

Case Study #15

HS2 INDEPENDENT
DESIGN PANEL

Phase 2a is a 57.5km section of the HS2 route connecting Phase One, north of Lichfield, to Phase 2b, south of Crewe. The estimated total journey time is just under 10 minutes. Phase 2a (as announced in November 2015) is being accelerated, ahead of the remainder of Phase Two, in order to maximise the benefits of the additional capacity to Crewe and to improve journey times for services joining the West Coast Main Line at Crewe. In the longer term, Phase 2a will play a vital role in unlocking the potential of Phase 2b - which will connect with Manchester and Leeds. The Hybrid Bill for Phase 2a was deposited in 2017, and HS2 Ltd anticipates that Royal Assent will be granted by Parliament in early 2020.

Process: Design Panel meetings to discuss Phase 2a began in mid 2016 with a series of route tours to familiarise panel members with the route, and to visit key locations for HS2 projects, as a basis for agreeing the priorities for future design panel input. Two further design panel meetings were held before the Phase 2a Hybrid Bill was submitted, and six design panel meetings have been held during the parliamentary process. The meetings have focused on supporting HS2 Ltd as it learns lessons from Phase One, and prepares for the scheme design stage when contractors will be appointed to develop proposals ahead of making Schedule 17 stage submissions.



Phase 2a - learning lessons

This is the fifteenth case study in a series about the work of the HS2 Independent Design Panel.

Project headlines

- The Hybrid Bill for the Phase 2a section of HS2, was deposited in mid 2017.
- The HS2 Ltd Phase 2a team is utilising the building information modelling (BIM) process to interrogate and refine its emerging design approach and to aid future collaboration with the supply chain.
- HS2 Ltd is seeking to embed the lessons learnt from the project to date into the Phase 2a approach, for example the procurement strategy for design teams.
- Royal Assent for the Phase 2a Hybrid Bill is anticipated in early 2020, allowing HS2 Ltd to begin to develop the scheme design.

Panel comments

The panel's comments on the emerging approach to HS2 Phase 2a included the following points.

1. Learning lessons

The panel is encouraged by the emerging approach for the design and delivery of Phase 2a. Much progress has been made, including lessons learned from Phase One, and sound decisions taken. For example, the interrogation of the design of specific infrastructure elements like porous portals, is offering opportunities for innovation and cost savings, and the potential to develop creative and inspiring solutions. In addition, BIM is proving to be an invaluable tool in helping to secure high quality design and future collaborative working with contractors. The panel urges HS2 Ltd to embrace the use of BIM across the project and to give thought to how it can be used to effectively convey information about the HS2 project to different audiences, such as local communities.

The panel stresses that the work developed now will be critical to setting the ambition for the quality of design that HS2 Ltd expects from future contractors on Phase Two. They suggest that there needs to be a focus on developing designs that celebrate the railway, and respond to the individual character of each location,

with passenger experience also being a key consideration. While uncertainties remain, the panel feels that the proposed approach will help to manage those uncertainties as and when they occur.

2. Procurement

The panel is encouraged by the intelligent approach proposed for the procurement of Phase 2a contractors – utilising experience gained during Phase One. While the approach is still evolving, the panel urges HS2 Ltd to consider in more detail how it might encourage and support the delivery of the project's design quality ambitions. This should include ensuring that the supply chain has multi-disciplinary and capable design teams in place, to deliver the world class railway that the HS2 Design Vision demands.

The panel stresses the importance of explicitly describing delivery expectations in the procurement documentation. Some elements will require very specific – rather than generic – descriptions, which could helpfully be supported by images. The panel advocates that creativity embedded in the procurement process will support creative solutions. The panel also continues to advocate for the involvement of small and medium enterprises (SMEs) for the fresh perspective, creativity, diversity, and robustness to design challenges that they can bring, driving innovation and bringing real value for money. HS2 Ltd should

aim to develop a procurement process that encourages – rather than precludes – SME involvement. The panel suggests identifying those projects, for example a bridge or a headhouse, that might lend themselves particularly well to the involvement of an SME.

3. More than a Railway

Since its inception, the HS2 Independent Design Panel has passionately championed HS2 to be 'More Than a Railway' – delivering and prompting real benefits for local communities. This will play a fundamental role in the overall perception of the success of HS2. Aspects including HS2's sustainability, customer experience, and landscape ambitions will be critical to achieving this. For example, the green corridor concept offers enormous potential to deliver significant landscape improvements along the Phase 2a route. The panel recognises the positive work already undertaken by HS2 Ltd, including funding given to local stakeholders to deliver additional environmental enhancements, ahead of the construction of HS2. Further, the panel urges HS2 to be the convenor of conversations across stakeholders, helping to enable a legacy that continues long after the trains begin operating.

The panel continues to highlight its willingness to support the successful delivery of Phase 2a in whatever way may be appropriate.