

B&Q Cricklewood ES Volume I

Chapter 18: Summary of Mitigation

Montreaux Cricklewood Developments Ltd

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18. Summary of Mitigation

18.1 Introduction

- 18.1.1 IEMA's Environmental Impact Assessment (EIA) Guide to Delivering Quality Development¹ defines three sets of mitigation measures which would need to be considered in the assessment of likely significant effects:
- Primary mitigation measures – these include modifications to the location or design of the Proposed Development made during the pre-application phase that are an inherent part of the project, and do not require additional action to be taken;
 - Tertiary mitigation measures – these include actions that would occur with or without input from the EIA feeding into the design process. These include actions that will be undertaken to meet other existing legislative or planning requirements, or actions that are considered to be standard practices used to manage commonly occurring environmental effects; and
 - Secondary mitigation measures – these include actions that will require further activity in order to achieve the anticipated outcome. These may be imposed as part of the planning consent, or through inclusion in the ES. Examples include mitigation to be conditioned by the London Borough of Barnet (LBB) or other commitments made but not included within the plans and proposals submitted with the planning application.
- 18.1.2 Each of the technical chapters of this ES (*Chapters 8 - 16*) and *ES Volume II: Built Heritage, Townscape, and Visual Impact Assessment* have identified mitigation measures that are either embedded within the design of the Proposed Development ('primary mitigation'), considered as standard practice ('tertiary mitigation'), or are deemed necessary above and beyond the standard approach ('secondary mitigation'). Primary and tertiary mitigation measures have been identified in the Environmental Design and Management section of the technical chapters and secondary mitigation has been outlined under the Additional Mitigation Measures section. Full details of the mitigation measures for the Proposed Development have been provided within the relevant technical chapters. However, a summary of these mitigation measures and potential securing mechanisms are identified within Table 18-1. Furthermore, Table 18-1 also references any mitigation measures identified at the EIA Scoping stage, on the basis of which any technical assessments were scoped out of the EIA (refer to *Chapter 7: EIA Methodology* and *ES Volume I: Appendix 7-1*).
- 18.1.3 Due to the outline nature of the Proposed Development, principles for the design mitigation have been established within the Design Guidelines and Parameter Plans submitted with the planning application. However, the delivery of specific design details will be established through the submission of future Reserved Matters Planning Applications (RMAs).

¹ IEMA, (2016); Environmental Impact Assessment Guide to Delivering Quality Development <https://www.iema.net/assets/newbuild/documents/Delivering%20Quality%20Development.pdf> [Accessed 18st February 2020]

Table 18-1 Summary of Mitigation within Technical ES Chapters

Mitigation Measure	Primary/ Tertiary/ Secondary Mitigation	Proposed Securing Mechanism
Air Quality		
Demolition and Construction Phase		
Construction Environmental Management Plan (CEMP): A CEMP is to be developed by the contractor to either avoid or reduce dust impacts. The CEMP will include dust control mitigation measures suitable for a high risk site (in accordance with IAQM Guidance (see <i>ES Volume III Appendix 8-1: Dust Risk Assessment</i>)).	Tertiary Mitigation	Planning Condition
Complete and Operational Phase		
<p>The Proposed Development shall adhere to good principles of design with regard to minimising emissions and the reduction of impacts on local air quality:</p> <ul style="list-style-type: none"> • Effective spatial planning – the new dwellings are located in an area where well connected to public transports, and local workplace, schools, shopping and leisure facilities are readily available, which will reduce the need to travel by car; • Provision of cycling parking facilities to encourage sustainable transport; • Building design and layout – open space area and commercial facilities situated between the road sources to minimising exposure to future occupants; and • Provision of all-electric powered space heating and cooling with the Proposed Development. 	Primary Mitigation	Parameter Plan 103: Building Plots Design Guidelines 4.5 Car and Cycle Standards
Climate Change		
Demolition and Construction Phase		
A CEMP will be prepared which will set out energy and carbon performance targets, monitor against these targets on a monthly basis and identify measures to minimise energy consumption and carbon emissions during demolition and construction.	Tertiary Mitigation	Planning Condition
The Principal Contractor will manage the travel of construction workers to Site via a Construction Logistics Plan, with the objective of reducing HGV movements	Tertiary Mitigation	Planning Condition

