

A Method for Constructing Geosynthetics-Reinforced Soil Retaining Wall with Rigid Face Using Lightweight Buried Formwork Applicable to Narrow Spaces

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We proposed a method for constructing geosynthetics-reinforced soil retaining wall with rear face applicable to narrow spaces. We developed "components that can follow the settlement of embankment", to prevent settlement of embankment from affecting the deformation of the formwork when embankment and formwork are connected. In the proposed method, using the developed components together with lightweight buried formwork, the formwork and reinforcing embankment can be constructed simultaneously from the rear side, without the need for scaffolding. A test construction was carried out to confirm the feasibility of the proposed method. As a result, the developed components in a 2.4 m-high retaining wall were shown to function properly against the settlement of embankment. Considering the sliding amount of the developed components, the applicable height for this method is assumed to be up to approximately 4.0 m.