

Organisations Category

Contractor in New Works

Gold Award

Daewoo – Chun Wo – Kwan Lee Joint Venture



ND/2019/04 – Fanling North New Development Area, Phase 1: Fanling Bypass Eastern Section (Shek Wu San Tsuen North to Lung Yeuk Tau)

We are the first project applying S960 Ultra-high strength steel for bridge construction in the world, which is a brand-new standard for construction using steel and also giving a choice of method for the future projects. Various cost saving designs and alternative designs together with equipment driven by renewable energy have also been applied to reduce the carbon emission. We seek the feasibility in more sustainable for every aspect in construction.

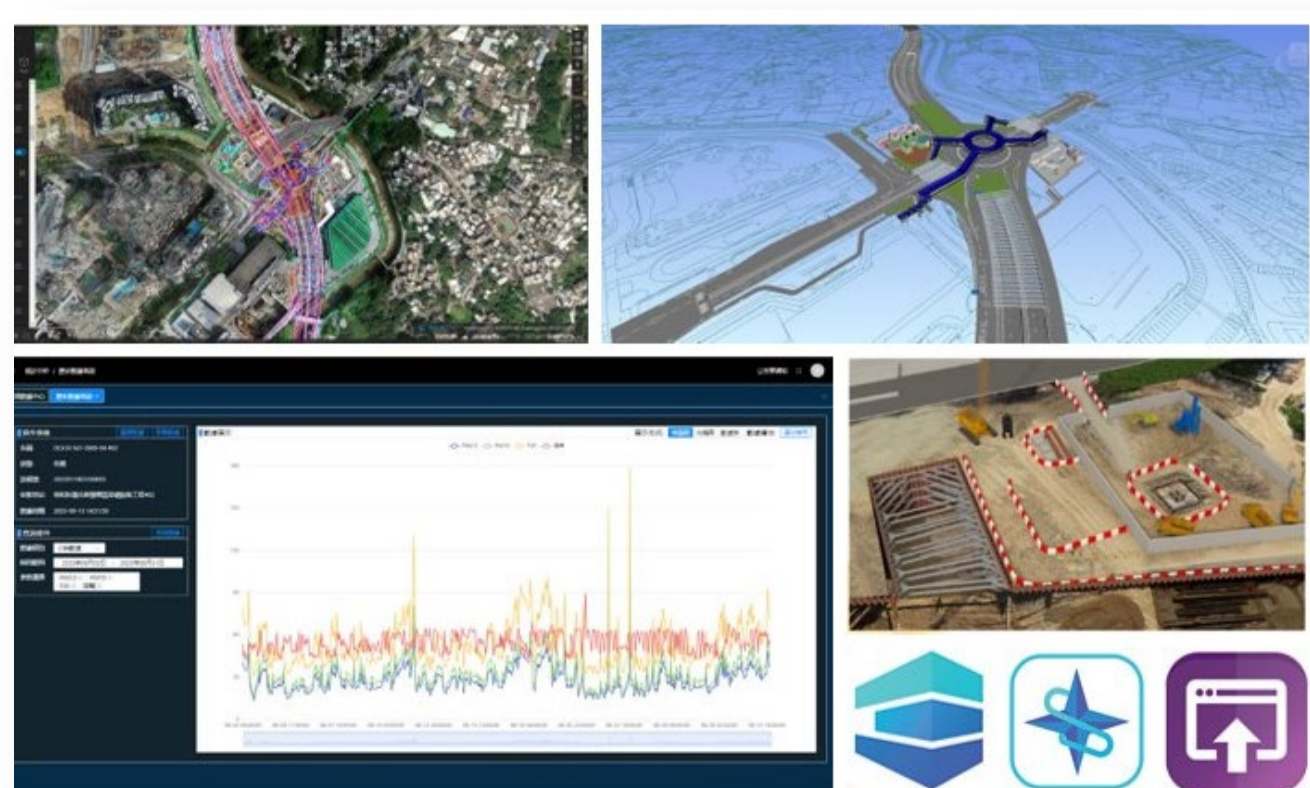


Sustainable Best Practice 1

The project advocated sustainability and carbon reduction that it is the first project to adopt ultra-strength S960 steel, a brand-new construction material in Hong Kong, both in public and private sector, set as a milestone to the industry development. Without changing the major appearance of the footbridges, replacement of reinforced concrete bridge deck to steel deck can reduce both timber and steel formwork usage and minimise the associate waste generated.

Sustainable Best Practice 2

We acknowledge the importance of local cultures and heritage preservation during the works by arranging lobbying and traditional worship ceremonies to show the respects and appreciation. We also went through ACABAS submission to change bridge profile appearance to echo local village's comment and concern. To facilitate the public understanding to the project, different visual aids were utilised such as notice boards, leaflets, Building Information Modelling to demonstrate the design and works plan.



Sustainable Best Practice 3

Use of digitalisation technologies and solutions to mitigate environmental impacts on diverse aspects, use of drone and ArcGIS SiteScan to estimate, measure and plan, Use BIM to generate eBBS for prefabrication of reinforcement bars, Implement Smart Site Safety System (FourS) for safety permit system, night work permit system and plant and equipment inventory, using AI camera and real time monitoring station to monitor the site condition.