



CHARLTON
RIVERSIDE
P H A S E O N E

REVISED ENVIRONMENTAL STATEMENT
NON-TECHNICAL SUMMARY

Rockwell

Date

December 2018



Project Number


1700001114

CHARLTON RIVERSIDE REPLACEMENT ENVIRONMENTAL STATEMENT NON- TECHNICAL SUMMARY

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Project No. **1700001114**
Issue No. **1**
Date **03/12/2018**
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Version Control Log

Revision	Date	Made by	Checked by	Approved by	Description
1	03/11/2018	RRS	SM	ME	Final for Submission

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1. INTRODUCTION

1.1 Purpose of this NTS

This is the Replacement Non-Technical Summary (NTS) of the Environmental Statement (ES) which has been prepared by Ramboll Environment and Health Limited (Ramboll) and their competent experts in accordance with the statutory procedures set out in the Town and Country Planning (Environmental Impact Assessment) (England) Regulations 2011 (as amended in 2015) (hereafter referred to as the 'EIA Regulations').

A full planning application ('the application') was submitted in December 2016 by Leopard Guernsey Anchor Propco Limited ('the applicant') for the redevelopment of a site in the Charlton area of south-east London ('the proposed development'). The planning application was amended prior to its determination and resubmitted in December 2017 under the same reference (Ref: 16/4008/F). The application was accompanied by an Environmental Statement ('the 2017 ES') which reported on the outcomes of the EIA and comprised the following documents:

- Volume 1: Environmental Statement Main Report;
- Volume 2: Townscape, Visual and Heritage Impact Assessment, including appendices;
- Volume 3: Technical Appendices; and
- Non-Technical Summary.

The proposed development would comprise the demolition of existing buildings and erection of 11 buildings ranging from 2 to 10 storeys in height for Class C3 residential use, with flexible Class B1 (Business), Class A1 – A3 (Retail/Restaurant), Class D1 (Community) and Class D2 (Leisure) at ground floor and first floor level, alterations to existing vehicular access and creation of new pedestrian access from Hope and Anchor Lane and the riverside, creation of new areas of open space and landscaping together with the provision of associated car parking, cycle space, refuse and recycling storage, plant and all other associated works.

The application was refused by the RBG at the decision-making stage and subsequently under the provisions of Article 7 of the Town & Country Planning (Mayor of London) Order 2008 the GLA 'called in' the application. This was predominantly on the grounds that the application met the Local Plan objectives on the basis of housing provision and that it would significantly contribute to the new housing targets for the area, which are proposed to increase in the Draft London Plan.

The 2017 proposed development has since been amended following the RBG and GLA comments. Feedback was provided in respect of key aspects of the 2017 proposed development's design. As a result of the consultation feedback and on-going discussions with the GLA, the 2017 proposed development has been amended with respect to block heights, the area schedule, car park access and ventilation intakes, energy centre location and the proposed east-west route along Anchor and Hope Lane (the 'amended proposed development'). Accordingly, updated planning applications drawings have been prepared and will be submitted.

Updated environmental impact assessments have been undertaken to assess the potential impacts and likely effects of the amended proposed development as a whole, accounting for the proposed amendments to the 2017 proposed development. The outcomes of these assessments are presented in an addendum document ('the 2018 ES addendum'). The 2018 ES addendum comprises the following documents:

- ES Volume 1A: Environmental Statement Main Report Addendum;
- ES Volume 2A: Townscape, Visual and Heritage Impact Assessment Addendum; and
- ES Volume 3A: Technical Appendices Addendum.

The 2018 ES addendum should be read alongside the 2017 ES.

This replacement NTS presents a full update and replacement of the NTS submitted as part of the 2017 ES and presents a summary of the main findings of the EIA that has been undertaken of the amended proposed development as a whole and that has been reported in the 2017 ES and 2018 ES addendum. The Replacement NTS provides:

- a description of the application site and surrounding context;
- an outline of the main development alternatives considered by the Applicant and an indication of the main reasons for their choice, taking into account the potential environmental effects;
- a description of the amended proposed development; and
- a summary of the likely significant environmental effects predicted and key mitigation measures (as relevant).

The aim of the Replacement NTS is to summarise the main findings of the EIA in a clear and concise manner to assist the public in understanding what the likely significant environmental effects of the amended proposed development are likely to be.

Plans illustrating the location and boundaries of the application site are included as Figure 1.

1.2 Viewing the ES and Application

The full ES comprises:

- Replacement Non-Technical Summary (this document);
- Volume 1: Environmental Statement Main Text;
- Volume 2: Part 1-Townscape and Visual Impact Assessment (THIA) and Part 2-Built Heritage Assessment;
- Volume 3: Technical Appendices;
- Volume 1A: Environmental Statement Main Report Addendum;
- Volume 2A: Townscape, Heritage and Visual Impact Assessment Addendum; and
- Volume 3A: Technical Appendices Addendum.

The full ES, together with the planning application and other supporting documents are available for viewing by the public in the Planning Department of the Royal Borough of Greenwich during normal office opening hours and, on the Council's, online planning portal.

CD versions of the ES are available for purchase at a cost of £25 from Ramboll.

1.3 Commenting on the Application

Comments on the planning application should be forwarded to the RBG at:

The Development Team - Major Projects,
Directorate of Regeneration, Enterprise and Skills,
Royal Borough of Greenwich,
Woolwich Centre
35 Wellington Street,
London,
SE18 8HQ.

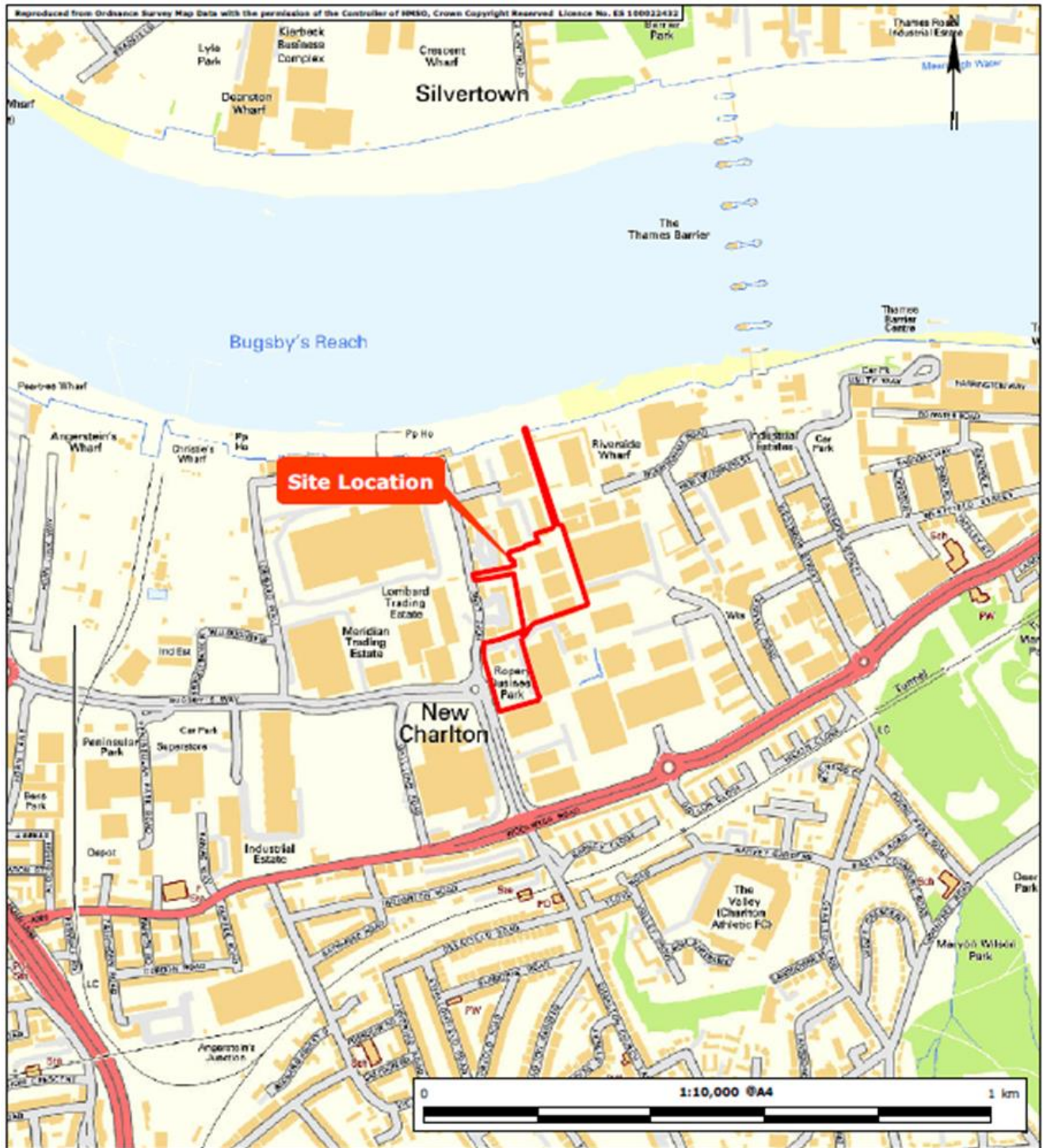


Figure 1.1: Application Site Location

2. SITE AND SURROUNDINGS

2.1 The Application Site

The application site comprises two parcels of land referred to as 'Plot A' and 'Plot B', Plot A being the northern most plot, and Plot B being to the south-west of Plot A. Together they form the application site, at a total area of 2.52 hectares (ha). The location and application site boundary is shown in Figure 1.1.

