

PERMANENT STEEL SHEET PILING

Effective: December 15, 1993

Revised: January 1, 2007

Description. This work shall consist of furnishing and installing the permanent sheet piling to the limits and tolerances shown on the plans according to Section 512 of the Standard Specifications.

Material. The sheet piling shall be made of steel and shall be new material. The sheeting shall have a minimum yield strength of 38.5 ksi (265 MPa) unless otherwise specified. The sheeting shall be identifiable and in good condition free of bends and other structural defects. The Contractor shall furnish a copy of the published sheet pile section properties to the Engineer for verification purposes. The Engineer's approval will be required prior to driving any sheeting. All driven sheeting not approved by the Engineer shall be removed at the Contractor's expense.

The Contractor shall select from the following table, a sheet pile section to be used for each wall section with an "effective section modulus" equal to or larger than that specified on the plans.

| SHEET PILE SECTION DESIGNATION | EFFECTIVE SECTION MODULUS * in ³ /ft. (10 ³ mm ³ /m) | SHEET PILE SECTION DESIGNATION | EFFECTIVE SECTION MODULUS * in ³ /ft. (10 ³ mm ³ /m) |
|---|--|---|--|
| SZ-10 | 3.5 (189) | SZ-22 | 13.5 (728) |
| SZ-11 | 4.0 (216) | SPZ-23.5 | 13.6 (729) |
| SZ-12 | 5.1 (277) | PZ-22 | 15.3 (823) |
| SZ-14 | 6.2 (331) | SZ-222 | 18.0 (968) |
| CZ-67 | 6.5 (349) | SZ-24 | 19.9 (1072) |
| SZ-15 | 6.6 (356) | CZ-114RD | 20.1 (1082) |
| CZ-72 | 7.3 (393) | PZC-13 | 20.4 (1098) |
| SZ-14.5 | 8.3 (445) | SZ-25 | 20.5 (1105) |
| SPZ-16 | 8.4 (452) | PLZ-23 | 20.7 (1113) |
| CZ-84 | 8.9 (480) | SPZ-23 | 21.4 (1153) |
| CZ-95RD | 10.2 (550) | CZ-114 | 21.7 (1165) |
| CZ-95 | 10.5 (566) | SZ-27 | 22.4 (1206) |
| SZ-18 | 10.9 (588) | PLZ-25 | 23.0 (1236) |
| SPZ-19.5 | 11.2 (604) | SPZ-26 | 24.4 (1311) |
| CZ-101 | 11.3 (609) | CZ-128 | 24.8 (1332) |
| SZ-20 | 12.0 (648) | PZ-27 | 25.5 (1371) |
| CZ-107 | 12.1 (653) | CZ-141 | 27.9 (1497) |
| SZ-21 | 12.5 (674) | PZC-18 | 28.3 (1520) |
| SPZ-22 | 12.7 (682) | CZ-148 | 29.4 (1581) |
| CZ-113 | 12.9 (695) | PZ-35 | 43.6 (2344) |
| | | PZ-40 | 54.6 (2932) |

* Effective Section Modulus is computed by taking the effects of corrosion loss allowances and the Hartman reduction factor.

The selection of the sheet pile section shall not relieve the Contractor of the responsibility to satisfy all details including minimum clearances, cover, embedments, reinforcement, shear stud locations,

| interlocking, and field cutting. Any modifications of the plans to accommodate the Contractor's selection shall be paid for by the Contractor and subject to the approval of the Engineer.

| Construction. The Contractor shall verify locations of all underground utilities before driving any sheet piling. Any disturbance or damage to existing structures, utilities or other property, caused by the Contractor's operation, shall be repaired by the Contractor in a manner satisfactory to the Engineer at no additional cost to the Department. The Contractor shall be responsible for determining the appropriate equipment necessary to drive the sheeting to the tip elevation(s) specified on the plans or according to the Contractor's approved design. The sheet piling shall be driven, as a minimum, to the tip elevation(s) specified, prior to commencing any related construction. If unable to reach the minimum tip elevation, the adequacy of the sheet piling design will require re-evaluation by the Department prior to allowing construction adjacent to the sheet piling in question.

| Method of Measurement. This work will be measured in place in square feet (square meters). Sheet piling associated with other work in this contract or for permanent sheet piling that is cut off or driven beyond those dimensions shown on the plans will not be measured for payment.

| Basis of Payment. This work will be paid for at the contract unit price per square foot (square meter) for PERMANENT STEEL SHEET PILING at the location shown on the plans.