## Design Review Report

### Review status

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<th>PUBLIC</th>
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<tr>
<td>Meeting date</td>
<td>Thursday 25th April 2013</td>
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<tr>
<td>Issue date</td>
<td>Friday 3rd May 2013</td>
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<td>Scheme location</td>
<td>A465 Heads of the Valleys</td>
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<td>Section 2: Brynmawr to Gilwern</td>
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<td>Scheme description</td>
<td>Highway</td>
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<td>Scheme reference number</td>
<td>75D</td>
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<td>Planning status</td>
<td>Pre-application/published orders</td>
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### Declaration of interests

Martin Knight is a member of the project design team and is also a Design Review Panel Member. He has had no involvement in this scheme as a representative of DCFW. All parties were content for Martin to continue in his capacity on the design team.

### Background

This scheme was first brought forward for early consultation with the Commission in May 2012. It was subsequently discussed at a meeting with the Commission on 31st January 2013. Following the January meeting three review panellists made a site visit with Mark Young (Costain) and Paul Hopper (RPS). Further design development work was presented to the Commission on the 25th April, what follows is a record of the discussion at that meeting which was chaired by DCFW.

The Commission acknowledges that this scheme forms part of the wider roads programme and is among the last of the elements of the Heads of the Valleys dualling project. It will have a significant impact on the stretch of the A465 from Brynmawr to Gilwern. To facilitate grade separated, new and improved junctions the proposals include major interventions to the existing landscape, the construction of significant lengths of retaining walls and new bridges and associated structures along the section. This is a heavily designated area of considerable historical and cultural significance, bordering a World Heritage Site and National Park.
The design team stated their commitment to developing an exemplary scheme, mindful of the historical importance and environmental sensitivity of the Clydach Gorge and surrounding area.

The previous meetings focussed on landscape matters, retaining structures, new structures and lighting. The pre-meeting documentation received for this meeting also provided justification for the development of the scheme and had previously been requested by the Panel.

**Local Planning Authority response**

Brecon Beacons National Park Authority (BBNPA) and National Resources Wales (NRW) were represented at this meeting.

BBNPA informed the meeting that they had received a recent presentation from the team with another one due in May. Overall the National Park acknowledged that the scheme was complex and that they would be reviewing design considerations impact upon the landscape, protected species, the water environment, access, highway safety and cultural heritage. BBNPA commented that the provision of temporary sites to enable construction was one issue that they were looking into.

NRW had spent some time working with the design team looking at the industrial archaeology of the site. Detailed discussion was ongoing regarding alternative locations for protected species, specifically bats. NRW felt the scheme presented today had improved but were still concerned about getting the detailed finishes of the scheme right.

**Summary**

The Panel was appreciative of the pre-review presentation material which included the requested justification for the development. The two physical models presented were also useful. It was acknowledged that detailed design on the structures and landscape/visual impacts analysis had progressed following the previous meeting in January.

The following are the main summary points made by the Panel:

**Landscape**

- It is clear that the magnitude of change to the landscape and visual impact are still being quantified.
- The thinking behind the landscape design strategy, vision, aims and objectives needs clarification and should have synergy with the emerging design principles of the structures which were presented.
- Detailed design is beginning to emerge and should be guided by this vision and the practicalities of achieving effective, sustainable, manageable planting throughout the scheme which responds to its context.

**Structures**

- The vision and design ethos presented, driving the detailed design of the structures has provided a creative solution. We note that this is the first highway project on
which the Welsh Government has employed an Architect, and that the expertise brought to the table has significantly refined the design outcomes.

- Detailed design will need to continue to refine the proposals, particularly where landscape, engineering and architectural design meet.

**Lighting**

- Some form of permanent lighting of the carriageway at the new junctions is accepted, though no solutions have yet been prepared. It will be important that a holistic lighting scheme is considered, so that any accent lighting considered for the bridges or other key features is not diluted. However, the requirement for lighting on carriageways (between junctions) has not yet been determined. It is not required under any statutory highways obligations, but is one strategy currently being considered to respond to bat protection requirements. This needs pinning down quickly and a balanced view taken on the relative harms incurred. The impact of lighting masts and lux levels on the character of the gorge must not be underestimated.

**Legacy**

- There is an opportunity to record the story behind the design ethos, development and detail of the highway scheme as a new layer of archaeological heritage to the area for others to understand.

