

Detailed Design Principles

Introduction

The route taken by HS2 through the Chilterns AONB was argued to be a contravention of the Countryside and Rights of Way Act during the (Hybrid Bill) Select Committee hearings. While the Committee disagreed, this remains our position.

1.1.3 HS2 Ltd spent around £6m/week in 2015/16¹, so the budget of £3m for the AONB review group is far from generous.

1.1.6 It is clear from preliminary meetings with the Contractors, that the design approved by the Act is flawed in many respects, and the MWCC final design may differ significantly. This document fails to indicate areas where significant additional mitigation might be achieved during the MWCC (re)design exercise.

1.1.7 Far from being “a catalyst to improve the natural capital and delivery of ecosystem services in ways that conserve and enhance natural beauty”², the HS2 line will be a major disfigurement of the Misbourne Valley.

1.1.9 Vision

The Misbourne valley is currently “a beautiful, resilient and connected landscape”, but HS2 will make it much less so. The remainder of your document has little to say regarding “enhanced levels of tranquillity/reduced noise intrusion”.

Permeable connected Green corridors exist already; many will be severed. We are unaware of any feeder streams to the Misbourne to be managed.

Any suggestion that 9km of security fenced high speed railway can produce a connected landscape is quite ridiculous.

Overall assessment

It would be helpful if the Design Principles were acknowledged to be a damage limitation exercise, rather than as an improvement of some sort. More attention might be given to the noise impacts, and the views throughout the valley, rather than the restricted area within the Act limits.

Details

Below are comments on some sections of the document, reordered to reflect our priorities, and time limitations.

¹ <https://www.gov.uk/government/publications/high-speed-rail-expenditure-report-2016-to-2017>

² Whatever that means

3.8 Noise Barriers

Tranquillity is indeed “a key part of many parts of the AONB” (3.8.2) but unfortunately the Act provides no noise mitigation for outdoor recreational users, even if this is “a first priority of the Secretary of State” (3.8.3). This has the potential to undermine any landscaping measures, from the point of view of the recreational user, who may well just avoid the whole area.

The design of noise barriers is clearly a trade-off between effectiveness and visual intrusion, and to “focus on the potential visual impact” (3.8.5) without considering “the assumption that [noise] shall be adequately mitigated” (3.8.4) appears to miss the point completely. Existing noise assessments cannot be relied on, since the trains have not yet been designed, and (noisier) slab track has now been substituted for ballast track.

The Design Principles could usefully assess the noise levels likely to be experienced by outdoor receptors on the lanes and footpaths in the vicinity of the line, and where appropriate, investigate the possibility of mitigation by landscaping and planting, which may fall within your remit.

3.9 Overhead Line Equipment

Following the GWR electrification debacle, the design of OLE is of particular significance. Key parameters are the height of masts (or gantries), which determine the visual intrusion, and the height of the wire/pantograph intersection, which is a likely source of noise. Neither of these are given in section 3.9. The maps in section 4 would be improved by an indication of the cutting depths, and the extent to which the OLE height would exceed that of the proposed screening.

A profile diagram of the route showing the height of the line, the masts and the proposed screening would also be valuable in assessing any requests by the contractor to raise the line height (1.2.16) – which should be resisted.

3.2 Viaducts & Bridges

The Smalldean and Wendover Dean viaducts are the most intrusive features (aurally and visually) of the route through the AONB. It is regrettable that the DDP suggests nothing better than a clone of the Medway viaduct (on HS1) which at least has the excuse that it runs alongside the M2. A design not based on Lego bricks would be appropriate for these locations. The basic ugliness of the structure cannot be offset by planting a few trees.

The noise generated by the planned rail traffic has the potential to disrupt the tranquillity of the valley from Bowood Lane to Wendover. 3.2.5 states “A low noise barrier is only required on the west side of the [Wendover Dean] bridge.”, although your figures (p37) show noise barriers on both sides.³ We would suggest that at the very least, the deck should be constructed to allow barriers to be retrofitted on the east side, in case the protection of the AONB is reconsidered in the future.

We note that the figures on p39 follow the usual HS2 practice of omitting the OLE.

³ What effect are you hoping to produce, by drawing these freehand ?

2.6-7 Access and Recreation

The Ridgeway National Trail will cross over the Wendover cut and Cover Tunnel, then continue up Bacombe Hill. Some consideration of the landscaping of this crossing, and the visual impact of the line when viewed from the escarpment might be in order.

The lack of noise mitigation measures for outdoor recreational users will have adverse impacts on existing PROWs where they cross or run close to the line, and in particular on the proposed North Link access. Some investigation of the likely noise levels on this path might be appropriate, before committing any resources to it.

4.1 South Heath, sheet 33

It is not obvious that the Park Farm overbridge would form an effective part of an Ecology corridor, unless it was widened and became a 'Green' bridge. However, there is an A413 underpass (near the 'E' label, plan on p99) which would extend the corridor to the Great Missenden watermeadows.

The 'North Link' alongside the noise barriers and embankments would seem a poor choice for a walk.

4.2 Leather Lane, sheet 34

This shows the 'offline' overbridge to the SE of the existing alignment, leading to the destruction of the existing substantial hedgerow and mature trees on that side of the road⁴. This was raised at the (Commons) select committee, and no good reason was advanced for this choice. While we would prefer a bridge on the existing alignment, with a road closure, an offline construction to the NW would be preferable to the existing design.

4.3 Bowood Lane, sheet 35

The area 12, 'Historically sensitive landform' is currently to be used as a temporary '(un)sustainable placement' area during construction, although efforts are underway to use less productive land on the opposite side of the line for this purpose. (The contractor's engineer would rather remove the material down the trace without this intermediate spoil dump).

Bowood lane is in poor condition, and too narrow for any significant amount of traffic, so should be closed during HS2 construction (to avoid rat running). There is no good reason to reopen the section beyond Wendover Dean farm to motor traffic subsequently.

Retained cutting to the NW of Bowood Lane bridge would preserve more of Jones Hill (Ancient) wood.

4.4 Wendover Dean Viaduct, sheet 36

As noted in 3.2 above, there is an absence of noise barriers on the NE side of the line. This will clearly be detrimental to users of Kings Lane, and may cause problems throughout the valley, if train noise is reflected from the slopes of Wendover Dean.

⁴ See Google street view

It is not clear what additional bridge height is gained by realigning the Rocky Lane underbridge. Since Chesham Lane is unsuitable for HGV traffic, the existing alignment could be retained, with a suitable vehicle height restriction.

Summary

A notable omission from section 4 is any indication of the aural or visual impact of the line from either side of the valley.



This panorama⁵ taken near Dunsmore could be used to indicate the impact of a long linear structure on the landscape, and give some indication of the mitigation which could be achieved.

Unfortunately the noise impact assessment will have to wait until the line is operational.

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⁵ <https://drive.google.com/open?id=1UNM-TomopmFxebNUAGa-uHJg3OnQpPKc> (36Mb)
– further details from the Chesham Society