

SECTION 12 93 00

SITE FURNISHINGS

PART 1 GENERAL

1.01 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to within the text by the basic designation only.

AMERICAN WELDING SOCIETY (AWS)

AWS D1.1/D1.1M (2010; Errata 2011) Structural Welding Code - Steel

ASTM INTERNATIONAL (ASTM)

ASTM A123/A123M (2013) Standard Specification for Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products

ASTM A153/A153M (2009) Standard Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware

ASTM A307 (2012) Standard Specification for Carbon Steel Bolts and Studs, 60 000 PSI Tensile Strength

ASTM A53/A53M (2012) Standard Specification for Pipe, Steel, Black and Hot-Dipped, Zinc-Coated, Welded and Seamless

ASTM A653/A653M (2013) Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process

ASTM A780/A780M (2009) Standard Practice for Repair of Damaged and Uncoated Areas of Hot-Dip Galvanized Coatings

ASTM E488/E488M (2010) Standard Test Methods for Strength of Anchors in Concrete and Masonry Elements

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MENTAL HEALTH PSYCHOSOCIAL REHAB RECOVERY & HEALTH CARE
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PROJECT NO.570-217
02-09

U.S. GENERAL SERVICES ADMINISTRATION (GSA)

CID A-A-1925

(Rev A; Notice 2) Shield Expansion
(Nail Anchors)

1.02 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for information only. When used, a designation following the "G" designation identifies the office that will review the submittal for the Government. Submit the following in accordance with Section 01 33 23 SHOP DRAWINGS, PRODUCT DATA, AND SAMPLES:

SD-02 Shop Drawings

Bicycle Racks; G

Assembly Instruction Drawings

SD-03 Product Data

Bicycle Racks

SD-04 Samples

Finish; G

SD-06 Test Reports

Recycled Materials

1.03 QUALITY ASSURANCE

Qualify welders in accordance with AWS D1.1/D1.1M using procedures, materials, and equipment of the type required for the work.

A. Fabrication Drawings

Submit fabrication drawings showing layout(s), connections to structural system, and anchoring details as specified in AISC 303.

B. Installation Drawings

Submit templates, erection and installation drawings indicating thickness, type, grade, class of metal, and dimensions. Show construction details, reinforcement, anchorage, and installation.

C. Assembly Instruction Drawings

Submit assembly instruction drawings showing layout(s), connections, bolting and anchoring details in accordance with manufacturer's standards. Submit drawings showing scaled details of proposed site furnishings, elevations for each type of site furnishing; dimensions, details, and methods of mounting or anchoring; shape and thickness of materials; and details of construction.

1.04 DELIVERY, STORAGE, AND HANDLING

Ship items knocked-down (KD) ready for site assembly. Packaged components shall be complete including all accessories and hardware. Materials shall be delivered, handled, and stored in accordance with the manufacturer's recommendations. Site furnishings shall be inspected upon arrival at the job site for conformity to specifications and quality in accordance with paragraph MATERIALS. Protect from corrosion, staining, and other types of damage. Store items in designated area free from contact with soil and weather. Remove and replace damaged items with new items.

PART 2 PRODUCTS

2.01 MATERIALS

Provide materials which are the standard products of a manufacturer regularly engaged in the manufacture of such products. The materials provided shall be of a type with proven satisfactory usage for at least 2 years.

A. Metals

Metallic materials and products shall conform to Section 05 50 00 METAL FABRICATIONS. Furnish metal components with factory drilled holes and free of excess weld and spatter. Metal components with holes that will not be filled by hardware or hidden by other components will be rejected.

B. Steel Pipe and Fittings

Steel pipe shall conform to ASTM A53/A53M, Type E or S, Grade B.

C. Anchors and Hardware

Provide anchors, where necessary, for fastening site furnishings securely in place and in accordance with approved manufacturer's instructions. Anchoring devices that may be used, when no anchors are otherwise specified or indicated, include anchor bolts, slotted inserts, expansion shields for concrete; toggle bolts and through bolts for masonry; machine carriage bolts for steel; and lag bolts and screws for wood. Anchor bolts shall conform to ASTM A307. Hardware shall be stainless steel in accordance with ASTM A153/A153M and compatible with the material to which applied. All

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exposed hardware shall match in color and finish. Mounting hardware shall be concealed, recessed, and plugged.

1. Threaded Inserts and Expansion Anchors

Provide inserts recessed not less than 65 mm (2.5 inches) into concrete or masonry. Pullout 90 kg (198 pounds) in concrete with f'c of 20 MPa (3,000 psi), as tested in accordance with ASTM E488/E488M. Expansion shields shall conform to CID A-A-1925, group II, type 4, class 1. Provide embedment required by manufacturer.

