

6.1 Noise and Vibration

- 6.1.1 Chapter 6 of the 2022 ES reported the likely significant noise and vibration effects of the development on existing receptors during the construction and operational phases and considered concentrations at new receptor locations introduced.
- 6.1.2 This Chapter has been prepared in order to outline the key changes in relation to the 2023 Consent and to identify changes to the findings and conclusions associated with the 2022 ES noise and vibration assessment.

Legislation, Planning Policy and Guidance

- 6.1.3 A review of UK legislation, planning policy and guidance relevant to the proposals has been previously undertaken as part of the 2022 ES.
- 6.1.4 The National Planning Policy Framework was updated in December 2024, after submission of the 2022 ES. Whilst the paragraph numbers relating to noise have changed from paragraph 174 to 187e, 185 to 198 and 187 to 200, there has been no material change to their content or emphasis.
- 6.1.5 There have been no changes to London Borough of Camden (LBC) current local policy and guidance since the 2022 ES. However, LBC is in process of updating the Local Planⁱ. The emerging Camden Local Plan is currently in its consultation stage. At this stage in the plan preparation process, the draft Local Plan policies carry limited weight. However, these will start to carry more weight as the plan moves towards adoption and so have been considered within the application documentation.
- 6.1.6 There have been no other changes to relevant planning policy since submission of the 2022 ES.

Scheme Changes

- 6.1.7 Following further consideration of the 2023 Consent, the Applicant is seeking to enhance and amend the Detailed Proposals (Plots N3E, N4 and N5). No amendments are proposed to the Outline Proposals except for a reduction in the maximum residential floor area proposed.
- 6.1.8 The Proposed Development is as follows:
- Additional height to a number of the blocks.
 - Reduction of typical floor to floor heights from 3250mm to 3150mm.
 - Reconfiguration of N4 and N5 for improved design rationalisation, leading to a smaller N4 building footprint and removal of N4D.
 - New mix for affordable units in N4, which works better with the site limitations and has a higher portion of three bed apartments to match LBC preference/requirements.
 - Market rent tenure is consolidated to buildings N5 and N3E only. Removal of market rent tenure from N4 allows this block to become fully affordable.
 - An increase in total residential units within Phase 1 and associated increase in affordable units.

Assessment Methodology and Significance Criteria

- 6.1.9 The following section outlines the methodologies applied to identify and assess the potential impacts and likely effects to result from the Proposed Development.

Extent of The Study Area

- 6.1.10 No changes from the 2022 ES.

Method of Baseline Collection

- 6.1.11 As stated in the 2022 ES, it is considered that there have not been any changes in the vicinity of the site that would significantly alter the baseline noise levels from those which were measured by Hoare Lea in December 2018. The same is stated for the vibration measurements undertaken by Hoare Lea in July 2021.
- 6.1.12 Road traffic noise levels are not expected to have materially changed from 2018. Similarly, it is very unlikely that usage of the railway lines will have increased in frequency sufficiently to materially change the level of railway noise. In addition, no new or significantly altered roads or railway lines are apparent in the area.

Method of Assessment

Demolition & Construction Phase

- 6.1.13 No changes from the 2022 ES.

Operational Phase

- 6.1.14 No changes from the 2022 ES.

Significance Criteria

- 6.1.15 No changes from the 2022 ES.

Consultation

- 6.1.16 No further consultation has been undertaken for this addendum.

Assessment of Effects, Mitigation and Residual Effects

Demolition & Construction Phase

- 6.1.17 This section identifies and assesses the scale and nature of the main effects arising from the Proposed Development during the construction phase.

Construction Works Noise

- 6.1.18 No changes from the 2022 ES.

Mitigation

- 6.1.19 A Construction Logistics Plan (CLP) and Construction Management Plan (CMP) remain as valid and appropriate mitigation measures.

Residual Effect

- 6.1.1 No changes from the 2022 ES.

Construction Works Vibration

- 6.1.2 No changes from the 2022 ES.

Mitigation

- 6.1.3 A Construction Management Plan (CMP) remains as a valid and appropriate mitigation measure.

Residual Effect

- 6.1.4 No changes from the 2022 ES.

Construction Works Traffic Noise

- 6.1.5 No changes from the 2022 ES.

Mitigation

- 6.1.6 A CLP remains as a valid and appropriate mitigation measure.

Residual Effect

- 6.1.7 No changes from the 2022 ES.

Operational Phase

- 6.1.8 This section identifies and assesses the scale and nature of the main effects arising from the Proposed Development during the operational phase.

