

SECTION 1023—ALUMINUM BRIDGE HAND RAILING

1023.1 DESCRIPTION—This work is construction of an aluminum bridge hand railing.

1023.2 MATERIAL—

(a) Railing.

- Pipe for the Rails—[ASTM B 241](#)-Alloy 6061-T6, 6063-T6 or [ASTM B 429](#)-Alloy 6061-T6, 6063T6.
- Plates—[Section 1103.04\(a\)](#)

Certify as specified in [Section 106.03\(b\)3](#).

(b) Toggle Bolts. Use an acceptable galvanized type capable of supporting a 4.5 kN force (1,000-pound) load in tension, when tested through a 12 mm (1/2-inch) round hole. Toggle bolts may be cadmium-plated to conform to the requirements of [ASTM B 766 \(ASTM A 165\)](#), Class 5 (Type TS), in place of being galvanized.

Certify as specified in [Section 106.03\(b\)3](#).

(c) Aluminum Wedges, Shims, End Caps, Washers, and Nuts. Certify as specified in [Section 106.03\(b\)3](#).

(d) Anchor Bolts, and Nuts and Washers for Anchor Bolts. [Section 1105.02\(c\)2](#), galvanized as specified in [Section 1105.02\(s\)](#).

(e) Caulking Compound. [Section 705.8](#)

1023.3 CONSTRUCTION—Construct as shown on the [Standard Drawings](#) and as follows:

(a) General. Before fabrication, submit shop drawings for review and acceptance.

Before erection, coat surfaces of aluminum alloys in contact with other metals, stone masonry, or concrete, using caulking compound. After erection and alignment, seal openings between metal surfaces and concrete, using caulking compound.

After the other bridge construction operations have been completed, clean the aluminum bridge hand railing. Remove accumulations of oil, grease, dirt, or foreign materials, using an acceptable solvent cleaner.

(b) Assembly. Assemble the rail members. Place joints as indicated.

Make cuts true, smooth, and free from burrs or ragged edges. Fillet drill all re-entrant cuts before cutting. Do not flame cut. Weld according to AWS.

1023.4 MEASUREMENT AND PAYMENT—Meter (Linear Foot)

Measured from center to center of end posts. The Department will not deduct gaps at lighting pole foundations.