MINUTES OF ORAL EVIDENCE
taken before the

HIGH SPEED RAIL BILL COMMITTEE

on the

HIGH SPEED RAIL (WEST MIDLANDS – CREWE) BILL

Monday 26 March 2018 (Evening)

In Committee Room 5

PRESENT:

James Duddridge (Chair)
Sandy Martin
Mrs Sheryll Murray
Martin Whitfield
Bill Wiggin

_____________

IN ATTENDANCE:

Timothy Mould QC, Lead Counsel, Department for Transport

_____________

WITNESSES:

Colin Smith, Property Consultant (HS2 Ltd)
Rupert Thornely-Taylor, Acoustics and Vibration Expert (HS2 Ltd)

IN PUBLIC SESSION
## INDEX

<table>
<thead>
<tr>
<th>Subject</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>HS2 Ltd</strong></td>
<td>3</td>
</tr>
<tr>
<td>Presentation by Mr Smith</td>
<td>3</td>
</tr>
<tr>
<td>Presentation by Mr Thornely-Taylor</td>
<td>34</td>
</tr>
</tbody>
</table>
(At 7.01 p.m.)

1. THE CHAIR: Thank you very much for coming back. Thank you very much, Mr Mould, again, for providing an excellent curriculum vitae for Colin Smith. Can I hand over to you, Mr Smith?

2. MR MOULD QC (DfT): Just before you do, could I just pick up on a point that was left hanging on the previous session? It was just the reference to the monitoring regime for ecological mitigation. I just wanted to say, in information paper E2, which is concerned with ecology, if you are interested in reading about that, you’ll find in section 7 of that information paper, under the heading ‘Ensuring Outcomes’, there’s an explanation of the monitoring approach, and there’s quite a helpful table, which just sets out the monitoring arrangements for particular categories of ecological mitigation.

3. THE CHAIR: Okay. I think, if there are clarifications, Mr Mould, maybe we’ll leave them to the tail end of the session so we’re focused entirely on what we start – unless it pertains to that session, just so we’ve got clarity for people coming in.

4. MR MOULD QC (DfT): Okay.

5. THE CHAIR: Mr Smith, over to you. Thank you very much for coming.

6. HS2 Ltd

Presentation by Mr Smith

6. MR SMITH: Good evening, sir. Good evening. My name’s Colin Smith. I’m a chartered surveyor with nearly 50 years’ experience now. I gave property advice on HS2 Phase One, Crossrail, Jubilee Line and numerous other projects that I’ve worked with over the years, so that’s my background.

7. This evening, I’d just like to take you through an introduction, a guide, to land compensation under the HS2 Phase 2A Bill and if we move on, my presentation will cover the following issues. I will dwell a little on the acquisition powers and policies; on the compensation, I’ll outline just the key points for the Committee to consider and the same on the non-statutory scheme. There’s two schemes; there’s a statutory scheme and a non-statutory scheme outside of the safeguarding area, so I will concentrate on the first one, but just go through quite quickly on the other ones, pointing out the key issues
to the Committee.

8. If we now go to the land acquisition powers and policies, and the Phase 2A Bill really, in terms of this presentation, does four major things which is it seeks powers to acquire land and construct the Phase 2A works, so the Bill itself when enacted will give outline planning consent for those works to go ahead. It will also identify the land to be acquired compulsorily within the limits that are set in the Bill. It will incorporate existing English law on compulsory purchase, so the processes that are involved will generally be followed here on this Bill and again, in terms of the assessment of land compensation, English law will set that and it’s been incorporated to other Bills such as Phase One, Crossrail etc. and that will apply to Phase 2A.

9. Information paper C3 sets out the key HS2 land acquisition policy and if we move on from there, I think the most important part to set out on the slide before you are paras 3.3 and 3.4. The Bill generally includes full land acquisition powers. That’s the power to acquire outright land where the land is required for the works, but in any individual case, the Secretary of State will look to acquire no greater amount of land than appears to him to be reasonably required after the design has been taken forward and complete.

10. Obviously, the limits, generally, are wider in all these schemes than when one comes down to the detailed design, in many cases, one can save land from being required and that’s what the Secretary of State will do here as well.

11. The Bill also enables the Secretary of State to take land to occupy and possess land temporarily rather than acquire it outright; typically where one just goes on to a site, works it for a year and comes away, or in utilities, where you may dig a trench, it takes three months, put a pipe or something in and then fill it in and go away, so there may be a permanent easement for the pipe or wire or whatever the utility is, but no full acquisition of the land.

12. And the Secretary of State has made clear in exercising those powers in other words, the power to go from permanent acquisition to temporary acquisition, he will do so provided this would not prejudice the economic delivery of the Bill. Now, normally speaking, it would not but on cases such as development and other cases where the land is right for development, it can be very costly to acquire or to possess land temporarily, so that is why we have it in there.
13. Okay, next point. In terms of temporary possession and use as opposed to full acquisition under compulsory powers, we have identified in the guide to farmers and growers, we’ve identified the sort of principles that underlie temporary possession, but the sort of facts that we would take into account, the Secretary of State would take into account, are set out here such as the length of time the land is required, the overall cost, what the cost of restoring the land is and if HS2 make material changes to the nature of the land, then we may wish to secure those mitigation measures that we may have put on to the land as have been described by Mr Miller earlier on, so we would want to obviously secure the maintenance of those, but other than that, those are the sorts of guides that we would seek to consider when taking land either permanently or temporarily.

14. Now, just on this point, I’d like to make it clear that we have produced a guide for farmers and growers and the purpose of that is to explain to farmers and growers the various policies as they are pulled together for effecting farms, which can be more complex than maybe a traditional house or something of this nature, so it will be updated as the project progresses, but the sorts of things we include in the farmers and growers guide is about engagement, programme, relocation of buildings, entry for surveying work, agricultural liaison service, accommodation works, fencing, drainage, these sorts of things are set out in that guide.

15. So, pulling this together, this is an illustration, this is not an actual position, but it’s an illustration of how these policies may apply in practice, so if we look at the plan on the slide, the railway for which we have to acquire the permanent land is shown coloured purple. Now, if one looks at the yellow land, this is meant to represent land which will be occupied temporarily as a working site, but the site will not be otherwise changed. It will be restored afterwards and put back into agricultural use. It may be occupied for two years, one year, maybe three years, but after that, there is no long term use and normally, the Secretary of State would look to possess that land temporarily, not to acquire it.

16. Now, we come to other land which may be changed in its nature by HS2. Firstly, the green land is meant to represent the earth bunds that Mr Miller might have referred to in his presentation where we form, for example, false cuttings either side of the railway and we grade the land to the farmers’ side so that it can be reused for
agricultural purposes, so in that case, what we would say to the farmer is, ‘Yes, we have to occupy the land, but we’re prepared to just possess it if you wish to take that land back and farm it and offer to HS2 an undertaking that you won’t remove the bunding, obviously, as we’ve put it in to satisfy our EMRs.’ That’s environmental minimum requirements.

17. The blue land is meant to represent environmental works, such as tree planting and again, here we change the nature of the land and some landowners may be interested in taking that back and managing it themselves. They may very capable of doing so. Others may not, but again, it depends on the individual circumstances, but where the owner wishes to retain those trees and manage them themselves, we’ll possess the land temporarily. Where he doesn’t, we will acquire the land. We will reserve access from the highway to it and get some other body to manage it on our behalf, such as the Woodland Trust, for example, so it all depends is what we’re saying, but we give the landowner the flexibility to say yes or no in taking that land back, and therefore, the Secretary of State will either take it temporarily or he will acquire it outright, depending on those discussions.

18. So, you have a number of different situations, but our policies, we believe, are sufficiently flexible to, so that engagement with the farmer, we can get the right outcomes that satisfies both parties and no two farmers are alike, no two farmers are alike, so you know, everything is obviously based on the individual case.

19. Just to say, the line that is coloured red is just meant to represent a utility work where again, we would just take that temporarily, normally, but we would have a permanent easement to, shall we say, vary that utility because of the works.

20. Then what happens if land is surplus to requirements? We’ve agreed to buy it and it’s surplus to requirements. Well, normally, where the land retains its character, so in other words, we don’t materially alter its nature and it’s not part of a larger parcel in other parties’ ownership, we would normally offer it back to the former owner and that would be offered at open market value of whatever that land is worth in the first instance. If the farmer doesn’t want it, then we would look to sell it –

21. MRS MURRAY: Can I ask? If you bought it –
22. MR SMITH: Yes.

23. MRS MURRAY: – the person would obviously buy it back at the price that you’ve paid for it or would it be at the market value? Would they have to pay more?

24. MR SMITH: Not necessarily. It depends, I mean, if the market’s going up, they may have to pay more. If the market’s going down, they may have to pay less I suppose, over the period. It all depends, I think. It also depends on the way we restore the land and whether the land is damaged in any way so it becomes less valuable because of our works.

25. MRS MURRAY: So, that’s a disincentive if you have the land and say 18 months down the road, you find you don’t need it and you offer it back to the original owner at an increased price, surely that’s a disincentive for them to actually take it back.

