SHARPS REDMORE PARTNERSHIP

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ACOUSTIC CONSULTANTS

PROPOSED CONCRETE BATCHING PLANT
AT CRANFORD WAY,
FERME PARK,
HORNSEY

APP/Y5420/A/05/1189822

Prepared by:

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SUMMARY - London Concrete Limited

Project No: 034978

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Introduction

1. The Sharps Redmore partnership was instructed by London Concrete Limited to undertake an assessment of a proposed concrete batching plant at Ferme Park, Hornsey, in February 2003.

2. Our report containing the findings and recommendations of my noise assessment in relation to the proposal at that time (referred to as "Scheme A") is dated 22nd April 2003.

3. The scheme was subsequently revised and it is this revised proposal that is before the inquiry (referred to as Scheme B).

4. The main difference in layout between Scheme A and Scheme B, is that the batching plant has been turned through 90° so that the bay that contains the supply chute faces towards the rail lines and away from Chettle Court and Uplands Road. This measure has allowed a substantial acoustic screen to be provided between the main noise source and Chettle Court. Alongside this measure, the appeal proposal allows more efficient vehicle manoeuvring by a reduction in the length of a rail spur.

5. The local planning authority deemed that had an appeal not been lodged then it would have refused the application for three reasons. These relate to the noise impact from site activity, and from the noise and vibration impact of traffic.

6. I note that the officer's report to committee contains a fundamental error in relation to noise and the consequent conclusions of a BS 4142 analysis which were reported to be unfavourable. The noise emission level stated in the report, of 52 dB relates to Scheme A. The correct level, applicable to the appeal scheme is 41 dB. When using this correct level, the officer should have advised that a BS 4142 analysis would be favourable.

7. Moreover, the appeal scheme complies with the requirements of the Council's Environmental Health Officer; his consultation response in the committee report is stated to be:

"Noise - this service have no objections on noise nuisance grounds subject to imposition of a condition requiring that the development does not cause any increase in the pre-existing background noise level."

8. The appellant is willing to agree such a condition. In short, that should be the end of the matter in relation to noise from the development.

Assessment methodology and criteria

9. The impact of noise from a new source may be assessed by several generic methods that may be summarised as follows:

   i. the effect may be determined by comparing the noise level of the source with recommended, absolute, noise limits contained within guidance documents;

   ii. the effect may be gauged by considering the change in noise level, that would result from the proposal, against advice in guidance documents;

   iii. the impact may be determined by considering the noise level that would result from the proposal relative to pre-existing background noise level of the area (a BS 4142 approach).

   Each of these methods of assessment has advantages and disadvantages in relation to the assessment of a particular noise source in a particular area.

10. In relation to the assessment of noise emissions from site I have adopted assessment criteria by reference to the fixed limits and guideline values recommended by World Health Organisation *Guidelines*, (also contained in PPG 24 and MPG 11).

11. In this respect, a noise emission level from site activity of less than $L_{Aeq12hr} = 50$ to 55 dB would not be such as to disturb local residents. Indeed, insofar as the guideline values are highly precautionary and are set at levels that would protect even those that are particularly sensitive to noise, they are very robust assessment criteria. I have employed these criteria as such, here.

12. Although I do not believe that a BS 4142 analysis is appropriate in this case, I have undertaken one in response to the local planning authority's assertion that such an analysis would be unfavourable and in order to provide a comparison with the analysis undertaken using the guidelines values within the WHO *Guidelines*.

Survey results

13. The detailed results of my surveys are displayed in my proof of evidence and in appendices.

14. Summarising these, the typical background noise levels recorded were L_{A90} = 42 dB at Chettle Court and L_{A90} = 49 dB at Wightman Road.

Assessment details

Chettle Court

15. In relation to Chettle Court, noise levels generated by activity associated with the appeal scheme would be 41 dB. This is 11 dB quieter than the original scheme. This is around a halving of loudness.

16. The noise emission levels that would result from the appeal scheme, of 41 dB, is well within the WHO guideline values of 50-55 dB, below which effects in terms of annoyance can be assumed to be negligible.

Wightman Road

17. In relation to properties in Wightman Road, noise levels generated by activity associated with the appeal scheme would be 47 dB.

18. A level of 47 dB is well within the WHO guideline values of 50-55 dB below which annoyance can be assumed to be negligible.

BS 4142

19. BS 4142 allows an assessment of the likelihood of complaint of noise by comparing the rating level of that noise with the background noise level of the area. The difference between these two levels is indicative of complaint. The level differences in this case are +4 dB at Chettle Court and +3 dB at Wightman Road. These levels are in line with the "marginal significance" criterion of "around +5 dB". They are well below the "complaints likely" criterion of "around +10 dB".

