

Our Ref: Royal Arsenal Riverside - Blocks D & K

28 November 2023

Andrew Harris
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Directorate of Regeneration Enterprise and Skills
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Dear Andrew,

Request for an EIA Screening Opinion on behalf of Berkeley Homes (East Thames) Ltd: Regulation 6 of the Town and Country Planning (Environmental Impact Assessment) Regulations 2017.

Proposed Development at Royal Arsenal Riverside - Blocks D & K3, K4 & K5

On behalf of our client, Berkeley Homes (East Thames) Ltd (hereafter referred to as 'BHET'), we request a formal Screening Opinion from the Royal Borough of Greenwich (RBG) under Regulation 6 of the Town and County Planning (Environmental Impact Assessment) Regulations 2017 (as amended) (hereafter referred to as the 'EIA Regulations') to determine whether the proposals for the delivery of Blocks D & K3, K4 & K5 within the Waterfront Masterplan at Royal Arsenal Riverside (RAR) (the 'Proposed Development') constitute 'EIA Development', as defined by Regulation 2.

In accordance with the requirements of Regulation 6 of the EIA Regulations, enclosed is a Site Location and Boundary Plan (**Appendix 1**) which identifies the Site and location of the Proposed Development. In addition, to enable your consideration of this issue, we set out below the following information:

- 1. Planning and environmental assessment history of the Site;
- 2. Description of the Site and its surroundings;
- 3. Description of the Proposed Amendments;
- 4. Review of the requirement for an EIA; and
- 5. Proposed Environmental Assessment to support the Application.

Point 4 is dealt with by a comprehensive review of the Proposed Development in the context of the previous environmental assessments that have been undertaken for the RAR in particular Blocks D & K.

This request is intended to confirm that the Proposed Development, when compared to approved Planning Permission Ref: 13/0117/0 and 16/3025/MA, includes for c.660 homes within the originally consented 2,032 for the wider Waterfront Masterplan (Ref: 13/0117/0). On this basis, and as discussed below, we do not consider that the Proposed Development constitutes 'EIA Development' and an Environmental Statement (ES) is not required to support the Application.

We outline below the analysis undertaken to reach this conclusion.

This Screening Opinion request has been prepared by Plowman Craven with inputs from the design team comprising:

- PRP (Masterplanning and Architecture);
- Stantec (Town Planning Consultants);



- HTA (Landscape Architects); and
- Iceni (Transport Planning).

1. Planning and Environmental Assessment History of the Site

Outline Consented 2013 Scheme: The Waterfront Masterplan

The site of the consented scheme (Ref: 13/0117/0) covered an area of 6.3 hectares (ha) and lies just to the west of the wider Royal Arsenal Riverside.

The consented scheme incorporated residential units and also comprised retail, leisure and office space, open landscaped gardens, basement parking spaces and an energy centre.

The consented scheme aimed to create a mixed use community and comprised a proposal for 2,032 units with a total area of circa 212,853 m² Gross External Area (GEA) of which:

- approximately 175,385 m² GEA is residential;
- approximately 2,442 m² GEA is non-residential; and
- approximately 35,026 m² GEA is allocated for car parking.

The consented scheme was split into four plots (Plot A, B, D and K) each representing a complex of buildings. Six residential blocks (A1, A2, A3, B1, B2, and B3) were proposed to be located along the northern boundary of the site, adjacent to the River Thames. Five blocks (K1, K2, K3, K4 and K5) were also proposed on the northern side of Beresford Street in the south of the site, with a further three blocks (D1, D2 and D3) in-between, separated by the on-site road network and a mix of hard and soft landscaping.

An Environmental Statement (ES) was produced in January 2013 (the '2013 ES') for the consented scheme, which reported on the likely significant environmental effects of the predominantly residential scheme with integrated commercial uses and open landscape gardens.

Section 73 Application to the Outline Consented 2013 Scheme

An amended scheme was subject to a Section 73 Application in 2016 which sought to amend the Outline Consented 2013 Scheme, in particular Blocks A & B.

The Section 73 Application was supported by an ES Addendum (the '2016 ESA') which reported on the likely significant environmental effects. The S73 was consented in 2017 (Ref: 16/3025/MA).

