

SECTION 07 72 00

ROOF ACCESSORIES

PART 1 – GENERAL

1.1 PURPOSE

- A. This guideline is intended to provide useful information to the Professional Service Provider (PSP) to establish a basis of design. PSP is to apply the principles of this section such that the University of Texas at Arlington (UTA) may achieve a level of quality and consistency in the design and construction of their facilities. Deviations from these guidelines must be approved by UTA and may require justification through Life Cycle Cost (LCC) analysis and submitted to UTA for approval.

1.2 LESSONS LEARNED AND DESIGN CONSIDERATIONS

- A. **Coordinate with roof system information in Section 07 52 00 – Modified Bituminous Roofing, Part 4 – Appendix.**
- B. **No fiberglass safety railings permitted.**
- C. **Design professional to coordinate with UTA Representative for appropriate installation of safety railing.**

1.3 SECTION INCLUDES

- A. Roof hatches.
- B. Safety accessories.

1.4 RELATED REQUIREMENTS

- A. Section 05 31 00 – Steel Decking.
- B. Section 07 52 00 – Modified Bitumen (SBS) Membrane Roofing.

1.5 REFERENCE STANDARDS

- A. UL (DIR) - Online Certifications Directory; current listings at database.ul.com.

1.6 SUBMITTALS

- A. See Division 01 for submittal procedures.
- B. Product Data: Manufacturer's data sheets on each product to be used.
 - 1. Preparation instructions and recommendations.
 - 2. Storage and handling requirements and recommendations.
 - 3. Installation methods.
 - 4. Maintenance requirements.
- C. Shop Drawings: Submit detailed layout developed for this project. Show dimensioned location and number for each type of roof accessory.
- D. Warranty Documentation:
 - 1. Submit manufacturer warranty.
 - 2. Ensure that forms have been completed in Owner's name and registered with manufacturer.

1.7 DELIVERY, STORAGE, AND HANDLING

- A. Store products in manufacturer's unopened packaging until ready for installation.
- B. Store products under cover and elevated above grade.

PART 2 – PRODUCTS

2.1 ROOF HATCHES

- A. Manufacturers - Roof Hatches:
 - 1. Bilco Company; Type TB (all types & special size): www.bilco.com.
 - 2. Dur-Red Products: www.dur-red.com.
 - 3. Milcor, Inc: www.milcorinc.com.
 - 4. SafePro, L.P., www.safeprosafety.com.
 - 5. Substitutions: See Division 01.

GUIDE SPECIFICATIONS FOR DESIGN AND CONSTRUCTION DOCUMENTS

- B. Roof Hatches - General: Factory-assembled aluminum frame and cover, complete with operating and release hardware.
 - 1. Style: Provide flat metal covers unless otherwise indicated.
 - 2. Mounting: Provide frames and curbs suitable for mounting on flat roof deck.
 - 3. For Ladder Access: Single leaf; 48 by 48 inches.
 - 4. Basis of Design: Bilco Company; Model E-50T.
- C. Frames/Curbs: One-piece curb and frame with integral cap flashing to receive roof flashings; extended bottom flange to suit mounting.
 - 1. Material: Mill finished aluminum, 11 gage, 0.0907 inch thick.
 - 2. Insulation: Manufacturer's standard; 1 inch rigid polyisocyanurate, located on inside hollow curb.
 - 3. Curb Height: 14 inches from finished surface of roof, minimum.
- D. Metal Covers: Flush, insulated, hollow metal construction.
 - 1. Capable of supporting 40 psf live load.
 - 2. Material: Mill finished aluminum; outer cover 11 gage, 0.0907 inch thick, liner 0.04 inch thick.
 - 3. Insulation: Manufacturer's standard 1 inch rigid polyisocyanurate.
 - 4. Gasket: EPDM, continuous around cover perimeter.
- E. Hardware: Type 316 stainless steel, unless otherwise indicated or required by manufacturer.
 - 1. Lifting Mechanisms: Compression or torsion spring operator with shock absorbers that automatically opens upon release of latch; capable of lifting covers despite 10 psf load.
 - 2. Hinges: Heavy duty pintle type.
 - 3. Hold open arm with vinyl-coated handle for manual release.
 - 4. Latch: Upon closing, engage latch automatically and reset manual release.
 - 5. Manual Release: Pull handle on interior.
 - 6. Locking: Padlock hasp on interior.
- F. Safety Rails:
 - 1. Basis of Design: Roof Hatch Fall Protection Safety Rail by SafePro L.P., www.safeprosafety.com.
 - 2. Description: Steel tube railing system mounted on roof hatch providing an ergonomically correct power grip in a safe upright egress and ingress through roof hatches in addition to protection from accidental falls through roof opening while roof hatch is open. Includes top and mid-rail and wrap around self-closing gravity gate mounted with heavy duty hinges acting as a ladder extension.
 - a). Steel Tubing: 1-1/2 inch hot rolled electric welded steel tubing, ASTM A500, Grade B, hot formed.
 - b). Size: Formed to fit roof hatch size.
 - c). Height: 42 inch above roof surface when mounted on standard roof hatch cap flashing.
 - d). Mounting System: Integrated stanchions of rail system through bolted to extended cap flashing of roof hatch using 3/8 inch bolts.
 - e). Gate System: Gravity self-closing, non-collapsible full wrap around steel tubing grab hold, welded construction. Heavy duty hinges with 5/8 inch hinge pin with built in pinch-less gate stop and pull up full open positioning.
 - f). Fasteners: Stainless steel 316 Grade Hex head bolts, 3/8 inch x 2 inch, Nylon locking Hex nut and flat washers.
 - g). Labels: Furnish with manufacturer's standard labels containing SafePro Patent Number, and SafePro Logo.
 - 3. Performance:
 - a). Meets and exceeds OSHA Standard CFR 29 1910.23 and CFR 29 1910.27.
 - 4. Fabrication: Factory formed and fully welded construction, free of sharp edges and snag points.
 - 5. Finish: Factory finished with powder coating.
 - a). Powder Coat Finish: Manufacturer's standard powder coating; color: Safety Yellow.

PART 3 – EXECUTION

3.1 EXAMINATION

- A. Do not begin installation until substrates have been properly prepared.
- B. If substrate preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.

3.2 PREPARATION

- A. Clean surfaces thoroughly prior to installation.

GUIDE SPECIFICATIONS FOR DESIGN AND CONSTRUCTION DOCUMENTS

- B. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.
- 3.3 INSTALLATION
- A. Install in accordance with manufacturer's instructions, in manner that maintains roofing weather integrity.
 - B. Install safety railing at each roof hatch opening in accordance with manufacturer's printed installation instructions.
- 3.4 ADJUSTING
- A. Adjust gate for smooth operation, free of binding.
- 3.5 CLEANING
- A. Clean installed work to like-new condition.

END OF SECTION