

## Baumgartner Tunnel Project Sanitary Relief Sewer

Metropolitan St. Louis Sewer District (MSD)

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*Location*

St. Louis, Missouri

*Construction Completion*

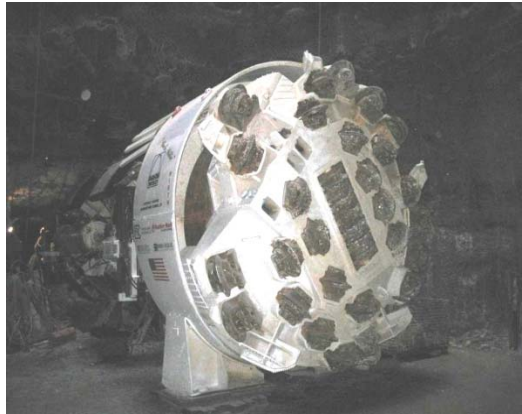
2007

*Construction Cost*

\$20 million

*DMA Services Provided*

Civil Engineering  
Structural Engineering  
Surveying Services



This deep tunnel was constructed to convey sanitary flows from the Baumgartner Lagoon to the newly constructed Lower Meramec Wastewater Treatment Plant. A lift shaft, 223-feet below the surface was constructed with 16 slurry wall panel supports 108 feet in depth, and used a Tamrock Tiger hydraulic track drill to excavate the remaining 115 feet of rock. The tunnel is a 96-inch RCP, about 21,000-feet in length at an average depth of 120 feet.

David Mason & Associates provided surveys, as well as civil and structural planning and design of the tunnel drop shafts and deaeration chambers.

Vortex drop shafts were designed and constructed for this unique sanitary storage and conveyance tunnel. This tunnel also takes advantage of its large volume to provide stormwater detention.

