan looking ahead to 2033. This document supersedes The Core Strategy (2012).

13.3.7 Paragraph SP8 'Ensuring neighbourly development' states that development proposals:

"will be expected to promote neighbourliness in addressing the need to: … xii) ensure adequate access to daylight and sunlight in accordance with policy SP3"

13.3.8 This document also refers to the Building Research Establishment (BRE) 'Site layout planning for daylight and sunlight: a guide to good practice' (BR209) as the recognised environmental standard/guidance on daylight and sunlight.

13.3.9 The remaining planning policy context remains unchanged from the 2018 ES.

13.4 CURRENT BASELINE CONDITIONS 2020

13.4.1 The existing and future receptors identified remain unchanged since set out in the 2018 ES.

Current Baseline (2020)

Daylight to current sensitive receptors

Table 13-1 Summary of current baseline VSC results

Property	Number of Windows		
	Total Number tested	Achieved VSC target (27%)	%
Western Beach Apartments 36 Hanover Avenue	276	176	64%
Cliveden House 6 Fitzwilliam Mews	24	7	29%
7 Fitzwilliam Mews	8	5	63%
8 Fitzwilliam Mews	6	4	67%
2 Fitzwilliam Mews	4	3	75%
1 Fitzwilliam Mews	4	4	100%
34 Hanover Avenue	4	3	75%
26 North Woolwich Road LA Lounge	1	1	100%
28-34 Tidal Basin Road - West	132	66	50%
28-34 Tidal Basin Road - East	138	56	41%
TOTAL	**597**	**325**	**54%**

Table 13-2 Summary of current baseline DD results

Property	Number of rooms assessed	Number of rooms	
		Rooms lit to 80% or greater in baseline condition	
		No.	%
Western Beach Apartments 36 Hanover Avenue	210	202	96%
Cliveden House 6 Fitzwilliam Mews	12	10	83%
7 Fitzwilliam Mews	4	4	100%
8 Fitzwilliam Mews	3	3	100%
2 Fitzwilliam Mews	3	3	100%
1 Fitzwilliam Mews	3	3	100%
34 Hanover Avenue	2	2	100%
26 North Woolwich Road LA Lounge	1	1	100%
TOTAL	**238**	**228**	**96%**

13.4.2 Out of the 597 windows tested, Table 13-1 confirms that 325 (54%) will receive more than the BRE 27% VSC guideline in the baseline condition.

13.4.3 Out of the 238 habitable rooms tested, Table 13-2 confirms that 228 (96%) will receive daylight over at least 80% of the area of the working plane, in the baseline condition.

13.4.4 These baseline results serve to highlight the fact that several of the existing receptors tested for VSC around the site do not achieve the 27% target in the baseline condition. This is due to the inhibiting design of the balconies and overhanging eaves on the neighbouring receptors. In all but one of the existing receptors, all of the rooms tested are lit to 80% or greater in the baseline condition. This is due to the low density of existing obstructions on the site in the baseline condition.

Sunlight to current sensitive receptors

Table 13-3 Summary of current baseline APSH results

Property	Number of Windows Assessed	Annual Sunlight	Winter Sunlight
		No. of Windows that Achieve Total APSH 25% target	No. of Windows that Achieve Winter APSH 5% target
Western Beach Apartments 36 Hanover Avenue	273	194	243
Cliveden House 6 Fitzwilliam Mews	24	6	8
7 Fitzwilliam Mews	8	5	5
8 Fitzwilliam Mews	6	4	5
2 Fitzwilliam Mews	4	3	3
1 Fitzwilliam Mews	4	3	3
34 Hanover Avenue	4	3	3
26 North Woolwich Road LA Lounge	1	1	1
TOTAL	**324**	**219**	**271**

13.4.5 Out of the 324 windows tested for annual sunlight, 219 (68%) receive more than the BRE guideline of 25% APSH annually in the baseline condition.

13.4.6 Out of the 324 windows tested for winter sunlight, 271 (84%) receives more than the BRE guideline of 5% APSH in the winter months in the baseline condition.

13.4.7 These baseline results show that the majority of south facing windows tested achieve the 25% target value for annual sunlight and the 5% target for winter sunlight in the existing condition. This is due to the low density of existing obstructions on the site in the baseline condition. Several of the neighbouring receptors fall short of the APSH target in the baseline condition due to the inhibiting design of their balconies and overhanging eaves.

Summary of baseline daylight and sunlight results

13.4.8 The site has been tested in its current condition and the assessment demonstrates that some of the neighbouring properties do not fully achieve the BRE guideline target levels for daylight and sunlight availability in the baseline condition. This is due to the design of the individual buildings which restricts the daylight and sunlight availability and the buildings location in an urban context.

Future baseline (2022)

13.4.9 The future baseline assessments consider the daylight and sunlight levels on the current and future sensitive receptors following the completion of the relevant cumulative schemes within the vicinity of the site.

Table 13-4 Summary of future baseline VSC results – Existing properties

Property	Number of Windows		
	Total Number tested	Achieved VSC target (27%)	%
Western Beach Apartments 36 Hanover Avenue	276	176	64%
Cliveden House 6 Fitzwilliam Mews	24	7	29%
7 Fitzwilliam Mews	8	5	63%
8 Fitzwilliam Mews	6	4	67%
2 Fitzwilliam Mews	4	3	75%
1 Fitzwilliam Mews	4	4	100%
34 Hanover Avenue	4	3	75%
26 North Woolwich Road LA Lounge	1	1	100%
28-34 Tidal Basin Road - West	132	66	50%
28-34 Tidal Basin Road - East	138	56	41%
TOTAL	**597**	**325**	**54%**

Table 13-5 Summary of future baseline DD results – Existing properties

Property	Number of rooms assessed	Number of rooms	
		Rooms lit to 80% or greater in baseline condition	
		No.	%
Western Beach Apartments 36 Hanover Avenue	210	202	96%
Cliveden House 6 Fitzwilliam Mews	12	10	83%
7 Fitzwilliam Mews	4	4	100%
8 Fitzwilliam Mews	3	3	100%
2 Fitzwilliam Mews	3	3	100%
1 Fitzwilliam Mews	3	3	100%
34 Hanover Avenue	2	2	100%
26 North Woolwich Road LA Lounge	1	1	100%
TOTAL	**238**	**228**	**96%**

13.4.10 Out of the 597 windows tested, Table 13-4 confirms that 325 (54%) will receive more than the BRE 27% VSC guideline in the future baseline condition.

13.4.11 Out of the 238 habitable rooms tested, Table 13-5 confirms that 228 (96%) will receive daylight over at least 80% of the area of the working plane, in the future baseline condition.

13.4.12 These future baseline results serve to highlight the fact that several of the existing receptors tested for VSC around the site do not achieve the 27% target in the baseline condition. This is due to the inhibiting design of the neighbouring receptors. In all but one of the existing receptors, all of the rooms are lit to 80% or greater in the future baseline condition. This is due to the low density of the obstructions on the site in the future baseline condition.

13.4.13 There is no difference between the available daylight received by the existing properties in the baseline condition and the future baseline condition. The existing properties are located towards the south-east of the site with windows predominately facing south and the schemes coming forward which are included in the future baseline are located to towards the north-east of the site.

Sunlight to current sensitive receptors

Table 13-6 Summary of future baseline scenario APSH results – Existing properties

Property	Number of Windows Assessed	Annual Sunlight	Winter Sunlight
		No. of Windows that Achieve Total APSH 25% target	No. of Windows that Achieve Winter APSH 5% target
Western Beach Apartments 36 Hanover Avenue	273	194	243
Cliveden House 6 Fitzwilliam Mews	24	6	8
7 Fitzwilliam Mews	8	5	5
8 Fitzwilliam Mews	6	4	5
2 Fitzwilliam Mews	4	3	3
1 Fitzwilliam Mews	4	3	3
34 Hanover Avenue	4	3	3
26 North Woolwich Road LA Lounge	1	1	1
TOTAL	**324**	**219**	**271**

13.4.14 Out of the 324 windows tested for annual sunlight, 219 (68%) receive more than the BRE guideline of 25% APSH annually in the baseline condition.

13.4.15 Out of the 324 windows tested for winter sunlight, 271 (84%) receive more than the BRE guideline of 5% APSH in the winter months in the baseline condition.

13.4.16 These future baseline results show that the majority of south facing windows tested achieve the 25% target value for annual sunlight and the 5% target for winter sunlight in the existing condition. This is due to the low density of obstructions on the site in the future baseline condition.

13.4.17 There is no difference between the available sunlight received by the existing properties in the baseline condition and the future baseline condition. The existing properties are located towards the south-east of the site with windows predominately facing south and the schemes coming forward which are included in the future baseline are located to towards the north-east of the site.

Summary of future baseline daylight and sunlight results to existing properties

13.4.18 The site has been tested in its future condition and the assessment demonstrates that some of the neighbouring properties do not fully achieve the BRE guideline target levels for daylight and sunlight availability in the future baseline condition. This is due to the design of the individual buildings which restricts the daylight and sunlight availability and the buildings location in an urban context.

Daylight to future receptors

Daylight to future receptors on the Leamouth Peninsula South Site

13.4.19 The future baseline levels of available daylight to the neighbouring receptors in Leamouth Peninsula South have been quantified using the ADF assessment. Table 13-7 shows the ADF levels in the future baseline scenario.

Table 13-7 Summary of future baseline ADF results – Leamouth Peninsula South

Leamouth Peninsula South				
Total number of Kitchen/Diners Tested	**ADF >2.0%**	**ADF 1.99% - 1.6%**	**ADF 1.59% – 1.2%**	**ADF 1.2% - 0.0%**
8	6	1	1	0
Total number of Living/Diners Tested	**ADF > 1.5%**	**ADF 1.49% - 1.2%**	**ADF 1.19% - 0.9%**	**ADF 0.9% - 0.0%**
4	4	0	0	0
Total number of Living rooms Tested	**ADF > 1.5%**	**ADF 1.49% - 1.2%**	**ADF 1.19% - 0.9%**	**ADF 0.9% - 0.0%**
10	10	0	0	0
Total number of Bedrooms Tested	**ADF >1.0%**	**ADF 0.99% - 0.8%**	**ADF 0.79% – 0.6%**	**ADF 0.6% - 0.0%**
39	38	1	0	0
Totals				
61	**58**	**2**	**1**	**0**

13.4.20 The ADF assessment for Leamouth Peninsula South shows that of the 61 habitable rooms tested 59 would meet or exceed the ADF targets.

13.4.21 The results show that 38 of the 39 bedrooms tested would satisfy the 1% ADF target, with the remaining bedroom achieving an ADF level between 0.99% to 0.8% ADF.

13.4.22 Where possible the principal living space within the large living/kitchen/dining rooms have been isolated and assessed as living/diners or living rooms. The results of the study show 14 of the 14 rooms tested will satisfy the 1.5% target recommended for living rooms. Where it was not possible to isolate the principal living/dining space from the living/kitchen/dining room, these rooms have been tested against the 2% ADF criteria. The assessment shows 7 of the 8 rooms tested would meet the guidelines.

Daylight to future receptors on the Trinity Buoy Wharf Site

13.4.23 The future baseline levels of available daylight received by the main facades of the outline parameter blocks of the Trinity Buoy Wharf site have been quantified using the façade mapping VSC test. This is due to the outline application drawings not providing detailed plans and elevation details.

Table 13-8 Summary of future baseline VSC façade mapping results – Trinity Buoy Wharf

Property	Number of Points				
	Tested	Satisfying the BRE target (Negligible)	Not satisfying the BRE target		
			VSC < 27% and VSC ≥ 15% (Minor)	VSC < 15% and VSC ≥ 5% (Moderate)	VSC < 5% (Major)
Trinity Buoy Wharf	2245	1516	290	247	192
TOTAL	2245	1516 (68%)	290 (13%)	247 (11%)	192 (9%)

13.4.24 The results show that 68% of the tested points achieve over 27% VSC. Of the remaining tested points, 13% achieve VSC levels between 15% and below 27%, 11% achieve VSC levels between 9% and below 15% and 7% achieve VSC levels below 5%. Even with the open aspect the site enjoys across Bow Creek, only 68% of the VSC test points on the main facades of the outline parameter blocks satisfy the recommended 27% level. This can be attributed to the limited distance between proposed buildings.

Sunlight to future receptors on the Leamouth Peninsula South Site

13.4.25 The future baseline levels of available sunlight to the neighbouring receptors in Leamouth Peninsula South have been quantified using the APSH assessment. Table 13-9 shows the APSH levels in the future baseline scenario.

Table 13-9 Summary of future baseline APSH results – Leamouth Peninsula South

Property	Number of Windows Assessed	Annual Sunlight	Winter Sunlight
		No. of Windows that Achieve Total APSH 25% target	No. of Windows that Achieve Winter APSH 5% target
Leamouth Peninsula South	72	44	28
TOTAL	**72**	**44**	**28**

13.4.26 The results show that of the 72 windows assessed, 44 would meet the recommendations as set out in the BRE guidelines for access to annual sunlight, and 28 would meet the recommendations for access to winter sunlight. These low levels of sunlight are primarily attributed to the obstruction of the outline parameter massing submitted for the Trinity Buoy Wharf site.

Sunlight to future receptors on the Trinity Buoy Wharf Site

13.4.27 The future baseline levels of available sunlight received by the main facades of the outline parameter blocks of the Trinity Buoy Wharf site have been quantified using the façade mapping APSH test. This is due to the outline application drawings not providing detailed plans and elevation details.

Table 13-10 Summary of future baseline Annual Sunlight façade mapping results – Trinity Buoy Wharf

Property	Number of Points				
	Tested	Satisfying the BRE target (Negligible)	Not satisfying the BRE target		
			APSH < 25% and APSH ≥ 15% (Minor)	APSH < 15% and APSH ≥ 5% (Moderate)	APSH < 5% (Major)
Trinity Buoy Wharf	2245	1641	174	216	214
TOTAL	2245	1641 (73%)	174 (8%)	216 (10%)	214 (10%)

13.4.28 The results show that 73% of the tested points achieve annual sunlight levels of over 25%. Of the remaining tested points, 8% achieve APSH levels between 15% and 25%, 10% achieve APSH levels between 5% and 15% and 10% achieve APSH levels below 5%. This demonstrates that even with south-east facing elevations, the effects of the maximum parameter massing for this site will necessarily reduce the annual sunlight levels to below the suggested values in the BRE guidelines.

Table 13-11 Summary of future baseline Winter Sunlight façade mapping results – Trinity Buoy Wharf

Property	Number of Points				
	Tested	Satisfying the BRE target (Negligible)	Not satisfying the BRE target		
			APSH < 5% and APSH ≥ 4% (Minor)	APSH < 4% and APSH ≥ 2% (Moderate)	APSH < 2% (Major)
Trinity Buoy Wharf	2245	1529	62	101	553
TOTAL	2245	1529 (68%)	62 (3%)	101 (4%)	553 (25%)

13.4.29 The results show that 68% of the tested points achieve annual winter levels of over 5%. Of the remaining tested points, 3% achieve APSH levels between 4% and 5%, 4% achieve APSH levels between 2% and 4% and 25% achieve APSH levels below 2%. As with the annual sunlight results above, this demonstrates that even with south-east facing elevations, the effects of the maximum parameter massing for this site will necessarily reduce the winter sunlight levels to below the suggested values in the BRE guidelines.

13.5 UPDATED POTENTIAL EFFECTS AND MITIGATION MEASURES

Demolition and construction effects

Changes to original assessment

13.5.1 The demolition and construction assessment effects remain unchanged from the 2018 ES.

Changes to intermediate year assessment

13.5.2 The intermediate year assessment effects remain unchanged from the 2018 ES when effects of development during the construction phase were not assessed as the proposed development scenario represents the worst case position.

Climate change and adaptation

13.5.3 The climate change effects are not considered relevant for this chapter.

Further supplementary mitigation required

13.5.4 None required.

Operational effects

Changes to original assessment

Daylight to current sensitive receptors

13.5.5 Full details of the VSC, DD and APSH analyses are provided in Appendices 13-D, 13-E and 13-G. Detailed drawings of the proposed development in the surrounding context are provided within Appendix 13-C.

Table 13-12 Summary of VSC Effects – existing receptors

Property	Number of Windows / Significance of Effect				
	Tested	Negligible	Minor Adverse	Moderate Adverse	Major Adverse
Western Beach Apartments 36 Hanover Avenue	276	135	68	39	34
Cliveden House 6 Fitzwilliam Mews	24	24	0	0	0
7 Fitzwilliam Mews	8	8	0	0	0
8 Fitzwilliam Mews	6	6	0	0	0
2 Fitzwilliam Mews	4	0	4	0	0
1 Fitzwilliam Mews	4	0	4	0	0
34 Hanover Avenue	4	3	1	0	0
26 North Woolwich Road LA Lounge	1	0	0	0	1
28-34 Tidal Basin Road - West	132	129	3	0	0
28-34 Tidal Basin Road - East	138	138	0	0	0
TOTAL	**597**	**443**	**80**	**39**	**35**

Table 13-13 Summary of DD Effects – existing receptors

Property	Number of Rooms / Significance of Effect				
	Tested	Negligible	Minor Adverse	Moderate Adverse	Major Adverse
Western Beach Apartments 36 Hanover Avenue	210	187	15	8	0
Cliveden House 6 Fitzwilliam Mews	12	12	0	0	0
7 Fitzwilliam Mews	4	4	0	0	0
8 Fitzwilliam Mews	3	3	0	0	0
2 Fitzwilliam Mews	3	2	1	0	0
1 Fitzwilliam Mews	3	1	1	1	0
34 Hanover Avenue	2	2	0	0	0
26 North Woolwich Road LA Lounge	1	1	0	0	0
TOTAL	**238**	**212**	**17**	**9**	**0**

13.5.6 The VSC results show that 443 (74%) of the 597 windows tested for VSC will satisfy the BRE guidelines by either retaining a VSC of at least 27% or at least 0.8 times their factor of former values. Of the remaining 154 windows, 80 will achieve factor of former values ranging between 0.79 and 0.7, 39 windows will achieve between 0.69 and 0.60 and 35 windows below 0.6. In the baseline condition only 54% of the windows tested achieved the target 27% VSC. This is due to the inhibiting design of the neighbours which feature balconies and over hanging eaves and the fact they are located in an urban context.

13.5.7 The daylight distribution results show that 212 (89%) of the 238 rooms assessed will satisfy the BRE guidelines by retaining in excess of 0.8 their former value, with the majority of rooms experiencing no change in daylit area.

13.5.8 For the properties achieving full adherence, the overall effect from the proposed development is considered of negligible significance. The properties that have levels below the BRE guidelines are discussed in the following sections.

Western Beach Apartments 36 Hanover Avenue

13.5.9 This property is located towards the south-east of the site on the opposite side of Silvertown Way. There are a total of 276 windows serving 210 rooms which have been considered for daylight. The VSC results indicate that 135 (49%) of the windows tested achieve the guideline values in the proposed condition. As demonstrated by the results in the existing baseline condition, for which only 64% of the windows tested achieved the target 27% VSC, the daylight availability to the centre point of the window is limited in the existing scenario. This can be attributed to the recessed balconies in the south-west facing façade which necessarily limit the daylight received at the windows. This design makes the windows unduly sensitive to obstructions at a lower angle on the horizon and thus across the proposed site. The windows that sit behind the south-west facing balconies are therefore sensitive to further change with most experiencing reductions to their VSC levels of at least 20%.

13.5.10 In terms of daylight distribution, 187 (89%) of the 210 rooms tested satisfy the BRE guidelines in the proposed condition. In the current baseline scenario 96% of the rooms meet the guidelines for daylight distribution due to the low-rise industrial massing on the existing site. The magnitude of change for both VSC and daylight distribution would be significantly less if the existing massing on site was akin to the Western Beach Apartment Scheme.

13.5.11 It is therefore considered that the overall effect of the proposed development on this property will be of moderate adverse significance.

2 Fitzwilliam Mews

13.5.12 This property is located towards the south-east of the site on the opposite side of Silvertown Way. There are a total of 4 windows serving 3 rooms which have been considered for daylight. Whilst the windows are reduced to between 0.74 and 0.77 times their former value, all the windows will retain VSC values in excess of 19.32% indicating good levels of daylight availability at the window with the development in place. There is one room which does not satisfy the guidelines for DD, which is a bedroom on the second floor which is reduced to 0.72 times its former value. This bedroom is located in a property with a well-lit living space.

13.5.13 It is therefore considered that the overall effect of the proposed development on this property will be of minor adverse significance.

1 Fitzwilliam Mews

13.5.14 This property is located towards the south-east of the site on the opposite side of Silvertown Way. There are a total of 4 windows serving 3 rooms which have been considered for daylight. Whilst all of the windows are reduced between 0.77 and 0.78 times their former value, all the windows will retain VSC values in excess of 23.99% indicating good levels of daylight at the window with the development in place. Both of the rooms that do not satisfy the guide for DD are bedrooms which are located in a property with a well-lit living space.

13.5.15 It is therefore considered that the overall effect of the proposed development on this property will be of minor adverse significance.

34 Hanover Avenue

13.5.16 This property is located towards the south-east of the site on the opposite side of Silvertown Way. There are a total of 4 windows serving 2 rooms which have been considered for daylight. Whilst 1 of the windows is reduced to 0.79 times its former value, this window will retain a VSC values of 26.79% and is therefore only marginally below the BRE's guideline value of 27% VSC. Both of the rooms assessed will satisfy the guidelines for DD.

13.5.17 It is therefore considered that the overall effect of the proposed development on this property will be of negligible significance.

26 North Woolwich Road (LA Lounge)

13.5.18 This property is located towards the south-east of the site. There is 1 window serving a bedroom which has been considered for daylight. Whilst the window is reduced to 0.59 times former value, the bedroom will nonetheless satisfy the guidelines for DD, indicating good light penetration into the room.

13.5.19 It is therefore considered that the overall effect of the proposed development on this property will be of minor adverse significance.

28-34 Tidal Basin Road – West

13.5.20 This property is located towards the north-east of the site on the opposite side of Silvertown Way. There are a total of 132 windows which have been considered for daylight. 129 (98%) of the 132 windows tested achieve the guideline values for VSC. The three windows which fall short of the guideline values achieve factor of former values between 0.77 and 0.79 times former value.

13.5.21 It is therefore considered that the overall effect of the proposed development on this property will be of negligible significance.

Sunlight to current sensitive receptors

13.5.22 This section summarises the sunlight effects of the proposed development once completed and occupied. The properties in the vicinity of the proposed development that have windows that face within 90° of due south and have been assessed for sunlight are summarised in Table 13-14 and Table 13-15, and within Appendix 13-K.

