

沙頭角污水處理廠第一期擴建工程及塘肚鄉村污水收集系統
Expansion of Sha Tau Kok Sewage Treatment Works Phase 1
and Village Sewerage in Tong To

以科技克服挑戰 Surmounting Challenges with Technology

最新工程進度 Latest Progress of Construction
在臨時污水處理廠採用移動床生物膜反應器技術
The Use of MBBR in the Temporary Sewage Treatment Plant (TSTP)
研發智慧綜合管理平台 Development of Centralized Management Platform
工程獎項 Prizes and Awards
共享空間可行性研究諮詢工作坊 Consultation Workshop for Feasibility Study of Co-use Space

最新工程進度 Latest Progress of Construction

在沙頭角海上進行擴孔工程
Reaming Operation at the Starling Inlet



採用水平定向鑽進行海底排放管建造
Submarine Outfall Construction by Horizontal
Directional Drilling

污水處理廠擴建
Sewage Treatment Works Expansion



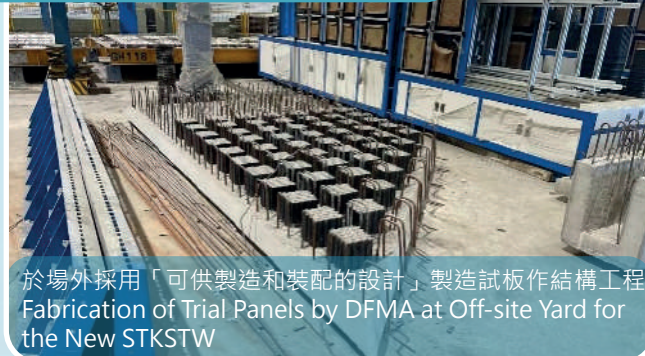
新污水處理廠土木及結構工程
Civil and Structural Construction for the New STKSTW

沙頭角區鋪設管道
Sewer Laying at Sha Tau Kok Town



在順興街進行無坑挖掘工程
Trenchless Works at Shun Hing Street

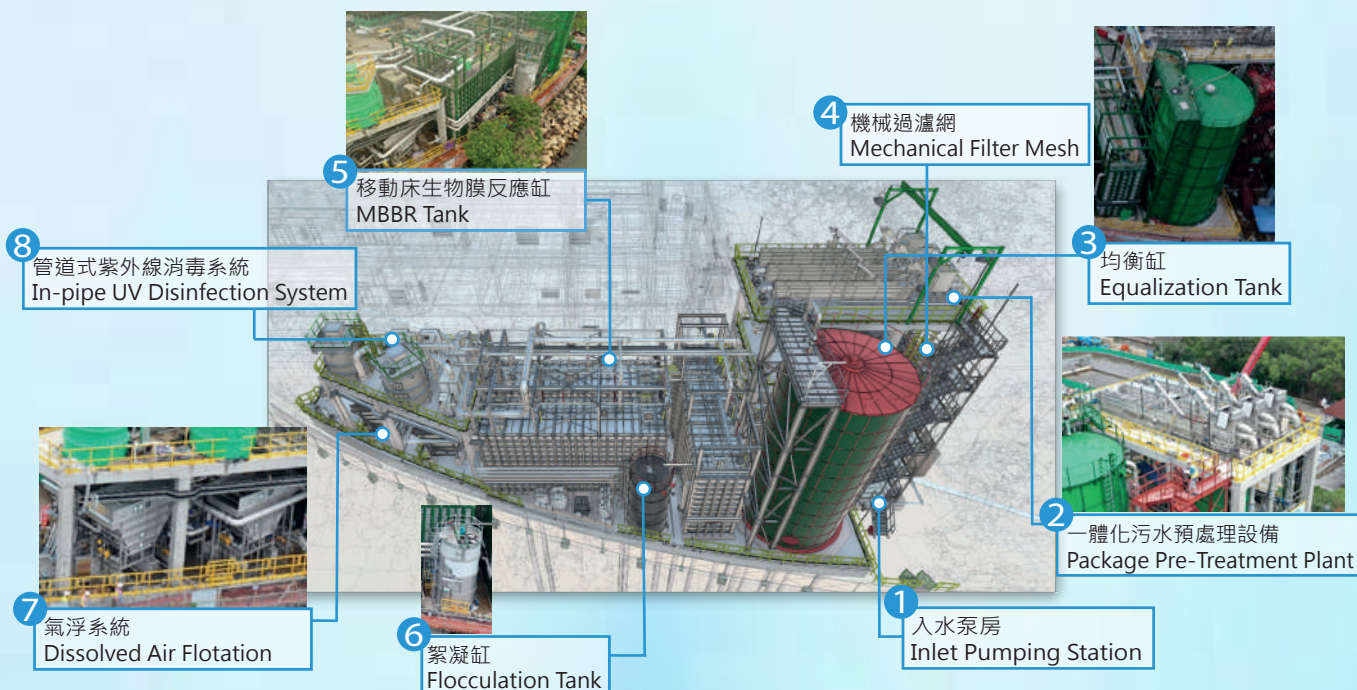
污水處理廠擴建
Sewage Treatment Works Expansion



