



PUMP STATION NUMBER 2

DELIVERY TEAM

HB

CLIENT

AUK

VALUE

£750,000

CONSULTANTS

TIER

DETAILS

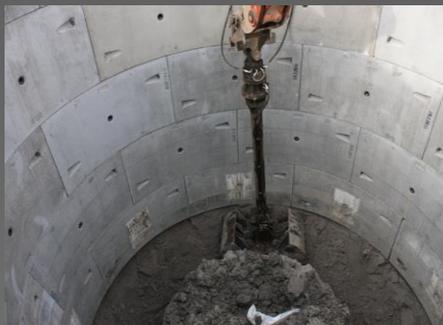
The AUK Site 2 outfall has been identified to require a Storm Water Pumping Station to control flows of up to 500 l/s.

A new 5 metre diameter segmental shaft approximately 6 metre deep to invert is to be constructed. The wet well includes for anti floatation concrete base plugs.

The pumped return in the storm water pumping station will be controlled using a Pulsar level controller located in a new MCC housed in the control kiosk.

The station is designed to pump surface water from the wet well to the above ground existing outfall structure. The wet well has 4no. Flygt pumps installed on guide rails complete with discharge pipe work through the decking and over ground to the outfall chamber adjacent to the wet well.

The drainage outfall includes 35 m of 900mm pipework incorporating 11000 L storm septic tank and 3 m diameter manholes with viewing screens.



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PROGRAMME

The 18 week programme was achieved incorporating an additional 13500 m2 landscaping package of the construction area

INNOVATION

The site investigation report confirmed running sand and peat. Therefore a smoothbore segmental shaft 7.5 m deep and 5 m diameter was the preferred construction method

In house specialists installed the shaft as a jacked down caisson with the aid of a sacrificial steel cutting edge and a concrete collar.

A 23 ton excavator carried out the internal excavation with a hydraulic digging grab. As we excavated around the concrete rings the shaft was allowed to slowly sink via its own weight.

As the shaft was allowed to sink, new rings were fixed on top of the existing shaft until we reached the full depth required. The segmental rings were then pinned to the concrete collar and the shaft annulus was fully grouted with 4:1 PFA / cement grout.

Finally the mass concrete plug was installed at the base of the shaft in readiness for the 3 nr 15 KW pumps.

CLIENT SATISFACTION

AUK carry out weekly audits. Having achieved a score of 94 % and 100 % for 3 consecutive weeks