

A428 Black Cat to Caxton Gibbet improvements

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9.86 Joint Position Statement with Central Bedfordshire Council and
National Highways on discussions regarding noise and mitigation
measures

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1 Introduction

- 1.1.1 This Joint Position Statement (the Statement) has been produced by National Highways (the Applicant) in response to Action Point 17 (AP17) arising from the Issue Specific Hearing (ISH) 5 held on 1 December 2021, at which the Examining Authority (ExA) requested that the Statement be prepared and submitted by the Applicant at Deadline 6 of the Examination
- 1.1.2 The Applicant confirmed to the ExA during ISH5 on 1 December 2021 that a meeting between the Applicant and Central Bedfordshire Council (CBC) was held on 24 November 2021. This meeting was held to discuss ongoing concerns raised by CBC with regard to the mitigation of the major increases in traffic noise predicted at Rectory Farm, Little Barford Road, due to the Scheme with a view to reaching agreement on the proposed approach taken by the Applicant.
- 1.1.3 A further meeting to discuss matters relating to the provision of noise insulation to the property, which was not resolved at the meeting on 24 November 2021, was due to take place on 30 November 2021. Unfortunately, this meeting was cancelled due to personal circumstances at CBC. However, a further meeting was held on 12 January 2022.
- 1.1.4 The final positions of the Applicant and CBC resulting from the meetings held on 24 November 2021 and 12 January 2022, and correspondence on 9-14 December 2021, form the basis of the Statement.
- 1.1.5 A copy of the draft minutes from the meetings held on 24 November 2021 and 12 January 2022 were shared with CBC on 9 December 2021 and 14 January 2022 respectively.

2 Joint Position Statement

- 2.1.1 The following paragraphs provide the final position of the Applicant and confirm if CBC are in agreement with that position, in relation to the operational traffic noise impacts at Rectory Farm, Little Barford Road due to the Scheme, and mitigation measures which have been considered.
- 2.1.2 The Applicant acknowledges CBC's concern that Rectory Farm on Little Barford Road is likely to experience a major increase in road traffic noise levels due to the Scheme, which result from the introduction of a new road traffic noise source into the rural setting where the property is located. The Applicant confirms that this predicted major increase in traffic noise as a result of the Scheme has resulted in the property being identified as likely to experience a significant adverse effect in Environmental Impact Assessment (EIA) terms. The range of predicted increases in road traffic noise due to the Scheme across all facades of the property is 2.0 dB to 10.7 dB at night and 1.8 dB to 14.5 dB during the day. For context a 10 dB increase is perceived as a doubling of the noise level. CBC agree with this position.
- 2.1.3 However, the Applicant's position is that even with the predicted increase in traffic noise, the day and night traffic noise levels with the Scheme in operation, are low, at or around the Lowest Observed Adverse Effect Level (LOAEL) of 55 dB(A) in the day-time and 40 dB(A) during the night, as defined in National Highways' noise and vibration assessment guidance document LA 111. These LOAELs are the levels above which adverse impacts on health and quality of life from road traffic noise occur, and that the National Policy Statement for National Networks (NPSNN) requires to be minimised in the context of sustainable development. The Applicant's assessment has demonstrated that the property is not predicted to experience a significant adverse effect in policy terms. CBC agree with this position in respect of health impacts in policy terms, but not in respect of "quality of life" impacts (see below).
- 2.1.4 Although road traffic noise from Little Barford Road already contributes to the existing noise environment at this property, non-traffic noise sources also contribute to its noise environment, which National Highways identified during the 2017 noise monitoring surveys. These sources included trains on the nearby East Coast Mainline, agricultural sources and overhead power lines. As reported in Chapter 11, Noise and Vibration [APP-080] of the Environmental Statement the measured overall daytime noise levels in the garden of this property ranged between 48.7-51.4 dB $L_{A10,18\text{hour}}$ free field. The predicted daytime traffic noise level at the monitoring position was below this at 45.6 dB $L_{A10,18\text{hour}}$ free field, due to the other noise sources in the area. The monitoring results therefore indicate that the increase in overall noise levels at the property when the Scheme is in operation will be rather less than the predicted increase in traffic noise, due to contribution of the other noise sources in the area. CBC confirm they understand this reasoning set out by the Applicant. However, they wish to note that they remain concerned about the overall effect of the Scheme which is likely to occur at this property and that the different characters of the noise sources present at

this property may influence the perception of the change in noise levels. To clarify, the residents are already used to the existing noise environment and sources and they are accepted. However, CBC consider that it is the result of an entirely new noise source being introduced that will have an impact on the quality of life of the residents with an effective doubling of the loudness. The residents will perceive this in the outside areas of the property in particular.