2. Description of the Site and its Surroundings

Site Location and Size

The site lies within the boundary of the RBG. It is located in Woolwich, south east London, with the River Thames to the north and Woolwich town centre to the south. The location of the site is shown in **Appendix 1**. The site currently comprises of Maribor Park, car parks and areas of hard landscape with mature trees and shrubs.

The site is bounded by Duke of Wellington Avenue to the north, new Warren Lane to the east and south and the A206 to the west.

The Surrounds

The Royal Arsenal, originally known as the Woolwich Warren which lies to the east of the site was constructed in the 17th century with expansions throughout the 18th century. It contains many important



and interesting spaces defined by the formal geometry of the buildings. Many of the buildings are listed, dating from the late 17th – 20th Century; these include storehouses, foundry buildings, other manufacturing or assembly complexes, offices, gatehouses and official residences. It is this variety of types, periods and styles of historic buildings that gives the Royal Arsenal such architectural and historic significance. The listed Royal Military Academy was founded in 1741 as a British Army military academy for the training of commissioned officers of the Royal Artillery and Royal Engineers and is located immediately to the east of the site. There are a large number of other listed buildings and structures within the vicinity of the application site, including but not limited to, the Officer's House and Verbruggens' House and Beresford Gate which is the main entrance to the Royal Arsenal site.

Today, the Royal Arsenal represents one of London's largest brownfield regeneration sites and it has already been partially redeveloped into a mix of uses including residential, light industrial and the 'Firepower' museum of the Royal Artillery. There are residential and commercial dwellings located to the south of the Beresford Street and there are also new dwellings already constructed, approved for construction and proposed within the Royal Arsenal Riverside itself.

3. Description of the Proposed Development

An application submitted under Section 96a of the Town & Country Planning Act 1990 for a non-material amendment in connection with the planning permission dated 17/03/2017 (Reference: 16/3025/MA) to allow:

- Amendment to building plots parameter plan.
- Amendment to basement car park and ancillary spaces parameter plan.
- Amendment to vehicular access and circulation plan.
- Amendment to maximum heights parameter plan for the following:
 - o Removal of maximum height of Block K1.
 - o Increase to maximum height of Blocks D1, D2, D3, D4, K3, K4, K5.
- Amendment to minimum heights parameter plan for the following:
 - o Removal of minimum height of Block K1.
 - Removal of minimum height between Blocks D1-D2, Blocks D4-D5 and Blocks D1-D5.

Pursuant to the 2017 Consent (Responding to Conditions 6, 7, 8 and 9 of the 2017 Consent).

Reserved Matters Application (Appearance, Landscaping, Layout and Scale) pursuant to Condition 2 of Outline Planning Permission dated 17/03/2017 (Ref: 16/3025/MA) for a mixed-use development within Plots D and K3, K4 & K5, comprising c.660 residential units, non-residential floorspace and landscaping.

4. Review of the Requirement for an EIA

The EIA Regulations may apply to the Proposed Development, because they fall within Schedule 2 as an urban development project that includes more than 150 dwellings (category 10(b)(ii) of 'the Regulations'). For Schedule 2 developments, the Regulations require that an EIA be undertaken where "the development is likely to have significant effects on the environment by virtue of factors such as its nature, size or location".

In determining whether the Proposed Development is likely to give rise to significant environmental effects, reference should be made to Schedule 3 of the Regulations. This identifies three categories of criteria:

- 1. Characteristics of the development (such as size, cumulative effects, use of natural resources, production of waste, pollution and nuisances, and risk of accidents);
- 2. Location of the development (by reference to the environmental sensitivity of the area); and



3. Characteristics of the potential impact (having regard in particular to the extent of the impact, its transfrontier nature, magnitude and complexity, probability and duration, frequency and reversibility).

The Site is not in a "sensitive area" as defined by the EIA Regulations. Furthermore, the ongoing operation of the development will not impact upon any adjacent or nearby environmentally sensitive areas. The Site is currently brownfield land that provides a poor environment and outlook to its local environs. The development proposals represent an improvement to the physical environment through the creation of new buildings, public spaces, active frontages and greater permeability.

