

Introduction by Professor Sadie Morgan

As chair of the HS2 Independent Design Panel I'm pleased to introduce the first of a series of quarterly reports on our work. These will provide an insight into the advisory role that the panel is playing, and the key issues that are emerging from our discussions with HS2 Ltd and its design teams. HS2 Ltd will soon start work on an early works contract and seven Phase One civil engineering design-and-build contracts. At the same time, Phase Two design work is at the stage when plans are being prepared for submission to Parliament, as part of the Hybrid Bill process. The panel will provide independent advice as this work progresses, to help ensure high quality design – as set out in the HS2 Design Vision, under the themes of people, place and time.



Our first 12 months

It is a year since the design panel was established, in November 2015. It is a testament to the national significance of the project that over 300 leading professionals applied to join the panel, making the task of selecting the panel we have initially appointed very challenging. The ambition has been to establish a panel that is able to advise HS2 Ltd on every aspect of design quality – from landscape, to station design, to bridges and viaducts. The panel also has the skills to advise on the processes that are essential to achieve high quality design, such as the procurement of design teams and contractors. The panel is unique in its breadth of expertise, and is working with HS2 Ltd to ensure that no aspect of design is neglected.

It is unusual, and positive, that HS2 Ltd has involved a design panel at such an early stage - and we have already commented on over 50 projects and topics. This has given us an opportunity to advise on strategy documents, and design guidance, as well as the approach to procurement. These stages of work will set the foundations for scheme design work, led by the Phase 1 civil engineering contractors, and by station design teams.

Establishing priorities

Part of our challenge during the first year has been to establish priorities for the ongoing work of the panel – deciding where best to focus our energy and resources. We have done this through a series of route briefings, minibus tours, and workshop meetings with HS2 Ltd staff. We now have a programme in place that includes not just the most high profile elements of the project, such as stations and large civil engineering structures, but also smaller elements, such as bridge parapets and track security fences.

The panel is not only interested in iconic projects, like the stations and the Colne Valley Viaduct. It feels passionately that the many smaller bridges, viaducts, cuttings, embankments, depots and construction compounds should also be designed with care. There is huge potential for HS2 Ltd to develop a 'kit of parts' approach to achieve both high quality and efficiency in terms of cost. Intelligent use of standardised construction has the potential to provide economies of scale, as well as the ability to configure standard components to respond to particular contexts.

Scope for design innovation

The panel has encouraged HS2 Ltd to make the most of opportunities for innovative design solutions - the scale of the project creates a unique opportunity to do this. For example, parapets will be one of the most visible parts of the railway line and the panel has pointed out that they will be important to the overall impression that the public has of HS2. One idea suggested by the panel was that the parapets could be transparent. People naturally want to see through parapets to what is across and below. Although no solution is currently on the market, the challenge from the panel was to explore that option rather than preclude it. The panel has encouraged HS2 Ltd to create a specimen design for parapets that would be an illustrative solution to provide a design quality benchmark.

Station designs

In discussions to date on station designs, the panel has emphasized the importance of joint working between local authorities and HS2 Ltd. This will be essential to maximize the regeneration benefits of the new railway. The panel has pointed to Crossrail as an exemplar for this way of working, and hopes that HS2 Ltd will follow its example in taking an ambitious approach to partnership working beyond its 'red line boundary'.

Temporary buildings

One issue that has emerged from recent panel meetings is the opportunity to design high quality temporary buildings, as part of HS2 construction works. Accommodation for building contractors, site hoardings and construction compounds will be in place for many years. The design quality and longevity of these buildings and structures will have a significant impact on the places where they are built. The panel has encouraged HS2 Ltd to explore how to use these creatively, for example to provide opportunities for public art, or for educational purposes.

Civil engineering design

The panel's involvement in larger civil engineering projects is at an early stage, but we have been invited to comment on design guidance such as the 'Bridge Design Requirements' document. The panel has also encouraged HS2 Ltd to commission a specimen design for the Colne Valley Viaduct, to explore potential solutions to the brief and set a benchmark for future design work by contractors. There may well be scope for a similar approach on other high profile civil engineering structures, as part of both Phase 1 and Phase 2. With appointment of Phase 1 civil engineering contractors due to be confirmed in early 2017, this is likely to be a major focus for the panel next year.

Engagement on design

One area where the panel has challenged HS2 Ltd is on its approach to consultation and engagement. During the progress of the Hybrid Bill through Parliament, there has been an emphasis on formal consultation. There will be an opportunity, once Phase One achieves Royal Assent, for a shift from consultation to engagement to inform design development. The panel has emphasised the value that organisations such as the National Trust, the Forestry Commission and local wildlife conservation charities could add to the design process. The panel has also encouraged early engagement to encourage communities to build a sense of ownership for the project - for example by involving local communities in the design of landscapes along the route.

Looking forward

Over the next few months the panel will be commenting on a wide range of topics and projects, including: community engagement; HS2 Ltd's Sustainability Approach document; key elements of the Phase 2a route; the Colne Valley Viaduct specimen design; and stations in Birmingham, Solihull and London. I look forward to sharing the outcome of some of these discussions in my next report.

