

PILING

Effective: November 14, 1996

Revised: October 23, 2020

Revise Article 512.18 number to 512.19.

Revise Article 512.17 number to 512.18.

Add the following Article 512.17:

512.17 Drilling and Setting Piles. Drilled and set piles, such as soldier piles or piles set in rock, shall be placed in shaft excavations and backfilled.

The drilling methods used to maintain the shaft excavation during the various phases of shaft excavation and concrete placement shall be according to the methods in Section 516 and appropriate for the site conditions encountered.

When embedment in rock is indicated on the plans, the top of rock shall be defined according to Article 516.09 and modification to the length of a pile may be required to satisfy the required embedment. The modification shall be made to the top of the pile unless otherwise approved by the Engineer. When the top of rock encountered is above the estimated elevation indicated on the plans, the piles shall be cut to the required length. If the top of rock encountered is below that estimated on the plans by less than ten percent of the pile length, the Contractor shall either furnish longer soldier piles or splice on additional length of soldier pile per Article 512.05(a) to satisfy the required embedment in rock.

For piles set in rock, the bottom of each hole shall be filled with Class SI Concrete to a depth of at least 6 inches (150 mm) and then the piles shall be placed in the hole and properly located. Any operations that might damage the concrete around the piles shall be deferred until the concrete attains the required strength.

The Contractor shall attach suitable bracing or supports to maintain the position of the pile. The bracing or supports shall remain in place until the concrete for encasement has reached a minimum compressive strength of 1500 psi (10.35 MPa).

The pile encasement concrete placement shall be made in a continuous manner from the bottom of the shaft excavation to the elevation indicated on the plans. Concrete shall be placed as soon as possible after the excavation is completed and the pile is secured in the proper position. Uneven levels of concrete placed in front, behind, and on the sides of the pile shall be minimized to prevent pile movement, and to ensure complete encasement.

The hole shall be filled with Class SI Concrete up to at least 6 inches (150 mm) above the top of rock. The remainder of the hole, to the bottom of encasement, footing or abutment, shall be filled with Controlled Low Strength Material.

All excavated material shall be disposed of by the Contractor.

Add the following to Article 512.18

- (i) Drilling and Setting Piles. The drilling and setting of piles will be paid for at the contract unit price per cubic foot (cubic meter) for DRILLING AND SETTING PILES (IN SOIL) or DRILLING AND SETTING PILES (IN ROCK). The required shaft excavation, encasement concrete, and CLSM backfill will not be paid for separately but shall be included in this item.