

MINUTES OF ORAL EVIDENCE

taken before

HIGH SPEED RAIL COMMITTEE

On the

HIGH SPEED RAIL (LONDON – WEST MIDLANDS) BILL

Wednesday, 21 January 2015 (Morning)

In Committee Room 5

PRESENT:

Mr Robert Syms (Chair)
Mr Henry Bellingham
Sir Peter Bottomley
Ian Mearns
Mr Michael Thornton

IN ATTENDANCE:

Mr Timothy Mould, QC, Lead Counsel, Department for Transport
Mr James Strachan QC, Counsel, Department for Transport

Witnesses:

Cllr Peter Delow, Cubbington Parish Council
Professor Mike Geddes, Professor of Public Policy, University of Warwick
Ms Madeleine Wahlberg
Mr Philip Riley
Mr Robert McGregor

Mr Rupert Thornely-Taylor, Institute of Acoustics

IN PUBLIC SESSION

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(At 09.30 a.m.)

1. CHAIR: Order, order. Welcome to the HS2 Committee. Welcome back, Mr Delow. I do not think we need to know where you live as we know from yesterday. Would you like to continue, please?

Peter Delow

2. MR DELOW: My petition is about HS2 operational noise only. It concerns the way that the promoter has assessed the effects that HS2 operational noise will have on my home. My concerns are with the information in the Environmental Statement, information that may be missing from the Environmental Statement and the assumptions that lay behind the assessment.

3. I am not a qualified acoustician and I do not have the means to appoint a suitably qualified person to give me expert testimony. Also, I have not been able to carry out any noise measurements to support my case. However, I have done a fair bit of research and as a chartered engineer I think I have the training and experience at least to enable me to analyse and comment reasonably intelligently on the matters. I also recognise that the lead authority on noise will be presenting expert evidence to the Select Committee later in this process. It is not my intention to pre-empt or usurp that hearing. As such, you might think, sir, that I should leave my concerns to the lead authority. The problem with that course is that my appearance has been scheduled before theirs. So, I don't know what they are going to say and I don't know whether they are going to cover any or all of my issues.

4. I think I will be about half an hour, sir. I recognise that the Committee has a very full day ahead of it but I hope you will be able to spare me the time to say what I have to say. I consider, actually, that in the main the material that I am going to bring to your notice is something that the Committee has not heard yet.

5. SIR PETER BOTTOMLEY: Can I just ask you to help us? Can you go to your last pages first so that we have in mind what you are after, please, because otherwise it builds up as though we are reading a book and I always try to read books from the back to the front so that I know what is going to happen.

6. MR THORNTON: He has always been perverse.

7. MR DELOW: Well, that has thoroughly unsettled me thank you very much. So, I think we need to go to A711(28). I understand that we are going to have a supplementary Environmental Statement in due course. As specific to my location, the information in that new Environmental Statement, I would like a more representative assessment that is based on levels at my location. I would also like to have some information on the noise mitigation measures that have been carried out, if any, at my location. General to that document I would like to see a more precautionary approach adopted in the assumptions made. I should like to see more accurate noise method included and I will explain why when I start. I would also like to see peak noise mapping included. I will need some clarification of the LpAmax figures that are in these documents, in particular that they are façade measurements and also whether any use of baseline levels will be required for determination of LOAEL in terms of max sound.

8. The last point is one that you have said that you don't want me to cover because you have already heard enough about it, but it is in there anyway. Can we go to the next slide, please? Also, I would like to see some consideration of LOAEL in the daytime as well as at night in terms of peak noise, and I would like to see a change in the parameter used for the annoyance determination to Lden. I will explain that obviously when I get there. Finally, some general points: to confirm assumptions made about train noise sources by measurement, to explain the mitigation proposed, the philosophy, to confirm monitoring of the rectification procedures, and to provide undertakings on the introduction of new railway stock in future because certain assumptions have been made that that will be quieter. Something I mentioned yesterday was to have user-friendly policy documents and also something you also heard about at length yesterday, which is lowering of the track in the vicinity of my home.

9. SIR PETER BOTTOMLEY: Can I make another suggestion? Obviously, Mr Thornely-Taylor is going to be invited to the table. Rather than you take us through what you have learned as a chartered engineer, it might be an idea if he gave some response to the points and then you could ask him and we could listen in on the conversation. You have obviously put a lot of work into the presentation, but if you take 20 minutes over it, we are going to forget some of the technical detail which we are

not qualified for but I think that listening to a discussion between you and Mr Thornely-Taylor would actually achieve your object and help us rather more.

10. MR DELOW: Could we take it in the order that is in my presentation? That would help me.

11. SIR PETER BOTTOMLEY: Forgive me, can we just go through together on the pages because much of it is not necessary for the discussion between you and Mr Thornely-Taylor. You talk about the current soundscape.

12. MR DELOW: Yes.

13. SIR PETER BOTTOMLEY: They have obviously taken readings.

14. MR DELOW: Yes. It is important that I establish that the soundscape of my home is different to the soundscape where the measurements were made.

15. SIR PETER BOTTOMLEY: Fine. That again, I think, is something which will come up in the discussion. You have the operational noise map, which is number five.

16. MR DELOW: And there I would like to show you that my home is way outside the 40 dB contour. I am twice as far yet I am actually above LOAEL, so there is something wrong with the mapping.

17. SIR PETER BOTTOMLEY: Right. That, again, I think comes out well with Mr Thornely-Taylor. I think if I may say, six and seven would confuse us.

18. MR DELOW: Okay, yes. What I wanted to point out there is that the information that you read is spread around.

19. SIR PETER BOTTOMLEY: Indeed, yes.

20. MR DELOW: And that most people will not go to that, sir.

21. SIR PETER BOTTOMLEY: I understand. That then takes us, I think, to nine, which is relevant, which is the receptor's locations, which I think may come up again with Mr Thornely-Taylor and you together, if I could suggest that. That applies to number 11 as well. I am not sure what we are going to get from 10.

22. MR DELOW: That is just looking at the figures, isn't it?
23. SIR PETER BOTTOMLEY: Right, okay. I expect we will be taken through by the promoters. That applies to 12 as well. Thirteen is similar to 11 and nine, I think, and then we come on to expanding the papers, which I am sure that Mr Thornely-Taylor will be taken through as to what the noise levels are.
24. MR DELOW: Yes.
25. SIR PETER BOTTOMLEY: That then brings us on to definitions of LOAEL and the equivalent sound levels, which will not be new to us because we have had other people talk to us about that kind of thing as well.
26. MR DELOW: Yes, I think perhaps the L_{pAFmax} may be new because I had not myself heard anyone talk about that in terms of the fact that it does not actually seem to be in the Environmental Statement.
27. SIR PETER BOTTOMLEY: Perhaps again that might come up with the promoters. Then I think we come to the question of precautionary approaches and mitigation, which I think can be asked.
28. MR DELOW: Yes.
29. SIR PETER BOTTOMLEY: Perhaps I can suggest that if you want to give us a bit on the Noise Mitigation Policy Statement and then we can invite the promoters to bring Mr Thornely-Taylor in and have a discussion. I think that would be really helpful to us.
30. MR DELOW: So, that is?
31. SIR PETER BOTTOMLEY: I have it as 26.
32. MR DELOW: 26?
33. SIR PETER BOTTOMLEY: Yes.
34. MR DELOW: I had not actually intended to say anything about that, as we mentioned it yesterday.

35. SIR PETER BOTTOMLEY: Okay, all right. Well, we will just read through. I am not trying to bully you; I am trying to be helpful to you, to help us and to help the whole process.

36. MR DELOW: I am sure you are being helpful to me. It just doesn't feel that way at the moment, Sir Peter. I am in your hands, sir.

37. CHAIR: Do you want to put Mr Thornely-Taylor on, Mr Mould?

38. MR MOULD QC (DfT): Yes, by all means.

39. CHAIR: Okay. It will probably be more productive to do that. If you give us your presentation and then we will have 15 other presentations.

40. MR DELOW: My only worry is that I may forget something if I am trying to search through my notes, and I would hate to do that.

41. CHAIR: Don't worry. We will get Sir Peter to give you back-up.

42. MR DELOW: Yes, I am sure he knows more about my presentation than I do, actually.

43. MR MOULD QC (DfT): If Mr Delow feels on reflection that he has forgotten something, if he could let me know, because as he himself said, the Committee will be hearing more about noise during the course of the proceedings and I will ensure that we get that point covered as and when. Mr Thornely-Taylor, I wonder if we could just look at slide A711(9). The first point made by Mr Delow in his presentation is a concern about whether the location at which we measure baseline noise and on which we rely in the Environmental Statement to build up the noise assessment for his and other properties in Pinehurst is a truly representative location. I wonder if we could first comment on that. For the record, the actual assessment point is CNO28L. That is a location which is on the eastern side of the trace. It might actually be helpful if we just see where it is on a plan. It is P3364. The petitioner's property is outlined in red just to the eastern side of Cubbington in Pinehurst Close. The measurement point, the place where the noise measurements were taken for the purposes of the operational noise assessment, is CNO28L, which we can see is to the east of the railway line. North is on the left here so if you go up the page you can see it; there it is. That is the baseline

measurement. The assessment point for this property and others in Pinehurst Close is 213490, which is shown in the box. You will find that those references are set out in the table of noise measurements and predictions that is included.

44. MR MOULD QC (DfT): So, the first question, in a nutshell, is how can a measurement point at CNO28L be representative of existing noise conditions at a property in Pinehurst Close where the petitioner's home is located.

45. MR THORNELY-TAYLOR: There is also a monitoring point called CN111S just outside the red line around the petitioner's property. The L and the S signify 'long term' and 'short term'. The L measurement results are the robust ones because they are over a longer period and take account of day-to-day changes. The short-term measurements are of value and they are reported in volume 5 of the ES but they are, as they say, short-term measurements and are slightly less robust.

46. It is possible that the baseline noise measurement at Mr Delow's property is slightly less than the long-term measurement because, as he points out, the road traffic speeds are lower but there are two sides to the use to which you put the baseline noise measurement. If the long-term measurement is a slightly higher number, that gives a worse case assessment when you come to combine noise from the railway with existing 'do nothing' as it is described you get a slightly worst case position on the other hand, from the point of view of noise change it is slightly worse if it is the case that there is a slightly lower background noise level at Mr Delow's property. But it does not change the conclusion of the Environmental Assessment. He remains identified as a figure of 43 LAeq which is, in fact, not due to railway noise; it is due to traffic noise consequent upon the diversion of the road. Where the diversion is shown as beginning a little to the east of Mr Delow's property, he is within the spatial scope of the assessment and therefore an explanation for what I think is a little bit of puzzlement on his part as to why the figure is 43 is that it is actually road noise that is leading to that figure, not railway noise.

47. CHAIR: What I shall do, Mr Mould, after you have finished on each slide is go to the petitioner so that we walk through it rather than the petitioner be put in a position where he is asking 15 questions at the end. Carry on, Mr Mould.

48. MR MOULD QC (DfT): Thank you. Perhaps we could then turn to slide

A711(11), which is a related point. I think the key point here is the second bullet. The petitioner is surprised that the assessment that is being arrived at for his property is 43 dB, which is, on the face of it, higher than an assessment which is, as you can see, significantly distant from the railway line compared to the edge of the 40 dB LOAEL contour. He points out that as a rule of thumb noise decays at 6 dB every doubling of distance, so you would expect the noise levels to reduce rather than to increase. Is there an explanation for that?

49. MR THORNELY-TAYLOR: That rule of thumb is for point sources. A railway is a line source, a long string of sources along the length of a train. For a line source it is a 3 dB drop per doubling of distance without taking anything else into account. But, as I said a moment ago, the 43 actually is not railway noise so you wouldn't expect it to come out of an extrapolation of railway noise with distance.

50. MR MOULD QC (DfT): The third point in relation to the concerns he raises more specifically about his own property is the noise mitigation. For that I think we can go to one of our plans, P3365. We remind ourselves from yesterday that the railway as it passes to the east of the petitioner's property is running through the deep retained cutting through South Cubbington Wood and then into cutting as it proceeds northwards. We can see that on the plan in front of us. The retained cutting is to the right-hand side; the more conventional cutting is as the railway proceeds northwards to the left. We can see that there is a continuous green line shown running along the edge of the cutting to the west of the railway line along the key that says, 'Engineering, EG Cuttings'. Does that give us a clue as to the noise mitigation that was assumed for the purposes of the Environmental Assessment and for design at this point of the railway?

51. MR THORNELY-TAYLOR: Yes, it does. The cutting acts has a noise barrier in this location.

52. MR MOULD QC (DfT): At the present time are we making any specific assumption that there would be a need for any noise fencing here in addition to the cutting?

53. MR THORNELY-TAYLOR: The railway contribution to that 43 figure is, from memory, about 37 I think, and that is a low figure, which would not merit further noise mitigation.

54. MR MOULD QC (DfT): So, we are back to the point that the traffic noise is the primary component, or that it is the traffic noise that gives rise principally to the noise levels at 43 dB?

55. MR THORNELY-TAYLOR: Yes, that is correct.

56. CHAIR: Mr Delow, do you want to ask any questions on this first section?

57. MR DELOW: Yes. Can I first of all ask that we do this in steps because that is rather a lot for me to respond to in one go?

58. CHAIR: Okay, sorry.

59. MR DELOW: And I have to jump around through various slides and it is making it very difficult for me. Can we go to A711(13), please? There is a photograph there of the measurement location. You can see that it is actually in South Cubbington Wood, which you may have heard of. It is nothing like Pinehurst. It is full of trees, for example. Trees are a very good place to make background measurement noise if you want it to be higher because the wind tends to rattle the branches and rustle the leaves. There is no screening there at all from the road. Where my house is, it is screened quite well from the road except for a very short section of the end of the road. Mr Thornely-Taylor has already mentioned the speed limits being different. Now, he said that the local measurement point in Pinehurst, the short-term measurement point was used to correct the figures. There is no evidence of that in the Environmental Statement and when I compared other locations that use CNO28L in different places, which were similar distances from the road to the measurement location of Pinehurst, they all had the same figure. So, I don't believe that that location has been used to correct CNO28L. I just don't believe it.

