Figure 7: Average horizontal displacement and maximum horizontal loading at static friction

4.0 Conclusions

The main conclusions can be drawn from this study are as follows:

i. Increasing the thickness of loose bedding sand would increase the bedding sand settlement of USCB Shell-R15.

ii. 70 mm loose bedding sand thickness was the effective thickness of bedding sand with a settlement of 35%.

iii. USCB Shell-R15 of 50 mm and 70 mm loose bedding sand thickness was 6% better received stress to reduce the deflection than control block.

iv. The horizontal displacement of USCB Shell-R15 of 70 mm loose bedding sand thickness was 15% less than control block and produced 41% friction resistance better compared to others.

v. 50 mm and 90 mm loose bedding sand thickness, lead to increase the horizontal displacement, but little effect to horizontal loading.

vi. 70 mm loose bedding sand thickness gives significant interaction between bedding sand thickness and USCB Shell-R15.