BALLANUP WASTEWATER PUMP STATION #6

Sandhurst Trustees / Water Corporation

Location
Southern River, WA

Commencement
Jan 2012

Completion
July 2012

Contract Value
$1.92 million

Client
Sandhurst Trustees

Zero Harm

The project is 100% complete and there have been no lost time injuries.

LTIs: 0

MTIs: 0

Overview

The Ballanup Wastewater Pump Station #6 is located in the Perth suburb of Southern River. The project, which consisted of the pump station, overflow storage, pressure main and gravity sewers, enables new subdivision development to proceed to cater for Perth's growing population.

Contract Supervision

The contract was managed by a Design Consultant with Cobey as Main Contractor.

Scope

Cobey was awarded the contract for the type 40 wastewater pump station and 2km of DN100 sewer pressure main. The works required were:

- 10mtr deep Excavation & Backfill
- Precast Type 40 wet well and valve pit
- Dewatering &Acid Sulfate Soils Management
- DN1800 overflow storage tanks
- 2km of DN100PVC and DN125PE sewer pressure main
- 50m of 7mtr deep DN225PVC gravity sewer
- Directional drilling of PE pressure main
- Access Road construction
- Electrical Installation
- Traffic Management
- Full site reinstatement

Project challenges

The pump station excavation required strict acid sulphate soils and dewatering management of the cohesive soil.

Local Council traffic requirements meant that all road crossings were to be bored and that traffic flows be maintained during construction of the pressure main. Directional drilling of PE pressure main under roads with many services required precision boring and additional care.

The sewer pressure main alignment was located within an existing road reserve adjacent to existing services and local residents.

Construction of the pumping station and the pipeline sections within the subdivision had to be carried out in close proximity to the major earthworks contractor on site.

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Managing the challenge

After dewatering then excavating the soil, continuous testing was undertaken in accordance with the environmental management plan.

The pump station excavation of 9000m3 of clay soil was removed and treated with lime, tested and then reused on site as fill.

We liaised closely with the Client's environmental consultant to ensure the methods and testing was carried out to the required standards. We responded quickly to requests or recommendations from the environmental consultant and Client.

Cobey's provided direct and ongoing liaison with local residents before, during and after the pressure main was constructed to ensure minimal disruption. Restoration works followed quickly behind the construction works.

Traffic flows were managed by the closure of one lane and the use of a shuttle lane system.

Adding Value

We added significant value by pro-active approaches to site works including altering the construction programme to suit other site development works.

Cobey also worked closely with the Design Consultant & Client on changes to alignments of the pipelines. This resulted in fast tracked solutions to clashes saving time and money.

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