

研究速報

There is a notable discrepancy between the plane strain solution and the proposed solution especially in the range below the fundamental vertical frequency of the surface stratum, $\omega_p = \pi v_p / (2H)$, which is assumed to be $3.0 \omega_g$ in the case shown in Fig. 3 because $\omega_p = \pi v_p / (2H) = (v_p / v_s) \omega_g = (1/0.33) \omega_g = 3.0 \omega_g$, ω_g is the fundamental horizontal frequency of the surface stratum defined by $\pi v_s / (2H)$. In the range above the fundamental vertical frequency S_{w1} is of the same order as the value by the plane strain solution and S_{w2} is smaller than the value by plane strain solution. The differences both in the region below and above the fundamental vertical frequency ω_p are due to the dynamic response of the surface soil stratum. Below ω_p , the stiffness S_{w1} strongly depends on the frequency, and the damping S_{w2} is very low. The damping in this range is mostly caused by material damping and the radiation damping is absent. Above ω_p , S_{w2} rapidly increases linearly with frequency while S_{w1} is almost constant because a horizontally progressive wave only appears above this frequency.

Reference

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 To Be Continued on No. 10

正 誤 表 (9月号)

頁	段	行	種 別	正	誤
607		↑9	表 3	作動	差動
610			図3 (右図)	診断書	診断所
619	右	↓21	数 式	$N_{ij} = -\rho\omega(f_{ij} - f_{ij}^*)/2i$	$N_{ij} = -\rho\omega(f_{ij} - f_{ij}^*)/2$
628		↓5	表 1	-23.0	23.0