

## **Development of an Effective and Economical Liquefaction Countermeasure Method**

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Liquefiable ground is widely spreading in the Tokyo metropolitan area, where the gigantic near fault earthquake may occur with high probability. Since liquefaction of the foundation ground supporting railway structures may cause severe damage to the structures, it is necessary to improve the liquefiable ground as early as possible. The current existing countermeasure methods against liquefaction are, however, very expensive, and are not suitable to improve the wide-spread liquefiable ground. The authors are, therefore, now developing a new effective and economical liquefaction countermeasure method, which can make loose liquefiable ground denser by injecting silica-gel dendritically using the dynamic pressuring grouting method with low improving ratio. This paper introduces an abstract of the method, and describes the results of some execution tests and trial analyses.