Plot A is bound by:

- commercial units comprising Anchorage Point Industrial Estate and Imex House to the north;
- commercial and industrial units including a casting foundry and depot to the east;
- commercial and light industrial units comprising Ropery Business Park to the south; and
- an electricity substation, residential properties at Atlas Gardens and Derrick Gardens; and
- Anchor and Hope Lane with a distribution centre and units comprising Lombard Trading Estate beyond to the west.

Plot B is bound by:

- residential properties at Atlas Gardens to the north;
- commercial and light industrial units comprising Ropery Business Park to the east;
- commercial and retail properties comprising Charlton Gate Business Park to the south; and
- Anchor and Hope Lane and commercial units comprising Lombard Estate and Anchor and Hope Business Park to the west.

As shown in Figure 1.1, the application site is irregularly shaped. It is currently hardstanding with limited vegetation, occupied by industrial warehouse and business park units, as shown in Figure 2.1. Due to its proximity to the River Thames, the application site has been designated as an 'Area of High Archaeological Potential' within the RBG's Local Plan.

The application site is located within Charlton Riverside – a Strategic Development Location allocated for a new mixed use urban quarter by the RBG Core Strategy (2014).

2.2 The Surrounding Area

The area surrounding the application site is predominantly industrial in nature. This is characterised by existing warehouses and retail outlets that border the application site, with the exception of the Imex House and residential properties of Atlas Gardens and Derrick Gardens which are located directly adjacent.

Beyond the northern boundary lies the River Thames, the closest surface water resource, and beyond the southern boundary lies the A206 dual carriageway. A large Sainsbury's distribution centre is located further west of the application site, comprising a warehouse, an energy centre, a vehicle wash and an area for refuelling. Stone Lake Retail Park is located to the south-east.

Charlton Railway Station is located approximately 350 m to the south. The station is situated on the Southeastern Line, providing a direct service to London Bridge, London Charing Cross and London Cannon Street. The nearest underground station is North Greenwich, which is approximately 2.6 km north-west of the application site. The application site is situated within an accessible road network, with Anchor and Hope Lane adjacent to the north which connects with Charlton Church Lane and Woolwich Road (A206) to the south. To the west, Bugsby's Way links the application site with the Greenwich Peninsula and the Blackwall Tunnel (A102).

In addition, five bus routes are within easy access of the application site with bus stops on Bugsby's Way, Anchor and Hope Lane and Woolwich Road. There are also suitable pedestrian and cycle routes in the vicinity of the application site, which connect to important destinations. This

includes the National Cycle Network Route 1 which links with the application site and continues along the Thames Path, connecting to other local and national cycle routes.

Three safeguarded wharves, designated under GLA planning policy, are located within 900 m of the application site. The closest is Riverside Wharf, approximately 150 m to the north-east.



Figure 2.1: Views around the existing site

2.3 Environmental Baseline Sensitivities

The environmental character and sensitivity of the application site is described below:

- The application site does not contain any nationally designated (protected) heritage assets, such as scheduled monuments, listed buildings or registered parks and gardens;
- The entire application site lies within the Greenwich Peninsula and Foreshore Area of High Archaeological Potential, which is characterised by the potential for prehistoric to medieval remains within alluvial deposits;
- There are no areas of ecological value on or around the application site;
- The application site is located within an Air Quality Management Area (AQMA) declared under the Environment Act 1995, which incorporates the whole RBG; and
- The nearest significant noise sources are associated with road traffic and commercial and industrial premises in proximity to the application site.

3. DESIGN EVOLUTION AND ALTERNATIVES

In line with the EIA Regulations, the ES provides a description of the main alternatives to the amended proposed development, considered by the Application. These include:

- The Do-Nothing Scenario (no redevelopment on-site);
- Alternative Sites; and
- Alternative Designs.

3.1 Do-Nothing Scenario

The 'do nothing' alternative refers to the option of leaving the application site in its current state. This option would be undesirable and inappropriate for a number of reasons including:

- The application site is located within the Charlton Riverside Opportunity Area which is identified by the London Plan for significant residential growth (including a target of 3,500 additional homes in the area);
- Redevelopment of the application site is required to unlock access to adjacent development sites within the Opportunity Area; and
- It would represent a lost opportunity to open up the application site for greater public accessibility and significant improvements to the public realm.

Consequently, the 'do nothing' scenario was rejected by the Applicant.

3.2 Alternative Sites

The Applicant purchased the application site having regard to its location within an area identified for significant redevelopment and growth. The application site is highly accessible and available for delivery. No other sites were considered by the Applicant.

3.3 Design Evolution

Various design options were considered by the Applicant during 2015/2016 that evolved into a residential-led development being sought for approval in December 2016. These options were discussed with the RBG and the GLA, and a number of points were considered in relation to the proposed scale of development, relationship to the wider masterplan area, the quantum of residential accommodation and associated issues relating to residential amenity, employment area, servicing strategy access, parking provision and sunlight and daylight. Public consultation events were also a key process for gaining stakeholder feedback.

Following submission of the application in December 2016 (Ref: 16/4008/F), through consultation with the RBG, it was concluded that amendments to the proposed development would be made prior to its determination by the RBG to align more closely with the revised Charlton Riverside Supplementary Planning Document (June 2017). In light of this, further evolution of the design occurred in 2017.

Early proposals for the application site focused on generating a variety of design ideas and options that would deliver the required density of accommodation to secure redevelopment of the application site.

A number of potential block forms and layouts were examined, prior to discussion with key stakeholders, and the development of these initial options allowed the Applicant and design team to formulate a shared understanding of the key design issues, opportunities and constraints associated with the application site.

Following the submission of the revised application in December 2017 (under the same reference 16/4008/F) a number of design changes have been made following the RBG and GLA comments, mainly in relation to storey heights.

Whilst the evolution of the proposed development took place continuously up until this point, for ease, the alternative designs have been summarised into four key design stages as follows:

3.3.1 Phase 1: September 2015 – April 2016

A diagrammatic layout was established to create a framework for the detailed development of key routes and spaces, and to inform key urban design principles. The building heights responded to existing contextual 2-storey houses and the hierarchy of proposed building heights stepped up from the west at 4 storeys, increasing in height towards the east of the application site up to 26 storeys. Existing and future routes were considered to allow flexibility for connection to future masterplan phases.

A rich variety of garden spaces at ground level and at building roof levels were proposed, comprising green pedestrian streets, pocket squares, small green courtyard spaces, urban SUDS, river walkway, and landscaped edge conditions to Anchor and Hope Lane.

3.3.2 Phase 2: May 2016 - November 2016

Following the considerable period of time spent on design development, revision, and consideration of alternatives, and based on the feedback received from key stakeholders during the evolution of the various design proposals a new approach and concept was established, considering the adjacent existing and future development.

Building heights were reduced in the centre of the scheme and redistributed to one landmark building at the south of the application site.

A pedestrian route cutting east-west through the site was also added to increase permeability and access to the park area.

3.3.3 Phase 3: May 2017 - October 2017

Following the submission of the December 2016 Application, and consultation with the GLA and RBG, the design of the proposed development has undergone further evolution. This has been to allow the proposed development to align more closely with the principles of the new Charlton Riverside Masterplan SPD 2017, which has since been implemented. Key principles of the previously submitted design were brought forward as well as the environmental influences identified.

The main changes during this time relate to changes to the layout and height of the proposed buildings. The height has been reduced from up to 28 storeys previously to up to 10 storeys, enabling comparatively positive influences on wind and townscape as well as daylight and sunlight. Alterations to the layout of the proposed development have also resulted in changes to the landscaping and public realm. Although different in location and area, these have maintained the same overarching principles as the proposed development's previous iteration.

The December 2016 scheme comprised one basement level on Plot A, containing an underground car park. However, a second basement level was added on Plot B during the design evolution process. The additional basement, which would comprise an energy centre, as well as plant and parking space, enabled the addition of further flexible commercial space on the ground floor level of Plot B.

3.3.4 Phase 4: July 2018 – November 2018

Following the 'call-in' of the 2017 application by the GLA, and consultation with the GLA and RBG, the design of the amended proposed development has undergone further evolution. Predominantly addressing the RBG's reasons for refusal, the design evolution can be summarised as follows:

- The building heights have been amended to allow a reduction of two storeys to Buildings G, H and J, an increase by one storey to Buildings C and D and an increase by one to two

storeys to Buildings E and F. This has enabled Buildings within close proximity to residential housing to be reduced and relocated to buildings further east, resulting in comparatively positive influences on daylight, sunlight and overshadowing impacts;

- The flue has been relocated from Building M to Building O;
- Cycle storage has been provided in accordance with the Draft New London Plan;
- There has been an increase in affordable housing since the 2017 application, from 21.5% to 40%;
- Widening of the east west link to align with the proposals set out in the Charlton Riverside Masterplan Supplementary Planning Document, together with associated landscaping amendments and design alteration to Building M (now partially curved) to accommodate this road widening;
- Relocation of the car park entrance to Building A and associated relocation of the car park vent to Building C (east façade); and
- Activation of street frontage along the future east west link.

3.4 Environmental Influences

Environmental factors have influenced the proposals as they have evolved. Key environmental factors relate to:

- Wind microclimate – shaping the landscaping proposals and location of buildings entrances;
- Acoustics – affecting the façade design and influencing the location of winter gardens, when considering existing local noise sources;
- Daylight and Sunlight - most importantly affecting the massing height and footprints in relation to nearby existing residential properties;
- Townscape and Visual – influencing the design in respect of the local townscape;
- Drainage Strategy -influencing the landscape proposals in relation to sustainable drainage systems as well as consideration of residential units above the ground floor;
- Playspace requirements – affecting the landscaping proposals to ensure sufficient playspace; and
- Ecology – enhancing local biodiversity was a key consideration in the landscaping proposals.

