

Worldwide Activities



TEMPORARY WORKS DESIGN

TUNNEL DESIGN

GEOTECHNICAL ENGINEERING

CONSTRUCTION MANAGEMENT

INSTRUMENTATION & MONITORING

WATERPROOFING & WATER CONTROL

TUNNEL REHABILITATION

MINING SUPPORT SERVICES

CONTACT

SALZBURG

Dr. Sauer & Partner GmbH

T. +43 662 879 999

F. +43 662 878 999

Sterneckstrasse 35-37
5020 Salzburg
Austria

salzburg@dr-sauer.com

WASHINGTON D. C.

Dr. Sauer & Partners Corporation

T. +1 703 707 0700

F. +1 703 707 0703

560 Herndon Parkway, Suite 310
Herndon, VA 20170-5240
USA

washington@dr-sauer.com

TEL AVIV

Dr. Sauer & Partners

T. +972 733903711

Atrium Tower, 18th Floor
Zeev Jabotinsky Rd 2
Ramat Gan 52050501
Israel

telaviv@dr-sauer.com

LONDON

Dr. Sauer & Partners Ltd.

T. +44 208 339 7090

11 Langley Avenue
Surbiton, Surrey
KT6 6QH
UK

london@dr-sauer.com

TORONTO

Dr. G. Sauer & Partners Corporation

T. +1 647 276 4000

2200 Yonge Street
Suite 1004
Toronto, ON M4S 2C6
Canada

canada@dr-sauer.com

www.dr-sauer.com



www.dr-sauer.com

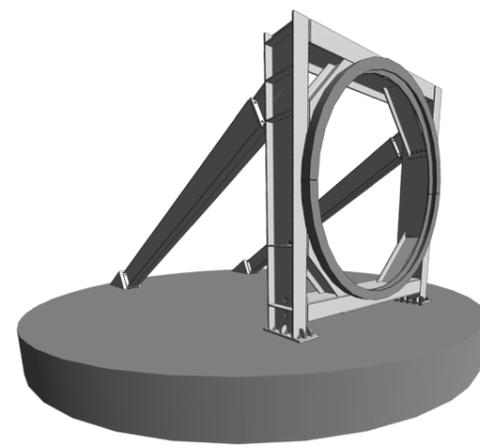
Salzburg | London | Washington | Toronto | Tel Aviv



Dr. Sauer & Partners is an independent consultancy specialized in providing design and construction management services for tunnels, shafts and caverns. The company's expertise includes temporary works design, support of excavation and geotechnical engineering services.



^ TBM Starter Tunnel



^ TBM Thrust Frame

CASE STUDY - Effluent Outfall Tunnel Project, Los Angeles, USA

The project comprised the construction of a joint water pollution control plant (JWPCP) effluent outfall tunnel. Tunnel dimensions: 8 miles in length with an 18ft i.d. The project features the first use of post tensioning of the segmental lining in the US.

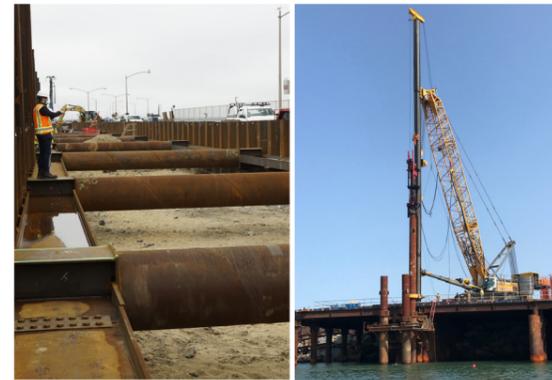
Dr. Sauer & Partners supports the contractor with a variety of temporary works designs:

- Crane Pad at the main shaft,
- Tremie Slab for the main shaft,
- TBM - Starter and Tail Tunnel,
- TBM Thrust Frame,
- Tail Tunnel End Wall (i.e. slurry wall panels) for the main shaft,
- Assessment of ground squeezing for TBM drive and mitigation measures.

BENEFITS:

- a thorough understanding of interfaces between temporary and permanent structures,
- a deep appreciation for the client's technical and operational needs,
- advanced analysis (2D and 3D) of complex tunnelling projects is applied for temporary works structures which delivers more efficient design,
- depending on contractor's needs, 3D implementation in BIM is available.

Dr. Sauer & Partners designs pioneering solutions - delivering innovative, cost-effective and environmentally-aware designs. Dr. Sauer & Partners Temporary Works services include the following specialisms:

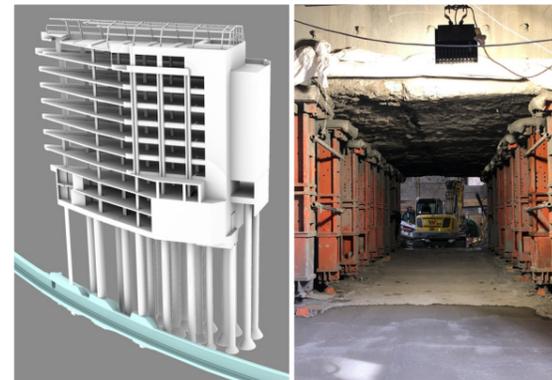


• TEMPORARY STRUCTURES DESIGN

Design and supervision of temporary structures such as steel trestles, TBM thrust frames, TBM cradles, TBM starter ring support, tremie slabs (reinforced, unreinforced), muck pits, and construction equipment pads (concrete and timber).

• SURFACE EXCAVATION

Design and supervision of excavations made from surface including sheet pile walls, slurry walls, concrete tangent and secant piles, drilled and driven steel piles, rock and soil anchors, bracing systems and decking.



• UNDERPINNING OF STRUCTURES

Design and supervision of underpinning of operational tunnels, subway stations and buildings. Structures impact assessment and mitigation measures.

• INSTRUMENTATION AND MONITORING

Design and implementation of comprehensive monitoring programmes using in-house software.

