

GRIFFITHS

civil engineering and construction



Rail Division Case Study **Pye Corner New Station**

The challenge of building an entirely new station at Pye Corner near Newport, was made even greater by an extraordinarily tight deadline for completion. Griffiths' self-delivery and design capability was the key to identifying the most effective plan.

The new Pye Corner Station on the Ebbw Valley Line between Rogerstone and Cardiff is a key asset in the ongoing development of an integrated transport network plan for South East Wales.

Costing £1.9 million, the new 145m single platform station includes a car park with spaces for 62 cars, cycle parking and footpath access. The station has been jointly funded by the Welsh Government and the Department of Transport through its 'New Stations Fund'.

The New Stations funding is distributed through competition. In the case of Pye Corner, securing the funding was reliant on meeting a very tight deadline for completion. In the words of Tony Potter, Project Sponsor at the Department of Transport, "We said you can have the funding, but we have to have the station in December."

The tight deadline included a key milestone date of 29th May, by which time the existing railway line would need to

be moved to its new alignment. To enable this date to be met, Griffiths would need to sufficiently build the platform to allow for the permanent way track realignment operation.

Vegetation clearance work and environmental checks at the site were done in advance. The initial challenge for Griffiths was to carry out the necessary groundwork as the ground was poor and needed to be stabilised before the new platform could be constructed.

Griffiths embarked on self-delivery design work for the ground improvements and retaining walls at the site. Vibro piles were used to stabilise the ground, and as soon as this task was complete the platform track walls were constructed in time to allow for the track realignment.

Although the site is level, the site banks significantly along its north-west to south-east axis, so substantial volumes of fill were needed to achieve the required car

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park level. This progressively increases toward the south-east end of the site, with a small amount of cut at the north-west end.

Crib walling was installed to retain the Western Valley Road that runs along the perimeter of the site, and earth walling was installed to retain the access ramp into the new car park.

With the track alignment key milestone met, all other construction activities could take place subsequently behind the platform.

In addition to the platform, car park and footpath access, Griffiths also constructed a new access road with a 1:12 gradient leading off the existing highway. A new mini-roundabout was also constructed at this junction to help alleviate congestion during rush hour.

Work started in April 2014 and the new station was operational just eight months later on the 12th December. In the view of the Department of Transport it is one of the quickest new station builds, if not the quickest the Department has ever seen.

Of the five stations awarded funding under the New Stations Fund, Pye Corner was the only one to be delivered on time.



“*Pye Corner is a great example of how record investment in the railway is building a network that meets the needs of local people and provides real benefits to the economy. This station has been 34 weeks in the making. For a station to be built in this short time is incredible and shows what you can do when people work in partnership. Pye Corner will be a template for other stations because it works so well.*”

Baroness Kramer, Minister of State (Department for Transport)

Pictured:

TOP: The fully operational new Pye Corner Station shortly after its official opening.

CENTRE: Griffiths built a new roundabout at the junction of the station access road and Western Valley Road. This will help alleviate rush hour congestion.

Project details at a glance

Client: **Network Rail**
Location: **Pye Corner, Newport**
Completed: **January 2015**
Value: **£1.9m**
Contract: **NEC**