As outlined in Section 1 above, two standalone Planning Permissions were granted in 2013 (Ref: 13/0117/0) and 2017 (Ref: 16/3025/MA) for the redevelopment of the site. The 2013 Consent was supported by the 2013 ES and the 2017 Consent by the 2016 ESA, with both of these reports identifying the likely significant environmental effects of the Proposed Development and ways that any significant negative effects on the environment were to be prevented, reduced and / or offset.

A summary of the EIA in terms of the proposed mitigation and resultant residual effects is outlined in **Table 1** below. The full table is also appended to this letter (**Appendix 2**).



Table 1: Summary of Mitigation and Residual Effects

Topic	Mitigation	Residual Effect
Chapter 5: Development	Construction Management Plan.	Negligible
Programme and Construction	CEMP.	
Chapter 6: Soil and	CEMP.	Minor adverse
Groundwater	Appropriate Piling Techniques.	
	Remediation.	
Chapter 7: Landscape and Visual	Embedded design of the Proposed Development.	Moderate Adverse to Moderate Beneficial
Chapter 8: Heritage	Embedded design of the Proposed Development.	Moderate Adverse
Chapter 9: Noise and	CEMP.	Negligible Negligible
Vibration	Suitable glazing and ventilation strategies.	
Chapter 10: Air Quality	CEMP.	Negligible
Chapter 11: Wind	Landscaping and Screening.	Negligible to Moderate
		Adverse.
Chapter 12: Sunlight, Daylight and	Embedded design of the Proposed Development.	Moderate Adverse
Daylight and Overshadowing		
Chapter 13: Cumulative Effects		Minor Adverse



As outlined in **Table 1**, it is clear that a comprehensive process of environmental assessment has already been carried out on the site. The EIA undertaken and the subsequent ES Addendum both identified a series of measures at all stages of the development that would need to be implemented to mitigate any adverse effects. The predicted residual effects that were reported after the implementation of mitigation were generally positive for the majority of the environmental topics.

On this basis, we have reviewed the Proposed Development in the context of the environmental assessment undertaken and reported in the 2013 ES and 2016 ESA to assess whether the current proposals for Blocks D & K give rise to any materially new or materially different likely significant environmental effects as previously assessed and reported.

The proposed changes in building height across the Site could result in different environmental effects (e.g. Daylight / Sunlight, Wind, Heritage and Townscape) to those assessed in the 2013 ES and 2016 ESA. However, it is considered that the nature of such changes is unlikely to generate significant negative effects and any localised effects can either be designed out or mitigated in accordance with previously agreed planning conditions and other environmental controls.

Based on the above, we are of the opinion that the form and nature of the Proposed Development does not constitute 'EIA development,' but we accept that this is for RBG to confirm through their Screening Opinion as to whether or not they consider the form of the proposals to constitute 'EIA Development' in context of the EIA Regulations.

4. Proposed Environmental Assessment to Support the Application

Part 3, Regulation 9 of the EIA Regulations, deals with 'subsequent applications where environmental information previously provided', and requires the planning authority to seek further information in accordance with Regulation 25 if the environmental information already provided is not adequate to assess the environmental effects of the development.

Notwithstanding what has been discussed in Section 3, we will prepare an ES Addendum that will set out a review of the Proposed Development in the context of the environmental assessment undertaken and reported in the 2013 ES and 2016 ESA. This will determine whether the proposals give rise to any materially new or materially different likely significant environmental effects to those previously assessed. The review will consider the baseline conditions; legislation and policy; assessment of effects and cumulative considerations and will confirm if the proposed mitigation measures (Outlined in **Table 1** above) remain valid.

If there is a material change as a result of this verification exercise, this would be reported in the ES Addendum. If required the technical assessments would be updated. The ES Addendum and any updated technical assessments would be presented to be read in conjunction with the 2013 ES and 2016 ESA as submitted. Together these documents would comprise the assessment of environmental effects to be relied upon as the 'environmental information'.

In line with the 2013 ES and 2016 ESA; the ES Addendum is proposed to cover the following topics:

- Construction;
- Townscape and Visual Impact Assessment;
- Built Heritage;
- Air Quality;
- Noise and Vibration;
- Ground Conditions, Hydrogeology and Contamination;
- Daylight, Sunlight and Overshadowing;
- Environmental Wind: and
- → Cumulative Assessment.



