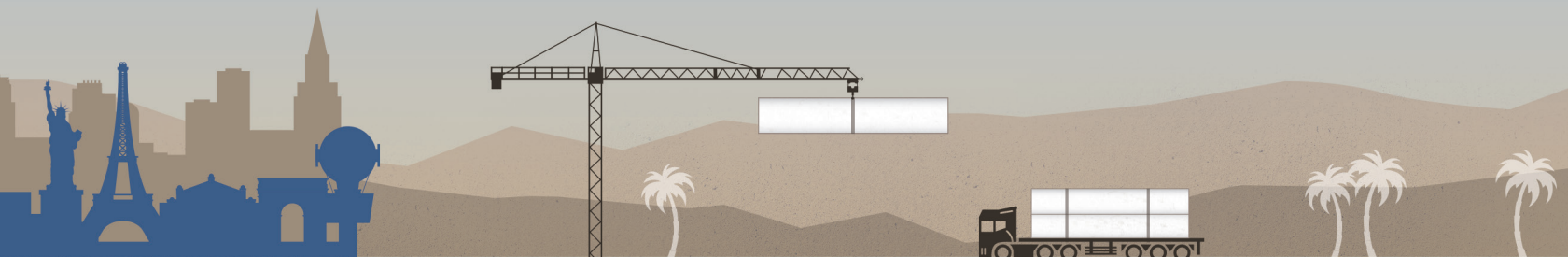




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CASE STUDY:

TOUGH, NO-GAMBLE FLOWTITE® HITS VEGAS



THE FIRST CHOICE OF ENGINEERS



The Paradise Whitney Interceptor (PWI) project in Las Vegas is one of the largest projects of its kind in North America. It was conceived by the Clark County Water Reclamation District as a means of helping serve the needs of a rapidly growing population.

The multiyear project will cover a total of 13 miles and covers terrain with varying ground conditions and requires open-cut, slipline and jacking sections along the route.

The PWI is the most important jacking project to be undertaken in the country to date, and it was therefore a privilege for Thompson Pipe Group – Flowtite® to be awarded two out of three contracts within the scope of the project.



TWO CONTRACTS, TWO CONTRACTORS

Thompson Pipe Group – Flowtite® was awarded two contracts: PWI 668, with Contri Construction as contractor; and PWI 669, with Las Vegas Paving as contractor. Both contracts included open-cut, slipline and jacking sections requiring FRP pipes with different lengths, outer dimensions and stiffness classes.

CONTRACT	PWI 668	PWI 669
CONTRACTOR	Contri	LVP
TOTAL LENGTH	21,830 LF	27,160 LF
OPEN-CUT PIPE (20-FT JOINT)	9,860 LF	13,580 LF
OPEN-CUT PIPE (10-FT JOINT)	360 LF	-
SLIPLINE PIPE (20-FT JOINT)	1,420 LF	1,260 LF
DIRECT JACKING PIPE (20-FT JOINT)	9,380 LF	12,320 LF
DIRECT JACKING PIPE (10-FT JOINT)	810 LF	-

All lengths approx.

Flowtite® FRP pipe provided three different stiffness classes: SN72 for the open-cut pipe, SN154 for the sliplining pipe and SN220 for the direct-jacking pipe.

GOING TO GREAT LENGTHS TO SAVE

With the ability to provide FRP pipes with the strength and stiffness class to safely handle the forces involved in jacking operations, contractors now have an alternative to traditional products. Because Flowtite® FRP pipe is produced using the unique continuous-winding process, contractors can take advantage not just of custom pipe lengths, but also customized pipe dimensions, when needed.

For the PWI project, Thompson Pipe Group – Flowtite® was able to supply most of the FRP pipes for jacking in 20-foot lengths. This meant significant savings in both time and money, as transport and installation were both made more efficient.

DIAMETERS DESIGNED TO SAVE

A variety of diameters of Flowtite® FRP pipes were delivered:

APPLICATION	NOMINAL DIAMETER (INCHES)
Open-cut	27, 30, 48, 60, 84
Slipline	60
Jacking	60, 66, 72

FEWER JOINTS AND PIPES FOR INTERMEDIATE JACKING STATIONS (IJS)

The 20-foot lengths of jacking pipe meant savings and fewer pipe joints. Flowtite® joints are extremely reliable, and fewer potential weak spots means less risk of future failure.

With the longest jacking runs planned for each project at 1,060 LF of 60" pipe for PWI 668, and 1,500 LF of 60" pipe for PWI 669, the stiffness class needed was SN220. Due to long runs and the anticipated jacking force, it was necessary to consider IJS. Thompson Pipe Group – Flowtite® was able to deliver both leading and trailing pipes to be used in these stations.

FITTING SOLUTIONS

Thompson Pipe Group – Flowtite® also supplied fittings in fiberglass. Fittings are available in a great variety of configurations and can be tailored to meet individual specifications. For the PWI project, T-bases were provided that were custom-designed with the angular deflection needed for the manholes.



MANAGING DIFFERENT SCHEDULES

The simultaneous delivery of Flowtite® FRP pipe for both trenchless and open-cut project elements was made possible by working closely with contractors by structuring operations to meet the rigorous schedules and other needs of the two contractors involved operating across a 12-mile worksite. The 20-foot pipe lengths went some of the way to simplifying the process, but a careful coordination of manufacturing and delivery schedules was accomplished so that delays in this complex project were avoided.

GOOD NEWS FOR CONTRACTORS AND FOR CLARK COUNTY

The introduction to the North American market of Flowtite® FRP pipe for jacking gives contractors and project owners increased technical options and the ability to shop around for the most suitable product, supplier and price. This can only benefit the industry as a whole.

The Clark County Water Reclamation District should soon have successfully secured for residents the safe and efficient delivery of wastewater and sewage to treatment facilities needed now and for years to come.

