

Clay Mills STW for Severn Trent



RoadCem is an innovative material successfully used by MWH to stabilize poor ground conditions and form a piling for a 75m² concrete structure (Activated Sludge Plant) at Clay Mills WwTW.

The ASP ground stabilisation at Clay Mills is a first for the UK water industry.

The benefits of using RoadCem on the £45m upgrade project at Clay Mills WwTW include:

- Prevented 2000 heavy vehicle movements to site, significantly reducing H&S risks and carbon emissions
- Saved £70k in project costs
- Reduced construction programme by three week
- Eliminated the planned blinding' of the ASP structure.



Visco-Elastic behaviour

Delft University of Technology, simulated the properties of absorption of dynamic forces such as driven piles in to soils stabilised with PowerCem Technology. Based on other RoadCem soil concrete projects such as the piling platform at Clay Mills.

The result clearly showed that these stabilisation's could bear high intensive dynamic forces such as the driving of piles through the RoadCem soil stabilisation.

No cracks occurred in the periphery of the piles, nor in the complete RoadCem treated structure.

By observing the longitudinal displacement mode after excitation, the dynamic modulus is obtained. Which gives you the dampening characteristics and the visco-elastic properties of the mat.

It is clear that adding RoadCem to cement bound materials reduces vibration, an essential property for piling mats, road base and rail track applications.

"The Merit Award winner of the Small and Medium Project category was Clay Mills STW, submitted by MWH, for its precast final settlement tanks where significant project cost and time savings in creating an aesthetic solution impressed the judges.

Also their soil stabilisation project which involved the introduction of RoadCem a new product to the UK and combined with innovative and courageous thinking by those involved marked them out as winners."



Driving piles through the RoadCem stabilised soils was fast and safe.

With no deflection and easy set up.