Operational traffic noise

- 6.1.9 No changes from the 2022 ES.

Mitigation

- 6.1.10 No changes from the 2022 ES.

Residual Effect

- 6.1.11 No changes from the 2022 ES.

Building services plant noise

6.1.12 No changes from the 2022 ES.

Mitigation

6.1.13 Acoustic packs for all air source heat pumps (ASHPs) remain as valid and appropriate mitigation measure.

Residual Effect

6.1.14 No changes from the 2022 ES.

Site suitability – internal noise

6.1.15 No changes from the 2022 ES.

Mitigation

6.1.16 The use of MVHR for managing ventilation and overheating remains a valid and appropriate mitigation measure.

Residual Effect

6.1.17 No changes from the 2022 ES.

Site suitability – external noise in amenity areas

6.1.18 No changes from the 2022 ES.

Mitigation

6.1.19 No changes from the 2022 ES.

Residual Effect

6.1.20 No changes from the 2022 ES.

Site suitability – vibration

6.1.21 No changes from the 2022 ES.

Mitigation

6.1.22 No changes from the 2022 ES.

Residual Effect

6.1.23 No changes from the 2022 ES.

Severability

- 6.1.24 The updated severability plan shows the extent of the severable area within Plot S8 within the Outline Element West. It is the applicants' firm intention to deliver this plot in accordance with the approved parameter plans through the submission of reserved matters pursuant to the hybrid planning permission. This will maximise the public benefits that will result from the development. However, it is recognised that an extant planning permission (ref PWX0202103), together with an extant section 73 permission (ref. 2023/1292/P) (collectively the "Builder's Merchant Scheme"), exist in relation to this part of the Site, and as a consequence this area has been identified as severable.
- 6.1.25 In order to ensure a robust approach, an assessment has been made of the environmental impacts that would potentially arise in the event that the Builder's Merchant Scheme is brought forward under those existing extant planning permissions rather than this area being developed pursuant to reserved matters under the O2 Masterplan development. To the extent relevant, the assessment will consider two scenarios: (i) where the Builder's Merchant Scheme is developed prior to completion of the construction of the remainder of the O2 Masterplan development; and (ii) where the Builder's Merchant Scheme and the remainder of the O2 masterplan are being developed concurrently.
- 6.1.26 The illustrative masterplan that formed part of the 2023 Consent for the O2 Masterplan, showed that development of Plot S8 could deliver approximately 69 residential units with c.1,000sqm of various commercial uses. In contrast, the Builder's Merchant Scheme provides for six flats, eight houses and 4,934sqm office floor space.
- 6.1.27 The Builder's Merchant Scheme proposes residential receptors to the west of the building, on the upper ground floor, first and second floors. Should this development be completed prior to the carrying out of the remainder of the O2 Masterplan (and in particular the remaining Outline Element (West)), the Builder's Merchant Scheme may become an existing residential noise sensitive receptor. In order to assess the potential impact at this new receptor, receptors 3, 4 and 5 of the 2022 ES have been used as proxies. These are detailed below and are deemed appropriate given their close proximity to this part of Plot S8 and similar existing background noise climates.
- Receptor 3: West End Land residential properties
 - Receptor 4: Blackburn Road residential properties
 - Receptor 5: Broadhurst Gardens (west) residential properties

Demolition & Construction Phase

Construction Works Noise

6.1.28 Where the relevant area of Plot S8 becomes severed, this part of the Site would no longer be considered as part of the construction programme for the remainder of the O2 Masterplan development. The construction scenarios are referenced from the 2022 ES, Appendix 6.3, Table 6.3.1: Scenarios for assessment of noise from construction works. For the construction scenario 1 and 2 there would be no enabling and demolition works associated with the Builder's Yard. For the construction scenario 3 there would be no substructure works associated with the relevant area of Plot S8 and no superstructure works during construction scenario 4. It is anticipated that there could be a potential reduction of impact on noise sensitive receptors adjacent to plot S8 with the loss of these works. It is not anticipated that these would be substantial enough to have a meaningful change on the 2022 ES results and conclusions.

6.1.29 Should the land forming part of Plot S8 be severed and the Builder's Merchant Scheme brought forward and developed, as a worst-case Table 6.1.1 outlines the worst-case noise impact on the introduced residential receptors (using the proxies as set out above) during construction of reminder of the O2 Masterplan.

