

Heathfield WWTW Permanent Storm Water Tank

Contract No: C756

Client: Black & Veatch / South West Water

Location: Heathfield, Nr Bovey Tracey, Devon

Value: Approximately £130,000.00

Summary: Design, supply and installation of steel sheet piles to form a permanent circular storm water tank 20m diameter. The clutches were sealed by welding and a puddle flange water bar was welded at slab/sheet pile interface.

Sheet Piling (UK) Ltd were employed by Principal Contractor Black & Veatch to design, supply and install a watertight sheet pile cofferdam to form a permanent storm water storage tank at Heathfield WWTW.

The design required NSP 111W section steel sheet piles (section modulus 1800cm³/m) in 10 metre lengths, with a concrete capping beam, to support an overall excavation depth of 5.8 metres. The soils consisted of approximately 1 metre of made ground, overlying 2 metres of silt, overlying 5 metres of medium dense sands and gravels, overlying firm to stiff clay at 8 metres below ground level.

A total of 104 no sheet piles were installed in four days using one of Sheet Piling (UK)'s ABI telescopic leader rigs with a VRZ600 vibro hammer. The majority of the piles were installed to level by the ABI rig but 23 No refused in the stiff clay and required backdriving for the last metre. This was carried out using a 1.8 tonne hydraulic drop hammer suspended from a mobile crane.

The Principal Contractor then cast the concrete capping beam and Sheet Piling (UK) Ltd returned to site to complete the welding of the pile clutches, the installation of the puddle flange water bar, and the welding of 208 No reinforcement bars to the sheet piles. The welds were tested by an independant testing house with 100% visual inspection and 10% MPI testing.

Project Images



