

ISSUE

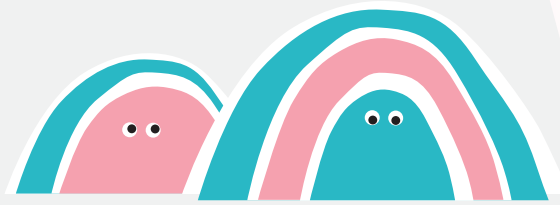
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03.2024

安達臣道石礦場

聯用岩洞發展

Joint Cavern Development at Anderson Road Quarry Site



合約編號 Contract No. GE/2022/14

創刊號
First Issue

工程簡訊 PROJECT NEWSLETTER



初步設計概念
Preliminary design concept

工程背景

土木工程拓展署於2021年12月開展了安達臣道石礦場用地聯用岩洞發展的勘察研究，研究包括搬遷工務中央試驗所往岩洞及在岩洞內興建政府檔案處歷史檔案中心。是次岩洞發展項目亦是香港首次將非公用事業設施設置在岩洞內。

本項目已於2023年7月10日動工，包括於安達臣道石礦場發展用地的大上托山體內挖掘岩洞建築羣及連接隧道，並在岩洞內及岩洞出入口建造工務中央試驗所大樓及歷史檔案中心，預計於2028年7月完工。



岩洞出入口模擬圖
Simulation diagram of cavern portals

PROJECT BACKGROUND

Civil Engineering and Development Department (CEDD) initiated a study on the Joint Cavern Development at Anderson Road Quarry Site in December 2021. The study includes the relocation of the Public Works Central Laboratory to caverns and building of Government Records Service's Archives Centre in caverns.

This project commenced its works on 10 July, 2023 including the excavation of a cavern complex and connecting tunnels inside the rock mass of Tai Sheung Tok hillside at the Anderson Road Quarry Site for subsequent construction of Public Works Central Laboratory and Archives Centre. The project is expected to be completed in July 2028.



地盤位置 Site Location

岩洞位置在安達臣道石礦場發展用地的大上托山體內，毗連安愉道。

The caverns are located inside the rock mass of Tai Sheung Tok hillside at the Anderson Road Quarry Development site adjoining On Yu Road.

建造方法

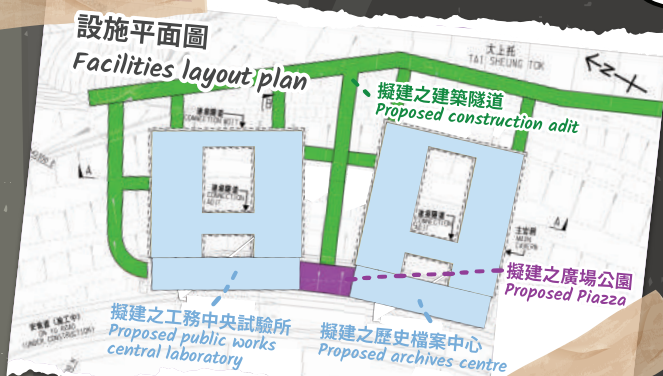
工地前身為安達臣道石礦場，石質十分堅硬。為縮短工程所需時間及減少對社區的影響，岩洞挖掘工程將以爆破進行，之後在岩洞內以「組裝合成」建築法興建部份設施。

在挖掘四個用於容納兩座設施的岩洞之前，工程首先挖掘較小型的建築隧道到達山體深處，才由內至外進行較大型的主岩洞爆破工作，盡量減低爆破對鄰近環境的影響。

Construction Method

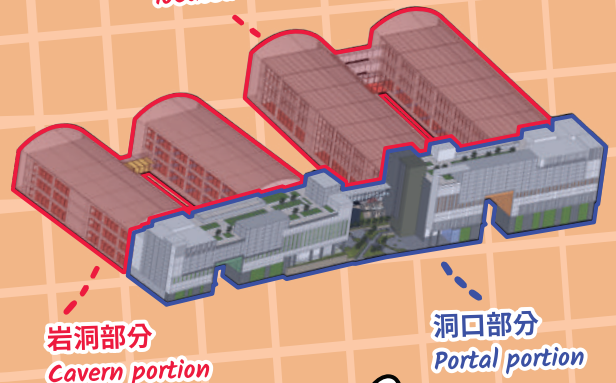
The site was formerly the Anderson Road Quarry, known for its hard rock. The cavern excavation will be conducted through blasting to expedite the construction process and minimize impacts to the community. Then, the Modular Integrated Construction (MiC) method will be adopted inside the cavern to build part of the facilities.

Before excavating four caverns to house the two facilities, construction adits would be excavated by smaller-scale blasting works deep into the hillside. After that, larger-scale blasting works for excavation of the caverns will be carried out from the inside out to minimize the impact on the surrounding environment.



