

**Numerical Analysis Method for Corrosion of Segment Joint
of Shield Tunnel Caused by Chloride Attack**

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Deterioration caused by chloride ions may occur in some shield tunnels located in waterfront areas or near tidal rivers. In this paper, we propose a three-dimensional finite element method for the maintenance of shield tunnels effected by chloride ions. In proposing this method, we developed a modeling method for deteriorated segment joints by reducing stiffness. In addition, we verified the validity of the method by loading tests of tunnel lining specimens.