

(G) Poles

Treat poles in accordance with AWWA Standard U1 and T1, except require retention of preservative as below.

Give all poles a preservative treatment of either pentachlorophenol, or chromated copper arsenate. The same type of preservative shall be used throughout the entire length of the project.

Minimum retention for poles treated with pentachlorophenol will be 0.45 lb. by assay of dry chemical per cubic foot of wood. Minimum retention for poles treated with chromated copper arsenate will be 0.6 lb. by assay of dry chemical per cubic foot of wood.

SECTION 1084 PILES

1084-1 PILES**(A) Treated Timber Piles**

Timber for treated timber piles shall meet Article 1082-3. Give treated timber piles a preservative treatment in accordance with Article 1082-4.

(B) Steel Piles

See Section 1076 for galvanized steel piles. Before incorporating steel piles into the work, obtain all applicable certified mill test reports clearly identifiable to the lot of material by heat numbers, submit these reports to the Engineer for review and analysis and receive approval of such test reports from the Engineer. These requirements apply to both domestic. Transfer the heat number of each painted pile to the newly painted surface with a permanent marker of a color contrasting to the paint once the paint has fully cured.

(1) Steel H-Piles

Steel H-piles shall meet ASTM A572 Grade 50 or ASTM A588.

(2) Steel Pipe Piles

Steel pipe piles shall be of uniform diameter and conform to ASTM A252 Grade 3 modified (50,000 psi). Make all joints and seams in the pipe pile watertight. Unless otherwise indicated by the contract, the ends of pipe pile may be flame cut. Square flame cut ends with axis of the pile to provide a full uniform bearing over the entire end area when the pile is being driven. Welding procedure qualification for AWS D1.1 is required for pipe piles requiring splicing. The welding shall be performed by a Department certified welder.

(C) Prestressed Concrete Piles

Prestressed concrete piles shall meet Section 1078.

1084-2 STEEL SHEET PILES

Steel sheet piles detailed for permanent applications shall be hot rolled and meet ASTM A572 or ASTM A690 unless otherwise required by the plans. Steel sheet piles shall be coated as required by the plans. Galvanized sheet piles shall be coated in accordance with Section 1076. Metallized sheet piles shall be metallized in accordance with the Thermal Sprayed Coatings (Metallization) Program. Any portion of the metallized sheet piling encased in concrete shall receive a barrier coat. The barrier coat shall be an approved waterborne coating with a low-viscosity which readily absorbs into the pores of the aluminum thermal sprayed coating. The waterborne coating shall be applied at the spreading rate that results in a theoretical 1.5 mil dry film thickness. The manufacturer shall issue a letter of certification

Section 1086

1 that the resin chemistry of the waterborne coating is compatible with the 99.9% aluminum
2 thermal sprayed alloy and suitable for tidal water applications.

3 Steel sheet piles detailed for temporary applications shall be hot rolled and meet ASTM A328.

4 **SECTION 1086**
5 **PAVEMENT MARKERS**

6 **1086-1 TEMPORARY RAISED PAVEMENT MARKERS**

7 **(A) General**

8 Use raised pavement markers evaluated by NTPEP.

9 Use raised pavement markers of the prismatic reflector type, or better as approved. The
10 markers shall be constructed either of an injection molded plastic body and base or
11 consist of a plastic shell filled with a mixture of inert thermosetting compound and filler
12 material. Either construction type shall contain one or more integrated prismatic
13 reflective lenses to provide the required color designation.

14 The minimum reflective area of the lens face is 2.0 sq.in.

15 The color of the reflective pavement marker housing shall match the pavement marking
16 color, which it supplements.

17 All raised pavement marker reflective lenses shall be in close conformance with the
18 Federal Standard No. 595 colors as listed below when viewed at night.

Crystal: Color No. 17886 (White)
Yellow: Color No. 13538
Red: Color No. 11302

19 **(B) Adhesives**

20 (1) Epoxy

21 The epoxy shall meet Section 1081-4.

22 Review 1081-4(B) for description of epoxy types suitable for markers to be
23 installed. Use an epoxy adhesive type that is appropriate for the pavement and
24 ambient temperature per the manufacture's recommendations. It is recommended
25 that the ambient temperature during application of Types II and IV epoxy shall be at
26 least 50°F and preferably higher than 60°F. These adhesives harden relatively
27 slowly at 50°F, but the hardening rate rapidly accelerates as temperature increases.

28 (2) Hot Bitumen

29 The hot bitumen shall meet Article 1081-3.

30 (3) Pressure Sensitive

31 As supplied by the manufacturer.

32 **(C) Material Certification**

33 Furnish a Type 2 material certification in accordance with Article 106-3 for all raised
34 pavement markers before use.

35 **1086-2 PERMANENT RAISED PAVEMENT MARKERS**

36 **(A) General**

37 Use raised pavement markers evaluated by NTPEP. The markers shall be constructed
38 either of an injection molded plastic body and base or consist of a plastic shell filled with
39 a mixture of inert thermosetting compound and filler material. Either construction type
40 shall contain one or more integrated prismatic reflective lenses to provide the required