

# HS2 Local Authority Noise Consortium

## Statement of Expectation - Routewide Construction Noise and Vibration

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Version: 2

### 1. Introduction

1.1. The High Speed 2 Local Authority Noise Consortium (LANC) has been engaged in petition management meetings with the Promoter of Phase 1 of the High Speed 2 scheme (HS2). This statement sets out LANC's minimum expectations regarding the execution of the primary proposed construction noise and vibration commitments. This statement has been prepared for the following principle reasons:

- to ensure that LANC's position, on how the requirements of certain specific assurances are expected to be executed in practice, is retained on public record as part of Select Committee proceedings for the avoidance of any future doubt;
- to provide the Promoter with clear direction on specific matters that are expected, as a minimum, to be discussed and agreed when complying with some of those assurances;
- to provide helpful information that the Promoter can ensure is captured during procurement of, and in the contractual requirements imposed on, its lead contractors accordingly; and
- to provide the necessary reassurance to residents and other stakeholders that key specific matters of concern have been raised and are captured for future reference where appropriate.

1.2. This statement has been prepared in response to the Promoter's apparent reluctance at this time to provide detailed assurances or alternative and more specific wording in existing HS2 documentation on additional necessary 'best practice' control measures which HS2 considers are more appropriately addressed on a site specific basis, and at later stages in the project's design development.

1.3. In the absence of any other vehicle for the purpose of recording the LANC's requirements, therefore, it has been necessary to prepare and present this statement.

1.4. This statement will form part of the Select Committee representations to be made by LB Camden, the lead Council acting on behalf of LANC on construction noise and vibration.

- 1.5. The document is split into two remaining primary sections:
- Minimum Requirements in relation to Assurance Execution
  - Emerging Draft Model Section 61 Consent Conditions
- 1.6. The contents of this statement have been prepared based upon the information available at the time of writing and are not intended to limit the extent of the assurances offered by the Promoter. The contents of this statement are provided without prejudice, for information purposes, and are intended to contribute to the further development of appropriate procedures and processes that LANC considers are required to achieve the assurance aims beyond completion of the House of Commons Select Committee hearings.
- 1.7. LANC expects that the contents of this statement will be included in future publications prepared by the Promoter or the Nominated Undertaker for the purposes of communicating Local Authority requirements and engagement expectations, or in future revisions of the Code of Construction Practice.

## 2. Minimum Requirements in relation to Assurance Execution

- 2.1. The primary assurance that has been offered by the Promoter is set out below:

*“The Promoter will require the Nominated Undertaker and its contractors to use reasonable endeavours to engage with relevant local authorities, as early as is reasonably practicable after each lead contractor is appointed, in a series of regular meetings leading up to, and during, the works that will be carried out under the relevant contract for construction of HS2 in a local authority area. Without prejudice to what may or may not be included in such meetings, it is envisaged that initially these meetings will focus on sharing information relating to the local authority area as to the forward programme of design activities, s.61 submissions under the Control of Pollution Act 1974 and subsequent construction works. As early as is reasonably practicable, the Nominated Undertaker and its lead contractors shall use such meetings to share the intended construction plan for works in the relevant local authority area and the Best Practicable Means (BPM) planned for these works at that stage of design. These meetings shall then be used to update the local authority as to the development of construction plans and BPM with a view to expediting the consent process under s.61 Control of Pollution Act 1974.”*

- 2.2. This assurance is welcomed by LANC. The following sub-sections are intended to record the LANC members’ minimum requirements that will form the basis of the engagement on Best Practicable Means and other described matters as appropriate, and only where applicable to the works that are relevant to the individual Local Authority concerned, and where such a requirement for that engagement has been confirmed by that Authority.

### **Joint Development of Section 61 Guidance Document**

- 2.3. Based upon discussions to date, LANC expects that the Promoter and the Nominated Undertaker will jointly develop a Section 61 guidance document with the Local Authorities through the Environmental Health Sub Group which is aimed at providing specific assistance to the project management organisations on expected Section 61 processes including the expected application contents, for inclusion in contractual requirements with contractors.

### **Suitably Qualified Personnel**

- 2.4. LANC expects that the person(s) responsible for preparing applications for Section 61 consent (or consent dispensations and variations) and for the associated noise and vibration calculations and/or monitoring shall demonstrate:
- a summary of training and education relevant to managing construction noise and vibration;
  - experience of the Section 61 consent process and of monitoring noise and vibration;
  - confirmation that the individual is, at minimum, an associate member of the Institute of Acoustics; and
  - as appropriate, further relevant qualifications which may include, a 'certificate of competence' from the Institute of Acoustics course, 'environmental noise measurement'.

