

**LOWER THAMES CROSSING
DEVELOPMENT CONSENT ORDER EXAMINATION**

WRITTEN SUBMISSIONS at DEADLINE 7

on behalf of

KATHRYN HOMES LTD: Unique Reference 20035583

RUNWOOD HOMES LTD: Unique Reference 20035580

RUNWOOD PROPERTIES LTD: Unique Reference 20035582

1. These Written Submissions are made on behalf of Kathryn Homes Ltd, Runwood Homes Ltd and Runwood Properties Ltd (“the Objectors”) at Deadline 7. Each of the Objectors is a registered Interested Party and has separately made Relevant Representations but they share common interests and so have combined together to make these joint Written Submissions setting out their comments (as at the present time) on the material submitted by the Applicant at Deadline 6.
2. These Written Submissions are supported by a further report from the Objectors’ acoustic consultant, BY Acoustics, in report 19-0003-N2, which is attached to these Submissions as Annex A.

Comments on the Code of Construction Practice (version 6.0) [REP6-039]

3. The Applicant amended NV013 of the REAC in Table 7.1 of the CoCP but the Objectors did not comment on this at Deadline 6. The Applicant’s comments in Table 2.1 of REP6-098 (under para 15) indicate that further comments from the Objectors are awaited. Whilst the Objectors note the new commitment to undertake surface renewal using replacement road pavement on the strategic road network that has no worse noise emission performance, this commitment (a) does not apply to the local road network so would not apply to Stanford Road (A1013) and it is unclear whether it would apply to slip roads between A122 or A13 (which are part of the SRN) and the A1089 (which is not), and

(b) does not impose any timeframes for undertaking surface renewal, or for monitoring of its noise emission performance, so the surfacing laid at Scheme opening could deteriorate in its noise emission performance (albeit remaining satisfactory as a carriageway for the passage of vehicles) but without any obligation for it to be replaced. There is no commitment to a maintenance strategy that will ensure that the noise emission performance of the road surfacing in the vicinity of Whitecroft will be maintained to that achieved at Scheme opening. This issue was raised by the Objectors at Deadline 1 [REP1-367 at para 4.6] and remains unaddressed.

4. NV007 maintains reliance on the definition of Best Practicable Means in section 72 Control of Pollution Act 1974 which includes reference to “*the financial implications*” as part of the test of what “*practicable*” means (see paras 7 and 8 of REP5-119). Notwithstanding the widespread use of BPM for other schemes, this limitation means that there is enormous uncertainty on what measures would or would not be implemented in practice. That uncertainty is not acceptable in the case of the vulnerable residents of Whitecroft, especially when BMP is so heavily relied on in NV015 and NV017.
5. NV015 was amended at D6 but the amendments do not impose any requirement to cease work which exceeds the noise and vibration limits on NV004 (which are not currently specified), even if the initial investigation confirms that it is project activity which has caused the exceedance. The reference to a review process potentially involving reference to the Secretary of State if matters are not agreed between the Applicant and the local authorities (with no requirement to suspend activities whilst such a review is undertaken) underscores the Objectors’ concerns that the offending activity could continue for lengthy periods of time. There is reference to a ‘specific time period’ being included in the Noise and Vibration Management Plan but this is currently at large and the Objectors can have no confidence that the review process will either prevent exceedances or bring about their cessation, either promptly or at all.

6. NV017 was amended at D6 but Whitecroft is not identified as a Vibration Sensitive Receptor in ES Figure 12.1 and so the Applicant needs to expressly confirm that Whitecroft is recognised to be a Vibration Sensitive Receptor meeting the definition in DMRB LA 111 and is included within the commitment notwithstanding its omission from ES Fig 12.1. Even assuming this is confirmed, NV017 merely states that relevant construction work “*may require further specific mitigation measures*”, relies on the yardstick of BMP (which results in enormous uncertainty as to what measures may be provided), and no detail is provided as to the nature or efficacy of measures to prevent or limit ground borne vibration. NV017 is therefore insufficient to address the Objectors concerns about vibration from use of Haul Road 4 by construction vehicles, from the construction of the earth bund to the west of Whitecroft, or from other construction activity in the vicinity.
7. AQ006 remains unchanged and does not commit to any monitoring in the vicinity of Whitecroft.
8. AQ007 was amended at D6 to increase the period of baseline monitoring (for locations where monitoring is undertaken) from three months to six months but still falling short of the 12 months period suggested by the Objectors.
9. AQ008 has the same weaknesses as NV015 in relation to the continuation of offending activity even when an exceedance is attributable to construction activities of the project.