20. Accordingly, a BS 4142 assessment, I conclude that the noise emission levels from the appeal scheme would not be of a magnitude such that complaints would be likely.

21. This BS 4142 assessment is robust because: a) the site noise emission levels displayed are maxima being in downwind conditions; b) the background noise levels are understated because part of the industrial estate is vacant.

Analysis of RPS noise report

22. I was provided with a copy of the RPS noise report on the 27th October 2005. The report is dated "November 05". I understand that a draft of this report was provided to the local planning authority and it was this draft that assisted the planning officer in the preparation of a committee report. The appellant has requested a copy of this draft report but the local planning authority has declined to provide one.

23. The report states that monitoring was undertaken at Chettle Court on the 22nd September 2005 and that "the results showed good agreement with the monitoring carried out by SRP in June 2005 ...".

24. I believe that there is a mathematical error in the RPS report and so RPS were wrong to reduce my barrier attenuation in the way that they have in calculating a level at Chettle Court of 43.4 dB. The correct noise emission level from site activity, at Chettle Court, is as per my report, this being 41 dB.

Traffic noise and vibration

25. I have been supplied with traffic flow data by Mr. Bellamy of Bellamy Roberts, traffic consultants.

26. Traffic noise is conventionally determined by the use of the Department of Transport document *Calculation of Road Traffic Noise*, CRTN.

27. The largest percentage increase in traffic that would result from the scheme would be along Cranford Way at the exit of the Industrial Estate. This equates to an increase in noise level of 1.5 dB. This change in noise level is well below the 3 dB level that PPG 24 considers is the minimum perceptible change under normal conditions.

28. The increase in noise on any public highway link would be very low; the largest change would be 0.4 dB on Tottenham Lane, east of Cranford Way. A change of 0.4 dB would not perceptible.

29. From these figures, it can be seen that the appeal proposal would have no material effect in terms of traffic noise at properties adjacent to key road links feeding the appeal site.

30. There are no objective assessment criteria that would allow a parallel analysis of traffic vibration (either airborne or ground-borne). However the Design Manual for Roads and Bridges suggests that the impact from traffic vibration will be similar or slightly less than the effects from traffic noise. This is a reasonable assumption to make in my judgement.

31. On this basis, I conclude that the degree of change in the traffic conditions that would result from the appeal proposal would not result in any perceptible change in traffic vibration at properties adjacent to key road links.

Assessment conclusions

32. In relation to the appeal scheme, site activity would generate a noise level at Chettle Court of $L_{Aeq12hr}$ = 41 dB and at Wightman Road properties of 47 dB. These levels are maxima.

33. The appellant would be willing to accept a condition limiting noise emissions to these levels.

34. The noise emission levels from site activity, of 41 dB and 47 dB would be lower than (within) the WHO guideline values of 50 to 55 dB below which annoyance (moderate or serious) can be assumed to be negligible and would be lower than (within) the MPG 11 and PPG 24 limit of 55 dB.

35. The noise level from site activity would be below the typical background noise level (L_{A90}) at Chettle Court and Wightman Road.

36. The noise level from site activity (L_{AeqT}) would be some 10 dB below the existing prevailing ambient noise level (L_{AeqT}) at Chettle Court and Wightman Road. Accordingly, noise from the proposal would not materially increase existing ambient levels in the area.

37. I do not believe that it is correct to employ BS 4142 in this case. However, I have undertaken a BS 4142 assessment and on this basis conclude that noise emission levels from the site would not be such that complaints would be likely at either Chettle Court or Wightman Road properties.

38. I believe that the local planning authority concluded that a BS 4142 assessment at Chettle Court would be unfavourable because it had incorrectly assumed a level for site activity associated with Scheme A (52 dB). However, the appeal scheme incorporates several mitigation features which has reduced levels of the appeal scheme (to 41 dB).

39. For the reasons discussed above, I conclude that the noise level of site activity would not disturb, or harm the amenity of, residents of Chettle Court or Wightman Road. In this respect, the appeal scheme would comply with policy UD2 of the revised UDP that requires that proposals should not result in "significant adverse impact on residential amenity".

40. In relation to the subject of impact from traffic noise and vibration, I conclude that there would be no perceptible change in either the existing prevailing noise levels or vibration levels, at properties adjacent to key road links, as a result of the appeal proposal.

41. My assessment of impact in relation to site noise and road traffic noise and vibration has been made against the baseline of a vacant site. This is an artificially rigorous exercise since if the site were not developed as envisaged by the appeal proposals it would likely be developed for another similar use.

42. Having considered all matters relating to noise and vibration it is my professional opinion that in relation to these issues, the appeal should be allowed.

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