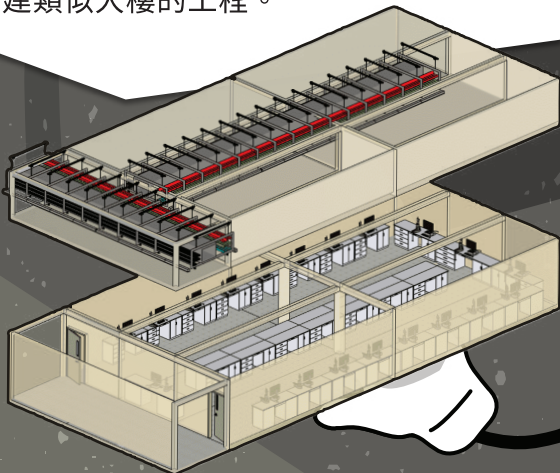
兩座設施的模擬圖 Simulation diagram of two facilities

設施超過70%空間位於岩洞內
Over 70% of the facilities are located inside the caverns



組裝合成建築法

為了克服工期十分緊湊的挑戰，項目團隊在早期設計階段已經決定使用「組裝合成」建築法(簡稱MiC)來興建兩座設施，讓場內的岩洞開挖工程和場外的預製組件製作同步進行，而預製組件運抵工地後可以馬上裝嵌，大大縮短施工時間。本項目亦將會是全世界首個在岩洞內採用MiC模組構建類似大樓的工程。



Modular Integrated Construction

To overcome the challenge of tight construction programme, the project team adopted the Modular Integrated Construction (MiC) method during the early design stage. This allows the excavation of the caverns and the off-site fabrication of MiC modules to proceed in parallel. Once the prefabricated modules are delivered to the construction site, they can be immediately installed, which significantly reduces the construction time. This is the first project in the world to use MiC modules to construct similar buildings within caverns.

工程進度 Works Progress

動土典禮 Groundbreaking Ceremony

工程的動土典禮在2023年11月6日順利舉行，標誌着工程正式展開。

The groundbreaking ceremony was successfully held on 6 November, 2023, signifying the official commencement of the project.



興建工地辦公室 Construction of Site Office

工地辦公室已經平頂，預計2024年第1季開始使用。

The construction of site office is reaching completion and anticipated to be in operation within the first quarter of 2024.



未來數月重點工程 Works in the coming months

- 進行鑽爆工程
- 安裝地盤圍板
- Drill and blast works
- Site hoarding installation

鑽爆工程 Drill and Blast Works

工程已於2024年2月2日進行首次爆破施工。爆破施工前已從礦務部獲得牌照及許可證。爆破時將關上防爆門，以降低噪音影響及防止飛石出現。爆破施工過程將由礦務部人員以及其核准的工程人員監察下進行。

The first blast was carried out on 2 February, 2024. Before commencement of blasting works, relevant licenses and permits have been obtained from the Mines Division. The blast door is installed to reduce the noise impact and prevent the occurrence of flyrock during blasting. The officers from the Mines Division and the authorized site personnel will supervise the blasting process.



爆破時間表 Blasting timetable



銅鑼手 Gong man



環境影響緩減措施 Mitigation Measures to Environmental Impacts

- 覆蓋易起塵物料
- 搭建隔音罩
- 沖洗離開工地之工程車輛車輪
- 進行例行灑水以減少塵埃
- Cover dusty material with impervious sheeting
- Construct noise enclosure
- Wash vehicle wheels before leaving the site
- Spray water regularly to control dust



工程社區聯絡小組第一次會議已於2024年1月30日順利舉行。

The 1st Community Liaison Group meeting was successfully held on 30 January, 2024.



社區聯繫

為加強工程與各持份者的溝通，土木工程拓展署轄下土力工程處聯同顧問公司及承建商成立社區聯絡小組，定期向社區持份者公佈工程最新資訊，包括工程進度及環保事宜等，亦會聆聽並回應社區持份者對工程的意見。

社區聯絡小組在2024年1月30日（星期二）晚上，於順利社區中心舉行首次會議。出席的社區聯絡小組成員包括觀塘區及西貢區議員、觀塘民政事務處、安泰邨及安達邨辦事處、井欄樹居民、鄰近學校及社福機構等。



Community Connection

To enhance communication between the project team and stakeholders, the Geotechnical Engineering Office (GEO) of the CEDD has collaborated with the consultant and the contractor to establish a Community Liaison Group (CLG). The aim of this group is to regularly disseminate the latest project information to community stakeholders, including updates on the project progress and environmental matters, and to listen and respond to the opinions from stakeholders.

The CLG held the first meeting in the evening on 30 January, 2024 (Tuesday) at Shun Lee Estate Community Centre. The CLG members in attendance included the District Councillors from Kwun Tong and Sai Kung, the Kwun Tong District office of Home Affairs Department, Management Offices of On Tai Estate and On Tat Estate, residents of Tseng Lan Shue Tsuen, nearby schools and social welfare organizations, etc.

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安達臣道石礦場 · 聯用岩洞發展

Joint Cavern Development
at Anderson Road Quarry Site