

Numerical interpretation of anchoring mechanism by using Bonded Particles Model

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In order to clarify the anchoring mechanism of ground anchor and develop the effective design method, it is convenient to build the numerical model that can well reproduce the mechanical behavior and represent the fracturing process around the anchor part under various specific conditions. The mechanical behaviors of ground anchor are simulated by distinct element method using bonded particle model. As the result of the simulations, the typical mechanical behaviors and the well-known empirical law of ground anchor can be well reproduced.

Keywords: ground anchor, distinct element model, crack initiation and propagation