### **Sub Surface Sprayed Concrete Lining Tunnelling Works**

- 2.5. LANC expects that, where practicable, the following measures will be used in relation to below ground works in order to reduce the magnitude of ground borne noise and vibration for overlying properties:
- the construction sequence and methodology will be designed to reduce the requirements for breakout of hardened walls and structures;
  - hardened walls, necessitated by planned halts in the tunnelling advance, will, where practicable, be designed to be at an appropriate distance from sensitive overlying structures, and be minimised in number;
  - careful control of the construction process will be employed to avoid over-thickening walls which will later need to be broken out;
  - where foamed concrete is used, in order to reduce the effort required for its subsequent breakout, care will be taken to ensure it is not overly strong, and efforts will be made to reduce its bonding to the walls of the structures within which it is used. A void former to reduce the volume to be removed will be cast within it where practicable; and
  - where percussive breakout is required, it will, where practicable, be undertaken outside of the hours that potentially affected occupiers of the overlying properties are likely to find most sensitive, based upon liaison with the relevant stakeholder.

### **Tunnel Construction Support Activities**

- 2.6. LANC expects that only essential activities associated with tunnelling (including: the removal of excavated material where stockpiling is not practicable; and the supply of materials and maintenance of tunnelling equipment inside core hours are not practicable) will be carried out on a 24 hour day, 7 day week basis.

### **Justification for Best Practicable Means**

- 2.7. LANC considers that under the relevant provisions of the Control of Pollution Act 1974, to ensure that sufficient information has been provided to the Local Authorities for the purpose of determining an application for prior consent under Section 61 of that Act, it is necessary for the contractor to describe the process and decision making that has been completed to arrive at the stated proposals and the Best Practicable Means in the application.
- 2.8. Consequently LANC expects that such processes and decisions will form part of the engagement discussions with the Nominated Undertaker and its lead contractors with the aim of minimising: the likelihood that the relevant Local Authority will request additional information on receipt of the draft or formal Section 61 application; and associated delays that might ensue.

### **Scope of Works to be Included in Section 61 Applications**

- 2.9. LANC expects that the Nominated Undertaker will seek to obtain Section 61 consent for all works that fall within the scope defined in Section 60 (1) of Part III of the Control of Pollution Act 1974.
- 2.10. LANC also expects that some of those works may not be expected to generate noise or vibration which would be considered to give rise to adverse effects. In such circumstances it may be appropriate to seek a derogation from the requirement to seek to obtain Section 61 consent from the Local Authority but only by mutual agreement.

### **Construction Noise Assessment Methods for Section 61**

- 2.11. Notwithstanding that the Promoter has published its own approach to construction noise assessment in the Scope and Methodology report which has been used to develop the project's Environmental Statement and will therefore be used when discharging its obligations under the General Principles of the Environmental Minimum Requirements, LANC considers that some LANC members may require, under the provisions of the Control of Pollution Act, construction noise assessments included in any Section 61 consent application which follow Method 2 as presented in Annex E of BS5228 Part 1, in accordance with local considerations, best practice and the consideration of potential adverse effects on the locality.
- 2.12. LANC commits to the Nominated Undertaker that the relevant Local Authority will declare this preference or otherwise, as early as reasonably practicable in the engagement process on request.

- 2.13. LANC therefore expects that the Nominated Undertaker and its lead contractors will provide for such a preference in the Section 61 application process, as appropriate, where the Local Authority has determined such a preference.
- 2.14. Consequently LANC also expects that the Nominated Undertaker and its lead contractors will undertake to provide sensitivity tests for Method 2 during the remaining design stages of the project under the terms of the early engagement assurance when determining and developing Best Practicable Means.

#### **Observed Effect Levels**

- 2.15. Notwithstanding the declaration of the Promoter's declared SOAELs and LOAELs in Tables 1 and 3 of Appendix A in Information Paper E 23, and the associated commitments and objectives detailed, LANC considers that such information must not prejudice the relevant Local Authority's obligations and powers under the provisions of the Control of Pollution Act 1974, nor its associated requirement to discharge those obligations and powers by reference to guidance provided both in statutory Codes of practice but also in national noise policy where applicable to construction noise.
- 2.16. LANC commits to the Nominated Undertaker that the relevant member Local Authority will declare either: its acceptance of the Observed Effect Levels presented in Information Paper E23; or its other alternative requirements as appropriate in accordance with the provisions of the Control of Pollution Act 1974 and the relevant guidance provided in national noise policy, as early as reasonably practicable in the engagement process on request.

