

捷運內湖線CB420 區段標連續壁非破壞性檢測案例檢討

林清森, 樊偉祺, 楊錫麒

營建管理學系

建築與規劃學院

hcyangse@chu.edu.tw

摘要

The construction of diaphragm walls to be applied as groundwater barriers and retaining walls has been in use for more than 50 years. Basically it requires an appropriate trench being kept in engineered fluid to form a slurry. The slurry exerts hydraulic pressure against the trench walls and acts as shoring to prevent collapse, and stop-end pipes are placed vertically at each end of the panel to form joints. During installation, a fitted steel reinforcement cage produced with an appropriate panel size will be craned into the trench, and then concrete is poured in through a tremie pipe.

Currently, diaphragm wall construction is mainly used as a retaining wall system for deep excavation. Nevertheless, evaluations of the completed diaphragm wall to see whether or not it functions well under unfavorable geologic conditions are not commonly implemented. In this article, a case study of non-destructive testing of diaphragm walls, which were installed at Section Contract CB420' s cut-and-cover tunnel and day-lighting section, is discussed for reference.

關鍵字：cut-and-cover tunnels, day-lighting section, diaphragm wall, guide wall