4. DESCRIPTION OF THE AMENDED PROPOSED DEVELOPMENT

The amended proposed development would involve the demolition of existing buildings and erection of 11 buildings ranging from two to ten storeys in height for Class C3 residential use, with flexible Class B1 (Business), Class A1 – A3 (Retail/Restaurant), Class D1 (Community) and Class D2 (Leisure) at ground floor and first floor level, alterations to existing vehicular access and creation of new pedestrian access from Hope and Anchor Lane and the riverside, creation of new areas of open space and landscaping together with the provision of associated car parking, cycle space, refuse and recycling storage, plant and all other associated works.

The amended proposed development would provide:

- 771 residential units;
- 3,280 m² (GIA) of flexible business/retail/restaurant/café/leisure use;
- 496 m² (GIA) of flexible community/leisure use;
- 338 m² (GIA) of community space for use as a creche;
- Up to 1,400 residential and commercial cycle spaces; and
- Two basements, providing up to 208 car parking spaces.

The landscape proposals for the amended proposed development would deliver considerable public realm, biodiversity and amenity enhancement, an example of this is shown in Figure 4.1.



Figure 4.1: View of Resident's Gardens at the Amended Proposed Development

The details of the amended proposed development are provided in Tables 4.1 and 4.2 below with breakdowns of areas, and tenure and unit mix in relation to the residential units.

Table 4.1: Amended Proposed Development Area Schedule		
Land Use	GEA (m²)	GIA (m²)
Flexible work (Class B1)	3,250	3,097
Retail (Class A1-A5)	201	183
Creche use (Class D1/D2)	373	338
Community Use (Class D1/D2)	536	496

Table 4.2: Amended Proposed Development Tenure Mix	
Tenure	Units
Private	479
Social Housing	292
TOTAL	771

The main components of the amended proposed development are shown in a series of plans and images that are submitted as part of the full planning application. A selection are presented in this section (Figures 4.2 – 4.5).

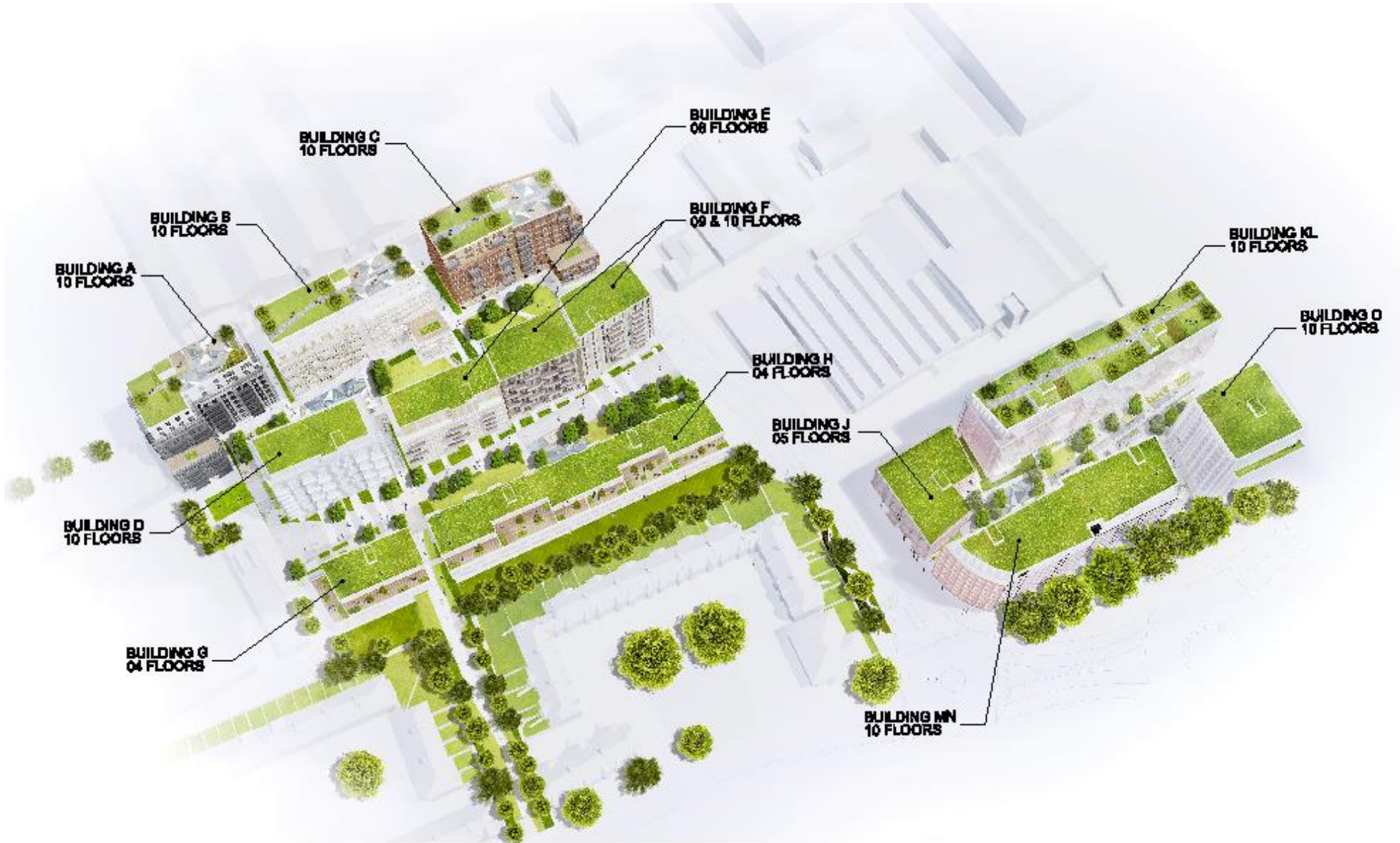


Figure 4.2: General Site View of the Amended Proposed Development with Plot A (left) and Plot B (right)

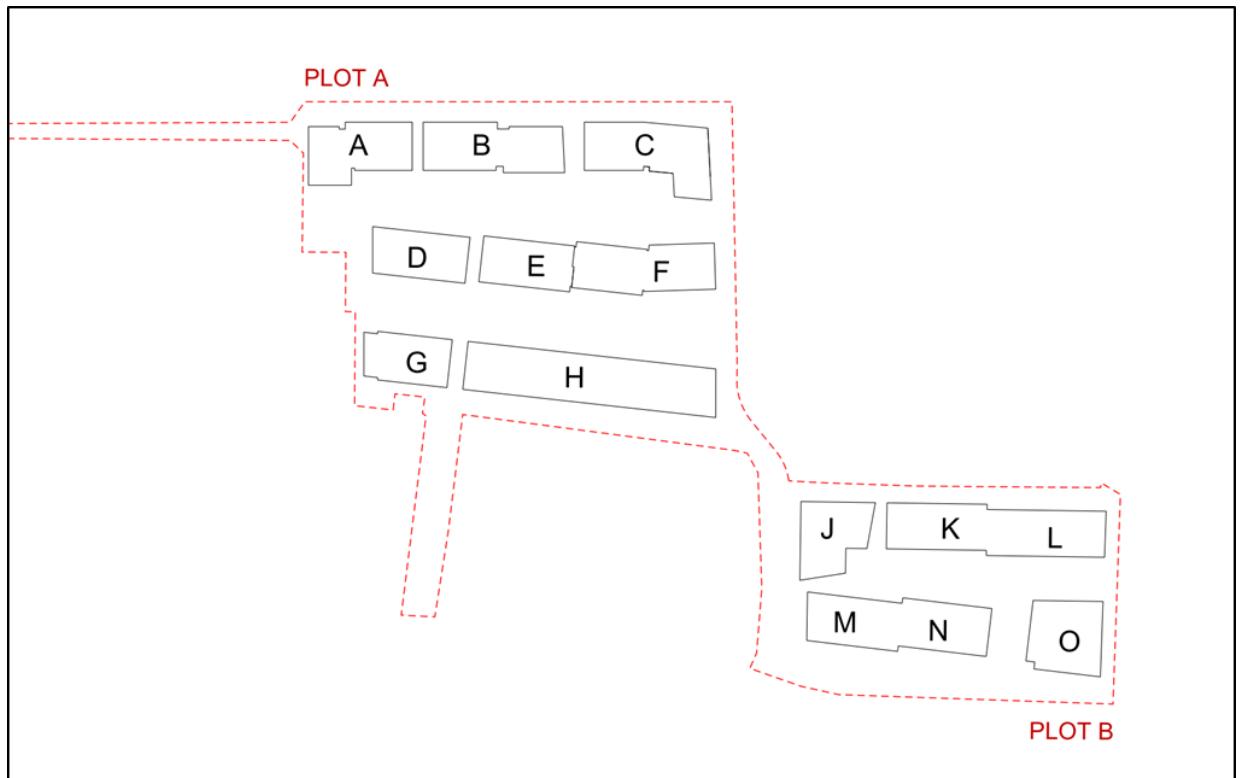


Figure 4.3: Building Layout Plan with Building Names

4.1 Amended Proposed Development Composition

Figure 4.2 shows a visual representation of the amended proposed development. The location of the buildings on the two plots was developed from the desire to create an extensive green space in the centre of each plot. The building locations and corresponding names are shown in Figure 4.3, and details are provided in Table 4.3 below.

