STRADER CONSULT



KEY PROJECTS

CONTRACT NWC2 -PROPOSED SEWER DEVELOPMENT AT WOODLANDS AREA - PACKAGE

Date won/completed: 2023 – ongoing

Client: Building & Construction Co. Pte. Ltd.

Developer: Public Authority Board (PUB) - Singapore

Role: Design and Supervision Consultant

PROJECT BACKGROUND

The Woodlands Sewer development Phase 2 aims to enhance the overall sewerage capacity of the Woodlands township for future development into a key commercial hub in the north of Singapore.

The project comprises of over 2.5km length of sewer tunnels, with internal diameter ranging from 1.5m to 3.0m, and 7 number of deep shaft. The tunnels are located from 25m-32m below ground level, within the Bukit Timah granite rock / residual soil. The Client's main challenge is to ensure safe tunneling within the mixed faced tunnelling, and protection of several critical infrastructures such as the undercrossing of existing Thomson-East Coast Line tunnel, and a major 11m-wide box drain.

Pipe jacking and Mini-tunnelling with slurry TBM was adopted to carry out the works. For excavation within fractured rocks, fissure grouting is adopted to reduce rock mass permeability and enable speedy excavation without lowering ground water table. Strader is the design consultant for the contractor, responsible for the shaft construction, tunnelling operation, tunnel KPIs, grouting works and precast tunnel lining for mini TBMs. We are also responsible for the overall site supervision for the project.

PROJECT OUTCOME

Successful completion of shaft construction and retrieval of the first tunnel drive (3.6m dia)

Value-engineering study to optimise the shaft depth and omission of 2 manhole shafts

High quality and safe construction works delivered under our supervision.