

KIYOTA LAB.

[Challenge of Geo-disaster Mitigation]

Department of Fundamental Engineering

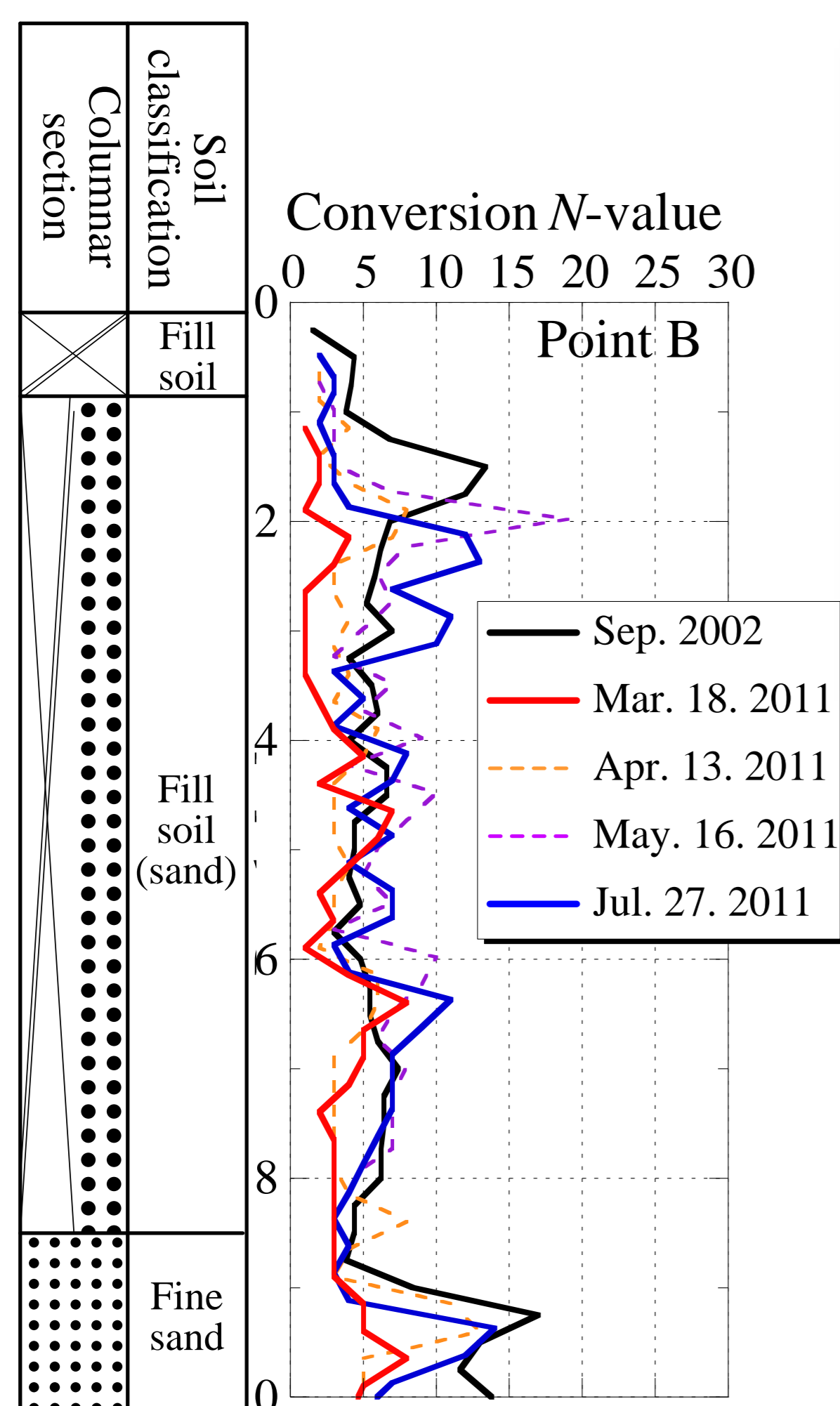
<http://www.gdm.iis.u-tokyo.ac.jp>

Geo-disaster Mitigation Engineering

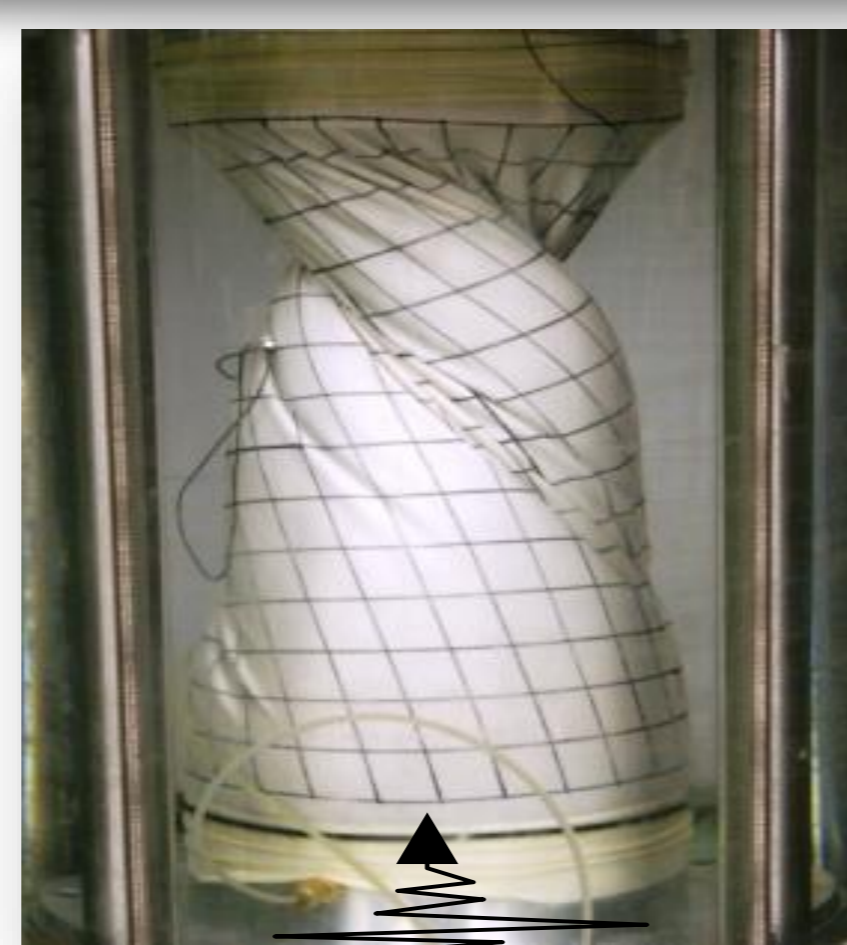
Department of Civil Engineering

Earthquake-induced Geo-disaster

Earthquake-induced damage to infrastructure is closely related to the geotechnical and geological factors. The 2011 Tohoku Earthquake caused massive tsunami, and a large number of coastal levees which were constructed of geomaterials was destroyed. High ratio of occurrence of liquefaction was found in the Tokyo Bay area and downstream basin of Tone-River which would be linked to the soft subsurface ground and reclamation site. The 2016 Kumamoto Earthquake caused a large number of landslides over a large extent of area in the middle of Kyushu, Japan. KIYOTA laboratory is working for mitigation measure of such geo-disasters based on field survey, in-situ and laboratory tests and simulation.