26. MR SMITH: Not necessarily. I mean, I have to say, if you’re a farmer – I mean, this is just a fair market value, it’s like a house, you know, over three years, prices may move. They go both ways.

27. MRS MURRAY: I’m just thinking that if you’ve compulsorily purchased something, then –

28. MR WIGGIN: The probability is, though, that you bought it for a purpose such as building a railway which would deem to be a blight; therefore, it would be a lower value, so it’s unlikely to have gone up massively in 18 months.

29. MR SMITH: No, I mean, over a period of 18 months, it’s not going to move a lot, I’m sure.

30. MRS MURRAY: Okay, thank you.

31. MR SMITH: I mean, we’re not looking… This is a government policy which has evolved called the Crichel Down principles and these are, this is the government direction for land that has been purchased under compulsory powers and we follow that.

32. MR WIGGIN: It’s for generations too, so if you give it up in 40 years’ time, it still has to go to the descendants, doesn’t it?
33. MR SMITH: I think there is a long time limit.

34. MR WIGGIN: It’s a very long tail.

35. MR SMITH: We now move on to the statutory compensation code, so next slide, please. Just to say, these rules have come about over the last 150 years, so they’re fairly mature from the time of the first railway expansion in the Victorian times and they’ve been regularly updated since then.

36. We call the compensation code the mixture of statutes and decisions by the courts interpreting those statutes over the years, so this is what we generally call the Code and these are the rules, if you like, for assessing compensation that have been set by this place and also by the courts in interpreting them and obviously, these apply to schemes generally of public infrastructure across the company, so where you are acquiring land compulsorily, these rules will apply, not just to HS1, these aren’t specific to HS2, sorry, so there are four main topics I’m going to cover; compensation for land acquired; in addition, disturbance compensation and then I’ll look at where compensation is assessed where we buy part only of a property and then I’ll look at where compensation is assessed where we buy no part in the property, so these are the statutory compensation provisions.

37. So, let’s just assume to begin with that the railway goes through a house and garden and the main rules for assessing compensation in this particular case will be, and this applies to most land, that the value of the land should be taken to that which if it was sold on the open market, a willing seller might be expected to realise. What that is termed as is open market value, so that’s basically the rule. We pay open market value for the land.

38. In addition –

39. MR WHITFIELD: Can I just clarify, as if the track was never there.

40. MR SMITH: Exactly. I was going to come on to that, but yes, you’re ahead of me already and in addition to that, a land owner in occupation may be entitled to disturbance compensation which is not based on the value of land but may cover other losses that are suffered by the land owner, so –
41. MR WHITFIELD: Is there a standard percentage that applies?

42. MR SMITH: No, sir, there isn’t because in the old days, in the Victorian era, it started off by being land value plus 10%, but that was found to be inequitable in certain cases where, for example, a leaseholder has an interest in land. Most of his value would probably be in a business that he might run from there, not in the value of the land, so it’s evolved. The right to claim compensation still goes back to the fact that we’re taking land compulsorily at a time not of the choosing of the land owner, so he is, if you like, suffering damages and disturbance leaves untouched those damages he’s entitled to claim, so if you like, it’s that type of background.

43. THE CHAIR: It would be useful to have some data on that to contextualise when we’ve got petitioners coming before us and they’re – to understand what is reasonable compared to historic settlement, whether that’s on HS2 Phase One or elsewhere in the planning system.

44. MR SMITH: Yes, I will come on and show you some examples in a minute and yes, I can, we can do what we can.

45. MR WIGGIN: Is this a good moment to ask you what you think that arable land in Staffordshire is worth per acre at the moment? That’s what you’re buying, isn’t it?

46. MR SMITH: Yes, it is.

47. MR WIGGIN: So, there is a fairly standard level. I know what it is. What do you think it is?

48. MR SMITH: I’m sure you do. I –

49. MR WIGGIN: I think I do.

50. MR SMITH: It depends on the quality of the land and everything else, but I mean, I would imagine, I’m using old fashioned measurements now, it’s somewhere, £10,000 an acre or just over.

51. MR WIGGIN: That’s what I thought too, yes.

52. MR SMITH: But obviously, those will be, those matters will be settled as I will
come on to describe between the two parties. On the next slide, I just mention, this is the exception rather than the rule but you may have this before you in the committee. There may be an exception here and this covers which is devoted to a purpose for which there’s no general demand or market. Now, that sort of land is, for example, a church, a village hall. It may have a high community value, but it, probably in terms of property, may not have a market value and in this cases and it’s at the discretion of the Lands Tribunal, the compensation may be assessed on the basis of equivalent reinstatement, in other words, the cost of building an alternative facility elsewhere.

53. I just mention that, it’s not the general rule, but it may come up. So, quickly we set its market value as the general basis for assessment of land so, what are the valuation assumptions? Well, the key one is on the left hand side of this slide, that the land is sold in a manner likely to obtain the highest price, so if you have a house and a garden, and a big garden, for example, a landowner has this, and he can get five house plots on that land or he can occupy it himself and continue to enjoy the property.

54. If it’s worth, say, a million pounds as a development site, but half a million pounds as a house and garden, he can choose the higher figure, just as he would be able to choose if he was selling in the open market, so there’s nothing different here, so it’s the highest price he can achieve.

55. There has to be a consistency of approach, however, and if that owner of the house decided to accept compensation on the basis of the higher figure, if the property was going to be developed and his house knocked down, then in the absence of HS2, to achieve that price, he would have had to have moved anyway, so he doesn’t receive disturbance compensation. He just receives the enhanced land value and these are the general rules.

56. And then, just to repeat what’s already been said and you are ahead of me, the valuable aspects to be ignored are firstly HS2, so it assumes the scheme is cancelled, so there’s no HS2 when assessing that, so that means any depreciation due to blight or any enhancement, there may be enhancement in certain land, both of these are ignored.

57. Moving on to disturbance compensation, this is in addition to the value of land taken.
58. MR WHITFIELD: Sorry, can I just go back a bit then? If the landlord has a tenant in the property, how does the tenancy affect the landowner’s compensation in the sense that there is a value with a tenant and without a tenant? Where would that fall for the landowner?

59. MR SMITH: Yes. Well, you would value the two interests separately for compulsory purchase. A tenant can be anything from 25 years down to somebody who’s got a month’s notice, so it’s a great range, but broadly speaking, you would, if it’s subject to a tenancy, you would value the freeholder, subject to that tenancy, whatever it was. There may be an earlier or a much later reversion to a freeholder owner/occupier and the tenancy, you would value the interest in land again, depending on the rent paid and the length of time he’s occupying the site and in addition, of course, if he was the occupier, he may be, he would be entitled to disturbance compensation which I’m coming on to.

60. MR WHITFIELD: So, is the sort of flat rule the longer the tenancy, the more value it has for the tenant, the less value it has for the freeholder, as it would be if the freeholder was trying to sell the land subject to the tenancy.

61. MR SMITH: These are sweeping generalisations, but generally speaking yes, but I mean, if you get a good tenant on a property that’s not easily let, it could be quite good for the landowner to have a good quality tenant. It really depends on the circumstances, I think.

62. MR WHITFIELD: Which probably adds to my next follow up question: what if it’s a farming tenancy.

63. MRS MURRAY: I was just about to say that, what about a tenant farmer?

64. MR SMITH: The same principles apply. You know, the principles are no different. The farming tenancies, a lot of these are over a number of years, obviously, and so the farm tenant will be able to claim compensation for the value of his tenancy. Now, if he’s paying rent and he’s paying a high rent, there may not be a lot of value in the tenancy, but he’s then also entitled to claim for disturbance and any business loss he may suffer.
65. MRS MURRAY: So, the business loss for a tenant farmer would be taken into account.

66. MR SMITH: Oh yes, it would be taken into account, so these are all matters – the principles are the same, it’s just the amount that differs depending on the structure of the – between the landlord and tenant.

67. MR WHITFIELD: Do the tenant buyers have the right, in essence, to return for land or is that lost? I’m thinking in particular of that one farm that we saw where they were talking about 80% or something of the property.

68. MR SMITH: Yes, where we’re acquiring land and we acquire it from the tenant and the landowner, I’m thinking out loud, I may have to ask for legal advice on this, but I would imagine that you would offer it back to the landlord and you would look to see whether, I mean, that landlord probably would have no option but to let that land to the tenant. I would think that would be the case, but I would defer to legal advice.

69. MR MOULD QC (DfT): As always, we don’t get a straight answer.

70. THE CHAIR: Thank you for the joke anyway.

71. MR MOULD QC (DfT): Generally speaking, the offer back rules, the Crichel Down rules, relate to freehold land rather than tenancy land, but if you have a fairly long lease, then the rules may well be able to accommodate the offer back. The offer back may be able to embrace the practical reality. If it’s a shorter tenancy, a tenant from year to year, for example, which is often the case with protected agricultural tenancies, then it may be more difficult, but I mean, it’s in that kind of situation where, as Mr Smith said a few minutes ago, it’s in the Secretary of State’s interest to think very carefully about whether he can acquire, he can ensure that the final settlement between permanent land acquired for the permanent way and lands and margins of the permanent way that is actually only required for construction purposes, whether that can be, finally be settled once he knows precisely what the boundaries between those are so that he can then make sure that his actual permanent acquisition is limited strictly to the fence line.

