

EAST WEST RAIL PHASE 1

CONDITION 19 - VIBRATION SCHEMES OF ASSESSMENT

Notes of Meeting with Network Rail

12th September 2014

11.30am – 13.40pm

St. Aldate's Chambers, Directors Meeting Room

Attending:

Andy Milne (AM)	Network Rail, Senior Programme Officer for this project
Mike Fraser (MF)	ERM
Oliver Bewes (OB)	Arup
Tim Sadler (TS)	OCC Executive Director, Community Services
David Stevens (DS)	OCC Chartered Environmental Health Officer
Fiona Bartholomew (FB)	OCC Principal Planning Officer

Objective: to reach a shared technical understanding of the Arup report and the actions which should arise from it.

1. Introductions

2. **Opening remarks:** TS noted that the City Council supports the scheme and wants it to happen. The VSoAs have however come under intense, well-informed and detailed scrutiny from local people. The Council wishes to understand and respond as fully as possible to those concerns and will not discharge the condition until it is satisfied on the points raised. The Council is mindful of the possibility of legal challenge.

3. **Procedure:** FB explained that this would normally be a delegated decision but that given the scale and nature of public concern, the case is to be presented to West Area Committee – 8th October does not now look possible, 12th November next date. AM confirmed that construction is not due to start on site until end Feb 2015 so this will not delay matters unacceptably.

4. **Arup's report:** DS noted that the report is supportive overall of the VSoA and of the responses to the public but it does introduce some uncertainties which mean that the VSoAs cannot be regarded as sufficiently robust to allow discharge of the condition. OB said that the report does not conclude that the vibration criteria will be exceeded but it does conclude that there needs to be quantification of some of the cautious and incautious aspects before a conclusion as to robustness can be drawn.

5. **The previous ERM work:** the IE had used the previous ERM work to check his conclusion that the VSoA is robust. MF said that the ERM data was not collected for use in a prediction scheme and should not be used in that way. The data was primarily collected to address concerns of likely structural damage hence the internal measurements were taken near the walls rather than in the middle of the rooms. A secondary aim was to quantify baseline vibration and measurements at the edge of the room results in a stringent assessment for these purposes.

Action – NR to provide a commentary on the ERM data, its use in the EIA and issues around using it to check or clarify the VSoA.

6. **Arup's 4x multiplier for external to internal vibration:** OB confirmed that this is not based on published data and that it is not industry guidance. It is Arup's current experience examining mainly brick-built, semi-detached housing and a small number of low rise residential flats. It is a combination of work done in connection with HS1, the Gospel Oak to Barking line and measurements of vibration from tunnelling activities. The Gospel Oak study included a single line; 3 sites measured for 1 month at each location; the geology was consistent in the study area; track condition poor. MF stated that there is a difference between the EIA stage when a large factor could be applied to ensure that all properties that may be affected are considered in further studies and the detailed design stage when the focus can be on an assessment at the key affected properties where specific problems and opportunities for mitigation may exist and factors such as building type may need to be considered to achieve a more realistic result. Also that the ANC guide (which is accepted industry guidance) provides alternative building specific corrections factors for estimating internal vibration. OB confirmed that his concerns arose from the fact that Atkins failed to justify their use of zero rather than a 4x multiplier.

Action - NR to explain why zero has been used by Atkins; and comment on the relevance of the 4x multiplier to this scheme.

7. **Inter-train variability:** OB said that this is not a critical consideration but the measured variability of freight train vibration in the Atkins sample does not correlate with Arup's analysis of heavily trafficked routes. This is likely to be because it was not practical at the time to gather a large sample of data.

Action – NR to provide further justification for their data set and comments on Arup's concerns about it.

8. **Improved track quality:** OB said that at Gospel Oak new track reduced vibration by more than half. He suggested that the output of a track recording car would help to quantify the 'before and after' vibration levels for this locality, or if this could not be done the roughness profile for other sections of track maintained to the current standards and the proposed standards could be provided.

Action – NR to try to quantify this aspect.

9. **Speed of trains:** there was discussion around the speed that trains will achieve in practice near to Quadrangle House and Bladon Close.

Action – NR to provide a commentary reflecting on this.

10. **De-vegetation:** AM asked if there are any procedures to follow regarding clearance of vegetation in preparation for the scheme to start in early March 2015. NR would like to take the opportunity to carry out this work before the bird nesting season commences.

Post meeting note – FB reports that although NR is able to clear vegetation within their demised area without the permission of the City Council, in the past this has been a very controversial issue. NR is asked to give the City at least 2 weeks' notice of such work so that City officers and local Councillors can be forewarned. It would be advisable to delay this work until after discharge of condition 19 in order that additional controversy is not provoked.