

# Material Specifications for Superior Canopy Corporation Steel Tilt-Wall Buildings

## Structural Components

### 1. **Frame Work:**

- a. Structural steel tubing shall be used.
- b. Square steel tube to be ASTM A500 Grade B with a minimum yield stress of 58 ksi.
- c. Rectangular steel tube to be ASTM A500 Grade B with a minimum yield stress of 65.4 ksi.
- d. Size to meet or exceed specific project design load requirements.

### 2. **Base Plates:**

- a. ASTM A36 – 1” Structural steel plate with a minimum yield stress of 36 ksi. Plate to be a minimum ¾” A572 Grade 50 thick with welded gussets. Shop fabricated with pre-punched or pre-drilled bolt holes.

### 3. **Top Plates:**

- a. ASTM A36 structural steel plate with a minimum yield stress of 36 ksi. Plate to be a minimum of ¾” thick with welded gussets. Shop fabricated with pre-punched or pre-drilled bolt holes.

### 4. **Roof Framing:**

- a. ASTM A992 – 50 ksi - 034 wide flange steel beams shall be used.
- b. 3N Ribbed Deck with 24” wide panel or equivalent.
- c. Roof supports to be full steel tube frame support.

### 5. **Structural Connections:**

- a. ASTM A36 structural steel plates with a minimum yield stress of 36 ksi.
- b. All framing members shall be shop fabricated for bolted field assembly.
- c. Domestic ASTM A3525 high strength bolts shall be used. All ASTM A325 bolts shall be installed per the RSCS Specification for Structural ASC Manual of Steel Construction, Allow Stress Design, 9<sup>th</sup> Addition.

### 6. **Anchor Bolts:**

- a. ASTM A572 or A490 Grade 50 threaded round stock with a minimum yield stress of 50 ksi.

### 7. **Painting:**

- a. All framing members will be given one shop coat of drying red oxide primer.

**8. Wall Panels:**

- a. 3 ½ inch thick poly expanded polystyrene insulation laminated to 7/16" OSB panels on the interior and exterior.
- b. 24 gauge steel panel with baked-on enamel paint is an option for the interior and exterior wall panel finish (instead of OSB).

**Fascia**

**1. Laminated Panels:**

- a. 24 gauge sheet steel
- b. Factory pre-assembled in 10' lengths
- c. No exposed fasteners on bottom or exterior face.
- d. Panel core material: 1" thick virgin expanded polystyrene in 1.23 PCF density.
- e. Panels shall have both sides finish coated with a full coat of polyester paint baked on over an epoxy primer.
- f. Backer sheet of laminated panel to be G60 galvanized sheet metal.

**2. ACM Panels:**

- a. Aluminum composite material of varying thicknesses is available as an option for the laminated panels. ACM panels consist of 2 aluminum sheets laminated to a plastic composite center.

**3. Fascia Attachment Systems:**

- a. Fascia support brackets to be 20 gauge galvanized steel. Break to form channel 1 ½" x 2" x 1 ½" x 8' long.

**Accessories**

**1. Gutter:**

- a. Straight sections to be ASTM A653 Grade 50 with a minimum yield stress of 50 ksi and having a G60 galvanized surface.
- b. Straight sections 20 gauge steel and are 8" wide x 6" deep.
- c. Straight gutter section shall have a finish side coated with a full coat of polyester paint baked on over epoxy primer. A white wash coat of polyester paint baked on over epoxy primer shall protect the interior surface.

**2. Downspouts:**

- a. External downspouts to be 4" x 3" roll formed 26 gauge steel with watertight locked seams.
- b. Exterior paint with one full coat of polyester paint baked on over epoxy primer.
- c. Downspouts to be of one contiguous length up to 15'.

**3. Hardware:**

- a. Gutter to deck panel fasteners shall be #14 x 3/4" long self drilling screws.

**4. Sealant:**

- a. Tube sealant shall be 100% silicone and or urethane caulk.

**General Notes**

1. All material is new and without defects which would lessen quality of work.
2. All material will conform to requirements, tolerances, etc. of the latest editions of the AISC Manual of Steel Construction, AISI Specifications for general requirements for rolled steel plates, shapes, sheets, and bars for structural use, and AWS for welded connections.
3. Permit drawings include required foundation plans.
4. Building erection drawings to be furnished at time of shipment. Piece marks included for field identification of all major parts.
5. Upon request, design calculations or a letter of design certification sealed by a registered professional engineer licensed in the state in which the job is located shall be provided.
6. All A325 bolts shall be tightened by the turn of nut method.

**Excluded Items**

- Foundations and Concrete
- Permits
- Site Work
- Rubber Roof
- Plumbing
- Electrical
- Finish Flooring
- Painting
- Carpenter Work
- Glazing
- HVAC
- Sales and Use Tax
- Interior Store Goods (i.e. drop ceiling, interior lighting, shelving, shelving, coolers, counters, restroom fixtures)