60. MR THORNELY-TAYLOR: The consequence is a worst case assessment. If the baseline due to existing road noise at Mr Delow's property were lower, then that 43 figure would come out lower and the assessment would be a smaller environmental impact. So, it has produced, if anything, a worst case assessment.

61. MR DELOW: It has produced a worst case assessment for the background noise level, which means it is a higher assessment than it may actually be. That is my point.

62. MR THORNELY-TAYLOR: It does not disadvantage the petitioner.
63. MR DELOW: I am afraid I don't see that point at all, sir.
64. CHAIR: Well, ask him why not. Why doesn't it disadvantage the petitioner?
65. MR THORNELY-TAYLOR: Because if the baseline figure were lower, the figure of 43 would be lower and there would be a smaller identified environmental impact.
66. MR DELOW: Okay. Could we come on to A711(10), please. This is the assessment of airborne operational noise. If we look at the first two left-hand columns where the figures are shown in red, that says, 'Proposed scheme' only, nothing else, just the proposed scheme, and it says 43 dB night. So, I don't understand the point that Mr Thornely-Taylor is making that it is due to road noise because road noise is not included in that figure according to what it says on the table.
67. MR THORNELY-TAYLOR: It is because the scheme involves realignment of the road and the petitioner's property is within the spatial scope of the assessment of noise from the realigned road.
68. CHAIR: Is that operation or construction?
69. MR THORNELY-TAYLOR: It is operational noise but where relevant it includes changed and altered roads.
70. MR DELOW: But we are playing with words here, sir, because that is noise due to HS2. It is noise due to HS2 because it is due to HS2 having the road realigned.
71. MR THORNELY-TAYLOR: Yes, to that extent, that is true.
72. CHAIR: Any more questions?
73. MR DELOW: Would you just bear with me a moment?
74. CHAIR: Yes.
75. MR DELOW: Can we look at A711(15), please? If you look at the right hand column that says, 'Data source coding'. In the key at the bottom which identifies what

those letters and figures mean, if you look at the bottom data source code, the small letter 'c', it says, 'Data are considered to be an estimate of the sound findings'. That is the third lowest level down in the hierarchy of how good the assessment point is. So, it is not very good. It is not a very good approximation to the background noise level. That is what the ES is saying.

76. MR THORNELY-TAYLOR: That is what it says, but the consequence is not in any way an underestimate of the environmental impact in this particular case.

77. MR THORNTON: Can you explain why that is the case?

78. MR THORNELY-TAYLOR: Because if there were a higher degree of certainty about the baseline noise level, all the evidence shows it would result in a slightly lower figure than the 43, which has led to the impact assessment, which we have been discussing. So, it would lead to a lower environmental impact as a consequence, so it does not disadvantage the petitioner.

79. MR THORNTON: So, you are saying when you look at the estimate, you are taking the top end of the estimate?

80. MR THORNELY-TAYLOR: Yes.

81. MR THORNTON: So, you actually might well find that the noise is less than that. When you are taking an estimate you are not going for an average or a minimum; you are going for an absolute maximum that you think it could be?

82. MR THORNELY-TAYLOR: It is not quite that, sir, but in this particular case if there were a long-term measurement location at Mr Delow's property it might produce a smaller number but it wouldn't produce a smaller overall impact.

83. MR DELOW: Can we just come back to the point that I made earlier, that by comparing all of the locations that are based on that simple measuring point, they were the same distance from the road. At different distances from the measuring point the figures are the same. Therefore, I don't understand what Mr Thornely-Taylor is saying at all. There does not seem to be any particular worst case applied to Pinehurst.

84. MR THORNELY-TAYLOR: The differences are not as great as they appear.

The point about there being trees there, for example, is actually a relatively minor one. The effect of trees over a short distance on noise levels is very small indeed. It is true that if there were (a) leaves on the trees and (b) wind great enough to rustle the leaves that can have an effect, but for other reasons, noise monitoring when the wind is that high has to be discarded anyway because it can cause noise into the microphone windshield.

85. MR DELOW: There is a very easy way to settle this, sir. I am prepared to make my property freely available. I won't charge £1000. HS2 can come and take measurements at my location and prove that they are right.

86. MR THORNELY-TAYLOR: They are going to be a little nugatory, sir. I don't think we'd be any better informed. I think we would still have the same conclusion.

87. CHAIR: But the petitioner might be happier.

88. MR THORNELY-TAYLOR: Indeed. I fully accept that.

89. CHAIR: Have you finished questions to do with your home?

90. MR DELOW: Yes.

91. CHAIR: Okay. Mr Mould?

92. MR MOULD QC (DfT): The next series of asks, I think, are more general. I think the first of those I can ask you to comment on relates to slide A711(16). It is the reference to the Lmax criterion. Could you just summarise for the Committee the way in which the Lmax criterion fits into the overall noise assessment for operational noise?

93. MR THORNELY-TAYLOR: I think the first thing is that Mr Delow asked about there being an Lmax criterion for day as well as night but Lmax is not sensitive to time of day. Trains run at the same speed if it happens to be after 23.00 and so a LAmax test applied at night gives the same answer as if it were applied by day, and it is not really necessary to qualify it as being a night test because it will have the same effect by day. It is as stated in this page, which comes from Information Paper E20, which applies, as I explained in my presentation in July, the Noise Policy Statement, I think in more direct terms than you find in the ES itself.

94. The Lmax is to be determined at the façade, which means there has to be a numerical correction between the general ES approach predicting free field noise levels, but façade corrections are dependent on the façade, whether it is facing the source or away from the source. You cannot plot contours of façade LAmax with precision. You have to plot free field contours and I think that would cause more confusion than assistance because of the need for the inexpert reader to understand about façade corrections and you do see all the LA maxes in the detailed ES volumes for each assessment location.

95. MR MOULD QC (DfT): Can we turn to P336?

96. CHAIR: Let's do it slide by slide. Mr Delow, do you want to jump in? Do you have questions on this slide?

97. MR DELOW: Yes, the first point that has not been confirmed again is that this requirement was not in place at the time that the Environmental Statement was written. Therefore there is nothing in the Environmental Statement referring to this. Therefore, the Environmental Statement is out of date to a great extent because this affects every receptor location within the ES and there must be hundreds of them.

98. MR THORNELY-TAYLOR: All the LAmaxes are given in the Environmental Statement. The LOAEL concept does not have a place in Environmental Assessment Regulations. The requirement is to assess significant effects and LOAEL is an order of magnitude less.

99. MR DELOW: I cannot see that point because this states that it is going to be applied as a measure of LOAEL and an indication of where LOAEL has been exceeded. That is what the ES is about. The equivalent continuous sound level measurement of LOAEL is covered in the Environmental Statement. Therefore, I can't for the life of me see why this one wouldn't be included as well.

100. MR THORNELY-TAYLOR: It is included, sir. It is simply that the extra layer of Noise Policy Statement for England overlies the underlying assessment in the ES.

101. CHAIR: Mr Mould, the next point?

102. MR MOULD QC (DfT): To illustrate the point that Mr Thornely-Taylor is

making I wonder if we can just turn up P3365 as this may help, I hope, to give some reassurance. This is a map that is I think taken from the ES, although there is an equivalent to it in the map book for this community forum area. We see, Mr Thornely-Taylor, as we have seen on other maps within this series, the LOAEL contour, which is the grey, do we not?

103. MR THORNELY-TAYLOR: Yes.

104. MR MOULD QC (DfT): And then if we just take the cursor on to the Coventry Road, which means going to the left, the Coventry Road is that way. If we go down the road towards Cubbington about an inch, we see there is a property which has been coloured brown. Do you see that?

105. MR THORNELY-TAYLOR: Yes.

106. MR MOULD QC (DfT): That is a property which is predicted to experience moderate adverse effects due to an increase in noise. Is that reflecting the design criteria that are described in E20?

107. MR THORNELY-TAYLOR: They have certainly been applied to it. Its brown colouring in this case is because there is, as the key in the top right shows, moderately adverse noise change of 5 dB to 10 dB but in the tables each property has all the relevant sets of numbers against it.

108. MR MOULD QC (DfT): Including the LA_{max}?

109. MR THORNELY-TAYLOR: Including the LA_{max}, yes.

110. MR DELOW: May I just come back on the façade? I am beginning to feel that that has become a very appropriate word. Mr Thornely-Taylor says that it depends which way the wall is facing, which is a fair point, except that in the Environmental Statement a general figure for correction is applied, which is 3 dB higher in free space for non-railway noise and 2.5 dB for railway noise. I can give the reference if required. So, the Environmental Statement is happy with making a generalised correction for the difference between façade and free space.

111. My main point is that the ES does not differentiate between façade and free space

at all. It actually says that all the levels are free space.

112. MR THORNELLY-TAYLOR: Yes, that is correct.

113. SIR PETER BOTTOMLEY: You are agreeing with that?

114. MR DELOW: I am agreeing with what?

115. SIR PETER BOTTOMLEY: Well, you put it to him and he said, 'Yes'.

116. MR DELOW: Yes, I am happy for the confirmation as regards the free space.

117. SIR PETER BOTTOMLEY: Yes, we heard that five minutes ago as well.

118. MR DELOW: Well, I am sorry but anybody reading the ES wouldn't understand that because it is not stated clearly. They have requirements for façade. There is a requirement for façade already in the ES which is for SOAEL and yet there is no indication that the levels given are free space and therefore you have to modify them to make them façade levels.

119. MR THORNTON: Mr Delow, could you link that to your prediction in what you are trying to achieve? Could you say how that affects what you are trying to achieve?

120. MR DELOW: What I am trying to achieve is clarification because I believe that if this criterion is applied to my property then I am above LOAEL without dispute, whereas there is dispute about the equivalent continuous sound level determination of LOAEL because of the existing baseline noise, which we have already talked about and whether I accept those figures, but because of the baseline level, I don't exceed LOAEL on the equivalent continuous sound level.

121. SIR PETER BOTTOMLEY: How much are you missing?

122. MR DELOW: I have a zero dB increase.

123. SIR PETER BOTTOMLEY: From the railway?

124. MR DELOW: From the railway.

125. SIR PETER BOTTOMLEY: Are you disputing that?

126. MR DELOW: Well, I already have disputed it because it is based on the baseline noise levels that have been measured.

127. SIR PETER BOTTOMLEY: No, but do you believe you are affected by railway noise itself?

128. MR DELOW: I believe that the railway noise including the noise from the increased height of the road will be in excess of LOAEL.

129. MR THORNTON: So, you are talking about the road and the rail together, the road being higher because of the works done by HS2, so if the road is going to be noisier because of the works that HS2 is going to be doing by moving the road, that will be noisier, and you are also saying that the railway in operation will be noisier in comparison to your current noise levels than HS2 are saying it will?

130. MR DELOW: I am not saying that; HS2 are saying that, sir, yes.

131. MR THORNTON: So, you are saying that the noise level is going to be higher?

132. MR DELOW: I am accepting that the noise level is calculated by HS2 Ltd for the effects of HS2. Those are higher than LOAEL. The reason that I don't have an effect from HS2 is because my baseline noise level, or the 'do nothing', it is called in the Environmental Statement, is assessed to be as high, in fact higher, than the noise resulting from HS2.

133. MR THORNTON: And have you used an app, say, on your smartphone, or something to assess it yourself, sir?

134. MR DELOW: No, because I don't think that smartphone applications really work well.

135. MR THORNTON: We found them quite accurate, didn't we, Sir Peter, when you were using yours? You found it was pretty close. It would give you an idea.

136. SIR PETER BOTTOMLEY: If I was concerned about existing noise level at my own property and I put the amount of preparation in – this is not a criticism – I think I would have, one way or another, done a measurement to be able to say, 'Actually, it turns out to be 52', or '35', whatever.

137. MR DELOW: I am an engineer, Sir Peter. I don't use toys.
138. SIR PETER BOTTOMLEY: Well, I haven't used the word 'toy'.
139. MR DELOW: I did.
140. SIR PETER BOTTOMLEY: I know.
141. MR THORNTON: It would just give you an idea, wouldn't it?
142. MR DELOW: Not of the equivalent continuous sound level because it won't measure that. It has to be measured over 16 hours.
143. SIR PETER BOTTOMLEY: I think you said that you accept that the railway itself is not going to increase your noise.
144. MR DELOW: I don't think I did say that.
145. MR THORNTON: He didn't say that.
146. SIR PETER BOTTOMLEY: How much do you think it is going to increase your noise by?
147. MR DELOW: What I said was that the noise from HS2 – I am not going to differentiate now because it has been pointed out to me that it is not due to the trains; it is due to the roads – the noise from HS2 is in excess of LOAEL measured on the equivalent continuous sound level.
148. MR THORNTON: That is because your baseline is wrong.
149. MR DELOW: No, I don't think that is in dispute because that is actually in the Environment Statement. There is a figure of 43 dB at night which is above 40, which is LOAEL.
150. MR MOULD QC (DfT): So, you are saying that on the bottom line here – again, Mr Thornely-Taylor will confirm this, I am sure – we can see the figure of 43 at night for the proposed scheme only. That is the relevant figure for LOAEL, isn't it, and that is in excess of the LOAEL threshold, Mr Thornely-Taylor?

151. MR THORNELY-TAYLOR: Yes and the L_{max} – these would be E and L_{maxes} by the time they are considered as façade L_{maxes} – certainly at the time of the ES preparation when TSI-compliant trains were considered, and that is what the higher of the two numbers, 58 and 61 applies to, that is above LOAEL. 58 is right on the borderline of being above LOAEL from HS2 trains only. There are no TSI-compliant trains due to the absence of the HS1 link.