Comments on the Applicant’s Response to Comments by [the Objectors] at Deadline 5 [REP6-098]

10. The Applicant’s statement (at para 6) that it “*does not agree that BPM will not be implemented or effective*” is noted but it cannot be correct. The Applicant accepts that the test of BPM includes “*financial implications*”, the Applicant has provided no costing of the measures it is considering might constitute BPM, and where measures have been identified (with some further information presented in REP6-111), the Applicant has not provided evidence

demonstrate their effectiveness. It remains that case that the Applicant has not actually made a commitment to implement any specific measure but merely to consider their use in the context of BPM.

11. The Applicant's statement (at para 9) that it "*does not agree that it is proportionate to always stop work if there is a monitoring exceedance as the noise source would need to be investigated...*" is, with respect, disingenuous because the Applicant is not committing to stop work even if the investigation shows that the exceedance is attributable to construction activities of the project. The only commitment offered is to review whether further measures can be implemented (again in the context of BPM) and the Applicant has not committed to ceasing the offending activity within any defined timescale.
12. The Applicant's reference (at para 12) to the HEqIA [REP3-118] deploys circular reasoning. The HEqIA relies on the noise and vibration assessment in the ES, and that assessment has not adopted different criteria for persons with greater sensitivities to noise and vibration. The Applicant cannot therefore contend that the HEqIA has actually reflected those greater sensitivities in its assessment (despite recognising the existence of WHO guidance on that topic). The Objectors' criticism (at para 16 of REP3-178, repeated at para 12 of REP5-119, and again at para 19 of REP6-209) remains unanswered.
13. The Applicant's comments on Low Noise Surfacing (para 15) have been addressed above.

Comments on the Applicant's Responses to ExQ2 Appendix E Noise and Vibration [REP6-111]

14. In relation to ExQ(2) 9.1.7 the Applicant provides a lengthy response but it does not actually address the full case put forward by the Objectors. Nor has the Applicant engaged with the specific request by the ExA in formulating its question to "*to have regard to any potential negative effects of mitigation methods on the residents, such as the physical effect of acoustic screening.*"

15. It is clear that the mitigation measures that the Applicant now proposes do include acoustic screening on both a long-term and a short-term basis. Four metres acoustic screens are proposed for the construction of Bridges BRN000042, BRN0000046, and BRE0012830. Four metre acoustic screens are also proposed for the construction of the permanent bund and for the realignment of Stanford Road. In addition, a 250m long four metre acoustic fence is proposed on the opposite side of Stanford Road. Only two of these acoustic screens are shown on Plate 1.
16. Those acoustic screens, especially those to the west of Whitecroft and on Stanford Road will have a marked enclosing impact for the residents, shutting them away from the wider world (including loss of enjoyment of their current rural outlook to the west) and leaving them isolated behind physical barriers. To the extent that they are left with an outlook beyond Whitecroft, predominantly to the south and east, this will be a view of construction traffic on Haul Road 4 and the Stanford Road site compound. They will inevitably feel 'surrounded' by construction activity in every sense.
17. The Applicant has sought to provide some further detail on the timing of activities, which in some instances are reduced from the information presented in the ES. However, it is to be noted that residents will still be faced with 4 weeks of 24/7 drilling for Utilities Work MU46, three 48 hour weekend night time works for Bridge BRN0000046, three 48 hour weekend night time works for Bridge BRN0000042, one 48 hour weekend night time works for Bridge BRE0012830, eleven weeks of 24/7 activities for each of Utilities Works OHT 4-7 and OH 6 (so 22 weeks), and two 48 hour weekend night time works to realign Stanford Road. These periods of 24/7 or weekend working will be set within a programme of regular day time construction activity for some 4+ years.
18. The Applicant has chosen not to give any specific time frame for the construction of the permanent bund. It is stated that the earthworks activity would not take place within 300 metres of any sensitive receptor during

evening and overnight periods (on p.11) and that there would also be a commitment not to undertake any earthworks activities within 300 metres of any sensitive receptor during daytime and evening periods (on p.12). Since the bund is to be wholly constructed on land which is within 65 metres of Whitecroft (as shown on the Section A cross-section in REP5-092), the Objectors do not understand how it is to be constructed whilst adhering to the claimed limits.

