

A19/A1058 Junction Improvement Work, Newcastle-Upon-Tyne



The A19/A1058 junction is a well-known traffic pinch point suffering from peak-time congestion with estimated delays of over 4 minutes per vehicle on the A19 southbound approach. In addition, the accident rate at this junction is far higher than the national average, according to 2008-2012 figures.

WSP, working collaboratively with Highways England, stakeholders and the local community designed a £75m scheme in 2014/15, to reduce congestion, increase capacity, improve journey times whilst also improving road safety for both road users and the local community. The scheme would also deliver in-direct benefits such as supporting regeneration in Tyne and Wear and Northumberland regions, and maintain or improve facilities for pedestrians and cyclists crossing and travelling along the route.

Specifically, it is planned to realign the A19 under the existing A19 Silverlink

roundabout, constructing slip roads to allow the A19/A1058 Coast Road junction to provide access to the junction to and from the lowered A19. In addition, there will be 3 new single span structures constructed to allow the A1058 Coast Road and A19 Silverlink roundabout to cross over the realigned A19. Work will include the construction of retaining walls to minimise how much new land the new layout will use, whilst also retaining and enhancing facilities for cyclists, horse riders and pedestrians.

The Middle Engine Lane railway bridge will also be widened to allow it to accommodate the A19 north facing slip roads and new infrastructure/street furniture associated with the scheme works identified above including central reserve concrete barriers, drainage, pavements, road lighting, traffic signals, traffic signs, road markings and CCTV will also be installed.

BAUER Technologies Ltd was awarded the bored piling scope of works for

critical structures and contiguous pile walls by Sisk Lagan JV, the Main Contractor grouping responsible for the A19/A1058 Junction Improvement project for Highways England. Divided into two phases, Bauer's remit was to install 587 No rock-socketed contiguous rotary bored piles with diameters ranging from 600mm to 1500mm and commenced works December 2016. The piles, which were up to 31m long, are founded in long rock sockets in the middle coal measures Sandstone bedrock formation; with UCS values that averaged 31MPa. The installed piles then form the bearing and contiguous pile walls, creating the underpass for the A19 dual carriageway 'dive under' once the mass dig is completed. The piles themselves were constructed to meet specification and design; bored piles were drilled in dry conditions and concreted using a C40 Concrete mix designed and extensively trailed by Bauer and its supplier Breedon to ensure correct flow for the potential