2.02 COATINGS AND FINISHES

A. Galvanizing

Hot-dip galvanize items specified to be zinc-coated, after fabrication where practicable. Galvanizing shall conform to ASTM A123/A123M, ASTM A153/A153M or ASTM A653/A653M, as applicable. Tailings and sharp protrusions formed as a result of the hot-dip process shall be removed and exposed edges burnished. Galvanize anchor bolts, grating fasteners, washers and parts or devices necessary for proper installation, unless otherwise indicated.

2.03 SITE STANDARDS

Site furnishings shall be furnished with the dimensions and requirements indicated.

2.04 BICYCLE RACKS

Design bicycle racks (stanchions) in accordance with manufacturer's standards and to meet design conditions indicated. Locate as shown on the drawings. Provide powder coat finish in color as selected from manufacturer's standards. Racks shall accommodate locking devices and secure, as a minimum, one wheel and part of the frame simultaneously. The spacing between racks shall be a minimum of 610 mm (24 inches).

A. Metal Pipe Bicycle Racks

Provide ASTM A53/A53M schedule 40 steel pipe bicycle racks in configuration and of 114 mm (4-1/2 inch) pipe size. Type of mounting, bicycle rack capacity and height above the ground as shown on the drawings.

PART 3 EXECUTION

3.01 INSTALLATION

Verify that finished grades and other operations affecting mounting surfaces have been completed prior to the installation of site furnishings. Site furnishings shall be installed plumb and true, at locations indicated, in accordance with the approved manufacturer's instructions.

A. Assembly and Erection of Components

New parts shall be acquired from the manufacturer; substitute parts will not be accepted unless approved by the manufacturer. When the inspection of parts has been completed, the site furnishings shall be assembled and anchored according to manufacturer's instructions or as indicated. When site furnishings are assembled at the site, assembly shall not interfere with other operations or pedestrian and vehicular circulation.

B. Anchorage, Fastenings, and Connections

Furnish metal work, mounting bolts or hardware in ample time for securing into concrete or masonry as the work progresses. Provide anchorage where necessary for fastening furniture or furnishings securely in place. Provide, for anchorage not otherwise specified or indicated, slotted inserts, expansion shields, and power-driven fasteners, when approved for concrete; toggle bolts and through bolts for masonry; machine and carriage bolts for steel; through bolts, lag bolts, and screws for wood. Do not use wood plugs in any material. Provide non-ferrous attachments for non-ferrous metal. Make exposed fastenings of compatible materials, generally matching in color and finish the fastenings to which they are applied. Conceal fastenings where practicable.

3.02 WELDING

Perform welding, welding inspection, and corrective welding, in accordance with [AWS D1.1/D1.1M](#). Use continuous welds on all exposed connections. Grind visible welds smooth in the finished installation.

3.03 TESTING

Test each site furnishing to ascertain a secure and correct installation. A correct installation shall be according to the manufacturer's recommendations and by the following procedure: Measure the physical dimensions and clearance of each installed site furnishing for compliance with manufacturer's recommendations and as indicated. Site furnishings which do not comply shall be reinstalled. Fasteners and anchors determined to be non-compliant shall be replaced. Submit a written report describing the results of the testing and a report of post-installation test results.

3.04 FINISHES

A. Repair of Zinc-Coated Surfaces

Repair damaged surfaces with galvanizing repair method and paint conforming to [ASTM A780/A780M](#) or by the application of stick or thick paste material specifically designed for repair of galvanizing, as approved by the Contracting Officer. Clean areas to be repaired and remove the slag from the welds. Heat surfaces

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to which stick or paste material is applied, with a torch to a temperature sufficient to melt the metallics in stick or paste; spread the molten material uniformly over surfaces to be coated and wipe the excess material off.

3.05 BICYCLE RACKS

Affix to base structure by flanges anchored to concrete or other existing masonry by expansion shields. Provide Series 300 stainless steel bolts to anchor aluminum alloy flanges, of a size appropriate to the standard product of the manufacturer. Where aluminum or alloy fittings or extrusions are to be in contact with dissimilar metals or concrete, give the contact surface a heavy coating of bituminous paint.

3.06 RESTORATION AND CLEAN UP

When the installation has been completed, clean up and protect the site. Existing areas that have been damaged from the installation operation shall be restored to original condition at Contractor's expense.

A. Clean Up

The site shall be cleaned of all materials associated with the installation. Site furnishing surfaces shall be cleaned of dirt, stains, filings, and other blemishes occurring from shipment and installation. Cleaning methods and agents shall be according to manufacturer's instructions or as indicated.

B. Protection

The area shall be protected as required or directed by providing barricades and signage. Signage shall be in accordance with Section 10 14 00 SIGNAGE.

C. Disposal of Materials

Excess and waste material shall be removed and disposed off Government property.

3.07 RE-INSTALLATION

Where re-installation is required, the following shall be accomplished:

- a. Re-install the product as specified. Material acquisition of replacement parts is the responsibility of the Contractor. Provide replacement materials that are new and supplied by the original manufacturer to match.
- b. Damage caused by the failed installation shall be repaired.

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