Swagelining Case Study: Utilities

PROJECT DETAILS

Replacement of 15,190 feet of trunk water pipeline

LOCATION

Adelaide, Australia

ALLIANCE PARTNER

ITS Trenchless Pty Ltd

COMPLETION DATE

November 2010

Challenge

- This project involved the replacement of 15,190 feet of an existing 24-inch MSCL Locking Bar trunk water pipeline
- Largest Swagelining project undertaken in Australia to date
- Pipeline runs beneath one of Adelaide's busiest roads
- To retain maximum pipe capacity and minimise excavation and disruption to the community
- Installation of HDPE Stub Flanges for connection to existing water pipelines
- Installation of HDPE Saddles for connections of branch pipelines
- Installation of a fully structural Class IV HDPE pipe



Solution

- Approximately 15,190 feet of the pipeline was replaced using the Swagelining[™] technique with PE4710 SDR11 HDPE pipe.
- ITS were able to design the pipe with Swagelining Limited's assistance to significantly reduce the load during the swage process.
- The ability to swage through a sweeping bend under the largest road intersection on the project resulted in significant community and cost benefits to the client.



Impact

- Utilizing Swagelining[™] technology has resulted in a significant reduction in the impact to the community & environment.
- · Less raw material usage and spoil to be removed and disposed of
- Increasing the swage lengths and reducing the position excavations resulted in minimized community impact in this high traffic area
- Substantial cost savings with regards to road restorations compared with traditional open trenching methodology.
- Significant reduction in time frame to complete project.



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