19. With regard to the Applicant's revised noise assessment showing calculated night time noise levels with the use of BPM (Plates 2 and 3), the Applicant has maintained its reliance on a 45dB threshold as set out in the ES (Chapter 12 of APP-150). However, for the night time period the methodology used by the Applicant (as set out in Table 12.4 of APP-150) involves calculating an LAeq level over the whole of the night time period (23:00 to 07:00), rather than calculating the noise levels in the shorter periods referred to in Table 4.1 of REP4-382 (external limit of 45 dB LAeq, 1 hour, internal limit of 45 dB L_{max}, f). The Objectors maintain that the use of the standard night time period, which has the effect of 'averaging out' any elevated levels (as might be expected from noisy construction activity) is inappropriate for vulnerable residents for all the reasons previously rehearsed (see paras 3.2.1 to 3.2.5 and 3.3.3 to 3.3.6 of REP1-367).

20. For the Applicant's day time assessment (as shown in Plate 4), a similar point applies whereby the Applicant continues to use the averaged noise levels over the whole 12 hour period (07:00 to 19:00) to assess the LAeq, whereas the Objectors maintain that a shorter time period is appropriate (65 dB LAeq, 1 hour, as in Table 4.1 of REP4-382). The Applicant has suggested that the Objectors have proposed using a level of 55 dB derived from WHO guidelines but this is not correct. The Objectors have drawn attention to the WHO guidelines (in Appendix A of REP1-367) but the specific criteria suggested for use at Whitecroft are those set out at Table 4.1 of REP4-382/. The Applicant has not engaged with those criteria or shown that they could be met, even with the introduction of the various BPM measures described in REP6-111.

21. In addition, it is to be noted that even with the reliance on BPM, the Applicant suggests that the maximum reduction as a result of those measures is “*up to 12.3dB*” and the Applicant has not presented the minimum reduction that may be achievable, so as to identify the range of potential outcomes.
22. The Applicant has referred to some recent noise monitoring (since February 2023) but this relates to a location at the roadside on Stanford Road and cannot be regarded as representative of the noise climate in the outdoor amenity spaces at Whitecroft.
23. In relation to ExQ(2) 9.1.8, the Applicant has provided some further commentary to supplement the ES findings, including the position at each facade but has not presented any new data to support the commentary so it is not possible for it to be validated. The concerns expressed by the Objectors’ acoustic consultant in relation to the assessment of operational noise (in particular at paras 4.1 to 4.4 of REP1-367) have not been addressed.
24. In relation to ExQ(2) 9.1.9, the Objectors have commented on the revisions to the REAC above. It remains the case that there has been no assessment of construction vibration that is specific to Whitecroft.

17 November 2023

ANNEX A

Document Reference: 19-0003-N2

Document Reference **19-0003-N2**

Project Name **The Whitecroft Care Home**

Subject **Deadline 6 Responses**

Date:

13 Nov 2023

Prepared by:

Johnny Berrill

Reviewed by:

Ian Yates

1 Introduction

- 1.1 This document sets out comments on the two LTC documents submitted at Deadline 6 relating to The Whitecroft Care Home. This document is for the internal Whitecroft Team only.

2 EXQ2_Q9.1.7

- 2.1 The LTC team have submitted calculated levels during construction works based on an updated analysis to the ES. These construction levels meet their criteria. We have no basis on which to question these results (LTC have not supplied information which would allow us to carry out our own construction noise calculations) but the concerns raised in relation to criteria applied and calculation approach/transparency remain.
- 2.2 There are a number of generalisations which would indicate insufficient care and detail has been afforded to the analysis, including (but not limited to):
- A statement of works being “significantly removed from the care home facility” has been applied to most if not all activities. For elements such as the bund construction and Stanford Road realignment this is clearly untrue.
 - The statement that plant will be replaced with electric alternatives followed by a statement that where electric plant options are not available, provision of the quietest plant available will be used. It is not clear what type of plant has been used in the presented analysis – electric or ‘quiet’ non-electric plant.
- 2.3 LTC have taken an unusual step in defending the suitability of the applied criteria by stating that their baseline noise measurement position does not actually represent the noise climate at the care home. We agree that LTC's original measurement position is not representative of all parts of The Whitecroft premises (although it may be representative of the southern façade and garden in the southern part of the grounds, for example). However, it is LTC's responsibility to ensure that their measurement and assessment positions are appropriate and suitably representative. This further supports the assertion that the care home was not taken seriously or considered appropriately in their analysis. LTC have had a significant amount of time, years, in which to undertake suitable measurements if there were concerns with the data being inaccurate or unrepresentative.
- 2.4 The alternative monitoring positions mentioned (LT-NML 10 and a new long term position) are not suitable proxies for the care home. The new measurement position is used to provide a



representative level at the front façade of the care home. It is difficult to tell, but the measurement position appears to be much closer to Stanford Rd than the care home façade. At such small distances a minor difference in distance from a noise source can have a notable impact on the resulting level. Further, this position and LT-NML 10 do not represent facades of the care home which are screened from Stanford Rd and the A13 and subject to different local noise sources. As such, neither the measured levels nor the daily variation can be taken as representative of the care home without additional verification measurements. To represent these long term measurement positions as such is considered highly inappropriate and misleading.

