

Polypipe ensures swift progress on Norwich Northern Distribution Road scheme

Polypipe delivered a tailored surface water drainage system for the scheme, incorporating 10,000m of Ridgidrain and 384m of Ridgistorm-XL.



Quick & easy installation ensured minimal disruption for road users



Polypipe products were specified as part of the Norwich Northern Distribution Road (NDR) scheme, with the company supplying Ridgidrain together with Ridgistorm-XL large diameter plastic pipework to deliver a tailored surface water drainage system. Comprising of 19.6km of dual carriageway, including nine new roundabouts, seven new bridges and an underpass, the Norwich NDR is the largest privatised road project outside of the local authority remit in the UK. The new road will improve traffic flow on the northern section of Norwich's outer ring road. The scheme will also provide the required infrastructure to allow the planned growth for new housing and business within the city to begin.

Polypipe worked closely with main contractor, Balfour Beatty during 2016 and 2017, on behalf of Norwich City Council, to design and manufacture a tailored solution. The final design took advantage of the high-quality value engineering available with Polypipe's Ridgistorm-XL and Ridgidrain systems. The solution ensured that surface water from the new road would be captured before it could form a pool and then be carried through a number of drainage runs and into the existing sewer network.

Polypipe's Ridgidrain system was supplied to manage the surface water gathered on the road, with the product specified in diameters ranging from 225mm to 600mm. The Ridgidrain system is the first twinwall surface drainage system in the UK with Highways Authority Product Approval Scheme (HAPAS) status. Over 350 catchpits with 100mm and

150mm inlet/outlets were also installed and then connected to Polypipe's Linflex Type 8.

Polypipe also supplied 384m of Ridgistorm-XL large diameter plastic pipework in 750mm diameter, which was installed beneath the central reservation on the main carriageway.

The pipework was manufactured to the ideal stiffness specification to handle the ground conditions on site and provided considerable installation savings, by minimising the volume of imported granular fill needed for other types of pipes. This system will efficiently deal with the conveyance and attenuation of storm water on the road's new surface.

The site and surrounding area was functioning as a road to the general public throughout the construction and therefore installation had to be quick and easy. Due to the light-in-weight nature of plastic and the ability of Polypipe to design and deliver products direct to site at the precise time they were required, the solution ensured efficient installation. Polypipe was able to deliver these benefits thanks to its plastic systems, which were provided as an alternative to the initially specified concrete.

"We have extensive experience in providing drainage solutions for highways projects and knew we could help Balfour Beatty find the right solution for the Norwich Northern Distribution Road scheme."

Rosie Cheetham, Marketing Consultant, Polypipe Civils.

CASE STUDY

Project

Norwich Northern Distribution Road scheme

Client

Balfour Beatty

Application

Surface water drainage system

Product

Ridgistorm-XL and Ridgidrain