



HS2 Amersham Vent Shaft - a note on the Chilterns Conservation Board's position September 2020

Context

In presentations to the public on the design of the Amersham vent shaft HS2's designers, Align, have suggested that the Chilterns AONB Review Group and, by implication, the Chilterns Conservation Board (CCB), have agreed with or otherwise supported the design of the vent shaft.

This paper sets out the CCB's position and what has brought us to this point.

CCB's involvement

The CCB is not a statutory consultee in this process in its own right, and we have fed our views in through the [Review Group](#) (RG) and through conversations with other stakeholders who are statutory consultees. At most we have two representatives on the Review Group and we are a small voice in that group, which includes representatives from HS2, Natural England, Buckinghamshire Council and the former district councils in Bucks. Other organisations are invited for certain discussions. The Review Group is chaired by officials from the Department for Transport.

The Review Group's discussions inform other activities, including the deliberations of the HS2 Independent [Design Panel](#) (IDP), which comprises a range of designers, engineers and public engagement professionals, most of whom work for private consultancies or are academics. Our view is that the IDP should be focused on creating innovative design solutions which respond to local and environmental concerns.

As part of the above CCB contributed to, and signed up to, some [Detailed Design Principles](#) (DDP), "intended to advise and inform the designers appointed by HS2 about the special landscape qualities of the AONB and to afford the said principles due weight and consideration in their design of the railway". The principles were drawn up in collaboration with the Review Group by the respected multi-disciplinary Land Use Consultants (LUC).

CCB's staff have been working constructively with the Review Group and the IDP as the proposals for the Amersham vent shaft headhouse were being developed, on the basis that an architecturally innovative design for the headhouse could be realised that was compatible with the DDP and would protect and enhance the character and natural beauty of the AONB. During this process, we have raised a number of questions (so far unresolved) about the scale of elements of the design and the materials used.

In August 2020, HS2 began a public consultation on designs for the headhouse which revealed an increase in height of the structure and proposals to introduce lighting of the structure. ***Our view on the proposals as published is that the designs have failed to meet the agreed Detailed Design Principles.***

How the designs stack up against the DDP

The DDP recognises (para 3.10.8) that the "site particulars" at Amersham prevent the standard approach within the Chilterns of disguising the headhouse structure as a farm building, and concludes that the development "should acknowledge its inevitable visibility and aim to make an appropriate

architectural statement”. ***Our view is that the visibility of the site highlights the need for a solution that is sensitive to the site’s setting within the AONB***, and that the qualification “appropriate” highlights an overarching principle that, if an architectural statement cannot be identified that protects and enhances the natural beauty of the area - in accordance with the CRoW Act - then the default position should be to minimise visual impact.

The document then sets out a specific set of nine principles for the Amersham development (para 3.10.13).

Principle	Comment
The site will form a new gateway to old Amersham. There should be regard for the character of Amersham as a small rural town of very distinctive historic character. It is not urban.	The only regard that has been had to the character of Amersham is the use of flints in the gabions that assist with level changes and provide vehicle barriers (the CCB has no problem with these gabions). The design of the “crown” and the materials used bear no relation to Amersham and introduce a very urban element (similar to urban infrastructure such as a gas holder or sports stadium) into an otherwise rural setting. The materials used in the visible parts of the headhouse (anodised aluminium) and compound enclosure (weathered [rusty] steel) are not related to the area either (although the CCB is not unduly concerned with the weathered steel enclosure).
Key viewpoints should be identified and photographed and accurate visualisations produced. There are potential overlooking issues from high ground to both north and south.	This principle has been followed, although questions have been raised by others in the Review Group about the accuracy of the visualisations. Interpretation of the visualisations is of course subjective, but the CCB’s position is that these have demonstrated how alien and obtrusive the structure is in the surrounding landscape, and also how easy it would be to almost completely obscure the necessary parts of the headhouse using the level changes, steel enclosure and tree planting.
Particular attention should be paid to silhouette and massing to respond to the multiple and moving viewpoints from users of the surrounding road. Sculptural forms may be appropriate.	This is the principle that the scheme’s designers rely heavily upon. The design will provide an interesting (possibly distracting?) dynamic silhouette for people travelling on the neighbouring roads. The question of whether this is appropriate in the context of the Chilterns AONB remains moot.
Level constraints, sight lines for adjacent roads and opportunities should be explored through the use of 3D modelling.	This principle has been followed (although we have not had access to the 3D modelling to dynamically explore the proposed scheme ourselves). As noted above, the modelling demonstrates how changes in level and sight lines could be utilised to reduce the impact of the proposal on the landscape context.