- 2.1.5 The embedded mitigation measures for the Scheme include low noise surfacing materials which will reduce road traffic noise levels at properties along the length of the Scheme, including Rectory Farm along Little Barford Road. On average low noise surfacing provides a 3 dB reduction in traffic noise levels compared to standard Hot Rolled Asphalt (HRA). CBC partially agree with this position but wish to note that in the context of noise mitigation, the actual level of noise reduction is very small in the context of the predicted increase in traffic noise at Rectory Farm, in their view.
- 2.1.6 The Applicant has undertaken noise modelling of the effect of a 3m high barrier extending between the realigned Barford Road and the East Coast Mainline, a distance of approximately 1.1km. Such a substantial length of barrier would be required due to the distance between the property and the Scheme, approx. 300m at its closest point. The Applicant's position is that this substantial length of barrier has not been taken forward into the design as a sustainable noise mitigation measure due to:
- a. The limited noise reduction it provided at the property (maximum daytime reduction at any façade is 1.6dB and 1.5dB at night).
 - b. The predicted major increase in road traffic noise would remain even with such a barrier in place.
 - c. The cost of a 1.1km of noise barrier compared to the benefit. Over a 60 year appraisal period the cost is estimated at approx. £528,000, compared to a benefit of approx. £700. The initial barrier installation costs are estimated at approx. £197,000.
 - d. The low traffic noise levels at the property with the Scheme in place.
 - e. The presence of other existing noise sources likely to result in the predicted increase in traffic noise levels not being fully perceived.

CBC confirm that they accept the information that has been put forward in a) to e) above. However, CBC do not agree with the decision not to take forward this mitigation measure. It is CBC's view that although the traffic noise reduction provided by this measure would be small, it would still lead to an improvement in the resident's quality of life compared to what is currently being proposed.

- 2.1.7 The Applicant has considered a number of alternative measures proposed by CBC at the meeting on the 24 November 2021 which would require some additional landtake (upon which the farmer and landowner have not been consulted), such as noise bunding with and without additional barriers. Based on the outcome of the noise modelling of a 3m barrier along the Scheme, the Applicant concluded that such measures would also provide only limited benefit and would not be considered sustainable mitigation. CBC accepts the reasoning provided by the Applicant to why these particular alternative measures have been discounted.
- 2.1.8 The Applicant also confirmed in the meeting with CBC and at ISH5 that noise insulation, in the form of enhanced glazing and ventilation measures, would not be offered to the property. This is due to the predicted day and night traffic noise levels, even with the Scheme in operation, being low, at or around the Lowest Observed Adverse Effect Level (LOAEL) of 55 dB(A) in the day-time and 40dB(A) during the night as defined in National Highways' noise and vibration assessment guidance document LA 111. For comparison purposes, the qualifying traffic noise level set in the Noise Insulation Regulations for determining eligibility for noise insulation to properties is 68 dB(A) in the daytime. This is equivalent to the Significant Adverse Observed Effect Level (SOAEL) for road traffic noise, which is also defined in LA 111. It is noted that whilst noise insulation would potentially reduce internal noise levels, depending on the internal noise environment, it would not change the external noise levels experienced by the residents, on which the assessment is based. Therefore, National Highways would not consider the installation of noise insulation to remove the significant adverse effect in EIA terms. CBC acknowledges the above reasoning provided by the Applicant. However, it is CBC's view that the residents would experience a significant impact on their quality of life without further mitigation. CBC remain concerned that an assessment of L_{Amax} traffic noise levels has not been undertaken, which would be part of an assessment of traffic noise impacts for a new residential development located next to a transport noise source and is particularly pertinent in terms of night-time sleep disturbance, although CBC does acknowledge that this does not form part of the methodology within LA 111. The Applicant confirms that the assessment of L_{Amax} traffic noise levels does not form part of the LA111 methodology and has also not formed part of the previous versions of the DMRB noise assessment methodologies it has superseded. LA111 and DMRB adopts the UK standard road traffic noise prediction methodology set out in the 'Calculation of Road Traffic Noise', which does not contain any procedure for calculating L_{Amax} from road traffic.
- 2.1.9 The Applicant is satisfied that it has demonstrated that the approach to mitigation adopted in this location complies with policy as set out in the NPSNN paragraph 5.195 because:
- a. The requirement to avoid significant adverse effects on health and quality of life, within the context of Government policy on sustainable development, is met as the traffic noise levels with the Scheme in place at this property are considerably below the SOAEL. The Noise Exposure Hierarchy Table in the

Planning Practice Guidance on noise gives example outcomes for the SOAEL: *'The noise causes a material change in behaviour, attitude or other physiological response, e.g. avoiding certain activities during periods of intrusion; where there is no alternative ventilation, having to keep windows closed most of the time because of the noise. Potential for sleep disturbance resulting in difficulty in getting to sleep, premature awakening and difficulty in getting back to sleep. Quality of life diminished due to change in acoustic character of the area'*.