Table 13-14 Summary of Annual sunlight effects

Property	Annual Sunlight				
	Number of Windows / Significance of Effect				
	Tested	Negligible	Minor Adverse	Moderate Adverse	Major Adverse
Western Beach Apartments 36 Hanover Avenue	273	217	6	10	40
Cliveden House 6 Fitzwilliam Mews	24	24	0	0	0
7 Fitzwilliam Mews	8	7	1	0	0
8 Fitzwilliam Mews	6	6	0	0	0
2 Fitzwilliam Mews	4	1	1	2	0
1 Fitzwilliam Mews	4	1	1	1	1
34 Hanover Avenue	4	2	1	1	0
26 North Woolwich Road LA Lounge	1	1	0	0	0
TOTAL	**324**	**259**	**10**	**14**	**41**

Table 13-15 Summary of Winter sunlight effects

Property	Winter Sunlight				
	Number of Windows / Significance of Effect				
	Tested	Negligible	Minor Adverse	Moderate Adverse	Major Adverse
Western Beach Apartments 36 Hanover Avenue	273	216	0	0	57
Cliveden House 6 Fitzwilliam Mews	24	24	0	0	0
7 Fitzwilliam Mews	8	6	0	0	2
8 Fitzwilliam Mews	6	6	0	0	0
2 Fitzwilliam Mews	4	1	0	0	3
1 Fitzwilliam Mews	4	1	0	2	1
34 Hanover Avenue	4	3	0	1	0
26 North Woolwich Road LA Lounge	1	1	0	0	0
TOTAL	**324**	**258**	**0**	**3**	**63**

13.5.23 Out of the 324 windows tested, 259 (80%) will satisfy the BRE criteria for annual sunlight and 258 (80%) will satisfy the winter sunlight criteria. In the existing baseline condition only 219 (68%) of the 324 windows tested achieved the 25% target for annual sunlight and only 217 (67%) of the 324 windows tested achieved the 5% target for winter sunlight. This is due to the inhibiting design of the neighbouring receptors and their location in an urban context. The properties which do not satisfy the BRE criteria are discussed in the following sections.

Western Beach Apartments 36 Hanover Avenue

13.5.24 273 windows have been assessed for sunlight. In the baseline condition, 194 (71%) of the 273 windows assessed for annual sunlight satisfy the guidelines, whereas 243 (92%) out of the 273 windows assessed for winter sunlight satisfy the guidelines. With the proposed development in place, 217 (80%) out of the 273 windows assessed for annual sunlight will satisfy the guidelines, whereas 216 (79%) out of the 273 windows assessed for winter sunlight will satisfy the guidelines.

13.5.25 In part, the low levels of annual and winter sunlight in the baseline condition are responsible for the high ratio reductions to some of the windows with the proposed development in place. Where this is the case, the expectation of annual and winter sunlight will not be high. This is particularly applicable to those south-west facing windows which are obstructed by overhanging balconies.

13.5.26 It is therefore considered that the overall effect of the proposed development on this property will be of moderate adverse significance.

7 Fitzwilliam Mews

13.5.27 8 windows have been assessed for sunlight. With the proposed development in place, 7 out of the 8 windows assessed for annual sunlight will satisfy the guidelines. For winter sunlight, 6 out of the 8 windows will satisfy the guidelines. One of the windows which serves the living space is reduced to 0.79 times its former value for annual sunlight. However, the room served by this window will also be served by additional windows and when the non-coincidental sunlight hours are totalled, as advised by the BRE guidelines, this room exceeds the guidelines on an annual and winter basis. There is a room of unknown use on the third floor which falls short of the guidelines on a winter basis. However, this room is part of a property which is also served by a well sunlit living room, which the BRE guidelines highlight as the most important room for sunlight availability.

13.5.28 It is therefore considered that the overall effect of the proposed development on this property will be of negligible significance.

2 Fitzwilliam Mews

13.5.29 4 windows have been assessed for sunlight. With the proposed development in place, 1 out of the 4 windows assessed for both annual and winter sunlight will satisfy the guidelines. For annual sunlight, the remaining 3 windows will achieve a factor of former value of at least 0.62. On a room basis, both of the rooms which fall short of the guideline values achieve annual APSH values of 20% or greater and on a winter basis 2% or greater.

13.5.30 It is therefore considered that the overall effect of the proposed development on this property will be of moderate adverse significance.

1 Fitzwilliam Mews

13.5.31 4 windows have been assessed for sunlight. With the proposed development in place, 1 out of the 4 windows assessed for both annual and winter sunlight will satisfy the guidelines. For annual sunlight, the remaining 3 windows will achieve a factor of former value of at least 0.59 with one of the windows achieving a factor of former value of 0.74, only slightly below the recommended guideline. On a room basis, both of the rooms which fall short of the guideline values achieve annual APSH values of 20% or greater and on a winter basis 3% or greater.

13.5.32 It is therefore considered that the overall effect of the proposed development on this property will be of moderate adverse significance.

34 Hanover Avenue

13.5.33 4 windows have been assessed for sunlight. With the proposed development in place, 2 out of the 4 windows assessed for annual and sunlight will satisfy the guidelines and 3 out of the 4 windows will satisfy the guidelines on a winter basis. Both of the windows which fall marginally short of the guidelines serve bedrooms which are considered less sensitive that living spaces. On a room basis, there is one room which falls short of the guideline values on an annual basis, achieving 21% APSH against a guideline value of 25%.

13.5.34 It is therefore considered that the overall effect of the proposed development on this property will be of minor adverse significance.

Potential effects of the development and their significance – proposed development scenario (with future sensitive receptors)

13.5.35 Full details of the VSC, ADF and APSH analyses are provided in Appendices 13-K, 13-L, 13-M, 13-N, 13-O and 13-P. Detailed drawings of the proposed development in the surrounding context are provided within Appendix 13-C.

Daylight to future receptors on the Leamouth Peninsula South Site

Table 13-16 Summary of proposed development ADF results – Leamouth Peninsula South

Leamouth Peninsula South				
Total number of Kitchen/Diners Tested	**ADF >2.0%**	**ADF 1.99% - 1.6%**	**ADF 1.59% – 1.2%**	**ADF 1.2% - 0.0%**
8	4	3	1	0
Total number of Living/Diners Tested	**ADF > 1.5%**	**ADF 1.49% - 1.2%**	**ADF 1.19% - 0.9%**	**ADF 0.9% - 0.0%**
4	4	0	0	0
Total number of Living rooms Tested	**ADF > 1.5%**	**ADF 1.49% - 1.2%**	**ADF 1.19% - 0.9%**	**ADF 0.9% - 0.0%**
10	10	0	0	0
Total number of Bedrooms Tested	**ADF >1.0%**	**ADF 0.99% - 0.8%**	**ADF 0.79% – 0.6%**	**ADF 0.6% - 0.0%**
39	38	1	0	0
Totals				
61	**56**	**4**	**1**	**0**

13.5.36 The results show that 56 of the 61 rooms assessed for ADF will satisfy the guideline value. Whilst there are some minor reductions to the ADF values, the results show that when considered on an adherence basis to the ADF targets, there are only two additional rooms which fall marginally short of the guidelines. These are 2 KD's which achieve ADF values of 1.97% and 1.92%.

13.5.37 It is therefore considered that the overall effect of the proposed development on this property will be of negligible significance.

Daylight to future receptors on the Trinity Buoy Wharf Site

Table 13-17 Summary of proposed development VSC façade mapping results – Trinity Buoy Wharf

Property	Number of Points				
	Tested	Satisfying the BRE target (Negligible)	Not satisfying the BRE target		
			VSC < 27% and VSC ≥ 15% (Minor)	VSC < 15% and VSC ≥ 5% (Moderate)	VSC < 5% (Major)
Trinity Buoy Wharf	2245	1438	358	250	199
TOTAL	2245	1438 (64%)	358 (16%)	250 (11%)	199 (9%)

13.5.38 The results show that 1438 of the 2245 points tested on the main facades of the outline parameter massing will satisfy the guidelines. 358 points will achieve between 15% and 27% VSC, 250 points will achieve between 5% and 15% VSC and 199 points will achieve below 5% VSC.

13.5.39 Whilst there are some VSC points on the facades which will be reduced to below 27% VSC with the proposed development in place, the results show that when considered on an adherence basis, 64% of the main facades assessed receive at least 27% VSC. In the future baseline condition, 68% of the main facades receive at least 27% VSC so the change to the daylight levels to the main facades of the outline parameter blocks with the proposed development in place is limited.

13.5.40 It is therefore considered that the overall effect of the proposed development on this property will be of negligible significance.

Sunlight to future receptors on the Leamouth Peninsula South Site

Table 13-18 Summary of proposed development APSH results – Leamouth Peninsula South

Property	Number of Windows Assessed	Annual Sunlight	Winter Sunlight
		No. of Windows that Achieve Total APSH 25% target	No. of Windows that Achieve Winter APSH 5% target
Leamouth Peninsula South	72	55	39
TOTAL	**72**	**55**	**39**

13.5.41 The results show that of the 72 windows assessed, 39 would meet the recommendations as set out in the BRE guidelines for access to winter sunlight, and 55 would meet the recommendations for access to annual sunlight. In the future baseline condition, 28 windows would meet the recommendations as set out in the BRE guidelines for access to winter sunlight, and 44 windows would meet the recommendations for access to annual sunlight. These levels are primarily attributed to the obstruction of the outline parameter massing submitted for the Trinity Buoy Wharf site. Despite the limited change identified, it should be noted future occupants will not be used to the sunlight levels identified in the future baseline condition.

13.5.42 It is therefore considered that the overall effect of the proposed development on this property will be of minor adverse significance.

Sunlight to future receptors on the Trinity Buoy Wharf Site

Table 13-19 Summary of proposed development Annual Sunlight façade mapping results – Trinity Buoy Wharf

Property	Number of Points				
	Tested	Satisfying the BRE target (Negligible)	Not satisfying the BRE target		
			APSH < 25% and APSH ≥ 15% (Minor)	APSH < 15% and APSH ≥ 5% (Moderate)	APSH < 5% (Major)
Trinity Buoy Wharf	2245	1438	358	250	199
TOTAL	2245	1438 (64%)	358 (16%)	250 (11%)	199 (9%)

13.5.43 The results show that 64% of the tested points achieve annual sunlight levels of over 25%. Of the remaining tested points, 16% achieve APSH levels between 10% and below 25%, 11% achieve APSH levels between 5% and below 15% and 9% achieve APSH levels below 5%. In the future baseline condition, 73% of the tested points would achieve levels of 25%. The change to annual sunlight levels to the main facades of the outline parameter blocks with the proposed development in place is therefore limited. Despite the limited change identified, it should be noted future occupants will not be used to the sunlight levels identified in the future baseline condition.

13.5.44 It is therefore considered that the overall effect of the proposed development on this property will be of negligible significance.

Table 13-20 Summary of proposed development Winter Sunlight façade mapping results – Trinity Buoy Wharf

Property	Number of Points				
	Tested	Satisfying the BRE target (Negligible)	Not satisfying the BRE target		
			APSH < 5% and APSH ≥ 4% (Minor)	APSH < 4% and APSH ≥ 2% (Moderate)	APSH < 2% (Major)
Trinity Buoy Wharf	2245	1532	24	82	607
TOTAL	2245	1532 (68%)	24 (1%)	82 (4%)	607 (27%)

13.5.45 The results show that 68% of the tested points achieve winter sunlight levels of over 5%. Of the remaining tested points, 1% achieve APSH levels between 4% and below 5%, 4% achieve APSH levels between 2% and below 4% and 27% achieve APSH levels below 2%. In the future baseline condition, 68% of the tested points would achieve levels of 5%. The change to annual sunlight levels to the main facades of the outline parameter blocks with the proposed development in place is therefore limited, with approximately the same number of points achieving the guideline value. It should be noted future occupants will not be used to the sunlight levels identified in the future baseline condition.

13.5.46 It is therefore considered that the overall effect of the proposed development on this property will be of negligible significance.

Climate change and adaptation

13.5.47 The climate change effects are not considered relevant for this chapter.

Further supplementary mitigation required

13.5.48 None required.

13.6 UPDATED RESIDUAL EFFECTS AND CONCLUSIONS

13.6.1 The following tables re-summarise the permanent position and effects.

Table 13-21 Summary of residual effects during operation

Receptor and sensitivity	Effect	Last assessment (2018 ES)	Amended Proposed Development residual effects	
		Effect Significance	Further Supplementary Mitigation	Effect Significance
Western Beach Apartments 36 Hanover Avenue	Daylight/Sunlight	Moderate Adverse	None required	Unchanged
Cliveden House 6 Fitzwilliam Mews	Daylight/Sunlight	Negligible	None required	Unchanged
7 Fitzwilliam Mews	Daylight/Sunlight	Minor Adverse	None required	Unchanged
8 Fitzwilliam Mews	Daylight/Sunlight	Negligible	None required	Unchanged
2 Fitzwilliam Mews	Daylight/Sunlight	Moderate Adverse	None required	Unchanged
1 Fitzwilliam Mews	Daylight/Sunlight	Minor Adverse	None required	Unchanged
34 Hanover Avenue	Daylight/Sunlight	Negligible/Minor Adverse	None required	Unchanged
26 North Woolwich Road LA Lounge	Daylight/Sunlight	Negligible/Minor Adverse	None required	Unchanged
28-34 Tidal Basin Road - West	Daylight	Negligible	None required	Unchanged
28-34 Tidal Basin Road - East	Daylight	Negligible	None required	Unchanged

13.6.2 The majority of the existing receptors tested will adhere to the BRE guidelines for daylight and sunlight availability. Where the neighbouring properties do not fully achieve the guideline target levels for daylight and sunlight, this is due to the design of the individual buildings which restricts the daylight sunlight availability and the building location in an urban context.

13.6.3 With the above in mind, the rigid application of the BRE Report's standard numerical guidelines may be inappropriate in this urban environment, where higher density affordable development may be desirable and where there simply cannot be the same expectation of light as in a suburban or rural context. The guidelines suggest flexibility should be applied in such circumstances.

13.6.4 The daylight, sunlight and overshadowing effects on the existing sensitive receptors as a result of the proposed development once completed and occupied in the proposed development scenario has been considered and will result in negligible to moderate adverse effects, which will be permanent (long term) and at a local scale.

Residual effects during operation – future receptors

13.6.5 A summary of the daylight and sunlight effects on the future sensitive receptors as a result of the proposed development once completed and occupied is provided in Table 13-22.

Table 13-22 Summary of residual effects during operation – future receptors

Receptor	Effect	Significance before mitigation	Supplementary mitigation	Residual effect significance
Leamouth Peninsula South	Daylight/Sunlight	Negligible/Minor Adverse	None	Negligible/Minor Adverse
Trinity Buoy Wharf	Daylight/Sunlight	Negligible	None	Negligible

13.6.6 The future receptors tested at Leamouth Peninsula South and Trinity Buoy Wharf are not currently occupied. Therefore, there is no existing baseline condition for future occupants to compare against.

13.6.7 The assessment of Leamouth Peninsula South only takes account of the rooms with windows facing the proposed development. The windows and rooms on the south-east elevation of Leamouth South will experience minor change in their light conditions as a result of the proposed development.

13.6.8 The ADF assessment on Leamouth Peninsula South is an absolute assessment of the daylight quality and is not intended to be used as a reduction comparable between existing and proposed conditions. However, consideration has been given to the difference between the future baseline results and with the inclusion of the proposed development for the purposes of this ES chapter.

13.6.9 The daylight and sunlight effects on the future sensitive receptors as a result of the proposed development once completed and occupied has been considered and will result in negligible to minor adverse effects, which will be permanent (long term) and at a local scale.

13.7 FUTURE MONITORING OF SIGNFICIANT RESIDUAL ENVIRONMENTAL EFFECTS

13.7.1 No monitoring of significant residual effects is required.

13.8 REFERENCES

- British Standards Institute, (2018); BS EN 17037:2018: Daylight in buildings
- London Borough of Newham Local Plan (LBN, 2018) https://www.newham.gov.uk/Documents/Environment%20and%20planning/NewhamLocalPlan2018.pdf

13.9 LIST OF APPENDICES

Reference	Title
Appendix 13 - A	Site plans and 3D views of the current baseline condition (2020)
Appendix 13 – B	Site plans and 3D views of the future baseline condition (2022)
Appendix 13 – C	Site plans and 3D views of the proposed development scenario (2031)
Appendix 13 – D	VSC results of the current baseline (2020) vs proposed development scenario (2031)
Appendix 13 – E	DD results of the current baseline (2020) vs proposed development scenario (2031)
Appendix 13 – F	DD contours of the current baseline (2020) vs proposed development scenario (2031)
Appendix 13 – G	APSH results of the current baseline (2020) vs proposed development scenario (2031)
Appendix 13 – H	VSC results of the future baseline (2022) vs proposed development scenario (2031)
Appendix 13 – I	DD results of the future baseline (2022) vs proposed development scenario (2031)
Appendix 13 – J	DD contours of the future baseline (2022) vs proposed development scenario (2031)
Appendix 13 – K	APSH results of the future baseline (2022) vs proposed development scenario (2031)
Appendix 13 – L	ADF results of the future baseline condition (2022) vs proposed development scenario (2031)
Appendix 13 – M	ADF drawings for proposed development scenario (2031)
Appendix 13 – N	APSH results of the future baseline condition (2022) vs proposed development scenario (2031)
Appendix 13 – O	VSC and APSH façade mapping results of the future baseline condition (2022) vs proposed development scenario (2031)
Appendix 13 – P	VSC and APSH façade mapping renders for the proposed development scenario (2031)

14 POPULATION AND HUMAN HEALTH

14.1 INTRODUCTION

14.1.1 This chapter of the ES addendum includes an updated assessment for Population and Human Health in light of the proposed development amendments. The assessment includes a review of any relevant changes in legislation since the last ES Addendum was prepared in June 2019; a review of the baseline conditions in order to ensure the assessment is based on up-to-date site and surrounding area conditions; a review of any further supplementary mitigation measures required; and reports on any changes to the likely residual environmental effects after these measures have been adopted.

14.1.2 An updated cumulative and interactive effects assessment associated with this chapter has additionally been considered within the ES addendum and can be found in Chapter 18 Review of Cumulative and Interactive Effects.

14.2 METHODOLOGY

Assessment approach

14.2.1 The assessment methodology used to the assess the effect of the proposed development on Population and Human Health, remains unchanged from the 2018 ES, May 2019 and June 2019 ES Addendums with the exception of the methodology used to assess the effect on education (early years, primary and secondary).

Education

14.2.2 Following discussions with LBN and the GLA, the methodology used to assess the effects on education has been expanded for the March 2020 ES Addendum. The 2018 ES, May 2019 and June 2019 ES Addendums used the Wandsworth Population Yield Calculator to calculate how many early years, primary and secondary aged children are likely to be produced by the proposed development. The March 2020 ES Addendum continues to use the Wandsworth Population Yield Calculator but also utilises the GLA Population Yield Calculator and LBN Multipliers published in LBN's 'Places for All: A School Place Planning Strategy 2018 to 2023'.

14.2.3 Both the Wandsworth and GLA Population Yield Calculator's require the accommodation schedule of the proposed development. The Wandsworth Calculator requires the accommodation schedule by type (flat, house), tenure (market, intermediate and social rented) and size (number of bedrooms), whereas the GLA Calculator requires the accommodation schedule by tenure (market and social) and size (number of bedrooms) only.

14.2.4 When populating the Wandsworth Calculator with the accommodation schedule, it has been assumed that all of the affordable units in the March 2020 accommodation schedule will be social rented. This presents a worst-case scenario, as the child yields for social rented are higher than intermediate.

14.2.5 The LBN multipliers used within this assessment are 17.2% for primary and 9% for secondary. These percentages are applied to the proposed number of residential units to generate an expected yield for additional primary and secondary school places.

14.2.6 Child yield has been calculated for each individual phase of the development and a cumulative total presented. The 2018 ES only presented the cumulative total.

14.2.7 The assessment of education effects is quantitively based on the level of surplus or deficit forecast school places in existing primary and secondary schools, versus the number of pupils generated by the proposed development.

14.2.8 The 2018 ES assessed capacity within existing primary schools located within a 1-mile radius the proposed development site and existing secondary schools located within and immediately surrounding the Study Area. The same schools have been assessed in the March 2020 ES Addendum. However, in addition, the assessment also gives consideration to all of the primary schools located within the Canning Town & Custom House (CTCH) Primary School Planning Area (PSPA) and all of the secondary schools located within the LBN Secondary School Planning Area (SSPA) of which there is only one for secondary education in LBN and therefore includes all 20 secondary schools in LBN. The inclusion of all schools within the relevant school planning area is deemed necessary as planning areas are used by LBN for school place planning.

14.2.9 Furthermore, for the March 2020 ES Addendum, forecasts of available school places as published by the DfE, School Place Planning Data for academic year 2018/19 for up to year 2023/24 for primary places and year 2025/26 for secondary places are presented. Forecasts of available school places are only published for school planning areas and not individual schools.

14.3 REVIEW OF PLANNING POLICY CONTEXT (CHANGES SINCE JUNE 2019 ADDENDUM)

14.3.1 The national and local planning policy context remains unchanged from the June 2019 ES Addendum. However, since the June 2019 ES Addendum there has been an update to regional planning policy in respect of the London Plan.

Regional Policy and Guidance

Draft New London Plan (December 2019)

14.3.2 In December 2019, the Mayor of London published Intend to Publish Draft New London Plan incorporates some of the Inspector's recommendations following examination of the draft London Plan between January and May 2019.

14.3.3 The Plan's objectives, relevant to the assessment of population and human health effects, remain largely unchanged from those presented in the 2018 ES. However, in respect of housing, the Plan now acknowledges that London only has capacity to accommodate 520,000 homes over the 10-year plan period (paragraph 2.3.3). This is equivalent to 52,000 homes per annum which is a decrease from the 65,000 homes per annum the Draft New London Plan (2018) stated London had capacity for. The need remains at 66,000 homes per annum.

14.3.4 In relation to LBN specifically, the London Plan (December 2019) also revises downwards the 10-year housing target for LBN, as a result of the reduction in London's housing capacity (Table 4.1). LBN's housing target is reduced from 38,500 homes over the 10-year period 2019/20 to 2028/29 (as presented in the 2018 ES) to 32,800 homes over the same 10-year period.

14.4 CURRENT BASELINE CONDITIONS 2020

14.4.1 A review of baseline conditions presented in the 2018 ES, May 2019 and June 2019 ES addenda has been undertaken to ensure the baseline conditions remain unchanged.

Population

14.4.2 The 2018 ES presented baseline population conditions based on the ONS, 2017 Mid-Year Population Estimates (MYPE). The ONS, 2018 MYPE have subsequently been published. The ONS, 2018 MYPE report that the population of the Study Area has increased from 32,900 to 35,000 people, with the population of the Study Area now accounting for 10% of the LBN total population (9% in the 2018 ES). Despite an increase in the overall population of the Study Area, LBN, London and England, there has been no change in the age profile of the

population as demonstrated in Table 14-1 and therefore the baseline conditions in respect of population remain unchanged from the 2018 ES.

Table 14-1 Age Profile by broad age group (2018). Figures in brackets are the figures presented in 2018 ES

2018 MYPE	Study Area	LBN	London	England
Aged 0 to 15	20% *(20%)*	22% *(22%)*	21% *(21%)*	19% *(19%)*
Aged 16 to 64	74% *(74%)*	70% *(70%)*	68% *(68%)*	63% *(63%)*
Aged 65+	6% *(6%)*	7% *(7%)*	12% *(12%)*	18% *(18%)*

Source: ONS, MYPE. All figures have been rounded and may not sum.

