



22PE Klaro E Professional Horsmonden, Kent

Case Study



BACKGROUND

A row of four terraced 1940s cottages in the rural village of Horsmonden, near Tunbridge Wells, has no access to mains drainage – and had been relying on an old brick septic tank to service residents' wastewater needs. The septic tank regularly overloaded, using a gravel-filled soakaway to manage overflow. This meant the system became odorous, high-maintenance and costly to run – with the tank needing emptying every six to seven weeks. Bob Sherwood, who owns one of the homes, approached Graf UK for a more effective, odour-free alternative for the three-bedroom, two-bathroom properties.

SOLUTION

The Graf UK team carried out percolation tests on the ground behind the properties to determine the soil quality and calculate the size of soakaway needed. They then specified, designed and installed a state-of-the-art wastewater system made up of two 4,800L Klaro E Professional tanks – enough to service up to 22 residents – and a soakaway comprising nine underground infiltration tunnels. The team placed the tunnels in a concealed gravel bed 1.8 metres below ground level. Once treated, the clean water from the Klaro E tanks flows directly into the tunnels and out through their perforated walls, and then into the surrounding gravel bed – allowing it to be gradually released back into the ground.

RESULTS

Typically, infiltration tunnels are not permitted in residential projects like this, as pollutants in the waste from septic tanks need to be spread over a larger area of land. However, because the Klaro E system produces such high levels of water purity, Graf UK was given official approval from the Environment Agency to install the tunnels behind the Horsmonden homes. As well as eliminating flood risk and minimising unpleasant odours, the Klaro E tanks only need to be emptied of residual sludge every 12-18 months – significantly reducing maintenance requirements and costs.

“Although this may sound dramatic, my neighbours and I feel the new Klaro wastewater system has really changed our lives for the better! Not only have the nasty smells gone, but we're now saving a lot of money on upkeep, given that the new tanks only need to be cleaned out around once a year – and Graf UK even takes care of this process for us. In fact, we've been really pleased with the service that the Graf team has provided throughout – from initial consultation and system design through to the install itself and ongoing maintenance.” **Bod Sherwood, homeowner**