WATER SUPPLY IMPROVEMENT TO DAVITASHEN AND PHYSICS INSTITUTE RESIDENTIAL AREAS, YEREVAN

Country	Republic of Armenia
Marz, city	city of Yerevan
Client	World Bank, Municipal Development Project Implementation Unit, Binnie Black & Veatch (UK)
Duration	1999

Terms of reference

1. Pre-design investigations and modeling
2. Instrumental investigation and inventory of water supply distribution network
3. Development of working designs.

Brief description of project and services provided

The works were carried out by experts of Binnie Black & Veatch and JINJ Ltd, during which:

- ✓ The operating water supply system was investigated. During instrumental investigations detection of underground pipeline's depth, path and condition was done (total length – 47.8 km). Detection of leakage from the pipelines was carried out.
- ✓ Based on the results of field investigations a hydraulic modeling of the network was carried out through EPANET software. During the investigations also measurements and records of pressures and heads on distribution network dictating joints was carried out.
- ✓ Through comparison of field investigation and hydraulic modeling results the real picture of the network was clarified. The hydraulic model of the reconstructed system was improved that served as a basis for substantiation of approaches during development of further working designs and design direction selection.
- ✓ Rehabilitation of 10000m^3 and 3000m^3 (each 2 pieces) DRRs was designed.
- ✓ Water pipelines and street lines with about 7 km length, as well as electromagnetic water meter and pressure regulating joints on certain points of distribution network were designed.
- ✓ Joints of entering lines and turbine water meters of about 240 residential buildings were developed.
- ✓ Technical specifications, work volumes, construction work organization draft, cost-estimations were prepared. Tender documents and International procurement packages were presented.

Project objective

The project objective was to provide a permanent operation of the districts water supply system, increase drinking water quality and provide the population water demand, to implement water quality registration, contribute to efficient operation.

JINJ Ltd