

No.1023



New Excellent Technology(NET) Certificate

Title : Preloading Method Supporting Automatic Control of Simultaneous and Individual Application of Loads to Multiple Reinforcement Piles to Improve Foundation for Vertical Extension Remodeling

Developer : Samsung C&T Corporation, Korea E&C Co.,Ltd.

Period of Protection : June 11, 2025 ~ June 10, 2033 (8 years)

* The Protection Period herein does not indicate the reliability period of the technology. This refers to a period during which advantages are provided to the developer of the new technology used in construction projects only in the Republic of Korea.

Description of Technology

「This novel preloading method is intended to strengthen the foundation for vertical extension remodeling. It employs a comprehensive operational approach that determines load distribution based on the actual measurements of axial stiffness of the existing piles and reinforcement piles, and applies load to multiple reinforcement piles simultaneously with the use of an automatic control system, consisting of a hydraulic unit and a controller. It also enables the automatic halting of the loading following the issuance of an alert in the event an abnormality is detected by real-time monitoring of the load-displacement values, and allows for control of those specific piles exhibiting abnormality.」

Scope Of Technology

「This preloading method supports a comprehensive operational approach that determines load distribution based on the actual measurements of axial stiffness of the existing piles and reinforcement piles, and applies load to multiple reinforcement piles simultaneously by monitoring in real time the load-displacement values with the use of an automatic control system, consisting of a hydraulic unit and a controller. It enables the automatic halting of the loading following the issuance of an alert in the event an abnormality is detected and controls those specific piles exhibiting abnormality.」

Contents to be Protected

- The developer is authorized to receive royalties from others for using NET
- It is recommended to use NET prior to the similar imported technology
- The ordering authority may encourage to test the equipment or to construct experimentally in regard of NET
- When the test and the experimental construction for NET result in an excellent performance, the ordering authority may apply NET preferentially

In compliance with provision of Article 14 of Construction Technology Promotion Act, I hereby designate above technology as a NET.

June 11 2025

Minister of Land, Infrastructure and Transport
Republic of Korea



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