# Young Technical Services

Project,   Survey of a Victorian septic tank and report.

A.T.Webb & Son Ltd carried out the total refurbishment of an abandoned and derelict gatekeepers cottage. Webb's objective was to refurbish the original features wherever possible and if part of the building was beyond repair they would carefully reconstruct that aspect in the original materials to fully compliment the building. One aspect of the project that the Local Authority wanted investigating was the original brick built septic tank. Webb's asked me to survey, investigate, assess and report on the suitability of the system.
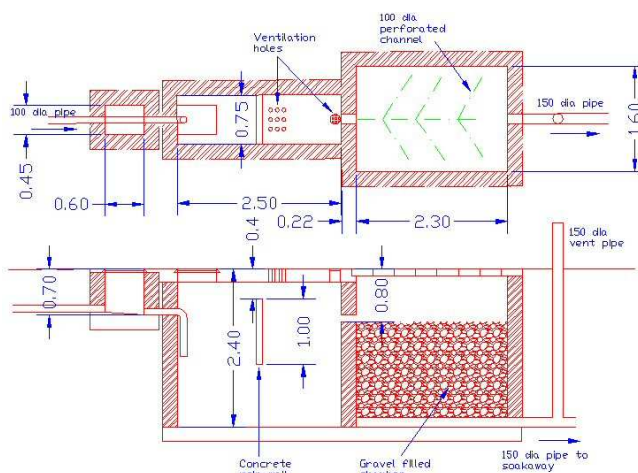
Sympathetically restored gatehouse, the developer wanted to keep as many original features as possible including the brick build septic tank. I carried out a full survey of the tank and produced the drawing shown above.

I calculated the maximum domestic foul effluent quantities based on modern values, much higher than in Victorian times, then I calculated how well the existing tank would cope with these volumes. To do this I had to research old design calculations for this type of tank/treatment system. I proved to the satisfaction of the Council Engineer that the tank/treatment system was more than adequate for this property so long as it had a free outfall.

Therefore the only area that did give me concern was the permeability of the ground surrounding the drainage field soakaway. It was decide the only option was to excavate a trial hole in the middle of the drainage field and carry out a percolation test. This needs to be done at the same depth as the land drainage pipes. The photograph left show on of the tests being carried out, following the success of this test the local council approved the continues use of the existing foul drainage system