

Dynamic Analysis Model and Evaluation Method of Concrete Pole on Sand Foundation during Earthquakes

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Sand foundations have been often used as measures against earthquakes for prestressed concrete poles on viaducts. It is expected that sand foundations function as a damper to hold oscillation of these poles during earthquakes. However, states of the sand in the foundation have not been clarified, in the case where these poles have excessive load during earthquakes. Therefore, we carried out a static load experiment on the sand foundation to construct a dynamic analysis model for prestressed concrete poles on sand foundation during earthquakes. Further we had response spectrum of these poles by using the dynamic analysis model to evaluate their effective performance against earthquakes.