Table 6.1.1: Partial Table 6.20: Summary of construction noise assessment

Receptor	Predicted highest noise levels generated at each receptor for each respective assessment scenario, L_{Aeq} (dB)					Worst case impact
	1	2	3	4	5	
3	64	58	74	64	46	Medium
4	73	59	80	70	47	Medium
5	67	54	70	60	49	Low

6.1.30 Accounting for mitigation measures and using receptors 3 and 4 as the worst-case proxy, construction noise is a medium magnitude of change on high sensitivity receptors, corresponding to a direct, temporary, short-term, moderate negative effect that is significant.

Construction Works Vibration

6.1.31 Similar to the discussion for construction works noise, where the relevant part of Plot S8 is severed, the construction works vibration associated with that area would be removed in respect of the O2 Masterplan development.

6.1.32 Where the Builder's Merchant Scheme is brought forward and developed, as a worst-case Table 6.2.2 outlines the worst-case vibration impact on the introduced residential receptors (using the proxies as set out above) during construction of the remainder of the O2 Masterplan.

Table 6.2.2: Partial Table 6.22: Highest predicted vibration levels from construction works (post-mitigation)

Receptor	Highest predicted levels of vibration (peak particle velocity)	Expected magnitude of change
3	0.55 mm/s-1	Minor
4	0.8 mm/s-1	Minor
5	0.03 mm/s-1	Negligible

6.1.33 Accounting for mitigation measures and using receptors 3 and 4 as the worst-case proxy, construction vibration is a minor magnitude of change on high sensitivity receptors, corresponding to a direct, temporary, short-term, minor negative effect that is not significant.

Construction works traffic noise

6.1.34 It is anticipated that there would be nominal changes to construction works traffic noise, resulting in no material change to the 2022 ES assessment results.

Operational Phase

Operational traffic noise

6.1.35 The Builder's Merchant Scheme is largely for office use and the O2 Masterplan proposal is largely for residential use, therefore the direction of trips differs between the two (i.e., office is predominantly inbound in the AM and outbound in the PM, whereas residential is predominantly outbound in the AM and inbound in the PM).

6.1.36 The traffic consultant for the O2 Masterplan has predicted that, overall, the O2 Masterplan proposal for Plot S8 has a lower number of trips in the AM, and an overall similar number of trips in the PM to the Builder's Yard scheme.

6.1.37 It is anticipated that there would be nominal changes to operational traffic noise, resulting in no material change to the 2022 ES assessment results.

Building services plant noise

6.1.38 There are no changes relating to building services plant noise should the relevant area of Plot S8 be severed. The 2022 ES assessed the nearest residential receptors to the plant, i.e., receptors 6, 8, 17 and 24, none of which are being used as a proxy for the residential receptors associated with the Builder's Merchant Scheme.

Site suitability – internal noise

6.1.39 The Builder's Merchant Scheme includes more office use than residential; however, the vehicle trip generation is shown to be similar for both proposals. It is not anticipated that there would be any changes to the site suitability internal noise assessment presented in the 2022 ES should the relevant area of Plot S8 be severed. Plot N7 is the closest to that part of Plot S8; however, existing transportation noise from road and rail dominated the noise climate and dictated the façade design, rather than the introduced noise sources from that area of Plot S8.

Site suitability – external noise in amenity areas

6.1.40 There are no changes to the 2022 ES should the relevant area of Plot S8 be severed.

Site suitability – vibration

6.1.41 There are no changes to the 2022 ES should the relevant area of Plot S8 be severed.

Limitation and Assumptions

6.1.42 The limitations and assumptions remain valid and the same as defined in the 2022 ES Chapter. Accordingly, this section should be read in conjunction with the 2022 ES Chapter.

Summary & Conclusions

6.1.43 The potential changes to noise and vibration impacts and effects that may arise at relevant receptors from the proposed changes to the scheme since the submission of the 2022 ES have been considered.

6.1.44 There are no changes to the construction phase effects, additional mitigation or residual effects from those reported in the 2022 ES. Therefore, the conclusions of the assessment presented in the 2022 ES are not altered by either the changes associated with the Proposed Development, or the effect of the relevant part of Plot S8 being severed and developed separately pursuant to the Builder's Merchant Scheme.

References

ⁱ London Borough of Camden Draft New Camden Local Plan (2024), Available at <https://www.camden.gov.uk/documents/20142/4820180/Draft+New+Camden+Local+Plan+2024+v1.pdf/415cc7da-c24a-8237-ddc2-5c72045af9d2?t=1706548115256>