72. MRS MURRAY: And if it were a tenant farmer who had some of his land acquired on a temporary basis and was paid a disturbance because of his business,
obviously, that would determine how much he would be paid in compensation for the business purposes.

73. MR SMITH: He would be entitled to losses, any loss that he suffers as a result of that temporary possession.

74. MR MOULD QC (DfT): There’s one thing that I found terribly helpful over the course of HS2: the Bill does not empower the Secretary of State to acquire land temporarily. It empowers the Secretary of State to acquire land permanently and to occupy and to use land temporarily, but that’s a very sharp distinction, and so, where land is occupied and used in the second alternative, there is no question of compensation for acquisition because there is no acquisition but the person, but anybody who has suffered a loss as a result of being displaced from their land is entitled to receive compensation for that loss.

75. MRS MURRAY: Thank you, that’s very clear. Thank you very much.

76. THE CHAIR: Just to contextualise this, how much compensation do you expect to pay overall and how does it kind of fix down in between the different types of compensation? So, the first answer may be a number, a rough number. I’ve got no idea whether it’s 10 million or 200 million or a different number and how much of it is for acquisition; how much of it is for disturbance and so forth?

77. MR SMITH: We haven’t got that amount of detail at the moment, sir. We would only have very rough estimates. I mean, normally speaking, land costs on a surface railway, and again, this is really rough, would come in around maybe 7-12%, maybe 10% of the overall costs, but that is an approximate guide for you here, but it gives you some indication. The major costs are the construction costs.

78. THE CHAIR: So 350 million out of 3.5 billion is a rough idea.

79. MR SMITH: That’s a very rough idea.

80. THE CHAIR: That’s helpful.

81. MR SMITH: Just going back to the value of land acquired, I’ll press on, we assume that the HS2 scheme is cancelled, so that’s where we were. Looking on
disturbance now, we’ll move on to losses not based on the value of land and these costs or losses usually arise from a compulsory acquisition and usually dispossession as Mr Mould recently said, so these are not based on the value of land and the key thing is they must be a direct and reasonable consequence arising from the acquisition, the compulsory acquisition, so they have to be, if you like, caused by the compulsory acquire. I won’t go into the detail because we have limited time, but here’s some examples of disturbance compensation.

82. I mean, loss of crops on agricultural land, for example; costs of seeking suitable alternative premises; fitting out alternative premises; temporary or permanent loss of profits for businesses displaced; costs of providing new stationery where businesses have to move; close down of business. We try obviously hard not to, but it’s inevitable in certain cases some businesses may close down although, you know, I shouldn’t think this is a very high number here.

83. We have redundancy on close down, stamp duty if one is buying a property compulsorily and they have to use that compensation to buy another one and have to pay stamp duty, that is claimable.

84. The whole point here is that overall, with the value of the land and the disturbance, we’re looking to the principle of equivalence that the landowner is in no worse nor better position as a result of the compulsory purchase.

85. THE CHAIR: Is it paid against actual claims, so you don’t agree that it’s going to be this breakdown and then they say, ‘Actually, we’ll take the money but we’ve decided not to carry on with the business; we’re just going to take that £750,000.’ They’ve actually got to move the business and pay a stamp duty and then you pay that.

86. MR SMITH: Yes.

87. THE CHAIR: They refurbish the property and then you pay that.

88. MR SMITH: Yes, to put it broadly, compensation is generally paid on receipt of a claim. That can be a claim for an advance payment, which I’ll come on to, or it can be a claim for compensation for either land or disturbance. Generally, disturbance claims come forward when a business or a person is displaced because then the costs start
arising and so, we pay the legal and surveyors’ fees of the landowners and the occupiers to have their claims negotiated, so we pay their costs and they generally negotiate with our suppliers as to the fair compensation in response to any claim.

89. MRS MURRAY: Do they have to prove that expenditure?

90. MR SMITH: Where expenditure is stated as being incurred, yes, they would generally have evidence to demonstrate that.

91. MRS MURRAY: And how is that? Is it through an invoice or?

92. MR SMITH: Yes, an invoice, removal costs, for example, I’m just picking one out, you know, you would have an invoice for that. It’s a normal thing and they would be advised to keep those invoices and the surveyor will pull it all together and put together a claim on behalf of the landowner. That’s the general way it’s taken forward.

93. So, these are examples of disturbance claim. I hope I’m not going too fast, but I’m keen on finishing on time.

94. MR WHITFIELD: So there’s nothing for the actual disturbance, the inconvenience of having to undergo all of this?

95. MR SMITH: Right, yes, in addition, you’re always in advance, in addition to this, there are loss payments which frankly are not based on anything. They’re additional payments and they’re meant to cover that very thing, so you have home loss payments for residential; other owners of land have basic loss payments and then you have occupiers’ loss payments. They’re different rates and these are changed from time to time, just like everything else by regulation of this house, generally increased, obviously, in amount.

96. MR MOULD QC (DfT): I’d like to say, because this may have occurred to you as you’re looking at that slide, there’s a school of thought that says that the middle and the right hand side of that are the wrong way round because as you can see, essentially, the owner gets 7.5% of market value; the occupier gets 2.5% of the market value and there are many people who say that the inconvenience is much greater for the occupier than it is for the owner, but that’s the way the law is and it has been since the statute which enacted these provisions came in in 2004, so we’re applying the existing law in this
97. MR SMITH: Obviously, if that law were to change before this Bill is enacted, then we would apply whatever it was changed to.

98. THE CHAIR: Are we expecting that?

99. MR SMITH: No.

100. MR MOULD QC (DfT): We’re not aware of that?

101. MR WHITFIELD: Are those maximums likely to change? Do they change annually or are they fixed?

102. MR SMITH: Maximum, they go up, yes. I mean, these are rules that are set for all compulsory purchase so we will just, we will follow those rules. Right, very important –

103. THE CHAIR: The maximum for a house explains some of the properties that we saw that would be on the – that would as a percentage, if it wasn’t capped, they’d get more money.

104. MR SMITH: Right. Lots of key interest is when is compensation assessed and when do the owners get paid. The date of valuation is broadly speaking, under compulsory purchase, is the date that we take entry on to the land and enter the land following service of a statutory notice. Obviously, if agreement is reached in advance of that for some reason, then that would be the date of valuation, but here, generally speaking, it would be the date of entry. Different rules apply to blight notices, but we can come on to that.

105. The next point is that owners and occupiers can claim advance payments of compensation which can be agreed or in the absence of agreement, can be 90% of the promoter’s estimate after the Bill is enacted, so they can ask for compensation in advance which often does help the cash flow if people are looking to move.

106. THE CHAIR: If property changes hands, is there a trigger point or is there something that stops the speculator coming in and buying property, renting it back and then receiving a premium based on historic value and escalation?
107. MR SMITH: So, your question is can a speculator make money on the back of compulsory –

108. THE CHAIR: Yes, presumably, so if a property is worth £100,000 now, without HS2, it would have been worth more, let’s say for argument’s sake £120,000. You’re going to pay, give or take 20% extra on top of that, so there’s a good case for someone going in and buying that property if they can be treated the same as somebody that has been there for 15 years and I didn’t know whether that was possible.

109. MR SMITH: I don’t think there’s anything to stop, in this country, somebody buying land by private treaty if the two parties agree.

110. THE CHAIR: To be honest, I was more worried about not someone taking advantage; I was more worried about somebody that couldn’t sell tomorrow. Hopefully there would be some people that would be prepared to buy tomorrow because they would be buying at the market discount, less the compensation.

111. MR SMITH: Yes, you’re thinking of people who we physically affect.

112. THE CHAIR: Yes.

113. MRS MURRAY: If somebody’s got their house on the market and it’s viewed as blighted.

114. MR SMITH: If the property is in the safeguarded area due to be demolished for the scheme, I’ll come on to that, but they can serve a blight notice and ask, it’s a reverse compulsory purchase which I shall come on to in a minute and cover that, so we can get 90% of compensation of the promoter’s estimate or as a maximum, in advance after the Bill is enacted and thirdly, compensation is not always assessed all at once. It can be that the land is assessed and then the disturbance later, but statutory interest at the prescribed rate does apply to the amount of unpaid compensation from the date of entry, so at the moment, it’s not very high. It’s a half a percent above base, but there again, interest rates are low at the moment, but I just say.

115. Again, those prescribed rates alter from time to time, so we will just go along with that. Disputes; what happens when two parties don’t agree? Well, the message here is that it will be subject to independent determination, either through an alternative
disputes resolution if the parties wish to do that or otherwise by the Upper Tribunal of the Lands Chamber. These are people who are expert surveyors, expert people in compulsory purchase and they will resolve the dispute.

