

Abstract

PILING CONSTRUCTION MANAGEMENT METHOD

Provided is a piling construction management method that allows elimination of
5 the effort of redoing piling construction because of insufficient support force by
very easily and reliably determining whether the support force of a piling hole is
sufficient for the distal end of a piling when erecting piling in a piling hole. The
support strength of a hole bottom Hb2 is measured with a penetration testing
device M1 before erecting a piling in a piling hole H1. The piling is erected in the
10 piling hole H1 when the measurement is at or above a prescribed value, whereas
the piling hole H1 is dug again and the support strength of the hole bottom Hb2
after being dug again is measured with the penetration testing device M1 in the
same manner when the measurement is less than the prescribed value. A piling
with a length corresponding to the piling hole H2 after being dug again is erected
15 when the measurement is equal to or greater than the prescribed value. The
penetration testing device M1: is one in which a knocking block51 on which a
penetration shaft 4 is integrated is struck by a drive hammer 52 in free-fall;
comprises a lifting mechanism 8 that lifts the drive hammer 52 after falling to a
prescribed height and releases same; and determines the support strength from the
20 number of impacts required for the penetration shaft 4 to penetrate to a prescribed
depth from the hole bottom Hb1.

FIG. 5