#### **Pre-construction Baseline Ambient Noise Levels**

- 2.17. LANC expects that some members will request further pre-construction baseline ambient noise data to be gathered by the Nominated Undertaker or its lead contractors at some specific locations as part of their eventual consideration of any Section 61 consent application.
- 2.18. LANC commits to the Nominated Undertaker that the relevant Local Authority will declare this preference, or otherwise, as early as reasonably practicable in the engagement process and on request.

#### **Impulsive or Tonal Noise**

- 2.19. LANC expects that tonal and impulsive noise will be considered in the assessment and control of construction noise and vibration, where this is considered appropriate by the relevant Local Authority concerned.
- 2.20. In such circumstances, LANC expects that the contractor shall identify, as part of its Section 61 consent applications, any construction activities that could give rise to impulsive, tonal or other adverse characteristics and the mitigation, or management processes, in accordance with best practicable means to minimise these impulsive or tonal noise events. Particular attention shall be given to the control of impulsive or tonal noise in the evening, and especially for any night-time works.

- 2.21. Where applicable, LANC expects that the contractor shall, as part of its assessments, provide forecasts for maximum sound pressure levels for construction methods that are likely to generate regular impulsive noise where it is practicable to do so, and where data are available or can be obtained to support those forecasts.
- 2.22. Where applicable, LANC expects that the contractor shall monitor and report maximum sound pressure levels during the works in accordance with the monitoring requirements set-out by the contractor and in accordance with BS 5228 Part 1 Annex G.
- 2.23. LANC expects that actions and controls will be agreed as part of the s.61 consents process between the Contractor and the relevant Local Authority where predicted or measured levels identify that adverse maximum sound pressure levels from HS2 construction activity are likely to occur regularly and are confirmed to be the source of the noise. Such actions may include, subject to agreement by the local authority, a requirement for the contractor to undertake a further review of the Best Practicable Means employed to ensure that all reasonable steps are being taken to minimise noise.
- 2.24. At night, LANC expects that the contractor will investigate the exceedance or likely exceedance, report this and the findings of the review to the Nominated Undertaker and the relevant Local Authority, and implement any further mitigation identified as being agreed to be necessary as soon as is reasonably practicable.
- 2.25. At other times (day and evening), and where relevant, LANC expects that the same actions will be taken except that the review will be reported within three days. Where the exceedance coincides with a noise complaint, then LANC expects that the contractor will implement any required additional mitigation confirmed by the BPM review before the next shift when the relevant activity is scheduled to be undertaken again.

#### **Early Benefit from Permanent Noise Mitigation Works**

- 2.26. At appropriate locations, LANC expects to discuss the potential for installing permanent operational noise barriers, earthworks mitigation or other proposed structures as part of discussions relating to Best Practicable Means for the works at an early stage of construction in order to maximise the length of time that such control measures will assist in reducing construction noise.

#### **Audible Warning Systems**

- 2.27. LANC expects that in determining Best Practicable Means, the nominated undertaker will, as far as reasonably practicable, ensure that the noise from reversing alarms or any other audible warning system used in the construction works is controlled and limited.
- 2.28. LANC expects that this will be determined, and managed, through the following hierarchy of techniques:
  - the site layout will be designed to limit and where reasonably practicable, avoid the need for the reversing of vehicles or the use of other audible warning systems. The nominated undertaker will seek to ensure that drivers and other operatives are familiar with the worksite layout;

- banksmen will be utilised to avoid, as far as reasonably practicable, the use of reversing alarms;
- reversing alarms or other audible warning systems incorporating one of more of the features listed below or any other comparable system will be used where reasonably practicable;
  - highly directional sounders;
  - use of broadband signals;
  - self adjusting output sounders; and
  - flashing warning lights.
- reversing alarms and other audible warning systems will be set to the minimum output noise level required for health and safety compliance.

### 3. Emerging Draft Model Section 61 Consent Conditions

- 3.1. LANC commits to the Nominated Undertaker that its members will engage positively in the development of draft model Section 61 consent conditions with the aim of streamlining the processes for all concerned.
- 3.2. LANC expects to discuss the requirement for such draft model consent conditions further with the Nominated Undertaker and its lead contractors during the early engagement stages and under the terms of the assurances provided by the Promoter.
- 3.3. LANC does not consider that it is appropriate to provide specific words for these draft model conditions at this current time, and that it is not necessary to do so prior to LANC's Select Committee appearance. However, LANC has set-out a series of minimum specific matters in this statement which the Promoter and Nominated Undertaker should regard as those where Section 61 consent conditions are likely to be imposed by relevant Local Authorities for the relevant works where they would be deemed to be necessary.
- 3.4. Any such conditions may need to be varied, or excluded following further discussions with the Nominated Undertaker and its lead contractors, and following consideration of each Section 61 consent application on its own merits within the provision of the Control of Pollution Act 1974.