116. Blight notices, yes, so if you have a house in the corridor of safeguarding, to be demolished for the railway, and you are an eligible owner/occupier, you can request where the property is unable to be sold, you can request that the property is purchased compulsorily, effectively it’s a reverse compulsory purchase. You serve a blight notice upon the Secretary of State and the same rules for assessment of compensation apply. It just means you can sell your house in advance, so safeguarding is there to protect the line of route, but it has the secondary advantage. It enables people who are affected by the scheme to actually get it acquired in advance.

117. I’m looking now at where part only land is acquired and this applies to quite a number of farms, for example, where a linear scheme, such as a railway, cuts through a farm and you have what we call severance and here, this will be, where we buy part only, the value of the land taken will be assessed as I’ve already gone through, open market value of the land, but in addition to that, the owner is entitled to depreciation to his retained land because the connection between the two sides is severed. Now, obviously, this can be mitigated in a number of ways by the provision of alternative access, for example, so it all depends on the circumstances, but again, I just want to make it clear here, you don’t just get the value of land. You get the depreciation to the remainder of the farm in addition to that.

118. And now, I’m afraid to say, this is a bit of terminology, injurious affection, I think we call – shall we say that’s depreciation due to the construction and operation of the railway? Where, for example, part only of a house, not a house, but a garden to a house, is purchased, obviously the value of the land for that garden may be nominal. It may not be a high figure, but when one looks at the impact of the railway on the house, it may depreciate it quite considerably, depending on its nature, so again, the owner receives the value of the land plus the depreciation for the retained land.

119. MR WHITFIELD: I’m sorry, it matters not whether it’s a higher crossing or actually crosses the land. It’s the actual physical presence of the railway and the depreciation that occasions, so like a viaduct situation.
120. MR SMITH: Yes, it does matter that land is acquired. This is where we acquire part of – so, this doesn’t apply necessarily, this doesn’t apply to where land is not acquired. They’re different rules which I shall come on to, but yes, yes. I mean, if it’s on a viaduct, the impact would be significant, obviously and the next slides repeats what I’ve just said which leads us on to the next stage which is, we call it material detriment, but I’ll try to explain. This is where – let’s go back to the viaduct example. You have a viaduct at the back of your garden now –

121. THE CHAIR: As you’re having a sip of drink, is our understanding we’ve got two speakers and do you want to split the time 50/50? I’m just trying to keep us on track.

122. MR MOULD QC (DfT): Yes, the second speaker is, Mr Thornely-Taylor, is going to give an introduction to noise and you are, I think, due to visit the sound lab tomorrow. The thought I had in my head was I’d like Mr Smith to finish if possible.

123. THE CHAIR: Absolutely.

124. MR MOULD QC (DfT): If Mr Thornely-Taylor doesn’t quite finish today, whether we can bookend the sound lab and bring him back for, just to conclude tomorrow afternoon. I expect the two sessions tomorrow which are in the diary, which are for traffic and tunnels, they won’t take anything like the three hours I think that’s been allocated for them.

125. THE CHAIR: If that makes sense for tomorrow.

126. MR MOULD QC (DfT): So, we’d like to start the noise tonight.

127. THE CHAIR: I’m a bit of a disciplinarian when it comes to time, but I think I’ll just have to trust you.

128. MR MOULD QC (DfT): Well, this evening always looked pretty tight, actually, but I promise you we will finish overall these presentations tomorrow afternoon.

129. THE CHAIR: Thank you very much.

130. MR SMITH: Press forward. We were at the position where, for example, a homeowner has a viaduct in the back of his garden. Here, the impact may be so severe
as to seriously affect the amenity of the house and in those circumstances, the owner can require the acquiring – that’s the Secretary of State – to buy the whole property because the impact is so severe, so this is what we refer to as material detriment. Do excuse me, I’ve had this cold –

131. THE CHAIR: We’ll give you a pause and if we need to suspend for a few minutes for a comfort break, that’s fine as well. Order, order, two minutes’ break.

_Sitting suspended—_

_On resuming:_

132. THE CHAIR: Mr Smith, over to you.

133. MR SMITH: Thank you, so can we go to the next slide? This is just a quick illustration of what happens where we tunnel deep beneath property and if you can see the two circular clear areas, they’re meant to represent the tunnel, the 11-metre diameter tunnel and around it, coloured grey, is the protective zone that we will purchase around the property, that’s to protect the tunnel from any development above. Now, you might say well, in Cheshire, whatever is going to affect a tunnel from development, but of course, we do have things like fracking that are brought forward, so these are things we have to think of in the long term, maybe not in the short term.

134. Generally speaking, where this occurs, we are talking about being more than 30 feet or nine metres below surface level. Where this occurs, generally speaking and this is being general, there is very little impact on the surface property, so if we go to the next slide, in these circumstances, normally we will just pay a nominal value plus fees towards the value of the land because the land itself would never be sold in isolation. It’s more of a nominal value to pay to the owner for having that tunnel beneath it. London is littered with tunnels beneath it and you know, what happens is, as I say, where they’re low level, very often, there is no impact. If there is an impact, it can be assessed.

135. Where the tunnel comes up to the portals and the surface, however, there could be a far greater impact, but in those circumstances, there may well be more compensation payable. I’m having to just generalise here.
136. MRS MURRAY: And what happens with the vents if you had a tunnel that needed vents?

137. MR SMITH: Yes, well we’d have to buy the land for the ventilation and the shaft –

138. MRS MURRAY: And you’d also have an area around those vents to –

139. MR SMITH: A small area around it as well, yes, probably to park a lorry, something to do with maintenance work.

140. MR WHITFIELD: But that compensation is restricted. That’s just as if a normal land purchase or –

141. MR SMITH: Normal land purchase, same rules, they all apply similarly to each property. Now I move on to where no land is taken, so let’s just assume there’s a house here and the railway is on adjoining land, so firstly, what losses arise from construction and I have to say, I’ll paraphrase this; very little is the answer and the reason for that is that in English law, broadly speaking, I’m not a lawyer, so I’m just… An Englishman’s home is his castle, all right, so he can do, he or she can do what they want within their house, provided they don’t cause a nuisance, provided if they want to do any works in it, they get the relevant consents and they don’t interfere with the neighbours’ legal rights, they don’t park on his driveway, for example, to do the works, so if none of these things occur – I may have a neighbour who is building an extension, I may not like that. I may not like the fact he’s doing it, but there is nothing I can do and I can’t claim a penny of compensation unless we get into a very litigious situation and broadly, the compulsory purchase rules just follow the normal rules that apply to the rest of the country.

142. It’s different, however, on losses arising from operation of the railway and here, business owners or owner/occupiers of agricultural units or residential owners, these are generally owner/occupiers, can claim the depreciation of their interest in land due to the operation of the scheme through physical factors and I suppose, really, if one is looking at HS2, noise, vibration probably may be two of the factors that could affect, probably more noise, and the valuation date would be 12 months after the public work is open, so after the works are opened, railway is opened, it’s running trains regularly. An owner who has had no land taken can seek to claim compensation for the depreciation to that
property due to the operation of the railway and the physical factors that I’ve mentioned.

143. Obviously, the compensation may well be reduced by things like noise barriers, embankments etc. which would mask the visual or noise intrusion.

144. MR MARTIN: You talk about physical factors, noise, vibration, smell, fumes, artificial light; my sister at one stage lived within the shadow of the elevated section of the M4 and she got quite used to it, but clearly, the house cost an awful lot less because it was within the shadow of the elevated section of the M4. Now, if you buy a very nice farmhouse in a nice rural part of Staffordshire and you suddenly find yourself within the shadow of the elevated section of HS2, is that going to be – it’s not actually a physical factor, is it? It’s just that it’s very large and it’s right next to your house.

145. MR SMITH: True.

146. MR MOULD QC (DfT): You won’t get compensation for the loss of a view.

147. MR SMITH: A view, you won’t get the loss of the view. You will get it for the noise impact.

148. MR MARTIN: But I mean, even if it is silent, if it is 10 feet away from the side of your house and it’s 20 feet up in the air, is that not going to be?

149. MR SMITH: No.

150. MR MOULD QC (DfT): Not under this scheme.

151. MRS MURRAY: That is very similar to people trying to claim compensation for wind turbines and that sort of thing that are erected close to their homes.

152. MR SMITH: Yes.

153. MRS MURRAY: It’s the same sort of thing, isn’t it?

154. MR SMITH: It is the same thing. I will come on – we have some non-statutory schemes which may catch what you’re talking about, sir, but here, no. You wouldn’t be able to claim for it, but these are known as part one claims and they’re reasonably well established and they are paid, generally, down the line of route where losses are suffered.
155. THE CHAIR: Before you move on, I’m just a bit confused by qualifying interest. So, you have to, is it you have to qualify on all of those or just one? I’m unsure why the middle one, business owner with a rateable value less than £36,000. I could understand if it was more than something, but less and excluding those of a greater value, I don’t understand.

156. MR SMITH: Well, these are the rules that generally apply to blight notices. These are people that can ask the Secretary of State to buy land in advance, where they’re in the safeguarded area. The rules are such and I’ll explain it, I think the intent of Parliament has been to protect the small business and that is why the rateable value less than £36,000 is set. This is, again, this is amended from time to time by the House through regulation but that, I understand, is the purpose behind it.