152. MR DELOW: Can I just confirm with Mr Thornely-Taylor, sir, that those figures are free space?

153. MR THORNELY-TAYLOR: They are.

154. MR DELOW: So, the equivalent façade level would be higher?

155. MR THORNELY-TAYLOR: Yes.

156. CHAIR: Mr Mould, do you want to continue?

157. MR MOULD QC (DfT): Yes. I think that the Committee is familiar with the way that this table works. So, unless there are any further questions relating to that, I just put it up to get a context for this particular topic. I think the next point that is raised is probably best addressed by reference to A711(22). This is a reference to L_{den} . If we glance briefly at A711(23), Mr Thornely-Taylor told the Committee when he gave his presentation back in July that L_{den} comes from European guidance, does it not, Mr Thornely-Taylor?

158. MR THORNELY-TAYLOR: Yes, the Environmental Noise Directive is what brings about the requirement for noise mapping, which we have for agglomerations and transport corridors. It is quite common that when I am in the seat like this it is often put to me that we should be using L_{den} because it looks as if it is more sophisticated and more informative, but it is not at all that for something like a railway in our case or as commonly arises in the context of airports such as Heathrow where in both cases the rate of noise events per hour is exactly the same between 1900 and 2300 evening period as it is between 0700 and 1900. All that you get when you apply the L_{den} formula is the consequence of a 5 dB penalty for evening noise. It has the effect of raising the numbers attaching to the contours but nothing else. You just get larger contours with

different labels telling you exactly the same information about exactly the same noise because what has happened is that the evening penalty has been applied when in fact the evening noise was no different from the day noise. And the night penalty has no effect because of the number of trains through the night on a per hour basis is sufficiently fewer than during the day for the 10 dB penalty to do nothing to the contours in Lden terms. So, it can be done. It is done for noise mapping for environmental assessment. It is less informative than the approach which has been taken, which is to do day contours and separately to do night contours. So, using Lden you don't see the night separately; you see it all lumped into one through that formula and it is less informative and less helpful.

159. MR MOULD QC (DfT): Just before I hand over to Councillor Delow, he has drawn our attention to a document that was produced by Chiltern Railways in support of an application that they made for a Transport for Works Act order to make improvements to the Chiltern Line. That is this document that I am holding up now. That document was produced in 2011. Does the approach to noise measurement and prediction in relation to the operation of noise that would result from that scheme, as described in that document differ substantially from the approach that we have taken in the present case?

160. MR THORNELY-TAYLOR: We have taken a more stringent approach. It has developed from the classic approach which you find in the Chiltern document but we have moved on in many ways.

161. MR MOULD QC (DfT): Thank you.

162. MR DELOW: Can I take the last point first? It was not the intention of bringing out that document to say that we should be using the same methodology; it was really just to illustrate that that was an example of perhaps a more user-friendly approach to telling people about noise.

163. Can I go back to this point about evening and Lden? The evening time in fact in my view could be more important than night time because the evening time is a period when people are at leisure. Leisure in the summer would often involve being out in the garden. Therefore, I think that the annoyance sensitivity in the evening is very critical to the way that the impact of sound is perceived. I do not quite understand the point

about, 'Oh, it's only to do with mapping'. What the EU is after is a harmonisation of indicators across the EU. It seems to me that a project like HS2 in many ways should be an exemplary project. Why would that not want to harmonise into EU requirements? It seems to me that there are good reasons for doing Lden. I can understand why, and Mr Thornely-Taylor said why he doesn't want it to be used. It actually increases the levels. If you increase the levels and keep the same LOAEL level for example, or the SOAEL level, then obviously you are going to bring more properties into consideration.

164. MR THORNELY-TAYLOR: The LOAEL and SOAEL levels would, of course, change if they were expressed in terms of Lden to take account of the fact that it was a different scale. In Lden terms the figure of 55 is widely used as the limit of the contours and in fact we use, as I have explained, 50 for daytime as LOAEL. If it were converted into Lden there would be about 2 dB to 3 dB difference. The contours would look the same shape; they would just have different numbers to them and we would express LOAEL, for example, instead of 50 for daytime, and something like 52 or 53 Lden. We would be in the same place. We would just have more complexity and more information without any actual additional assistance.

165. MR MOULD QC (DfT): Would it tell us anything that we do not know from the work we have done about the likely significant effects of the operation of the railway on those who live in its vicinity and in terms of designing the railway to a standard that will enable an appropriate noise environment to be produced for those living in the vicinity of the railway?

166. MR THORNELY-TAYLOR: It would add nothing in terms of additional information.

167. MR MOULD QC (DfT): Thank you.

168. MR DELOW: If it would add nothing and if it takes nothing away and if it fits in with modern practice in Europe, then why don't you do it?

169. MR THORNELY-TAYLOR: I think, sir, Mr Delow, does have a point but it is a very complex topic and it is quite difficult for a non-expert to get his or her mind around it. Another set of contours adding nothing of assistance from a decision-making point of view I don't think would be helpful.

170. MR MOULD QC (DfT): If we then turn to A711(29), I think we are at 'other' on this page now. 'Confirm assumptions made about train noise sources by measurement'. I am not sure whether that takes us beyond what we have discussed already but just remind the Committee, what has been the approach for the purposes of the Environmental Assessment and design about the likely levels of noise from the trains themselves?

171. MR THORNELLY-TAYLOR: It is set out at some length in Annex D2 to the methodology annex to volume 5. The different sources on the train are separately considered because they change in level with speed at different rates and each of them has been studied both from first principles and by reference to published data research results about, for example, aerodynamic noise. It is set out at great length in that annex. It is true, as we have already established, that the HS2 train does not yet exist and we cannot measure it.

172. CHAIR: Do you agree with that, Mr Delow?

173. MR DELOW: Do I agree with what sir, sorry?

174. CHAIR: With what he was saying about all the noise measurements set out in great detail?

175. MR DELOW: Can I have my turn on that, please?

176. CHAIR: Yes.

177. MR DELOW: Yes, they are set out in great and nauseating detail, to be honest, but I have read them and I do have problems with them and I would like to tell you what those are.

178. CHAIR: Yes.

179. MR DELOW: Can I just find my slide? Could we go to A711(24), please? I have headed this, 'A precautionary approach'. Can I handle these three things together, which includes the one we have just been talking about because they are all part of the same thing, really? Design speed: the noise has been calculated at 360 kilometres per hour maximum, and in fact some trains will go at lower speeds to match the operational

conditions. The railway has been designed for 400 kilometres an hour. I do realise that on day one the trains will not be running at 400 kilometres an hour at any stage. However, it has been designed for 400 kilometres an hour, but the noise mitigation has not been designed for 400 kilometres an hour. That is just my point on that.

180. Rolling noise. There is a paper here by SNCF which was measuring noise on TGV and similar trains. There is a section in there, and I have a quote here because they actually noticed that while they were doing the measurements there were some track works carried out. When the track works were carried out the roughness of the track was degraded probably because of ballast or something being thrown up while they were doing the process. That increased the measured noise levels the next day by between 1.5 and 2.5 dB after each track work episode and that in fact was cumulative. So, if there was another track work episode, it went up again. Now, no allowance has been made at all for any degradation of track. What they assumed was reference quality track. As an engineer I just can't understand that because if I was doing any sort of analysis of this type I would put in a margin for degradation. It has been confirmed both in the ES and I have put in a FoI on that that no allowance has been made.

181. Could we go to the next slide, which is 25, please? This is the point that Mr Thornely-Taylor has just been talking about. I am sorry to put this graph in front of you but it comes out in the Environmental Statement and in annex D2 that we have just been talking about. If you look on the left, there is a quote from this paper, which is a Japanese paper, which actually looked at the design of low noise pantographs of the type that it has been assumed will be used on HS2. They actually say at the start of this, and I think that the Japanese probably know a thing or two about high speed trains, that in the case of Shinkansen trains, which do not have necessarily all of these refinements, the aerodynamic noise becomes dominant when velocity exceeds approximately 200 kilometres an hour. Now, I have read a number of papers and you get figures variously between 200 kilometres an hour and 300 kilometres an hour. But if you look at the graph, the line going up from more or less the centre is the aerodynamic noise from the body. The dotted line to the extreme right is the pantograph noise. If you look at the dash-dot line, the body noise from the aerodynamics, it actually crosses the line. Where it crosses that other dotted line, which is the track noise, the rolling noise, that is at about 350 kilometres per hour. So, that is the point at which aerodynamic noise is

beginning to become dominant according to this assumption here. So, that is 350 kilometres an hour. That is a lot more than 200 kilometres an hour, so that does show a certain amount of optimism, shall we say.

182. If you look at the pantograph noise at the bottom, the dotted line right at the bottom, that is not even in the picture. That is so far down that you wouldn't even hear it. Going back to the Japanese, the quote at the bottom, they say that the pantograph is one of the major sources of aerodynamic noise in high speed trains. So, I do appreciate that the assumption being made here is that the work in this paper on low noise pantographs is going to apply to HS2, but the guys who wrote the paper seem to disagree with HS2 Ltd on the effects of aerodynamic noise.

183. MR THORNELY-TAYLOR: There are two parts to pantograph noise. A pantograph is contained in an area called the pantograph well, which on a conventional train is just a crude depression in the roof of the train. That creates aerodynamic noise of considerable significance. In my July presentation I showed slides of how the pantograph well can be fitted with what are known as fairings to make it aerodynamically well behaved. The aerodynamic noise from the current collection bar of the pantograph is very well understood because it is actually quite a simple structure and some of the best physics in acoustics relates to vortex shedding by airstreams over bars. That is probably the best understood noise source on the train and in my July presentation I explained about the work that has been done in Japan on reducing both these sources significantly. It is not optimism. It is reliable research that we can take into account. That therefore means that the speed at which pantograph noise becomes dominant becomes higher because it is less than it is in the first generation high speed train such as the Shinkansens, which are the subject of this extract.

184. CHAIR: And the maintenance of track?

185. MR THORNELY-TAYLOR: Yes, fortunately we have a lot of information now from the operation of the TGV, admittedly slightly lower speed but we do know that the rail and wheel running surfaces of high speed trains behave extremely well. There are train systems, conventional trains, where the track can degrade and rail roughness can become greater over time and noise levels will go up. So, from that point of view there is enough comfort from experience of existing high speed trains for it not to be

necessary to assume that the track will in the long term degrade permanently. If it should degrade and we need to do maintenance, such as rail grinding, it is true that the day after the rail grinding machine goes through, noise levels will be slightly higher due to marks that it leaves on the rails, but it is very transient and after a short time will drop back, in fact, to lower than it was before the grinding took place. If particles of ballast are left on the surface of the tracks due to maintenance, yes that would increase noise levels but it is very transient and after a few days it would be back to where it was.

186. SIR PETER BOTTOMLEY: They get ground down?

187. MR THORNELY-TAYLOR: Yes.

188. CHAIR: Back to you, Mr Mould.

189. MR MOULD QC (DfT): Can we go back to A711(29) That was the first bullet under 'other'. I think you have dealt with the second bullet under 'other' in relation to this particular petitioner's location. Monitoring and rectification procedures I think has already been covered to a degree in Committee and the Committee has asked us to go away and provide some further information about that. We are working on that at the moment, so I was not going to ask Mr Thornely-Taylor to say any more about that at this stage. As to the undertaking on the introduction of new rolling stock in the future, Mr Thornely-Taylor, unless you tell me otherwise I think that is probably principally covered by the Environmental Minimum Requirements, is it not?

190. MR THORNELY-TAYLOR: Given that we don't yet have the first generation rolling stock of HS2, it will be subject to exactly the same procurement regime to ensure that it meets all the undertakings that have been given.

191. MR MOULD QC (DfT): As regards a user-friendly policy document, we are very happy to look at that and to see whether we need to build upon the Noise Information Papers. Then lowering the track near Rugby Road, I think that is a theme with which the Committee is familiar from petitions yesterday.

192. CHAIR: Thank you. Mr Delow, any further questions?

193. MR DELOW: Do you want me to wind up, sir?

194. CHAIR: Well, no. Do you have any further questions on these points? Mr Mould has just walked through most of your asks.

195. MR DELOW: Yes, sir. I have no further questions on that.

196. CHAIR: Okay. You are allowed some brief, final statements and I will allow you a little latitude because you were highly disrupted when you started, but is there anything in particular that you want to raise?

197. MR DELOW: That is really what I would like to say as a final point, that I was happy to go along with the suggestion in order to speed up the process of the Committee. I do feel I have been disadvantaged by doing that in that I have not been able to get my arguments – well, I have had to do everything on the hoof and it has been rather difficult. I think I could have made a better case had I been able to do it the way I originally wanted to do it.

198. CHAIR: But are there any final points you really want to make, though? Are there any one of your slides that you want to bring up now?

199. MR DELOW: No.

200. CHAIR: Okay.

201. SIR PETER BOTTOMLEY: I apologise if I did disrupt you. I did not intend to. I wanted to get the best possible way of considering the points that you had prepared. A lot of it was technical and I think the discussion you had certainly helped us and I hope it has not disadvantaged you.

202. MR DELOW: It was not intended as a criticism.

203. SIR PETER BOTTOMLEY: No.

204. MR DELOW: It was merely intended to say that I feel I have not made the best shot at it.

205. CHAIR: No, I would disagree with that. This is a highly complicated area which we are still wrestling with. Mr Thornely-Taylor is an expert, but clearly there are a lot of questions which petitioners are raising on these particular issues. We have further

sessions on sound as we go down the line. I think that some of the questions you posed are relevant and I think that will help us as we proceed. So, I think it has been useful. That is why we have spent an hour on it rather than half an hour with your slides.

206. MR DELOW: If I could be a little presumptuous, sir, if I can assist the Committee in any way further as you get on with pursuing this, I would be happy to do so.

207. CHAIR: We will bear that in mind as you have been very helpful this morning. Thank you very much, Mr Delow. It was nice to see you again.

