

**ARCHITECTURE**

**SECTION 05500**

**MISCELLANEOUS METAL FABRICATIONS**

**PART 1 - GENERAL**

1.1 SECTION REQUIREMENTS

- A. Loose Bearing (Galvanized) and Leveling Plates
- B. Loose Galvanized Steel Lintels
- C. Pipe Bollards – galvanized.
- D. Support Angles for Elevator Door Sills (galvanized)
- E. Ladders
  - Elevator Pit Ladder
  - Roof Ladder (if required) - (galvanized)
- F. Elevator Sump Pit Cover (if required)
- G. Stair Nosings for Exterior Concrete Stairs
- H. Misc. Steel Framing and Supports for Applications where framing and supports are not specified in other Sections

1.2 SIMILAR MATERIAL SPECIFIED ELSEWHERE

- A. Aluminum Railings, Fence, and Gates. Section 05720
- B. Pipe Handrails and Railings. Section 05520

**PART 2 - PRODUCTS**

2.1 Material

- A. Metal Surfaces, General: For metal fabrications exposed to view upon completion of the Work, provide materials selected for their surface flatness, smoothness, and freedom from surface blemishes. Do not use materials whose exposed surfaces exhibit pitting, seam marks, roller marks, rolled trade names, roughness, and, for steel sheet, variations in flatness exceeding those permitted by reference standards for stretcher-leveled sheet.
- B. Steel Sections: ASTM A36.
- C. Steel Plates: ASTM A283
- D. Steel Tubing: ASTM A500, Grade B
- E. Steel Pipes: ASTM A53, Type B
- F. Bolts, Nuts and Washers: ASTM A325
- G. Welding Materials: AWS D1.1; type required for materials being welded.
- H. Shop and Touch-Up Primer: SSPC 15, Type 1, red oxide.
- I. Galvanizing: Apply zinc coating by the hot-dip process according to ASTM A 123.
- J. Touch-up Primer for galvanized surfaces: SSPC 20, Type 1.

2.2 Pipe Bollards

- A. ASTM A153 galvanized steel pipe with concrete fill, as detailed. Provide smooth radius for concrete top to prevent accumulation of rainwater. Provide field painted finish.

2.3 Ladders: steel ladder at elevator pit and at Roof (if required, galvanized) where shown. Fabricate of 1" x 5/16" flat steel side rails w/ 1" diameter steel rungs with non-slip surface.

- A. Hot-dip galvanize after fabrication when required.

2.4 Elevator Sill

- A. Elevator sill and miscellaneous steel angles to be furnished and installed under this specification section.

**ARCHITECTURE**

- B. Tread Finish: At locations shown not to be covered with finish materials provide a non-slip aggregate finish with factory-packaged abrasive aggregate made from fused aluminum-oxide grits or crushed emery, rust-proof and non-glazing.
- C. Where treads are to be covered with carpet, tread and landing may be formed of steel checkered plate without concrete fill.

**PART 3 - EXECUTION**

3.1 Installation

- A. Well form metal work to shape and size with sharp lines, angles and arises. Leave clean, true lines and surfaces when shearing and punching. Thickness of metal, details of metal, details of assembly and support shall give ample strength and stiffness for the intended purpose.
- B. Conceal fastenings in all possible conditions. Form joints exposed to weather to exclude water. Use welds where possible for permanent connections. Grind and dress smooth welds exposed to view.
- C. Provide lugs, clips, anchors and miscellaneous fastenings necessary for complete assembly and installation. Miter corners and angles of exposed moldings and frames.
- D. Grout frames, plates, sills, bolts and similar items with non-shrink grout. Set railings and similar items shown or required to be set in sleeves with molten lead or quick setting anchor cement. Size sleeves for approximately 1/4" clearance.
- E. Make trim in longest lengths possible, locate joints symmetrically. Fit adjacent pieces with hairline joints and aligned surfaces. Space exposed screws evenly and symmetrically.
- F. Bolted and Screwed Connections:
  - 1. Provide holes and connections for work of other trades.
  - 2. Install washers under heads and nuts bearing on wood. Draw nuts tight and nick threads of permanent connections. Use beveled washers where bearing is on sloped surfaces.
  - 3. Screws, rivets and similar items used for permanent connections in ferrous metal, to be countersunk, with recess filled with non-shrink putty and finished smooth and flush.
- G. Exposed fastenings shall be of the same material, color, and finish as the metal to which applied.
- H. Finish Painting and Protection:
  - 1. Field Painting: Shop coats abraded or burned out by welding shall be touched up before field painting. Touch up paint shall be the same paint for shop coat. Finish coats specified in Section 09900.

**END OF SECTION**