- → Ecology. Nevertheless, for completeness an updated Ecological Assessment will be submitted with the Application.
- Archaeology;
- → Water Resources. Although an updated FRA will be provided.
- Waste:
- Socio-economics.

Other Application documents will be as follows:

Section 96a

- Covering Letter;
- → Application Form, Notices and Certificates;
- CIL Additional Information Form;
- Updated Outline Parameter Plans;
- Design and Access Statement Addendum.

Reserved Matters

- Covering Letter;
- Application Form, Notices and Certificates;
- CIL Additional Information Form;
- Architectural Drawings;
- Landscape Drawings;
- Accommodation Schedule;
- Design and Access Statement;
- Planning Statement (Including Affordable Housing Statement);
- → Transport Assessment (Including Travel Plan);
- Daylight and Sunlight Assessment;
- Energy Statement;
- Circular Economy Statement;
- Whole Life Cycle Carbon Assessment;
- Sustainability Statement;
- → Tree Survey, Arboricultural Impact Assessment and Methodology;
- Ecological Assessment and Biodiversity Net Gain;
- Foul Sewage and Utilities Assessment;
- Statement of Community Involvement;
- Fire Statement;
- Gateway One Application Form.

We would be grateful for an acknowledgement of formal receipt of this Request, together with notification of the expiry of the statutory period as well as confirmation that the Screening Opinion will be placed on the Public Register.



In accordance with Regulation 6 the Council has three weeks to adopt a Screening Opinion beginning with the date of the receipt of a Screening Request. Therefore, we anticipate hearing from you in this regard no later than 3 weeks from receipt of this Screening Letter (unless otherwise agreed in writing).

Should you have any queries, please do not hesitate to contact us.