Crime

14.4.3 The 2018 ES presented baseline crime conditions sourced from Police UK Statistics as at April 2018. More recent Police UK data released for January 2020 reveals that the number of incidents in the Study Area has reduced between these two time points but remained similar in LBN and increased for London as a whole. In the Study Area the number of incidents has reduced from 305 in April 2018 to 239 in January 2020 which is equivalent to a 22% reduction. Incidents in LBN changed by 0% and in London increased by 7%.

14.4.4 The most predominant crime categories remain the same in the Study Area, LBN and London as shown in Table 14-2. The highest incidents of crime within the Study Area remain acts of violence and sexual offenses, anti-social-behaviour and vehicle crime as presented in the 2018 ES.

Table 14-2 Incidents of crimes and offenses reported in January 2020. Figures in brackets are the figures presented in 2018 ES

Crime Category	Study Area	LBN	London
Anti-social behaviour	17% *(16%)*	19% *(20%)*	19% *(23%)*
Bicycle Theft	1% *(0%)*	0% *(1%)*	1% *(2%)*
Burglary	9% *(5%)*	5% *(5%)*	8% *(7%)*
Criminal damage and arson	7% *(5%)*	4% *(6%)*	5% *(6%)*
Drugs	5% *(4%)*	6% *(4%)*	5% *(3%)*
Other crime	5% *(5%)*	1% *(1%)*	1% *(1%)*
Other theft	10% *(13%)*	9% *(10%)*	10% *(10%)*
Possession of weapons	1% *(1%)*	0% *(1%)*	1% *(1%)*
Public order	7% *(4%)*	5% *(4%)*	4% *(5%)*
Robbery	3% *(5%)*	6% *(4%)*	4% *(3%)*
Shoplifting	0% *(1%)*	5% *(7%)*	4% *(5%)*
Theft from the person	2% *(2%)*	5% *(5%)*	5% *(4%)*
Vehicle crime	11% *(19%)*	11% *(13%)*	13% *(10%)*
Violence and sexual offences	21% *(21%)*	22% *(21%)*	20% *(21%)*
Total	**100%**	**100%**	**100%**
Total incidents	**239 *(305)***	**3,459 *(3,478)***	**90,979 *(85,220)***

Source: Police.uk, obtained March 2020

14.4.5 The 2018 ES reported that 76% of LBN residents 'agreed that the police can be relied upon to be there when needed'. The equivalent data from MOPAC for the 12 months to December 2019 identified that the proportion of LBN residents agreeing with this statement has reduced slightly (to 75%). However, the proportion for LBN remains higher than the average for the Metropolitan Police Service (MPS) which has reduced from 73% to 71%.

14.4.6 Despite the small changes detailed above, it is considered that the baseline conditions in respect of crime remain unchanged from the 2018 ES.

Housing

14.4.7 The 2018 ES sourced baseline conditions for housing (accommodation type and tenure) from the 2011 Census and housing completions data from the LBN AMR (May 2018). There has been no update to either of these data sources and therefore baseline conditions for housing remain unchanged from the 2018 ES.

Employment

14.4.8 Since the 2018 ES was produced, baseline employment conditions in respect of economic activity have been updated. The 2018 ES presented economic activity data sourced from the ONS, Annual Population Survey for the year ending June 2018. Data for the year ending September 2019 is now available (as at March 2020).

14.4.9 APS data for the year ending September 2019 reveals that there has been an increase in the number of residents in LBN aged between 16 and 64 years who are economically active. The 2018 EBS reported 179,700 LBN residents were economically active, this has increased to 184,100 in the year ending September 2019. However, the proportion of the population who are economically active remains unchanged (74%). Proportions remains unchanged in London (78%) and England (79%).

14.4.10 The proportion of working age residents in employment has reduced slightly in LBN (from 70% to 69%). The proportion of London residents in employment remains the same (74%) and there has been a slight increase in the proportion nationally, with the percentage of residents in employment increasing from 75% to 76%.

14.4.11 The unemployment rate (among the population aged between 16 and 64 who are economically active) in LBN has increased from 5.7% in the year ending June 2018 to 5.9% in the year to September 2019. In contrast, London's unemployment rate has fallen from 5.2% to 4.4% and England's rate from 4.3% to 4.0%.

14.4.12 The 2018 ES presented baseline employment conditions in respect of workplace employment by industry sourced from the 2017 Business Register and Employment Survey (BRES). 2018 BRES data has subsequently been published. The 2018 BRES data reveals that the number of employees in the Study Area has increased from 10,000 to 12,000, now accounting for 11% of LBN total employees (compared to 9% as presented in the 2018 ES). The 2018 BRES also reveals a change in the industrial structure of employment in the Study Area. The 2018 ES reported Accommodation & Food Services as the largest employing sector (17%). However, the 2018 BRES reveals that the Transport & Storage sector now accounts for the highest proportion of workplace employment (17%) as demonstrated in Table 14-3. However, compared to LBN, London and England, the employment structure of the Study Area remains unchanged from that presented in the 2018 ES.

Table 14-3 Occupational structure 2018 (employees). Figures in brackets are the figures presented in 2018 ES

Industry	Study Area	LBN	London	England
Transport & storage (inc postal)	17% *(15%)*	6% *(6%)*	4% *(5%)*	5% *(5%)*
Business administration & support services	13% *(11%)*	14% *(14%)*	11% *(11%)*	9% *(9%)*
Accommodation & food services	11% *(17%)*	9% *(8%)*	8% *(8%)*	7% *(7%)*
Manufacturing	11% *(8%)*	4% *(3%)*	2% *(11%)*	8% *(8%)*
Health	8% *(9%)*	10% *(11%)*	10% *(11%)*	13% *(13%)*
Construction	7% *(8%)*	5% *(7%)*	4% *(2%)*	5% *(8%)*
Information & communication	7% *(5%)*	3% *(3%)*	8% *(8%)*	4% *(5%)*
Professional, scientific & technical	7% *(5%)*	5% *(5%)*	14% *(13%)*	9% *(9%)*
Education	6% *(6%)*	12% *(12%)*	7% *(8%)*	9% *(9%)*
Retail	6% (4%)	15% *(15%)*	8% *(8%)*	9% *(9%)*
Arts, entertainment, recreation & other services	4% *(3%)*	5% *(4%)*	5% *(5%)*	4% *(5%)*

Wholesale	3% *(4%)*	2% *(2%)*	3% *(3%)*	4% *(4%)*
Property	3% *(2%)*	2% *(2%)*	3% *(2%)*	2% *(2%)*
Mining, quarrying & utilities	1% *(2%)*	2% *(1%)*	1% *(1%)*	1% *(1%)*
Financial & insurance	1% *(1%)*	1% *(1%)*	7% *(7%)*	3% *(4%)*
Public administration & defence	1% *(1%)*	5% *(4%)*	4% *(4%)*	4% *(4%)*
Motor trades	1% *(0%)*	1% *(1%)*	1% *(1%)*	2% *(2%)*
Agriculture, forestry & fishing	0% *(0%)*	0% *(0%)*	0% *(0%)*	1% *(1%)*
Total	**100%**	**100%**	**100%**	**100%**

Source: ONS, 2018 BRES. All figures have been rounded and may not sum

14.4.13 The 2018 ES presented baseline employment conditions in respect of commuting from the 2011 Census. There has been no update to this data and conditions remain unchanged from those presented in the 2018 ES in respect of commuting.

14.4.14 Despite the small changes to the baseline employment conditions for employment identified above, it is considered overall that the baseline conditions in respect of employment remain unchanged from the 2018 ES.

Primary Healthcare

14.4.15 The 2018 ES selected seven GP surgeries and five dental practices for assessment. None of the GP surgeries or dental practices selected for assessment have closed since the 2018 ES was prepared and no new provision has opened. The 2018 ES presented the number of FTE GPs and registered patients at each practice as at March 2018. December 2019 data is now available and is presented in Table 14-4. As in the 2018 ES, data for GP branches is included within the figures for the associated GP practice.

Table 14-4 Existing GP surgeries within Study Area with capacities (December 2019)

Map No.	Practice Name	GPs (FTE)	Patients	Ratio (Patients to 1 GP)	Surplus capacity (patients)
1	The Practice Albert Road	1.82	13,673	7,513	0
1a	The Practice PLC	-	-	-	-
2	The Ruiz Medical Practice	1.00	5,711	5,711	0
3	Custom House Surgery	5.45	9,464	1,735	352
4	Esk Road Medical Centre	1.20	2,005	1,671	155
5	Cumberland Medical Centre	1.42	4,131	2,917	0
6a	St. Lukes Health Centre – PSU	-	-	-	-
	Total	**10.89**	**34,984**	**3,212**	**0**

Source: NHS Digital (December 2019) General Personal Medical Services

14.4.16 The 2018 ES identified that in combination the seven GP surgeries were operating significantly above the HUDU standard (1 GP for every 1,800 patients) with 1 GP for every 3,037 patients. The 2018 ES therefore concluded that there was no capacity within the existing GP provision. Data for December 2019 reveals that the GP to patient ratio for the seven surgeries combined has increased slightly to 1 GP to 3,212 patients and therefore there remains no capacity within the existing GP provision. On this basis, baseline conditions in respect of GP provision remain unchanged from those presented in the 2018 ES.

14.4.17 The 2018 ES reported capacities for the five dental practices based on a telephone survey with each practice undertaken on 31 October 2018. The telephone survey was retaken on 4 March 2020 and the findings are presented in Table 14-5.

Table 14-5 Existing Dental Practice provision with Study Area

Map No.	Practice Name	Postcode	Accepting New Patients?	
1	City Airport Dental Surgery/Mydentist	E16 2DS	No	Not accepting new patients. A NHS and Private practice
2	Abbey Arms Dental Surgery	E13 8HL	Yes	Accepting NHS and Private patients
3	Community Dental Dept. Appleby Health Centre	E16 1LQ	No	Specialist referral unit only
4	Canning Town Dental Practice	E16 1EN	Yes, limited availability	Accepting NHS and Private patients
5	Sunny Smiles dental practice	E16 4HB	Yes	Accepting NHS and Private patients

Source: NHS Choices and telephone survey dated 04 March 2020

14.4.18 The 2018 ES identified that three of the dental practices were accepting new patients but Sunny Smiles dental practice on a private basis only. The March 2020 telephone survey reveals that the same three practices are accepting new patients. However, all three are now accepting patients on both an NHS and private basis suggesting that capacity within the existing dental provision has increased marginally since the 2018 ES.

Wider Human Health

14.4.19 The 2018 ES presented baseline conditions in respect of wider human health sourced from the 2018 Health Profile for LBN published by Public Health England. 2019 Health Profiles are now available, and Table 14-6 summarises the profile for LBN. The 2019 Health Profile reveals that the health features of LBN are generally better than those recorded for England but slightly worse than those recorded for London. This is consistent with the baseline conditions presented in the 2018 ES.

Table 14-6 Health profile for LBN in comparison to London and England

Indicator		LBN compared to:		Recent trend in LBN
		London	England	
Life expectancy and causes of death	Life expectancy at birth (Male)	Worse	Similar	Increase (not significant)
	Life expectancy at birth (Female)	Worse	Similar	Increase (not significant)
	Under 75 mortality rate: all causes	Worse	Worse	Decrease (not significant)
	Under 75 mortality rate: cardiovascular	Worse	Worse	Decrease (not significant)
	Under 75 mortality rate: all causes	Worse	Better	Decrease (not significant)
	Suicide rate	Better	Better	Decrease (not significant)
Injuries and ill health	Killed and seriously injured on roads	Better	Better	Not calculated
	Hospital stays for self-harm	Better	Better	Decrease (not significant)
	Hip fractures in older people (aged 65+)	Better	Better	Decrease (not significant)
	Cancer diagnosed at early stage	Better	Better	Increase (not significant)
	Diabetes diagnoses (aged 17+)	Worse	Worse	Decrease (not significant)
	Dementia diagnosis (aged 65+)	Similar	Better	Decrease (not significant)
Behavioural risk factors	Alcohol-specific hospital stays (under 18)	Better	Better	Decrease (not significant)
	Alcohol related harm hospital stays	Better	Better	Decrease (not significant)
	Smoking prevalence in adults (aged 18+)	Worse	Worse	Decrease (not significant)
	Physically active adults (aged 19+)	Worse	Worse	Decreasing (getting worse)
	Excess weight in adults (aged 18+)	Worse	Similar	Increase (not significant)
Child Health	Under 18 conceptions	Worse	Better	Decrease (not significant)
	Smoking status at time of delivery	Better	Better	Decrease (not significant)

	Breastfeeding initiation	Not available	Better	Increasing (getting better)
	Infant mortality rate	Better	Better	Decrease (not significant)
	Obese children (aged 10-11)	Worse	Worse	Increase (not significant)
Inequalities	Deprivation score (IMD 2015)	Not available	Worse	Not calculated
	Smoking prevalence: routine and manual occupations	Worse	Similar	Decrease (not significant)
Health protection	Excess winter deaths	Worse	Worse	Increase (not significant)
	New sexually transmitted infections	Better	Worse	Decrease (not significant)
	New cases of tuberculosis	Worse	Worse	Decrease (not significant)

Source: Public Health England, 2019 Profiles

14.4.20 The May 2019 ES Addendum also presented a health profile for the Study Area referencing Local Health profiles published by Public Health England. There has been no update to the data consulted and therefore the health profile for the Study Area presented in the May 2019 ES Addendum remains unchanged.

Early Years Childcare Provision

14.4.21 The May 2019 ES Addendum presented baseline conditions in respect of early years childcare provision sourced from LBN's June 2018 Childcare Sufficiency Assessment (CSA). Since the May 2019 Addendum, the LBN has published a 2019 CSA providing an update to baseline conditions for early years childcare provision.

14.4.22 The 2019 CSA identifies that in Autumn 2019, LBN had 4,885 registered places available for under-fives. This is a slight increase (+31 places) since Autumn 2018, equivalent to a 0.6% increase. The number of registered childminder places has increased between 2018 and 2019 by 11.1% (+62 places). However, between 2018 and 2019 the number of pre-school places declined by 8.5% (30 places).

14.4.23 The CSA provides an assessment of places for under-fives in each of the borough's wards. The number of registered under-fives places within Canning Town South has reduced since the May 2019 ES Addendum from just over 400 places to just under 400 places. As a result, there is now 1 full-time place for every 5 resident children (the May 2018 ES Addendum reported 1 place for every 4 resident children). However Canning Town South is still placed amongst the wards with the most places per resident children in LBN. The number of places for under-fives within Royal Docks remains unchanged since the May 2019 Addendum with approximately 230 under-fives places equivalent to 1 full-time place for every 6 children. This remains the same as the average for LBN (1 full-time place for every 6 children).

14.4.24 In light of the updated analysis, it is considered that the baseline conditions in respect of early years childcare remain unchanged from the May 2019 ES Addendum.

Education

14.4.25 The 2018 ES selected primary schools for assessment that were located within a 1-mile radius of the Site. A total of 9 primary schools were selected and referencing roll numbers from the January 2018 DfE School Census and school capacities as at Summer 2018 provided by LBN, the 2018 ES identified that there was a deficit of primary school places (totalling -276 places) across the 9 primary schools.

14.4.26 January 2019 DfE School Census data is now available and is presented in Table 14-7. The deficit of 276 places identified in the 2018 ES has now reduced to -69 places but nonetheless, the latest baseline conditions reveal that there remains a deficit in primary school places.

Table 14-7 Primary school capacities (January 2019). Figures in brackets are the figures presented in 2018 ES

Map No.	Name	Pupils on roll	Capacity	Surplus/deficit (pupils)
3	St Luke's Primary School	212 *(215)*	252 *(210)*	40 *(-5)*
4	Hallsville Primary School	447 *(452)*	420 *(420)*	-27 *(-32)*
2	Keir Hardie Primary School	457 *(471)*	480 *(420)*	23 *(-51)*
5	Britannia Village Primary School	472 *(468)*	450 *(420)*	-22 *(-48)*
7	Rosetta Primary School	599 *(612)*	630 *(630)*	31 *(18)*
6	St Joachim's RC Primary School	259 *(243)*	210 *(210)*	-49 *(-33)*
8	Ravenscroft Primary School	641 *(618)*	630 *(630)*	-11 *(12)*
9	Star Primary School	689 *(685)*	710 *(630)*	21 *(-55)*
1	St Helen's Catholic Primary School	495 *(502)*	420 *(420)*	-75 *(-82)*
	Total (9 schools)	**4,271** ***(4,266)***	**4,202** ***(3,990)***	**-69** ***(-276)***

Source: DfE, Annual School Census January 2019

14.4.27 For the purpose of the March 2020 ES Addendum, consideration is also given to all of the primary schools located within the CTCH PSPA There are 11 primary schools within the CTCH PSPA as detailed in Table 14-8, along with the number of pupils on roll and school capacities according to the January 2019 DfE Annual School Census.

Table 14-8 Primary school capacities (January 2019) for all primary schools in CTCH PSPA

Map No.	Name	Pupils on roll	Capacity	Surplus/deficit (pupils)
3	St Luke's Primary School	212	252	40
4	Hallsville Primary School	447	420	-27
2	Keir Hardie Primary School	457	480	23
5	Britannia Village Primary School	472	450	-22
7	Rosetta Primary School	599	630	31
6	St Joachim's RC Primary School	259	210	-49
8	Ravenscroft Primary School	641	630	-11
9	Star Primary School	689	710	21
	Scott Wilkie Primary School	384	420	36
	Calverton Primary School	493	630	137
	Drew Primary School	417	403	-14
	Total (11 schools)	**5,070**	**5,235**	**165**

Source: DfE, Annual School Census January 2019

14.4.28 Within the CTCH PSPA there is currently a surplus of 165 primary school places. DfE capacity forecasts (School Place Planning Data 2018/19) indicate that by 2023/24 there will be a deficit of 129 primary school places available in the CTCH PSPA.

14.4.29 The 2018 ES selected secondary schools for assessment that were located within and immediately surrounding the Study Area. A total of 8 primary schools were selected and referencing roll numbers from the January 2018 DfE School Census and school capacities as at Summer 2018 provided by LBN, the 2018 ES identified that there was a surplus of secondary school places (totalling 777 places) across the 8 secondary schools.

14.4.30 Updated January 2019 DfE School Census data is presented in Table 14-9. The surplus of 777 places identified in the 2018 ES has now increased to 955 places.

Table 14-9 Secondary school capacities (January 2019). Figures in brackets are the figures presented in 2018 ES

Map No.	Name	Pupils on roll	Capacity	Surplus/deficit (pupils)
1	Rokeby School	747 *(770)*	900 *(900)*	153 *(130)*
2	Eastlea Community School	1,026 *(957)*	1,200 *(1,200)*	174 *(243)*
3	Kingsford Community School	1,503 *(1,440)*	1,500 *(1,650)*	-3 *(210)*
4	Brampton Manor Academy	2,343 *(2,261)*	2,046 *(1,800)*	-297 *(-461)*
5	Oasis Academy Silvertown	324 *(248)*	600 *(450)*	276 *(202)*
6	London Design and Engineering UTC	404 *(341)*	600 *(355)*	196 *(14)*
7	The Cumberland School	1,430 *(1,451)*	1,500 *(1,500)*	70 *(49)*
8	Royal Docks Academy	814 *(810)*	1,200 *(1,200)*	386 *(390)*
	Total (8 schools)	**8,591 *(8,278)***	**9,546 *(9,055)***	**955 *(777)***

Source: DfE, Annual School Census January 2019

14.4.31 As with primary education, for the purpose of the March 2020 ES Addendum, consideration is also given to SSPAs used by LBN for the purpose of school place planning. There is only one SSPA covering the whole of LBN which includes all 20 secondary schools in LBN as detailed in Table 14-10 along with the number of pupils on roll and school capacities according to the January 2019 DfE Annual School Census.

Table 14-10 Secondary school capacities (January 2019) for all secondary schools in LBN

Map No.	Name	Pupils on roll	Capacity	Surplus/deficit (pupils)
1	Rokeby School	747	900	153
2	Eastlea Community School	1026	1200	174
3	Kingsford Community School	1503	1500	-3
4	Brampton Manor Academy	2343	2046	-297
5	Oasis Academy Silvertown	324	600	276
6	London Design and Engineering UTC	404	600	196
7	The Cumberland School	1430	1500	70
8	The Royal Docks Community School	814	1200	386
	School 21	1211	1200	-11
	Chobham Academy	1916	1780	-136
	Langdon Academy	2078	2430	352
	East London Science School	517	1000	483
	Forest Gate Community School	1128	1080	-48
	Little Ilford School	1402	1380	-22
	Lister Community School	1384	1350	-34
	Plashet School	1402	1410	8
	Sarah Bonnell School	1253	1200	-53
	St Angela's Ursuline School	1290	1344	54
	St Bonaventure's RC School	1310	1300	-10
	Stratford School	1372	1500	128
	Total (20 schools)	**24854**	**26520**	**1666**

Source: DfE, Annual School Census January 2019

14.4.32 Across Newham's SSPA (total of 20 schools) there is currently a surplus of 1,666 secondary school places. DfE capacity forecasts (School Place Planning Data 2018/19) indicate that by 2025/26 there will be a deficit of 390 secondary school places available across LBN.

Open Space

14.4.33 The May 2019 ES Addendum presented baseline conditions in respect of open space sourced from LBN's Detailed Sites and Policies Development Plan Document (DPD) adopted in October 2016 and LBN's Open Space Assessment October 2010. There have been no subsequent updates to either of these documents and therefore the baseline conditions presented in the May 2019 ES Addendum remain unchanged.

14.5 UPDATED POTENTIAL EFFECTS AND MITIGATION MEASURES

Demolition and construction effects

Changes to original assessment

14.5.1 The 2018 ES assessed construction employment over a 130-month period (1 May 2020 to 1 February 2031). The phasing of development for the March 2020 submission refers to development commencing in November 2020 and finishing in February 2031. The effect of which is to shorten the construction period to 123 months.

14.5.2 The LFT has been re-run using a 123-month period (all other assumptions remain the same) and it is anticipated that the construction period will now produce employment for an average of 876 full time equivalent (FTE) workers per month. This provides an increase from the 830 FTE workers presented in the 2018 ES over a 130-month period.

14.5.3 The change in construction employment from 830 to 876 FTE workers is not considered to revise the assessment of effect on employment during the construction phase assessed in the 2018 ES and therefore the effect remains temporary, moderate beneficial at the local, borough and regional level.

14.5.4 The construction effects on wider human health remain unchanged from that presented in the 2018 ES.

Further supplementary mitigation required

14.5.5 None required.

Operational effects

Changes to original assessment

14.5.6 Operational effects in relation to: Population; Housing; Crime; Local Expenditure; Employment; Primary Healthcare; and Wider Human Health, remain unchanged from those presented in the 2018 ES, May 2019 and June 2019 ES Addendums.

14.5.7 Operational effects in relation to Early Years, Primary and Secondary education have been updated to reflect the latest housing mix of the proposed development and the additional methods for calculating child yield (as detailed in the assessment methodology section of this chapter).

14.5.8 Operational effects in relation to open space (including play space) have been updated to reflect the updated landscape and amenity masterplan.

Early Years Childcare Provision

14.5.9 The May 2019 ES Addendum presented an initial yield of 653 early years children (aged 0-4 years) increasing to 817 children over time based on the results of Wandsworth Population Yield Calculator.

