

SECTION 07600CP – FLASHING AND SHEET METAL

PART 1. DESIGN CRITERIA

- 1.1 Provide metal through wall flashings in cavity walls at these locations:
 - A. Above all shelf angles or loose lintels
 - B. Under all exterior doors, windows and curtain walls
 - C. At every stringer course or coping
 - D. As counterflashings at rising walls adjacent to roofs
- 1.2 For roofs, provide metal flashings at valleys, chimneys, crickets, step flashings and other transition points of slate and asphalt roofs.
- 1.3 Include flashing details on the drawings, for all commonly occurring conditions, and for special conditions. Identify all flashing locations explicitly with a note on the elevations and details, not simply a broad reference to a “typical” detail. Show flashings at all the locations referred to in Paragraphs A and B above, and all other locations where water flowing down in the wall cavity, or leaking through joints in the curtainwall, could drip to the exterior. Call for end pans at flashing terminations and identify end pan locations on the drawings.
- 1.4 Do not use surface mounted flashings or reglet attachment of any kind. Always show flashings extending through the wall and shingling into the cavity wall waterproofing or other drainage surface. Extend all flashings through to the exterior face of the wall and provide a visible drip edge. Consider using water table courses or other elements to conceal the drip edge, but do not eliminate the drip edge.

PART 2. PERFORMANCE REQUIREMENTS

2.1 PRODUCTS

- A. Flashings must be copper or stainless steel, with upturned inboard leg and end dams, soldered fully water tight. Generally copper is preferable, because of the difficulties in soldering stainless steel in the field. Use red copper, ASTM B370 (H00). 16 oz. copper for through-wall flashings with 20 oz copper for hook strips and cleats, 20 oz. copper for slate roof flashings with 24 oz. copper for hook strips and cleats.

- B. For stainless steel flashing, use ASTM A 167, Type 304, soft annealed temper, at least 0.020 thick.
- C. Aluminum flashings are acceptable in some limited situations, such as step flashings in wood frame construction, in combination with asphalt shingles.
- D. Plastic flashings, asphalt saturated fabric flashings, and fabric-reinforced metal foil flashings are not acceptable. Lock joints filled with butyl or sealant are not acceptable. Do not use “keystone” metal flashings, corrugated flashings, or other systems that avoid soldered joints.
- E. Solder: ASTM B32, 50% block tin and 50% pig lead. Use approved brand of soldering flux.
- F. Fasteners and Accessories for Copper flashing: Use copper or brass screws, bolts or nails as required. Nails to be 12 ga., with min 1/4 inch dia. head, annular threaded, with needle point and sufficient length to obtain 1-1/4 inch embedment in blocking. Use nylon expansion sleeves with stainless steel drive pins for fastening to stone, concrete or masonry.

2.2 EXECUTION

- A. Masonry contractors do not employ the tradesmen needed to install soldered copper flashings properly. Expect (and require, if necessary) the masonry flashings to be installed by a roofer or flashing specialist, usually as a sub to the masonry contractor.
- B. There must be no penetrations in the horizontal surfaces of flashings. Window frames, curtain wall frames and other structural attachments must not be fastened down through the flashing pan. Use other methods to fasten these elements, as shown in the accompanying details. For example, fasten windows laterally to a structural angle inboard of the flashing. Exterior door threshold fasteners must be inboard of the upturned leg of the flashing. Dowels for securing copings must be covered with “thimbles” soldered to the flashing beneath the copings.
- C. General Workmanship: As a minimum, comply with all recommendations of the current edition of Revere’s “Copper and Common Sense” for details and SMACNA for fabrication. For flashing in slate roofing, use the publication “Slate Roofing” by the Vermont Slate Association, 1923 edition, which is still in print.

- D. Expansion Provisions: For exposed flashings subjected to thermal cycles, provide movement joints at maximum of 20 feet (6 m) with no joints allowed within 24 inches (610-mm) of corner or intersection. Reinforce all metal flashing corners. Rivet and solder all flashing corners for permanently waterproof connections.
- E. Separate metal from noncompatible metal or corrosive substrates by coating concealed surfaces at locations of contact with asphalt mastic or other permanent separation as recommended by manufacturer.
- F. Conceal fasteners and expansion joints. Exposed fasteners are not allowed on faces of sheet metal exposed to public view. Use hook strips and cleats to attach counterflashings; do not show fasteners penetrating the surface of the flashings.
- G. Fabricate cleats and attachment devices from same material as sheet metal component being anchored or from compatible, noncorrosive metal recommended by sheet metal manufacturer. Size as recommended by SMACNA manual or sheet metal manufacturer for application but never less than thickness of metal being secured.

END OF SECTION