於場外採用「可供製造和裝配的設計」製造試板作結構工程
Fabrication of Trial Panels by DFMA at Off-site Yard for
the New STKSTW



移動床生物膜反應器(MBBR)污水處理設施 Moving Bed Biofilm Reactor (MBBR) Sewage Treatment Facilities



現有沙頭角污水處理廠內建造一個臨時污水處理廠以維持在擴建工程期間向沙頭角區內提供污水處理服務。此臨時污水處理廠選用了節省用地的移動床生物膜反應技術。移動床生物膜反應缸放置數以萬計的塑膠載體，提供足夠表面積讓微生物依附著生長，從而產生生物膜，以去除污水中的生物碳和氮污染物。

To maintain sewage treatment services for Sha Tau Kok district during the expansion works, a Temporary Sewage Treatment Plant (TSTP) is required to be built in the existing plant area. TSTP has adopted compact moving bed biofilm reactor (MBBR) technology which comprises tens of thousands of plastic carrier media to provide necessary surface area for microbial biofilm growth to remove carbonaceous and nitrogen pollutants in sewage.

使用創新科技化危為機 Benefit of using Innovative Technology



採用了節省用地的移動床生物膜反應器(MBBR)技術和一體化初級污水處理設備

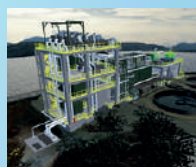
Treatment Process Design with High Efficiency and Compactness

應用場外建造及「可供製造和裝配的設計」(DfMA)技術
Application of off-site Construction and Design for Manufacturing and Assembly (DfMA)

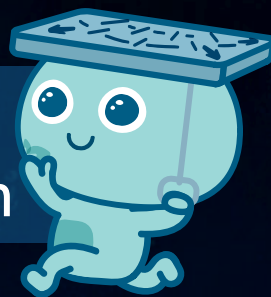


使用建築信息模擬(BIM)技術協助設計及建造臨時污水處理廠
Adoption of Building Information Modelling (BIM) for Design and Construction of TSTP

工地管理數碼化及智慧工地安全管理措施
Digitalization of Site Management and Smart Site for Safety



智慧綜合管理平台 Centralized Management Platform



項目團隊致力通過使用創新科技和技術來提升工地安全。智慧綜合管理平台，配合相關警報系統則把不同科技和技術所收集的大數據統一，以便工程人員管理及跟進潛在的危險。智慧綜合管理平台對於整合眾多不同創新科技和技術的海量數據為其重要。智慧綜合管理平台目標是把各種傳感器及智能系統所收集的大數據統一，以加強施工現場的安全管理。它容許所有數據於同一平台管理、分享及處理，以便工程人員能即時和遙距監察項目的安全表現。

The Project Team strives to uplift site safety by using innovative technologies and devices with data consolidated by a centralized management platform and an alert system and response plan to the potential hazards identified.

A centralized management platform is essential to consolidate the huge volume of data from numerous smart devices. The goal of the centralized management platform is to integrate information from different smart devices for strengthening safety performance management by all relevant participants in the construction site. It would enable sharing, processing and utilizing data in one unified platform for all stakeholders for instant and remote monitoring of safety performance.



智能安全帽 Smart Safety Helmet



虛擬現實安全訓練 Virtual Reality (VR) Safety Training



應用創新科技及技術

Innovation Devices and Applications Adopted

模擬建築信息 Building Information Modelling



人工智能視頻分析監控系統 Video Cameras for Artificial Intelligence (AI) Analytics



工程獎項 Prizes and Awards



公德地盤獎(工務工程 - 新建工程) 銅獎
Considerate Contractors Site Award
(Public Works – New Works) Bronze



香港顧問工程師協會年度獎項 2020
ACEHK Annual Award 2020



公德地盤獎(傑出環境管理獎) 銀獎
Considerate Contractors Site Award
(Outstanding Environmental
Management & Performance Award)
Silver



「新工程合約」獎項 2021
- 年度創新合約項目
- 年度可持續及氣候適應合約項目
NEC Awards 2021
- Contract Innovation of the Year
- Sustainability and Climate Resilience Project of the Year



社區關懷 Community Caring

項目團隊就開放擬建沙頭角污水處理廠可行性研究進行訪談及諮詢
The Project Team has met with various stakeholders regarding the feasibility study of opening up of the new STKSTW



與村民交流
Idea Sharing with Locals



與村民討論
Group Discussion with Locals



為村民介紹發展計劃
Presenting Development Plans

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