

SECTION 07 72 00 - ROOF ACCESSORIES

PART 1 - GENERAL

1.1 SUMMARY

A. This Section includes the following:

1. Roof curbs.
2. Equipment supports
3. Roof hatches.

1.2 SUBMITTALS

- A. Product Data: For each type of roof accessory indicated.
- B. Shop Drawings: Show fabrication and installation details for roof accessories.
- C. Samples: For each type of exposed factory-applied color finish required and for each type of roof accessory indicated, prepared on Samples of size to adequately show color.

1.3 QUALITY ASSURANCE

- A. Sheet Metal Standard: Comply with SMACNA's "Architectural Sheet Metal Manual" details for fabrication of units, including flanges and cap flashing to coordinate with type of roofing indicated.
- B. Design live load: design for a general live load of 25 pounds per square foot.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Manufacturers: Subject to compliance with requirements, provide products by one of the manufacturers listed in other Part 2 articles.

2.2 METAL MATERIALS

- A. Galvanized Steel Sheet: ASTM A 653/A 653M, G90 coated and mill phosphatized for shop coating.
- B. Aluminum-Zinc Alloy-Coated Steel Sheet: ASTM A 792/A 792M, AZ50 coated and prepared for shop painting.

- C. **Prepainted, Metallic-Coated Steel Sheet:** Steel sheet metallic coated by hot-dip process and prepainted by coil-coating process to comply with ASTM A 755/A 755M.
 - 1. Galvanized Steel Sheet: ASTM A 653/A 653M, G90 coated.
 - 2. Aluminum-Zinc Alloy-Coated Steel Sheet: ASTM A 792/A 792M, Class AZ50 coated.
 - 3. Exposed Finishes: Manufacturer's standard 2-coat, thermocured system consisting of specifically formulated inhibitive primer and fluoropolymer color topcoat containing not less than 70 percent polyvinylidene fluoride resin by weight.
- D. **Aluminum Sheet:** ASTM B 209, alloy and temper recommended by manufacturer for type of use and finish. Coil-coat finish as follows:
 - 1. **Factory-Prime Coating:** Where painting after installation is indicated, provide pretreatment and white or light-colored, factory-applied, baked-on epoxy primer coat; with a minimum dry film thickness of 0.2 mil.
 - 2. **High-Performance Organic Finish:** Manufacturer's standard 2-coat, thermocured system consisting of specially formulated inhibitive primer and fluoropolymer color topcoat containing not less than 70 percent polyvinylidene fluoride resin by weight.
 - a. Color and Gloss as selected by Owner..
- E. **Stainless-Steel Shapes or Sheet:** ASTM A 240/A 240M or ASTM A 666, Type 304 or Type 316, No. 2D finish.

2.3 MISCELLANEOUS MATERIALS

- A. **Acrylic Glazing:** ASTM D 4802, thermoformable, monolithic sheet, category as standard with manufacturer, Type UVA (formulated with UV absorber), Finish 1 (smooth or polished).
- B. **Polycarbonate Glazing:** Thermoformable, monolithic polycarbonate sheets manufactured by extrusion process, burglar-resistance rated per UL 972 with an average impact strength of 12 to 16 ft-lbf/in. of width when tested according to ASTM D 256, Method A (Izod).

2.4 ROOF CURBS

- A. **Roof Curbs:** Provide metal roof curbs, internally reinforced and capable of supporting superimposed live and dead loads, including equipment loads and other construction to be supported on roof curbs. Fabricate with welded or sealed mechanical corner joints, with stepped integral metal cant raised the thickness of roof insulation and integral formed mounting flange at perimeter bottom. Coordinate dimensions with rough-in information or Shop Drawings of equipment to be supported.
 - 1. **Manufacturers:**
 - a. Custom Curb, Inc.
 - b. LM Curbs.
 - c. Metallic Products Corporation.
 - d. Roof Products & Systems Corporation.
 - e. Roof Products, Inc.

- f. ThyCurb; Div. of Thybar Corporation.
 - g. Uni-Curb, Inc.
 - h. Vent Products Company, Inc.
 - i. Or approved equal
- 2. Load Requirements: 25 pounds per square foot.
- 3. Material: Galvanized steel sheet, 0.052 inch thick.
 - a. Finish: High-performance organic coating.
- 4. Liner: Same material as curb, of manufacturer's standard thickness and finish.
- 5. Factory install wood nailers at tops of curbs.
- 6. On ribbed or fluted metal roofs, form flange at perimeter bottom to conform to roof profile.
- 7. Factory insulate curbs with 1-1/2-inch- thick, glass-fiber board insulation.
- 8. Curb height may be determined by adding thickness of roof insulation and minimum base flashing height recommended by roofing membrane manufacturer. Fabricate units to minimum height of 12 inches, unless otherwise indicated.
- 9. Sloping Roofs: Where slope of roof deck exceeds 1:48, fabricate curb units with water diverter or cricket and with height tapered to match slope to level tops of units.