Professor Geddes and Madeleine Wahlberg

208. CHAIR: We now move on to Mr Wahlberg, or is it Professor Geddes?

209. PROFESSOR GEDDES: If it is okay with you, we are going to do our two petitions together, myself and Madeleine Wahlberg, with me starting and her carrying on. In that way there will be no repetition between us.

210. CHAIR: That would be wonderful.

211. PROFESSOR GEDDES: Thank you.

212. CHAIR: If you do those together are you happy for Mr Mould to answer both petitions or Mr Strachan for part of it?

213. PROFESSOR GEDDES: I am happy if he introduces mine, but Mrs Wahlberg would prefer to introduce her own if that is okay.

214. CHAIR: Okay, all right. So, which of you is going to kick off first?

215. PROFESSOR GEDDES: I am going to. We have four issues between us.

216. CHAIR: Okay.

217. PROFESSOR GEDDES: I am going to take the first two and Madeleine will take the second two.

218. CHAIR: Okay. Does somebody want to introduce them together? Mr Strachan?

219. MR STRACHAN QC (DfT): So Professor Geddes is – I think you're

representing also Mr Daniel, Mundy, Cligg and Wardle as I understand it?

220. PROFESSOR GEDDES: That's right, yes.

221. MR STRACHAN QC (DfT): Yes. So I just wanted to check that. If we just get up on the screen please P3452, and we're in the vicinity of Offchurch. The various Petitioners' properties are shown here in the full context of the line of route. More specifically, if we just focus in at 34 – P3453, there's a plan focussing in on that area, which shows the triangle, effectively, of a number of properties. You can see Professor Geddes's property is the one to dead centre. These properties are situated along Long Itchington Road, and it joins Welsh Road – you can just see that marked, going off to the left. Professor Geddes's property is one for which part of his property is currently required under the Bill scheme, and that's why it's shown hatched in that way, and that's in order to achieve a road re-alignment under the Hybrid Rail Scheme, and I could just show that to you, P3455, and I hope this gives you some indication of what's going on. One can make out the existing roads underneath. They are there.

222. But you'll see that what is happening in this location, and this is going to crop up, I think today on a number of occasions, under the Bill scheme Long Itchington Road is actually shut in this location, under the Bill scheme and, I'll do it this way, what happens it that traffic that would have passed along Long Itchington Road will be diverted onto Welsh Road, and a new roundabout junction is put in where it joins the Fosse Way; currently that's just a T-junction. New roundabout junction Fosse Way. Traffic will then turn left and travel up Fosse Way and just at that point where it joins Long Itchington Road there is going to be a ghost junction with a right-hand turning lane for that traffic that wishes to go along Long Itchington Road, and Fosse Way is realigned, as you can see. The green dotted line is the old Fosse Way. Fosse Way's realigned to cross over the line of route. That's done as an offline diversion.

223. Just reverting back to the properties, Professor Geddes's and others. Just to the left of that property you'll see there's the Offchurch Greenway, which is the footpath that runs up and down on this plan, and there is a green overbridge put in over the line to carry the Greenway over the line of route. Professor Geddes's concern, amongst other concerns, relates to the junction arrangement at Long Itchington Road and Welsh Road, and there is a concern as to the priority arrangements for that junction, as well as

the access to his property, and can I just say at the outset, because I hope it may shorten things, but I don't know: The priority arrangement is one that the Promoter considers was appropriate to avoid traffic being encouraged to go into the village of Offchurch itself, which is situated along the Welsh Road here, and so the priority arrangement was to bring traffic to continue down Long Itchington Road.

224. The Highway Authority – we raised this in light of what's said by Professor Geddes and Ms Wahlberg about the priority arrangements, and the Highway Authority is happy to consider an alternative priority arrangement reverting to a Welsh Road priority arrangement. The Promoter is happy to consider that, because we're seeking to achieve here a junction arrangement which best suits the local traffic environment, and so we're – we – I can say now, happy to go back to the Highway Authority and to discuss it with them. It's not necessarily straightforward, because there may be others in the village who wouldn't wish to see that change. But certainly, as part of any detailed design of this junction, we're very happy to take on board the points being raised and to progress the matter with the Highway Authority.

225. CHAIR: Okay.

226. MR STRACHAN QC (DfT): To the same effect, if that results in a redesign that may allay the concerns about the access arrangements to the current properties. We are certainly happy, even if the priority junction remains the same, to look again at the precise – if I just point to the point where Long Itchington Road becomes their access point – to look again at that precise arrangement. We have already done swept path analysis to show vehicles can travel through it, but again, if it allays their concerns we will look at the detail of that and we could potentially move that, within Bill limits, as part of the overall detailed design to resolve some of the concerns. But I just wanted to raise that now, because I know that's an issue of concern.

227. CHAIR: Okay. Professor Geddes.

228. PROFESSOR GEDDES: Okay, thank you very much. So if I can have it's 721, we can immediately go to 722, and so you've seen this. What I wanted to add to this is that there are five properties on behalf of whom I'm speaking. It's important for me to state that we are, in fact, furthest away from the line and the problems I'm raising are even greater for my neighbours than they are for myself. So 723 please, and so these

are our four concerns. I'm going to deal with the first two of these and, in order that I can say up front what we're going to ask for so, in relation to the first one, the impact of the construction facility and workers' compound, we are asking for series of assurances about the operation of that facility and compound, and in terms of the second one, we are asking for a specific noise mitigation measure where the track crosses the Offchurch Greenway. And those are the two points I'm dealing with. So if we can go on to exhibit number four please, 724.

229. Right, so the Promoter's proposal here is for a large materials handling yard immediately east of the proposed track, between the Greenway and the Fosse Way, and our houses are facing directly onto this site. The nearest from only 200 metres or so away. We understand that a whole range of activities will be undertaken here, including grinding and grading the soil material, some construction of bridge parts, transfer of material on and off the site, accommodation for up to 23 workers. The whole site will be operational for more than five years, with the attendant noise and night time lighting.

230. And the problem for us is that there is no commitment in the ES that such work would be restricted to the working day and, indeed in the PRD that came back to me, the scope for work beyond the core working hours is currently defined so broadly that it could, in our view, become more or less normal over long periods of time. So for example the PRD says that, 'Start up and close down periods outside the core hours will not include operations likely to cause disturbance to local residents.' But, the sentence before that specifies a number of activities which might well do so, and includes a get out clause for activities which are not even specified at that point. So we find it difficult to take the assurance as being of any help to us, and even just daytime working on this site could be very difficult indeed, not just from an amenity point of view, but one of the properties, two of the people there are NHS workers. They work shifts, and therefore the issue of noise being confined to the daytime is not particularly helpful to them.

231. Next point, we are concerned that the works to construct and operate the railway from here, including the work in the materials handling yard, will cause vibration, and we want – although, again, there is an assurance given to us in the PRD, we need to point out that our properties are situated on the edge of the old railway cutting, which

now forms the Offchurch Greenway going north to south alongside our properties. There have been problems of subsidence for us in the past. We therefore feel we are particularly vulnerable to vibration, and feel we need to be absolutely sure that that problem has been taken account of.

232. In terms of the timescale, we would need to say that when we initially found that the compound was going to be sited here we were told it would be for 18 months to two years. It's now a period of five years plus. A very, very substantial issue. We're not clear whether even this five years plus includes the removal of the compound and returning it to its original condition. We are – we do not think that the information provided to us about how the nuisance will be mitigated, visually or in terms of noise, is adequate. So the PRD states that, 'There will be no significant effects due to noise from the compound during the construction period.' We are sceptical about this claim for a number of reasons. Firstly, we have inadequate information about the basis for the noise measurements which underpin the claim. We are unclear exactly what activities will be undertaken, for how long, in what parts of the compound. We do not know, in any detail, what forms of mitigation are assumed in the noise measurements that HS2 Ltd have made.

233. The next point, I hesitate to get onto this because it was a bone of contention in the previous discussion, and I know far less about noise than Councillor Delow, but the point I want to make is that the noise measurements relating to our properties – and there are two noise receptors among our properties – are those graded C for reliability, which means that they are classified as estimates with highest degree of uncertainty, and I mean they're all estimates aren't they, because we don't know what the noise of the train is going to be, or exactly how noisy construction is going to be, and these are therefore estimates of estimates if you like. In particular, we are concerned – and this was something that has appeared to us from one of the exhibits that were provided to me wearing my Offchurch Action Group hat, under which I appeared yesterday. So I think it's possible that we can see exhibit P3339. Yes, thank you very much indeed.

234. Now, so you can see the compound there. Now what this exhibit shows is the haul route for construction that will be used. The yellow line running along the construction route, and you can see that the access to the compound will be directly facing onto our properties. You see the yellow line going into the compound, and

obviously that means that whatever mitigation were to be put in place on the edge of the compound facing our properties will be gravely compromised by the fact that there will presumably be a very large gate there, which will be open a great deal of time, and therefore the noise and visual intrusion will be much less than it would be were that to be fenced off in some way, and we don't know whether that has been taken into account in the noise measurements that have been made. We don't know what visual mitigation will be provided and how effective it will be, again taking into account the access to the compound.

235. So if I can move to 725, back to my own exhibits, so we are seeking undertakings – excuse me – so those are our concerns. I think I actually want to go onto the one after that please. A76. So in view of the – all these uncertainties about what the actual impact will actually be we are wanting a series of undertakings that would, we feel, give us a much greater certainty about the mitigation of the effect of the compound. So we would ask that working hours are restricted to the working day, except in the specific case of emergencies, as defined in paragraph 22 of our PRD, i.e. 'Exceptions to the working day defined in paragraphs 19, 20 and 21 should be undertaken within the working day.' We would like there to be consultation with us in advance on the precise periods of working that will be in place for the facility. All we have at the moment are very broad blocks of time. If we are to try to accommodate ourselves to this we need advance notice of what's going to be happening.

236. In view of the inadequate specification of activities in the start up and close down periods we ask that they should also be undertaken within the core working hours, not outside the core working hours. We ask that there should be noise barriers and operational controls sufficient to ensure that we can open windows and not experience nuisance noise levels from the compound.

237. Coming back to the entry to the compound we ask that access to the compound, from the haul route, should be relocated away from directly in front of our properties so that it doesn't compromise effective mitigation measures at the side of the compound facing our properties, and we could go back and look at the map, and I think that is eminently possible to do. We ask that night time lighting should be low, in terms of both height and luminosity, and shielded from nearby houses, which will be looking directly on to it from their upper floors, and we ask that the nominated undertaker must

ensure that no vibration is – can be felt in our properties, which will lead to adverse effects given the specific history that we have.

238. There is some talk about residents being relocated to hotels should the noise levels be particularly bad. We feel that this really is, really should be, only an absolute last resort. If it does happen we would ask that it's fully funded by HS2, including travel costs. The hotel location must be agreed with the resident. Provision should be made for care facilities if needed. Payment should be directly from HS2 Ltd, and provision must be made for animal care, and there must be full-time security cover for houses left vacant. It may be that some of those there, but it's important we should say so. It's important there should be no access to the compound from along Long Itchington Road past our properties and, indeed, that there should not be parking along there.

239. Finally, we think it is important – and we're aware this point does not apply solely to our compound – but there should be genuinely independent monitoring and inspection arrangements, including things like a 24 hour contact number which can immediately and authoritatively respond to local problems including with stop work hours for the whole construction, or period of use of the facility. If, and we hope it would only be if, if those undertakings are not forthcoming we ask that the Promoters should look for an alternative, less disruptive, location for this facility, noting that the primary criterion for locating these facilities is stated to be that it should not be one that was particularly problematic for local residents. That's my first point, and so I'll come onto the second one, and this is quite a brief point, but one that is of importance to us. So could I have exhibit 726 please. Thank you.

240. So this point is about mitigation of noise along Offchurch Greenway itself, and so what you have here at the moment are mitigation measures along each side of the Greenway, and particularly against our properties, consisting of earthworks and landscape planting. But that will still permit what we think may be a significant noise problem, funnelling along the Greenway itself where the section shows how the height of the cutting will be significantly less where the Greenway passes along it, and that is likely to form a funnel for noise to pass along.

241. We're told in our PRD that the ES does not identify such a noise problem. But

we are concerned that the reason why it doesn't identify a noise problem is that it hasn't investigated whether there would be such a noise problem, i.e. it hasn't measured – HS2 Ltd haven't measured this specific noise source. So in our view it must surely be expected that if you have a gap in the bank you would have a spike in the noise where there is no bank. No such spike is shown on the noise contour maps, and I can only conclude that there is no noise receptor on the Greenway and so the ES research has not, in fact, identified whether or not there would be noise, and the solution to this seems to us to be quite straightforward, so if I come to 728 please.

242. So our proposal is that there should be a supplementary earthwork placed to plug the gap that noise would otherwise funnel along, and the bottom slide indicates where that plug might be placed. We – the response we have on this in the PRD is that this would not be possible because it would increase the length of the bridge over the Greenway. We do not see that that would necessarily be the case. It could easily be set back a little so that it doesn't impinge on the bridge at all, and our feeling is that this is a very simple request. It should not be expensive, and it would – there's digging going to be happening there anyway of course, and this would deal with one particular noise problem. Thank you.

243. CHAIR: Okay thank you. Carry on.

244. MS WAHLBERG: Thank you very much. I'm Madeleine Wahlberg, and I'm a resident for 25 years at Lowfield, Long Itchington Road, Offchurch, and Lowfield is a one acre property outside the village of Offchurch, and yesterday you were asking people's previous occupations. Well I'm another retired Warwick academic.

245. Now, the issues that I'm going to deal with are the road layout and the access drive. The impact of that on the access drive and I have provided a hand out which may help you. I don't know if you have it in front of you.