- b. The requirement to mitigate and minimise other adverse effects on health and quality of life, within the context of Government policy on sustainable development, is met through the use of low noise surfacing. The predicted traffic noise levels with the Scheme in place are only slightly above the LOAEL on the worst affected facades. Additional mitigation to further reduce traffic noise levels has been considered but cannot be justified as sustainable mitigation for the reasons outlined above. The Noise Exposure Hierarchy Table in the Planning Practice Guidance on noise gives example outcomes for the LOAEL: *'Noise can be heard and causes small changes in behaviour, attitude or other physiological response, e.g. turning up volume of television; speaking more loudly; where there is no alternative ventilation, having to close windows for some of the time because of the noise. Potential for some reported sleep disturbance. Affects the acoustic character of the area such that there is a small actual or perceived change in the quality of life'*.

2.1.10 CBC do not agree with National Highways position in paragraph 2.1.9 above and consider that the impact on the quality of life of the resident has not been addressed by the Applicant. It is CBC's view that the policy on sustainable development includes considerations on quality of life and maintain that this will be adversely affected by the Scheme at the property without further mitigation. Additionally, CBC consider National Highway's reasoning above does not discount the mitigation on sustainability grounds as suggested, but cost – benefit grounds. Whilst CBC acknowledges this is a factor to consider, it disagrees with the extent of weight given to that factor and the overall judgement reached on this issue.

2.1.11 CBC is of the view that, whilst the level of noise may not exceed the Noise Insulation Regulations level to legally require National Highways to carry out or make a grant for the cost of carrying out insulation at Rectory Farm, this is the absolute bare minimum level of legal protection for residents. However, that is a separate regime to the assessment of likely significant environmental effects under the Environmental Impact Assessment (EIA) regime applicable to the assessment of the A428 project and the level of significance is acknowledged to be major by National Highways. As such, CBC consider that mitigation is justified in policy and Environmental Impact Assessment terms to mitigate what will otherwise be a major adverse effect, irrespective of what the bare minimum legal protection is under the separate Noise Insulation Regulations. In other words, seeking to achieve the "bare minimum" on such issues is not the objective of the NSIP regime and policy.

- 2.1.12 CBC's view is that it is not credible and impossible to conclude that night time increases of 9.3 to 10.7 dB at the Rectory Farm residence and 10.8 to 14.5 dB increases during the day time (as per the latest data requested and provided to CBC) do not have a significant adverse impact on at least the "quality of life" of residents at the Rectory Farm residence. To put that in context, a 6 dB increase is equivalent to a doubling of noise from traffic so the increases at night time, for example, are far in excess of a doubling. It is more than 1.5 times. As such, CBC consider that policy 5.195 directs that the Secretary of State should not grant the DCO without mitigation. CBC would also note that increases in time-averaged noise levels of this magnitude as predicted are also likely to include increases in both occurrence and loudness of individual night-time L_{Amax} events (which have not been assessed) and which are known to contribute to sleep disturbance and adverse health effects as a consequence.
- 2.1.13 CBCs view is that even if the Secretary of State were to take the view that the impact on "quality of life" is not significant at the Rectory Farm residence (which is not CBC's view), National Highways is neither "mitigating and minimising" "other adverse effects" on quality of life, nor "contributing to improvements to health and quality of life through the effective management and control of noise, where possible" in this instance, given the large increase in traffic noise at the property, which is acknowledged as a major adverse impact. As such, in CBC's view that would also be contrary to paragraph 5.195 without mitigation.
- 2.1.14 Unfortunately, an agreed position on mitigation has not been reached between CBC and National Highways. Therefore, CBC requests the Secretary of State to impose it as a DCO requirement. CBC proposes the following wording, which is also set out in Appendix 2 of 'Post-Hearing submissions including written submissions of oral case as requested by ExA' [REP6-091] submitted at Deadline 6:
- "The authorised development must not commence until full details of measures to be installed at Rectory Farm, Barford Road, Little Barford to mitigate the noise impact on the owners and occupiers of the residence at that property resulting from the operation of the authorised development have been submitted to and approved by the Secretary of State in consultation with the Central Bedfordshire Council.
- The authorised development must not commence until the undertaker has made a written offer to the owner and occupiers of the residence at Rectory Farm, Barford Road, Little Barford to carry out at the undertaker's own expense or fund the carrying out of the approved mitigation measures under paragraph 3, which must be made in a form that is legally binding if accepted."

- 2.1.15 The Applicant notes the proposal by CBC. However, the Applicant does not agree that the proposed additional requirement should be included within the DCO for the Scheme. As set out in paragraph 2.1.9 a) and b) above, the Applicant is satisfied that it has demonstrated that the approach to mitigation adopted in this location complies with policy as set out in the NPSNN paragraph 5.195.