Mitigation Measure	Primary/ Tertiary/ Secondary Mitigation	Proposed Securing Mechanism
Materials made available through excavation (for example, fill soil and gravels), and demolition (for example, aggregates), will be reused directly on-site where feasible to minimise emissions associated with the import of materials to Site, and embodied carbon associated with additional materials.	Primary Mitigation	Planning condition
Complete and Operational Phase		
Material Specifications: Materials with lower embodied carbon will be incorporated within the design, where appropriate, such as locally sourced products and materials with a higher recycled content. Furthermore, the durability of materials will be considered to reduce energy consumption and maintenance requirements. External materials that can withstand changes to temperature and precipitation will be specified.	Primary Mitigation	Reserved Matters Application
Energy Strategy: The Outline Energy Assessment details several energy saving design elements which will reduce greenhouse gas emissions from the operational phase of the Proposed Development. These elements include: improved fabric "U" values; improved air tightness; minimised cold bridging optimising of glazing; communal heating system; high efficiency ventilation systems; low energy lighting; smart meters, and air source heat pumps.	Primary Mitigation	Design Guidelines 2.4
Allowance for increase in surface water flows in drainage design due to climate change and incorporation of Sustainable Drainage Strategy (SuDS), such as swales, green roofs and water attenuation tanks.	Primary Mitigation	Design Guidelines 2.4
Daylight, Sunlight and Overshadowing		
Demolition and Construction Phase		
No mitigation measures for demolition and construction phase.	Not applicable	Not applicable
Complete and Operational Phase		
Site Layout: The positioning, orientation and massing of the Proposed Development is inherently designed in order to mitigate adverse effects to neighbouring sensitive receptors. The development of the maximum height and plot parameters have been	Primary Mitigation	Parameter Plan 103 Building Plots

Mitigation Measure	Primary/ Tertiary/ Secondary Mitigation	Proposed Securing Mechanism
arranged to minimise the impacts on neighbouring properties as well as to allow for good levels of amenity within the proposed accommodation and open spaces.		
Ground Conditions and Contamination		
Demolition and Construction Phase		
CEMP: The CEMP will be prepared prior to commencement of the works, setting out the management, monitoring, auditing and training procedures, and the mitigation measures that will be put in place during demolition and construction, to maintain compliance with the applicable regulations. In order to reduce the likelihood of contamination and protect human health and controlled waters from effects related to ground conditions, the CEMP will include mitigation measures such as those presented in <i>Chapter 12: Ground Conditions</i> .	Tertiary Mitigation	Planning Condition
Asbestos survey and removal: A competent/licensed contractor will survey (pre site preparation survey as defined by the HSE) and remove asbestos containing materials and other materials and structures contaminated with asbestos fibres.	Tertiary Mitigation	Planning Condition
Pollution Response Plan: A Pollution Response Plan will be drafted prior to the commencement of the works. The plan will outline key pollution mitigation measures including a Control of Substances Hazardous to Health (COSHH) / fuel inventory and key contacts to be notified in the event of a significant pollution incident, which may subsequently lead to the contamination of controlled waters. Tanks and dispensing pumps will be locked when not in use to prevent unauthorised access. Information regarding spill prevention and disposal of COSHH items will be provided as part of the standard site induction presentations and during regular toolbox talks and as the works progress.	Tertiary Mitigation	Planning Condition
Foundation/ Piling Works Risk Assessment: Piling will be carried out in accordance with the Environment Agency Guidance Note on Piling / Penetrative Ground Improvement Methods on Land Affected by Contamination and ground investigations will inform the Foundation / Piling Works Risk Assessment which will define the appropriate piling methods and foundation design to mitigate risk.	Tertiary Mitigation	Planning Condition
Specification of concrete used in foundations and building structures will be selected based on the results of the chemical composition of the Site's soil and groundwater. Guidance is provided by the Building Research Establishment series 'Concrete in Aggressive Ground'.	Primary Mitigation	Design Guidelines 2.4
Construction Resource Management Plan (CRMP): Demolition and construction waste will be disposed of by the contractor/s to appropriate recycling facilities or appropriately licensed landfills in line with the CRMP or similar. The appropriate landfill for the disposal of any contaminated soil off-site will depend on the waste classification determined from the chemical analysis or Waste Acceptance Criteria testing as necessary.	Tertiary Mitigation	Planning Condition