14.5.10 Table 14-11 presents child yield arising from each phase of the proposed development (taking into account the latest housing mix) according to the Wandsworth Population Yield Calculator and the GLA Population Yield Calculator.

Table 14-11 Yield of Early Years children (aged 0-4 years)

Phase	Number of units	Wandsworth Calculator		GLA Calculator
		Initial	Over-time	
1	401	51	63	82
2	473	106	122	195
3	471	27	44	44
4	320	19	30	30
5	361	54	64	95
6	412	55	69	109
7	524	71	61	125
8	542	32	51	50
9	498	97	114	177
10	575	74	94	132
11	423	104	118	169
Total	**5000**	**690**	**830**	**1207**

Source: Wandsworth Population Yield Calculator and GLA Population Yield Calculator

14.5.11 Re-assessing early years child yield for each individual phase of the development (and taking into account the revised housing mix) increases the yield from the Wandsworth model very slightly from that presented in the May 2019 ES Addendum. The increase in child yield is as a result of the increase in affordable housing units provided by the proposed development from 29% to 34% (on a habitable room basis, the percentage of affordable increases from 37% to 39%). Initial early years child yield increases from 653 to 690 children and yield over time increases from 817 to 830 children. The GLA Population Calculator yields 1,207 early years children.

14.5.12 Baseline conditions identified that there are approximately 600 places for under-fives in the Study Area which would not meet the demand arising from the proposed development set out in Table 14-11. The proposed development is continuing to provide a nursery which will provide a further 104 pre-school places which would meet the demand arising from the proposed development based on the yields from the Wandsworth Calculator but not meet the demand based on yields from the GLA Population Calculator.

14.5.13 Nonetheless, given that early years education can be provided in a number of ways including at local authority maintained nursery schools, children's centres or primary schools with nursery classes, or privately through independent nursery schools, playgroups, child-minders or creches it is considered that the effect of the proposed development on early years education will remain negligible for which mitigation is not required.

Primary Education

14.5.14 The May 2019 ES Addendum presented an initial yield of 378 primary school aged children (aged 5-10 years) reducing to 372 children over time based on the results of Wandsworth Population Yield Calculator.

14.5.15 Table 14-12 presents child yield arising from each phase of the proposed development (taking into account the latest housing mix) according to the Wandsworth Population Yield Calculator and the GLA Population Yield Calculator.

Table 14-12 Yield of primary aged children (aged 5-10 years)

Phase	Number of units	Wandsworth Calculator		GLA Calculator	LBN Multipliers
		Initial	Over-time		
1	401	23	26	59	69
2	473	67	60	155	81
3	471	12	16	29	81
4	320	8	11	20	55
5	361	35	31	76	62
6	412	38	35	94	71
7	524	100	49	117	90
8	542	13	18	33	93
9	498	61	57	143	86
10	575	47	45	104	99
11	423	53	54	127	73
Total	**5000**	**457**	**402**	**956**	**860**

Source: Wandsworth Population Yield Calculator, GLA Population Yield Calculator and LBN Multipliers

14.5.16 Re-assessing primary aged child yield for each individual phase of the development (and taking into account the revised housing mix) increases the yield from the Wandsworth model from that presented in the May 2019 ES Addendum. Initial yield increases from 378 to 457 children and yield over time increases from 372 to 402 children. The GLA Population Calculator yields 956 primary children and application of the LBN multipliers yield 860 primary aged children.

14.5.17 Baseline conditions identified that there are approximately 165 primary school places available currently in the CTCH PSPA with forecasts indicating that the number of available places within the CTCH PSPA will decrease to a deficit of 129 primary places by 2023/24. Therefore, the number of places available in the existing provision is not sufficient to accommodate the demand for primary school places arising from the proposed development.

14.5.18 However, given that the proposed development will be providing a 4 FE primary school, this will provide a further 840 primary school places in the local area assuming 1 FE is equivalent to 210 places. This will meet the

additional need for primary school places according to the Wandsworth model but falls slightly short of meeting the additional need according to the LBN multipliers and the GLA Population Yield Calculator. As a result, the proposed development is now considered to have a minor adverse effect on primary education which will require mitigation. Whilst the proposed 4FE primary school will meet a large proportion of the need for additional primary school places arising from the proposed development, further mitigation in the form of a financial contribution will be required to mitigate the shortfall in primary school places (20 places according to the LBN multipliers and 116 places according to the GLA Population Yield Calculator).

14.5.19 The 2018 ES, May 2019 and June 2019 ES Addenda assessed the effect of the proposed development on primary education as moderate/minor beneficial given the 4 FE primary school on the proposed development would not only meet the needs arising from the proposed development but also the wider area. Now that financial mitigation is required to address the shortfall in primary school places that cannot be accommodated within the proposed development's 4FE primary school, the effect has been changed to minor adverse. However, after financial contributions have been made, the residual effect of the proposed development on primary education will be negligible.

Secondary Education

14.5.20 The May 2019 ES Addendum presented an initial yield of 161 secondary school aged children (aged 11-15 years) increasing to 379 children over time based on the results of Wandsworth Population Yield Calculator.

14.5.21 Table 14-13 presents child yield arising from each phase of the proposed development (taking into account the latest housing mix) according to the Wandsworth Population Yield Calculator and the GLA Population Yield Calculator.

Table 14-13 Yield of secondary aged children (aged 11-15 years)

Phase	Number of units	Wandsworth Calculator		GLA Calculator	LBN Multipliers
		Initial	Over-time		
1	401	9	25	22	36
2	473	31	77	79	43
3	471	3	6	7	43
4	320	2	4	5	29
5	361	16	35	38	32
6	412	17	35	57	37
7	524	55	74	82	47
8	542	4	7	8	49
9	498	27	65	76	27
10	575	20	45	51	52
11	423	23	67	56	56
Total	**5000**	**207**	**440**	**480**	**450**

Source: Wandsworth Population Yield Calculator, GLA Population Yield Calculator and LBN Multipliers

14.5.22 Re-assessing secondary aged child yield for each individual phase of the development (and taking into account the revised housing mix) increases the yield from the Wandsworth model from that presented in the May 2019 ES Addendum. Initial yield increases from 161 to 207 children and yield over time increases from 379 to 440 children. The GLA Population Calculator yields 480 secondary children and application of the LBN multipliers yield 450 secondary aged children.

14.5.23 Baseline conditions identified that there are approximately 1,666 secondary school places available currently in the CTCH PSPA which is in excess of the demand for secondary school places arising from the proposed development. However, DfE forecasts indicate that the surplus of secondary places will turn to a deficit of 390 places by 2025/26. The effect on secondary education is negligible (after financial contributions have been made). For this addendum, no further mitigation is required, and the effect remains unchanged from the 2018 ES and subsequent addenda.

Open Space

14.5.24 The May 2019 ES Addendum assessed the effects on open space on the basis of the proposed development providing 110,272 sqm of open space and 30,646 sqm of play space provision. However, the 110,272 sqm of open space provision only represented the ground floor provision of open space. The proposed development provides private and communal roof terraces and therefore it is considered appropriate to include the total quantum of open space provision when assessing the effects on open space in this March 2020 ES Addendum.

14.5.25 The total quantum of open space provision at the time of the June 2019 ES Addendum was 165,971 sqm. The proposed development is now providing 143,843 sqm of open space comprising:

- Private amenity = 36,300 sqm (unchanged from June 2019);
- Semi-private amenity space = 21,033 sqm (a reduction from 24,786 sqm in June 2019);
- Public realm = 64,445 sqm (a reduction from 83,236 sqm in June 2019); and
- Enhanced habitat (including Site of Interest for Nature Conservation (SINC) = 22,065 sqm (an increase from 21,649 sqm in June 2019).

14.5.26 Baseline conditions presented in the May 2019 ES Addendum (which remain unchanged) identified a deficiency of local/pocket park provision within proximity of the proposed development site. The proposed development's provision of 64,445 sqm of public realm includes the provision of a park totalling 22,712 sqm (equivalent to 2.3 ha) which is equivalent to the GLA's definition of a Local Park. The provision of a park of this size by the proposed development is therefore considered to address the current shortfall in park provision within the local area, providing communal amenity open space for both residents of the proposed development and the wider area.

14.5.27 In addition, the proposed development will provide 30,999 sqm of play space provision comprising:

- Informal play (0-11 years) = 19,485 sqm;
- Formal play (0-11 years) = 8,284 sqm; and
- Formal podium play (0-5 years) = 3,230 sqm.

14.5.28 The overall provision of play space has increased by 353 sqm from that assessed in the 2018 ES (30,646 sqm). The increase in play space is within the informal and formal play provision. Informal play space has increased from 19,003 to 19,485 sqm and formal play space has increased from 8,194 to 8,284 sqm. There has been a slight reduction in formal podium play from 3,449 to 3,230 sqm.

14.5.29 Play space requirements are determined by populating the GLA Play Space Calculator with the housing mix of the proposed development. The calculations have been updated for the March 2020 ES Addendum to take account of the latest housing mix for the proposed development. This establishes a play space requirement of 26,265 sqm which is higher than the play space requirement presented in the May 2019 ES Addendum (23,002 sqm). However, the level of play space provision being provided by the proposed development for the March 2020 submission (30,999 sqm) continues to exceed the minimum GLA requirement and will address the deficit of child play space provision identified in the baseline assessment.

14.5.30 Given the proposed development is continuing to provide open and play space provision, in excess of the requirement, which will address the existing deficit of such provision within proximity of the development site, it is considered that the proposed development will remain to have a permanent moderate beneficial effect on open space for which no mitigation is required.

Further supplementary mitigation required

14.5.31 The effect on primary education was assessed as moderate/minor beneficial in the June 2019 ES Addendum. However, this March 2020 Addendum has assessed the effect on primary education as minor adverse due to the increase in child yields resulting from the revised methodology which can no longer be accommodated within the proposed development's 4FE primary school. As a result, further supplementary mitigation is required to mitigate the minor adverse effect on primary education.

Table 14-14 Summary of further supplementary construction and demolition mitigation measures

Adverse effect	Mitigation measure	Responsibility / Mechanism for implementation	Timing
Primary education	Financial contribution to mitigate the primary school places that cannot be accommodated within the proposed development's 4FE primary school. This equates to 20 places according to the LBN multipliers and 116 places according to the GLA Population Yield Calculator.	Financial contribution to be set out within the S106 Agreement	To be advised by GLA and LBN

14.6 UPDATED RESIDUAL EFFECTS AND CONCLUSIONS

14.6.1 The majority of the residual effects and conclusions remain unchanged from the May 2019 and June 2019 ES addenda, except for primary education which is now of a negligible effect due to the use of a revised methodology and additional school places required.

Table 14-15 Summary of residual effects during demolition and construction

Receptor and sensitivity	Effect	Last assessment (June 2019 ES addendum)	Amended Proposed Development residual effects	
		Effect Significance	Further Supplementary Mitigation	Effect Significance
Construction jobs	Creation of 876 FTE workers per month over the construction period November 2020 to February 2031 (equating to 123 months)	Moderate beneficial	None required	Unchanged
Wider Human Health	Increased traffic flows and vibration and noise associated with construction activities will be minimised through the CEMP	Negligible	None required	Unchanged

Table 14-16 Summary of residual effects during operation

Receptor and sensitivity	Effect	Last assessment (June 2019 ES addendum)	Amended Proposed Development residual effects	
		Effect Significance	Further Supplementary Mitigation	Effect Significance
Population and housing	The proposed development will contribute to LBN's future housing requirement and provide new homes for approximately 12,600 people	Moderate beneficial	None required	Unchanged
Crime	The proposed development has been designed to prevent and reduce future criminal activity	Negligible	None required	Unchanged
Local expenditure	The additional population will generate an increase in consumer spending on convenience and comparison goods and on leisure and services in the local area	Moderate beneficial	None required	Unchanged
Employment/ local jobs	The proposed development will generate between 602 and 847 net additional jobs in the local area	Moderate beneficial	None required	Unchanged
Primary healthcare	GP provision in the local area is currently over-capacity before the addition of a further 12,600 people generated by the proposed development. There is capacity within existing dental provision to meet additional demand from the proposed development	Moderate beneficial	None required	Unchanged
Wider Human Health	The proposed development has been designed to promote healthy and active lifestyles and regulate CO_2 emissions	Minor beneficial	None required	Unchanged

Receptor and sensitivity	Effect	Last assessment (June 2019 ES addendum)	Amended Proposed Development residual effects	
		Effect Significance	Further Supplementary Mitigation	Effect Significance
Education (early years)	There is a reasonable supply of early years provision currently in the Study Area. Nonetheless, the proposed development is providing a nursery that will provide a further 104 early places	Negligible	None required	Unchanged
Education (primary)	Existing primary school provision is currently over-capacity and the proposed development is likely to yield demand for up to 956 primary school places. The proposed development is providing a 4FE primary school which will provide 840 primary places but mitigation will be required to address the shortfall in primary places	Moderate/Minor beneficial	Financial contribution to mitigate the shortfall in primary school places (20 places according to the LBN multipliers and 116 places according to the GLA Population Yield Calculator, that cannot be accommodated within the proposed developments' 4FE primary school	Negligible following mitigation. Changed as a result of the revised methodology for calculating child yield.
Education (secondary)	Surplus capacity in existing secondary school provision but capacity forecast to disappear by 2024/25. The proposed development is likely to yield demand for up to 480 secondary school places.	Negligible	None required	Unchanged
Open space	The proposed development will provide 143,843 sqm of open space of which 22,712 sqm is a local park, addressing the existing deficit of park provision in the local area. Furthermore, the proposed development is providing 30,999 sqm of play space provision, in excess of the GLA requirement, and again addressing the shortfall in play space provision locally	Moderate beneficial	None required	Unchanged

14.7 REFERENCES

- DfE (2019) Annual School Census January 2019 – Pupils on roll [https://www.gov.uk/government/statistics/schools-pupils-and-their-characteristics-january-2019];
- DfE (2020), School Place Planning Data for academic year 2018/19
- Police.uk (2020), Crime statistics for January 2020 [from DATA.POLICE.UK on 04 March 2020];
- NHS (2019) General and Personal Medical Services – Patient list size and number of FTE GPs as at December 2018;
- ONS (2019) 2018 Business Register and Employment Survey – Occupational structure [from NOMIS on 1 March 2020];
- ONS (2019) 2018 Mid-Year Population Estimates, Office for National Statistics;
- ONS (2020) Annual Population Survey [from NOMIS on 1 March 2020];
- PHE (2020) 2019 Health Profiles, Public Health England [online tool accessed 1 March 2020 https://fingertips.phe.org.uk/profile/health-profiles/data#page/0/gid/1938132696/pat/6/par/E12000007/ati/101/are/E09000025

14.8 LIST OF APPENDICES

Reference	Title
14-A	Health Impact Assessment (revised for March 2020)

15 BUILT HERITAGE

15.1 INTRODUCTION

15.1.1 This chapter of the ES addendum includes an updated assessment for Cultural Heritage (Built) in light of the proposed development amendments. The assessment includes a review of any relevant changes in legislation since the last ES Addendum was prepared in June 2019; a review of the baseline conditions in order to ensure the assessment is based on up-to-date site and surrounding area conditions; a review of any further supplementary mitigation measures required; and reports on any changes to the likely residual environmental effects after these measures have been adopted.

15.1.2 An updated cumulative and interactive effects assessment associated with this chapter has additionally been considered within the ES addendum and can be found in Chapter 18 Review of Cumulative and Interactive Effects.

15.2 METHODOLOGY

Assessment approach

15.2.1 The methodology for the assessment remains unchanged from the 2018 ES, May 2019 and June 2019 ES Addenda.

15.3 REVIEW OF PLANNING POLICY CONTEXT

15.3.1 The planning policy context remains unchanged from the June 2019 ES Addendum, with the exception of the following update to the Draft London Plan.

15.3.2 The Greater London Authority (GLA) has published its 'intend to publish' version of the Draft London Plan (December 2019). This is now being attributed material weight in the planning process.

15.4 CURRENT BASELINE CONDITIONS 2020

15.4.1 The baseline conditions for the assessment remain unchanged from the conditions set out in the May 2019 ES Addendum and June 2019 ES Addendum.

15.5 UPDATED POTENTIAL EFFECTS AND MITIGATION MEASURES

Demolition and construction effects

15.5.1 The demolition and construction effects, including the original and intermediate year assessments, remain unchanged from the May and June 2019 ES addendum.

Further supplementary mitigation required

15.5.2 No further supplementary mitigation is required.

Operational effects

Changes to original assessment

15.5.3 The operational effects, including original and intermediate year assessments, remain unchanged from the May and June 2019 ES Addenda.

15.5.4 The proposed development amendments include includes minor overall changes to the heights and separation of buildings across the application site.

15.5.5 The proposed upper levels added to the north western blocks in the closest vicinity of the Trinity Buoy Wharf Site (Block T and S) will be minor/negligible in the setting of the identified key heritage assets to the north west of the application site (Trinity House Buoy Wharf Quay and Orchard Dry Dock — Grade II listed mid-19th century wharf—located 135m west of the site; and Trinity House Chain Locker and Lighthouse Block—Grade II listed mid-19th century lighthouse—located 125m west of the site).

15.5.6 The proposed development amendments including the reduction in heights and massing of the proposed eastern-most cluster of buildings (Block A, B and D) on the application site, will have a minor/negligible impact on the setting of the Stothert and Pitt cranes on the north and south sides of the Royal Victoria Dock, located to the east of the application site.

Further supplementary mitigation required

15.5.7 No further supplementary mitigation is required.

15.6 UPDATED RESIDUAL EFFECTS AND CONCLUSIONS

15.6.1 The residual effects and conclusions remain unchanged from the May and June 2019 ES Addendums.

15.7 FUTURE MONITORING OF SIGNFICIANT RESIDUAL ENVIRONMENTAL EFFECTS

15.7.1 No significant residual environmental effects were identified as a result of the proposed development amendments since the May 2019 and June 2019 ES addendums.

16 TOWNSCAPE AND VISUAL IMPACT ASSESSMENT

16.1 INTRODUCTION

16.1.1 This chapter of the ES addendum includes an updated assessment for Townscape and Visual Amenity in light of the proposed development amendments. The assessment includes a review of any relevant changes in legislation since the last ES Addendum was prepared in June 2019; a review of the baseline conditions in order to ensure the assessment is based on up-to-date site and surrounding area conditions; a review of any further supplementary mitigation measures required; and reports on any changes to the likely residual environmental effects after these measures have been adopted.

16.1.2 An updated cumulative and interactive effects assessment associated with this chapter has additionally been considered within the ES addendum and can be found in Chapter 18 Review of Cumulative and Interactive Effects.

16.2 METHODOLOGY

Assessment approach

16.2.1 The methodology for the assessment remains unchanged from the 2018 ES, May 2019 and June 2019 ES addenda.

16.3 REVIEW OF PLANNING POLICY CONTEXT (CHANGES SINCE JUNE 2019 ADDENDUM)

16.3.1 The planning policy context generally remains unchanged from the June 2019 ES Addendum.

Draft New London Plan

16.3.2 Since the submission of the June 2019 ES Addendum, the Draft New London Plan was updated in December 2019 as the 'Intend to Publish version', submitted to the Secretary of State and taking into account the Inspectors' recommendations. There are subtle changes in wording of the sections of relevance to townscape and visual matters, such as Policies GG1 and GG2 being changed to 'objectives. However, there are no substantive changes, with the vast majority of Chapter 3 'Design', the section of most relevance to townscape and visual matters, remaining unaltered.

16.4 CURRENT BASELINE CONDITIONS 2020

16.4.1 As a result of the ongoing construction works in the setting of the site and the passage of time, a number of subtle alterations have occurred in the urban fabric. However, much of these construction works were already underway at the time of the 2018 ES and accordingly they are not considered to constitute substantive changes. Nonetheless, the visual record and description of the baseline conditions has been amended to reflect the existing nature of the site and its surroundings.

16.4.2 ES Addendum Volume II provides an updated record of the baseline townscape and visual conditions.

16.5 UPDATED POTENTIAL EFFECTS AND MITIGATION MEASURES

Demolition and construction effects

Changes to original assessment

16.5.1 The assessment of demolition and construction effects on townscape and visual amenity remain unchanged from the 2018 ES, May 2019 and June 2019 ES addenda.

Climate change and adaptation

16.5.2 The climate change effects remain unchanged from the 2018 ES, May 2019 ES Addendum and June 2019 ES addenda.

Further supplementary mitigation required

16.5.3 None required.

Operational effects

Changes to original assessment

16.5.4 The assessment of operational effects on townscape remain unchanged, while the assessment on visual amenity for the majority of identified visual receptors similarly remain unchanged. As stated in the 2018 ES, the extent to which the introduced built form of the proposed development is perceived as a beneficial or adverse contributor to the views obtained is dependent on context and the visual amenity of the receptor in question. Once completed, the proposed development will be visible from a wide area due to the open nature of many views as a result of the sites' location at the confluence of the River Lea and River Thames. This aspect in itself reflects the prominence of the site, and it therefore stands to reason that the site exudes a gateway eminence that is characteristically distinct from the surrounding areas.

16.5.5 The amendments to the massing and arrangement of the built form of the proposed development have been devised to respond positively to the concerns and/or design criteria set out by London Borough of Newham (LBN) and the Greater London Authority (GLA).

16.5.6 Specifically, the reduction in the heights of Blocks A, B and C (within Phases 1 and 2) has ensured that the introduced built form will not appear overbearing, nor bulky or incongruous within the townscape and on the periphery of the site, thus helping to further integrate the proposed development into its surroundings and aid in creating a softer transition. Similarly, the redistribution of mass within Block D helps to reinforce this step-down in the south-eastern part of the site.

16.5.7 Increases in the height of Blocks E and F, will, alongside C, G and H help to frame the newly created central park and amenity space and ensure that these buildings appear as slender and uplifting features from within this area. Their increased height will also simultaneously evoke an 'amphitheatrical' atmosphere, with a series of stacked layers containing the Emirates Airline and giving rise to a sense of occasion for passengers of this transient route.

16.5.8 Elsewhere, uplifts in the height of Blocks H, J, K, L, M, N, S and T, combined with the increased separation distances between Blocks H, K, L , P, Q and U will largely be imperceptible in the skyline, with the design objective of creating a modulating cadence preserved.

16.5.9 ES Addendum Volume II provides verifiable images of the proposed development from all of the representative viewpoints assessed, while Table 16-1 provides a summary description of the likely effects that will occur for the identified representative visual receptors where the findings differ from those set out in the 2018 ES.

