

臺9線蘇花公路改善計畫隧道課題與環境生態因應

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公路總局蘇花公路改善工程處

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摘 要

臺9線蘇花公路改善計畫為愛臺十二項建設之一，提供臺灣東部民眾往來北部區域一條長期安全、可靠的聯外公路，並為永續工程與環境建設。路線通過中央山脈西翼地質區以及中央山脈東翼地質區兩個地質分區，隧道所佔比例高，共有八座隧道，最長之觀音隧道與緊接之谷風隧道，為整體計畫之關鍵工程。本文首先就計畫全線隧道規劃及地質說明，俟依優先設計路段(南澳和平段)隧道之特殊考量及可能遭遇特殊地質，謹慎檢討評估及研提因應對策，降低隧道施工風險，最後說明工程執行須遵守之環評承諾要求及符合環境、生態等需求之作法，以期達到降低環境與生態衝擊之『景觀、安全·永續·洄瀾路』最終目標。本文相關內容期供工程與學術界參考。

關鍵字：蘇花公路改善計畫、隧道、環境、生態。

Tunnel Technique and Environmental and Ecological Considerations for No. 9 Highway Improvement Project

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Abstract

No. 9 highway improvement project is one of 12 major love-Taiwan infrastructure projects. It is expected to offer a long-term safe and reliable highway for the public between the northern region and the eastern part in Taiwan. It is also expected to be a sustainable engineering and environmental construction. The alignment of this project is cross the western Central Range belt and eastern Central Range belt. There are totally eight tunnels for this project. Guanyin tunnel is the longest one with 7.9 kilometers long. Guanyin tunnel and the following Gufeng tunnel is critical path for the whole plan. In accordance with the special geology of the tunnel, special consideration for the assessment and proposed response strategies of the tunnels is carefully reviewed in this paper. The optimization of tunnel construction risk, green construction, sustainable development and full lifecycle management concepts are considered to meet the needs of the environment, ecology and landscape during the plan and design stages of this project. It is expected to reach the "low environmental impact, save energy and reduce carbon emissions," and "to extend lifecycle of the highway". This paper is hopeful as the references for engineering and construction.

Key Words : No. 9 highway improvement project, tunnel, environment, ecology.

一、前言

臺9線蘇花公路受地形、地質條件限制，路

線蜿蜒曲折，道路標準及容量均較低，行車安全性與舒適性差，且每遇颱風豪雨經常坍方中斷，歷年來雖經相關單位持續努力改善，行車品質仍難以全面提升，為秉持「區域運輸發展」、「環