246. CHAIR: We have something...

247. MS WAHLBERG: It's a one piece of paper with a little sketch map on it...

248. MR MOULD QC (DfT): A double sided one?

249. MS WAHLBERG: Yes.

250. CHAIR: Right, okay.

251. MS WAHLBERG: Okay. I just wanted – have you got those? I handed them...

252. PROFESSOR GEDDES: Shall we go to the –

253. MS WAHLBERG: You'll need that.

254. PROFESSOR GEDDES: Can we go to the exhibit?

255. MS WAHLBERG: Well I will get to that screenshot in a minute, but I wanted people to have access to the CS correct. Yes, thank you. The – no, not that one.

256. CHAIR: Thank you.

257. MS WAHLBERG: For the record, I just wanted to declare my interest in the other two petitions that are covering similar issues, so that I would be consulted if any changes occurred during the petition process to those petitions as well. Alright. So you have in front of you, if you like, a simplified version of what it is that I'm concerned about, and the summary of the case is for you first of all to note that the line of the train tracks is some way away from this particular development, and so it won't affect the development itself. So the petition related to the realignment of a road, a reconfiguration of traffic flows, and a consequential realignment of a private drive, and there is three main issues: so one is road safety, one is a loss of amenity, particularly the fragmentation of Lowfield, and significant environmental loss, and my contention is that the impacts of the proposals on the property are substantial, not minimal as described by the Proposer. The proposals are not necessary, and the proposer would save money – did you hear that HS2? Would save money by not doing these things, and due process has not been followed, which could have avoided the negative impact.

258. So if I go to slide – you have been through slides one and two...

259. PROFESSOR GEDDES: This is 721...

260. MS WAHLBERG: Three.

261. PROFESSOR GEDDES: 7213.

262. MS WAHLBERG: The Proposer's literature wrongly names one of the roads

here, and wrongly names Greenway as Kenilworth Greenway, and as it will be necessary to refer to four different sections of roads I've simplified it for you, hoping to help you. You'll see this on the diagram you have in front of you, so I will refer to north, south, east and west rather than the full road names, including the ones in error. The – number four please. The sketch of the proposal that you have in front of you shows you first of all the position now with north and south as stopping roads, and east west as the priority road, and you can note the position of the drive access, D, and G marks the Greenway, and then you will see the proposal in which there is a big bend, as the road priority changes to south west, and the drive access is forced to a new position, and then what we want, the priority is south north, and this leaves the drive access in its current position. Right, could I move on from that? That's clear enough? Okay.

263. So in the proposed – in this presentation I will go through the Promoter's proposal and comments on impact, and set out the Promoter's justification for the proposal in the form of responses to your Petitioner's concerns, and then set out undertakings that I seek. So if I go to slide 5 please, that's it. You've gone off it. The proposal is to shut east road, 11, and to change the traffic priorities at the junction. The existing prioritised road through is east west. The proposal is to change it to a south west flow. Now this change in priority is perverse, as the HS2 data will show. Firstly, the dominant – slide 6 please – the dominant flow of actual traffic is south north, 1,680 vehicles, compared to 1340 in the Promoter's proposals. Secondly, the perverse change of priority would substantially increase the number of vehicles having to undertake a right turn, queuing on a road bend. There are going to be 902 vehicles compared to the 31 vehicles in our proposal. Changing the traffic priorities forces a more extensive redesign of south road – the big bend – which, in turn, forces all the problems of the new access road.

264. In the proposal no special provision has been identified for Greenway users to cross this new, faster, through road as the access the other half of Greenway, and such users include cyclists, including whole families of cyclists, walkers, dogs, children, buggies and wheelchairs. So that's the sort of user that is crossing at this junction. The Greenway crossing will become much more dangerous for these users. They currently cross in front of stopped traffic. Under the proposal they're going to have to cross faster, non-stopping traffic with very poor sight lines: a blind hill in one way and a bend in the other direction. Slide 7 please.

265. To widen and reconfigure south road, so the proposal is going to – what the Proposer says is, ‘Modernise’ the road, so as to increase speeds. It’ll re-site my access drive, attract the costs of the reconfigured road, for compensation for land take, for mitigation for environmental loss, and all of the costs of re-siting my access drive. It’ll destroy around 15 mature broad leaved trees, and take more land from a farm. My response is that bringing a road up to modern standards does not only refer to re-designing it for faster speeds. Safety for non-motorised users is quite as much an ambition of modern standards, especially in the case of the users crossing Greenway at this point.

266. It’s particularly inappropriate, moreover, to increase speeds just here as it’s coming up to a junction on a bend, and the Promoter’s proposal has engineered new traffic queues. Additionally, the faster traffic is going to channel down a hill, and you were shown a slide of that, a picture of that yesterday: a very, very narrow hill. Too narrow even for a white line in the middle. The speed should be managed downwards at this point, not managed upwards. Saving the costs of all this work seems like a real opportunity for the Promoter to do what they seem to be saying they want, which is to save money. It is low hanging fruit for saving money not to do this scheme. If I could have slide 8 please.

267. This shows you a farm, marked with a big black boundary, and the amount of land that is going to be lost to this farming business from HS2. You can see how much land is going to go. The current proposal that I’m talking about is going to take even more land from that farm, and it seems singularly inappropriate. Slide 9 please. The redesign of the access drive to three houses. The slide shows the black property boundary of Lowfield with the existing drive up the left side and the pink area is the safeguarded area.

268. The proposal is to replace the drive with a new entrance up east road. You can see it marked on this map, to site it away from the realigned south road. So a straight drive is going to be replaced by one with an elbow in it. The new drive’s going to have to be wider in order to enable the big vehicles to negotiate that elbow. Some parts of the old drive would be dug up for this, but other parts of the old drive have been excluded from the safeguarded area. You can see the pink line misses some of the drive. So we are going to be left with the stub of a former drive there. Around one

third of Lowfield has been safeguarded for the works. If I could have slide 10 please. Now there, yes, I need to show this is a shared access. It's not only for our property.

269. There is nowhere that large vehicles can turn around in these properties, so they currently have to go up and reverse. The Promoter's latest exhibit shows that a lorry can negotiate the track in one direction, but there's an enormous difference between what is technically possible on a map, going forwards, and us standing in the drive trying desperately to persuade this large delivery vehicle that he can reverse around this particular bend.

270. The environmental impact of these proposals on Lowfield are substantial, not minimal as described by the Proposer. We are not talking about a piece of lawn here. The property has been maintained on a fully organic basis since 1990, and it runs alongside the wilder Greenway which makes it very ecologically rich. The proposal would potentially remove a substantial wild meadow, over 180 stems of an eight foot beech hedge, 38 other trees on the property, including all 11 orchard trees, oak trees, nut trees, and a range of ornamentals. The effect will be on fauna as well as on flora. The proposer has made no assessment of the impact on the Great Crested Newts, other reptiles, other fauna or insects, particularly large variety of bees that I've built up over the years, and a badger run. It is unacceptable to leave us with a useless bit of old drive, all of it must be included in the reinstatement, and the work should return the land as close as feasible to its current condition, returning it as a ploughed up piece of subsoil sown with grass will absolutely not do. Slide 11 please.

271. There has been some recognition of the need to re-establish the privacy of Lowfield from the re-sited access drive, with the suggestion to build a six foot wall, 30 metres along the new drive, and slides 12 then 13 will show you the before and after of this. From – that's the before, and now the after please. There's the after, alright. So from an amenity perspective I will be effectively cut off from about one third of my property, leaving an isolated bit of land at the western edge, and I will look onto a brick wall, or be offered the choice of losing privacy. So Hobson's choice. Which would you take?

272. Slide 14 please is a timeline, and I have also provided you with personal copies of that timeline, but I don't wish to go through it in detail I want to just summarise it. It

took nine months for the Promoter to complete the access licence negotiation that I was seeking, but what's important is that at no stage was I refusing access for environmental surveys. Secondly, the Promoter did not seek access for environmental surveys prior to designing the current proposal. Thirdly, the Hybrid Bill was the first stage that we heard of the proposal, curtailing the consultation process. Fourthly, we attempted to engage directly with the Promoter, but this was not positive. As I quoted somewhere, they said they would only be interested in finding out what we were going to say at the petitioning stage so they could combat our arguments more effectively. Fifthly, the environmental surveys post dated the proposal by over six months. Slide 15.

273. So looking now at the responses that the Promoter has given in the PRD, I'm going to – I have amalgamated and summarised the Proposer's arguments, but I can give all the references if you need. We need to bring the road up to modern standards: I have made the argument for other ambitions about modernisation, such as pedestrian, non-motorised users' safety. The design will be according to standards appropriate to design speeds: I argue that's not relevant as speed should be managed downwards here, not designed upwards. The needs of non-motorised users have also been considered: There is absolutely no evidence of this. Current traffic stops at the point pedestrians cross: The redesign turns us into a non-stopping road. It's difficult to understand how they could argue that the re-design could be construed as making it safer. Slide 16 please.

274. The Promoter has said that they are prepared to re-consider the prioritised through route. Why I insist on giving our arguments about it here at this meeting is that I've never been shown any real willingness to negotiate with us, so I want all of this on the record, and your decision to hold them – to be able to hold them to that. It makes sense to make the through route match the dominant traffic flow. The data given in the earlier slide showed that the Proposer's scheme will mean 902 vehicles will have to turn across the traffic, as distinct from the 32 vehicles if they go with the proposal that we have on the table. In the exhibits for today the Promoter provided some estimates of traffic flows. However, these did not address the issue in my petition, which is a comparison of the traffic along the Promoter's priority route versus the traffic along another route. The Promoter's exhibit only shows data for one of the routes, and it is unclear why this is an exhibit for this petition.

275. There are rules about how close an access road can be to a junction. To which is say, 'Don't move the junction and you won't have to move the access road.' The remains of an old bridge may make any other proposition more disruptive than the current proposal: This point doesn't make sense to me. Maintaining the existing alignment across the old bridge, which is what I am arguing for, cannot be more disruptive than the proposal to alter that alignment. So I don't understand that submission either. The – right, I think I've changed. Next slide.

276. PROFESSOR GEDDES: 17.

277. MS WAHLBERG: Not quite yet. The alternative route would go through the car park, the Promoter says. Now if I could have Promoter's...

278. PROFESSOR GEDDES: Greenway car park.

279. MS WAHLBERG: Greenway Car Park. I needed the Promoter's slide here please, which is P3459, and I'd like you to look at that pink road scheme, sort of fairly much at the bottom. Okay. Now the Promoter has drawn up a new road re-alignment straight through a car park there indicating that this is my alternative, you see the note there, and commenting on the problem of going through a car park. But I have never suggested such a route. This is the Promoter's invention. I have said, 'Adhere more closely to the current alignment.' Slide 17 please.

280. The Promoter says the ES complies with all necessary legislation, the ES was open to consultation, and the Promoter was denied access for surveys. Now the issue is not whether, in principle, the ES complies with the law, but whether the ES was applied in this case. It is not clear how it could be argued that it did, given that there were no environmental surveys of Lowfield prior to the presentation of the proposal. The ES was, effectively, null and void in relation to this proposal. The Promoter has not chosen to respond to the evidence of a serious impact on the ecology of this property. This is directly contradictory to both the statutory requirements to protect species, and to the stated intention of the Promoter to adhere to the terms of the ES. The Promoter has never informed the other properties that have rights to this drive, and responsibilities for the upkeep of this drive, of the proposal. They have still, to date, never been told about this. They have, therefore, never been able to reflect their interests under the ES. It is untrue that environmental surveys could not be conducted because of refused access. I

signed an access agreement in May 2013, and I have not ever refused access.

281. Slide 18 please. Newts, coming up next. The Promoter says the property is not within 500 metres of a pond with recorded Great Newt populations. The Promoter has ignored the pond in the property, and has not looked for Great Newts. Great Crested Newts. Absence of evidence is not evidence of absence. However, although not instructed to do so, the surveyor who came in April '14 saw the pond and, being a professional, did automatically look, and showed me, indeed, the evidence of Great Crested Newt population. That surveyor said that he would report all of his findings, but did not know what would be done with the information on the species that he'd not been requested to look for. He was there for bats. Given that the Great Crested Newt is a European Protected Species, and that newts have been found in the property for over 25 years, the precautionary principle suggests that a proper survey should be undertaken.

282. Full consideration of the principles of avoid, reduce, mitigate, compensate has been given, says the Promoter. A number of options were prepared. My response is that it is unclear how this hierarchy could have been applied if there had been no survey of the environmental conditions against which to apply it. You will see from the timeline that no environmental surveys had been conducted before the proposal was published in the Hybrid Bill. The Promoter requested permission for an archaeological survey, as stone axe has been found on site, but in the event has not undertaken this survey, again failing to reflect the impact of the proposal on the site, and failing to reflect the ES. I have been refused sight of any options, and do not know what they considered beyond narrowly based road engineering alternatives.

283. The Promoter says the presumption is that the land would be restored to its existing condition. I say, in order to achieve this, a survey of the current condition will need to be undertaken. The latest information from the Promoter shows no mitigation planting in relation to my property. The Promoter says, 'We cannot confirm whether land will be returned after the works.' It is unacceptable to imply that a third of Lowfield may be retained by the Promoter for a future unspecified use. Slide 19.

284. 'The proposal fully complied with the requirements of the consultation process.' To which I say the proposal was only made public at the end of November 2013, and

was therefore never a part of the wider consultation process, e.g. the community forums. We attempted to engage the Promoters in a discussion by inviting them to visit the site. Whilst they did visit, they told us they would only be interested to find out what we would be saying in the petitioning process, so as to more effectively oppose us, and would not be interested in discussing changes to the proposal.

285. As previously noted, the owners of the other properties that share the drive have not been suggested – have not been engaged, by the Promoter, in any consultation process. None of this feels like consultation to us, as you'll understand I'm sure. The Promoter says the level of detail is appropriate to this stage in the process, and further details can be worked out once the Act has been passed. My central case is not about the details of the road alignment. I am arguing the proposal should not exist, as a whole. This is a matter for the Select Committee to consider, not a design detail for later discussion. Similarly, understanding the environmental impact of the proposal is not a matter of detail for later, but is a substantive issue to inform whether or not this whole road proposal should go ahead. The advice from the Kent planners who oversaw the implementation of HS1 was that the Construction Code is not worth the paper it is written on, as the exceptional circumstances or operational necessity clauses are used to apply to each inconvenient detail as it arises. This does not encourage me to leave anything to the construction phase.