Table 16-1 Summary of changed visual effects during operation

Receptor	Sensitivity	Description of effect	Magnitude	Effect Significance
View 8: View west from the A1020 Silvertown Way	Low	The introduction of the proposed development into this view from this location will result in a considerable alteration to its composition. The newly introduced tall built forms will result in a strong sense of purposeful enclosure to Silvertown Way, and as a consequence lead the eye along a newly created vista. The way in which the built form is staggered and gently steps up in height away from the viewer ensures that it does not appear overly bulky, while the brickwork of 'the Landings' in combination with the dark powder coated metalwork and large expanses of glazing (including glass balustrades) give the building a contemporary quality, providing visual interest and enhancing the visual amenity experience. However, views of the Emirates Air Line stanchions and the profile of Canary Wharf will be obstructed as a result of the introduced built form, slightly diminishing the wayfinding feasibility in the townscape. In light of these considerations, a pronounced change in the view obtained will occur that on balance will result in a slight enhancement to the visual amenity experience.	Large	Minor Beneficial
View 16: View north from the Thames Path near Peartree Wharf	Medium	The proposed development will be visible from this location across the River Thames, with the introduced built form foreshortening the view towards existing high-rise development in LBH. Although the introduced buildings will appear to be of a slightly larger scale than the existing built form that characterises the view such as the Hoola Towers, there will be a degree of modulation in the vertical emphasis between the blocks. This aspect, coupled with the way in which 'the Landings' steps down in the view to the right, helps to provide a transition in scale that simultaneously delivers visual interest in the skyline. On balance, the introduced built form is considered to present a very slight enhancement to the view.	Medium	Negligible Beneficial

Climate change and adaptation

16.5.10 The climate change effects remain unchanged from the May 2019 and June 2019 ES addenda.

Further supplementary mitigation required

16.5.11 None required.

16.6 UPDATED RESIDUAL EFFECTS AND CONCLUSIONS

16.6.1 The assessment of residual effects refers to the likely effects of the proposed development that will remain once the supplementary mitigation measures are applied. The following tables re-summarise the permanent position and effects.

16.6.2 There are two minor changes to the residual visual effects during operation. These are to viewpoints 8 and 16 as detailed in Table 16-5.

Table 16-2 Summary of residual townscape effects during demolition and construction

Receptor and sensitivity	Effect	Last assessment (June 2019 ES addendum)	Amended Proposed Development residual effects	
		Effect Significance	Further Supplementary Mitigation	Effect Significance
NCA Profile 81: Greater Thames Estuary (Low)	Alterations to the key characteristics of this character area due to the presence of construction and demolition works associated with the proposed development within, or in the setting of, this character area.	Neutral	None required	Unchanged
NLA 14: Lower Thames Floodplain (Low)		Neutral	None required	Unchanged
TCA 1: Poplar Suburbs (Low)		Negligible Adverse	None required	Unchanged
TCA 2: Leamouth and Thames Estuary (Medium)		Major Adverse	None required	Unchanged
TCA 3: Canning Town and Custom (Low)		Minor Adverse	None required	Unchanged
TCA 4: Royal Victoria Dock (Medium)		Moderate Adverse	None required	Unchanged
TCA 5: West Silvertown (Low)		Minor Adverse	None required	Unchanged
TCA 6: Minoco Wharf (Low)		Negligible Adverse	None required	Unchanged
TCA 7: Canary Wharf and Docklands (Medium)		Minor Adverse	None required	Unchanged
TCA 8: Isle of Dogs (Medium)		Neutral	None required	Unchanged
TCA 9: Greenwich Peninsula West (Low)		Negligible Adverse	None required	Unchanged
TCA 10: Greenwich Peninsula East (Medium)		Moderate Adverse	None required	Unchanged
TCA 11: New Charlton (Low)		Negligible Adverse	None required	Unchanged

Table 16-3 Summary of residual visual effects during demolition and construction

Receptor and sensitivity	Effect	Last assessment (June 2019 ES addendum)	Amended Proposed Development residual effects	
		Effect Significance	Further Supplementary Mitigation	Effect Significance
1: View south-east from the A1020 Lower Lea Crossing (Medium)		Moderate Adverse	None required	Unchanged

Receptor and sensitivity	Effect	Last assessment (June 2019 ES addendum)	Amended Proposed Development residual effects	
		Effect Significance	Further Supplementary Mitigation	Effect Significance
3: View south from the Keir Hardie Recreation Ground (Medium)	Alterations to the composition of the available views and visual amenity experience due to the visibility of construction and demolition works associated with the proposed development within the townscape.	Minor Adverse	None required	Unchanged
4: View south from the Charrington Steps/A1011 Silvertown Way (Low)		Moderate Adverse	None required	Unchanged
5: View south-west from Tidal Basin Road (Low)		Negligible Adverse	None required	Unchanged
7: View south-west from the Royal Docks Waterfront (Medium)		Minor Adverse	None required	Unchanged
8: View west from the A1020 Silvertown Way (Low)		Moderate Adverse	None required	Unchanged
9: View north-west from Silvertown Station (Medium)		Moderate Adverse	None required	Unchanged
12: View west from the Royal Victoria Dock Bridge (High)		Major Adverse	None required	Unchanged
14: View north-west from the Thames Barrier Park (Medium)		Negligible Adverse	None required	Unchanged
15: View north-west from the Thames Path near the Thames Barrier (Medium)		Minor Adverse	None required	Unchanged
16: View north from the Thames Path near Peartree Wharf (Medium)		Moderate Adverse	None required	Unchanged
18: View north-east from the Thames Path near the North Greenwich Pier (Medium)		Major Adverse	None required	Unchanged
19: View east from Trinity Buoy Wharf (Low)		Moderate Adverse	None required	Unchanged
21: View east from Blackwall Stairs (High)		Moderate Adverse	None required	Unchanged
23: View north-east from Blackwall Read/West India and Millwall Docks (High)		Negligible Adverse	None required	Unchanged
24: View west from Woolwich Manor Way/London City Airport (Medium)		Negligible Adverse	None required	Unchanged
25: View west from the Woolwich Ferry South Pier (Medium)		Negligible Adverse	None required	Unchanged
27: View west Greenwich Park/Observatory – LVMF Protected View (High)		Neutral	None required	Unchanged
B: View east from the East India Dock Basin (Medium)		Minor Adverse	None required	Unchanged
E: View north-east from the National Maritime Museum (High)		Minor Adverse	None required	Unchanged
G: View east from the King Edward VII Memorial Park		Negligible Adverse	None required	Unchanged

Table 16-4 Summary of residual townscape effects during operation

Receptor and sensitivity	Effect	Last assessment (June 2019 ES addendum)	Amended Proposed Development residual effects	
		Effect Significance	Further Supplementary Mitigation	Effect Significance
NCA Profile 81: Greater Thames Estuary (Low)	Alterations to the key characteristics of this character area due to the presence of the proposed development within, or in the setting of, this character area.	Neutral	None required	Unchanged
NLA 14: Lower Thames Floodplain (Low)		Neutral	None required	Unchanged
TCA 1: Poplar Suburbs (Low)		Negligible Beneficial	None required	Unchanged
TCA 2: Leamouth and Thames Estuary (Medium)		Major Beneficial	None required	Unchanged
TCA 3: Canning Town and Custom (Low)		Negligible Beneficial	None required	Unchanged
TCA 4: Royal Victoria Dock (Medium)		Negligible Beneficial	None required	Unchanged

Receptor and sensitivity	Effect	Last assessment (June 2019 ES addendum)	Amended Proposed Development residual effects	
		Effect Significance	Further Supplementary Mitigation	Effect Significance
TCA 5: West Silvertown (Low)		Minor Beneficial	None required	Unchanged
TCA 6: Minoco Wharf (Low)		Negligible Beneficial	None required	Unchanged
TCA 7: Canary Wharf and Docklands (Medium)		Minor Beneficial	None required	Unchanged
TCA 8: Isle of Dogs (Medium)		Neutral	None required	Unchanged
TCA 9: Greenwich Peninsula West (Low)		Negligible Beneficial	None required	Unchanged
TCA 10: Greenwich Peninsula East (Medium)		Moderate Beneficial	None required	Unchanged
TCA 11: New Charlton (Low)		Neutral	None required	Unchanged

Table 16-5 Summary of residual visual effects during operation

Receptor and sensitivity	Effect	Last assessment (June 2019 ES addendum)	Amended Proposed Development residual effects	
		Effect Significance	Further Supplementary Mitigation	Effect Significance
1: View south-east from the A1020 Lower Lea Crossing (Medium)	Alterations to the composition of the available views and visual amenity experience due to the visibility of the proposed development within the townscape.	Minor Beneficial	None required	Unchanged
3: View south from the Keir Hardie Recreation Ground (Medium)		Neutral	None required	Unchanged
4: View south from the Charrington Steps/A1011 Silvertown Way (Low)		Minor Adverse	None required	Unchanged
5: View south-west from Tidal Basin Road (Low)		Negligible Adverse	None required	Unchanged
7: View south-west from the Royal Docks Waterfront (Medium)		Negligible Beneficial	None required	Unchanged
8: View west from the A1020 Silvertown Way (Low)		Negligible Beneficial	None required	Minor Beneficial
9: View north-west from Silvertown Station (Medium)		Minor Beneficial	None required	Unchanged
12: View west from the Royal Victoria Dock Bridge (High)		Moderate Beneficial	None required	Unchanged
14: View north-west from the Thames Barrier Park (Medium)		Neutral	None required	Unchanged
15: View north-west from the Thames Path near the Thames Barrier (Medium)		Negligible Beneficial	None required	Unchanged
16: View north from the Thames Path near Peartree Wharf (Medium)		Minor Adverse	None required	Negligible Beneficial
18: View north-east from the Thames Path near the North Greenwich Pier (Medium)		Moderate Beneficial	None required	Unchanged
19: View east from Trinity Buoy Wharf (Low)		Moderate Adverse	None required	Unchanged
21: View east from Blackwall Stairs (High)		Moderate Beneficial	None required	Unchanged
23: View north-east from Blackwall Read/West India and Millwall Docks (High)		Negligible Adverse	None required	Unchanged
24: View west from Woolwich Manor Way/London City Airport (Medium)		Negligible Adverse	None required	Unchanged
25: View west from the Woolwich Ferry South Pier (Medium)		Negligible Beneficial	None required	Unchanged
27: View west Greenwich Park/Observatory – LVMF Protected View (High)		Neutral	None required	Unchanged
B: View east from the East India Dock Basin (Medium)		Moderate Beneficial	None required	Unchanged

Receptor and sensitivity	Effect	Last assessment (June 2019 ES addendum)	Amended Proposed Development residual effects	
		Effect Significance	Further Supplementary Mitigation	Effect Significance
E: View north-east from the National Maritime Museum (High)		Negligible Beneficial	None required	Unchanged
G: View east from the King Edward VII Memorial Park		Neutral	None required	Unchanged

16.7 FUTURE MONITORING OF SIGNFICIANT RESIDUAL ENVIRONMENTAL EFFECTS

16.7.1 The future monitoring of significant residual environmental effects remain unchanged from the 2018 ES, May 2019 and June 2019 ES addenda.

16.8 LIST OF APPENDICES (ES ADDENDUM VOLUME II)

Reference	Title
ES Addendum Volume II	Townscape and Visual Impact Assessment – Baseline Conditions (Part 1) and Photomontages (Part 2)

17 GREENHOUSE GAS EMISSIONS

17.1 INTRODUCTION

17.1.1 This chapter of the ES addendum includes an updated assessment for Chapter 17 Greenhouse Gas Emissions in light of the proposed development amendments. The assessment includes a review of any relevant changes in legislation since the previous assessment in May 2019 (no assessment updates were required in the June 2019 addendum); a review of the baseline conditions in order to ensure the assessment is based on up-to-date site and surrounding area conditions; a review of any further supplementary mitigation measures required; and reports on any changes to the likely residual environmental effects after these measures have been adopted.

17.1.2 An updated cumulative and interactive effects assessment associated with Chapter 17 Greenhouse Gas Emissions has additionally been considered within the ES addendum and can be found in Chapter 18 Review of Cumulative and Interactive Effects.

17.2 METHODOLOGY

Assessment approach

17.2.1 This addendum uses the same methodology as the original 2018 ES chapter methodology with updated input data.

17.2.2 The input data has changed because the phasing of the development has changed.

17.2.3 The first update, in May 2019, from the original planning submission had 15,000m^2 of Industrial development previously planned for phase 12 brought forward to phase 3. Therefore, the embodied and operational emissions associated with this element have been brought forward. Bringing this forward had a small increase in total emissions because of the decarbonisation of electricity supply as time goes by.

17.2.4 Within the March 2020 update, has phasing pushed back (less floor area is built out in earlier years and more in later years compared to previous plans; see Appendix for summary of floor areas used) therefore buildings are operated when carbon emissions associated with electricity are lower (because of grid decarbonisation). Because of this, operational emissions have reduced compared to the original 2018 submission. In addition, previously the floor area for residential uses was based on an average area per unit and the number of units. This has now been changed so that it is based on measured NIA; this has increased the expected floor area and changed the predicted carbon emissions accordingly.

17.3 REVIEW OF PLANNING POLICY CONTEXT (CHANGES SINCE JUNE 2019 ES ADDENDUM)

National policy and guidance

17.3.1 There have been no relevant national policy and guidance updates since the 2018 ES. The importance of embodied carbon is increasingly considered by NGOs such as UKGBC and LETI but this has not been translated into a rigorous methodology or policy. Updates to Part L and the New London Plan are under consultation but have not been implemented.

Regional policy and guidance

17.3.2 Chapter 9 of the Draft New London Plan was last updated in December 2019, this update only contained minor grammatical changes to the text presented in December 2017. Chapter 9 has strict carbon targets for buildings during operation. However, onsite carbon targets are still a 35% reduction over Part L requirements. These targets have been used to inform the selection of benchmarks for building operational energy use.

17.3.3 Chapter 9 of the Draft New London Plan now requires the submission of a Circular Economy Statement. In the long term it is believed that this will reduce the embodied carbon of buildings. However, it is difficult to predict the effect this will have and therefore the embodied carbon benchmarks used in the original chapter have been retained.

17.3.4 Retaining these elements also allows comparability between updates.

Local policy and guidance

17.3.5 London Borough of Newham's Local Plan (2018) operational energy targets align with the London Plan. Newham's local plan does not have requirements for a circular economy statement or the reduction of embodied carbon. Therefore, the update to the plan has not changed any of the original chapter.

17.4 CURRENT BASELINE CONDITIONS 2020 (CHANGES SINCE JUNE 2019 ES ADDENDUM)

17.4.1 The extent of the existing buildings that will be demolished has not changed therefore no changes have occurred to the baseline since the original assessment was carried out in the 2018 ES.

17.5 UPDATED POTENTIAL EFFECTS AND MITIGATION MEASURES

Demolition and construction effects

Changes to original assessment

17.5.1 The extent of the existing buildings that will be demolished has not changed therefore no changes have occurred to the baseline since the original assessment was carried out in the 2018 ES.

Changes to intermediate year assessment

May 2019 ES Addendum

17.5.2 Bringing forward the industrial phase brings forward emissions associated with the construction and operation of the industrial phase. Because these emissions happen sooner, they will benefit less from the progressive decarbonisation of the electrical grid. When decarbonisation is modelled the effect of bringing the phasing forward can be seen to be less than 1.5% for embodied CO2e and less than 0.75% for operational CO2e (see Table 17.1).

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17.5.3 Pushing back the phasing and the more accurate measurement of residential floor area produces a 1.5% increase in predicted embodied carbon and a 15% decrease in predicted operational emissions (see Table 17.1)

Table17-1: Summary of changes to total greenhouse gas emissions (CO2e). EC = Embodied carbon and is associated with the construction and demolition phase of the building. OC = operational carbon.

Date of Report	Total EC (tCO2e)	Total OC (tCO2e)	Scenario
March 2020 values	598,411	170,802	Low
March 2020 values	664,735	206,845	Medium
March 2020 values	731,060	242,889	High
May 2019 updates	597,465	202,938	Low
May 2019 updates	662,378	245,374	Medium
May 2019 updates	727,291	287,811	High
December 2018 Original chapter	589,492	201,792	Low
December 2018 Original chapter	654,405	243,770	Medium
December 2018 Original chapter	719,318	285,748	High
Percentage change from original chapter	1.51%	-15.36%	Low
Percentage change from original chapter	1.58%	-15.15%	Medium
Percentage change from original chapter	1.63%	-15.00%	High

Climate change and adaptation

17.5.4 Climate change is unlikely to affect the amount of energy required to manufacture and transport building materials. Therefore, new Climate Projection data (CP18) data will not affect the construction assessment (i.e. the predicted embodied greenhouse gas emissions).

Further supplementary mitigation required

17.5.5 None required.

Operational effects

17.5.6 The ES Addendum update in May 2019 brought forward the industrial phase, which was assessed to have brought forward emissions associated with the construction and operation of the industrial phase. Because these emissions would have happened sooner, they would have benefited less from the progressive decarbonisation of the electrical grid. When decarbonisation is modelled the effect of bringing the phasing forward can be seen to be less than 1.5% for embodied CO_2e and less than 0.75% for operational CO_2e (see Table 17.1).

17.5.7 This, March 2020, update involves revised phasing and a more accurate measurement of residential floor area. Overall an operational carbon saving of 15% is predicted because the buildings will operate further into the future when carbon emissions associated with electricity generation are less than they are now.

17.5.8 These small changes do not affect the magnitude of impact and therefore the overall effect significance prior to further mitigation.

Climate change and adaptation

17.5.9 Increased temperatures may affect the operational energy of the building. It will reduce the heating demand of the buildings. Where cooling is installed (only some non-residential buildings) cooling demand will increase. The risks of overheating have been mitigated by following a number of strategies such as night-time ventilation purge, blinds and reduced g-value.

Further supplementary mitigation required

17.5.10 None required.

17.6 UPDATED RESIDUAL EFFECTS AND CONCLUSIONS

17.6.1 The following tables summarise the effects during demolition, construction and operation. The effects have been mitigated but are still significant because of the nature of greenhouse gases. As we work towards a low carbon future the whole of our society shifts towards lower carbon emissions. This development will be part of that transition. It has many energy saving measures that support the reduction of operational emissions and will investigate approaches to reducing and tracking embodied emissions.

17.6.2 The residual effects and conclusions remain unchanged from the 2018 ES, May 2019 and June 2019 ES addenda.

Table 17-2 Summary of residual effects during demolition and construction

Receptor and sensitivity	Effect	Last assessment (June 2019 ES addendum)	Amended Proposed Development residual effects	
		Effect Significance	Further Supplementary Mitigation	Effect Significance
Atmospheric GHG concentrations (High)	Increased embodied GHG emissions as a result of climate change and increased material degradation	Significant after mitigation	None required	Unchanged

Table 17-3 Summary of residual effects during operation

Receptor and sensitivity	Effect	Last assessment (June 2019 ES addendum)	Amended Proposed Development residual effects	
		Effect Significance	Further Supplementary Mitigation	Effect Significance
Atmospheric GHG concentrations (High)	Increased operational GHG emissions due increased heating/cooling/lighting/ ventilation loads with increased temperature swings, glare, CO_2 concentration.	Significant after mitigation	None required	Unchanged

17.7 FUTURE MONITORING OF SIGNFICIANT RESIDUAL ENVIRONMENTAL EFFECTS

17.7.1 The future monitoring of significant residual environmental effects remain unchanged from the 2018 ES, May 2019 and June 2019 ES addenda.

17.8 LIST OF APPENDICES

Reference	Title
Appendix 17-A	General project inputs 2020

18 REVIEW OF CUMULATIVE AND INTERACTIVE EFFECTS

18.1 INTRODUCTION

18.1.1 This chapter describes any changes to cumulative impacts and associated effects. It includes an assessment in light of the development amendments made since the June 2019 ES addendum was prepared, in addition to any amendments to nearby cumulative developments since the June 2019 ES addendum.

18.1.2 For the purposes of this ES addendum, cumulative effects are addressed in the context of the following:

- Interaction effects: the accumulation of different predicted effects generated by the scheme upon the same sensitive receptors; and
- In-combination effects: the combination of predicted effects from adjacent or nearby scheme(s) together with those predicted for the scheme.

18.1.3 The cumulative schemes have been updated to include those planning applications submitted in the interim period between submission of the June 2019 ES addendum and the March 2020 ES addendum.

18.2 REVIEW OF THE INTERACTION CUMULATIVE EFFECTS ('TYPE 1' EFFECTS)

Potential Receptors

18.2.1 All environmental effects (and their significance) for the proposed development reported within the 2018 ES and subsequent addenda remain unchanged, with the exception being a number of effects as follows:

- Population and Human Health (Chapter 14):
  - Primary Education as a receptor was determined to have a moderate/minor beneficial effect in June 2019 but is now determined to have a negligible significance effect due to the use of a revised methodology for calculating the child yield.
- Townscape and Visual Impact (Chapter 16):
  - Receptor 8 (View west from the A1020 Silvertown Way) was a negligible beneficial effect in June 2019 but is now a minor beneficial effect.
  - Receptor 16 (View north of the Thames Path near Peartree Wharf) was a minor adverse effect in June 2019 but is now negligible beneficial effect.

18.2.2 The 2018 ES review of type 1 effects noted that there was potential for effect interactions to take place during the demolition and construction phase of the proposed development, and that three of the identified receptor groups are potentially subject to more than one effect during this stage as follows:

- LA Lounge Club;
- Future on-site residential properties (for the proposed development itself); and
- Close distance residential properties.

18.2.3 The changes to the individual effects noted in this section are not material to the previous conclusions made regarding type 1 effects (in the 2018 ES). Therefore, the type 1 effects predicted in the 2018 ES and 2019 addenda continue to be valid.

18.3 REVIEW OF IN-COMBINATION CUMULATIVE EFFECTS ASSESSMENT ('TYPE 2' EFFECTS)

Schemes Considered

18.3.1 The cumulative schemes have been updated to include those applications submitted in the interim period between submission of the June 2019 ES addendum and the current ES addendum (March 2020). There are now a total of 27 schemes within a 1km radius of the site. Schemes numbered 24, 25, 26, and 27 on Figure 18-1 have been identified as new cumulative schemes since the June 2019 ES addendum was prepared. The C&A Building Plastics and Ibis Styles London ExCel Hotel from the June 2019 ES addendum have been removed due to withdrawal of the planning application and refusal of planning permission respectively.

The methodology used to identify cumulative schemes for consideration in this addendum has remained unchanged from the original 2018 ES and the subsequent May 2019 and June 2019 addenda.