157. THE CHAIR: So, if you were a farmer, to have a rateable value of £36,000, what would that imply in terms of size of business?

158. MR SMITH: It doesn’t apply – I think you have to just be an owner/occupier of an agricultural unit. I don’t think there’s a rateable value that applies to farming.

159. MR MOULD QC (DfT): And an owner/occupier of an agricultural unit will capture the great majority of farm tenancies because the length of the tenancy I think it’s relatively short that you need to be able to show in order to qualify under that, so there is reasonably strong protection to agricultural occupiers, owner/occupiers.

160. MR SMITH: Yes. Right, I’ll move forward, I’m coming to the end now, so I’ll press on. These are – I’m now dealing with the non-statutory property schemes that have been introduced by the Secretary of State. These are shown here. We have express purchase, voluntary purchase or a cash offer, need to sell, rent back, homeowner payments. These have all been consulted upon and the updated schemes are available on the web.

161. Right, this diagram is meant to just help you understand which schemes apply where, so in the safeguarded area, the express purchase scheme applies. It really tweaks the blight notice applications requirements. Outside of that, we have the rural support zone and in this area, and this is up to 120 metre from the centre line of the railway. These are the properties not required for acquisition for the scheme, but probably are
most affected by the construction and operation of the railway.

162. Beyond that we have, and there are no distances here, the need-to-sell scheme. So, the need-to-sell scheme has no geographical boundaries, it depends on the circumstances and then, immediately beyond the rural support zone, there are homeowner payment schemes. I will deal with each of these briefly as we go through but these are all on the web and they’re easily attainable and we can give you the links if necessary.

163. This is a map that shows those zones. They’re not, unfortunately, lovely straight lines as normal but this just shows diagrammatically somewhere in East Staffordshire, the grey area being the safeguarding area in the centre; you then have the homeowner payment area coloured, I think, orangey; and then you have three, sorry, the voluntary purchase area coloured orange; and the three homeowner payments there are coloured red, green and yellow. Do I have that right? I think – anyway, as you can see, they are not always nice straight lines but they’re there and obviously the need-to-sell scheme could apply anywhere on this map.

164. So, let’s start with express purchase. The key point here is, in many cases the railway doesn’t necessarily go nicely straight through an owner’s boundary; it cuts through, and very often part of a property is required for the railway but the other part, maybe the house, is not. So, in order to make it easier and more certain for the landowner to know whether he would be accepted as a blight notice, the rule on express purchase is if more than 25% of an owner’s land is required for the scheme, or the dwelling is required for the scheme, then there’s no question that the landowner isn’t required to try and sell the property before he applies to us for a blight notice. Generally speaking, the rules say you do have to try and sell the property but where it’s so badly affected, the express purchase scheme says, no, you don’t have to.

165. MR WHITFIELD: Sorry, is that irrespective of the amount of land that they have? So, I was thinking farmhouse falls into purchase, many, many acres heading off way beyond, you would buy the whole thing, no questions asked or no questions argued about it?

166. MR SMITH: Yes.
167. MR MOULD QC (DfT): It’s any part of the dwelling.

168. MR SMITH: It’s any part of the dwelling, yes.

169. MR WHITFIELD: Yes, so the dwelling triggers the purchase of the whole property, irrespective of the size of the property that you – land attached to the property; I’ll rephrase that.

170. MR SMITH: Yes, I think that’s right.

171. MR MOULD QC (DfT): The way it works, you need to think forward into the process there. The fact that any part of your dwelling falls within the safeguarded area would mean that you would be able to serve the blight notice, no questions asked effectively. But the question then might arise as to whether the Secretary of State would want to say that he doesn’t need to – if you had a huge holding of 100 acres, you had a mansion house with an enormous park and so forth, the Secretary of State might want to say whether or not he wanted to buy the entirety of your holding or whether he only required part of the land in question. But in the majority of cases in reality here, we’re going to be dealing with relatively ordinary dwelling houses which have relatively ordinary size gardens and so the express purchase scheme is designed in practice to mean that you can move straight to a discussion about the price that the Secretary of State will pay for your property.

172. MR SMITH: We now move to the rural support zone. If you remember, this is the zone that’s immediately adjoining the railway and here owner occupiers, again with the same rateable value limits as we have discussed previously. So, owner occupiers can, where they apply to be acquired, the promoter will purchase their property and it’s full, I call it unblighted value but it’s the same thing, we’re ignoring HS2, but if we buy this land, it won’t be acquired under the statutory provisions so no disturbance or home loss payment will be payable. So, if one of the owners of the houses wishes to sell and applies and is eligible, the property is purchased at the unblighted, open market value, enabling that property owner to move, if there’s a viaduct alongside him for example. Alternatively, if the owner doesn’t want to move, he can also apply for a cash offer which has a maximum of £100,000, a minimum of £30,000 or 10% of the unblighted market value. So, he can choose one or the other.
173. MR WIGGIN: Whichever’s greater?

174. MR SMITH: Sorry?

175. MR WIGGIN: Whichever’s greater? So, if his house is worth £2 million then 10% would be £200,000 or is it capped at £100,000?

176. MR SMITH: It’s capped at £100,000. So, it’s probably of more interest to the smaller homeowner I would have thought. But, again, some people don’t want to move so this is a flexible policy.

177. MR MARTIN: Can I just ask, it says it only applies if the person purchased the property prior to 28 January 2013.

178. MR SMITH: True.

179. MR MARTIN: Was everybody along the route aware in February 2013 of where the route was going to go?

180. MR SMITH: That – well –

181. MRS MURRAY: Would it show up if you did a Land Registry search?

182. MR SMITH: This is, yes, I was going to say, this is there to protect from speculators coming along.

183. MR MARTIN: Yes, I realise that.

184. MR SMITH: Buying at blighted value then requesting us to buy at full value. So, the date of 2013 is the date when presumably Phase 2A was, maybe not on exactly the same path as it is now but was promoted as a definite proposal and we had a similar date when Phase One was first introduced and this scheme had an earlier date for Phase One. Again, it’s really a safeguard to prevent people speculating.

185. MR MARTIN: I appreciate that is to avoid speculation. However, how specific was the route in January 2013? I mean you were going to build a railway, there was going to be a railway and it was going to go through Staffordshire. Now, presumably the blight did not apply to the whole of Staffordshire so you must have had a pretty good – and it must have been publicly known roughly where the line was going to go in order
to be able to say that that is a date beyond which people would not be able to claim compensation if they’d bought after that date.

186. MR SMITH: I agree.

187. MRS MURRAY: In other words, if I went to buy a house that was in the general vicinity of your route and I had a Land Registry search, would that have shown up that there was going to be a railway within the vicinity?

188. MR SMITH: Well I think from the answer, it should have done from that date. I’m assuming that is the date when we first safeguarded land.

189. MR MOULD QC (DfT): No, it’s the date when the preferred route was announced.

190. MR SMITH: Or the preferred route was announced so there we have it, so it’s public.

191. MR WHITFIELD: Can I just ask about –

192. MR MOULD QC (DfT): Sorry, I was going to say, there was a line shown on a map, a set of Ordnance Survey sheets, that was in the public domain and which the Secretary of State announced. Now, because I can’t give you a confident answer as to whether that would have shown up on every local authority search, I will find out for you and I will let you know.

193. MRS MURRAY: My point being that if it didn’t and somebody had purchased their house just before that date, and it didn’t show up, they may be able to prove it didn’t by providing you with the search and it just seems very unfair to me that we’re putting a date on if that wasn’t the definite date that was registered with the Land Registry.

194. MR MOULD QC (DfT): Obviously, if the purchase took place at any time before that date then this particular criterion would not bite on that claim. But your, if I may say so, the concern you are voicing is a concern that others have voiced. This has been a feature of this scheme and indeed of the need-to-sell scheme which Mr Smith is going to tell you about briefly. Since those schemes were first announced in relation to Phase
One in April 2014 and the Secretary of State has, in the intervening period, has reviewed whether that component of those schemes should be retained or whether it should be removed or modified and he has consulted publicly on that question and received views from people and his position has been, on reflection, that he should retain that requirement.

195. MRS MURRAY: Okay.

196. MR MOULD QC (DfT): But you’re right to focus on that as being something that has been a source of some concern. I will find the answer to the question you pose and we will come back to that when we have it.

197. MRS MURRAY: Thank you very much.

198. MR WHITFIELD: Can I first put a stupid lawyer question? What happens if you inherited a property after 28 January 2013?

199. MR MOULD QC (DfT): There are some provisions in these schemes to deal with succession. They are relatively focused. Again, I will remind myself of that and let you know but that also has been a source of some concern, yes.

200. MR WHITFIELD: Been envisaged.

201. MR MOULD QC (DfT): Yes, but I’m afraid there’s no substitute actually for looking at the detail of them in the published guides which tell you what arrangements have been made for these kinds of situations.

