Chapter 9: Noise and Vibration

INTRODUCTION

9.1 The noise and vibration chapter of the December 2023 ES has been reviewed in the context of the Amended Proposed Development to determine if the conclusions of this assessment remain valid. The following key acoustic aspects were considered in the assessment.

- Noise and vibration from construction activities at the Proposed Development;
- Noise from construction traffic from the Proposed Development;
- Noise from building services plant noise from the completed Proposed Development; and
- Noise from operational road traffic from the completed Proposed Development and from completed nearby schemes.

9.2 In addition, consideration has been given to any updates or changes to baseline conditions, policy or methodology.

9.3 The Proposed Amendments relevant to this ES chapter are:

- Update to the proposed construction programme, with a revised estimated complete date of Q1 2031 from Q2 2030;
- Changes to the peak number of deconstruction and construction vehicles (an 8% reduction compared to the level reported in the December 2023 ES); and
- The total proposed floor space of the Amended Proposed Development has increased by 2,284m^2 (2.9% uplift) compared to the Proposed Development.

LEGISLATION, PLANNING POLICY AND GUIDANCE

9.4 The legislation, planning policy and guidance stated in the noise and vibration December 2023 ES chapter remain applicable and valid.

ASSESSMENT METHODOLOGY

9.5 There are no changes to the assessment methodology set out with the noise and vibration chapter of the December 2023 ES.

9.6 Consequently, the assessment methodology and significance criteria stated in the noise and vibration December 2023 ES chapter remains applicable and valid.

BASELINE CONDITIONS

Current Baseline Conditions

9.7 The baseline conditions remain as assessed in the December 2023 ES, and therefore have not been revisited as they will not be affected by the Amended Proposed Development.

9.8 The baseline conditions as set out within the noise and vibration December 2023 ES chapter remain valid.

Evolution of the Baseline

9.9 There are no anticipated changes to the evolution of the baseline.

RECEPTORS AND RECEPTOR SENSITIVITY

9.10 No amendments have been made to the receptors considered in the noise and vibration December 2023 ES chapter.

IMPLICATIONS OF THE PROPOSED AMENDMENTS

9.11 The minor changes to the construction programme duration and construction methodology as part of the Amended Proposed Development has resulted in an 8% reduction in the expected construction vehicles flows. The construction vehicle routes remain valid as identified in the December 2023 ES chapter.

9.12 The Proposed Amendments will lead to an increase in the overall Gross Internal Area (GIA), from the Proposed Development by a total of 2,284m^2. Velocity Transport Planning (the appointed transport consultants for the scheme) have estimated that the Proposed Amendments with changes to floor areas and reduction in some retail spaces and increase in office use class will lead to a minor decrease (by approximately 7 trips per day) in the maximum predicted delivery and servicing trips generated during the operational phase.

POTENTIAL EFFECTS

Deconstruction and Construction

9.13 Amendments to the deconstruction and construction works required to facilitate the Amended Proposed Development are set out in the **ES Addendum Volume 1, Chapter 1: Introduction, Proposed Design Amendments and ES Addendum Approach**.

9.14 The amendments to the deconstruction and construction works have been reviewed and do not affect the deconstruction and construction assessment. Although the deconstruction and construction programme has been updated as part of the Amended Proposed Development, the assumed construction equipment and working practices that determine the construction noise levels (dB $L_{Aeq,10hr}$) and vibration levels remain as predicted in the December 2023 ES chapter and therefore remain valid.

9.15 Velocity Transport Planning have estimated that the Proposed Amendments will lead to a minor decrease (by approximately 2 trips per day) in the HGV trips generated during the peak construction year. This minor change in the development-generated traffic will have a non-material effect on predicted construction traffic noise modelled in the December 2023 ES chapter.

9.16 Overall, the Amended Proposed Development does not affect the deconstruction and construction assessment and therefore the December 2023 ES chapter remains robust and valid.

Completed Development

9.17 Amendments to the traffic flow data for the updated Proposed Development has been reviewed. The noise from operational road traffic for the updated Proposed Development remain as predicted in the December 2023 ES chapter and therefore remain valid.

9.18 The plant noise limits and methods to control atmospheric plant noise emissions remain as presented in the December 2023 ES chapter (i.e. these are unaffected by the Amended Proposed Development) and therefore remain valid.

9.19 Overall, the Amended Proposed Development does not affect the Completed Development assessment and therefore the December 2023 ES chapter remains robust and valid.

MITIGATION, MONITORING AND RESIDUAL EFFECTS

9.20 The mitigation measures and residual effects remain unchanged for the Amended Proposed Development, and therefore the December 2023 ES chapter remains robust and valid.

CLIMATE CHANGE

9.21 The impacts of climate change discussed in the noise and vibration December 2023 ES chapter are not affected by the Proposed Amendments.

ASSESSMENT OF THE FUTURE ENVIRONMENT

Evolution of the Baseline Scenario

9.22 There are no anticipated changes to the evolution of the baseline, as presented within the noise and vibration December 2023 ES chapter.

Cumulative Effects Assessment

9.23 There are no changes to the cumulatives list, and therefore the cumulatives assessment remains as set out in the December 2023 ES.

9.24 Since the December 2023 ES the UK Government has announced recommencement of the High Speed Two (HS2) rail infrastructure project. The associated demolition and construction works and operational road traffic and plant equipment have the potential to generate noise and vibration in the Euston area. To consider the potential for cumulative effects, a qualitative analysis has been undertaken based on the information available at the time of writing.

9.25 An indicative programme of construction works for HS2 is presented in **ES Addendum Volume 1, Chapter 7: Traffic and Transport** which indicates that there may be an overlap between HS2 construction works and construction of the Amended Proposed Development. However, the major excavation programme illustrates that a number of the major works will be completed, or partially completed, prior to major works on the Amended Proposed Development commencing and therefore any cumulative effects with the HS2 construction works are likely to be minimal.

9.26 Beyond the alignment of construction programmes, the works associated with HS2 are subject to specific measures to control construction noise and vibration. The criteria and measures are set out in the *High Speed Two Phase One Information Paper E23: Control of Construction Noise and Vibration*[1]. Provided these measures are implemented and the associated criteria is met and maintained, the cumulative effects from demolition and construction works upon nearby receptors to the Site will be minimal.

9.27 Given the distance and intervening screening by surrounding buildings (a distance of approximately 300m), the cumulative operational effects from building services noise is likely to be minimal.

LIKELY SIGNIFICANT EFFECTS

9.28 The Amended Proposed Development does not affect the likely significant effects and therefore the December 2023 ES chapter remains robust and valid.

[1] *https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/672398/E23_-_Control_of_construction_noise_and_vibration_v1.7.pdf*