<p>The datum of the building platform will be determined by the location of the access from Whielden Street. Moving the access northwards towards the existing A413 over-bridge should be investigated as this will lower the buildings within the landscape.</p>	<p>The buildings have been successfully lowered in the landscape, reducing their visibility, and thereby countering the contention that there must be a statement structure on this site because of the inevitable visibility of the headhouse in this location. The headhouse can be almost entirely obscured from most if not all viewpoints in the surrounding countryside, and arguably therefore should be.</p>
<p>All technical requirements of the facility, its access and the surrounding highways should be clearly understood and complied with. A Constraints Plan should form part of the Schedule 17 application.</p>	<p>This principle appears to have been met fully, and would continue to be met without the anodised aluminium crown on the top of the headhouse. (We note that a 1.1m balustrade for the safety of personnel working on the roof of the headhouse would still be required, but this could be a simple unobtrusive metal railing).</p>
<p>The compound design and perimeter fence or wall should be considered an integral part of the buildings with particular attention to the design of lighting and security elements which may be higher than the perimeter fence.</p>	<p>While the CCB is not unduly concerned about the design of the weathered steel enclosure or the landscaping (gabions) addressing the level changes, it can be argued that the designs of the compound perimeter and the headhouse building are not well-integrated, in terms of materials (weathered steel vs anodised aluminium) or detailing (organic flowing oval plan with relatively level top punctured by naturalistic “foliage” shapes vs hard steeply slanted shards with a wavy top). The CCB’s attention has not been drawn to the design of any lighting or security elements that may be higher than the perimeter – if that is because there are none, then this is to be welcomed, but needs to be confirmed.</p> <p>Note: it had been assumed that the reference to lighting here referred to security or operational lighting, but the proposed scheme now includes the potential for the illumination of the architectural features of the headhouse design for purely aesthetic purposes – such lighting had not previously been suggested, and is <u>completely unacceptable</u> in the context of the Chilterns AONB. The excuse that the nearby road junction is illuminated does not provide a justification, since the junction is already considered to be excessively lit and the CCB always seeks reductions in unnecessary road lighting in the AONB and its setting.</p>
<p>The area is considered at high risk from fly-tipping. Designs should provide suitable deterrent measures.</p>	<p>The gabions and steel roadside barriers (the CCB has not seen designs of these – presumably standard Arnco-type barriers)</p>

	are mentioned as part of preventing unauthorised vehicular access.
<p>If concealment of the perimeter fence is not possible its design should be enhanced and designed as an extension of the building or indeed be the apparent building itself. The latter would offer significant opportunities to express this envelope in a number of different options, some of which could reflect local building materials or even reinforced earth 'earthworks' if the level of containment and internal operational hardstanding and buildings can be achieved within the area available. There may even be a case for extending Act Limits to the highway edge to ensure a fully integrated solution, or design to be fully integrated with a potential associated Additional Project.</p>	<p>This principle in effect repeats the last-but-one principle. Greater concealment of the perimeter fence is possible, and the extent of "windows" in the surrounding tree belt has been discussed several times, indicating that, for the boundaries with the A413/A404 at least, the tree belt could completely conceal the enclosure. As noted above, the enclosure (which is not in itself unduly objectionable) has not been designed as part of or as an extension of the building itself. The designers are not insisting on adherence to this principle (or the foregoing principle that it largely repeats), and it should therefore be acceptable to similarly abandon the principle that the scheme should be a "gateway" for Amersham in which a sculptural form "may be appropriate".</p>

In conclusion, the Chilterns Conservation Board considers that the designers have failed to deliver a design that meets the specific Detailed Design Principles for Amersham.

The design drawings have, however, demonstrated that, contrary to the justification for the "crown" design, the site is capable of accommodating a headhouse that meets all of the technical needs for the scheme and all of the constraints of the site, without needing to be visible in the wider landscape.

Solution, protecting and enhancing the natural beauty of the AONB

Meeting the DDP can be achieved by removing the unnecessary anodised aluminium "crown" and its illuminations from the top of the otherwise unobjectionable low headhouse building and completing the already substantial proposed tree belt along the A404/A413.

The perimeter of the site, and its entrance and security gates, would still be visible from Whielden Road (just as they are in the current proposal), but would remain largely obscured from wider views by the existing tree belt on the south side of that road.

Further consideration might be given to a green roof on the headhouse building, which would have benefits in terms of biodiversity and rainwater management, regardless of its visibility.

Dr Matt Thomson MRTPI AoU
Planner, Chilterns Conservation Board
E: MThomson@chilternsaonb.org

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