202. MR SMITH: This is, I’m afraid, very general so it doesn’t go into the specifics. Beyond the rural support zone, you will remember I said there was a policy that had no geographical boundary and this is the need-to-sell policy. The same eligibility criteria, apart from location, apply to the need-to-sell applicants so the same rateable value of their owner occupiers but here there are five criteria that there has to be an owner occupier, that the property has to be in a location that is impacted by the scheme, there have to be efforts to sell; no prior knowledge again, the same point; but here because we’re outside of the rural support zone, it’s for owners who have a compelling reason to sell, such as health –
203. MRS MURRAY: Relocation of job?

204. MR SMITH: Relocation of job, things of this nature, then their houses will be purchased again at the full unblighted open market value. So, this pre-dated a sort of hardship policy but this is more flexible and generally speaking, up to date the take-up is approximately 60% of the applications are actually approved by independent panel.

205. MRS MURRAY: Would that property then be sold on at a reduced value?

206. MR SMITH: Generally speaking where, provided it’s economic to do so, it usually is, these properties are prepared for letting, during the works. Some of them, depending on their location, may not be too easy to sell and they’re being let and will be sold later on in the process.

207. So that’s where we are and this is just confirming that homes purchased in this way can also be rented back to the former owner if necessary where it’s requested and obviously appropriate tenancies will be offered.

208. Outside of the rural support zone you saw three zones where properties with eligible owners again, the same eligibility criteria applying to homeowners and they get a cash payment following the Royal Assent to the Bill in the following amounts. I mention this very briefly because this is just a physical administration, a cash payment. The Secretary of State’s reasoning was that it enabled homeowners to share in the benefits of the scheme and I’m merely repeating what has been said, so I’ll come on to the next one.

209. Amongst all this you may have atypical properties and, indeed, I’m sure one or two may come up in this stretch where they don’t actually comply with the normal rules. You may have equality issues, for example, and things of this nature. These are decided by the Department for Transport on an individual basis but where it’s appropriate, the department and Secretary of State will consider supplementing the non-statutory policies in agreeing to purchase these properties. There is no real process apart from this, because obviously these are special circumstances and, indeed, a special circumstance could be that maybe somebody applied to purchase a property after a date of the 2013 and got an answer there was no railway. So, that could actually end up as a special circumstance.
210. MR MARTIN: Will any payments made under this atypical properties system be in the public domain?

211. MR SMITH: Well, total payments –

212. MR MARTIN: Any purchases or any payments?

213. MR SMITH: Yes.

214. MR MARTIN: The only reason I ask is because obviously if there are not hard and fast rules about the way it’s applied then if it’s not in the public domain there would be –

215. MR SMITH: Well, we have lots of information. I just was saying we wouldn’t necessarily give details of each individual transaction but totals, definitely. Numbers of properties, amount spent. Generally speaking, individual purchases would be confidential between the owner –

216. MR MARTIN: Yes, I know, I realise that but where there are rules that govern whether the purchases are made or whether payments are made then you would want it to keep individual purchases to be confidential but if this is – I mean this is discretionary.

217. MR SMITH: Yes.

218. MR MARTIN: Discretionary payments to unknown people of unknown amounts for unknown reasons could be called into question.

219. MR SMITH: They follow the rules. I mean this isn’t just dishing out cash to anybody walking along the road.

220. MR MARTIN: Okay.

221. MR SMITH: I mean these are people who have to be owners of property and pass eligibility criteria. But we can give you details of the numbers of properties acquired under different schemes, the amounts that have been paid in total, the take-up rate, so we’ve got all that information if the Committee is interested.

222. MRS MURRAY: Do you publish you’ve paid X amount of compensation
payments within a financial limit?

223. MR MOULD QC (DfT): The answer is that we –

224. MRS MURRAY: Almost anonymise the information.

225. MR MOULD QC (DfT): Yes, I can deal with this. The department has both made available to your predecessor working on Phase One, and has published from time to time, information about the take-up of these schemes in terms of numbers of properties acquired against the numbers of applications made over a set series of four quarters or whatever it might be and has also published the aggregate amount of money spent on acquisition. It has also published information about the stage which particular cohorts of applications have reached so we’ve had X number of claims have been completed, properties purchased, the following claims are the in pipeline, they’ve been accepted for purchase but the purchase hasn’t yet been completed. The following are in the pipeline and no decision has yet been made about them. The following have been made but they have been rejected. The reasons why they have been rejected, some are rejected because they don’t show a compelling case, some are rejected because they are not affected by the railway and so on and so forth and amongst that data we either have or can make available, basic numbers in terms of special cases, how many properties were considered special cases and I see no reason, in principle, why if you want to know what the aggregate sum of money that has been spent if you like on that element, why that shouldn’t be made known to you, as long as it’s not attributable to any particular transaction where obviously confidentiality questions arise.

226. MRS MURRAY: Absolutely, absolutely.

227. MR MOULD QC (DfT): I will obviously have to take instructions from the department on that but I see no reason why Parliament shouldn’t know that information.

228. MRS MURRAY: And you would also have to be very careful even if you anonymised it that you didn’t provide information where somebody could be identified as well, yes.

229. MR MOULD QC (DfT): Indeed so, and great care is taken with HS2 Ltd and within the department to make sure that these kinds of details do not disclose protected
data as it were.

230. MRS MURRAY: Thank you.

231. MR MOULD QC (DfT): But your predecessor Committee were very interested in the way in which these schemes were functioning, for obvious reasons, and we were able to make information of the kind that I have just outlined available and if you would like that kind of information to be provided to you on a periodic basis, I would imagine that those who instruct me would be very pleased –

232. THE CHAIR: I think everyone’s nodding. As a general rule, anything that the previous Committee found helpful, we would be inclined to accept as default.

233. MR MOULD QC (DfT): Well, as I say, I’ll certainly report back on that for you, yes.

234. MR WHITFIELD: Can I just ask, when we visited last week, we travelled through a number of areas where purchases had already taken place. In the main, what have those purchases been there?

235. MR MOULD QC (DfT): I know, for example, that within the settlement of Stockwell Heath that you may have visited, which is in the southern section of the route, I know that that I think there have been a number of properties there that have either been purchased or where the Secretary of State has agreed to purchase. One or two of them are, I believe, properties that have been purchased following the submission of blight notices because they fall within the safeguarded area and I believe there may be one that has been, at least one, that has been purchased under one of the non-statutory schemes. But, again, if you would find it helpful at an early stage in your proceedings for me to ask for information about purchases along the route, either under statutory blight or under the non-statutory schemes up to shall we say the end of this month or something of that kind, I can ask that that information is available.

236. THE CHAIR: That would be very helpful if it came with a top page summary, as simplistic as possible.

237. MR MOULD QC (DfT): Yes.
238. THE CHAIR: Martin?

239. MR WHITFIELD: I was just going to say I was thinking in particular of the village that we were in which was going to be cut off by it and there were some purchases had been made but that was outwith –

240. MR MARTIN: I think that was Stockwell.

241. MR WHITFIELD: It was Stockwell.

242. MR SMITH: Just very quickly, how do we, what’s the mechanism for assessing value of unblighted properties? So, this explains it quite simply. The property owner and HS2 each choose a registered value, that’s a value registered by the Royal Institution of Chartered Surveyors as a valuer with experience. Two valuations are carried out. If they are within 10% the average figure is taken. If the valuations are more than 10% apart then the applicant can request a third valuation from a registered valuer of his or her choice and then the figure is taken from the average of the two closest valuations. So, I don’t know just if you think about it, it’s fairly logical and obviously on this there is no dispute mechanism. It is assessed in accordance with this process and it seems to be working reasonably well. There was a big push in Phase One for the applicant to be able to request a third valuation and that seems to have done the trick in terms of getting these things through.

243. THE CHAIR: Thank you very much Mr Smith.

244. MR SMITH: Thank you.

245. THE CHAIR: Are you happy to press on, Mr Mould, rather than take a break given time?

246. MR MOULD QC (DfT): Now, whilst Mr Thornely-Taylor, who is going to speak to you now, takes his place, I’m just going to say this if I may by way of getting defence in first. I know you’re keen to try and keep technical material to the minimum and you’re now about to embark on a subject which, I’m afraid, is one where there is, necessarily, a technical element. But if there’s one person, in my experience, who’s able to present this kind of information in the least technical way, it is the gentleman who sits to my right who has given evidence to Select Committees on major transport
schemes I think over the last 25 years.

247. MR THORNELEY-TAYLOR: 40 years.

248. MR MOULD QC (DfT): And I think, certainly in my experience of having worked with him on a number of occasions, the presentation he’s now going to give to you, or something closely approximating to it, has been his way of introducing Parliamentary Committees to what is necessarily something of a complex topic.

Presentation by Mr Thornely-Taylor

249. MR THORNELEY-TAYLOR: Good evening. My name is Rupert Thornely-Taylor with an ‘l’ in it. I am a fellow of the Institute of Acoustics. I head a consultancy practice which is, in a few weeks’ time, entering its second half century and I was expert witness in the Phase One Select Committees in both houses and I will be explaining what we are doing in sound lab in the morning.

