



THE EFFECT OF SEISMIC RESPONSE CHARACTERISTICS OF SUBSURFACE GROUND TO DAMAGE OF LOW-RISE RC BUILDING IN THE IWATE-MIYAGI NAIRIKU EARTHQUAKE IN 2008

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ABSTRACT: This paper discusses the difference of the damage level of the three schoolhouses in the vicinity of the epicenter of the 2008 Iwate-Miyagi Nairiku Earthquake with respect to ground response characteristics. We conducted microtremor measurements and aftershock observation at the site of Kaminome. One-dimensional equivalent linear analysis of the ground and three-dimensional seismic response analysis of the schoolhouse indicate that damage level of the schoolhouse of Kaminome meets good agreement with phenomenon considering non-linearity of the fill.

Key Words: the Iwate-Miyagi Nairiku Earthquake in 2008, Seismic damage, Surface Ground, Fill Ground, Reinforced Concrete, Seismic Response