



Western and Southern Wales Regional Groups of the Geological Society

Evening Lecture

Wednesday 14th May 2008, 6.00 for 6.30pm

EurGeol Paul C Maliphant, Halcrow Group Limited

Waste Minimisation on the Porth Relief Road, South Wales

Venue: Lecture Theatre (Room G25), Department of Earth Sciences,
University of Bristol, Wills Memorial Building

Queen's Road, BRISTOL BS8 1RJ

(directions see <http://www.gly.bris.ac.uk/about/directions.html>)

Synopsis:

The £98M Porth Relief Road in the Rhondda Valley, South Wales which was opened in December 2006, comprises 8kms of carriageway and was the largest single road contract led by a UK local authority at that time. The scheme was delivered by an Integrated Project Team comprising Client/Contractor/Consultant working in effective partnership which was set up based on client procurement best practice and utilised Early Contractor Involvement to ensure effective Value Engineering and achieve best value. Waste minimisation became a key driver during Value Engineering when the construction cost was reduced by £18M. Scheme alignment changes, earthworks design and reuse of residual earthworks and demolition surpluses to create two new development plateaus adjacent to the new highway were key to reusing or recycling some 96% of waste generated. Extensive contamination risk assessments facilitated the reuse of all site won materials in embankment/development plateau construction and in the formation of topsoil for landscaping use by blending it with composted green waste. Use of site won materials was therefore maximised and disposal to landfill was only required where site constraints prevented temporary stockpiling for subsequent reuse. Furthermore, Halcrow worked with Landtech (UK) Ltd to trial a new, successful protocol for eradication of Japanese knotweed (95% successful with one treatment) with disposal of infested soils on site in agreement with the Environment Agency and Countryside Council for Wales. The scheme has won awards from IHT (Effective Partnership, 2007) and Constructing Excellence (national Best of the Best award 2007) and was also the winner of the inaugural (2008) Ground Engineering award for Geotechnical/Geoenvironmental Public Sector Project over 1M category. This new award recognises ground engineering's contribution to industry achievements and celebrates the importance of geotechnics and its ability to demonstrate innovation, sustainability and value engineering.

Convenor: Paul Dennis (pdennis@merebrook.co.uk)

Refreshments will be available from 6 pm. In case of any query please contact the Convenor or visit <http://www.geolsoc.org.uk/gsl/groups/regional/wrg>



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