250. I’m going to talk first of all broadly about what sound is and what vibration is, then go on to how humans perceive it and how we measure it. Having done that, we then need to explain how to assess noise and its effects and then I will move on to ways in which those effects can be reduced. I will talk about government policy on noise and vibration and in particular the way HS2 implements and applies government policy.

251. Noise arises in a scheme like this in a number of ways. Surface construction sites obviously emit noise. Tunnel construction does both at tunnel portals and sites associated with them and also the boring of the tunnel underground itself. The operational phase, clearly the surface railway emits noise. Plant and machinery associated with the railway makes noise and where railways run in tunnels you can hear a rumble in some circumstances, not all, from the operation of the railway underground. All that sound is is a very rapid fluctuation, a very small fluctuation in air pressure, oscillation of air pressure. It travels away from the source by wave motion. Those oscillations can occur quite slowly, 20 times a second, which would just be audible as a very, very low rumble, or right up to 1000 times that, 20,000 cycles per second. You’d have to be very young to hear that. It’s an extremely high-pitched hiss. Sound decays with distance as we know. When sources wave away, they get quieter. That’s because the sound is spread out over a larger area and gets weaker. It’s also reduced when sound
travels over soft ground surfaces, when it meets obstacles such as either dedicated noise barriers or buildings or terrain features. The word used to describe the decay of sound is attenuation.

252. I think everybody will be aware that we use decibels to measure sound. They’re a bit unfamiliar. They will crop up in a number of petitions I’m sure and they certainly feature large in the environmental statement. Decibel is abbreviated dB, with a capital B. Human ears are very poor instruments for sensing sound. They’re very insensitive to low frequency sound and bit insensitive to very high frequency sound, so you can’t just take a physical metre and measure in physics terms how much sound there is and get a number which matches what people here. We have to weight what a metre measures to get it to behave as near as possible to the way a human ear behaves and the weighting we mostly use is called the A-weighting and that’s why we’ll often see the capital letter A after the symbol dB for decibel. What it means is, we’re getting a little bit closer to measuring a number representing how humans hear the sound rather than the bald physical amplitude.

253. The word noise would generally apply to sound we don’t want. I talked about a sound on the meter being able to match the human response to a point but human beings are much more complex than any instrument we have for measuring sound and there isn’t a hard and fast or simple relationship between what you measure and how people respond to noise and we need to keep that always in our mind.

254. Vibration is similar. It’s a word we apply when it’s not a wave coming from a source through the air to our ears but a wave coming from a source, through a structure or through the ground and that we feel with the sense of touch or the sense of movement. Like sound, it decays with distance as it spreads out and things will also attenuate it, energy absorption in the soil if it’s underground, an underground source, or obstacles in the soil or other discontinuities. We’re interested in vibration at much lower frequencies than sound. I said we began about 20 oscillations per second for what we hear but what we feel can go down to very, very slow movement up to 250 oscillations per second. We use that abbreviation Hz, short for Hertz, which is the standard unit of frequency. In the old days we would say cycles per second. It follows from that that towards the top end of that range, vibration can actually cause surfaces to act like loudspeakers and radiate noise which is why you can hear a rumble of an
underground tube in London for example and then it turns itself into audible sound, just
like any other sound, measured in decibels. Just like the A-weighting that we applied to
airborne sound to try to match the response of the human ear, there are corresponding
weightings to try to match the vibration response of the human body. Again, there is no
simple relationship to measured vibration levels and the way humans respond.

255. The decibel scale is unfamiliar in some ways but it has some very convenient and
easy things to remember which apply, no matter what the level is, they apply to quiet
sounds, they apply to loud sounds. The basic thing about the decibel scale is it measures
changes as well as levels and this is one of the critical things. If there is a 10dB change
in a sound level, people listening to it, if it’s gone up by 10dB will think it’s about twice
as loud. If it goes down by 10dB, people will think it’s gone down to about half
loudness and that applies wherever you are on the scale and whether you’re listening to
something really quite quiet, if it goes up by 10dB you’ll think it’s twice as loud, if it
goes down by 10dB you’ll think it’s half as loud, and it’s true with a really loud noise
like a motorbike in the room or something like that. It’s an important yardstick to bear
in mind. Because of that, a 1dB change is actually quite hard to detect. If I played you
a demonstration of sound here in this room and there was an immediate step in level of
1dB, you would notice a change, only just, but if you went out of the room while I made
that change and came back in, you wouldn’t think there’d been any change in the sound
level. It takes about a 3dB change to be clearly perceptible. If you went out of the room
and came back in you probably would just notice something had got a little bit louder or
a little bit quieter if there was a 3dB change. One of the things these days I say to
people, a way to see what 3dB sounds like is in many washrooms there is a row of hand
driers and if you put your hand under one of them and then put your hand under the
other one and start it and there you have, as I will explain in a minute, a 3dB increase in
sound level, for reasons which will become clear.

256. This is some examples of what the numbers actually turn out to be. Up the left-
hand side, we’ve got indoor noise, circumstances. On the right-hand side, outdoor.
We’ve got normal voice at one metre – 60dBA, a loud voice at one metre – 70dBA.
Those are the indoor sources. A vacuum cleaner at one metre, depends obviously on the
type of vacuum cleaner but it gives you a feel. You could be in a nightclub and find that
you’re having to put up with 100dBA. If you were a very, very quiet room and you
really couldn’t hear anything, it could be around about 20 and you’ll get a bit of an example of that in sound lab tomorrow morning. Right hand side, some other outdoor sounds just to give you a feel as to what the numbers mean.

257. The difficulty is, of course, it’s all very well having a number to describe a sound level but not many sounds are constant in level and just applying one number to noise which rises and falls can be of limited use. There are times when it’s important to measure the maximum level and we do use maximum levels in the assessment of HS2 noise as I’ll explain later. We call it LAmx, L meaning it’s a level, the A being the A weighting I talked about for matching the human ear and max being the highest level. There are two flavours of LAmx according to whether you set the meter to fast or slow. We will be using slow setting for most of the measurements I’ll be talking about.

258. The problem is that if one noise event occurs in a time period, or 30 noise events occur in a time period and they’ve all got the same maximum level, it’s not very helpful just to know that maximum level because, usually, 30 events, or however many it is, are actually much more annoying than one event. So, you do need not only to take account of sound level, but also the number of times an event occurs or, alternatively, the length of time that the noise is at that level.

259. So, we then move in to a special index which has the capability off allowing for not just sound level but number of events and duration of events. It’s called equivalent sound level, equivalent continuous sound level, and got the symbol Leq or LAeq. It will crop up over and over again because for something like a railway, it is ideal for expressing not just the noisiness of the trains passing by but the interval between them or, looked at another way, the number of trains per hour, and it plays a very important part in the assessment of HS2 noise and any other transportation source.

260. A lot of objectors to schemes such as this and many petitioners complain that this index called Leq is misleading because it’s some kind of average which smooths out the nasty bits of the noise and I’ve heard petitioners saying in all good faith, it’s not an index that we hear, it’s misleading, it shouldn’t be the one which drives the assessment and conformity with policy and the like. I need to explain that it’s actually a much cleverer index than you’d think because it’s not an average of sound levels, for reasons I’ll explain. If you have a mixture of a number of fairly low-level sounds and a few
high-level ones, the Leq level comes out much closer to the high-level ones than it does to the low-level ones. Now, I’ll explain that in a bit more detail, with a bit of a technicality but, actually, this isn’t as bad as it looks. One of the ways you can look at a sound environment is just to draw it as a function of time, going up and down. Time is passing from left to right on this slide and most of the time there are relatively minor noise events. The scale up the left is decibels, so most of the time events are, in this case, 40 to 50 and then something quite noisy happens, not particular noisy but sticks up above the rest of the environment, goes up to something like 68. Now, what I want to show is what the Leq index, which is going to crop up a lot of times in our proceedings through the Committee’s work, what the Leq index does to a case like that.

261. In the next slide we’ll look at the same plot but on the left hand side, instead of decibels, we’re going to show exactly the same event but in physical intensity units which can be Watts per square metre and the big feature of the decibel scale is because it is showing you proportional changes, which I mentioned earlier on when talking about changes in loudness, each time there is a 10dB increase, each time we go up one line on the scale, there is actually a tenfold increase in the amount of energy in the sound. If we go to the next slide and stretch that scale out to a more familiar linear scale, we see how much, much more energy there is in that peak than in everything else that came before it and went afterwards. We ca average that all out and get that red dotted line and go back into the decibel scale and we see the red dotted line which is Leq, much closer to the peak level than to all the other events that were taking place and much higher than the average level. So, when petitioners come and say ‘HS2 are measuring noise in this average level which is misleading. People don’t hear average levels’. We’re not. We’re using an index which is sensitive to high noise events.

262. Leq is basically a decibels –

263. MR WHITFIELD: Sorry, can I just ask about that? And that remains true irrespective of the time that the large energy event occurs in?

