

# Addroddiad Adolygu Dylunio Design Review Report

## Review Status: **Confidential**

Meeting date:	17th November 2010
Issue Date:	30th November 2010
Scheme Location:	A470 Erwood to Glanwye
Scheme Description:	New road
Planning Status:	Pre - Draft Orders

## Part1: Presentation

This proposal reflects the need to improve north/south road links through Wales, as set out in Welsh Assembly Government's [WAG's] transport plan. This stretch of the A470 has been identified as suffering from a lack of resilience in the network, characterised by lack of overtaking opportunities, community severance and poor provision for pedestrians. The road divides into four sections going from south to north: Christmas Pitch, Cwrt Gwenddwr, Abernant and Ysgiog. Each of these sections has its own characteristics and design response.

A critical decision has been made to reduce the design speed for the whole scheme to 85 kph, as opposed to the standard 100kph, with a 7.3m wide carriageway and 1m wide hardstrips and verges. This allows the new alignment to follow the existing road more closely and will reduce habitat loss. The most significant proposed new structure is the retaining wall at Cwrt Gwenddwr, which will be 260m long with a maximum height of 6.9m.

This project is below the threshold for Early Contractor Involvement [ECI], but the team has commissioned a panel from the Civil Engineering Contractors Association [CECA], to advise on issues of buildability. An excess of material will be generated and this will need to be transported by road. Given the additional difficulty of a lack of suitable space to store materials, the challenge will be to keep disruption of existing traffic to a minimum. The increase in surface water runoff during construction will require additional drainage and silt ponds.

The Local Authority supports the proposed improvements, which have been factored into the Local Development Plan, and welcomes the 'least impact' intervention.

## **Summary of key points arising from discussion, to be read in conjunction with Part 2 of this report.**

The Panel was pleased to review this proposal which we think is a potential exemplar for similar schemes. While we had some initial concerns, we have been reassured on a number of issues during the course of the review. In summary:

- We support the reduced design speed of 85kph in the interests of a more sensitive response to the rural nature of the site and the challenging topography.
- We accept the rationale for the 1m wide hardstrips, to build in future flexibility.
- The level of individual public consultation within Abernant is welcomed and we think this proposal strikes a good balance between benefits and disbenefits for residents as well as road users.
- The design details and surface finishes should be kept as naturalistic as possible.
- We advised the team to consider integrating the CEEQUAL methodology with their current procedures.
- Advance landscape measures should be taken to mitigate the immediate shock of the new scheme and retain previous visual references.

### **Part 2: Discussion and Panel Response in Full**

The Panel questioned what considerations had defined the start and end points of the scheme. We noted that travelling north from Erwood, there will be a pinch point between a recently improved section of road and this proposal, and we wondered whether the scheme could be extended to include the narrow section immediately to the south. The project team recognised the problem but stated that improvements would be more difficult at this point as the road is bounded by a steep quarry face.

The Panel fully accepted the rationale for a reduced design speed on this project. We understood that the decision had been taken for environmental reasons, rather than cost reduction, and we appreciated the way in which the new section will fit into the topography better. However, the need for 1m wide hardstrips on an 85kph road was questioned. The effect of this would be to visually widen the carriageway and potentially encourage greater speeds. While we acknowledged the requirement for drainage space, we thought that 0.5m might well be adequate on the lower sides of the carriageway, with no hardstrips at all on the higher sides. The team pointed out that 1m strips would allow single lane traffic to continue to flow if part of the road had to be closed for any reason.

With regard to the impact on Abernant, the Panel was concerned that the intimacy of this small hamlet would be lost, even though we acknowledged the tortuous nature of the current combination of bends and incline. We were informed that an earlier scheme had proposed a bypass for Abernant, involving a 3 span bridge and 18m deep cuttings. This scheme proposes a carriageway slightly narrower than the existing one, but better aligned. Residents have been consulted on a one to one basis, and they overwhelmingly support this revised design and the improvements in general. Part of the existing kitchen garden will be lost to the new road and the kitchen garden wall will be reconstructed using the original material.

The Panel asked how different environmental impacts had been weighted and evaluated, and were told that options appraisals had been undertaken, and the pros and cons had been assessed. More formal methods such as CEEQUAL were typically used once a design had been selected, rather than at the appraisal stage, but the team agreed to consider linking this approach with their current appraisal strategy. A disposal location for the estimated 50,000 cubic metres of excess material has not yet been identified, and all options will be explored for re-using this material on site where possible, for sub-base or stone facing.

The Panel was conscious that small design details could have a considerable impact on the overall impression of design quality. The team confirmed that they will seek to retain traditional coping details for the retaining walls and we urged them to avoid using a white concrete capping beam across the top, which would be alien in the landscape and visible from a distance. Cuttings should retain the appearance of natural rock fissures, and the use of rock pins or 'half barrels' when cutting, splitting or drilling the rock, should be avoided. The Panel was pleased to learn that the proprietary system for road restraint will be an open box beam or tensioned wire, rather than corrugated rails. We urged the team to maximise the use of tensioned wire to increase transparency, and to reduce the lengths of these restraints as far as permissible in the interests of visual amenity.

The Panel suggested that using geotextile cover could reduce the 'bedding in' period from the usual 15 years. The team stated that in reality it would be closer to 5-7 years and that measures such as hedgerow translocation would help minimise the visual impacts.

**The Design Commission for Wales Design Review Panel and staff welcome further consultation and will be happy to provide further feedback on this report and/or where appropriate, to receive further presentations. Thank you for consulting the Commission and please keep in touch with us about the progress of your project.**

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

## **Appendix 1: Attendees**

Asiant/Client/Datblygwr:  
Agent/Client/Developer

Welsh Assembly Government  
[Matthew Enoch, Andy Falley, Tim Dorken]

Consultants:

Capita Symonds [Ian Pritchard, Geraint Pitman, Richard Bryan]

Awdurdod Cynllunio/  
Planning Authority

Powys CC [Shaun James, Julian Edwards]

Y Panel Adlygu Dylunio:  
Design Review Panel:  
John Punter [Chair]

Martin Knight  
Simon Hartley

Cindy Harris [Officer]  
Ed Colgan

Michael Griffiths  
Andrew Linfoot

Lead Panellist:

Ed Colgan

Sylwedyddion/Observers:

n/a