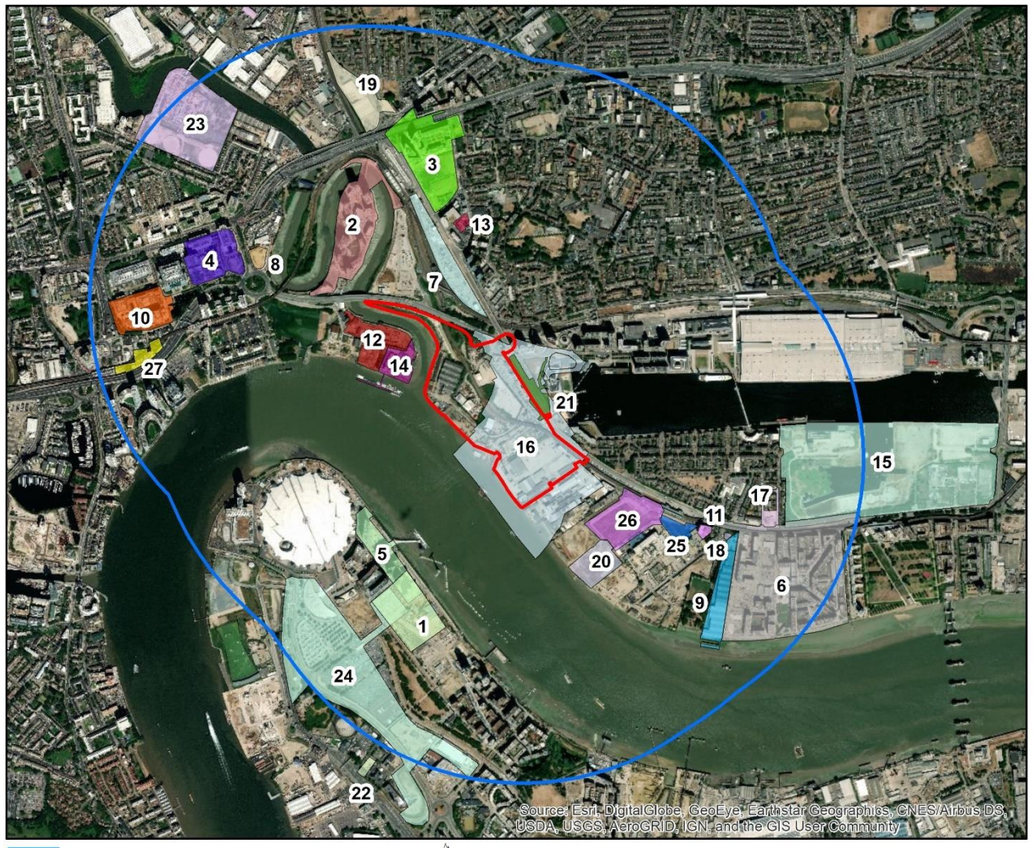

Figure 18-1 Updated locations of cumulative schemes (March 2020)

Table 18-1 Schemes for the cumulative assessment

Ref	Site Address	Proposed Development	Status in December 2018	Status in May 2019	Status in June 2019	Status in February 2020
1	Land to the South of Phoenix Avenue and to the West of Olympian Way (known as Plots NO207, NO404, NO405, MO106-MO110 & MO118 of the Greenwich Peninsula Masterplan) Greenwich, SE10 0DX **10/3422/O**	The development of up to 157,130sq.m of floorspace on Plots N0404, N0405, N0207, M0106, M0107, M109, M0110 and M0118 of the Greenwich Peninsula Masterplan consisting of up to 7,717 sqm of retail (Class A1-A5), up to 38,024 sqm of business (Class B1 and B1b) and up to 111,389 sqm (approx. 1,505 dwellings) of residential (Class C3) and associated open space (including for amenity and entertainment purposes), landscaping, associated car parking, highways and transport works and ancillary works. Up to 1,505 residential units Proposed density = unknown Height = unknown Affordable = unknown Car parking = 129	Approved 15/04/11	Unchanged	Unchanged	Unchanged The construction of the structure is complete. Some residential spaces are operational. Some continuing minor groundworks around the base of the building.
2	Leamouth Peninsula North, Orchard Place, London, E14 **PA/10/01864/P0**	Hybrid planning application for the comprehensive redevelopment of the site for mixed-use purposes to provide up to 185,077 sqm (GEA) of new floor space and up to 1,706 residential units (use class C3) comprising:	Approved 28/11/11	Unchanged	Unchanged	Unchanged Some phases operational. Some phases are superstructures. Some areas of the site are being cleared.

Ref	Site Address	Proposed Development	Status in December 2018	Status in May 2019	Status in June 2019	Status in February 2020
		1) Full planning application for development of Phase 1, at the southern end of the site, comprising buildings G, H, I, J & K, including alterations to existing building N, to provide: -537 residential units (use class C3) -5,424sqm of office and flexible business workspace (use class B1) -382sqm retail, financial and professional services, food and drink (use class A1, A2, A3, A4 A5) -1,801sqm of leisure (use class D2) -1,296sqm of community uses (use class D1) -249sqm art gallery (use class D1) -2,390sqm energy centre -275 car parking spaces				
		2) Outline planning application for Phase 2, at the northern end of the site, comprising Buildings A, B, C, D E, F & M (with all matters reserved except for access and layout) and to provide: -Maximum of 1,169 residential units (use class C3) -2,424sqm of office and flexible business workspace (use class B1) -1,470sqm of retail, financial and professional services, food and drink (use class A1, A2, A3, A4 A5) -1,800sqm of arts and cultural uses floorspace (use class D1) -4,800sqm of educational floorspace (use class D1) -Storage and car and cycle parking -Formation of a new pedestrian access (river bridge) across the River Lea -Formation of a new vehicular access and means of access and circulation within the site, -new private and public open space and landscaping and works to the river walls. Up to 1706 residential units Proposed density = 364 u/hr or 887 hr/ha Height = max of 86 AOD Affordable = 20% across the whole site Car parking = 1 space per 0.4 units				

3	Areas 7 and 1C, Barking Road, Canning Town (Halesville Quarter) **11/00662/LTGDC**	Outline planning permission for the comprehensive redevelopment of the land known as Areas 7 and 1C of the Canning Town and Custom House Masterplan to comprise a mixed use scheme including the demolition of existing buildings and associated structures, the alteration of the highways, engineering and construction of new buildings and structures to provide a total maximum built floorspace of 191,530 sqm GEA (excluding basement), comprising retail (Use Classes A1, A2, A3, A4 and A5) including an anchor food store, residential dwellings (Use Class C3), leisure (Use Class D2), community and health (Use Class D1), offices (Use Class B1a), live/ work units (Sui Generis), an energy centre, creation of basement and semi-basement car parking, landscaping, creation new public realm and associated works; incorporating full planning permission for the development of Phase 1 (Development Parcel 1 only) to comprise a food store (Use Class A1) of 8,200 sqm (GEA), retail units (Use Classes A1, A2 and A3) of 425 sqm (GEA) and associated servicing areas, 179 residential dwellings (Use Class C3) an energy centre, a basement car park comprising 224 spaces and 238 temporary car parking spaces to be provided at grade adjacent to the food store, public realm works and associated works. Up to 1130 units	Approved 28/03/12	Unchanged	Unchanged	Unchanged Fully operational.

Ref	Site Address	Proposed Development	Status in December 2018	Status in May 2019	Status in June 2019	Status in February 2020
		Proposed density = 191 u/ha or 570 hr/ha. Height = max of 38.5 AOD in south and max of 66.5 AOD in north Affordable = 40% on phase 1, the rest TBC Car parking = 385 spaces for resi-use				
4	Telehouse Far East, Sites 6 and 8, Oregano Drive, E14 **PA/14/00074/A1**	Erection on Site 6 of a new 10 storey data centre building of 66m in height comprising approximately 24,370m2 of floor space including provision of roof top plant and satellite dish; reconfiguration of loading bay area to North building; new first floor bridge link to existing North building; erection on Site 8 of a new 12 storey office development 65m in height comprising approximately 13,283m2 of floor space; provision of car and cycle parking; re-routing of existing cycle path on Sorrel Lane; associated landscaping; provision of security fencing, gates and other associated works.	Approved 23/10/14	Unchanged	Unchanged	Unchanged Fully operational.
5	Plots N0205, N0206 & N0207, Greenwich Peninsula, Greenwich, SE10 **14/1799/F**	Demolition of building on Plot N0205 (the Rotunda) and erection of 5 buildings comprising 1007 residential units (includes an increase of 137 units over and above the 2004 Masterplan consent figure of 10,010 dwellings) on Plots N0205, N0206 & N0207, 2,194 sqm of non-residential floor space (A1/A2/A3/A4/D1/D2 uses), private and communal amenity space, car parking, circulation, servicing and access, public realm, hard and soft landscaping, amendments to the alignment of the Thames Path and associated works. Up to 1007 units Proposed density = 302 u/ha Height = up to 31 storeys or 109 m AOD Affordable = 24% Car parking = 0.7 per unit	Approved 25/02/15	Unchanged	Unchanged	Unchanged Most structures are operational. Minor ground works occurring around some of the structures.

Ref	Site Address	Proposed Development	Status in December 2018	Status in May 2019	Status in June 2019	Status in February 2020
6	Royal Wharf (Formerly Minoco Wharf, Crescent Wharf and Venesta Wharf), North Woolwich Road, Silvertown, London, E16 2BG **15/00577/VAR**	Outline planning permission for comprehensive mixed use redevelopment of the whole site for up to 363,000 sq. m (GEA), comprising: Retail (Use Class A1) not exceeding 3,250 sq. m (GEA); Financial and professional services (Use Class A2) not exceeding 750 sq. m (GEA); Restaurants and cafes (Use Class A3), Drinking establishments (Use Class A4) and Hot food takeaways (Use Class A5) not exceeding 1,500 sq. m (GEA); Business (Use Class B1 (a)) not exceeding 7,000 sq. m (GEA); Residential (Use Class C3) up to 337,900 sq. m (GEA) and not exceeding 3,385 residential units; Non-residential institutions (Use Class D1) not exceeding 9,600 sq. m (GEA); Assembly and leisure (Use Class D2) not exceeding 3,000 sq. m (GEA); together with: Demolition of all existing buildings; Vehicular, cycle and pedestrian access from North Woolwich Road; Public realm, public open space and private amenity space; Covered parking areas, plant, storage and an Energy Centre (not exceeding 68,550 sq. m); On street parking; Landscaping; River wall works; and, Other supporting infrastructure works and facilities.	Approved 15/12/15	Unchanged	Unchanged	Unchanged Most phases are fully operational. One superstructure is under construction.
	11/00856/OUT / 11/00844/LTGOUT **07/01143/OUT / 07/01141/LTGDC**	Approval in respect of land on the eastern part of the application site, shown on drawing DPA-00-001 Rev P1 dated Jan 2011, labelled as "detailed area", approval of 'Scale', 'Appearance', 'Landscape', 'Layout' and 'Access' (as defined by Article (2) (1) of the Town and Country Planning (Development Management Procedure) (England) Order 2015 in respect of development consisting of 95,026 sq. m GEA and comprising the following elements: - 811 residential units (Use Class C3) (88,744 sq. m (GEA)); - 3,957 sq. m (GEA) of mixed use floorspace (Use Classes A1, A2, A3, A4, A5, B1, C3, D1 and D2); - 290 sq. m (GEA) (Use Class B1(a); - 2,035 sq. m (GEA) of ancillary plant and storage (above basement); and - Associated highway infrastructure, river wall and public realm works, together with plant, storage and parking In respect of the remainder of the application site, approval of 'Layout' and 'Access' only, with matters of 'Scale', 'Appearance' and 'Landscaping' reserved for subsequent approval. 3,385 units Proposed density = 637.6 hr/ha or 222.7 u/hr Height = up to +65.00 m AOD or circa 16 storeys Affordable = up to 35% Car parking = 0.5 per apartment or 1 per house	Approved 30/03/12 Approved 28/11/08			

Ref	Site Address	Proposed Development	Status in December 2018	Status in May 2019	Status in June 2019	Status in February 2020
		Previous Minoco Site Planning History Outline planning application for the comprehensive mixed use redevelopment of the whole site for up to 363,000 m2 (GEA) is sought, comprising: Retail (Use Class A1) not exceeding 3,250 m2 (GEA); Financial and professional services (Use Class A2) not exceeding 750 m2 (GEA); Restaurants and cafes (Use Class A3), Drinking establishments (Use Class A4) and Hot food takeaways (Use Class A5) not exceeding 1,500 m2 (GEA); Business (Use Classes B1(a), (b) and (c)) not exceeding 15,000 m2 (GEA), of which not more than 5,000 m2 (GEA) will be offices (Use Class B1(a); Residential (Use Class C3) up to 329,900 m2 (GEA) and not exceeding 3,385 residential units; Non-residential institutions (Use Class D1) not exceeding 9,600 m2 (GEA); Assembly and leisure (Use Class D2) not exceeding 3,000 m2 (GEA); together with: Demolition of all existing buildings; Vehicular, cycle and pedestrian access from North Woolwich Road; Public realm, public open space and private amenity space; Covered parking areas, plant, storage and an Energy Centre (not exceeding 68,550m2); On street parking;				

Ref	Site Address	Proposed Development	Status in December 2018	Status in May 2019	Status in June 2019	Status in February 2020
		Landscaping; River wall works; and Other supporting infrastructure works and facilities. Details of approvals sought as part of the application: In respect of land on the eastern part of the application site, shown on drawing DPA-00-001 Rev 1 dated Jan 2011 labelled as detailed area, approval of Scale, Appearance, Landscape, Layout and Access (as defined by Article (2) (1) of the Town and Country Planning (Development Procedure (England)) Order 2010 (DMPO)) is sought in respect of development consisting of 95,065m2 GEA and comprising the following elements: 811 residential units (Use Class C3) (91,189 m2 (GEA); 3,326 m2 (GEA) of mixed use floor space (Use Classes A1, A2, A3, A4, A5, B1, C3, D1 and D2); 380 m2 (GEA) (Use Class B1(a); 170 m2 (GEA) of ancillary plant (above basement); and Associated highway infrastructure, river wall and public realm works, Together with plant, storage and parking. 3,385 units Proposed density = 638 hr/ha or 222.7 u/hr Height = between 14 and 15 + AOD Affordable = 7.5% for detailed element, the rest TBC Car parking = 1800 for resi (0.5 ratio)				

Ref	Site Address	Proposed Development	Status in December 2018	Status in May 2019	Status in June 2019	Status in February 2020
		Comprehensive mixed use development comprising of residential (C3), employment (B1), retail (A1), professional services - food and drink (A2-A5), community, health, education, cultural and assembly uses (D1), recreational and leisure uses (D2), vehicular, pedestrian and cycle access form North Woolwich Road, creation of marina and construction of lock access to river Thames and locking control building, access roads and other means of access and circulation within the site. Road and foot/cycle bridges over internal water features. Covered and open car parking areas. Public realm, public open space and private amenity space, Landscaping, creation of a network of footways and cycleways including riverside path and other supporting infrastructure works and facilities. Units =2598 units Proposed density = 254 u/hr or 637 hr/ha Height = up to + 57m AOD Affordable = 30% of units or 35% of hab rooms Car parking = 0.5 spaces per unit				
7	Canning Town Area 8 Bounded by Peto Street North and Victoria Dock Road Silvertown Way Canning Town London **16/03428/FUL**	Detailed planning permission for mixed use development to provide 975 residential units (Use Class C3), A 152 bedroom hotel (Use Class C1), A 3,000sqm (GIA) of flexible commercial floor space (Use Classes B1 (A, B&C), A1-A5, D2 and a nursery within Use Class D1) including a food store of up to 550sqm, an enhanced public realm with cycle ways, tree planting and public squares, amenity space, car parking, cycle parking, refuse stores and servicing arrangements and all associated works. Relocation of existing electricity substation. Up to 975 residential units Proposed density = 393 units per ha Height = up to 26 storeys Affordable = 37% of hab rooms Car parking = 137 or 0.14 space per unit	Approved 26/10/17	Unchanged	Unchanged	Unchanged Under construction. Superstructures visible.

Ref	Site Address	Proposed Development	Status in December 2018	Status in May 2019	Status in June 2019	Status in February 2020
8	Castle Wharf Esso Petrol Station, Leamouth Road, London, E14 0JG **PA/16/01763/A1**	Redevelopment of the former Service Station site with a residential led mixed use development, comprising residential units, together with 295 sqm of D1 floorspace, 81 sqm of flexible non-residential floorspace (Use Classes A1, A2, A3, B1, D1 and D2), 36 sqm café floorspace (Use Class A3), set across two main buildings including a 24 storey tower with stepped blocks of 20, 17, 11 and 8 storeys, linked by a 2 storey podium at ground level, with a single basement level, landscaping and associated amenities. Up to 102 residential units Proposed density = 2377 hr/ha or 939 u/hr Height = up to 24 storeys Affordable = 35.4% of hab rooms Car parking = 33 (all blue badge)	Approved 17/10/17	Unchanged	Unchanged	Unchanged Superstructures under construction. No phases operational.
9	Deanston Wharf Bradfield Road Silvertown London E16 2AX **16/00527/FUL**	Demolition of the existing buildings and the construction of a new residential-led mixed use development comprising 769 residential units, 1,125 sq. m (GIA) of mixed use floorspace (Use Classes A1-A5, B1a and D1), new public and communal open space and basement car parking within four buildings ranging from 9-17 storeys in height. 769 units Proposed density = 976 hr/ha or 352u/hr Height = up to 19 storeys Affordable = 23% offered	Pending	Unchanged	Approved 17/06/19	Unchanged Site clearing / excavation works
		Car parking = 0.3 car parking per unit				
10	East India Dock, Clove Crescent, London E14 **PA/15/01005/R**	Outline application (all matters reserved) for demolition of all existing buildings and structures on site and comprehensive mixed-use development of East India Dock, comprising a maximum of 78,871 sq/m GIA (excluding basement) of floorspace for the following uses: Residential (Class C3) Business use including office and flexible workspace (Class B1) Leisure uses (Class D2) Retail (Class A1/A2/A4/A4) Streets, open spaces, landscaping and public realm Utilities including electricity substation(s) and Other works incidental to the proposed development. Full planning permission for the demolition of the existing building and redevelopment of the site to provide 41,709 (GIA) of floorspace (excluding basement) and comprising residential (Class C3), retail, food and drink uses (Class A1/A2/A3/A4), business uses (Class B1) and leisure (Class D2) in buildings ranging from 10 to 27 storeys (plus 2 storey plant enclosure) in height, together with car and cycle parking, associated landscaping and new public realm. Up to 1,357 residential units Proposed density = 1,173 hab rooms per ha	Approved 21/03/16	Unchanged	Unchanged	Unchanged Site fully operational.

Ref	Site Address	Proposed Development	Status in December 2018	Status in May 2019	Status in June 2019	Status in February 2020
		Height = up to 27 storeys Affordable = 25% Car parking = 155				
11	1 Knights Road Silvertown London E16 2AT **15/02808/FUL**	Demolition of the existing building on site and redevelopment for a mixed-use development comprising a building of 5 and 12 storeys to provide 76 residential (Class C3) units and 99sqm (GIA) of flexible commercial (Class A1, Class A2, Class A3, Class A4 or Class B1) floor space. An undercroft car park at ground level containing 23 car parking spaces, enclosed refuse storage, cycle storage and plant. Communal amenity space at podium level and rooftop area on the fifth floor. 76 units Proposed density = 1149 hr/ha Height = up to 12 storeys Affordable = TBC Car parking = 23 (0.3)	Approved 17/05/17	Unchanged	Unchanged	Unchanged Construction finished and operational.
12	Leamouth Peninsula South, Hercules Wharf Castle Wharf and Union Wharf, Orchard Place, London, E14 **PA/14/03594**	Demolition of existing buildings at Hercules Wharf, Union Wharf and Castle Wharf and erection of 16 blocks (A-M) ranging in height from three-storeys up to 30 storeys (100m) (plus basement) providing 804 residential units; Retail / Employment Space (Class A1 A4, B1, D1); Management Offices (Class B1) and Education Space (Class D1); car parking spaces; bicycle parking spaces; hard and soft landscaping works including to Orchard Dry Dock and the repair and replacement of the river wall. Listed Building Consent application - Works to listed structures including repairs to 19th century river wall in eastern section of Union Wharf; restoration of the caisson and brick piers, and alteration of the surface of the in filled Orchard Dry Dock in connection with the use of the dry docks as part of public landscaping. Works to curtilage structures including landscaping works around bollards; oil tank repaired and remodelled and section of 19th century wall on to Orchard Place to be demolished with bricks salvaged where possible to be reused in detailed landscape design 804 units Proposed density = 853 hr/ha or 343 u/hr Height = up to 30 storeys	Approved 22/09/16	Unchanged	Unchanged	Unchanged Some phases complete. Some superstructures under construction. Some phases are under excavation works.

Ref	Site Address	Proposed Development	Status in December 2018	Status in May 2019	Status in June 2019	Status in February 2020
		Affordable = 27% /hr Car parking = 36				
13	36 Shirley Street Canning Town London E16 1HU **17/03903/FUL**	Demolition of existing buildings followed by the construction of a residential led development on basement, ground and nine upper floors to provide 77 residential units, 405 sqm of Class B1 (Business) floorspace, a 320 sqm dance school Class D1 (Non-residential institution), a 170 sqm plant room, 2 disabled car parking spaces, 172 cycle parking spaces, refuse store and incidental works (Land at 34-36 Shirley Street and Brunel Street, E16). Up to 77 residential units Proposed density = 1520 hr/ha Height = up to 10 storeys Affordable = 27% of hab rooms Car parking = 2 disabled spaces	Pending	Unchanged	Unchanged	Unchanged
14	Trinity Buoy Wharf, 64 Orchard Place, London **PA/17/00729/A1**	Outline planning application with all matters reserved for demolition of building(s), additional creative SME Use class B1 workspace; relocation and additional floor space for a School (Use Class D1) and additional floors pace to studios to the Royal Drawing School (Use Class D1). (description amended) Height = up to 12 storeys Car Parking = car-free	Pending planning approval Validated on 15/03/2017	Approved 14/12/2018	Unchanged	Unchanged Fully operational.

Additional cumulative schemes (December 2018 – May 2019)

Ref.	Site Address	Proposed Development	Status in May 2019	Status in June 2019	Status in February 2020
15	Silvertown Quays **14/01605/OUT**	Outline planning application with all matters reserved except for Access for the redevelopment of the site for mixed use purposes, including the alteration, partial demolition and conversion of the Millennium Mills and the construction of buildings across the site to include Brand buildings (Sui Generis), Residential (Use Class C3), Office (Use Class B1), Retail (Use Classes A1-A5), Leisure (Use Class D2), Education (Use Class D1), Hotels (Use Class C1), other Non-Residential floor space such as community use (Use Class D1), provision of public open space, works of repair and restoration of the Dock walls, infilling and excavation of parts of the Dock area, the placing of structures in, on, or over the Dock area, utilities, construction of estate roads and the creation of new accesses to the public highway, works of landscaping and making good, creation of surface and sub-surface car parking areas. Up to 3,000 residential units Proposed Density = 453 hr/ha. Affordable = 20% for Part 1 & 35% for Part 2 Height = up to 49.9m AOD Car parking = Maximum 0.5 spaces per unit	Approved 19/08/2016	Unchanged	Unchanged Site clearance and excavation works.
16	Silvertown Tunnel **TR010021**	The construction of a twin bore road tunnel providing a new connection between the A102 Blackwall Tunnel Southern Approach on the Greenwich Peninsula (in the Royal Borough of Greenwich) and the Tidal Basin roundabout junction on the A1020 Lower Lea Crossing/Silvertown Way (in the London Borough of Newham). The scheme includes the introduction of free-flow user charging on both the new Silvertown Tunnel and the existing Blackwall Tunnel (where the northern portal is in the London Borough of Tower Hamlets). The Silvertown Tunnel would be approximately 1.4 km long and would include a dedicated bus, coach and heavy goods vehicle lane in each 2-lane bore.	Approved 10/05/2018 (order in force from 31/05/2018)	Unchanged	Unchanged Construction ongoing. Phase unknown due to temporary walls obstructing view.