Table 4.3: Amended Proposed Development Building Heights and Basement Depth				
Building	No. of Storeys	Building Roof Height/Base ment Depth (m AOD)	Building Roof Height/Basement Depth (m) Above/ Below Ground Level	Top of the Building Maximum Height (m AOD)
Plot A - Building A	10	+35.525	+30.975	+39.525
Plot A - Building B	10	+36.050	+31.500	+40.050
Plot A - Building C	10	+36.250	+27.225 to +35.300	+39.300
Plot A - Building D	10	+35.150	+28.225 to +31.600	+36.400
Plot A - Building E	8	+29.150	+19.225 to +25.600	+30.400
Plot A - Building F	9-10	+35.200	+28.275 to +31.650	+36.450
Plot A - Building G	2-4	+16.525	+6.225 to +12.975	+17.775
Plot A - Building H	3-4	+16.150	+9.225 to +12.600	+17.775
Plot A - Basement Level	1	+1.150	-2.400	n/a
Plot B - Building J	5	+20.125	+16.575	+21.375
Plot B - Building K	10	+35.725	+32.175	+39.725
Plot B - Building L	10	+35.725	+32.175	+39.725

Building Component	Height (Floors)	Height (m)	Height Range (m)	Height (m)
Plot B – Building M	8-10	+35.575	+25.650 to +32.025	+37.825
Plot B – Building N	10	+35.575	+32.025	+36.825
Plot B – Building O	10	+36.550	+33.000	+38.850
Plot B – Podium	1	+7.750	+4.200	+7.750
Plot B – Basement Level	1	-0.375	-3.925	n/a

Figure 4.4 shows a visualisation of the amended proposed development.



Figure 4.4: View of the Eco-walk and entrance to Plot A at the Amended Proposed Development

4.2 Land Use Distribution

Table 4.4 shows the distribution of land uses, above and below ground.

Table 4.4: Distribution of Land Uses	
Plot A Residential Blocks	<ul style="list-style-type: none"> The buildings to the western boundary, Buildings G and H, provide predominantly 2-storey 2 and 3-bedroom townhouses with private gardens on the ground floor and a variety of 1, 2 and 3 bedroom apartments and studios on the upper floors. Those on the eastern facing aspect are provided private balconies, with loggias proposed for the majority on the western face. Access terraces are also proposed on the western aspects of the upper levels. Building B provides 2-storey 2 and 3-bedroom apartments and creche community space on the ground floor and a variety of 1, 2 and 3 bedroom apartments and studios on the upper floors. Either loggias or balconies are provided for all units, and terraces are proposed on the upper levels. The remaining buildings on Plot A provide a mix of 1, 2, 3 and 4 bedroom apartments and studios on the all floors. All apartments are provided with either balconies or loggias, whilst terrace space is provide on upper levels. Townhouses (Buildings G and H) are located backing onto the existing row of townhouses on Plot A to the western boundary.
Plot B Residential Blocks	<ul style="list-style-type: none"> All buildings on Plot B provide workspace on the ground floor level. 1, 2 and 3 bedroom apartments are provided for each building from the 1st floor level. All apartments in Building O are provided with winter gardens, whilst all apartments in Building J, K and L are provided with balconies. For Buildings M and N, apartments are provided with either loggias or balconies, with loggias installed in all apartments on the western aspect. Buildings K and L, M and N, and O are provided with a terrace at an upper level.
Ground Level	<ul style="list-style-type: none"> The ground level includes areas of active frontage across the two plots located at the perimeter along current and future access roads providing space for flexible workspace, retail and community use, together with significant areas of public realm and some private secure gardens associated with the townhouses. Some of the spaces extend over two floors with access to the garden on podium level on Plot B.
Flexible Workspace, Retail and Community Space	<ul style="list-style-type: none"> Flexible workspace and retail space is located on the ground floor level on Plot B. This extends throughout the podium and all buildings. It is intended that approximately 60-70% of this area would be used for workspace (Class B1). Retail space would comprise a portion of the ground floor space within Building O. Flexible community space is located on the ground floor level within Buildings B and C within Plot A.
Crèche	<ul style="list-style-type: none"> A crèche is located on the ground floor level within Building B on Plot A.
Concierge and Lobbies	<ul style="list-style-type: none"> Main reception areas and concierge facilities would be located at the ground floor level in all buildings. The main concierge area for the amended proposed development is located on Plot B, Building J, adjacent to Mirfield Street.
Plant	<ul style="list-style-type: none"> The energy centre for the entire development is largely provided within the basement level of Plot B, with a small area of plant space within the basement level of Plot A.
Private and Shared Roof Terraces	<ul style="list-style-type: none"> Shared and landscaped roof terraces are provided on buildings A, B, C, K and L. All other buildings will have a sedum roof, with PV solar panels located on buildings D, E, F, G, H, J, M, N and O.

Table 4.4: Distribution of Land Uses	
Basement Levels	<ul style="list-style-type: none"> The basement level on Plot A accommodates parking, cycle parking, refuse stores and local plant space and takes up approximately half of Plot A. The basement level on Plot B accommodates an energy centre serving the whole application site, parking, cycle parking, refuse stores and local plant space.

The amended proposed development has been designed according to the 'secured by design' principles which would have a beneficial effect on the application site in relation to the provision of a safer, more open environment.

4.3 Materiality

The buildings materiality has been carefully considered to reflect surrounding conditions. The façade for buildings on Plot A would comprise of traditional bricks with different earthy and light tones, brick bands and brick grids. Plot B would comprise bands of artificial stone, brick grid arrangements and a GRC rainscreen system.

4.4 Landscape Masterplan

The ground floor landscape masterplan has been provided in Figure 4.5. The amended proposed development would bring forward publicly accessible amenity space on-site comprising the following:

- 2,025 m² of public roof space across Plots A and B;
- 8,939 m² of public realm within Plot A;
- 2,765 m² of public realm within Plot B;
- 1,227 m² of communal podium space across Plots A and B.

Within this space, playspace provision requirements are always an important driver for the development of the landscape proposals. Creating safe, inviting spaces for children and families has been a core principle of the scheme since the beginning. The design team has carefully considered where to best place play areas for the range of target age groups. The amended proposed development looks to locate playspace within close proximity to block cores, away from vehicular routes and in sheltered areas of the scheme.

There would be private gardens within the amended proposed development, totalling 1,585 m², as well as 844 m² of communal roof terraces.

The following areas of playspace would be brought forward on-site:

- Under five year olds: 1,332 m²;
- 5-11 year olds: 907 m²; and
- Over 12 year olds: 547 m².

Information received from the ecological assessments has greatly informed the development of the landscape proposals. The landscape scheme has evolved and adapted to support (and enhance) local biodiversity through changes to the soft landscape palette, by incorporating specific habitats for birds and various invertebrates, and by establishing particular maintenance operations to ensure continued success. The whole landscape scheme stems from some basic ecological principles relating to connectivity, increased biodiversity, and careful landscape management.

4.5 Deliveries and Servicing

Drop off zones servicing Plot A is provided on Rope Lane, and Plot B on Mirfield Street. Refuse collection would be made on the servicing route on Marsh Mews and from Rope Lane for Plot A

and Plot B would occur from Yarn Lane. Car and cycle parking would be provided within basement car parks on both Plots, with access from Rope Lane for Plot A and Yarn Lane for Plot B.

4.6 Energy/Resource Use

An electrical substation would be provided on both Plots A and B and would provide electricity to all buildings. Combined Heat and Power supply, along with standby boilers would provide low temperature hot water to pre-heating substations to all buildings.

Cold water storage and associated booster pump sets would be provided to all buildings and all sprinkler systems would be served from the domestic water services system.

Corridor smoke extract fans would be located at roof level on all buildings. Standby power generators (serving firefighting lifts, smoke extract fans, emergency lighting) would be located at roof level on all buildings.

Incoming gas would enter the application site and be distributed into the boiler/CHP plantrooms. No gas supply would be provided to apartments. Each apartment would be provided with a heat interface units.

Surface water runoff would be reduced through new green spaces, green/living roofs, swales, permeable paving, landscaped planting and underground storage crates. These measures would decrease surface water runoff by 50% compared to the existing pre-development rate.



Figure 4.5: Amended Landscape Masterplan

5. DEMOLITION AND CONSTRUCTION WORKS, MANAGEMENT AND CONTROL

5.1 Overview

At this stage the full details as to how the demolition and construction works would be undertaken and the timescales associated with these works have not yet been settled, as these are affected by many different factors. The demolition and construction effects are therefore based on the following reasonable assumptions.

It is assumed that demolition and construction works would take place in one continuous phase, over a period of approximately 48 months. This would begin in early 2020 with demolition works. Construction works are expected to commence in mid-2020 for Plot B and late 2020 for Plot A. It is anticipated that all works would be complete by late 2023.

Whilst the actual construction programme is likely to be driven by market demand for the buildings, these assumptions represents a reasonable 'worst case' scenario in terms of the scale of construction works taking place at the same time, an approach that is in accordance with best practice in EIA methodology.

Figure 5.1 shows the expected indicative construction works programme for the amended proposed development.

In general terms, the proposed works comprise the following:

- site preparation (diversion of existing services including telecoms, electricity and water and erection of hoarding);
- demolition of existing structures;
- substructure (below ground works including piled foundations and basement construction);
- superstructure (above ground including steel and/or concrete structures and cladding);
- fit-out; and
- public realm works.

