



DESIGN
COMMISSION
FOR WALES
COMISIWN
DYLUNIO
CYMRU

Design Review Report

M4 Corridor around Newport

DCFW Ref: N77

Meeting of 9th June 2015



Declarations of Interest

Panel members, observers and other relevant parties are required to declare *in advance* any interests they may have in relation to the Design Review Agenda items. Any such declarations are recorded here and in DCFW's central records.

Review Status

CONFIDENTIAL

Meeting date	9 th June 2015
Issue date	19 th June 2015
Scheme location	Newport
Scheme description	M4 Corridor around Newport
Scheme reference number	77
Planning status	Pre-application

Declarations of Interest

Andrew Linfoot is employed by CH2MHill and Martin Knight is a sub-consultant to CH2MHill working on the A9 project. Ewan Jones is working for Atkins on HS2 and his practice has contracts with Atkins and Arup. All present were content to proceed in light of these declarations.

Consultations to Date

The Design Commission for Wales has previously been consulted on this scheme through its design review service in 2007 and 2008. However the scheme has been on hold for a significant period and this is the first review of this phase of the scheme development.

The Proposals

The proposal is for a new section of three-lane motorway between Magor and Castleton to the south of Newport including a new crossing of the River Usk and Newport Docks.

The proposals also include reclassification of the existing motorway between Magor and Castleton as a trunk road and a range of measures to improve quality of life for those living alongside the existing motorway, safety improvements for road users and revised access arrangements in the Caerleon area are under investigation. In addition, a connection between the M4, M48 and B4245, promotion of the use of cycling and promotion of walking through the provision of new or improved infrastructure are proposed.

The modified preferred route was announced by the Minister of Economy Science and Transport in July 2014 and the design is being developed on a tight timescale with the aim of achieving a "design freeze" in August/September prior to further public information exhibitions in September 2015. This consultation will seek stakeholders' views on the proposals before publication of draft Statutory Orders and an Environmental Statement in spring 2016.

Main Points

The Commission welcomed the briefing in this highly significant scheme and the opportunity to review the current proposals with the intention of establishing further opportunities for engagement. The following key points were raised in the review.

A brief history of the scheme was provided including the need for the new motorway, the benefits it will bring and the concerns that have been raised by the public and environmental groups. The project has clear goals of providing a safer, more reliable route which will bring associated benefits to the existing network.

Now that the route has been consulted upon, agreed and established, the language that the team use to describe the scheme needs to reflect the positive improvements it will make in addressing the problems that were first identified. The use of negative or defensive language can permeate the design approach and reduce confidence and ambition for the project. The team need to present their aspirations for the road that will welcome people to South Wales and describe what that experience will be like. This is a major piece of infrastructure with a long term impact and legacy. It represents an opportunity to realise ambition and the highest possible quality, and for the Welsh Government to lead by example in achieving design quality for added value, longevity and public good.

Understanding the landscape

The team described the various contexts that the route will pass through but this understanding of the context has not clearly informed the design. The varying character of the landscape could lead to a sequence of events that gives the motorway users a clear sense of where they are along the route.

There is a need for a landscape character analysis: more illustrative contextual information to define the key characteristics of the varying landscapes that the route will pass through. It is understood that this is being undertaken and the Commission would like to see evidence of how this is informing the design at the next meeting.

The design approach to each section of the road needs to be understood from the landscape looking at the road and its structures as well as from the perspective of the user travelling along the route.

Connectivity

Diagrams to illustrate the connectivity between the two sides of the route are needed to provide greater clarity about the extent to which it will cause severance and be a barrier as well as to highlight the opportunities for the division to be repaired for both humans and wildlife. The relative elevation of the road and its structures will also impact visual connectivity.

Further information

Additional information that presents the proposals in three dimensions in their context is required to properly understand the design intent and the impact of the proposals. A

physical working model of the main bridge over the river and docks would be helpful to understand the level changes.

Drainage

The existing network of reens is a key characteristic of the area. Well-designed proposals for the interface between the reen pattern and the new road embankment, and how the reen routes pass under the road, will be critical for successful integration with the existing landscape. The location of surface water treatment areas are currently indicated as 'blobs' on the plan. A sensitive design of these areas should also respond to the surrounding pattern of reens and fields so as to integrate into the landscape.

