Measurement and Payment for Piling

Measurement and payment clauses are in the Standard Specifications (SS), the Special Provisions (SP) and the Construction Manual. Review these documents.

Measurement

The SS¹ specify how piles are measured and paid for. However, the requirements of the SS vary depending on the version used when the contract was written.

Contracts using Section 49-6.01 of the 2006 SS provide for measurement of piling as follows:

The length of timber, steel, and precast prestressed concrete piles, and of cast-in-place concrete piles consisting of driven shells filled with concrete, shall be the greater of the following:

A. The total length in place in the completed work, measured along the longest side, from the tip of the pile to the plane of pile cut-off.
B. The length measured along the longest side, from the tip elevation shown on the plans or the tip elevation ordered by the engineer, to the plane of pile cut-off.

Piling that extends beyond the tip elevation shown on the plans, as ordered by the Engineer, to meet design requirements, will be measured under the provisions of Part A; while piling that fails to reach the tip elevation shown on the plans, but has been determined to be suitable for the design, will be measured in accordance with Part B.

Contracts using amended versions of Section 49-6.01 of the 2006 SS provide for measurement of piling as follows:

The length of timber, steel, and precast prestressed concrete piles, and of cast-in-place concrete piles consisting of driven shells filled with concrete, shall be measured along the longest side, from the tip elevation shown on the plans to the plane of pile cut-off.

Contracts using revised versions of Section 49-2.01D of the 2010 SS provide for measurement of piling as follows:

Furnish piling is measured along the longest side of the pile from the specified tip elevation shown on the plans to the plane of pile cutoff.

¹ 2010 SS, Section 49-2.01D, Payment, or 2006 SS, Section 49-6, Measurement and Payment.
Piling that fails to reach tip elevations shown on the plans, but has been determined to be adequate and approved by the Designer, will be measured along the longest side, from the tip elevation shown on the plans to the plane of cut-off elevation.

**Payment**

**Materials on Hand**

Bridge Construction Memo (BCM) 6-4.0, *Partial Payments*, addresses the differences between *Materials on Hand but not yet incorporated in the work*, and payments for furnishing materials. Refer to BCM 6-4.0 prior to making payments for piling.

When the SP qualify the material for *Materials on Hand* and it does not meet the requirements for “furnishing”, payment may be made as *Materials on Hand* at the Contractor’s request.

Precast concrete piling, steel piling, steel shells for cast-in-steel-shell concrete piling, and permanent steel casing for cast-in-drilled-hole concrete piling are typically listed in the SP\(^2\) as being eligible for payment for *Materials on Hand but not yet incorporated in the work*.

Bar reinforcing steel used in cast-in-place concrete piling is typically listed in the SP\(^2\) as being eligible for payment for *Materials on Hand but not yet incorporated in the work*.

Section 3-906E, *Materials on Hand*, of the *Construction Manual*, June 2013, states: “...In general, accept only completely fabricated units, ready for installation on the project with the following exceptions:

Piling—Steel plate used for steel pipe piling and driven steel shells filled with concrete and reinforcement as described in Section 49, “Piling,” of the Standard Specifications may be considered acceptable as raw material. However, pay for such material as raw material only until shop fabrication of the pile is 100% complete. After shop fabrication is complete, the estimated fabricated value may be paid, subject to other specified restrictions and administrative guidelines.”

**Furnish and Drive**

The following guidelines have been established to ensure uniform practice throughout the State for partial payments for piling. Refer to BCM 6-4.0, *Partial Payments*, for additional instructions regarding payment for Furnish Piling items.

- When steel or precast concrete piling of proper length are delivered to the job site ready for driving, the specification requirements for furnishing have been met and the material should be paid under furnishing piling item on the progress pay estimate. Piles stored offsite, or onsite but not ready for driving, are to be considered as Materials-on-Hand.
- Portions of piling, such as steel shells for cast-in-place concrete piles, as described in Section 49-3 of the 2010 SS, are not complete piling and cannot be paid under the furnishing contract item. When the steel shells for cast-in-steel-shell concrete piles have

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\(^2\) 2010 SP, Section 9-1.16C or 2006 SP, Section 5.
been driven and the concrete and reinforcing steel have been placed to provide a complete pile, the contract item for furnishing may be paid.

- For steel pipe piling, full payment on the furnish item will not be made until the piling is on site and all field welds are completed and approved. This work includes welding of splices, and shear rings, when shown on the plans or required in the Special Provisions.
- The concrete filling material for cast-in-steel-shell concrete piling is paid under the furnish item while the placement of said material is paid under the drive item. This is particularly important when making item adjustments.
- For cast-in-drilled-hole concrete piling, permanent casing is paid as a separate item, but temporary casing is fully compensated in the piling item. Rock sockets are paid as a separate Cast-In-Drilled-Hole (Rock Socket) item.
- Bar reinforcing steel for cast-in-place concrete piling greater than or equal to 24 inches or 600 mm diameter is paid as a separate item. For smaller diameter cast-in-place concrete piling, bar reinforcing steel is included in the cast-in-place concrete piling item.
- For Cast-In-Drilled-Hole (CIDH) concrete piling constructed using the Wet Method (refer to BCM 130-7.0, CIDH Concrete Piling, for definition), payment for the CIDH concrete piling item and rock socket item (if applicable) will be made only after acceptance testing has been performed and the pile is accepted by the Engineer.

Pile Tip Revisions
The SS\(^3\) specify how piles are paid for when the Engineer revises the pile tip.

Contracts using amended versions of the 2006 SS provide for payment for piling as follows:

> When pile tips are revised by the Engineer for timber, steel, and precast prestressed concrete piles, and for cast-in-place concrete piles consisting of driven shells filled with concrete, the additional length required, including all materials, equipment, and labor for furnishing, splicing, and installing the piling, will be paid for as extra work as provide in Section 4-1.0D, “Extra Work”.

Contracts using the 2010 SS provide for payment for piling as follows:

> If the Engineer revises the pile tip elevation for driven piles, the work involved in furnishing, splicing, and driving the additional length of pile is change order work.

The length of piling that extends beyond the tip elevation shown on the plans, as ordered by the Engineer to meet design requirements, will be paid for as Extra Work or change order work.

\(^3\) 2010 SS, Section 49-2.01C(1), General, and 2010 SS, Section 49-3.03C(1), General; or SS 2006, Section 49-6.02, Payment.