CASE STUDY
PILOT TUBE METHOD | PILOT TUBE MICROTUNNELING

Project Name:
Chanate/Mendocino Area Sewer Replacement, North Trunk Sewer Project

Prime Contractor:
Pacific Boring

Design Engineer:
GHD, Inc.

Location: Santa Rosa, CA

Owner:
City of Santa Rosa, CA

Ground Conditions:
Soft Sand and Cobbles

Akkerman Equipment:
GBM 4800 Jacking Frame, Guidance System, Casing and Auger Assemblies

Pipe:
8, 15, 18-in. ID NO-DIG® Vitrified Clay Pipe, 1m Joints

Total Length/Longest:
1,180-lf./350-lf. of 18-in. ID VCP

PROJECT OVERVIEW

The City of Santa Rosa required the replacement of 1,180-ft. of aged sections of the North Trunk Sewer Main by Chanate Road and Mendocino Avenue.

The project goals were improved integrity and performance, capacity increases, a comprehensive traffic control plan for the convenience of residents and businesses, reduced potential for overflow into Paulin Creek, and construction in a manner that recognizes the importance of protecting the ecology of nearby Paulin Creek.

Several options were considered for its replacement, including the installation of a lift station.

THE CHALLENGES

- Residences 40-ft. below road surface and existing sewer alignment
- Extreme 45-ft. deep shaft required for tie in, thereby negating possibility of an open trench installation due to excavation depths
- Consistently heavy traffic in tight corridor
- Construction on the Mendocino Avenue during an overnight shift to minimize disruptions
- Emergency vehicle access at all times

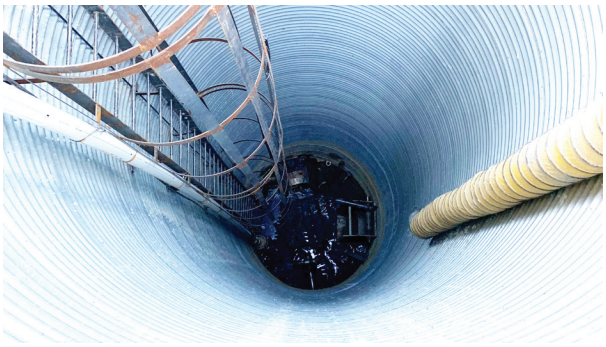
THE SOLUTION

The Project Manager identified and recommend pilot tube microtunneling as the ideal solution. The trenchless selection offered the following benefits:

- Method provides easy means for access for maintenance
- Ability to maintain traffic flow in accordance with the traffic control plan
- Ability for deep installation in ground conditions thereby eliminating a lift station
- Supports responsible construction goals for the protection of the Paulin Creek habitat

OUTCOME

- Successful installation of 1,180-lf. of new sewer lines, the longest run at 350-ft.
- Improved pressure and flow reliability
- Minimized construction impacts
- All line and grade tolerances met
- Ribbon cutting event to commemorate successfully managed project successes and collaborative efforts between all parties



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