

## SECTION 10670 - STORAGE SHELVING

### City of San Diego, CWP Guidelines

#### PART 1 -- GENERAL

##### 1.1 WORK OF THIS SECTION

- A. The WORK of this Section includes providing metal storage shelving, storage bins, and revolving bins, and all appurtenant work.

##### 1.2 CODES

- A. The WORK of this Section shall comply with the current editions of the following codes as adopted by the City of San Diego Municipal Code:

- 1. Uniform Building Code

##### 1.3 SHOP DRAWINGS AND SAMPLES

- A. The following shall be submitted in compliance with Section 01300:

- 1. Shop drawings of all shelving, storage bins, and revolving bins.
- 2. Manufacturer's product data containing technical data, installation instructions, and colors available for each type of shelving, storage bins, and revolving bins.
- 3. Samples of all the materials and manufacturer's standard colors proposed for use on the WORK. The samples shall be clearly marked to show the manufacturer's name and product identification.
- 4. Seismic calculations of seismic forces for fully loaded shelving indicating compliance with seismic design requirements for seismic risk zone 4.

#### PART 2 -- PRODUCTS

##### 2.1 GENERAL

- A. Metal shelving shall be 3 feet wide by 7 feet high units with five adjustable intermediate shelves and top and bottom shelves.
- B. Each unit shall be provided as a complete unit with [closed] [open] uprights and [closed] [open] back.

- C. Color of revolving bins and shelving units shall be as selected by the CONSTRUCTION MANAGER.

## 2.2 METAL SHELVING AND STORAGE BINS

- A. Metal shelving and storage bins shall be as follows:

1. Materials: Sheet metal shall be cold-rolled sheet metal of gauges indicated. Rolled steel tees and shapes shall be provided where necessary.
2. Uprights: [Open uprights shall consist of two 1-1/2-inch by 1-1/2-inch by 1/8-inch rolled tees and 1 cross brace of two 1-inch by 12-gauge bands.] [Closed uprights shall consist of two 1-1/2-inch by 1-1/2-inch by 1/8-inch rolled tees and a 24-gauge full height side sheet securely welded to front and rear tees.] All uprights shall be punched for self-adjustment at not more than 2 inches on center.
3. Shelving: Shelving shall be heavy duty reinforced shelving of 18-gauge sheet with front, rear and end flanged down and up to form safe edges. Shelves shall be reinforced at front and rear flange with minimum 1-inch by 12-gauge band. All corners shall be lapped and spot welded. Shelving shall be punched at 3-inch centers for divider adjustment. Shelving shall be provided with and assembled to uprights with quick adjustment clips and fasteners. Each shelf shall be provided with a continuous label holder.
4. Backs: Backs shall consist of 24-gauge steel with not less than 3 rows of vertical holes at same spacing as the upright for shelf supports.
5. Dividers: Crosswise dividers shall extend from front to back and from top to bottom. The front and rear edges shall be curled while top and bottom edges shall be bent and punched for attaching to shelves.
6. Base: Base shall be 3 or 4 inches high and constructed of not less than 20-gauge steel sheet. Base shall be channel formed with ends constructed to engage uprights and to lock in place with necessary fasteners.
7. Bin fronts, shelf boxes, and ledges, shall be provided where indicated.
8. Finish: All parts shall be thoroughly cleaned and provided with manufacturer's standard baked-on heavy finish coat of enamel, minimum of 1.0 mils dry film thickness.
9. Ends: All units shall be complete with fasteners and ends. Ends shall be provided even if reference number does not indicate end.

## 2.3 REVOLVING BINS

- A. Revolving bins shall be constructed of sheet metal, with steel frame work, and shall be 7-tier high units. Shelves shall be provided with roller bearings for easy movement.

## 2.4 MANUFACTURERS

- A. Metal storage shelving, storage bins, and revolving bins shall be products of the following manufacturers (or equal):
  - 1. Lyon Metal Products, Inc.
  - 2. Penco Products
  - 3. RTI Shelving Systems

## **PART 3 -- EXECUTION**

### 3.1 FABRICATION

- A. WORK shall be fabricated in a shop to the greatest extent possible, before the application of finishes. Sharp and rough edges and corners and welds shall be ground smooth. Components, joints and connections shall be designed to withstand the most severe possible loading conditions, with a normal safety factor.

### 3.2 INSTALLATION

- A. The shelving units shall be installed in groups as indicated. They shall be fastened to the wall, to sides of each other and to the rear where back to back. The CONTRACTOR shall secure the units to the floor with galvanized steel angles and stainless steel expansion bolts. Units shall be provided with all necessary seismic bracing required by the Uniform Building Code.

**\*\* END OF SECTION \*\***