

Broadholme Trunk Sewer CIPP Re-Lining



Wellingborough's main concrete trunk sewer, aggressively attacked by hydrogen sulphide (H₂S), has been rehabilitated with 710m of 1,300mm Cured-in-Place-Pipe (CIPP) by OnSite.

Consultations began with Anglian Water's @One Alliance partners after periodic maintenance surveys highlighted the poor condition of Wellingborough's 1,300mm diameter trunk sewer. The surveys identified that the integrity of the pipe was compromised by excessive H₂S attack. This was reported back to Anglian Water who then deployed a specialist sonar CCTV crew from OnSite to investigate the condition of the trunk main under normal flow conditions.

The constant erosion was caused by H₂S discharging into the main concrete trunk sewer from the four 700mm diameter rising mains that pump all of the Wellingborough catchment flows into the trunk main at 2,200 litres/sec on Irthlingborough Road. The sonar surveys found that the attack had eroded nearly 50mm from the pipe wall thickness in an arc from 10 o'clock through to 2 o'clock, thus compromising the integrity of the main.

Anglian Water needed to react quickly - through the @OneAlliance's Sewer Rehab team, OnSite's lining department was engaged to provide a method and lining

programme, including the procurement of materials and allocation of resources, to carry out this activity.

OnSite also had to engage with an adjacent building contractor and landowners where the sewer passed through their land to negotiate permission for access to the asset.

To enable the lining works, a bespoke over-pumping system, capable of pumping in excess of 2,500 litres/sec, was installed. This included a pipe bridge across the required access route. The overland bypass was deployed quickly and gave OnSite a dry, decommissioned host pipe in preparation for the sewer cleaning & lining activity.

The method of installation was to be by water eversion due to the risk of imminent collapse of the sewer. Using this method would ensure that the host pipe would remain intact during the installation & curing process.

Due to the nature of the over-pumping system, OnSite proposed and delivered a continuous programme of liner installations over an 18-day period to keep plant costs to a minimum.

With strategic planning, OnSite was able to deliver this project professionally, on time and without any incidents proving once again that no project is too large or too small to deliver for its clientele.