Yours sincerely,

Tony Selwyn

Head of Environmental Planning,

Plowman Craven



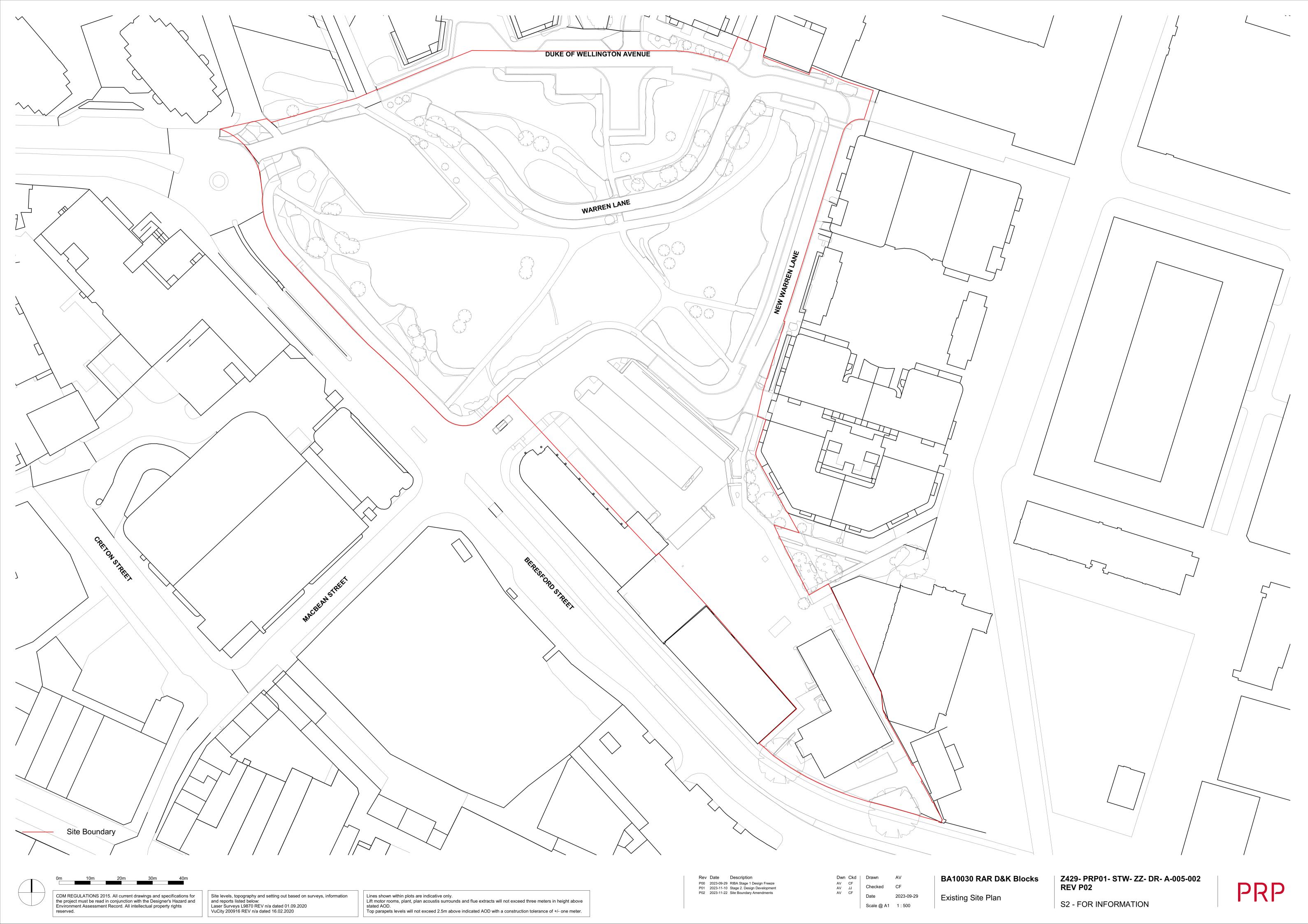
APPENDIX 1

SITE LOCATION AND BOUNDARY PLAN

Site Location Plan



Site Boundary Plan





APPENDIX 2

2013 ES MITIGATION AND RESIDUAL EFFECTS



Table 14.1 Topic by topic summary of significant effects and mitigation measures

ES Chapter/Topic	Potential Impact	Duration of Impact	Mitigation Measures	Residual Effects	Significance
Chapter 5: Development Programme and Construction	Management of sub- contractors	Temporary	 The following will be put in place to assist the management of sub-contractors: A Construction Management form of procurement for new build residential buildings; and, A Main Contracting form of procurement for commercial new build. Broad measures to eliminate, reduce or offset adverse environmental impacts are identified in Section 5.7 and will be incorporated into a (CEMP). 	Negligible	Not Significant
	Environmental Issues raised by the Public	Temporary	A designated Construction Liaison Officer who will deal with public and other complaints and enquiries. This nominated individual will be named at the site entrance, with a contact number, and will be identified to the RGB and community groups, prior to the start of site activities, and whenever a change of responsibility occurs. The procedures will specify the roles and responsibilities of the Construction Liaison Officer and the RBG in respect of breaches and complaints from the public. The required actions will be different in each specific case, depending on the operation, equipment or location or applying additional controls (for example screening). Any complaints will be logged on site and, where necessary, reported to the relevant individual within the RBG (and vice versa) as soon as practicable.	Negligible	Not Significant



ES Chapter/Topic	Potential Impact	Duration of Impact	Mitigation Measures	Residual Effects	Significance
	Prior Notice of Unusual Activities	Temporary	In the event of unusual activities or events that can be anticipated, these will be notified to the RBG and to the relevant property owners or occupiers wherever possible and neighbours, in advance of the activity. The relevant activities will be determined by agreement with the RBG once the detailed programme of construction is defined and will include: • Commencement of construction in certain areas; • Necessary night time, weekend or evening working (outside core areas) of a type which may affect properties; • Road or footpath closures/diversions and movements of wide loads; and • Work on roads affecting land used by others.	Negligible	Not Significant



ES Chapter/Topic	Potential Impact	Duration of Impact	Mitigation Measures	Residual Effects	Significance
	Traffic Management	Temporary	It will be the responsibility of the Contractor or Construction Manager to finalise consultations with the RBG. Notice regarding planned closures and diversions of roads and footpaths forming part of the site shall be given by the Contractor/Construction Manager to the RBG, the Police, the Fire Brigade and other emergency services sufficiently in advance of the required closure or diversion dates. All construction traffic entering and leaving the site will be closely controlled. Vehicles making deliveries to site or removing spoil will travel via designated routes, which will have been previously agreed with the RBG and other relevant local authorities, Highways and other relevant bodies. Deliveries will be phased and controlled on a 'just in time' basis, all being clearly marked to show their destination and entry gate number. The site 'Contractor's Village' (comprising offices, welfare facilities and yard area) is currently located within the Warren Lane car park, and will remain so for the proposed development. Approximately 50 management and supervisor construction staff car parking spaces are located immediately east of Number 1 Street, and accessed off Duke of Wellington Avenue. A general policy of no specialist private contractor car parking is proposed for the site.	Negligible	Not Significant
	Monitoring and Environmental Management of the Works	Temporary	Full assessments of the potential impacts of the construction works on air quality, noise and vibration are presented in Chapters 9: Noise and Vibration and 10: Air Quality respectively – and summarised below.	Negligible	Not Significant



