

## SECTION 051200 - STRUCTURAL STEEL

### PART 1 - GENERAL

#### 1.1 SECTION REQUIREMENTS

- A. Submittals: Product Data Shop Drawings.
- B. Comply with AISC's "Specification for Structural Steel Buildings--Allowable Stress Design and Plastic Design," RCSC's "Specification for Structural Joints Using ASTM A 325 or A 490 Bolts," and AWS D1.1, "Structural Welding Code--Steel."

### PART 2 - PRODUCTS

#### 2.1 STRUCTURAL STEEL AND ACCESSORIES

- A. Structural-Steel Shapes, Plates, and Bars: ASTM A 36/A 36M, carbon steel.
- B. Cold-Formed Structural-Steel Tubing: ASTM A 500, Grade B.
- C. Anchor Rods, Bolts, Nuts: ASTM A 36/A 36M, unheaded rods ASTM A 325, headed bolts, Type 1, heavy hex steel structural bolts and heavy hex carbon-steel nuts.
- D. Bolts, Nuts, and Washers: ASTM A 307, Grade A; nonhigh-strength carbon-steel, hex-head bolts; carbon-steel nuts; and flat, unhardened steel washers, uncoated.
- E. Primer: Fast-curing, lead- and chromate-free, universal modified-alkyd, rust-inhibiting primer.
- F. Grout: ASTM C 1107, nonmetallic, shrinkage resistant, premixed.

#### 2.2 FABRICATION

- A. Fabricate structural steel according to AISC specifications and tolerance limits of AISC's "Code of Standard Practice for Steel Buildings and Bridges" for structural steel.
- B. Shop Priming: Prepare surfaces according to SSPC-SP 2, "Hand Tool Cleaning" or SSPC-SP 3, "Power Tool Cleaning." Shop prime steel to a dry film thickness of at least 1.5 mils. Do not prime surfaces to be embedded in concrete or mortar or to be field welded.

### PART 3 - EXECUTION

#### 3.1 ERECTION

- A. Erect structural steel according to AISC specifications and within erection tolerances of AISC's "Code of Standard Practice for Steel Buildings and Bridges."
- B. Set base and bearing plates on wedges, shims, or setting nuts. Tighten anchor bolts, cut off wedges or shims flush with edge of plate, and pack grout solidly between bearing surfaces and plates.
- C. Bolted Connections: Install and tighten nonhigh-strength bolts, unless high-strength bolts are indicated. Snug tighten high-strength bolts according to RCSC's "Specification for Structural Joints Using ASTM A 325 or A 490 Bolts."
- D. Weld Connections: Comply with AWS D1.1.

END OF SECTION 051200