

## SECTION 07720

### ROOF ACCESSORIES

#### PART 1 GENERAL

##### 1.1 SUMMARY

- A. Section Includes
  - 1. Provide roof accessories as shown or specified, and as required for a complete installation.
- B. Related Work Specified in Other Sections
  - 1. Steel supports and gratings – Division 5.
  - 2. Roof curb flashing and mastic sealant on curb – Division 7.

##### 1.2 PERFORMANCE REQUIREMENTS

- A. Design Criteria
  - 1. Fabricate and install roof accessories to withstand wind pressure loading of not less than 30 PSF without damage or deformation and to remain watertight.
  - 2. The top surface of curbs shall be flat and horizontally positioned no matter what slope roof used.
  - 3. All curbs for pieces of equipment shall be coordinated with specific piece of equipment to insure proper placement, proper weight capacity and size; coordinate with Mechanical Contractor.
- B. Standards: Comply with the following:
  - 1. SMACNA's "Architectural Sheet Metal Manual" details for fabrication of units, including flanges and cap flashing to coordinate with type of roofing indicated.
  - 2. NRCA's "Roofing and Waterproofing Manual" details for installing units.

##### 1.3 SUBMITTALS

- A. Furnish submittals for items that are identified in this Section by a different typeface and a bracketed code (e.g., *Item [L]*). Refer to Division 1, General Requirements for definition of codes for types of submittals and the administrative requirements governing submittal procedure. General submittal requirements pertaining to this Section are specified under this Article.
- B. Product Data: For each roof accessory specified.
- C. Shop Drawings: Include all roof accessory installation details including blockway, support, connections and flashings.

## 1.4 PROJECT CONDITIONS

- A. Sequencing, Scheduling
  - 1. Install roof accessories before roof insulation and roofing system is installed.

## 1.5 DELIVERY, STORAGE AND HANDLING

- A. Wrap, carton, and crate, as required, to provide physical and climatic protection during loading, shipping and job site storage and handling.
- B. Deliver packaged materials to the project site in the manufacturer's original, unopened containers which bear intact, legible and visible labels that identify the manufacturer's name and brand name, the contents, grade and type.
- C. Upon delivery, immediately inspect shipments to assure their compliance with the requirements of the Contract Documents and approved submittals, and that products are complete, undamaged and adequately protected. Immediately report damaged, missing, or defective items. Remove broken, damaged or unlabeled items from the site immediately.
- D. Store products in accordance with manufacturer's instructions with seals and labels intact, legible, and visible. Store products in a manner to prevent to prevent damage, soiling, theft, deterioration and contamination. Marred surfaces, cracked, checked spilt or warped materials will be rejected, Store materials subject to damage by climatic conditions in weathertight enclosures. Maintain temperature and humidity within the ranges required or recommended by the manufacturer.
- E. Repair or clean items that have been damaged or soiled that can be restored to an "as new" condition at not cost to the Owner. The Owner's Representative shall be the judge of the effectiveness of remedial measures. Additional time or expense required to secure replacements and to make repairs will not be considered by the Owner's Representative to justify and extension in the Contract time of completion or an increase in the Contract amount.

## PART 2 PRODUCTS

### 2.1 FABRICATION AND MANUFACTURE

- A. Prefabricated Roof Curbs
  - 1. *Prefabricated Roof Curbs [D]*: Insulated, minimum 18 gage galvanized steel shell with 22 gage galvanized steel liner full depth of curb and roof deck construction, pressure-preservative treated overhanging (1 inch exterior overhang) 1 1/2" thick, wood top nailers, and shop-applied rust-inhibiting primer. Provide curb units minimum of 12 inch overall height unless noted otherwise. Verify actual curb sizes required with certified manufacturer's equipment drawings. Modify the following to include overhanging wood top nailers:
    - a. Custom Curb, Inc. "CRC-3"
    - b. Pate Co. "pc-2b"

- c. Roof Products Inc. "RPC-3".
    - d. Thybar Corp. "ThyCurb TC-3"
  - 2. Insulation: Manufacturer's standard rigid or semirigid glass-fiber board of thickness indicated.
  - 3. Wood Nailers: Softwood lumber, pressure treated with waterborne preservatives for aboveground use, complying with AWPA C2; not less than 1-1/2 inches (38 mm) thick.
- B. Prefabricated Equipment Supports
- 1. *Prefabricated Equipment Supports [D]*: Insulated of minimum 18 gage galvanized steel with pressure-preservative treated overhanging (1 inch overhang each side) 1 1/2" thick, wood top nailers, and shop-applied rust-inhibiting primer. Provide equipment support units of 12 inch overall height unless noted otherwise. Verify actual equipment support sizes required with certified manufacturer's equipment drawings. Modify the following to include overhanging wood top nailers.
    - a. Custom Curb, Inc. "CES-3"
    - b. Pate Co. "es-2b"
    - c. Roof Products Inc. "RPES"
    - d. Thybar Corp. "TEMS-3"
  - 2. Insulation: Manufacturer's standard rigid or semirigid glass-fiber board of thickness indicated.
  - 3. Wood Nailers: Softwood lumber, pressure treated with waterborne preservatives for aboveground use, complying with AWPA C2; not less than 1-1/2 inches (38 mm) thick.
- C. Fasteners
- 1. Expansion Bolts:
    - a. Wej-It Expansion Products, Inc. "Wej-It Concrete Anchors"
    - b. Rawlplug Co., Inc. "Rawl Anchors" or "Rawl Hammer Sets"
    - c. Hilti Co. "HDI Internally Threaded Expansion Anchor"
    - d. Powers Fasteners, Inc. "Wedge-Bolt"
  - 2. Match metal fasteners with type of metal being fastened or utilize non-magnetic, stainless steel, or other non-corrosive steel type.

## PART 3 EXECUTION

### 3.1 INSTALLATION

#### A. General

- 1. Do not subject units to construction abuse or undue impact during the installation. Remove damaged or defective units and replace with new units, except that minor finish abrasions and slight damage that does not impair strength or function of the unit may be repaired and touched up, as approved by the Owner's Representative.

2. Install roof accessories units straight and true, with plumb vertical surfaces and upper support contact surface horizontal regardless of the roof slope. Secure units to roof deck prior to installation of insulation.
  - a. Secure units to metal deck by welding, incorporating 3/4 inch long fillet welds at 12 inches on center around the perimeter of the unit, and with not less than 2 welds per side.
  - b. Secure units to concrete deck using specified fasteners of minimum 1/2 inch diameter, of length to embed 3 inches into substrate, spaced at 24 inches on center maximum and with not less than 2 bolts per side.
3. Coordinate installation with other construction including decking and roofing to provide weathertight installation.
4. Install roof accessory tiles in accordance with the NRCA's "Roofing and Waterproofing Manual".
5. Separation: Provide permanent separation between dissimilar metals via bituminous coating.
6. Cap Flashing: Install cap flashing to provide weathertight seal and provide mastic sealant at overlapped flashings. Seal overlap with thick bead of mastic sealant.

### 3.2 TOUCHUP AND CLEANING

- A. Touch up damaged surfaces to match new adjacent surfaces. Clean all roof accessories and assemblies in accordance with manufacturer's specifications.
- B. Verify that all accessories are permanently secured to resist anticipated lateral thermal stresses.

END OF SECTION

Revision History	
Date	Rev. No.
A	0
B	0
C	0
D	0
E	0
F	0
02-19-09	0

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