ES Chapter/Topic	Potential Impact	Duration of Impact	Mitigation Measures	Residual Effects	Significance
	Waste Management, Recycling and Disposal	Temporary	All relevant contractors will be required to investigate opportunities to minimise waste arising at source and, where such waste generation is unavoidable, to maximise the recycling and reuse potential of demolition and construction materials. The details of the mitigation measures to be implemented are in Chapter 5: Section: 5.7.7.	Negligible	Not Significant
	Site Drainage and Impact on Water Resources	Permanent	The assessment of potential effects of the proposed development on groundwater resources is presented in Chapter 6: Soil and Groundwater and summarised below.	Negligible	Not Significant
	Cumulative Impacts of Construction	Temporary	The impacts from several developments; The Waterfront Masterplan in combination with the 2008 Masterplan, which individually might be insignificant, but when considered together could give rise to a significant cumulative effect.	Negligible	Not Significant
	Synergistic impacts	Temporary	The combined effects of different types of impacts, or impact interactions, from the proposed development on particular receptors have been considered during construction works only. Specific mitigation measures for individual impacts are addressed in the technical chapters of this ES and these measures and conditions would serve to reduce the net synergistic effects.	Minor Adverse	Not Significant



ES Chapter/Topic	Potential Impact	Duration of Impact	Mitigation Measures	Residual Effects	Significance
	Demolition of Proposed Development	Permanent	The demolition of the new buildings at the end of their lifespan will follow a similar method and sequence to that used during construction. Safe working practices will be devised and implemented during the demolition period. The Construction (Design and Management) Regulations 1994 (the CDM Regulations) and employment of a Planning Supervisor at the planning stage has ensured that the Applicant has taken account of the need for structures that can be safely demolished at the end of their useful life.	Minor Adverse	Not Significant
Chapter 6: Soil and Groundwater	Contaminated Soils: Inhalation, ingestion and dermal contact with contaminated soils on construction workers	Temporary	PPE, activities to be undertaken under CEMP with appropriate site controls	Minor Adverse	Not Significant
	Contaminated Soils: Contamination of Principal/Secondary aquifer on groundwater	Permanent	Adoption of Appropriate EA Piling/Ground Improvement Techniques	Minor Adverse	Not Significant
	Inhalation, ingestion and dermal contact with contaminated soils on future site users	Permanent	Remediation in soft landscaped areas e.g. a cover system	Minor Adverse	Not Significant



ES Chapter/Topic	Potential Impact	Duration of Impact	Mitigation Measures	Residual Effects	Significance
	Attack on below ground concrete and services by aggressive contaminants on new built environment Permeation through water supply pipes	Permanent	Appropriate construction controls	Negligible	Not Significant
	Contaminated groundwater: Ingestion and dermal contact with contaminated water on construction workers	Temporary	PPE, activities to be undertaken under CEMP with appropriate site controls	Minor Adverse	Not Significant
	Contaminated Groundwater: Attack on below ground concrete and services by aggressive contaminants on the new built environment Permeation through water supply pipes	Permanent	Appropriate construction controls	Negligible	Not Significant