Prescribed hours of work would be agreed with the RBG. It is envisaged that, in general, the hours of work would be as follows:

- 08:00 – 18:00 hours Monday to Friday;
- 08:00 – 13:00 hours Saturday;
- No working on Sundays or Bank Holidays.

It is recognised there is residential accommodation in close proximity to the parts of the application site where noisy works or other activities would be undertaken, which could cause disruption. On-going liaison with the neighbours would ensure that they are informed of the works being undertaken and that consideration is taken of any concerns they may have.

Charlton Riverside Summary Construction Programme																				
Line	Name	Duration	Start	Finish	2020				2021				2022				2023			
					Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
1	Demolition and Construction Programme	196w 2d	07-Jan-20	20-Dec-23	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
2	Enabling Works	44w	07-Jan-20	15-Nov-20	■	■	■	■												
3	Infrastructure and Utilities	26w	31-May-20	29-Nov-20		■	■	■												
4	Plot B	126w	30-May-20	09-Dec-22		■	■	■	■	■	■	■	■	■	■	■				
5	Basement Construction/ Substructure	36w	30-May-20	20-Feb-21		■	■	■	■	■	■	■								
6	Building J	62w 1d	01-Nov-20	21-Feb-22				■	■	■	■	■	■	■	■	■				
7	Building K/L	80w	21-Feb-21	30-Sep-22					■	■	■	■	■	■	■	■				
8	Building M/N	78w	06-May-21	25-Nov-22						■	■	■	■	■	■	■				
9	Building O	70w	16-Jul-21	09-Dec-22							■	■	■	■	■	■				
10	Plot A	152w 2d	18-Nov-20	20-Dec-23				■	■	■	■	■	■	■	■	■	■	■	■	■
11	Basement Construction/ Substructure	54w 1d	18-Nov-20	04-Jan-22				■	■	■	■	■	■	■	■	■				
12	Building A	72w	20-Jul-21	10-Jan-23							■	■	■	■	■	■	■	■	■	■
13	Building B	70w 4d	24-Sep-21	08-Mar-23							■	■	■	■	■	■	■	■	■	■
14	Building C	70w 4d	03-Dec-21	20-May-23							■	■	■	■	■	■	■	■	■	■
15	Building D	70w 4d	25-Feb-22	01-Aug-23									■	■	■	■	■	■	■	■
16	Building E/F	76w	25-Mar-22	05-Oct-23									■	■	■	■	■	■	■	■
17	Building G	58w	08-Jun-22	08-Aug-23										■	■	■	■	■	■	■
18	Building H	70w 1d	26-Jul-22	20-Dec-23											■	■	■	■	■	■

Figure 5.1: Anticipated Demolition and Construction Programme

5.2 Construction Environmental Management Plan

It is proposed that a Construction Environmental Management Plan (CEMP) would be prepared for the amended proposed development which would include all details of relevant environmental management controls necessary for environmental protection during the works. This would be discussed and agreed with the relevant planning officers at the RBG following the approval of the detailed planning application. It is envisaged that the CEMP would address as a minimum the following:

- the control and management of construction wastes;
- housekeeping procedures and environmental control measures relating to water, waste, noise, air quality, incidents, archaeology and contamination;
- details of any environmental monitoring proposed;
- details of prohibited or restricted operations (location, hours etc.);
- the details of proposed routes for HGVs travelling to and from the site; and
- details of all works involving interference with a public highway, including temporary carriageway / footpath closures, realignment and diversions.

5.3 Community Liaison

Measures for community liaison would be implemented by the contractor to co-ordinate the dissemination of information. Communication methods typically used would include newsletters, phone helpline, liaison meetings, notice boards/hoarding information and personal contact particularly prior to abnormal work.

The CEMP would set out the arrangements for dealing with incidents or complaints. In general, all complaints would be logged and reported to the appropriate authority where required. Measures to remedy the complaint would also be recorded and reported back to the complainant.

5.4 Potential Construction Environmental Effects

The main sources of potential environmental effects during construction of the amended proposed development have been identified as transport, dust, noise and vibration and archaeology. Potential effects and associated mitigation measures to reduce potential effects are set out in Table 5.1.

Table 5.1: Key Potential Construction Environmental Effects		
Topic	Potential Effects	Potential Mitigation/Enhancement Measures
Transport	<ul style="list-style-type: none"> • Effects of traffic flows from construction vehicle movements upon the local highway network; • Effects of construction activities on pedestrian movement and capacity, severance, delay, fear and intimidation, amenity; • Effects of construction on cyclists; • Effects of increased number of public transport trips as a result of construction workers' travel. 	<ul style="list-style-type: none"> • Environmental Management Plan (EMP) and Construction Logistics Plan (CLP) prior to commencement; • Management of walkways, any temporary closures and routing would be agreed with the RBG through the CLP and EMP post-planning and prior to commencement; and • Management of road closures and routing would be agreed with the RBG through the CLP and EMP post-planning and prior to commencement.

Table 5.1: Key Potential Construction Environmental Effects		
Air Quality	<ul style="list-style-type: none"> Nuisance dust. 	<ul style="list-style-type: none"> Incorporate mitigation measures from the IAQM Guidance on the assessment of dust from demolition and construction, such as dust monitoring, using solid screens around dusty activities and stockpiles, and ensuring adequate water supply for effective dust suppression.
Noise and Vibration	<ul style="list-style-type: none"> Construction noise, vibration and traffic. 	<ul style="list-style-type: none"> Standard best practice measures, such as regularly maintaining all plant used on-site, provision of rest periods during any long prolonged noisy activities and installing an acoustic barrier.
Archaeology (Buried Heritage)	<ul style="list-style-type: none"> New piled foundations would locally remove remains within their footprints; and Preliminary site strip and excavation of new basement level. 	<ul style="list-style-type: none"> Following a written scheme of investigation, if any buried heritage is found preservation by record would be undertaken comprising a geoarchaeological borehole survey and sub- surface deposit model to greater understand the nature of the underlying geology and topography, and any potential prehistoric landscapes.

The overall potential environmental impacts of the demolition and construction phase have been considered. These would be mitigated as far as practicably possible by the control and management of all potential factors in accordance with legislative requirements, best practice and an agreed CEMP.

6. ENVIRONMENTAL IMPACT ASSESSMENT

6.1 EIA Process and Methodology

This Replacement NTS reports on the findings of the Environmental Impact Assessment (EIA) process undertaken for the amended proposed development. EIA is a process that identifies the potential significant environmental effects (both beneficial and adverse) of a proposed development and proposes mitigation to avoid, reduce and offset any likely significant adverse environmental effects.

ES Volumes 1, 1A, 2 and 2A report upon the likely effects of the amended proposed development and the associated scale of significance (whether it be Negligible/Imperceptible, Minor/Slight, Moderate or Major), in order to determine what the likely significant effects of the amended proposed development are. The results of this have been summarised in this document.

Mitigation is the term used to refer to the process of avoiding where possible and, if not, minimising, controlling and/or off-setting potentially significant adverse impacts and effects of a development. As part of the iterative process, mitigation measures have been integrated into the design stage; the demolition and construction stage; or the activities associated with the operation of the completed amended proposed development.

The EIA process adopted for the amended proposed development has followed best practice guidelines, as set out by the Institute of Environmental Management and Assessment (IEMA) Quality Mark scheme. The process involved a number of key steps as follows:

- Consultation was undertaken with key stakeholders such as the RBG, the GLA and CABE on the issues to be considered by the EIA;
- The most up-to-date information on the nature of the sensitivity of the environment was gathered and assessed where applicable;
- The EIA used best practice methods to predict the potential nature, size and significance of any environmental change; and
- The results of the EIA process have been reported in the ES in a transparent way, to provide the information required to support the decision-making process.

The first stage of the EIA process involved undertaking scoping. The purpose of scoping was to identify the potential significant environmental effects that could arise from the amended proposed development and therefore provide the focus of the EIA. The findings of the scoping exercise, along with details of the proposed methods for the specialist assessments, were presented in an EIA Scoping Report.

Feedback on the scoping report was provided by the RBG and statutory consultees, and further consultation was had with the RBG on the scope. This informed the environmental topic areas which were considered in both the 2016 and 2017 EIA, and the scope of these assessments.

Following the 'call-in' by the GLA, a further consultation process was undertaken with the GLA and RBG, predominantly to address the RBG reasons for refusal of the 2017 application. The Applicants responses to these comments are provided within ES Volumes 1A and 2A.

6.2 Topics Included in the EIA

A number of environmental studies were carried out as part of the EIA. Key issues assessed were:

- Socio-Economics;
- Transport;
- Air Quality;

- Noise and Vibration;
- Archaeology (Buried Heritage);
- Daylight, Sunlight, Overshadowing and Solar Glare;
- Wind Microclimate;
- Townscape and Visual; and
- Built Heritage.

The ES provides assessments of potential significant environmental effects during demolition and construction and once the amended proposed development is complete and operational. Each technical assessment considers a range of different types of effects including direct effects and any indirect, secondary, cumulative, short, medium and long-term, permanent and temporary, beneficial and adverse effects.

Each of the above issues are addressed in both the 2017 ES and the 2018 ES addendum, with a chapter dedicated to each of these issues, whilst the Townscape and Visual and Built Heritage assessments are addressed in ES Volume 2 and 2A. The 2018 ES addendum summarises the changes to the 2017 application and therefore should be read alongside the corresponding technical chapter in the 2017 ES, with the exception of Chapter 11: Daylight, Sunlight and Daylight which has been updated in full and contained within ES Volume 1A. In each chapter of ES Volume 1 and ES Volume 2, a description of the assessment methodology is given together with current on-site conditions. This is followed by an assessment of the likely significant effects of the amended proposed development (both beneficial and adverse) and any measures that should be adopted to reduce or offset any significant adverse effects identified during the assessment. The ES also provides an assessment of the residual effects that would remain after mitigation measures have been implemented, as well as the cumulative effects of the amended proposed development. The likely significant environmental effects attributed to the amended proposed development are confirmed.