Land Use

The Commission was also keen to understand the team's approach to off-site planting as part of a wider landscape design. The design team will explore this with the public liaison officer but it was explained at the meeting that this is only likely to happen through agreement with landowners.

It is important for the team to understand how the works will have an impact on future land uses around the route. In particular the area beneath the bridge decks could be in danger of becoming a sterile corridor and so the appropriate uses that could take place here need to be thoroughly investigated and understood. Although not discussed at the meeting, the location of any junctions will have a significant impact on future development in these areas and needs to be carefully considered as part of the bigger picture in terms of growth but also potential displacement from other areas.

Sustainability

The Commission supports the intention to minimise the amount of material coming in from outside the area.

Usk Bridge

The brief introduction to the bridge design indicates that the design approach is so far positive and appropriate. The proposed diamond form could be a very elegant design but it is important to ensure that it does not become clumsy; careful development of the proportions, form and detail will be needed. This substantial structure will be highly visible and its impact on views in and around Newport, and the wider landscape, needs to be considered through images in context, now that the concept has been defined.

We encourage the team to consider how they will convey the design and development of the bridge to the public, to interpret the technical language of design and engineering but also as a cultural project. This process could involve community engagement and could also form an educational tool. Another perspective on the design process, such as work with an artist or writer/poet, could help to challenge and explore how the storytelling can be undertaken.

Lighting

Most of the site is open relatively flat land with long distance views. In addition to the prominent bridge structure, lighting will be visible from a considerable distance. We understand that the junctions are intended to be lit but not the main carriageway, but

there is an option to depart from standards for junction lighting. We would encourage the team to analyse the visual impact of lighting (including from vehicles), compared to the current situation, and seek opportunities to minimise light pollution, especially within the Levels. The careful interpretation of regulatory factors will be needed to achieve this and lessons should be learned from other recent road infrastructure projects including the A465.

Further engagement

This is an important and significant project for Wales and the Design Commission offers the opportunity for further meaningful engagement in the design process. We understand that the scheme will be presented to the public in September when the broad design will be substantially fixed. Therefore we recommend a follow up design review meeting in August while there is still scope to inform the design. The scheduled date for Design Review in August is Thursday 20th. The team is encouraged to liaise with the Design Commission as soon as possible to arrange the future review.

Summary

Now that a lot of the work has been done to establish the route the team are encouraged to focus more on design quality and their vision and objectives for the route and the bridge. The documentation sets out a range of practical, technical and measureable objectives through the transport and environmental objectives, but none specifically relating to the qualities and sense of place that the design should achieve. The Commission would therefore urge the team to develop a parallel set of design related objectives to help capture this and contribute to greater public value.

Due to its scale the Usk Bridge is clearly a focus but the landscape of the rest of the route also has great significance when all of the structures and cuttings are considered cumulatively. At the following review planned for August we would like to see how the landscape team are developing these areas with an overall design language but also distinct responses to varying context. We also expect to see the proposals for the other bridges and structures along the route.

The Design Commission for Wales has confidence that the bridge is being handled appropriately at this stage. We would like to see working models and visuals from different points of view to understand the structure in its context, and its impact on its surroundings. This structure will be equivalent or greater in scale to that of the existing Severn Crossings. The design team includes and should retain the design capability and capacity to deliver an outstanding structure that will inevitably become a new icon in Wales. It is vital that ambition, quality and a fully refined design approach is protected throughout the project.

Comisiwn Dylunio Cymru Design Commission for Wales is the trading name of DCFW LIMITED, a Private Limited Company established under the Companies Act 1985 and 2006, Company No: 04391072 incorporated in England and Wales as a wholly controlled subsidiary of the Welsh Government. Registered office: 4th Floor, Cambrian Buildings, Mount Stuart Square, Cardiff CF10 5FL T: 029 2045 1964 E connect@dcfw.org. 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

M4CaN team:

Martin Bates, Welsh Government
Barry Woodman, Costain Vinvi JV
Alex Chezmartin, Costain Vinci JV
Ben Sibert, Arup Atkins JV
Peter Ireland, RPS
Martin Knight, Knight Architects

Design Review Panel:

Chair

Ewan Jones

Panel

Steven Smith

Andrew Linfoot

Jen Heal, Design Advisor, DCFW