286. The Promoter says it's not appropriate to promote remote alterations to the highways, and the re-prioritisation of roads is beyond the direct impact of the proposed proposal. I had trouble comprehending this response. It is the Proposer who is putting forward the highway alterations at this junction. Including re-prioritisation. It's not me. So presumably they do consider it part of the proposal, not in fact remote.

287. The undertaking sought is what I'll deal with next, and if you could put up slide 20 please there are three key undertakings that I'm seeking to be reflected in this process, in the Hybrid Bill and I will put them up in full on the screen. Firstly, to establish the new priority route at this junction so that it reflects the dominant traffic flow, and therefore to keep Welsh Road on its existing alignment, and so retain the existing position of the access drive. Secondly, to prioritise the safety of users crossing between the two parts of Greenway at this junction. Next slide please, 21. The third is that if the Promoter does go ahead with the scheme to undertake to: A) Carry out the

procedures that the Promoter says should have applied, namely a full environmental survey of all the areas that would be destroyed by the proposal, then to apply the hierarchy of avoid, reduce, mitigate, compensate as part of a transparent assessment of alternatives, then to consider a full costing of the proposal, including a development engineering cost of the road, as well as access, mitigation, compensation, species protection, reinstatement costs, and then to consider whether it wouldn't be better to save the money.

288. B) To minimise the land take and restrict it to just this proposal. To uprate with an agreed licence for temporary access and not acquire the freehold, and to undertake to restore the land to its organic status. C) To undertake to proceed transparently on this proposal, and D) To undertake to design the realignment in such a way as not to compromise HGV access to the three properties, and to prioritise the amenity and interest of the owners of Lowfield, including re-establishing their privacy from the drive and road. Slide 22.

289. In conclusion, my message is design the road layout to match the dominant traffic flow. Then you won't have to put in a big bend. Then you won't have to re-site the access drive. Then you will save heaps of money, amenity, and ecology. It is low hanging fruit for the Promoter to save both money and the environment. Thank you.

290. CHAIR: Okay, thank you very much. Mr Strachan?

291. MR STRACHAN QC (DfT): Thank you. I'm going to deal with both responses. I've got both Mr Smart and Mr Miller here if anything crops up, but let me see if I can address the issues in turn. First of all, if I deal with Professor Geddes's concerns first. The first concern was about the compound, which is to – on the other side of the trace to his property, and we have it up on screen. I don't know if much – put it back on the screen for you, and that's at P3455, and you can see that the Fosse Way Main Compound, which is the area of the compound where certain works take place, is beyond the Material Stockpile Area. Material Stockpile Area being, as the name indicates, where materials are kept during the process of construction. That, of itself, in the way that they're put in place, will serve to shield the properties from the compound itself.

292. But there are a number of detailed concerns, expressed about the compounds.

Those concerns are ones which are well understood, generically for all compounds and all schemes of this nature, and there is a series of assurances which are set down in the Code of Construction Practice, in the draft Code but which then becomes formal Code as the Committee knows, which essentially address I think all of the concerns Professor Geddes was raising, and I can give you – well I'll just refer you to the relevant parts that he's raising specifically.

293. Working hours was one of his concerns. There is a specific section of the Code of Construction Practice dealing with working hours, and the need to obtain consents, under Section 61 of the Control of Pollution Act from the relevant local authority. This compound is one which is specifically identified as where the core working hours would operate. There's no proposal to use it for 24 hour working or abnormal hours, and that's set down both in the environmental statement but also addressed in the Code of Construction Practice, and so there are various provisions which apply to that. The process of LEMPs that the Committee's heard about. The provision for start up and close down periods one hour either side of the core hours and, in the case of any derogation from those general principles, the way in which those approvals have to be sought for that to occur.

294. So this is a highly regulated principle which applies to this compound, as to many other compounds, which provides the reassurance Professor Geddes requires. It doesn't require any further assurance. I raise that because this is the sort of issue that the Committee will face for any compound, anywhere. But there is a raft of – there are a raft of measures to deal with precisely that. On the same – by the same token, vibration was a concern...

295. MR BELLINGHAM: Before we move on, I just want to ask you about the Professor's point regarding the get out clause, and except emergencies.

296. MR STRACHAN QC (DfT): Yes.

297. MR BELLINGHAM: First of all, can we look at the get-out clause, and secondly, you know, what sort of emergencies are we talking about? I mean an emergency to contractors may be a very different type of emergency in the eyes of local residents.

298. MR STRACHAN QC (DfT): Yes. Well, I think the get-out, if it's put in that

way – I wouldn't describe it in that way. It's to deal with not being in breach if an emergency were to arise, and I can imagine a situation where outside core working hours some emergency, and emergency being one which either one can't foresee or b) one can't control that requires something to be done on site which would otherwise not be active. But it's that sort of emergency, which is beyond the usual, and it is reflected as standard practice, that sort of language. It's not a get out clause in that sense. It's standard practice, as I understand it, to have those sorts of provisions which make it clear that – and it may be a lawyer's approach, but you would not be in breach of the standard provisions if some sort of emergency were to arise. I hesitate to speculate as to what would constitute an emergency, but it's not...

299. CHAIR: Complaints procedure?

300. MR STRACHAN QC (DfT): There is a Complaints Commissioner...

301. CHAIR: Where ultimately you can go to the commissioner.

302. MR STRACHAN QC (DfT): There is – if there is an issue about this, and it's felt that something occurred which wasn't an emergency which was outside the core working hours, then of course there is a way in which complaints can be made. I very much anticipate that won't be necessary. But there is that process to deal with it. Can I just turn to vibration, which was a particular concern to him. That, similarly, is covered by Section 13 of the Code of Construction Practice. There is a requirement to use best practicable means to – as defined in another piece of the Control of Pollution Act, and best practicable means includes dealing with noise and vibration control at source and, more than that, there is a British Standard 5228 which is the Code of Practice for Noise and Vibration Control on Construction and Open Sites which is specified in the Code of Construction Practice. So I appreciate Professor Geddes may not have seen all of these. They are available to look at, but there are these industry standards which are – the Promoter is signing up to in this Code of Construction Practice.

303. CHAIR: And if the – eventually the line – the construction work but also the line starts running, if that vibration has an impact on the properties there is a remedy?

304. MR STRACHAN QC (DfT): There is a – yes. I mean if it's – if there's a problem that's caused by that, that's in breach of these requirements, then Professor

Geddes would be able to raise it. Again, I don't anticipate this to be a problem, because the whole purpose of the British Standard and these practices are to avoid this vibration occurring which would cause problems. But there is this remedy if – for Professor Geddes to pursue. I just – I know the Committee's very familiar with the Code of Construction Practice, but given the request for, effectively, assurances which are already expressed in the Code of Construction Practice I just felt it's helpful to refer Professor Geddes to that.

305. That deals, I hope, with the compound issue that – it may not to Professor Geddes satisfaction, but covering the points he raised. The – I think there was concern about the five year period specified. There is a – in the exhibits we provided to Professor Geddes there's a timetable the different types of work taking place from the compound. The five-year-two-month period includes setting up the compound and taking it away, which I think was one of his questions.

306. He raised the question of noise impacts from activity in the area. Those have been assessed. There are the worst noise impacts, if I can put it that way, from earth works and the levels of anticipated noise based on a worst-case scenario are the ones that have been set out in the environmental statement covering his property. The levels are below the level of significance, as measured. You've heard the issues about noise, but they're in the order of 56 to 66 dB. That's the noise that this activity would affect, in construction terms, this location.

307. He raised an issue about what's going on in the compound itself, access to it, haul routes and things of that kind. Again, that is specified in the code of construction practice, because the whole way in which a compound operates is subject to controls under the code of construction practice, precisely to alleviate the concerns of people living in the area, so that is the part of the process of regulating what happens in these compounds and trying to ensure that it has the least impact on those in the surrounding area.

308. MR BELLINGHAM: Are there going to be people living in the main compound on a temporary basis?

309. MR STRACHAN QC (DfT): There will be 20 workers living there. I think he raised a concern about access to the compound. If you can see on this diagram, I don't

know whether he sees it as a benefit. One of the consequences of this scheme is that Long Itchington Road of course is closed as it passes his property, so there won't actually be traffic going past, as there currently is, along that road. The compound itself will therefore not be accessed from his property or from traffic passing his property. The only construction traffic going to the compound goes along the Fosse Way, as you can see by the green dotted line, and it doesn't come along Long Itchington Road and that would include workers going to or from the compound.

310. Can I turn to the Offchurch greenway, which was an issue I think he's raised? This concerned the effect of the greenway in terms of within the cutting. I don't know how best to illustrate it. I can probably do it on this slide, in fact. If you look where the green overbridge is shown, the Offchurch greenway is carried across the line of route. The line itself is quite a deep cutting at this point and the Offchurch greenway has a notch in the cutting as it passed over the line of route.

311. Professor Geddes is concerned about noise and wants some sort of structure to prevent noise coming out of that notch. The short answer is that that has been assessed in the environmental statement, in terms of what's there. As you'll appreciate, the notch is filled by the bridge of the greenway itself and the parapets. Professor Geddes was seeking some additional filling. That is entirely unnecessary, bearing in mind the bridge structure and the parapets that fill the notch, but the environmental statement assesses the effect of that structure in place and there is no under-prediction in the way it's adjusted. I think that's illustrated. Yes, you can see. This is from the noise contour maps, but you can see in essence the recognition of the notch, which actually leads to the noise environment on the greenway bridge itself. It draws in effectively over the bridge.

312. Could I then turn to Ms Wahlberg's petition? I think there may be – I hope – a short way of dealing with this because, as Ms Wahlberg herself has identified, she understands that the promoter has already agreed to reconsider the prioritisation of this junction and that was a point I made at the very outset. If you just look at A721(16), I just raise this because there were a number of criticisms made about engagement and us responding to these points. I think it's already within Ms Wahlberg's own slides, in the top bullet point, that she knows and is recorded in her slide that we have agreed to reconsider the prioritisation of that route. That's an assurance that I've provided again

today at the outset. We understand the highway authority is prepared to consider that prioritisation and so we are going to go away and speak to the highway authority to look at that junction arrangement to reconsider the priority arrangements.

313. I had put the caveat down that of course there may be others in the village that have a different view, but ultimately the highway authority will be best placed to balance the interest. We will look at the design again in the light of that.

314. That deals with the second point, which is her concern about the access route to her property because, as part of that, we will necessarily look at the access route to her property. Again, I'll just put the slide up so you can see what I mean. It's P3444. The current Hybrid Bill arrangement took part of Lowfield's property, and Ms Wahlberg's entirely correct that that's what it proposes. However, as part of this reconsideration of a junction, we don't necessarily have to look at the junction arrangements shown in pink. We'll look at any junction arrangement that's appropriate. There is the potential opportunity to draw the access arrangement away from Lowfield, if it can be achieved safely. Draw it away from Lowfield, potentially either minimising the land taken from Lowfield or removing it altogether. All of that can be done as a composite whole to try to achieve the best junction arrangement.

315. I hasten to add that, of course, as a result of land being identified as required for the scheme from Lowfield, Ms Wahlberg's property falls within the express purchase provisions and she has served a blight notice, which has been accepted. There is that remedy available. We would like to avoid that if she wishes to remain and wishes to consider alternative access, which is why we're going to take it away.

316. I would like to dispel a myth, if it is a myth. Ms Wahlberg may have a misapprehension as to what's going on here. We are not raising the speed of Welsh Road or designing to increase the speeds. We are realigning Welsh Road and Fosse Way to create a safe road arrangement. We will come back to this at a later stage. We are making sure that the roads that we put in are designed with all users' safety in mind, and there is a road safety audit process that deals with non-motorised users' safety as well as motorised users', visibility displays and all of that level of detail that comes with a road safety audit. We will ensure that whatever arrangement is arrived at is safe, both for the Offchurch greenway users, but also the users of the respective roads coming into

this area. I hope that gives some level of comfort to Ms Wahlberg, and certainly if not to her to the Committee.

317. CHAIR: Brief final comments, firstly, Professor Geddes?

318. PROFESSOR GEDDES: Thank you. I do feel I need to come back, because I think, in most of his responses, Mr Strachan is just reverting to the position expressed in our PRD and is not addressing the series of issues that I was raising, having received that PRD. He says the stockpile area is closer, implying that the noisier stuff would be going on farther away. I'm not at all convinced about that. Material will be moved in and out of the stockpile. That presumably can be pretty noisy on its own account.

319. He says that the concerns that we have about what assurances the code of construction practice would give, which are reflected in our PRD, are well understood, but the point I'm making is that those assurances are full of loopholes. If I can just quote you another one, he is saying that there is no proposal for non-working-hours working. If I quote paragraph 12, 'There will be occasions when nighttime, weekend and 24-hour working would be required.' That is what we have been told in our PRD.

320. Additional working hours, again I won't bother to quote here, but Mr Strachan's comments did not deal with the problems that I was raising that are in paragraphs 19 and 20 of our PRD.

321. In terms of the complaints procedure, I do understand that there is a complaints procedure proposed. I am not clear that that would be a fully independent complaints procedure, and I'm not clear that it would be provide the kind of 24/7 response that would be needed if residents do find problems that they are not anticipating.

322. In terms of vibration, yes, we hope that things will be okay. Mr Strachan says we have the recourse to compensation if we do, in the end, find vibration problems. You heard me on why we are particularly concerned about this. We of course do not want to have to revert to compensation, which is a very disruptive procedure in dealing with subsidence and slippage. We want there to be adequate mitigations so that we do not have to find ourselves in that position.