6.3 Cumulative Effects

Two types of Cumulative Effects have been assessed:

- Intra-Project effects of different types of impacts from the amended proposed development that could interact to jointly affect a particular receptors at the application site. Potential impact interactions could include the combined effects of noise and dust during demolition and construction activities on a particular sensitive receptor; and
- Inter-Project effects which are combined effects generated from the amended proposed development with other committed or planned developments ('other developments'). These 'other developments' may generate their own individually insignificant effects but when considered together could amount to a significant cumulative effect, for example, combined townscape and visual impacts from two or more (proposed) developments.

The 'other developments' identified for the purpose of the cumulative impact assessment are as follows:

- 12/0022/O: Greenwich Millennium Village (Phases 3, 4 & 5), Peartree Way, Greenwich (including the following reserved matter applications: 18/1318/R; 17/1631/R; and 18/0825/R);
- 13/3281/R: Parcel 2, sub-phase 1, Greenwich Millennium Village Phases 3, 4 & 5;
- 14/0127/O: Morris Walk Estate (North), north of Maryon Road SE7;
- 14/0126/O: Morris Walk Estate (South), south of Pett Street SE18;
- 13/3285/O and 17/0672/R: Sainsbury's and former comet stores, 55 & 57 Bugsby's Way, Greenwich SE10;

- 16/0132/F: Valley House, 445 Woolwich Road, Charlton, SE7;
- 13/2016/F: Former Matalan Site, 30 Bugsby Way, Charlton, SE7;
- 11/0868/F: Land to the North of Woolwich Road opposite junction with Victoria Way, Charlton, London, SE7 7ST;
- 14/2550/F: Land to north of Woolwich Road;
- 14/0117/O: Maryon Road and Grove Estate;
- 18/0732/F: Flint Glass Wharf, 3 Herringham Road;
- 17/1795/F: 40 Victoria Way;

6.4 Topics Excluded from the EIA

The EIA Scoping process identified the environmental topic areas which are not likely to give rise to potential significant environmental effects and therefore would not need to be assessed as part of the EIA:

- Light Spillage;
- Waste;
- Telecommunication Interference;
- Ecology;
- Water Resources and Flood Risk;
- Ground Conditions;
- Health and Wellbeing; and
- Aviation.

It was considered that waste and health and wellbeing would be addressed across the ES as a whole, in a variety of different technical and non-technical chapters.

Light spillage, telecommunication and aviation were not considered to require any form of assessment, as effects were not considered likely. London City Airport has however been consulted on the proposals submitted in December 2016. As the scheme is considerably lower than those put forward in December 2016, re-consultation was not considered necessary.

Whilst it was not expected that ecology, flood risk and hydrology, and ground considerations would experience any likely significant environmental effects, none the less technical information relating to these topic areas have been included within the ES, as technical appendices.

This approach has been agreed with the RBG through the EIA Scoping process in 2016 and the 2017 EIA was updated in full with the scope and methodologies for each of the technical assessments following that of the 2016 Scoping Opinion Request Report. This approach was taken as the evolved December 2017 design was considered likely to pose similar or lesser potential key environmental impacts and likely significant effects as that of the December 2016 scheme.

Whilst the proposed development has been amended since the December 2017 submission, the footprint of the scheme is broadly the same and the height of the buildings remains at a maximum of 10 storeys, with some storeys reallocated in order to reduce storey height around residential receptors. As a result, this ES addendum has been prepared to accompany the 2017 ES, with the exception of this NTS and also Chapter 11: Daylight, Sunlight and Overshadowing, which had been fully updated to replace the corresponding 2017 ES chapter.

7. WHAT ARE THE LIKELY SIGNIFICANT ENVIRONMENTAL EFFECTS OF THE AMENDED PROPOSED DEVELOPMENT?

7.1 Socio-Economics

A socio-economic assessment has been undertaken using a wide range of nationally recognised research and survey information and previous professional experience of similar schemes.

The demolition and construction works associated with the amended proposed development would generate approximately 259 jobs throughout the 48 month construction period. Taking into account the proportion of employment that would be outside of the local target area, the net annual construction employment to the target area is estimated to be 68 full time equivalent (FTE) jobs.

It has been estimated that the commercial/community floorspace proposed within the amended proposed development would accommodate up to approximately 213 FTE jobs. Taking into account the proportion of employment that would be outside of the local target area, the net operational employment to the target area is estimated to be up to 56 FTE.

The amended proposed development would bring forward up to 771 new residential units, which would include a proportion of affordable housing and would significantly contribute to the new housing targets within the Borough. A population and child yield forecast has been undertaken in order to assess the potential effect that the new population would have on educational facility capacity and primary healthcare provision. Whilst there is limited additional capacity within existing healthcare, primary or secondary school facilities within the area, the Applicant would provide financial contributions to the RBG in order to ensure such facilities are developed in the future to meet the needs of the new population.

Publicly accessible amenity space would be brought forward on-site, including 2,786 m² of playspace, thereby exceeding GLA standards according to the anticipated number of children on the application site.

By implementing appropriate mitigation and enhancement measures, the adverse effects of the amended proposed development can be reduced whilst beneficial effects are enhanced. Therefore, there are no identified likely significant adverse environmental effects associated with socio-economics. However, there are likely significant beneficial effects identified including the provision of new housing, provision of playspace and improvements to site safety.

7.2 Transport

The amended proposed development has been assessed against relevant criteria for all modes of transport and for the construction works and once the amended proposed development is complete and operational.

Consideration has been given to the likely numbers of construction vehicles and the routes to and from the application site. The construction vehicles would be managed in accordance with a Construction Logistics Plan (CLP) and a CEMP. These documents would be agreed with the RBG prior to the commencement of works.

The level of construction traffic is likely to be less than the traffic already generated by the application site. Given the predicted level of peak hourly volumes of construction vehicles associated with demolition and construction activities on the application site, the control measures within the CLP and CEMP that would be implemented, and the fact that construction workers would be travelling outside of the peak periods due to their normal working hours, the majority of the transport effects within the construction phase are likely to be not adversely significant.

The pedestrian environment within the application site would be of high quality with the provision of an attractive open space, well maintained and legible pathways and lighting, thus providing natural/passive surveillance. The pedestrian environment would be further enhanced by providing new crossing points on Anchor and Hope Lane and additional pedestrian/cycle only links to the Thames Path and Anchor and Hope Lane.

Proposed cycle parking facilities would encourage an increase in the use of cycling. Any increases would be monitored as part of the Travel Plan surveys and ongoing monitoring. Overall, the completed development would provide a well-designed pedestrian and cyclist environment.

TfL will require contributions towards improving bus service frequencies as part of the amended proposed development to accommodate the additional patronage predicted which would be secured through a financial contribution to bus services. As this would increase service frequencies or the number of services provided it would also benefit the wider public within the area.

There would be highway enhancement works at the Site Access and Anchor and Hope Lane to reduce the adverse effects relating to operational traffic flows. In addition, the completed development would be subject to a Travel Plan, a Car Park Management Plan and a Delivery and Servicing Plan detailed as follows:

- Travel Plan – a Residential Travel Plan would aim to encourage public transport use, walking and cycling amongst occupants of the amended proposed development with the aim of reducing private car use;
- Car Park Management Plan – this will set out the management and operation of the on-site parking provision. This would be in combination with a permit-free agreement; and
- Delivery and Servicing Plan – this will manage the arrival and departure of delivery and servicing vehicles and their activities when on-site.

By implementing appropriate mitigation and enhancement measures, the adverse effects of the amended proposed development can be reduced whilst beneficial effects are enhanced. Therefore, there are no identified likely significant adverse environmental effects associated with transport.

7.3 Air Quality

An assessment of the potential significant environmental effects for air quality has been undertaken for the amended proposed development, which focuses on Nitrogen Dioxide and particulate matter as these are air pollutants most associated with development.

A qualitative assessment of the construction phase effects has been undertaken following guidance published by the IEMA. The main effect on local air quality during demolition and construction works relates to dust, which is most likely to be generated from demolition activities and earthworks. A range of measures to minimise or prevent dust, such as the use of solid screens around dusty activities, would be implemented through the adoption of the CEMP. Effects on local air quality associated with demolition and construction traffic are not anticipated to be significant.

Computer modelling was carried out to predict the impact of future traffic-related emissions and the likely changes in local air quality following the completion of the amended proposed development. In addition, the CHP plant was modelled (flue on Building O). The impact of the amended proposed development on air quality was predicted for a number of existing sensitive locations surrounding the application site such as residential properties at Derrick Gardens and Atlas Gardens, Woolwich Road, and the Antigallican Hotel and also future sensitive locations within the application site such as the new residents and outdoor amenity area users.

Changes to pollutant concentrations were predicted to be well below levels which would be deemed as significant. Given that the assessments of operational road traffic and CHP plant emissions found that the effects would be insignificant, no mitigation measures are proposed.

In addition, an odour diary was kept to determine if there were any existing odour issues within the application site. The results demonstrated that odours close to the application site were attributable to the current on-site activities which would not be present once the amended proposed development was complete and operational.

By implementing appropriate dust mitigation, the adverse effects of the amended proposed development can be reduced. Therefore, there are no identified likely significant environmental effects associated with air quality.