Ref.	Site Address	Proposed Development	Status in May 2019	Status in June 2019	Status in February 2020
17	Silvertown Fire Station 303 North Woolwich Road Silvertown London E16 2BB (Oasis Academy) **19/00281/FUL**	Construction of a five-storey non-residential building (Use Class D1) to accommodate a four-form entry secondary school, including associated highway works, cycle parking and landscaping. This application is affecting the setting of a listed building, Grain Silo, Grade 2 listed. Height = 5 storeys Car parking = Car Free	Validated (05 Feb 2019) and pending decision	Unchanged	Approved (08/01/2020) Construction not started.
18	1 Bradfield Road Silvertown London E16 2AX **19/00517/FUL**	Redevelopment of the site to provide a single building of 12 storeys in height comprising 55 residential units, with associated cycle parking, plant and refuse areas, resident amenity areas and associated development. Up to 55 residential units Proposed Density = unknown Affordable = 26% by unit Height = 12 storeys Car parking = car free	Validated (22 Feb 2019) and pending decision	Unchanged	Stage 1 statutory referral - Mayor's initial representation. The Mayor considers the application does not comply with the London Plan.
19	Land Comprising Former HSS Site And 300 Manor Road Canning Town London **18/03506/OUT**	Redevelopment of land bounded by Manor Road, (i) outline planning permission for up to 449 dwellings (Class C3), up to 1,845m2 of commercial (Class B1) and retail (Class A1/A2/A3/A4) floor space; car parking, open space and associated infrastructure works; (ii) full planning permission for Phase 1 for 355 dwellings (Class C3), 555m2 of commercial (Class B1) and retail (Class A1/A2/A3/A4) floor space; car parking, open space and associated infrastructure works. Up to 802 residential units Proposed Density = 327 u/ha Affordable = 50% by unit Height = up to 33 storeys Car parking = 34	Validated (13 Dec 2018) and pending decision	Unchanged	Stage 1 statutory referral - Mayor's initial representation. Construction not started. Empty site. Sign at the site stating demolition in progress, which must have been completed.
20	Plaistow Wharf North Woolwich Road Silvertown London E16 2AB **18/03543/FUL**	Relocation of waste transfer use from Thames Wharf to Plaistow Wharf and redevelopment of the vacant wharf, comprising the construction of stock bays, for storage of construction, demolition and excavation waste, incorporating a sustainable drainage system, widening of the wharf landing area, storage and fabrication for civil engineering projects and erection of weighbridge, office facilities and associated infrastructure.	Validated (05 Mar 2019) and pending decision	Unchanged	Stage 1 statutory referral - Mayor's initial representation.
21	Development Site Silvertown Way Flyover Arches Silvertown Way Canning Town London E16 1FB **18/03657/OUT**	Hybrid planning application comprising: 1. Detailed planning application for Phase 1 with works to include: The erection of a series of light industrial workspace units (Use Class B1c) comprising 5,360 sqm, as well as shared space for exhibitions, open workshops or shared working area; ancillary café; new access, servicing, cycle parking, plant, landscaping and public realm. 2. Outline planning application (all matters reserved) for the balance of the Site (Phase 2) for further light industrial and ancillary floor space (Use Class B1c) up to 2,555 sqm and associated works. This is a major application and a departure from the development plan. This application affects the setting of the following listed buildings and structures - Trinity House Buoy Wharf Quay and Orchard Dry Dock (Grade II), Trinity House Chain Locker and Lighthouse Block (Grade II), Stothert and Pitt Cranes on the North and South Side of Royal Victoria Dock (Grade II), Warehouse W (Grade II), Warehouse K (Grade II) and Church of St Luke (Grade II)	Validated (30 Jan 2019) and pending decision	Unchanged	Unchanged

Ref.	Site Address	Proposed Development	Status in May 2019	Status in June 2019	Status in February 2020
22	1 Boord Street, Greenwich, London, SE10 0PU **19/0939/F**	Construction of a building of up to 18-storeys (plus basement level and rooftop plan enclosure), to provide a 300 bed hotel with ancillary A1/A2/A3/B1/D2 provision, associated access, car and cycle parking, servicing and delivery areas, following the demolition of existing buildings.	Validated (09 Apr 2019) and pending decision	Unchanged	Unchanged
23	Poplar Gas Works, Leven Road, London **PA/18/02803/A1**	A hybrid planning application (part outline/part full) comprising: 1.) In Outline, with all matters reserved apart from access, for a comprehensive mixed-use development comprising a maximum of 195,000 sqm (GEA) (excluding basement and secondary school) of floor space for the following uses: Residential (Class C3); Business uses including office and flexible workspace (Class B1); Retail, financial and professional services, food and drink uses (Class A1, A2, A3 & A4); Community, education and cultural uses (Class D1); A secondary school (Class D1) (not included within the above sqm GEA figure); Assembly and leisure uses (Class D2); Public open space including riverside park and riverside walk; Storage, car and cycle parking; and Formation of new pedestrian and vehicular access and means of access and circulation within the site together new private and public open space.	Validated (28 Sept 2018) and pending decision	Unchanged	Approved (30/10/2019) Cannot gain access to site. Restricted view from across the river. Work has not begun. Site bordered up.
		2. In Full, for 66,600 sqm (GEA) of residential (Use Class C3) arranged in four blocks (A, B, C and D), ranging from 4 (up to 23m AOD) 5 (19.7m AOD), 6 (up to 26.9m AOD), 8 (up to 34.1m AOD), 9 (up to 36.3m AOD) 12 (up to 51.3m AOD) and 14 (57.6m AOD) storeys in height, up to 2700 sqm GIA of office and flexible workspaces (Class B1), up to 500 sqm GIA community and up to 2000 sqm GIA leisure uses (Class D1 & D2), up to 2500 sqm GIA of retail and food and drink uses (Class A1, A2, A3 and A4) together with access, car and cycle parking, energy centre, associated landscaping and new public realm, and private open space. Further explanation (not forming part of the formal description of development set out above): Further details submitted with the application explain that the Proposed Development could deliver up to 2,800 new homes of which 577 new homes are included in the Full component of the Application (Phase 1), at least 1ha Public Park; and a maximum of 0.5 hectares of land secured for a secondary school. Up to 2,800 residential units Proposed Density = 373 u/ha Affordable = 35% by unit Height = up to 14 storeys Car parking = 103 Phase 1 and max of 0.20 spaces per unit in phases 2 to 4.			

Additional cumulative schemes (June 2019 – February 2020)

Ref.	Site Address	Proposed Development	Status in February 2020
24	Greenwich Peninsula Masterplan and Plots 18.02 & 18.03, London, SE10 19/2733/O	Outline planning permission with all matters reserved, for the demolition of buildings and mixed-use redevelopment up to a maximum of 737,100sqm comprising: • up to 533,900sqm of residential development which could include: • up to 5,813 residential dwellings • up to 25,000sqm student accommodation (up to 500 rooms) and/or co-living units	Validated (06/09/2019)

Ref.	Site Address	Proposed Development	Status in February 2020
		• up to 19,600sqm Class A1-A5 use (food and non-food retail, restaurants, bars and cafes); • up to 68,700sqm Class B1 (a) (b) (c) (business); • up to 24,200sqm Class C1 (hotel) for up to 350 rooms; • up to 13,200 sqm Class D comprising D2 (Sport and Recreation), Class D1 (health care facilities/nursery/creche) • up to 8,000sqm Theatre (Class D2); residential and non-residential car parking, as well as a minimum of 2000 AEG parking spaces (for the O2), cycle parking; associated community facilities; public realm and open space; hard and soft landscaping; a new transport hub and associated facilities; realignment of the cultural route traversing the site (The Tide); highway and transport works and associated ancillary works (proposals to revise part of the approved Greenwich Peninsula 2015 Masterplan (15/0716/O). Uplift of 1,757 residential dwellings from the 2015 Masterplan). And detailed planning permission, for a residential development comprising 476 residential units, up to 100sqm (GEA) A1/A2/A3/B1/D1/D2 floorspace plus ancillary car parking, access, landscaping and public realm works and associated infrastructure works.	
25	Land Adjacent West Silvertown DLR Station Knights Road Silvertown London E16 2AT **19/01791/FUL**	Detailed planning application for redevelopment of site to provide residential-led, mixed-use development comprising: 3 blocks ranging from 12 to 20 storeys in height 252 residential dwellings new local centre at ground level including: 1,078sqm (GIA) of flexible commercial floorspace (Use Class A1/A2/A3/D1/D2) new public realm, landscaping, car parking, cycle parking and associated works.	Validated (27/06/2019)
26	G Park London Docklands, land at Central Thameside West North Woolwich Road Silvertown London E16 2AB **19/01776/FUL**	Detailed planning application for redevelopment of the site to provide 40,473 sqm (GIA) of storage and distribution warehouse (Use Class B8) including: Provision of 275sqm of flexible storage and distribution/retail use (Class B8/A1/A3) at ground level Associated servicing yards Multi-level staff parking facility New access Roof level staff amenity area New landscaping and public realm and associated works.	Validated (04/07/2019)
27	Land Under the DLR bounded by Scouler Street and Aspen Way and Prestage Way, Aspen Way, London **PA/19/02292/A1**	Detailed planning application for the redevelopment of the site for a 342-room apart hotel (C1 Use Class) comprising: Part-24 part-17 storey building Eight workspace units (B1 Use Class) New bus loop/stand New youth play area Public realm works	Validated (17/10/ 2019)

Updated in-combination assessment

18.3.2 This section outlines any changes to the predicted environmental effects of the proposed development in combination with the other significant proposed developments in the area, when compared with the June 2019 ES addendum. It has been contributed to by each of the technical disciplines included in this ES addendum.

Traffic and Transportation

18.3.3 The cumulative traffic effects i.e. the traffic levels as a result of the proposed scheme in combination with other nearby developments (along with natural traffic growth) have been assessed in the Transport Assessment (TA) and TA Addendums (May and June 2019, and March 2020).

18.3.4 Traffic flows from cumulative developments (along with natural traffic growth) are included within the future baseline traffic data upon which the operational assessment has been based. Therefore, cumulative effects are considered inherently as part the operational assessment. Silvertown Tunnel is assessed as a cumulative scheme (as in May 2019 and June 2019), as well as being part of the baseline.

18.3.5 The cumulative effects have been considered within the traffic modelling undertaken, which now uses TfL's Silvertown traffic models which contain traffic flows resulting from cumulative development in the vicinity of the scheme. The flows will also contain traffic generated by development outside the immediate area, as inputs to the Silvertown models consider strategic traffic movements.

18.3.6 Cumulative traffic growth has been considered in the modelling by using the difference in traffic flows between the 2021 and 2031 strategic models and assessing that effect locally using microsimulation modelling.

18.3.7 This methodology has been discussed extensively with TfL and is considered to be the most robust way of assessing cumulative and interactive effects in terms of traffic in the different assessment scenarios.

18.3.8 The four additional cumulative schemes identified within the 1km radius of the development have no significant impact on the assessment and therefore, there are no changes to the cumulative and interactive effects for the traffic and transport chapter. The effects remain the same as the 2018 ES, May 2019 ES addendum and the June 2019 ES addendum.

Noise and Vibration

18.3.9 Due to distance attenuation, the only schemes that are usually considered for the cumulative assessment are those within 200 m of the Proposed Development red line boundary. Although new additional schemes have been

identified within the 1km radius of the development, these schemes are located more than 200m away from the Thameside West site. Therefore, there are no changes to the cumulative and interactive effects for the Noise and Vibration chapter. The effects remain the same as the 2018 ES, May 2019 ES addendum and June 2019 ES addendum.

Air Quality

18.3.10 The four additional cumulative schemes identified within the 1km radius of the development have no significant impact on the assessment and therefore, there are no changes to the cumulative and interactive effects for the air quality chapter. This remains the same as the 2018 ES, May 2019 ES addendum and June 2019 ES addendum.

18.3.11 As TfL's future strategic highways model has been utilised to determine future traffic flows, there will be no changes to predicted traffic flows from additional cumulative developments.

Water Resources and Flood Risk

18.3.12 The four additional cumulative schemes identified within the 1km radius of the development have no significant impact on the assessment and therefore, there are no changes to the cumulative and interactive effects for the water and flood risk chapter. This remains the same as the 2018 ES, May 2019 ES addendum and June 2019 ES addendum.

Ecology

18.3.13 Previously assessed and new schemes considered relevant to terrestrial ecology are those that lie within 200m of the site. Three of four additional cumulative schemes identified within the 1km radius, lie outside of the 200m buffer of the development and therefore excluded from this assessment. The G Park London Docklands scheme lies within the 200m buffer and is therefore included in the assessment.

Table 18-2 Local developments with potential inter-project cumulative effects with respect to terrestrial ecology

Scheme and planning reference	Consent status	Anticipated construction phasing	Potential environmental effects	Cumulative effect
New schemes				
G Park London Docklands, land at Central Thameside West North Woolwich Road Silvertown London E16 2AB 19/01776/FUL	Validated (04/07/2019)	Approx. start date 2020, fully operational by 2021.	No demolition required as enabling works have already begun under a previous application for the site. Construction dust, noise, light, pollution - to be controlled by site-specific CEMP. Soft landscaping to include 14no. trees and amenity grassland and ornamental shrub, as well as two small green roofs.	No cumulative effect anticipated No cumulative effect anticipated Negligible cumulative effect

18.3.14 No significant changes to the cumulative effects due to demolition and construction as a result of the new scheme are anticipated. Those identified in the December 2018 ES and May and June 2019 Addenda remain valid.

18.3.15 No significant changes to the cumulative effects due to operation as a result of new schemes is anticipated. Those identified in the December 2018 ES and May and June 2019 Addenda remain valid.

Waste

18.3.16 In the June 2019 ES Addendum, it was concluded that local and regional waste management infrastructure would have sufficient capacity to manage the anticipated quantities of CD&E waste and MSW generated by the proposed development and its cumulative schemes.

18.3.17 A review has since been undertaken of the new cumulative schemes that have been validated between June 2019 and February 2020. These represent major schemes coming forward within a material distance (1km) of the site boundary.

18.3.18 As in the June 2019 ES Addendum, MSW and CD&E waste quantities have been estimated from the outline floor areas and unit numbers for each scheme. Where this information was unavailable, waste quantities for similar-sized schemes have been used.

18.3.19 MSW and CD&E waste quantities have only been estimated for those cumulative developments coming forward in the ELWA boroughs (Newham, Havering, Redbridge and Barking & Dagenham). It has been assumed that MSW from cumulative developments in Tower Hamlets and Greenwich will be processed by other waste disposal authorities (WDAs) and will therefore not have an effect on the receptors used in this assessment.

18.3.20 Similarly, the impact of magnitude/change for CD&E waste has been based on waste generation within the ELWA boroughs. For the purposes of consistency, CD&E waste has therefore only been considered for those cumulative schemes coming forward in Newham, Havering, Redbridge and Barking & Dagenham.

Demolition and Construction

18.3.21 The generation rate used to estimate CD&E waste arisings is the same as the one used in the June 2019 ES Addendum. Based on this metric, it is anticipated that the Thameside West development and its cumulative schemes could potentially generate a peak annual tonnage of 313,093 tonnes of CD&E waste.

18.3.22 This represents c.25% of the projected 1,237,275 tonnes of CD&E waste that will be generated in the ELWA boroughs in 2031, which equates to a medium magnitude of change/impact. This differs from the small magnitude of change/impact identified in the June 2019 ES Addendum.

18.3.23 However, the sensitivity of CD&E waste receptors is still considered to be low.

18.3.24 In combining these two measures (magnitude of change/impact and receptor sensitivity), it can be seen that there will still be minor in-combination effects in terms of the generation and management of CD&E waste. This conclusion remains unchanged from the June 2019 ES Addendum.

Operation

18.3.25 The generation rates used to estimate operational waste arisings remain the same as those used in the June 2019 ES Addendum.

18.3.26 It has been assumed that the cumulative schemes identified in the ELWA boroughs will comprise an approximate total of 10,523 residential units and 466,798m^2 GEA of non-residential floorspace.

Residual waste: pressure on local waste infrastructure

18.3.27 Based on these assumptions, it is anticipated that the cumulative developments in the ELWA boroughs, in combination with the 7,939 tonnes of residual (and organic) wastes from the Thameside West development, will generate a total of approximately 33,576 tonnes of MSW in the future baseline year, of which 20,105 tonnes will be residual waste.

18.3.28 The total represents a relatively small proportion of the 211,573 tonnes of residual waste that The London Plan 2016 forecasts will be generated in LBN in the future baseline year.

18.3.29 For the future baseline year, this represents an increase of between 5 and 25%. The magnitude of change/impact is therefore considered to be small.

18.3.30 As indicated in the original 2018 ES, the sensitivity of residual waste infrastructure in the ELWA area is considered to be moderate.

18.3.31 In combining these two measures (magnitude of change/impact and receptor sensitivity), it can be seen that there will be minor in-combination effects in terms of the generation and management of residual MSW. This conclusion remains unchanged from the June 2019 ES Addendum.

Recyclable waste: pressure on local waste infrastructure

18.3.32 It is anticipated that the cumulative developments in the ELWA boroughs will generate 13,471 tonnes of recyclable waste in the future baseline year. This total has been combined with the 1,753 tonnes of recyclable waste generated by the Thameside West development.

18.3.33 The total represents a reasonable proportion of the 35,247 tonnes of recyclable waste that The London Plan 2016 forecasts will be generated in LBN in the future baseline year.

18.3.34 For the future baseline year, this represents an increase of between 25 and 50%. The magnitude of change/impact is therefore considered to be medium.

18.3.35 As indicated in the original 2018 ES, the sensitivity of recycling waste infrastructure in LBN and the wider ELWA area is considered to be low.

18.3.36 In combining these two measures (magnitude of change/impact and receptor sensitivity), it can be seen that there will be minor in-combination effects in terms of the generation and management of recyclable MSW. This conclusion remains unchanged from the June 2019 ES Addendum.

Ground Conditions

18.3.37 The four additional cumulative schemes identified within the 1km radius of the development have no significant impact on the assessment and therefore, there are no changes to the cumulative and interactive effects for the ground conditions chapter. This remains the same as the 2018 ES, May 2019 ES addendum and the June 2019 ES addendum.

Wind Microclimate

18.3.38 Within the recent scheme changes, the future phases of the outline development show significant changes in the height of the buildings. Therefore, as recommended by RWDI, future wind tunnel testing is required for the outline future phases to assess the changes in the cumulative scheme wind effects.

18.3.39 Consented schemes that were approved before December 2018 and therefore included in the 2018 ES assessment have been reviewed quantitatively via wind tunnel testing and have been shown to make no material difference to the wind microclimate within the site and nearby surrounding area.

18.3.40 Since the wind tunnel assessment, several of the schemes have begun construction and have progressed such that they would be considered as existing surrounding buildings in the wind assessment. As there was no material change to the wind conditions with the cumulative developments in situ, this would not be expected to affect the wind conditions at the Site.

18.3.41 For the schemes that have been consented since May 2019 up to Feb 2020 – it is expected that there would be no effect on the conclusions for Phase 1, since the cumulative developments are a significant distance away from the Proposed Development and/or not in the prevailing wind direction. Furthermore, Phase 1 will undergo further testing for the outline phases during RMA to assess the changes in the cumulative scheme wind effects.

18.3.42 The additional four cumulative schemes added for the March 2020 addendum are not yet consented. As such, these will be looked at during further design of the outline phases.

18.3.43 The consented cumulative developments are situated a significantly large distance away from Phase 1 (where they would not be within the test radius of 360m). As such, it is not expected that Phase 1 would materially change wind conditions at any of the consented cumulative developments.

Demolition and construction

18.3.44 No changes have been identified from the demolition and construction effects reported in the 2018 ES and May 2019 ES addendum.

Operational

18.3.45 No changes have been identified from the operational effects reported in the 2018 ES and May 2019 ES addendum.

Daylight, Sunlight and Overshadowing

18.3.1 The four additional cumulative schemes identified within the 1km radius of the development have no significant impact on the assessment and therefore, there are no changes to the cumulative and interactive effects for the daylight, sunlight and overshadowing chapter. This remains the same as the assessment in the 2018 ES and the 2019 statements of conformity included in the ES addenda.

Population and Human Health

18.3.2 Since the June 2019 ES Addendum, four additional schemes have been identified within the 1km radius of the development, and two schemes have been withdrawn or declined, bringing the total number of cumulative schemes to 27.

18.3.3 The March 2020 ES Addendum re-assesses the 27 cumulative schemes set out below for the potential to have likely significant effects on population and human health, when combined with the proposed development.

Population and Housing

18.3.4 In total the cumulative schemes are estimated to deliver up to 24,828 residential units in addition to the 5,000 units provided as part of the proposed development.

18.3.5 A proposed housing mix for the cumulative schemes is not known. However, on the basis that the proposed development's 5,000 residential units is anticipated to provide new homes for approximately 12,600 people (equivalent to an average household size of 2.52 persons per home), the cumulative scheme's 24,828 residential units are anticipated to provide new homes for approximately 62,567 people (=24,828 x 2.52).

18.3.6 In total, the cumulative schemes and proposed development will deliver 29,828 residential units providing homes for 75,167 people. For this reason, it is considered that the cumulative schemes and proposed development will provide a notable contribution to the increased housing requirement of LBN and therefore have a permanent, major beneficial effect on housing at the local and borough level. This effect has changed from moderate beneficial (in 2018 ES and subsequent addenda) to major beneficial within this addendum.

Crime

18.3.7 The additional 75,167 people generated by the proposed development and cumulative schemes would naturally increase the opportunities for additional crime. However, as stated in the 2018 ES, an increase in population numbers and dwellings can also have a beneficial effect on levels of local safety, and on a perceived fear of crime, through an increase in footfall and through natural surveillance, particularly in an area where minimal footfall will have been present in the past.

18.3.8 For this reason, it is considered that the cumulative schemes and proposed development will have a negligible effect on crime and the fear of crime. This effect remains unchanged from the 2018 ES, May 2019 and June 2019 ES Addendums.

Open Space

18.3.9 The proposed development includes the provision of public and private amenity space, as do the cumulative schemes. Therefore, it is considered that the cumulative schemes and proposed development in relation to open space will have a moderate beneficial effect. This remains the same conclusion as the May 2019 and June 2019 ES addendum.

Local Expenditure

18.3.10 The creation of up to an additional 24,828 homes from the cumulative schemes and proposed development will increase household expenditure to a significant degree, assuming all new households are new to the local area. It is therefore considered that there will be a permanent, major beneficial effect on local expenditure. This effect has changed from moderate beneficial (in 2018 ES and subsequent addenda) to major beneficial within this addendum.

Employment

18.3.11 The number of jobs likely to be generated from the cumulative schemes has not been provided. However, the cumulative schemes provide commercial/retail/industrial floorspace to some extent within their proposals which will significantly increase employment opportunities. It is therefore considered, as stated in the 2018 ES, May 2019 ES addendum and June 2019 ES addendum, that the cumulative schemes in combination with the proposed development will provide a permanent, major beneficial effect on employment.

Primary Healthcare

18.3.12 Baseline evidence identified a notable deficit in existing GP provision in proximity of the proposed development. The residential component of the cumulative schemes in combination with the proposed development will increase demand for GP services in the local area. Assuming that all residents of the new homes provided by the cumulative schemes and proposed development are new to the area and not already registered with a GP (a worse-case scenario), the cumulative schemes and proposed development generate new demand for approximately 75,167 GP places. Assuming 1 GP for every 1,800 patients, 75,167 patients generate a need for approximately an additional 41.7 GPs.

