ENGINEERING THAT WORKS FOR YOU

Main Drainage- Lakes Estate Flood Alleviation

Contract	Value	Location
75 Weeks	£4.2m	Hebburn, South Tyneside

Client

Northumbrian Water

Abbey Road
Pity Me
Durham

Engineer:

Mott MacDonald

St Anns Wharf
112 Quayside
Newcastle upon Tyne
NE1 3DX

Project Description:

Lakes Estate in Hebburn, South Tyneside is a residential area which has suffered flooding from the sewerage system since 2004. A total of 21 homes have been flooded internally. The severity of flooding has resulted in a number of residents having to be moved into alternative accommodation.

This project involved the construction of a 5,600m3 storm attenuation tank with 5m cover and connecting tunnels constructed using pipe jacking techniques. The work was completed over a nine month period, achieving a notably high standard of health and safety management throughout.

At the design stage the selection of a precast concrete tank solution maximised off site fabrication and minimised the amount of work required on site. This was further enhanced by the decision to precast the tank benching, in the form of modular units.

Flows were turned on the scheme, as programmed, in December 2014, thus affording the desired protection against flooding. Final reinstatement works were completed in spring 2015 to take advantage of drier conditions.

The projected out turn cost of the project is £4,218,311, representing an increase on the award figure of only 0.37%. This is a reflection upon the thoroughness of the preparation for the works, the efficiency of Seymour's and the degree of co-operation between all parties throughout the project.

The Lakes Estate scheme is an excellent example of a project delivering major benefits to the community with minimum disruption to local infrastructure. It has been delivered to programme and budget as a result of exemplary co-operation between the project team in the application of value engineering and problem solving, working collaboratively with hot desks available for co-location on site.