323. If I come on to the issue of access to the compound, I don't know if we could get

back to the slide. This was the one from exhibit P3339. Here again is the haul road, with the access to the compound shown right directly opposite our properties. I do not understand a statement that issues of access to the compound have been dealt with. As I said, it would be very straightforward to re-site that access. You could re-site it round the corner to the right-hand side so that any gate, and I presume it would be a large gate, was not facing directly against our properties. There might be better options than that; I'm afraid I'm not enough of an engineer to be able to tell, but I see no reason why at least that could not be done. I don't think that the question of access has been taken into account.

324. CHAIR: It should be brief final comments, rather than to go through your case again.

325. PROFESSOR GEDDES: One more, if I can take it. Mr Strachan reiterates that noise along the greenway has been assessed. I do not see how it can be if there is no noise measurement having been put in place. Thank you very much.

326. CHAIR: Thank you very much.

327. MS WAHLBERG: Very briefly, yes, if they reconsider it I'm delighted, but I'd ask that they reconsider this position in relation to the undertakings that I seek. I followed the procedures that I've specified in the undertakings. So far, I haven't been happy with the way they've received it.

328. CHAIR: Thank you very much. Do you want to answer the point about the traffic and the construction compound?

329. MR STRACHAN QC (DfT): Yes. There were two points. The additional working hours were dealt with in the code of construction practice. If there is an application to extend time outside the standard working hours that has to be agreed with the consent of the relevant local authority. Circumstances are given, such as earth works are season- and weather-dependent, and matters of that kind. There is the ability to do that, but subject to the consent of the local authority, which is why I said it was regulated. Of course, it is important that there is that ability to go to a local authority. It may sometimes suit those affected in a nearby area that works are done quickly and effectively at suitable times, rather than prolong them artificially because of working

hours, but the local authority will have the ability to look at that.

330. In relation to the access to the site compound, that is a matter of detail that I've emphasised is covered by the code of construction practice. When the construction compound is set up, there is a whole raft of measures to do with lighting, fencing perimeters, location and access.

331. CHAIR: Is that something Warwickshire County Council would be involved in, in the detail?

332. MR STRACHAN QC (DfT): It's the District Council, I think, as the relevant environmental authority.

333. MR MOULD QC (DfT): If Mr Strachan will allow me just to add, we've mentioned local environmental management plans, which are intended to be a local forum for spelling out, communicating, with the local arrangements. Access to construction sites will form part of the work of that. Not only will the local authority be involved in that, but it will provide an opportunity for local people, particularly those who are living in the vicinity of proposed construction compounds. They'll be able to engage in that process as well.

334. CHAIR: Thank you very much, both of you. We now move on to Philip Riley.

Philip Riley

335. CHAIR: I know you have 20-odd slides, but you have basically one point about the road, don't you?

336. MR RILEY: Yes, it's basically one point, so I shall try to make it as quickly and succinctly as possible, if I could have slide 719(3). The background and one or two references to this have already been made. The background to this is that the Long Itchington Road currently takes all of the traffic heading into Leamington from Long Itchington and beyond. I'm from Snowford Hill, which is a small hamlet just off the top of this particular map. The point where the road crosses the Fosse Way does need negotiating at the moment, but drivers have good visibility, a straight crossing if they brake in time. It's a manageable crossing by cyclists as well, and then the road, as we've just been discussing, runs straight through to Leamington.

337. The HS2 proposal is to close the road, force the traffic on to the Fosse for a third of a mile, down to a new island, then back off on to the Welsh Road, which is a poorly constructed road with some significant twists, dangerous both ways. It already carries traffic from Southam into Leamington, and the extra volume being carried on that Welsh Road, I believe, would generate significant additional traffic risk. Interestingly, one of my concerns is whether or not there is a significant kink there with the priority of the road and obviously that's the substance of that previous discussion.

338. Clearly coming back out of Leamington, one faces the same problem in reverse, coming on to the Welsh Road, then back up on to the Fosse then back off. I appreciate there are discussions about putting a ghost lane in there, but it will still be up a hill. There are already significant volumes of traffic at peak time that come up the hill to turn off there. Adding more to them is just going to create even more traffic going forward.

339. Slide A719(7) gives us my particular reason for objecting to this. The principle of immunity is one that strikes here. This is a road that we currently enjoy. There's safety on the Fosse Way for both cars and cyclists. The Welsh Road is a much poorer road than the Long Itchington Road, and I think a restored strain on this road would be a much safer option. Clearly all of this would be added to a wider community benefit, if we had restoration within a green tunnel. Next slide, please, 719(8).

340. Obviously this is an amenity issue. We haven't asked for HS2 and I'm sure many other people have made the point that we're the ones putting up with the years of destruction. We're now being told that this key road is being taken away from us in perpetuity, and we're being asked to take a more circuitous dangerous route to local amenities. Slide 9, please.

341. The Fosse Way is quite a busy dangerous road. It's only single-file and it's only classed as a B road, but it carries heavy traffic day and night. It's particularly a road used by lorries that come from the east of England, down the A40 and the M1, which need to get into the Cotswolds. It's a main route in there. The national speed limit applies. It is an extremely busy road.

342. There are some illustrations here. Point 10 is slide 719(10), a picture of a road, but it's looking flat at the junction and then down a descent. As the view process is showing on slide 719(11), we're being forced rightwards and then a sharp right on to the

Fosse Way, going down for a third of a mile down to the new island.

343. If we go to slide 13, 719(13), this shows the new junction at the Welsh Road. It's currently at a dip. This is where the island would be. As you can see looking across the road there, the Welsh Road already curves. I know there are some plans to put some straightening at the beginning but, if I move on to slide 719(17), going back to the map, here you can see – I don't know whether it's possible for me just to indicate – that although there's a realignment there, there's a second kink in the Welsh Road here that's not being straightened and obviously this much sharper kink right on the junction where the Welsh Road currently merges with the Long Itchington Road, with a realignment of priorities. That's a very, very sharp junction, if those priorities remain as they are, for a significantly increased amount of traffic.

344. Slide 19, please, 719(19). This is a particular concern of mine. I don't know whether any Members of the Committee are cyclists, but the road closure does cause cycling difficulties. Most road bikes – those are the bike with the drop-down handles and the thin tyres – are completely unsuitable for the type of gated, gravel-based cycle pathway, which is typified by the current Offchurch greenway. The plans to extend the greenway do nothing for road cyclists, nothing at all. No road cyclist would take their bicycle on the greenway; they're for mountain bikes only. Road cyclists would have their tyres and wheels damaged by it. Many more cyclists are going to be forced on to the Fosse Way in order to avoid this poor surface.

345. Slide 719(20), fairly obvious, from our perspective, the proposed remedy is to reopen the Long Itchington Road. That could then be built straight. Traffic could more safely and easily cross the Fosse Way than is now the case, with a wider road end, perhaps, on both sides. Of course, this would be easy to do as part of a green tunnel solution, which you will have heard about yesterday as part of the Offchurch Action Group.

346. Slide 21, obviously it can be built across the green tunnel. There are major benefits for the residents in terms of noise and disruption and it saves a significant amount of spoil. My fellow residents gave you much information on this yesterday, so I won't repeat their arguments. I'd simply like to go to slide 22 in conclusion.

347. We would like the Long Itchington Road reinstated because of its amenity benefit,

not only to the people in Long Itchington, but the many thousands of people who live farther out, in rural Warwickshire and Northamptonshire, who use this route to get into Leamington, Warwick, the M40 and beyond. It has very significant safety concerns, we believe, in diverting traffic on to and then off the Fosse Way, and a significant benefit for cyclists in not having them have to take any part of their journey on the Fosse Way. That could all be done within a wider green tunnel scheme.

348. CHAIR: Excellent. Well done, Mr Riley. Is that you, Mr Strachan, again?

349. MR STRACHAN QC (DfT): Yes, it is. Could I just show you P3412, please? This also shows Mr Riley's property on the top right, where he lives. He's just described how he uses Long Itchington Road. As I've already described, Long Itchington Road is stocked up as it passes over the route, but the alternative diversion has been designed in order to be safe for the users of the road that will be diverted.

350. Can I just highlight one or two points? Just starting in this corner, of course that's the subject of the further discussion. This area and where it joins Welsh Road is going to be the subject of the further discussions with the highway authority, but any alignment there will of course need to be safe and will be subject to the road safety audit mentioned, but the priority could be changed if that's what the highway authority wishes. Welsh Road itself has been realigned and again it will be designed to be safe, with appropriate verges.

351. As one comes to the Fosse Way, it's important to note, I think the petitioner is raising issues about the current safety of Fosse Way at that junction. At this point, we've put in a roundabout junction to replace the current T-junction he was referring to with concern about the safety of that. That resolves, I think, a significant number of the issues about the safety of that current junction. It's not precisely in the same location as the existing junction. It is moved, as is the Fosse Way realigned, to provide a route over HS2 and to address, no doubt along the way, some of the existing safety issues of the Fosse Way. After you cross over the Fosse Way, there will be a ghost island priority junction turn to enable users to turn safely back on to Long Itchington Road. There is a diversion for anyone who would have used Long Itchington Road, which is identified in the ES, of about 340 metres, which is not considered to be significant.

352. What we have sought to do is actually improve the road system in this area, whilst

avoiding the need for multiple bridges, which would otherwise occur, as you can see from the layout of Long Itchington Road and Fosse Way, at that location.

353. There is a concern that Mr Riley's raised about cyclists. That has been the subject of further discussion with the highway authority. Can I just show you what has been agreed with them? It's referred to upon this –

354. CHAIR: Are you a cyclist, Mr Riley?

355. MR RILEY: I am, yes.

356. MR STRACHAN QC (DfT): It will be of interest to Mr Riley.

357. MR MEARNS: Can I just point out, Chairman, that anyone at any time could become a cyclist, if they wanted to?

358. MR STRACHAN QC (DfT): Can I just show you what's proposed? If one looks at 3415, there is an additional provision that's been discussed with the highway authority and this is specifically to address cycling facilities in the area. You'll see up on the plan a notation 'proposed cycle bridge over Fosse Way', and that is a new provision that's proposed to enable cyclists to use that section of the greenway down to take one back to Long Itchington Road.

359. If I just show you that in a bit more detail, P3416, I just need to explain this. This is focused in. The bottom right-hand side of the page is the junction with Long Itchington Road. There will be a cycleway provision up to the Fosse Way cycle overbridge, so that anyone wishing to cycle in a southerly direction will be able to access the greenway without using the Fosse Way.

360. Additionally, as one goes north, the greenway continues. It's not within the promoter's plans to upgrade that to a cycleway, but that's a matter that can be taken forward by the highway authority or Sustrans if they so wish. Certainly so far as cyclists getting across the line of route and avoiding Fosse Way, this new additional provision enables one to do that and takes you off the current road system, which you would have to use at the moment. Certainly the issue of cyclists has been looked at and is catered for within this additional provision.

361. MR RILEY: I'm sorry, but that's just incorrect. The greenway, which is a walking and cycling path, would only be used by cyclists who had mountain bikes.

362. MR MEARNNS: Off-road?

363. MR RILEY: Off-road bikes, yes. No road cyclist, who has a normal drop-handlebar, thin-tyre cycle would ever cycle on a greenway path. You would never do it because you would ruin your tyres, ruin your wheels. That does simply not address the issue for cyclists.

364. MR MEARNNS: I must admit I've got a tourer. It's not the best thing to be using off-road routes. You do need mountain bike tyres, yes.

365. MR RILEY: Proper road bikes, you're spending hundreds of pounds.

366. CHAIR: Any further points, Mr Strachan?

367. MR STRACHAN QC (DfT): It's certainly not the case that we're proposing resurfacing the Offchurch greenway to the north. If Sustrans wishes to do that that's a matter that they can take forward. The area that we allow for crossing of the Fosse Way will be suitable for cyclists, because we are able to do that. One can rejoin the road system if you want, just below the line of the HS2 route, depending on the state of your tyres.

368. CHAIR: Mr Riley, brief final comments?

369. MR RILEY: I don't want to get too tied up in cycling, although that's not a correct answer. You are definitely forcing road cyclists on to the Fosse Way, which is a road unsuitable for cycling, but it's also a road that one would not want to travel on if one had any choice in the matter. Despite the safety concerns, which I appreciate any sensible design would undertake, it's a less-than-perfect solution to the loss of amenity for thousands of residents in Long Itchington who use that road every day, as part of their normal daily lives, to go to and from their places of work and recreation. It is being taken away from us and not being restored, and we clearly think that is a loss of amenity. Thank you.

370. CHAIR: Thank you very much, Mr Riley. Thank you for your appearance. We'll

move now to Mr McGregor, who will be the last petitioner this morning. We will take then the Whitfields at two o'clock.

Robert McGregor

371. MR MCGREGOR: Thank you very much, Mr Chairman. You'll be glad to know I will be brief. There are merely seven paragraphs here. I'd appreciate it if I could run through them. I'm not a barrister; I'm just a farmer, but I am the guy who owns a lot of this land.

372. CHAIR: Shall we put your farm up?

373. MR MOULD QC (DfT): If you go to P3399 –

374. MR MCGREGOR: You will also be pleased to know that there is a conclusion in the second paragraph. Firstly, can I ask, I gave two photographs in today; I'd very much like the Committee, Mr Chairman, to just have a look at those. You'll see there's some writing on the back. That is rather important, because that is the main thrust of my small presentation to you here this morning.

375. I am Robert Andrew McGregor. Thank you for hearing my petition. I'm here to represent Weston Hall Farms Limited, wholly owned by the McGregor family. The proposed line passes through South Cubbington Wood, which is also owned by me, Robert Andrew McGregor, although HS2 always seems to leave my ownership of 9.534 hectares, or 23.56 acres to those of us of a certain age, off their maps. The loss of woodland is sad, not just because it supplies wood, fuel and hedging material, but it's also a haven of tranquillity. Any action to limit the effect would be appreciated, and clearly tunnelling would be the answer we're all looking for.