In light of the air quality assessment undertaken, it is considered that the application site is suitable for its intended uses in terms of air quality and odour.

The building emissions and transport emissions of the amended proposed development can be considered Air Quality Neutral, the air quality neutral approach compares the amount of pollutant(s) emitted from the amended proposed development (road traffic and buildings emissions) against a set benchmark value, with the aim of minimising the pollutants emitted, rather than targeting the ambient concentration of the pollutant.

7.4 Noise and Vibration

The effects of noise and vibration on the nearest noise sensitive receptors have been assessed during the construction works and once the amended proposed development is complete and operational.

Baseline environmental logging surveys were conducted in 2016, to establish the baseline noise climate at key locations around the application site as a basis for setting limiting noise emission criteria for noise sources associated with the amended proposed development. These locations also included the nearest safeguarded wharf. Figure 7.1 shows the nearest noise sensitive receptors (NSR) and noise monitoring locations.

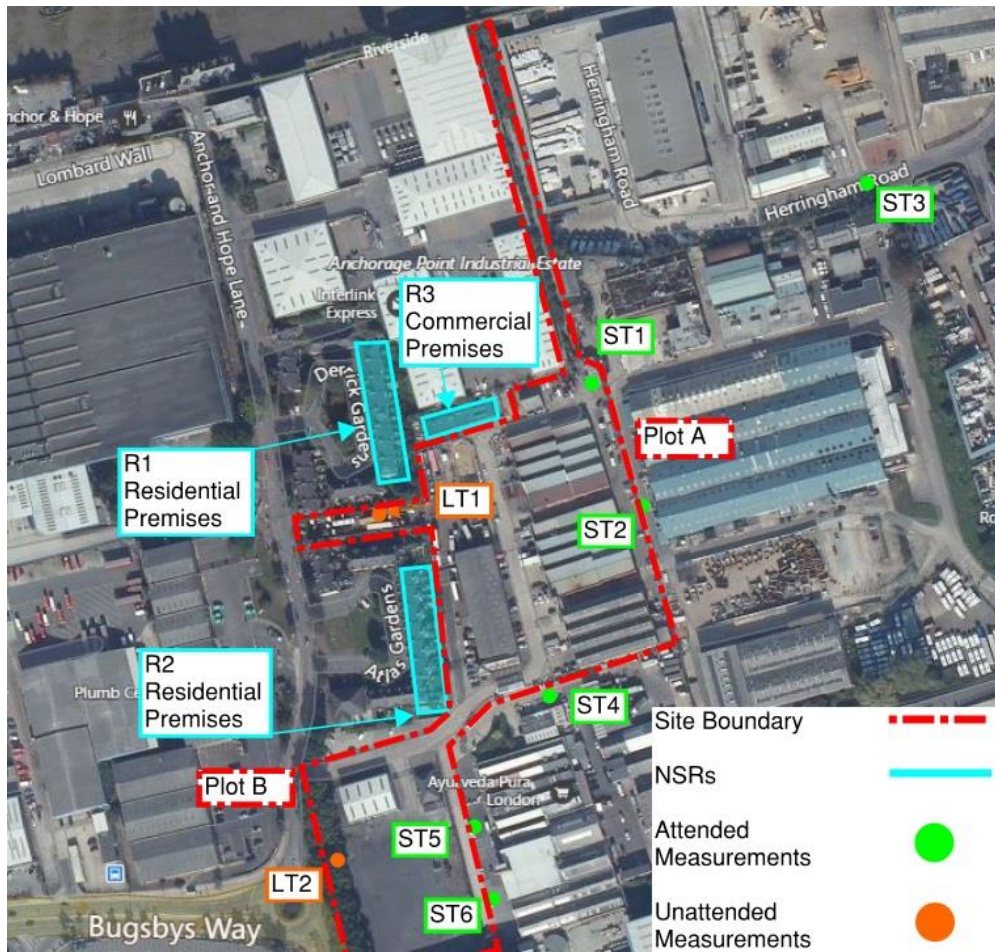


Figure 7.1: Noise Sensitive Receptors and Measurement Locations

An additional noise survey was undertaken to measure typical noise levels of dredger ship related activities, such as dredger docking, unloading of sand and operating conveyor belts as well as to capture typical noise levels of plant units operating within Angerstein's and Murphy's Safeguarded Wharves. Figure 7.2 shows the noise monitoring locations within Angerstein's and Murphy's Safeguarded Wharves.



Figure 7.2: Measurement Locations within Angerstein’s and Murphys Wharves

Demolition and construction works include activities that would be likely to increase noise levels within and adjacent to the application site. However, the implementation of noise and vibration control and management measures through a CEMP would help to reduce noise and vibration disturbance to occupants of nearby properties. The CEMP would include measures such as using low-noise machinery and equipment, enclosing and screening machinery and using low-vibratory foundation methods. Temporary acoustic fencing would be implemented along the western boundary of Plot A, adjacent to the residential premises of Atlas Gardens and Derrick gardens. As such effects on sensitive receptors in the vicinity of the application site as a result of construction noise would not be considered significant. Construction vibration and noise increases on local roads from construction traffic were also found to not be significant.

An assessment of the likely effects of predicted changes in traffic noise levels from future increases in road traffic once the amended proposed development is completed and operational has been undertaken and the results indicate that the effects would not be significant. In terms of operational plant noise all fixed plant installations would have standard attenuation and acoustic screening, as required to meet the noise emissions limits and therefore the effects would also be not significant.

By implementing appropriate mitigation, i.e. best practice measures during demolition and construction works, the adverse effects of the amended proposed development can be reduced. Therefore, there are no identified likely significant environmental effects associated with noise and vibration.

The assessment of site suitability is not required under the EIA regulations; however, a site suitability assessment is provided in ES Volume 3A (Technical Appendix 9.4A). This concluded that the application site is suitable for its intended uses in terms of noise and vibration, and therefore the noise environment for the new residents of the amended proposed development would fall within guidance levels.

7.5 Archaeology (Buried Heritage)

The assessment has been carried out in accordance with the standards specified by the Institute for Archaeologists and Greater London Archaeological Advisory Service.

The archaeological assessment undertaken as part of the EIA identified high archaeological potential for prehistoric remains within alluvial deposits and post-medieval industrial remains. There is moderate potential for post-medieval wetland management and prehistoric wetland exploitation. The significance (importance) of these potential remains vary between very low and medium.

During demolition and construction damage to, or destruction of, potential buried heritage assets might result due to works associated with the construction of basements and foundations. A geoarchaeological borehole survey and sub-surface deposit model to provide a greater understanding of the nature of the underlying geology and topography and any potential prehistoric landscapes would be undertaken post-planning to mitigate this risk. If significant prehistoric archaeological remains are recorded, then further archaeological mitigation measures would be required comprising of either archaeological excavation or an archaeological watching brief (programme of monitoring and recording).

By implementing this appropriate mitigation, the adverse effects of the amended proposed development would be reduced or eliminated. Therefore, there are no identified likely significant environmental effects associated with archaeology (buried heritage).

7.6 Daylight, Sunlight, Overshadowing and Solar Glare

Daylight and sunlight effects on surrounding residential properties including Atlas Gardens, Derrick Gardens, and 1-8 Anchor and Hope Lane have been assessed. Existing surrounding and proposed amenity areas have been assessed for overshadowing implications. Potential solar glare effects at key local road locations have also been assessed.

The construction of the amended proposed development would have a gradually increasing impact on the levels of daylight, sunlight, overshadowing and solar glare on areas surrounding the application site as the construction progresses. The effects that are perceptible as the superstructure progresses would be similar, albeit lesser, to those of the completed amended proposed development. Light pollution issues are not expected during demolition and construction.

As the amended proposed development is of a significant scale and it is located immediately adjacent to existing residential properties, there is the potential for adverse daylight and sunlight effects. In this case the scheme replaces low rise buildings and as such the proportional reduction of daylight available to adjacent residential buildings, on which significance is based, is relatively large. However, the number of properties that would experience any effects with the amended proposed development in place would be low, as only a small number of neighbouring properties are of residential use. As such there is a limited impact.

The amended proposed development has been designed to step back to respect the adjacent residential properties such that the impacts to all of the surrounding residential receptors would be negligible to minor adverse. As there is little external obstruction to daylight and sunlight caused by the existing buildings, any significant redevelopment of the application site would cause a substantial loss of light to some residences. The amended proposed development

buildings have been designed to respect their neighbours' light where possible and where there are adverse impacts, these are generally to single aspect, secondary bedrooms which have the lowest requirement for daylight. However, due to the application of daylight design through the evolution of these buildings it has been possible to mitigate any significant effects.

The assessment of overshadowing found that there would be no significant effects on the amenity areas identified. The assessment of solar glare has shown that there would be solar reflections from the amended proposed development, however through mitigation by using low reflectivity glass these effects would not be considered significant.

No significant adverse effects are identified for daylight, sunlight, overshadowing or solar glare.

7.7 Wind Microclimate

An assessment of the likely wind conditions as a result of the amended proposed development both on the application site and within the local surrounding context has been assessed in terms of pedestrian comfort and safety. The assessment has been informed by appropriate meteorological data and testing of a physical model within a wind tunnel of the December 2017 proposed development (see Figure 7.3).