ES Chapter/Topic	Potential Impact	Duration of Impact	Mitigation Measures	Residual Effects	Significance
	Contaminated dust: Inhalation of contaminated dusts on construction workers	Temporary	PPE, activities to be undertaken under CEMP with appropriate site controls	Minor Adverse	Not Significant
	Contaminated dust: Inhalation of contaminated dusts on surrounding site users	Permanent	Activities to be undertaken under CEMP with appropriate site controls	Negligible	Not Significant
	Ground Gases: Inhalation of ground gases, explosive risk to construction workers	Temporary	Additional ground-gas monitoring. Then if required, appropriate PPE and appropriate construction controls	Minor Adverse	Not Significant
	Ground Gases: Inhalation of ground gases, explosive risk on future site users	Permanent	Appropriate ground-gas measures if required	Negligible	Not Significant
Chapter 7: Landscape and Visual	Character of Woolwich Town Centre LCA The introduction of high quality landmark buildings and the associated public realm improvements proposed.	Permanent	None	Major Beneficial	Significant



ES Chapter/Topic	Potential Impact	Duration of Impact	Mitigation Measures	Residual Effects	Significance
	Character of Woolwich Royal Arsenal LCA Buildings of the scale proposed would have an influence, particularly in terms of its scale, on the character of the adjacent Royal Arsenal.	Permanent	Design of the proposed development	Moderate Adverse	Significant
	Character of River Thames LCA The Thames frontage would benefit from the introduction of high quality, landmark buildings, of similar scale and massing to other developments in the vicinity.	Permanent	None	Moderate Beneficial	Significant



ES Chapter/Topic	Potential Impact	Duration of Impact	Mitigation Measures	Residual Effects	Significance
	Visual Receptors	Permanent	Design of the proposed development	Of the five residual effects on visual receptor groups considered to be adverse, only two receptors would be subject to significant adverse residual, namely, residents of and visitors to the Royal Arsenal, and visitors to St Mary's Churchyard. Of the 20 receptor groups likely to experience beneficial residual effects on visual amenity, half would experience significant beneficial effects, either Major or Moderate.	Varies
Chapter 8: Heritage	Royal Arsenal Woolwich Conservation Area: Regeneration of existing open space to reinstate historic urban grain	Permanent	None proposed	Moderate	Significant



ES Chapter/Topic	Potential Impact	Duration of Impact	Mitigation Measures	Residual Effects	Significance
	Main Guard House [3] Impact on setting of the listed building due to proximity of new build	Permanent	None proposed	Minor	Not Significant
	Pavilions [6/7] Impact on setting of the listed building due to proximity of new build	Permanent	None proposed.	Minor	Not Significant
	Royal Brass Foundry [9] Impact on setting of the listed building due to proximity of new build	Permanent	The southern part of Block K has been restricted in height to reduce the impact on key views of the listed building. Therefore, no further mitigation is proposed.	Moderate	Significant



ES Chapter/Topic	Potential Impact	Duration of Impact	Mitigation Measures	Residual Effects	Significance
	Royal Military Academy [17] Impact on setting of the listed building due to proximity of new build	Permanent	The proposed building heights have been reduced in the vicinity of the Royal Military Academy (particularly Block B3) and a stepped roofline proposed to reduce visual intrusion. Therefore, no further mitigation is proposed.	Moderate	Significant
Chapter 9: Noise and Vibration	Construction Noise and Vibration	Temporary	A detailed procedure for the control of noise and vibration impacts during construction will be incorporated in the CEMP.	Negligible	Not Significant
	Operational Noise from CHP	Permanent	With suitable glazing and ventilation strategies, there is no reason why the application site cannot be developed as commercial and residential accommodation in the form of the proposed development. An assessment according to the methodology provided in BS 4142: 1997 'Rating industrial noise affecting mixed residential and industrial areas' will be carried out as part of the detailed design work for each phase of the proposed development.	Negligible	Not Significant
Chapter 10: Air Quality	Road Traffic and Energy Centre Emissions	Permanent	None for specific receptors but measures included in design are consistent with exposure reduction ambitions for London.	Negligible	Not Significant



