Prediction of Experimental Results from Steel Pile Tests









MTR/SASSI was used to predict the dynamic response of a single pile and pile group subject to low-amplitude harmonic vibrations for a model steel pile of intermediate size. The program implements a new pile element coupled with a ring load solution in a layered system to rigorously solve for dynamic pile group interaction. To account for the effects of local soil nonlinearity, a weak soil zone or weak soil layers may be included in the model. In addition, the program allows for modeling possible soil/pile de-bonding (gapping) due to low confining soil pressure in the uppermost layers. Comparisons of predicted versus measured responses show good agreement between both the horizontal and vertical loading.