

## Ground Liquefaction due to Earthquake in urban region and its influence on structures

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[http://www.shimz.co.jp/corporate\\_information/sit/](http://www.shimz.co.jp/corporate_information/sit/)

Ground Liquefaction has been paid gotten a lot of attention since Niigata Earthquake in 1964. This event accelerates the research of Liquefaction, and the influence of liquefaction is taken into account in earthquake-proof design manuals or codes for engineering structures. However, not-yet-understood phenomena are still remained, and a great deal of damage is caused by soil liquefaction in resent earthquakes. In this paper, liquefaction phenomenon is simply explained to understand it easily and the latest analytical methods are also explained. An example of three dimensional analysis based on effective stress analysis is shown as below. The building without mitigation measures settle down and inclined due to the liquefaction (red zone).