ES Chapter/Topic	Potential Impact	Duration of Impact	Mitigation Measures	Residual Effects	Significance
Chapter 11: Wind Microclimate	Construction Dust	Temporary	Dust nuisance and any potential impacts would be mitigated through best practice construction site methods, delivered through the CEMP.	Minor Adverse	Not Significant
	Operational Wind Velocities – The Royal Arsenal Gardens (between Blocks A & B) and	Permanent	Proposed planting should be evergreen in nature and will reach full effect only once mature. Screening would also mitigate specific problem areas, provided that screens reach a minimum of 2m in height. Building corners are a source of turbulence for which there are few practical design modifications. Planting on these corners would be of benefit in reducing turbulence.	Negligible to Moderate Adverse	Significant
	Operational Wind Velocities – The Royal Arsenal Garden (between Blocks D & K)	Permanent	Proposed planting should be evergreen in nature and will reach full effect only once mature. Screening would also mitigate specific problem areas, provided that screens reach a minimum of 2m in height. Building corners are a source of turbulence for which there are few practical design modifications. Planting on these corners would be of benefit in reducing turbulence.	Negligible to Moderate Adverse	Significant
	Operational Wind Velocities - River Side	Permanent	None Proposed.	Minor Adverse	Not Significant



ES Chapter/Topic	Potential Impact	Duration of Impact	Mitigation Measures	Residual Effects	Significance
	Operational Wind Velocities - Between Blocks A1, A2 and A3	Permanent	None Proposed.	Minor Adverse	Not Significant
	Operational Wind Velocities - Between Blocks B1, B2 and B3	Permanent	None Proposed.	Minor Adverse	Not Significant
	Operational Wind Velocities - Hotel Terrace	Permanent	None Proposed.	Negligible	Not Significant
	Operational Wind Velocities - Block D3 Cafe	Permanent	None Proposed.	Negligible	Not Significant
	Operational Wind Velocities - Block B1 Cafe	Permanent	None Proposed.	Negligible	Not Significant
	Operational Wind Velocities - Block K5 Seating	Permanent	Proposed planting should be evergreen in nature and will reach full effect only once mature. Screening would also mitigate specific problem areas, provided that screens reach a minimum of 2m in height. Building corners are a source of turbulence for which there are few practical design modifications. Planting on these corners would be of benefit in reducing turbulence.	Moderate Adverse	Significant



ES Chapter/Topic	Potential Impact	Duration of Impact	Mitigation Measures	Residual Effects	Significance
Chapter 12: Sunlight, Daylight and Overshadowing	Sunlight to the proposed development	Permanent	None	86% of the areas assessed exceeded the APSH levels recommended by BRE for the entire year and 93% achieved the Winter PSH levels suggested for the winter months. These effects are judged to be negligible. In the remaining areas, the effects on sunlight are judged to be moderate adverse and in some cases major adverse.	Not Significant



ES Chapter/Topic	Potential Impact	Duration of Impact	Mitigation Measures	Residual Effects	Significance
	Daylight to the proposed development	Permanent	27% VSC is exceeded in 50% of the areas of elevation assessed. For rooms in this category no mitigation is required. Mitigation by detailed design could provide adequate internal daylight to rooms behind the elevations where 15-27% or 5-15% VSC is achieved, thus reducing any potential effects on daylight to minor adverse or negligible in these categories. 3% of elevations (at the lower levels of the tower blocks) have potential daylight problems, compared to the unobstructed areas of the proposed development. At this stage, the potential effects on the daylight in the rooms behind these 3% of elevations is judged to be moderate or major adverse, but this may be able to be reduced at the detailed design stage.	Negligible or Minor Adverse for 97% of rooms	Not Significant
	Overshadowing of amenity spaces in the proposed development	Permanent	None	Negligible (Summer Months) Minor to Moderate Adverse (Winter Months)	Varies



ES Chapter/Topic	Potential Impact	Duration of Impact	Mitigation Measures	Residual Effects	Significance
	Sunlight to existing and consented buildings	Permanent	Design of the proposed development	Of the 477, 444 will meet the APSH sunlight criteria. The effect is considered to be negligible. For the remaining 33 windows the effect is mostly minor or moderate.	Varies
	Daylight to existing and consented buildings	Permanent	Design of the proposed development	Of the 895 rooms, 741 will likely satisfy VSC and/or NSL daylight criteria. In these rooms, the effect is considered to be negligible. Of the 154 rooms that do not meet the daylight criteria, 102 are bedrooms and are not 'primary habitable spaces'. These effects are mostly classified as being minor or moderate.	Varies



ES Chapter/Topic	Potential Impact	Duration of Impact	Mitigation Measures	Residual Effects	Significance
	Overshadowing of existing and consented buildings and amenity spaces	Permanent	None	Negligible (permanent overshadowing) Minor Adverse (transient overshadowing)	Not Significant