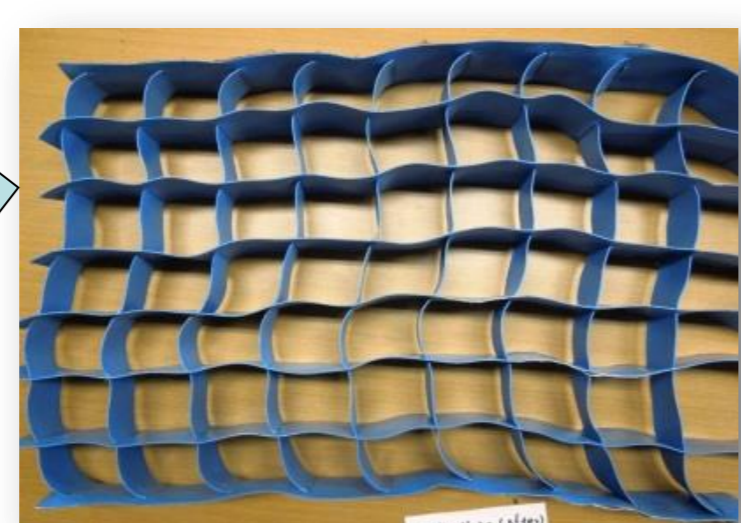
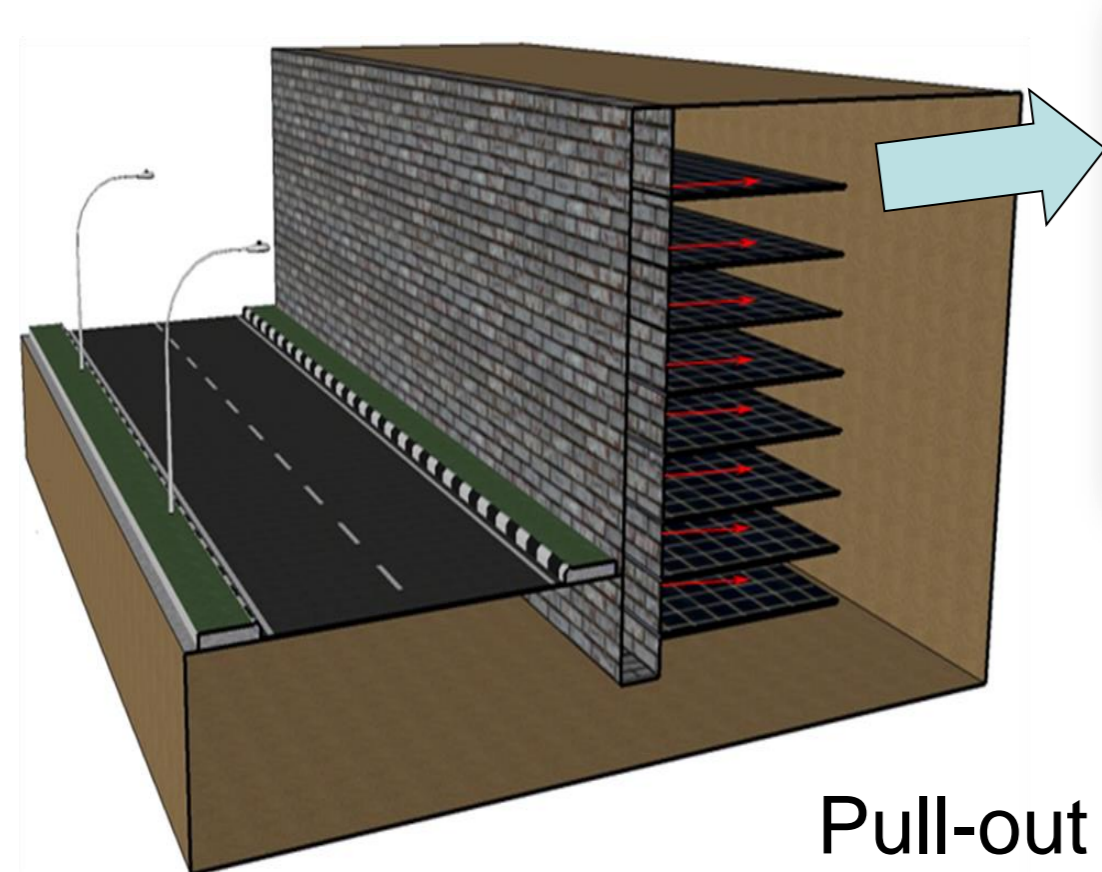
Ground subsidence map after liquefaction by Tohoku EQ



Field investigation and laboratory test on liquefaction problem



Breached dam body was LiDAR surveyed for its entire 3D image



Pull-out test and shaking table model test on newly developed Geo-cell reinforced retaining wall