



Photo credit: Louisville MSD

## SECANT PILES

### OHIO RIVER TUNNEL PROJECT LOUISVILLE, KENTUCKY

#### Project Summary

A launch shaft, pump station shaft and retrieval shaft were required for the ORT project in Louisville, Kentucky. With inside diameters ranging between 34' and 49', these access shafts were installed with overlapping secant piles extending a minimum 5' into rock. The shafts extend deeper into rock to the final tunnel invert of up to 220' below grade.

#### Project Relevancy

A series of overlapping, unreinforced secant piles were installed in a circular ring pattern to provide the lateral earth support for the shafts through the overburden soils and upper portion of the bedrock. Secant piles were installed up to a maximum of 113' deep into the underlying bedrock which consisted of dolomitic limestone. The overburden consisted of a mixture of sands, silts and clays extending well below the water table. Verticality was checked on every secant pile to verify conformance with the design tolerance.

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Owner: **Louisville & Jefferson County Metro Sewer District**

General Contractor: **J.F. Shea Construction, Inc./Traylor Brothers**

Design/Build Specialty Contractor:

**Schnabel Geostuctural Design & Construction**

Start/Completion Date: **January 2018 - August 2018**

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For more information on this project or any other of our projects please contact Schnabel at:

**(703) 742-0020 or visit our website at [www.schnabel.com](http://www.schnabel.com)**

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