



Photography courtesy of Willmott Dixon

## **Ffordd Amazon** *Fabian Way, Swansea*

### *1.4km of new highway completed with recycled and secondary aggregates*

Constructing Excellence in Wales (CEW) worked with Dawnus Construction, the main contractor of 'Ffordd Amazon' a new highway constructed at Fabian Way, an arterial route bordering the two counties of Neath Port Talbot and Swansea.

The £3m project connects the planned urban village of 4,000 homes at Coed Darcy and extends and improves the arterial route into Swansea City Centre whilst also providing a much needed public transport route.

The road, approx. 1.4km in length, was constructed on an embankment through a heavily contaminated brownfield area. CEW were engaged with the contractor and scheme designers, Mott MacDonald, to offer advice and guidance on disposal of excavated materials and increased use of recycled and secondary materials without compromising performance and quality.

The CEW Waste Programme team worked alongside contractors and designers to source sustainable aggregate material specified for embankment construction and almost 60,000 tonnes of sustainable material was used including 42,500 tonnes of Pulverised Fly Ash (PFA) a byproduct of

## PROJECT DETAILS

**Use of sustainable materials  
in major redevelopment and  
roadworks project**

**Best practice themes:**

- Use of recycled and secondary aggregate materials

**Type of Material:**

- Approx 60, 000 tonnes.  
Graded and washed  
recycled aggregate



## PROJECT TEAM

**Client:** Mott MacDonald, Dawnus Construction,  
Welsh Government

## KEY CONTACTS

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power production, imported blast furnace slag, and recycled aggregate – this significant diversion of natural resources is an excellent example of best practice in action.

The CEW team also supported the contractors and designers in specifying locally imported blast furnace slag used in place of virgin granular type 1 sub-base materials. Guidance was provided about the reuse of appropriate consistent and cost effective materials to be reused on site – sand recovered from excavation was washed and used for pipe bedding and top soil was stored in preparation for landscaping. Silt was excavated from site and provided lining for attenuation ponds and ditches.



The project was completed ahead of predicted timescales to the satisfaction of all the project partners – Welsh Government, the local authority and the Urban Village Developer. The saving of 60,000+ tonnes of natural resources and the recycling and reuse of thousands of tonnes of C&D waste has meant that this project has been hailed as an exemplar for future road construction projects.

Paul Jennings from Constructing Excellence in Wales was delighted with the success of this regionally important project:

*“innovative practices were introduced into all three aspects of sustainability – economic, social and environmental. There were exceptionally low levels of waste sent to landfill and a significant level of sustainable materials sourced from the local area – reducing carbon miles and ensuring protection of natural resources”.*

Mott MacDonald have won several awards for their involvement in the scheme including the Roy Edwards Merit Award at the Institute of Civil Engineers Wales Awards, the consultancy commented:

*“project collaboration saw cost effective solutions devised to tackle challenging site issues, including land contamination, flood risk and poor ground conditions. Sustainability was a key consideration.”*