

# 捷運潛盾隧道遭遇污水管下方鋼板樁 之排除方案研討

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## 摘 要

潛盾工法於臺北捷運工程中普遍被運用於地下車站與車站間連接之隧道工程，一般於工程設計階段及施工初期，即依管線調查、地質鑽探等資料，研判是否有障礙物需排除，選定適用之潛盾機種類與型式及配套之地質處理作業，惟於工程進行中仍有可能遭遇非預期之地下障礙物，屆時必須依現有資源及現況評估所有可能排除之方式，以利工程順利進行。

本文藉由臺北捷運蘆洲線CL804標潛盾隧道下行線遭遇污水管下方之鋼板樁之案例，介紹潛盾施工過程遭遇非預期之地下障礙物之判斷、檢討與排除過程。

**關鍵字：**潛盾機、鋼板樁、污水管。

## A Case Study of Elimination Proposal for Shield Tunnel Boring Route Encountered Sheet Piles

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## Abstract

A shield tunnel method was used for constructing a tunnel between an underground station and a ground station in the Taipei MRT project. The shield machine type and ground improvement method were selected according to pipeline investigations, drilling data, and whether the obstacles should be removed in the design phase or at the early construction stage. However, when the construction was underway, shield tunnel boring encountered unexpected underground obstacles. At this point, evaluating all possible solutions in the available resources and existing conditions was essential for expediting construction progress.

This paper presents the case of the Taipei MRT Luzhou Line CL804 lot that encountered sheet piles beneath the sewer to illustrate the processes of estimation, review, and elimination during shield tunnel construction in which unexpected underground obstacles were encountered.

**Key Words :** shield machine, steel sheet pile, sewer.

## 一、前 言

蘆洲線CL700B區段標潛盾隧道工程包含CL802施工標、CL803施工標、CL804施工標的上、下行線隧道總計長度4260.5m。環片

為預鑄鋼筋混凝土環片，外徑 $\phi$  6100mm內徑 $\phi$  5600mm。使用兩台土壓平衡式潛盾機(外徑 $\phi$  6240mm)並各轉用2次。開挖土碴在確保清潔管理下，以輸送帶及土碴車方式自發進井吊離運棄。

本標工址位於台北盆地西北邊緣，由下而