

**Statws/Status:**  
**Cyfrinachol / Confidential**



**Adroddiad Adolygu Dylunio:** 19 January 2007  
**Design Review Report:**

**Dyddiad Cyfarfod / Cyflwyno'r Deunydd:** 10 January 2007  
**Meeting Date / Material Submitted:**

**Lleoliad/Location:** Gelligemlyn, near Dolgellau

**Disgrifiad o'r Cynllun** Road improvement  
**Scheme Description:**

**Cleient/Asiant:** Transport Wales  
**Client/Agent:** [Mike Vitkovitch]

**Cynllunio/Consultants:** Gwynedd Consultancy  
[Chris Jones, Ian Williams]

**Awdurdod Cynllunio:** Gwynedd CC  
**Planning Authority:**

**Statws Cynllunio:** Pre-application  
**Planning Status:**

**Y Panel Adolygu Dylunio/Design Review Panel:**  
Wendy Richards (cadeirydd/chair) Phil Roberts  
Cindy Harris (swyddog/officer) Gerard Ryan  
Charlie Deng (swyddog/officer) Richard Parnaby  
Ben Sibert Ashley Bateson

**Lead Panellist:** Ben Sibert

**Cyflwyniad/Presentation**

This stretch of road on the A470 around Gelligemlyn forms a significant bottleneck on the whole of the north/south route through Wales, and has seen little if any improvement over

recent years. It passes through some environmentally sensitive areas including SACs and neighbouring listed buildings, and is within the Snowdonia National Park. In response to this context, many different alignments have been evaluated, resulting now in the development of a brief which starts with the environmental constraints and attempts to fit a road through the existing narrow corridor which does not meet current standards of road and verge width. This is justified by: the ability to demonstrate that these proposals are still adequate; by the extreme environmental sensitivity including protected species of bird, bat, wasp and fungus; and by the complexity of the current arrangement, with variations in horizontal and vertical alignment, rock and soil cuttings and retaining walls into the valley, which has hardly changed in the last 50 years.

The 2.5 km length of road has been subdivided into 8 lengths for design purposes, selected by curvature, character and environment. Normally improved roads would be designed to take speeds of 100kph, with a carriageway width of 7.3m, 0.5m hard strips, and verge widths of 3m. These requirements were not practicable in this situation and it was decided to accept 7m wide carriageways and 0.5m wide verges, emphasising the feel of an enclosed road through woodland. The best scoring option was then tested for safety and practicality of construction. This 'reverse engineering' approach to the evaluation of options has never been done in Wales before.

'Option F' was the best possible one in every respect. It offered design speeds of 50-70kph, and avoided all SACs to north and south and all listed properties and gardens. Based on a 7m wide carriageway with no hard strips, it is widened only for essential visibility. At one point, however, it does require a 300m long cutting with a maximum 13m height. The intention is to avoid bare concrete, use sympathetic planting, and incorporate the best elements of the Lledr Valley scheme, further north on the A470, which won the Prime Ministers Better Buildings Award.

The next stage will be to progress the detailed design, carry out an environmental appraisal including the SACs, and then issue scheme orders by summer 2009, with construction to start 18 months later.

### **Ymateb y Panel/Panel's Response**

The Panel appreciated the opportunity to review this scheme at an early stage, prior to the environmental statement. We strongly supported the 'reverse engineering' approach, which prioritises environmental protection and allows for a relaxation of highway engineering standards. We therefore considered the decision to adopt Option F to be fully justified and agreed that the Lledr Valley road improvement constitutes a useful model and precedent. We understood that, notwithstanding the relaxation of standards, journeys would still be safer and quicker than they are now.

We did feel that there was insufficient information provided on the other options to enable us to make a full assessment, but we accepted the applicant's judgment on this matter and their desire to avoid 'information overload'.

The Panel questioned how decisions had been made concerning the assessment of cuttings and embankments, especially as no large scale vertical section drawings were provided. We were informed that the assessment had been driven by a desire to balance cut and fill operations, to avoid importing or exporting large quantities of material from the site. The drawings suggested that the road could be higher at certain points and the applicants

agreed that some fine tuning of the vertical alignment would need to be considered through the detailed design.

The Panel suggested that the curve of the road at Gelligemlyn could be designed to a tighter radius, similar to the curve further south. We were informed that there was no engineering reason why this could not be done, but the applicant wished to avoid a tight bend at the end of a long straight section of road. To the east of the bend at Gelligemlyn, we thought there was scope for a more gently sloping embankment and planting, instead of the retaining wall.

It was confirmed that the landscape design response to the edge strips would be part of the detail design. The Panel endorsed the design approach of giving short sections a different landscape treatment. We emphasised the need to involve landscape consultants as soon as possible, as well as possibly the Forestry Commission to ensure their cooperation. Seed collection and advance planting could begin now and would facilitate design implementation. We advised against soil nailing as a stabilisation technique due to its potential adverse impact within the landscape.

The Panel was pleased to be informed that signage would be minimal and local stone would be used wherever possible, much of it generated from cuttings and wall demolition. We reinforced the importance of avoiding SACs, from the point of view of European legislation. We were told that the type of procurement would normally be Design and Build, but that this will be reviewed in the light of this unconventional approach, where only one design solution is acceptable.

The existing road will form the access to Gelligemlyn and will need to be tied in to the new road, at one or both ends, and could be made one way. The applicant will consult locally on this question. They wish to avoid modern junctions with wide visibility splays. We were told that the alignment of the existing road was so tortuous that it was impossible to re-use it, and that existing walls were in need of rebuilding. The road will not be lit, and drainage will be by gulleys and pipes, with control of the water quality as it discharges into the valley.

### **Crynodeb/Summary**

The Panel strongly supported the design approach taken so far and urged that it be followed through in the detailed design. We also commended the clarity of the presentation and analysis of the scheme to date. We consider this an exemplary proposal which should be used to inform similar road improvement schemes throughout Wales. We would suggest the following minor revisions:

- We think a landscape consultant should be asked to advise on the design development as soon as possible
- We would like to have seen larger scale section drawings and note that vertical alignments may need adjusting at certain points. However we applaud the design intention to balance cut and fill operations.
- We suggested minor changes to the bend at Gelligemlyn, and are confident that these will be assessed at the detail design stage

### **Diwedd/End**

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