



Development of standard specifications for trenchless technology: A proposed funding mechanism

At its meeting on 29 September 2005 the SASTT board decided to support an initiative to compile a collection of draft specifications relating to trenchless technology, pipeline cleaning, and CCTV inspection. The drafts will be published in modular format and will be intended as a guidelines only. Trenchless technologies currently available in South Africa and not already covered by South African national standards will be covered.

It is not the intention to reinvent the wheel. These intended project specifications should not be confused with (SANS) standard specifications. Specifications available from ASTM, WRC, and DIN etc will be consulted where applicable, especially where such standardised specifications cover a technology or technology variant practiced in the country of origin.

In pursuance of the mission of SASTT to promote the use of trenchless technology, it is intended to make the available technologies more accessible and attractive to client bodies by making draft project specifications available for use by anybody.

It is quite likely that these draft project specifications will eventually evolve into standard specifications, but that is not the immediate objective at this stage.

The board proposes to appoint a consultant to compile the specifications. An estimate has been obtained from IUI (Pty) Ltd. Its member Mr Brian de Swardt has many years experience and is well known in the industry. Roughly, the compilation of a specification for a technology for which some information is currently available, could cost in the region of R12 000, excluding peer review. This would involve a desktop study phase, a phase where members in the industry applying or using the technology are consulted, and a writing phase followed by a peer review phase.

The funding of such a project is obviously an issue. In the past the feasibility of outside funding has been explored, with limited success: in 2002 our member Alaster Goyns, together with the Technikon Pretoria, received funding from the South African Water Research Commission for a scoping study. Outside funding will remain on the agenda, but the chances of success will increase manifold once a first draft project specification is on the table.

It is proposed to fund the project by either a *voluntary* once-off increase in the annual subscription of approximately R1 500 per member or by requesting larger voluntary contributions from practitioners of a particular technology.

Anybody contributing in any way will receive a copy of the end product for free, anybody else will have to pay. Copyright protection for the draft project specifications will be strictly enforced.

The purpose of this announcement is to gauge the support among the membership for the above initiative. It would be appreciated if SASTT members would please indicate their preferences on the accompanying form and e-mail the form back to director@sastt.org.za.

Upgrading of sewer in Blumberg Street, Industria

Contributed by Andries Lotz and Johan Ernst, Johannesburg Water (Pty) Ltd

GMH/CPP Consulting Engineers in association with Manong Consultants were appointed for a project to make repairs to a concrete sewer located along the centreline of Blumberg Street in Industria, Johannesburg. The sewer was badly corroded due to extremely aggressive effluent discharged into it, as was confirmed by two separate CCTV investigations.

The design called for the construction of a parallel sewer either in vitreous clay or high density polyethylene (PE-HD), in order to withstand the chemical attack from the effluent. Following the tender stage, the contract was awarded to Insitu Pipelines cc who successfully tendered an alternative, viz to replace the 600 mm diameter sewer with a PE-HD pipe of the same diameter, using their Grundoburst 1250G system.

This pipe replacement method entails breaking up the existing pipe to allow the insertion of a PE-HD pipe of the same (or, quite often, even larger) diameter. This approach reduced the tendered contract period of 14 weeks to only 8 weeks.



Segments of the old pipe showing damage Installation of HDPE lining in progress

An interesting challenge was to accommodate the various sewer connections, and also to build the sewer along the middle of the busy road in an industrial area.

An additional innovative aspect to the project was that the road surface over the sewer was reinstated with a 300 mm layer of a proprietary concrete mixture incorporating a quick-setting component.

The project was completed within the time constraints, specification and budget. The total project cost amounted to R 4 646 901,00.