**Discussion and panel response in full**

The design team gave a lengthy presentation detailing the development of the scheme which included a presentation on structures by Martin Knight. The design ethos outlined for the structures was one which proposed to maximise a naturalistic approach to retaining structures whilst minimising the extent of man-made intervention. The panel agreed that this was a good basis to approach the design by Knight Architects.

Although many retaining wall proposals were presented for varying locations along the route, including natural rock inclines and softer green embankments, much of the presentation focussed on the approach to designing the vertical retaining wall required between grade-separated carriageways. The design team had analysed the underlying geology and topography of the area and proposed a solution using a combination of materials representing the various sub-stratas that motorists would be ‘driving through’ on the 275m climb from Gilwern to Brynmawr. This would take the form of pre-cast panels using varying finishes, face fixed to the retaining structures in bands with predominant joints at every 5m vertical lift. The 5m dimension had been tested in fly-through computer generated models as the most visually appropriate dimension for motorists travelling at around 50mph. The panel thought that this was a creative and innovative response that would enhance the overall experience, though there was some concern about how the structures are treated as they join the landscape. The design team were urged to consider a more elegant response than the 1200mm high concrete upstand wall presently proposed.

The detail of proposals to introduce planting in planters as part of the structure, overhanging retaining walls was queried by the panel, more detailed work needs to be undertaken to establish how this would work effectively and be sustainable.
The parapet detail, although small, is visually significant. The design team were asked to review their proposals and consider omitting their ‘capping piece’ so that the cut edge of the horizontal panels formed the visual topping of the retaining wall, under the topmost planter.

The vision for the landscape strategy was discussed in the context of the clarity of approach which had been provided for the structures. What synergy exists between the vision for the structures and landscape design? How does this relate to the Heads of the Valleys Landscape Strategy and how is the scheme providing a sympathetic and acceptable landscape design to the overall road corridor and various viewpoints?

Structural interventions adjacent to the canal at Gilwern were discussed, the panel felt that there was a need for these to be more integrated with planting proposals. The best quality design solution need to be provided to what will be a change of dramatic magnitude at this location within the canal corridor.

There was a lengthy discussion over the lighting solution for the route. The design team clarified that whilst there was a requirement for the junctions to be lit with highway lighting, overall lighting of the route was being driven by mitigation for Bats. The panel understood that all the junctions would be lit but were not wholly convinced by the benefits of lighting the whole stretch as the impact on the landscape will be significant. The Panel asked for clarification of whether sections of the road have been lit in the past, as this may result in an expectation of lighting continuing, and urged the design team to consider all the considerable harms proposed by a continuous lighting solution, and weigh these up against the those identified for a non-lit solution.

The Panel were in agreement that the gateway bridge should have architectural lighting, particularly to ensure that pedestrians and drivers could see the bollards along the pathway. The detail of the lighting strategy needs to be developed as a matter of urgency, this will have a significant impact on the route and surrounding landscape. It was noted that since the scheme has been developed BBNPA has achieved the status of an International Dark Sky Reserve.

The panel were aware that the perspective of drivers travelling along the route would be very different to that of people viewing the environment from a distance. The design team commented that they will ensure this scheme is as well designed as possible allowing for the constraints. The experience of motorists, cyclists and pedestrians are at the centre of the design concept and the panel are supportive of this.

The Panel have agreed to view the scheme again, if time allows, and are content with the aims and ambitions of the design team to make both the visual impact and use of the road as positive an experience as possible.
DCFW is a non-statutory consultee, a private limited company and wholly controlled subsidiary of the Welsh Government. The comment recorded in this report, arising from formal Design Review through our Design Review Service, is provided in the public interest for the consideration of local planning authorities as a material consideration, and other users of the Design Review Service. It is not and should not be considered ‘advice’ and no third party is bound or required to act upon it. The Design Review Service is delivered in line with DCFW’s published protocols, code of conduct and complaints procedure, which should be read and considered by users of the service.

*A Welsh language copy of this report is available upon request.*

**Attendees**

Agent/Client/Developer  
Alan Chase – Welsh Government

Dave Osborn – Atkins  
Mark Young – Costain

Architectural/Urban Designer  
Peter Ireland – RPS  
Martin Knight – Knight Architects  
Adam Hughes – ECH

Planning Authority  
Julian Atkins – BBNPA  
Stuart Reid - NRW

**Design Review Panel**  
Wendy Richards  
Alan Francis  
Kieren Morgan  
Ed Colgan