



NEWLANDS BRIDGE PROJECT



The Newland Bridge was constructed in 1992.

Newland Bridge carries the A645 link road over the River Aire and forms part of the Drax link road between Goole and the Drax Power Station.

After the bridge and approach embankments were built, a number of defects developed in the structure and the road pavement. The approach embankments had settled substantially. Due to the excessive settlement of (up to 750 mm), movement joints were closed, bearings were distressed, and cracking of the abutment patching was observed.

“The depth of excavation required to achieve the required decrease of effective overburden pressure depended on the unit weight of the lightweight fill material to be used. Leca® LWA 10-20mm was selected as a lightweight fill.” Explains Sangmin Lee, Senior Geotechnical Engineer at Coffey Geotechnics.

FACTS

Amount of material: 4,400m³ of [LECA LWA \(10-20mm\)](#)

Interesting Fact: Leca® LWA was considered to be one of the ideal materials, as it only weighs a quarter of the normal soils

Delivery Method: Walking Floor

Main Contractor: Coffey Geotechnics