376. Our main objection to the current proposals is that a whole field and parts of fields are designated for environmental mitigation. I will argue that the environmental benefits of compulsorily purchasing our field are dubious and seriously flawed. The needless loss of fertile land so close to the main drain store is a serious loss to the income of Weston Hall Farms Limited, not just for a year, but forever. My son Alastair has two boys, who are already fourth-generation farmers. We're serious operators, not play farmers. We know what lives here. We know our land. We care for it, and the

flora and fauna. A field of the level of fertility that HS2 wants to take from us should produce an income of at least £10,000 to £12,000 worth of oil seed rape, and £12,000 to £15,000 worth of milling wheat. With the EU payment, a loss of at least £14,500 to £15,500 per year is a conservative estimation.

377. I would add that, if you plant these woodlands on good land, the even better land that is often next to it then gets shading, and so the amount of land that is going to be deprived and nutrient and not growing well is exacerbated. That 25 acres could easily, with rabbits and everything else, go up to 30 acres.

378. These are not spurious figures plucked out of the air. This is reality unlike, I may say, figures that are being bandied about by those trying to sell us HS2. A productive field with close proximity with the grain store is a very coveted asset, as it is far more economical land to work the land and transport the produce to store, with huge savings in fuel and emissions into the environment, food miles for this field being 200 yards or so to the grain store and 30 miles to Northampton to the miller. Once these fields have gone, where does the wheat come from – Canada, the USA, Argentina perhaps? Is this environmental mitigation?

379. To replace such a field is, in my experience, virtually impossible. Believe me, we're trying to buy them all the time. In short, no one I know will easily part with an alternative and any such field will be farther away from the grain store. Sadly, in my investigation up and down the proposed route, our unfortunate situation is replicated numerous times. This will take out of production valuable farmland contributing to the economic welfare of each farmstead and contributing to the nation's production, year after year, creating exports and saving imports.

380. Most of this land like ours is farmed in environmentally friendly ways – have a look of those photographs – under the new greening policies of the EU, with grass strips, wildflowers and overwintering stubble, for instance. I put the argument to the Committee that the modern farmer already contributes to England's quintessential and unique countryside with its patchwork of fields and hedges.

381. Some of you have taken the trouble to see the effect the route will have upon the pristine land valley, spared from electricity pylons and the scourge of wind turbine. Some of you were visibly moved by the view of this beautiful piece of English

countryside. What I saw when I stood with you was the decimation of three family farms and the desperation of my hard-working neighbours. These people are the salt of the earth and they, like me, look at the ever-worsening proposals from HS2 and feel they are living in some sort of Orwellian nightmare. I would ask the Committee to decide whether or not I speak common sense and to ask where the doublespeak is coming from. We and our neighbours are to be ripped apart and have precious land confiscated by a company that appears not to understand, or at least consider, the real consequences of draconian and misplaced environmental mitigation.

382. Trees would be better planted on the poor areas of the Quantock Hills to prevent slow runoff and prevent soil erosion silting up the drains. Our field is mapped by a GPS fertiliser application and the inputs are kept to a minimum by the latest technology. Weston Hall Farms uses the latest techniques of regenerative agriculture to establish the crop, keeping all the topsoil, with increasing soil biology and macro biology, where it belongs: on the top of the soil, good for yields and lapwings as well. The riot of birdsong that can be heard may find a spot elsewhere, but I repeat: I cannot easily relocate our precious field.

383. The local people back me in wanting the fields to stay as they are, and they, unlike HS2, fully appreciate that the farm is our workplace and we need every available acre to make a living. I note also, apart from the large field, that they had the bright idea of planting trees on a flood plain near the meadow. It's a flood meadow, which serves as a hunting ground for barn owls. The Leam valley is also visited by the hobby, feasting on dragonflies during the summer. Incidentally, we put up several barn owl boxes and occasionally we have the joy of seeing their whispering flight as they search for voles. Who is it that thinks they have more dominion over the birds of the air and the beasts of the field than those who've worked and cared for this land, over so many years?

384. In conclusion, I ask you to heed the words of a real farmer with a real farming family, a real knowledge of agriculture, past, present and future, who has presented the real facts. Please help us to continue to live on what we know best for the good of our family, our villages and the country, for it's the farmland that must continue to provide our food, our clothing and our fuel, long after the oil has gone.

385. CHAIR: Well done, Mr McGregor. Very powerfully put. Do we have a more

detailed map, Mr Mould, of the farm?

386. MR MOULD QC (DfT): Yes, if we put up P3403. The holding that is outlined in red in the centre of the page here is the extent of Weston Farm, Mr McGregor's holding.

387. MR MCGREGOR: Yes, just coming up to South Cubbington Wood, which is also on there.

388. MR MOULD QC (DfT): I think the idea was to include the agricultural holding, but I take your point that you own that.

389. MR MCGREGOR: It's quite important.

390. CHAIR: May I ask, sir, how many acres?

391. MR MCGREGOR: South Cubbington Wood?

392. CHAIR: No, your farm.

393. MR MCGREGOR: It's 350 acres.

394. MR MOULD QC (DfT): I had 140 hectares. I think that's the same thing in euro-speak. It's predominantly arable, 15 hectares in safeguarding. The area that I think Mr McGregor is particularly concerned about and the focus of his presentation to you today is the area upon which the cursor is now showing, which is an area, as you can see, that is proposed for permanent land take to provide planting to compensate for the loss of ancient woodland.

395. MR THORNTON: Can I just if that's this picture? Is that your picture?

396. MR MCGREGOR: That is that field, yes. That was taken yesterday or the day before.

397. CHAIR: What Grade agricultural land is it?

398. MR MCGREGOR: It's 2 to 3. The one below is 3. When I was talking to you about the effect woodland has, the next one, you're then affecting Grade 2. Do you see what I mean, sir?

399. CHAIR: Yes. Mr Mould.

400. MR MOULD QC (DfT): The Committee knows what is the rationale for using that land for that purpose. It's part of the proposals for – I use the word hesitantly – for compensating for the loss of woodland in South Cubbington Wood. I'm not going to rehearse the arguments about whether you can in fact compensate for the loss of ancient woodland, and you have heard about how we propose to translocate soils and so forth. Anyway, it's set out in the box. That's the area that Mr McGregor is particularly concerned about and his case, as I understand it, is to ask the Committee to require the project not to take that area for that purpose.

401. If I could just put up P3475(3), late yesterday afternoon we provided Mr McGregor with a revised proposal. I say straight away I'm sorry that we weren't able to provide this to him before yesterday afternoon.

402. MR MCGREGOR: Mr Chairman, this was presented to me halfway through this meeting. Obviously I have not had time to discuss with the Managing Director Alastair or anybody else.

403. MR MOULD QC (DfT): All I want to do is just to explain it to the Committee and I'm going to leave it at that. In a nutshell, what we have put forward for consideration is an arrangement whereby we would limit the land that we take from that area that you show on the previous map, as shown on the screen, so that the area that is uncoloured would not be taken.

404. CHAIR: How much would then be going back to the farm?

405. MR MOULD QC (DfT): That area that you see, 'area omitted', that area, which is uncoloured, which is being shown now on the screen, would not be taken from the property.

406. CHAIR: You're planting on some of the land taken along the railway, rather than taking some of the field.

407. MR MCGREGOR: What you've done now – excuse me – is you've now come down to Grade 2, rather than stopping on the Grade 3. At first glance, it looks seriously worse.

408. CHAIR: Worse?

409. MR MCGREGOR: You can't just come into a meeting and throw something that looks like a three-year-old child's just drawn and expect me to have a sensible discussion about it.

410. MR MOULD QC (DfT): I'm not going to rise to the bait.

411. CHAIR: Let Mr Mould explain what they're trying to do.

412. MR MOULD QC (DfT): All insults gratefully received, but all I'm saying is that's a proposal. I accept it's only come into Mr McGregor's notice very, very recently. His initial reaction to it is obviously that he's not at all happy with it, but it provides a solution. Perhaps if he goes away and reflects on it... Our intention in putting this forward was, in terms of the sheer quantity of land that we take, it clearly reduces it and it redistributes the planting in a more linear fashion along the railway. It means that the overall land take from Mr McGregor's holding is reduced.

413. MR THORNTON: From what to what, the amount of land take?

414. MR MEARNS: The amount of land take is the amount from what to what?

415. MR MOULD QC (DfT): I'm afraid I don't have that figure, but I will provide it to you later on today.

416. CHAIR: Mr McGregor.

417. MR MCGREGOR: Can I just ask HS2 whether they have a copy of the letter Howkins & Harrison estate agents sent to them on 8 August 2013, with our compromised proposals, allowing for some land to be taken, making a more sensible line and taking out the worst land, to which for some reason they didn't feel it worth a reply?

418. MR MOULD QC (DfT): I don't have a copy of that letter.

419. MR MCGREGOR: I repeat: it was 8 August 2013. Another letter was sent in 2014. I'm sorry, Mr Chairman; it's very difficult to work with this company if they have this sort of draconian attitude.

420. CHAIR: Sometimes things are done at the last minute, Mr McGregor. Mr McGregor, is your son the Managing Director?

421. MR MCGREGOR: He is. He is 40.

422. CHAIR: Excellent. I wish I was 40. Clearly you need to think about what they're proposing and HS2 needs to think about what you're proposing. We're going to be sitting this afternoon at two. Would it be possible, if we re-scheduled you at the end of the day, that you could have further discussions to see whether there's any progress or do you think you wouldn't be able to do that?

423. MR MCGREGOR: I think I should go home and talk this over with the next generation, Mr Chairman.

424. MR MEARNS: Before we do that, could I ask HS2, thinking from my perspective, a critical question? I understand that one of the reasons for trying to replace woodland is about carbon sequestration, but also it's about habitats. If you're trying to replace habitat as close in proximity, is it really necessary to do so? What I'm wondering is, if we want to replace, hectare for hectare, acre for acre, any woodland that is lost, does it have to be done in the immediate proximity or could it be done farther along the route of the line?

425. MR BELLINGHAM: Can I just come in on that as well, because we're not talking about a county council smallholding here, with respect? We're talking about a reasonable size farm. Surely if the landowner farmer has got an alternative planting proposal, he knows his land far better than HS2 does, with respect. If he has ideas for an alternative area of mitigated planting, surely you should defer to his wisdom, understanding and be a bit more flexible.

426. MR MOULD QC (DfT): I hope you will remember when we had the National Farmers Union here back in November. I had an exchange with Miss Louise Staples, who appeared. I said that the right way forward with farmers and land take from farmers was for us to engage closely with them, as we move forward with the detailed design, and to understand their needs, including matters such as, 'This is a better place to put your environmental mitigation to enable me to continue to make the best use of my farm that I can, allowing for the inevitable presence of the railway.'

427. What I also said was, and I think this was accepted by Miss Staples, that there was always a balance of sorts of be struck. The needs of the project sometimes meant that there had to be compromise on both sides. I don't want to sound inflammatory in saying that; I'm just trying to be realistic about building a railway that is properly mitigated, and also trying to limit, as far as reasonably practical, the effects, particularly on those who actually make a living out of the land that is taken that is alongside. That is the spirit upon which this project intends to proceed. It hasn't always lived up to it in the eyes of those who have come before you. Whatever view you may take of that, going forward, that's how we should proceed.

428. What I would like to do is, at a timescale that is convenient to the petitioner, have further discussions with him. What I'm going to do is ask that we should make arrangements to meet with him, at a time that is convenient to him, to his son and others who may be involved, to sit down and look at whether there is a solution here that would allow some local planting, but which would allow him a solution; which, while it may not be ideal, if you like, he could feel that he would be able to live with. We may not get to that stage and he may still feel that he has concerns that he would like to be considered, either here or perhaps even in the second House, but I think that was what you had in mind, sir, and I would certainly like to do that.

429. CHAIR: I think that clearly we're minded to try to minimise the land take if possible. Mr McGregor's life experience clearly tells him to go away and mull something over, rather than to make an immediate decision, and to chat with the son and the family. Go away, have a look at what he and his family would like, what HS2 thinks they need. If necessary, we will reserve the right for Mr McGregor to come back to the Committee and report, but we hope progress can be made.

430. MR MOULD QC (DfT): I don't think I answered Mr Mearns' question head on. I'm happy to do that if you'd like me to do.

431. MR MEARNNS: I think it's an important matter of principle. It will come up again, I'm quite sure.

432. MR MOULD QC (DfT): The answer is that, generally speaking, the advice I have from ecologists and environmentalists is that, if you can provide environmental mitigation for that which you are affecting as close as possible to where the impact takes

place, that's the best way to approach it. Also, environmentalists and ecologists recognise that that isn't always going to be achievable for the very same reasons that I mentioned a moment ago. Sometimes we have to accept that the less the ideal, that is to say some more remote proposal, is best. Whether that bears upon this particular issue, I don't know, but we will have to bear that in mind.

433. MR MCGREGOR: Mr Chairman, this is the compromise. That's the plan there with the suggested alternative planting sent from Howkins & Harrison, 8 August 2013. We were willing to negotiate a long time ago.

434. MR BELLINGHAM: We hope very much that that will form part of what will be a very constructive discussion. The only point I wanted to make, following on from my colleague, is when you are looking at replacement planting and there are houses, there may be a settlement nearby, those people would probably expect the replacement to be adjacent to the wood or land that was removed. In this case, having gone round the farm, it's a very remote area. The only family affected are the McGregors and their view should certainly command a great deal of respect and weight.

435. CHAIR: We have a plan. Let's hope we can make some progress and, if progress isn't made, report back to us, Mr Mould. If necessary, if you're still at odds, Mr McGregor, come back to the Committee. We would be delighted. We don't really want to see you, but we will see you if we have to. Go back and have a good chat with the next generation. That was a very good speech, a great political speech as well. You missed your vocation.

436. MR MCGREGOR: Thank you for hearing me.

437. CHAIR: We're going to adjourn now until two o'clock. Order, order.