

Jirawat Satidwat 2010: The Study of Safety in Blowing Driven Pile Size 18, 24, 25 and 32 Meter with The Dynamic and Seismic Bearing Pile Methods. Master of Engineering (Safety Engineering), Major Field : Safety Engineering, Interdisciplinary Graduate Program. Thesis Advisor: Associate Professor FLT.LT Pipat Sornwong , M.Eng. 179 pages.

The study aims to test the safety of driven pile size 18, 24, 25 and 32 meter with the Dynamic and Seismic bearing pile methods via the finished driven pile blowing to test for the completeness and load of rectangular prestressed concrete. The locations used in the study are: Chancellor Office building project at Phranakhon si Ayutthaya Rajabhat University, Meung district, Phranakhon si Ayutthaya province, the driven pile size 0.30 x 18.00 meter: The lecture building project of merchant marine training center soi 6, Meung district, Samut Prakan province, the driven pile size 0.35 x 32.00 meter: The resident building eight floors project soi Udomsook 51 Sukumvit road, Bangkok, the driven pile size 0.35 x 25.00 meter: and The Bang noi canal bridge project, Bhuddhamonton 1, the driven pile size 0.40 x 24.00 meter.

The study of testing for 18, 14, 25 and 32 meter driven piles both in Dynamic and Seismic methods, it showed the process and standard of each testing method which depended on the bearing capacity and the safe practice with the lowest damage or none.

The result, after testing in the Bangkok and perimeter, the Dynamic method provided the test both in the bearing load and the completeness after finishing blowing 7-14 days which is suitable for blowing. While the Seismic method gained the test only in the completeness of the pile which is not suitable for the driven pile due to the blowing method would show the crack of the pile before blowing, moreover, the Seismic method would not provide the bearing load. The study can be concluded that the Dynamic method pile testing is suitable for the driven pile and has more competency than the Seismic method. The Dynamic method provides the competency, properness and detail more than Seismic method.

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Thesis Advisor's signature

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