

Comisiwn Dylunio Cymru	Design Commission for Wales
Design Review Report:	29 October 2004
Meeting Date / Material Submitted:	13 October 2004
Location:	Mountain Ash
Scheme Description:	Highway proposal including 60 metre, two span bridge
Design Team:	Glamorgan Engineering Consultancy [Neil Morris, David Osborn, Neil Clarke]
Public Body and Client:	Rhondda Cynon Taff CBC [Bob Harper]
Planning Status:	Pre-planning
Panel:	
Carole-Anne Davies (chair)	Ed Colgan
Cindy Harris (officer)	Jonathan Adams
Lyn Owen	

Presentation

This proposal forms part of the Mountain Ash bypass, consisting of a main through route, a northern link and a southern link, phase 1 of which has been completed. Phase 2 of the southern link is the subject of this review and includes the improvement of Miskin Road to a 2-way highway with pedestrian facilities and a bridge across the Afon Cynon. The whole scheme is integral to the planned regeneration of the town centre, for which cross-valley links are seen as essential for carrying through traffic. Extra land for this development has been created by river and rail diversions.

Miskin Road will have street lighting throughout its length, traffic lights at the junction with the cross-valley link, and off-street parking provision. Adjacent areas will have soft landscaping and a reduction of areas infested with Japanese knotweed. The road will be retained on one or both sides, and retaining walls will be faced with stone reclaimed from walls and buildings demolished as part of the site clearance.

The two-span bridge will span from the Cwm Cynon development across the Cynon trail, the Afon Cynon and railway line, to join Miskin Road on the west side of the valley. The overall span is 61.2 metres and the ratio of the two spans, although influenced by site constraints, relates to the 'golden ratio'. The intermediate columns need to be as far from the riverbank as possible, so as not to affect flood levels (but a flood study has yet to be undertaken). The span of the bridge is most suited to a composite steel plate girder and concrete slab construction. The sheet pile abutments will be faced with squared random rubble ('pennant sandstone') similar to that used locally and as part of the Cwm Cynon development. The continuous deck will be jointless to reduce maintenance and increase durability.

The intention is to make the bridge deck appear as slender as possible, using steel rather than solid masonry parapets.

Panel's Response

Given that some demolition has been involved, the panel noted that the environmental impact of this would be mitigated by the scheme using reclaimed stone as wall facing, by diverting traffic from the town centre and by assisting other environmental improvements.

A three-span solution may look more elegant, but the designers stated that this would pose problems with railway easements and practicality of access. However, they undertook to investigate this option. With regard to the positioning of the intermediate columns, it appears that the risk of flooding in this part of the river is negligible and there is no real reason - apart from ease of construction access - why the columns should be kept away from the river.

The panel suggested that, if the asymmetric positioning of the central piers was adhered to, the depth of the beams at the junction with the intermediate piers should be increased to give more emphasis to the asymmetry. The designers might also consider applying a shallow curve to the bottom edges of the beams to each side of the intermediate piers to increase the emphasis further. The parapet over the railway has to have an increased height, which looks odd but only covers a relatively short section. The appearance of the parapet would benefit from a gradual, rather than an abrupt, change of height.

The panel questioned whether pedestrian links had been fully considered, both in regard to desire lines across the site, and in regard to detail. The council officers recognised that further thought was needed on links. Present proposals to provide a footpath along only one side of rebuilt Miskin Road were questioned. It was explained that on the other side the ground conditions and lack of development on that side made a footpath to the North impractical and unnecessary, but that a link to the South could be considered. Again the footpaths on the bridge do not provide pedestrian ways through to the new industrial areas, nor is there a link to the Cynon Trail. The issue of bus routes and improvements to bus stop facilities needs to be considered at this stage if the opportunities to encourage public transport are to be maximised. The detailed design of the two pedestrian links, at different gradients, between Miskin Street and Glyngwyn Street should be revisited. The route connecting to the steps alongside the Church may not need to be continued up the slope. Any development opportunities presented by this scheme, such as an amenity under the bridge, could be explored. Provision should be made for future landscape maintenance.

Summary

While this is seen as a functional rather than a landmark development, the necessary quality of design and materials is even more important. In summary, we would make the following points:

- We regretted the lack of contextual analysis, eg of desire lines across the site
- The question of the proposed asymmetry remains open, while we understand the practical constraints

- Every opportunity should be taken to improve pedestrian connections, including links to bus stops, new employment areas and the Cynon Trail
- The quality of the space underneath the bridge should be maximised, possibly with the help of a landscape architect.
- The architectural liaison officer of SW Wales Police should be consulted on the proposed new parking provision.

End