- 2.5 The fact that LTC have raised the above points to support the use of their criteria at the care home could be taken as acknowledgement that the criteria in their own right (i.e. without being qualified by use of inadequate baseline data etc) are inappropriate.
- 2.6 It is worth highlighting that LTC refer to “BS5228-1 example method 2 – 5 dB(A) change method” in their response. The construction analysis in the ES is based on “BS5228-1 example method 1 – ABC method”. For the Whitecroft this is unlikely to have a material impact on their findings. However, it raises broader questions:
 - Has the assessment methodology changed? If so, why?
 - Such a change has not been highlighted; what other changes to the assessment methodology and approach have taken place without notification?

3 EXQ2_Q9.1.8

- 3.1 The LTC have submitted a façade-by-façade breakdown of the operational impact upon the care home. These operational impacts would be considered acceptable. We have no basis on which to question these results but the concerns raised in relation to criteria applied and calculation approach/transparency remain.
- 3.2 It is difficult to review the provided analysis, provided as it is in terms of qualitative impact levels only and not numerical sound levels with and without development (the question remains as to why this is the case). Some commentary is included in the document, in particular in relation to discrepancies between these results and the findings of BYA analysis (based on very limited data provided by LTC).
- 3.3 A further concern is the lack of information provided on the degradation of performance of the low-noise road surface despite repeated requests for this clarification. On this basis it is reasonable to conclude that the analysis does not take into account the degradation of the low-noise road surface and so does not present analysis of the worst case, or even reasonable worst case, operational noise levels. Given that the proposed surfacing close to The Whitecroft is stated to achieve – 7.5 dB(A) RSIH or better, correct consideration of its degradation over time could notably worsen the reported changes in noise level.

4 EXQ2_Q9.1.9

- 4.1 In this response, as in the meeting held on 23 October, LTC have maintained their position to not undertake any assessment of vibration from activities adjacent to the care home. The



absence of sensitive equipment should not be used as a reason to ignore the sensitive residents of the care home.

- 4.2 The reason given for not assessing anything other than piling is that it is difficult. It is indeed difficult to assess accurately, but there exist methods for calculation and empirical data on vibration levels from various activities which would allow some form of assessment to take place. The use of monitoring and Local Authority conditions have been cited as protections. However, these are reactive and should not be used as a replacement for suitable analysis in the first place.
- 4.3 LTC have stated that they will not include a commitment to cease operations if elevated levels are found by the monitoring. This refusal, coupled with the refusal to analyse potential vibration impacts, and does not provide any meaningful level of protection to the residents.

5 Response to Runwood Homes Ltd comments at Deadline 5

- 5.1 Much of the commentary above applies to this response also. The 23 October meeting did not ease BYA concerns as it was clear that there is no intention to assess vibration impacts other than piling. Instead, LTC offer the consideration of any unforeseen or unanticipated issues as part of a supposedly proactive means of noise and vibration control/management, while at the same time failing to adequately address issues that have already been foreseen / anticipated.
- 5.2 There is a concern that the absence of sensitive equipment in the care home could be used to obscure concerns about impacts on the residents themselves. It is important to ensure that this does not occur.
- 5.3 The response to concerns raised on NV015 (Paragraph 9) underlines why these concerns have been raised. The LTC have confirmed our concern that, should unacceptable levels arise, they would claim it is 'disproportionate' to stop work and could claim that the BPM that are in place cannot be bettered, resulting in continuation of impacts upon the residents without remediation.
- 5.4 The response to Paragraph 12 in relation to 'due regard' for the care home residents simply restates their position to date which is that the analysis and criteria, which take no account of the particular vulnerability of the care home residents, do in fact give due regard to the potential for residents to be disproportionately affected. There is no evidence or explanation provided of how their potential to be disproportionately affected has been factored in by LTC.
- 5.5 The response to Paragraph 15 provides information which was already available, confirming the RSIH performance of the various surfaces along with the standards to which they must comply. This does not answer the query. There is no information answering the specific concern raised which is that "No information is provided on the degradation of its noise reduction qualities during that typical operational life."
- 5.6 LTC have not even acknowledged the fact that the noise reduction properties of low noise surfaces typically degrade with age, let alone addressed it in their assessment. This question has been ignored so many times at this stage as to give rise to serious concerns about the potential reasons for not answering it.