18.3.13 On this basis, the reassessment of the cumulative schemes and proposed development are considered to have a major adverse effect on primary healthcare (as stated in May 2019). However, the proposed development has the potential for a healthcare facility to be provided within the community space. The provision of a healthcare facility on the proposed development will reduce the impact on primary healthcare provision. Furthermore, the following cumulative schemes make provision for community/healthcare facilities:

- Areas 7 and 1C, Barking Road, Canning Town, Hallsville Quarter (11/00662/LTGDC);
- Royal Wharf, North Woolwich Road, Silvertown (07/01143/OUT/07/01141/LTGDC);
- Silvertown Quays (14/01605/OUT);
- Poplar Gas Works, Leven Road, London (PA/18/02803/A1); and
- Greenwich Peninsula Masterplan (19/2733/0).

18.3.14 The provision of a healthcare facility at the proposed development and the above cumulative schemes has the potential to reduce the impact on primary healthcare provision. However, because there is no certainty that the community floorspace will be used for healthcare services, and to assess a worst-case scenario, it is considered that there is the potential for a cumulative moderate adverse effect on primary healthcare, for which mitigation is required through financial contributions. This conclusion remains unchanged from the May 2019 and June 2019 ES addenda.

Wider Human Health

18.3.15 As in the 2018 ES, May 2019 ES addendum and the June 2019 ES addendum, the proposed development has been designed to promote healthy and active lifestyles through the provision of 143,843 sqm of open space, which includes pedestrian and cycle routes and play spaces. The cumulative schemes seek to also provide public open space and private amenity space; public realm; landscaping; footways and cycleways, along with cycle parking. Therefore, it is considered that the cumulative schemes and proposed development will have a minor beneficial effect on wider human health effects.

Education (including Early Years Childcare Provision)

18.3.16 A proposed housing mix for the cumulative schemes is not known and therefore it is not possible to calculate pupil yields arising from the cumulative schemes using the Wandsworth Population Yield Calculator and/or GLA Population Yield Calculator. However, LBN Multipliers can be used to calculate potential demand for primary and secondary school places (17.2% for primary and 9% for secondary). Demand for early years places arising from the cumulative schemes can be estimated through assuming between 0.17 and 0.24 early year places per dwelling. 0.17 early years places per dwelling is the result of the 830 early year places generated from the proposed development's 5,000 residential units according to the Wandsworth Population Yield Calculator (=830/5,000). 0.24 early years places per dwelling is the result of the 1,207 early year places generated from the proposed development's 5,000 residential units according to the GLA Population Yield Calculator (=1,207/5,000).

18.3.17 The cumulative scheme's 29,828 residential units (including the proposed development) are anticipated to generate a need for between 5,071 and 7,159 early years places (=29,828 x 0.17 and =29,828 x 0.24), 5,130 primary school places (=29,828 x 17.2%) and 2,684 secondary school places (=29,828 x 9%).

18.3.18 Baseline evidence identified a good supply of early years provision within the Study Area but forecast a deficit of primary and secondary school places within proximity of the Site. Nonetheless, the existing early years, primary school and secondary school provision will be unable to accommodate the demand for additional education places arising from the cumulative development.

18.3.19 The proposed development is providing a 104-place nursery and 4 FE entry primary school which will meet the majority of needs arising from the proposed development (840 of the 956 places needed based on the GLA Population Yield Calculator method). There is therefore no capacity in the proposed development's nursery of primary school to meet any additional need arising from the cumulative schemes. However, the following cumulative schemes make provision for education:

- Royal Wharf, North Woolwich Road, Silvertown (07/01143/OUT/07/01141/LTGDC);
- Canning Town Area 8 (16/03428/FUL);
- Trinity Buoy Wharf (PA/17/00729/A1);
- Silvertown Fire Station (19/00281/FUL);
- Poplar Gas Works, Leven Road, London (PA/18/02803/A1); and
- Greenwich Peninsula Masterplan (19/2733/0).

18.3.20 Only the application for Silvertown Fire Station states the level of education provision, which is the provision of a 4 FE secondary school. A 4 FE secondary school will provide 600 secondary school places (assuming 150 places = 1 FE). Whilst details of the educational floorspace is not provided for the other cumulative schemes listed above, if provided, it will also have the potential to meet additional educational needs arising from the cumulative schemes.

18.3.21 However, despite some of the cumulative schemes making provision for education floorspace, this may not be used for education purposes and a worse-case scenario has therefore been assumed when assessing the cumulative effects on education.

18.3.22 Despite the proposed development providing a nursery, the need for early years education generated by both the proposed development and cumulative schemes will not be met within the existing provision and therefore the effect on early years education is considered to be moderate adverse which will require mitigation. The May 2019 and June 2019 ES Addendums assessed a minor adverse effect on early years education. The change to a moderate adverse effect in this assessment results from the updated methodology for calculating child yield which yields a greater number of early years children from the cumulative schemes (from 3,938 children to between 5,071 and 7,159 children). The moderate adverse effect on early years education will require mitigation in the form of a financial contribution.

18.3.23 The 4FE primary school provided by the proposed development will no longer meet all of the needs arising from the proposed development due to the use of a revised methodology for calculating child yield and additional school places required. Therefore, there is no opportunity for the proposed development's 4FE primary school to meet any of the need for primary school places arising from the cumulative schemes and therefore the effect on primary education has been amended to moderate adverse. The 2018 ES, May 2019 and June 2019 ES Addendums assessed a negligible effect on primary education because there was capacity in the proposed development's 4FE primary school to accommodate some demand arising from the cumulative schemes. The change to a moderate adverse effect in this assessment results from the updated methodology for calculating child yield which yields a greater number of primary children from the cumulative schemes (from 1,723 children to 5,130 children). The moderate adverse effect on primary education will require mitigation in the form of a financial contribution.

18.3.24 The 4 FE secondary school on the Silvertown Fire Station site will meet some secondary need arising from the cumulative schemes and proposed development. However, not all need will be met. Therefore, the effect of the cumulative schemes and proposed development on secondary education has been amended to moderate adverse. The 2018 ES, May 2019 and June 2019 ES Addendums assessed a minor adverse effect on secondary education. The change to a moderate adverse effect in this assessment results from the updated methodology for calculating child yield which yields a greater number of secondary children from the cumulative schemes (from 1,969 children to 2,684 children). The moderate adverse effect on secondary education will require mitigation in the form of a financial contribution.

Built Heritage

18.3.25 The proposed development amendments include minor overall changes to the heights and separation of buildings across the application site. In conclusion, there are no changes to cumulative and interactive effects from the June 2019 ES addendum.

18.3.26 The cumulative and interactive effects remain unchanged from the June 2019 ES Addendum.

Townscape and Visual Amenity

18.3.1 Following a review of the cumulative schemes identified, there are no changes anticipated to the cumulative and interactive effects for the Townscape and Visual Amenity reported and therefore the findings remain unchanged from those set out in the May 2019 and June 2019 ES Addendum.

Greenhouse Gas Emissions

18.3.2 The four additional cumulative schemes identified within the 1km radius of the development have no significant impact on the assessment and therefore, there are no changes to the cumulative and interactive effects for the Greenhouse Gas Emissions chapter. This remains the same as the 2018 ES, May 2019 and June 2019 ES addendum.

Summary of significant effects for the 'in-combination' cumulative scheme scenario

18.3.3 The tables below outline the significant in-combination cumulative development effects identified in the review undertaken.

Table 18-2 Summary of significant cumulative development effects during demolition and construction

Receptor	Cumulative effects	Significance of effect in 2018 ES	Significance of effect in May and June 2019 addendum	Significance of effect in March 2020 addendum
Atmospheric GHG concentration	Emissions as a result of embodied carbon	Potentially significant adverse	Unchanged	Unchanged

Table 18-3 Summary of significant cumulative development effects during operation

Receptor	Cumulative effects	Significance of effect in 2018 ES	Significance of effect in May and June 2019 addendum	Significance of effect in March 2020 addendum
Population and housing	Additional 12,898 residential units from cumulatives and 5,000 residential units from the proposed development will contribute to the increased housing requirement of LBN	Moderate beneficial	Unchanged	Major beneficial
Open Space	The proposed development includes the provision of public and private amenity space, as do the cumulative schemes.	Moderate beneficial	Unchanged	Unchanged
Local expenditure	Additional 12,898 residential units in addition to the 5,000 residential units from the proposed development will increase household expenditure	Moderate beneficial	Unchanged	Major beneficial
Employment	Provision of commercial/retail/industrial floorspace at all cumulative schemes	Major beneficial	Unchanged	Unchanged
Primary healthcare	Proposed development and a number of other cumulative schemes have the potential to provide healthcare facilities/community and health floorspace to alleviate current strain on GP provision. However, there is no guarantee the floorspace will be used for healthcare services, and therefore to assess a worst-case scenario is considered it is assumed that the floorspace will not be used for healthcare services.	Minor/Moderate beneficial	Moderate adverse	Unchanged
Education (Early Years)	The change to a moderate adverse effect in this assessment results from the updated methodology for calculating child yield which yields a greater number of early years children from the cumulative schemes (from 3,938 children to between 5,071 and 7,159 children).	Minor adverse	Unchanged	Moderate adverse

Receptor	Cumulative effects	Significance of effect in 2018 ES	Significance of effect in May and June 2019 addendum	Significance of effect in March 2020 addendum
Education (Primary)	The change to a moderate adverse effect in this assessment results from the updated methodology for calculating child yield which yields a greater number of primary children from the cumulative schemes (from 1,723 children to 5,130 children).	Negligible	Unchanged	Moderate adverse
Education (Secondary)	The change to a moderate adverse effect in this assessment results from the updated methodology for calculating child yield which yields a greater number of secondary children from the cumulative schemes (from 1,969 children to 2,684 children).	Minor adverse	Unchanged	Moderate adverse
Townscape Visual	The cumulative schemes and the proposed development would together help to a define a new sense of place, while the layout, scale and massing arrangement of the built form will collectively assist in an increased legibility in the townscape and reinforce the aims and principles set out for the Arc of Opportunity.	Moderate beneficial	Unchanged	Unchanged
Atmospheric GHG concentration	Emissions as a result of building's operational energy consumption	Potentially significant adverse	Unchanged	Unchanged

18.4 GLOSSARY

Term	Definition
CEMP	Construction Environmental Management Plan
C, D & E	Construction, Demolition & Excavation
EIA	Environmental Impact Assessment
ES	Environmental Statement
LBN	London Borough of Newham
MSW	Municipal Solid Waste

19 UPDATE TO RESIDUAL EFFECTS AND CONCLUSIONS

19.1 SUMMARY OF ENVIRONMENTAL EFFECTS

19.1.1 The amendments to the proposed development have been subject to further Environmental Impact Assessment (EIA). The findings of the updated EIA are summarised in this Environmental Statement (ES) addendum.

19.1.2 The majority of the environmental effects (and their significance) for the proposed development reported within the June 2019 ES addendum remain unchanged. There are slight changes to the residual effects for receptors under population and human health that can be found in Table 19-2.

19.1.3 No further environmental effects for the proposed development have been identified beyond those that were already identified in the 2018 ES, May 2019 ES addendum and June 2019 ES addendum.

19.2 SUMMARY OF FURTHER SUPPLEMENTARY MITIGATION MEASURES REQUIRED

19.2.1 As outlined in Chapter 6, noise and vibration, further mitigation measures may be needed to meet external noise levels. In order to meet the recommended external noise levels as recommended in BS 8233:2014 on the podium, the predictions suggest that the inclusion of a 2m high barrier is recommended.

19.2.2 However, BS 8233:2014 recognises that if noise levels in external amenity spaces of the development are above 55 dB(A) $L_{Aeq,T}$ due to being adjacent to a strategic transport network, a compromise between elevated noise and the convenience of living in such location should be made. The development should be designed (in further detailed planning applications) to achieve the lowest practicable noise levels in these external amenity spaces but should not be prohibited.

19.2.3 Further supplementary mitigation is required to mitigate adverse wind conditions, as outlined in Chapter 12. In line with the scheme changes, an additional mitigation measure is proposed by RWDI for the East Terrace of Block A, to include a series of hedges 1.5m tall, three 5m tall trees and an area of standing views (unsuitable for sitting), as outline in Chapter 12.

19.2.4 As outline in Chapter 14, population and human health, there is a further mitigation measure now included as the effect on primary education is now minor adverse, due to the increase in child yields resulting from the revised methodology which can no longer be accommodated within the proposed development's 4FE primary school. As a result, further supplementary mitigation by way of financial contributions (in a S106 agreement) is required to mitigate the minor adverse effect on primary education.

19.2.5 Across all other disciplines, no further supplementary mitigation measures (beyond those proposed in the 2018 ES, May 2019 ES addendum and June 2019 ES addendum) have been identified.

SIGNIFICANT RESIDUAL EFFECTS

19.2.6 In summary, the proposed development will potentially have significant effects (both adverse and beneficial) during the demolition/construction and operational phases. A summary of the residual effects is provided in Table 19-1 and Table 19-2.

Table 19-1 Summary of residual significant effects during demolition and construction

Receptor	Effect	2018 ES residual significance	May 2019 ES addendum residual significance	June 2019 ES addendum residual significance	March 2020 ES addendum residual significance
Demolition and construction					
Construction jobs	Creation of 830 FTE workers per month over the construction period May 2020 to February 2031 (equating to 130 months)	Moderate beneficial	Unchanged	Unchanged	Unchanged
Townscape Character Area (TCA) 2: Leamouth and Thames Estuary	Effects on setting	Major adverse	Unchanged	Unchanged	Unchanged
TCA 4: Royal Victoria Dock	Effects on setting	Moderate adverse	Major adverse	Unchanged	Unchanged
TCA 10: Greenwich Peninsula East	Effects on setting	Moderate adverse	Unchanged	Unchanged	Unchanged
1: View south-east from the A1020 Lower Lea Crossing	Visual effects	Moderate adverse	Major adverse	Unchanged	Unchanged
4: View south from the Charrington Steps/A1011 Silvertown Way	Visual effects	Moderate adverse	Unchanged	Unchanged	Unchanged
8: View west from the A1020 Silvertown Way	Visual effects	Moderate adverse	Unchanged	Unchanged	Unchanged
9: View north-west from Silvertown Station	Visual effects	Moderate adverse	Major adverse	Unchanged	Unchanged
12: View west from the Royal Victoria Dock Bridge	Visual effects	Major adverse	Unchanged	Unchanged	Unchanged
16: View north from the Thames Path near Peartree Wharf	Visual effects	Moderate adverse	Unchanged	Unchanged	Unchanged

Receptor	Effect	2018 ES residual significance	May 2019 ES addendum residual significance	June 2019 ES addendum residual significance	March 2020 ES addendum residual significance
18: View north-east from the Thames Path near the North Greenwich Pier	Visual effects	Major adverse	Unchanged	Unchanged	Unchanged
19: View east from Trinity Buoy Wharf	Visual effects	Moderate adverse	Unchanged	Unchanged	Unchanged
21: View east from Blackwall Stairs	Visual effects	Moderate adverse	Unchanged	Unchanged	Unchanged
Cumulative effects					
Global greenhouse gas concentration	Emissions from the development and combined effect with other nearby developments is extraneous and immaterial in terms of localised effects, however in line with IEMA guidance (IEMA, 2017) it is considered that all GHG emissions are potentially significant. Therefore, the development should be viewed in the context of developments and construction projects globally as they all contribute to a global climatic effect.	Potentially significant adverse	Unchanged	Unchanged	Unchanged

Table 19-2 Summary of residual significant effects during operation

Receptor	Effect	2018 ES residual significance	May 2019 ES addendum residual significance	June 2019 ES addendum residual significance	March 2020 ES addendum residual significance
Operation					
Ecology	Creation of 4,454m^2 of intertidal terrace which has the potential to conform to Habitats of Principal Importance (saltmarsh and mudflat) and provide habitat to benefit black redstart and Thames terrace assemblage invertebrates as well as provide a vegetated corridor along the river.	Moderate beneficial	Unchanged	Unchanged	Unchanged
Population and housing	The proposed development will contribute to LBN's future housing requirement and provide new homes for approximately 12,600 people	Moderate beneficial	Unchanged	Unchanged	Unchanged
Local expenditure	The additional population will generate an increase in consumer spending on convenience and comparison goods and on leisure and services in the local area	Moderate beneficial	Unchanged	Unchanged	Unchanged
Employment/ local jobs	The proposed development will generate between 602 and 847 net additional jobs in the local area	Moderate beneficial	Unchanged	Unchanged	Unchanged

Receptor	Effect	2018 ES residual significance	May 2019 ES addendum residual significance	June 2019 ES addendum residual significance	March 2020 ES addendum residual significance
Primary healthcare	The proposed development comprises of 7,055 sqm of flexible community and leisure floorspace, some of which has the potential to be used to provide a healthcare facility. However, worst-case assessment has assumed that this potential won't materialise. Discussion should take place with Newham Clinical Commissioning Group (CCG) to establish whether a new healthcare facility is required or whether financial contributions to develop existing healthcare provision is necessary	Moderate beneficial	Unchanged	Unchanged	Unchanged
Education (primary)	Existing primary school provision is currently over-capacity and the proposed development is likely to yield demand for up to 885 primary school places. However, the proposed development is providing a 4FE primary school which will meet primary school needs arising from the proposed development	Moderate/Minor beneficial	Unchanged	Unchanged	Negligible (Changed as a result of the revised methodology for calculating child yield).
Education (secondary)	Surplus capacity in existing secondary school provision but capacity forecast to disappear by 2023/24. The proposed development is likely to yield demand for up to 450 secondary school places.	Negligible	Unchanged	Unchanged	Unchanged
Open space	The proposed development will provide 110,272 sqm of open space of which 22,844 sqm is a local park, addressing the existing deficit of park provision in the local area. Furthermore, the proposed development is providing 30,646 sqm of play space provision, in excess of the GLA requirement, and again addressing the shortfall in play space provision locally.	Moderate beneficial	Unchanged	Unchanged	Unchanged
TCA 2: Leamouth and Thames Estuary	Effects on setting	Major Beneficial	Unchanged	Unchanged	Unchanged
TCA 10: Greenwich Peninsula East	Effects on setting	Moderate Beneficial	Unchanged	Unchanged	Unchanged
1: View south-east from the A1020 Lower Lea Crossing	Visual effects	Moderate Beneficial	Minor Beneficial	Unchanged	Unchanged
12: View west from the Royal Victoria Dock Bridge	Visual effects	Moderate Beneficial	Unchanged	Unchanged	Unchanged
21: View east from Blackwall Stairs	Visual effects	Moderate Beneficial	Unchanged	Unchanged	Unchanged
B: View east from the East India Dock Basin	Visual effects	Major Beneficial	Moderate Beneficial	Unchanged	Unchanged
Neighbouring properties	Reduction in annual and winter sunlight levels to neighbouring properties of Western Beach Apartments (36 Hanover Avenue); and a reduction in annual sunlight levels to neighbouring properties of 2 Fitzwilliam Mews of an actual reduction of 8% below the 25% Annual Probable Sunlight Hours (APSH) target.	Moderate adverse	Unchanged	Unchanged	Unchanged

Receptor	Effect	2018 ES residual significance	May 2019 ES addendum residual significance	June 2019 ES addendum residual significance	March 2020 ES addendum residual significance
Global greenhouse gas concentration	In line with IEMA guidance (IEMA, 2017) it is considered that all GHG emissions are potentially significant. The mitigation measures proposed will reduce the total GHG emissions, however, in the absence of any significance criteria or a defined threshold, the cumulative effect of GHG emissions would still be considered as potentially significant adverse.	Potentially significant adverse	Unchanged	Unchanged	Unchanged
Cumulative effects					
Employment/ local jobs	The number of jobs likely to be generated from the cumulative schemes has not been provided. However, all cumulative schemes provide commercial/retail/industrial floorspace to some extent within their proposals which will significantly increase employment opportunities.	Major beneficial	Unchanged	Unchanged	Unchanged
Population and housing	In total the cumulative schemes are estimated to deliver up to 12,898 residential units in addition to the 5,000 units provided as part of the proposed development. This will provide a notable contribution to the increased housing requirement of LBN.	Moderate beneficial	Unchanged	Unchanged	Major beneficial
Local expenditure	The creation of an additional (approximate) 12,898 homes from the cumulative schemes will increase household expenditure to a significant degree.	Moderate beneficial	Unchanged	Unchanged	Major beneficial
Primary healthcare	Proposed development and a number of other cumulative schemes have the potential to provide healthcare facilities/community and health floorspace to alleviate current strain on GP provision. However, there is no guarantee the floorspace will be used for healthcare services, and therefore to assess a worst-case scenario is considered.	Moderate/minor beneficial	Moderate adverse	Unchanged	Unchanged
Open Space	The proposed development includes the provision of public and private amenity space, as do the cumulative schemes.	Moderate beneficial	Unchanged	Unchanged	Unchanged
Education (Early Years)	The change to a moderate adverse effect in this assessment results from the updated methodology for calculating child yield which yields a greater number of early years children from the cumulative schemes (from 3,938 children to between 5,071 and 7,159 children).	Minor adverse	Unchanged	Unchanged	Moderate adverse
Education (Primary)	The change to a moderate adverse effect in this assessment results from the updated methodology for calculating child yield which yields a greater number of primary children from the cumulative schemes (from 1,723 children to 5,130 children).	Negligible	Unchanged	Unchanged	Moderate adverse

Receptor	Effect	2018 ES residual significance	May 2019 ES addendum residual significance	June 2019 ES addendum residual significance	March 2020 ES addendum residual significance
Education (Secondary)	The change to a moderate adverse effect in this assessment results from the updated methodology for calculating child yield which yields a greater number of secondary children from the cumulative schemes (from 1,969 children to 2,684 children).	Minor adverse	Unchanged	Unchanged	Moderate adverse
Various views and TCAs	The cumulative schemes and the proposed development would together help to a define a new sense of place, while the layout, scale and massing arrangement of the built form will collectively assist in an increased legibility in the townscape and reinforce the aims and principles set out for the Arc of Opportunity.	Moderate beneficial	Unchanged	Unchanged	Unchanged
Atmospheric GHG concentration	Emissions as a result of building's operational energy consumption	Potentially significant adverse	Unchanged	Unchanged	Unchanged

19.3 CONCLUSIONS

19.3.1 The Thameside West development continues to respond to the site's setting and environmental constraints. Supplementary mitigation measures are already proposed to reduce environmental effects as described in the 2018 ES. The updated March 2020 EIA work has reviewed the supplementary mitigation already proposed and has added two areas of supplementary mitigation (as in Section 19.2).

19.3.2 Some measures, necessary to reduce environmental effects, require further action; with the exception of the effects identified in Table 19-2, these further actions reduce all of the potential effects such that they will not be significant. Notably, there are predicted to be a large number of significant residual beneficial effects that will remain once the scheme is completed and operational which will contribute to the regeneration of the area.

FOR FURTHER INFORMATION ON THE PROPOSALS, PLEASE VISIT:
WWW.THAMESIDEWEST-PLANS.CO.UK