Mitigation Measure	Primary/ Tertiary/ Secondary Mitigation	Proposed Securing Mechanism
Unexploded Ordnance: An Explosive Ordnance Threat Assessment should be commissioned prior to further site investigation, excavation and piling works. This will provide recommendations for site specific mitigation measures and / or further works.	Secondary Mitigation	Planning Condition
Complete and Operational Phase		
No mitigation measures for complete and operational phase.	Not applicable	Not applicable
Noise and Vibration		
Demolition and Construction Phase		
CEMP: Construction noise and vibration, mitigated through 'Best Practicable Means' (BPM) as defined by Section 72 of the Control of Pollution Act 1974 and careful management will be documented in a Construction Environmental Management Plan (CEMP). The CEMP will be prepared prior to the commencement of works which will describe the mitigation measures that will be applied for construction activities. Measures to control noise as defined in Annex B of BS 5228-1 and measures to control vibration as defined in Section 8 of BS 5228-2 will be adopted where reasonably practicable.	Tertiary Mitigation	Planning Condition
Construction Traffic Management Plan (CTMP): Traffic management will be employed to guide and control both public and construction traffic during deliveries and will be documented in a Construction Traffic Management Plan (CTMP).	Tertiary Mitigation	Planning Condition
Complete and Operational Phase		
Fixed Plant and Building Services: Building services plant will be designed to achieve operational limits consistent with the requirements of BS 4142 which may require mitigation to be incorporated into the fixed plant design. The specification of plant machinery with low noise emission and properly attenuated supply and extract terminations will help to mitigate noise emissions. The use of enclosures, local screening, mufflers and silencers will also be used as appropriate. Where the noise exhibits any such acoustic features then the relevant penalty/ correction will be applied in accordance with BS 4142 so that the resultant rating level falls within any applicable limit levels.	Tertiary Mitigation	Design Guidelines 2.4

Mitigation Measure	Primary/ Tertiary/ Secondary Mitigation	Proposed Securing Mechanism
Acoustic Design: Design measures such as appropriate glazing and ventilation specifications and façade insulation design will be adopted at reserved matters stage to achieve internal noise levels, suitable for residential and commercial use.	Primary Mitigation	Reserved Matters Application
Socio-economics		
Demolition and Construction Phase		
No mitigation measures for demolition and construction phase.	Not applicable	Not applicable
Complete and Operational Phase		
Affordable Mix: The tenure split of the Proposed Development will include affordable housing to encourage a mixed and sustainable community.	Primary Mitigation	Reserved Matters Application
Playspace and Open Space: The Proposed Development will provide sufficient playspace and public realm to avoid any adverse effects on the demand on social infrastructure. The new public park will provide a new public open space, helping to reduce the deficiency in the provision of public parks in the local area.	Primary Mitigation	Design Guidelines 2.4
Secured By Design Measures: The Proposed Development will also incorporate Secured by Design measures for crime prevention by adding appropriate outdoor lighting and public circulation space for natural surveillance as well as additional optional features including glazing, CCTV and secure bicycle and bin stores. Through these design and management choices for the Proposed Development adverse effects have been reduced and prevented.	Primary Mitigation	Design Guideline 2.4
Community Infrastructure Levy (CIL Contributions): Discussions will take place with LBB regarding the approach to the provision of medical facilities, through potential funds through CIL receipts.	Secondary Mitigation	Planning Condition

