

underground

LUNCH & LEARN

TUNNELING FOR WATER UTILITY TRANSMISSION AND DISTRIBUTION

February 12th, 12-1PM
BERTHOUD HALL 243

Denver Water serves approximately 1.4 million customers within the Denver metro area. They maintain a water transmission and distribution network that exceeds 3,000 miles of pipeline as well as an extensive raw water collection transmission system. The Denver Water Conduit 16 replacement project is an \$80 million, 45,000 ft long, 66-inch to 84-inch diameter pipeline project that traverses across the northeast side of Golden connecting the Denver Water Ralston Reservoir site to the Moffat water treatment plant. This is an overview of when tunneling techniques should be considered for the installation of a water transmission or distribution pipeline and the alternative tunneling methods commonly utilized for such projects. All phases of a tunneling project from pre-design planning to field inspection during construction for quality assurance and quality control will be discussed. A second Denver Water tunneling project will also be presented as a construction claim related to a tunneling contract.



Jon Fischer, P.E., has 25 years of professional water industry engineering, tunneling and construction experience. He has a B.S. in Civil Engineering from the University of Colorado at Boulder, an M.S. in Civil Engineering from the University of Minnesota and an M.A. in Management and Leadership from Webster University. He is a PE in Colorado and a certified Project Management Professional. He is an Engineering Manager at Denver Water in Construction Management where his emphasis is on construction phase engineering support, inspection and contract administration.



Nate Soule, P.E., has over 19 years of experience in the geotechnical field, encountering and overcoming countless challenges on trenchless and other underground projects. Over the past 14 years, he has become one of the most experienced tunnel and trenchless engineers in the Colorado Front Range. He has conducted and managed over 15 water, wastewater, and transportation tunnel inspections. He is the Co-Founder and Vice President of Lithos Engineering and is responsible for the operational components of the company.



Eric P. Swanson, B.S. Geology from University of Wisconsin – Oshkosh, is a Senior Construction Inspector for Denver Water with over 17 years of construction inspection experience. He has worked on many heavy civil engineering projects, including 4 tunneling pipelines, the Marston Forebay Outlet Works and various projects at Denver's downstream gravel pit reservoir system. As an inspector, he makes sure the contractor is adhering to the project plans and site specifications which ensures a quality project that will last to the expected life span.



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