



An Evaluation of Various Geophysical Data for A Coastal Structure Design : Avcilar (Istanbul) Case

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On August 17, 1999 Marmara earthquake caused destruction in Istanbul mainly happened in the Avcilar district, which is on the fault line extending across the Marmara Sea. Avcilar was built on ground mainly composed of sea soil at the bottom level, which makes this district vulnerable to any earthquake. Due to the presence of the current landslide (alluvial sediments, soft soil sediments) in the region, soft soil-structure interaction during earthquakes are carried out by a series of geophysical and geotechnical studies to solve several soil problems, especially soil amplification. In this study, we interpreted to geophysical data in Avcilar in Istanbul. 60 Vertical Electric sounding, 80 Seismic Refraction, 12 MAM-MAML are gathered in this area. With interpretation of this data from geophysical studies, several evidences on landslide formation and interactions each other has obtained.