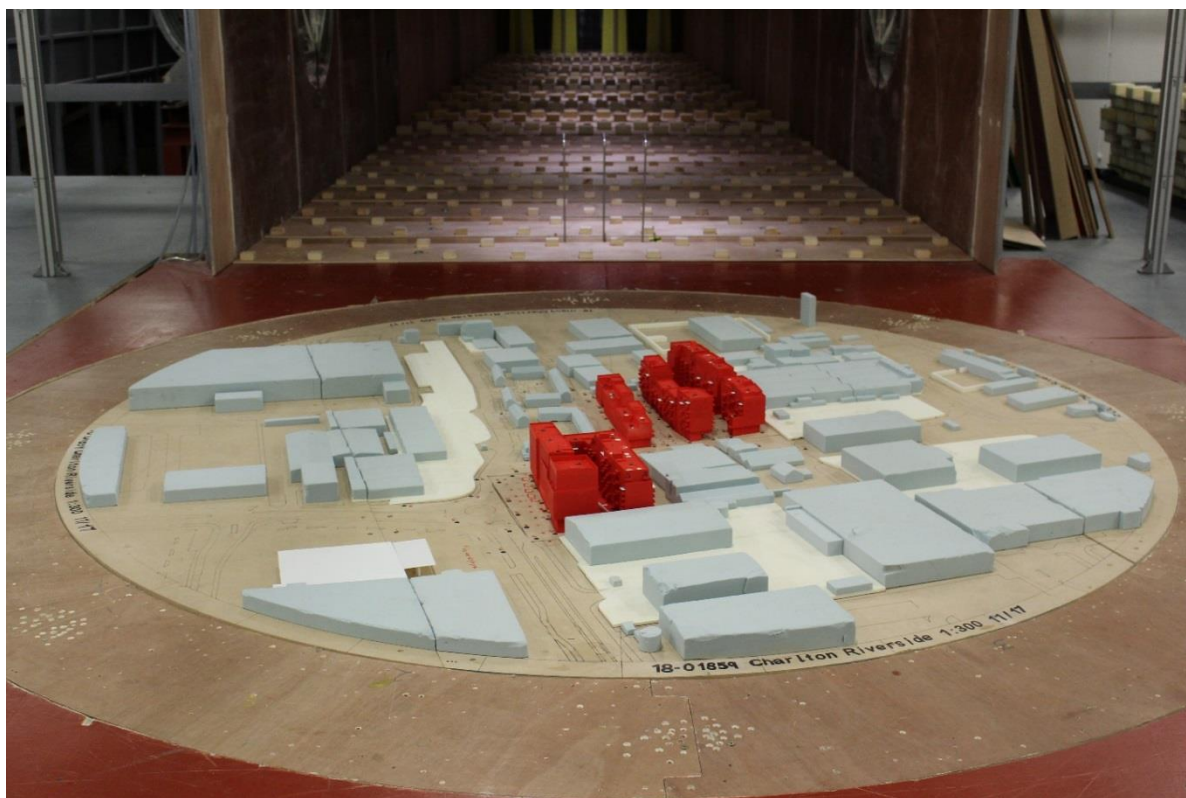


Figure 7.3: Amended Proposed Development Model in the Wind Tunnel

The changes to the scheme since the 2017 proposed development are limited and as such a qualitative analysis has been undertaken of the amended proposed development against the wind tunnel test results which were included within the 2017 EIA.

With the implementation of design measures agreed with the project team, (i.e. site hoarding, recessed entrances, landscaping and balustrades) wind conditions within and around the amended proposed development are rated as suitable, both in terms of pedestrian comfort and safety, for the intended uses. Changes to building heights are minor and would be unlikely to affect the conclusions as presented in the 2017 ES. The additional terraces included within Building F would also be suitable for amenity use. There are therefore no likely significant environmental effects on wind conditions as a result of the amended proposed development.

7.8 Townscape and Visual

The application site in its existing state, closed off to the public and largely occupied by light industrial buildings and areas of hardstanding, offers nothing positive to local and wider views and townscape. The amended proposed development would comprehensively redevelop the application site with a series of high quality buildings and public realm and would represent a substantial improvement on the existing state of the application site in townscape and visual terms.

During demolition and construction, the presence of machinery and cranes at the application site would have an adverse effect on views within the local area, however this is temporary in nature. The use of site hoarding would help to minimise the effect of this during the construction period.

The overall scale and massing of the amended proposed development, while a noticeable increase on the prevalent scale of development in the area around the application site, would be brought forward in the context of regional and local planning policy which envisages comprehensive redevelopment of the Charlton Riverside area.

Overall, the amended proposed development would enhance the Charlton Riverside Townscape Character Area (TCA) within which it is located through its high quality architecture and public realm. The amended proposed development would provide significant new public space. It would result in urban design benefits including increased permeability, with new routes enhancing connections between Anchor and Hope Lane, the application site, and the riverside walkway, and improved definition and animation of Anchor and Hope Lane. The routes within the amended proposed development could also facilitate wider connections in future, forming part of longer routes envisaged within the illustrative masterplan produced by the architects of the scheme.

There are likely significant effects in regards to views, however these would be beneficial. All other effects would be neutral.

7.9 Built Heritage

There are no listed structures on the application site. However as of March 2018, there have been newly designated and non-designated heritage assets (HAs) on and within close proximity of the application site. These include the Charlton Riverside Conservation Area (designated), which intersects with a small area of the application site, and the identification of Atlas and Derrick Gardens and the Stone Foundries as locally listed buildings (non-designated). The nearest other HAs beyond the application site are all located approximately 360m or more from it (480 m or more in the case of designated heritage assets i.e. Conservation Areas and Listed Buildings).

Non-Designated Heritage Assets (NDHAs) have been identified on site through the RBG Charlton Riverside Employment and Heritage Study (January 2017) which are associated with the former ropeworks and include a former canteen building; the fenced off rail alignment of railway to River Thames; the Hemp Store; and Manilla Mill. These structures are not proposed to be locally listed.

The buildings and structures on site which have been identified as NDHAs would be demolished and removed which would represent a minor to moderate adverse effect. During the construction period, the effect on the setting of HAs adjacent to the application site, namely Atlas and Derrick Gardens, the Charlton Riverside Conservation Area and the Stone Foundries, would represent no more than a minor to moderate adverse effect and would be temporary.

The amended proposed development would represent a development of high visual quality within the immediate and wider urban context in which the identified HAs are located. With regards to the locally listed Atlas and Derrick Gardens, the application site lies to the east, and is not part of the associated riverside industrial uses with historic links to the housing, resulting in a neutral

effect. The effect to the Stone Foundries is also considered to be neutral given the already varied urban context.

With regards to the Charlton Riverside Conservation Area, the amended proposed development's largely residential use would be more sympathetic to the experiential setting of Atlas and Derrick Gardens, and although large in scale, the gradual increase in building height away from Atlas and Derrick Gardens would ensure that the contrast would be limited in extent. The views of the amended proposed development from the riverside part of the Conservation Area would also be limited in extent. The overall effect is considered to be neutral.

Where seen in views together with HAs, the amended proposed development would appear within the existing varied and fragmentary nature of the immediate and wider context.

As such, the amended proposed development would have a neutral effect with regard to the settings of the HAs beyond the application site and would have no effect on their heritage significance. The amended proposed development would therefore not cause any harm to the heritage significance of any of the identified HAs beyond the application site.

7.10 Cumulative Effects

A number of 'other developments' which are either in construction or have been submitted for planning are located within close proximity to the application site and have therefore been considered cumulatively.

The cumulative effects of the 'other developments' have been assessed in each technical area. The only technical area which has significant cumulative effects is socio-economics, which are beneficial in relation to provision of housing, provision of open space and playspace and improvements in site safety. The townscape cumulative effects are considered to be exactly the same as the amended proposed development, with the exception of View 5 from Herringham Road which would have a lesser effect due to the Flint Wharf scheme proposal obscuring the view. There were no significant cumulative effects in relation to the other technical areas due to the fact that it can be assumed that the 'other developments' would mitigate their own effects either through design or further mitigation measures, or the "other developments" were too far away to have any effect.

The 'in combination' cumulative effects assessment shows that there is the potential for both adverse and beneficial combined cumulative effects. The identified adverse and beneficial combined cumulative effects occur throughout the demolition and construction phase of the amended proposed development. The combined cumulative effects have the potential to affect local residents in the neighbouring residential properties. The identified adverse combined cumulative effects that could occur once the completed development is operational would have the potential to affect existing local residents and the existing highway network. The mitigation measures identified would reduce the potential adverse effects and enhance the potential beneficial combined cumulative effects with the result that overall the effects would not be significant.

8. SUMMARY

Overall, the EIA process has demonstrated that there are no likely significant environmental adverse effects predicted during the operation of the amended proposed development. This is an improvement of the 2017 proposed development where there were some limited significant adverse effects in relation to daylight, sunlight and overshadowing on nearby residential receptors. It is likely that there would be some significant adverse environmental effects in relation to visual amenity in the local area, the demolition of non-designated heritage assets and from construction traffic noise for new residents on site in Building J during construction which are also to be expected, however these would be only of a temporary nature.

There are a number of significant environmental beneficial effects associated with the amended proposed development in relation to socio-economics. These comprise provision of new housing, the provision of playspace, and the improvements in site safety. In addition, there would be significant beneficial effects in relation to improved pedestrian movement and capacity, improved wind conditions and improved views of the application site.

The amended proposed development would bring forward high quality residential units, in addition to community space in the form of a creche and flexible workspace, retail and community space. Associated public and private open space would also be provided, along with car and cycle parking. The commercial aspect of the amended proposed development would generate local employment and community facilities would benefit existing and new local residents. In addition, the amended proposed development would improve the existing highway network and public realm which adds benefit to the wider local area.