

Calculation Method of Design Earth Pressure of Shield Tunnel in Clayey Ground

Kiwamu TSUNO Kiichi FUJITA Koji FUNAKOSHI

This paper describes a method of calculating earth pressure in the beam-spring model which was introduced in the design standard for railway shield tunnels in 1997. A parameter study was carried out to grasp the influence of the coefficient of lateral earth pressure on verification results and it was revealed that the coefficient of lateral earth pressure has a significant influence and is one of reasons for irrational design in case of medium cohesive clay. The authors of this paper modified the coefficient of lateral earth pressure and showed the relationship between vertical earth pressure and verification results using modified values.