264. MR THORNELEY-TAYLOR: The longer that large event –

265. MR WHITFIELD: The bigger the effect but the shorter the time effect.

266. MR THORNELEY-TAYLOR: It if occurs as a relatively short event within a long
time period, then you are right, it does bring it down.

267. MR WHITFIELD: Yes.

268. MR MARTIN: Would it not be correct to say that very loud, very short events can actually be more disturbing than regular events or longer-term events? I mean I’m reminded of when I was a young lad living in the Suffolk countryside and about once a month or so the USAF would fly over at about 100 feet and that was a very shocking event and it only happened once a month or so.

269. MR THORNELY-TAYLOR: That is true. I live in the Suffolk countryside and get helicopters from RAF Wattisham. And, indeed, we recognise that because what you say is particularly important at night and when I come on to the way we assess noise in the day and the night, I will explain that we do actually concentrate on the maximum level for night noise, for the reasons you mention.

270. The Leq scale behaves like a decibel scale, which it’s fundamentally based on, and we have this important relationship that the way the decibel scale goes is if you double anything, either the amount of energy in a sound, the number of sources, the duration of a sound event or the number of similar events doubling, raises the decibel level by 3dB wherever you are on the scale and the next rule is, for the same reasons, 10 times the amount of energy in the sound, or 10 times the number of sources, 10 times anything, duration, always give a 10dB change in the sound level, increase in the case of a rise. If you divide by 10, minus 10dB for a fall.

271. We can calculate Leq for different periods of the day. As we were saying a moment ago, its level does depend on the length of the period the calculation is made over and we can do something called L-day, L-evening and L-night. We use L-night specifically and we’ll see that again a bit later but we can do something special with those three sub-units of L-day, L-evening and L-night. If we take account of the fact that noise at different times of day has effects of different important, night noise is more important than day noise because of the potential to disturb sleep, and it has become customary to treat evening noise as somewhere between day and night and what we can do is to say let’s assume that noise that occurs at night has effects as if it were 10dB higher than it really is, and do the same for evening and so treat it as if it were 5dB higher than it really is and, having done that, we can re-combine them into a unit called
the day, evening, night level which is going to crop up in some of the noise issues we’ll look at, known as Lden for short, it’s becoming more and more important. It saw the light of day when we started a process of noise mapping under the environmental noise directive and noise maps, statutory noise maps effectively they are, are plotted in this unit, Lden, but we will soon see some new guidance from the World Health Organisation which will use Lden as its principal unit.

272. Now, the relationship between Lden and the component Leq levels is quite important. HS2 has a set of criteria which are basically in Leq but the question does arise, if we did use Lden, how would they compare? And it so happens that the pattern of train movements between the day and the evening and the night is such that if you do calculate Lden, it comes out very nearly the same as the daytime Leq, which is quite convenient.

273. MR WHITFIELD: Sorry can I just ask, the weighting that’s given to the Lden is a universal worldwide weighting?

274. MR THORNELEY-TAYLOR: Yes, yes.

275. MR WHITFIELD: Thank you.

276. MR THORNELEY-TAYLOR: Well, it’s not, in the United States they tend to use Ldn, they leave out the evening part of it, but it’s the same concept.

277. Now we get to the difficult bit. So far, I’ve been talking about physics effectively and mathematics but if we now turn to what humans, how humans respond to noise expressed in the ways I’ve explained, it gets quite complicated. The actual numbers on their own really have no meaning at all. The only we can say what 50, 60, 70 dB on any scale we like means when we’re looking at its effect on people, is to do social surveys and for transportation noise sources, there have been large numbers of surveys where there’s a combination of a measurement programme and a questionnaire programme. Teams go out and they don’t ask people bluntly ‘What do you think of the noise?’ because it’s a leading question. They ask questions about the environment and tease out answers which enable scores to be attached to people’s quantification of noise in terms of how much annoyed they are or other effects it has on them. But, there is no simple link between the answers you get from social surveys and the measurements you get
from sound level meters. There’s a very wide distribution of responses for any particular noise climate and it follows from that, there is no clear number above which the noise is unacceptable, below which it’s acceptable. It’s a process of trying to fit the data, as best as possible, to a very scattered set of responses.

278. And the classical way of looking at scatter in responses is a distribution curve like this. This is actually the Gaussian distribution curve and there are many ways of looking at it but, in this particular example, we’ve got a fixed amount of noise, we’re asking a large population what they think of that noise and this curve is telling us that there’s a small percentage of the population who are not annoyed by it at all, they don’t really take much notice of it. That’s the left-hand tail of that distribution curve. Move over to the right hand tail and there’s a small percentage of the population who think the noise is severely annoying, most unacceptable, they score it on a scale of 0-10 as 8 or 9 but the great majority lie within the middle region and you can extract a useable number from survey data like that by turning that from a distribution curve into a cumulative distribution curve and you can say the percentage of a population that is annoyed at least to a particular degree is the scale on the left and as the noise level increases, you gradually reach a point where very nearly 100% of the population say the noise is at a particular level on the annoyance scale and that is a pretty important curve. The reason it's important is the left hand end is where we’re normally working and if you just plot the left hand part of that curve, it looks like that and if you open any report or document or guideline on the relationship between noise and population response, you’ll see a curve which is that shape and decision makers often pick a particular point, for example, 10% of the population are highly annoyed, and there will be a noise level for whatever the source is, it won’t be the same for railways and highways and airports or industry or pop music or construction sites. It will be different for each class of source but for each class of source you can plot a curve like that and you can say at such and such a noise level there will be 10% of the population highly annoyed or whichever criterion for decision making purposes you consider is a useful yardstick.

279. We use Leq for other things besides transportation noise such as the passage of trains. We use it for measuring plant noise and there is plant associated with railways, whether it’s tunnel ventilation fans or traction substations or equipment of that kind. We do have a slightly different approach in those cases because we compare the Leq, as
I’ve already explained, against the background noise, effectively to try and detect how prominent it is. We measure the background noise statistically as the level exceeded for 90% of the time, just to illustrate that with the green line there, and we compare the Leq with that background level.

280. In vibration we have a different set of indices. For human exposure to vibration we use an index called the Vibration dose value which I don’t need to say very much more about at the moment. We may need to come back to it but I don’t expect so. We also measure vibration as it may affect structures in terms of peak particle velocity and if it causes sound which we can hear, like the rumble of an underground train in a tunnel below a room we’re sitting in, we can use the ordinary decibel scale, the LAmx that I’ve already talked about.

281. That’s done the numerical side of things from the point of view of measuring and assessing noise.

282. THE CHAIR: Could I suggest we just open out to some questions, not go on to the government policy side, and then when we come back we can again, either do maybe a five-minute recap and then questions

283. MRS MURRAY: Yes.

284. THE CHAIR: Because, as you say Mr Mould, it is quite a technical area.

285. MR MOULD QC (DfT): Yes

286. THE CHAIR: And the more we can get to grips with it now, it doesn’t seem beyond the wit of man but, as we go through, I’m sure it might be a bit more complicated. Does that make sense rather than get into government policy now?

287. MR MOULD QC (DfT): I think so, yes.

288. THE CHAIR: Any questions? Sandy?

289. MR MARTIN: Yes, I mean Mr Thornely-Taylor; you’ve got various different ways of measuring sound here. Presumably what you’re intending to do is to have various different ways of measuring the noise of a particular event so that you can demonstrate that the event is not particularly above nuisance value in any one of the
different ways of measuring, or that it is above nuisance value in any one of the different ways of measuring it. You are not attempting to find all sorts of different ways that necessarily all come together in one big way. It’s using different measurements for the same thing in order to come to a conclusion about whether that thing is a nuisance or not.

290. MR THORNELEY-TAYLOR: Our primary concern is significance.

291. MR MARTIN: Yes.

292. MR THORNELEY-TAYLOR: Nuisance is a complex legal term which has got many facets to it that are not to do with noise level but we use special phrases, when I do come on to government policy I’ll talk about observed adverse effect levels and we’ll talk about the lowest observed adverse effect level and significant observed adverse effect level and of course all this is being done in the context of environmental assessment and there are rules and established practices for environmental assessment and significance of effects is key in that context. It gets us into a slightly muddy area. When I do move on to the later part of the presentation we’ll see that there are slight inconsistencies between following government policy guidelines and applying traditional environmental assessment approaches. This word ‘significant’ actually ends up having two meanings which will take a bit of cold ice packs.

293. THE CHAIR: You’re leaping forward in slides and complexity. I don’t want you to debut that. I appreciate you’re wanting to leap ahead. Let’s give it proper time. I’m conscious that’s probably the best way to do it. Thank you very much. Sorry we interrupted you mid-presentation but I think it will result in a better understanding.

294. MR WHITFIELD: Could you just explain the difference – I mean I think I’m being stupid here – airborne and ground borne? Airborne irrespective of how far off the ground, just travel through air; ground borne the noise energy that causes the vibration that’s registered through the ground?

295. MR THORNELEY-TAYLOR: Yes.

296. MR WHITFIELD: I’ve got you. Thank you.

297. THE CHAIR: We look forward to tomorrow.