Mitigation Measure	Primary/ Tertiary/ Secondary Mitigation	Proposed Securing Mechanism
Townscape, Visual and Built Heritage Impact Assessment		
Demolition and Construction Phase		
CEMP: The CEMP will outline measures to minimise disturbance to the sensitive receptors within the vicinity of the Site, including hoarding around the Site, measures to minimise dust, noise, and disturbance from construction lighting.	Tertiary Mitigation	Planning Condition
Complete and Operational Phase		
High Quality Design and Materials: The high quality and modern design of the proposed buildings will enhance the existing general townscape. This is especially important in the design of tall buildings with regard to their impact upon the settings of designated heritage assets. The visual impact would be mitigated by the articulation of the block and its architectural treatment, thereby breaking down the perceived overall mass. The stepped setback of the upper levels would provide additional visual interest and soften the block’s massing.	Primary Mitigation	Design Guidelines 2.4
Traffic and Transport		
Demolition and Construction Phase		
Construction Logistics Plan: An outline CLP is included as part of the TA (<i>ES Volume III: Appendix 15-1</i>). The CLP will be prepared in accordance with the TfL Construction Logistics Planning Guidance. The CLP will include route management, site management, hours of operation and measure to protect the highway and its users.	Tertiary Mitigation	Planning Condition
Complete and Operational Phase		
Improved Accessibility: The Proposed Development will provide a new traffic-free pedestrian and cycle route between Depot Approach and Cricklewood Lane. This will provide a direct and attractive collector route for pedestrians and cyclists travelling to and from the Site. This will further reduce reliance on the private car and encourage sustainable travel behaviour.	Primary Mitigation	Design Guidelines 4.5

Mitigation Measure	Primary/ Tertiary/ Secondary Mitigation	Proposed Securing Mechanism
<p>Cycle Parking: The Proposed Development will include cycle parking for every dwelling and commercial occupier in accordance with the London Plan and will incorporate further secure short-stay cycle parking close to building entrances, incorporated into the landscaping.</p>	Primary Mitigation	Design Guidelines 4.5
<p>Framework Travel Plan: The Proposed Development is supported by a Framework Travel Plan (FTP) for residents, staff and visitors. The FTP will provide a framework within which individual Travel Plans can be prepared for the residential and non-residential elements of the Proposed Development, in accordance with TfL guidance. The Travel Plans will provide a means to pro-actively encourage sustainable travel behaviour through a package of information, incentives and infrastructure. The Travel Plans will include a package of measures, an Action Plan and a schedule of monitoring and reporting. The FTP and individual Travel Plans will be secured by an appropriate planning condition to be submitted and approved prior to the first occupation of the residential and non-residential elements of the Proposed Development respectively.</p>	Primary Mitigation	Planning Condition
<p>Delivery and Servicing Plan: An outline DSP is included as part of the TA. The final DSP will be secured by an appropriate planning condition to be submitted and approved prior to first occupation of each phase of development. The DSP will be prepared in accordance with the TfL guidance, Managing freight effectively: Delivery and Servicing Plans. The DSP will provide a means to pro-actively manage the movement of goods and materials to and from the Proposed Development and to minimise goods vehicle trips.</p>	Tertiary Mitigation	Planning Condition
<p>Car Park Management Plan (CPMP): An outline CPMP is included as part of the TA. The final CPMP will be secured by an appropriate planning condition to be submitted and approved prior to first occupation of each phase of development.</p>	Tertiary Mitigation	Planning Condition

Mitigation Measure	Primary/ Tertiary/ Secondary Mitigation	Proposed Securing Mechanism
Wind Microclimate		
Demolition and Construction Phase		
No mitigation measures for demolition and construction phase.	Not applicable	Not applicable
Complete and Operational Phase		
At the detailed design stage further wind testing is required to confirm appropriate wind mitigation. Mitigation may include chamfering building corners, introducing undercuts, recessing entrances, including canopies, balustrades and using landscaping or screens/ trellises to provide shelter.	Secondary Mitigation	Reserved Matters Application