2.5 EQUIPMENT SUPPORTS

- A. Equipment Supports: Provide metal equipment supports, internally reinforced and capable of supporting superimposed live and dead loads, including equipment loads and other construction to be supported. Fabricate with welded or sealed mechanical corner joints, with stepped integral metal cant raised the thickness of roof insulation and integral formed mounting flange at perimeter bottom. Coordinate dimensions with rough-in information or Shop Drawings of equipment to be supported.
 - 1. Manufacturers:
 - a. Custom Curb, Inc.
 - b. LM Curbs.
 - c. Loren Cook Company.
 - d. Metallic Products Corporation.
 - e. Roof Products & Systems Corporation.
 - f. Roof Products, Inc.
 - g. Thaler Metal Industries Ltd.
 - h. ThyCurb; Div. of Thybar Corporation.
 - i. Or approved equal
 - 2. Load Requirements: minimum 25 pounds per square foot
 - 3. Material: Galvanized steel sheet, 0.079 inch thick.
 - 4. Factory-install continuous wood nailers 5-1/2 inches wide at tops of equipment supports.
 - 5. Metal Counterflashing: Manufacturer's standard removable counterflashing, fabricated of same metal and finish as equipment support.
 - 6. On ribbed or fluted metal roofs, form flange at perimeter bottom to conform to roof profile.
 - 7. Fabricate units to minimum height of 12 inches, unless otherwise indicated.

8. Sloping Roofs: Where slope of roof deck exceeds 1:48, fabricate curb units with water diverter or cricket and with height tapered to match slope to level tops of units.

2.6 ROOF HATCHES

- A. Roof Hatches: Fabricate roof hatches with insulated double-wall lids and insulated single-wall curb frame with integral deck mounting flange and lid frame counterflashing. Fabricate with welded or mechanically fastened and sealed corner joints. Provide continuous weathertight perimeter gasketing and equip with corrosion-resistant or hot-dip galvanized hardware.

1. Manufacturers:

- a. Babcock-Davis; a Cierra Products Inc. Company.
- b. Bilco Company (The).
- c. Bristolite Skylights.
- d. Custom Curb, Inc.
- e. Dur-Red Products.
- f. J. L. Industries, Inc.
- g. Metallic Products Corporation.
- h. Milcor Inc.; a Gibraltar Company.
- i. Nystrom, Inc.
- j. O'Keeffe's Inc.
- k. ThyCurb; Div of Thybar Corporation.
- l. Wasco Products, Inc.

2. Loads: Fabricate roof hatches to withstand 40-lbf/sq. ft. external and 20-lbf/sq. ft. internal loads.
3. Type and Size: Single-leaf lid, 30 by 36 inches or as shown.
4. Curb and Lid Material: Galvanized steel sheet, 0.079 inch thick.

- a. Finish: High-performance organic coating.

5. Insulation: Glass-fiber board.
6. Interior Lid Liner: Manufacturer's standard metal liner of same material and finish as outer metal lid.
7. Exterior Curb Liner: Manufacturer's standard metal liner of same material and finish as metal curb.
8. On ribbed or fluted metal roofs, form flange at perimeter bottom to conform to roof profile.
9. Fabricate units to minimum height of 12 inches, unless otherwise indicated.
10. Sloping Roofs: Where slope or roof deck exceeds 1:48, fabricate hatch curbs with height tapered to match slope to level tops of units.
11. Hardware: Stainless-steel spring latch with turn handles, butt- or pintle-type hinge system, and padlock hasps inside and outside.

- a. Provide 2-point latch on covers larger than 84 inches.
- b. Provide remote-control operation.

12. Ladder Safety Post: Manufacturer's standard ladder safety post. Post to lock in place on full extension. Provide release mechanism to return post to closed position.

13. Safety Railing System: Manufacturer's standard complete system including rails, clamps, fasteners, safety barrier at railing opening, and all accessories required for a complete installation.

PART 3 - EXECUTION

3.1 INSTALLATION

- A. General: Install roof accessories according to manufacturer's written instructions. Anchor roof accessories securely in place and capable of resisting forces specified. Use fasteners, separators, sealants, and other miscellaneous items as required for completing roof accessory installation. Install roof accessories to resist exposure to weather without failing, rattling, leaking, and fastener disengagement.
- B. Install roof accessories to fit substrates and to result in watertight performance.
- C. Metal Protection: Where dissimilar metals will contact each other or corrosive substrates, protect against galvanic action by painting contact surfaces with bituminous coating or by other permanent separation as recommended by manufacturer.
 1. Coat concealed side of roof accessories with bituminous coating where in contact with wood, ferrous metal, or cementitious construction.
 2. Underlayment: Where installing exposed-to-view components of roof accessories directly on cementitious or wood substrates, install a course of felt underlayment and cover with a slip sheet, or install a course of polyethylene underlayment.
 3. Bed flanges in thick coat of asphalt roofing cement where required by roof accessory manufacturers for waterproof performance.
- D. Install roof accessories level, plumb, true to line and elevation, and without warping, jogs in alignment, excessive oil canning, buckling, or tool marks.
- E. Seal joints with elastomeric sealant as required by manufacturer of roof accessories.

END OF SECTION 07 72 00