

CDOT Transportation Expansion

To mitigate congestion along Interstate 25 (I-25), the Colorado Department of Transportation and Regional Transportation District initiated the \$1.67 billion Transportation Expansion Project (T-REX). The first design-build project in the country designed to accommodate future growth, the T-REX was planned to avoid disrupting traffic and with an ambitious five-year design and construction schedule.

PROJECT RESULTS

Kleinfelder's ability to understand, accommodate, and engage in remediation for existing and sometimes undesirable site conditions helped the T-REX project achieve timely and under-budget completion.



SITE CONTAMINATION AND LIMITATIONS

An abandoned landfill under the roadway and projected light rail sites, as well as offsite volatile organic compound (VOC) contamination caused by leaky underground storage tanks, created environmental challenges. Additionally, limited right-of-way (ROW) restricted widening and limited retaining wall design along virtually the entire alignment.

INNOVATIVE SOLUTIONS ENABLING CONSTRUCTION TO PROCEED

Kleinfelder provided geotechnical engineering services to support bridge and retaining wall structures, using a narrow foundation design due to the restricted ROW. Light rail facilities, highway pavements, and tunnels were accommodated in complex conditions—including a solid waste landfill site and a site with observed contamination. To prevent contaminants from seeping into groundwater or through the retaining walls, solutions were injected into bore holes to oxidize the VOCs, enabling construction to continue.

Location:

Denver, Colorado

Owner:

Colorado Department of Transportation (CDOT)

