07 60 00 Flashing and Sheet Metal
Revision 01/04/2019

Purpose:
The Architect and/or Engineer shall incorporate the Rice specific requirements indicated in this standard’s section into their design. The Architect and/or Engineer shall further produce project specifications in line with industry standards that are updated to reflect these Rice specific requirements.

1. General requirements
   a. Copper Flashings:
      i. Copper sheet metal flashings (scuppers, conductor heads, downspouts, copings, counterflashings, edge metal, etc.) must be utilized wherever possible.
      ii. Use alloy number 110 copper, conforming to ASTM B 370; temper H00, except where temper 060 is required for forming. Minimum weight shall be 24 ounces per square foot.
      iii. Fasteners for Copper Sheet Metal:
         a) Pop Rivets: Pop rivets with stainless steel body and mandrel.
         b) Exposed Fasteners: Stainless steel screws with bonded neoprene washers.
         c) Copper-to-Wood: Stainless steel screws, minimum 1-1/4 inch in length.
         d) Copper-to-Concrete or -Masonry: expansion anchors with stainless steel sheath and drive nail, minimum 1-inch in length.
         e) Wherever possible, lap and solder all joints between adjacent copper sections with ANSI/ASTM B 32 solder (composition: 50% pig lead and 50% block tin) and a non-corrosive soldering salt flux. Mechanically fasten all laps with brass or copper blind-rivets.
   b. Stainless Steel:
      i. Stainless Steel shall be used for SMACNA boxes, sheet metal hoods, pitch pans and bonnets, vent stack flashings, and other penetration flashings. Galvanized metal is not acceptable.
      ii. Stainless steel shall be Type 304 or Type 316, minimum 24 gauge, with standard 2B finish.
      iii. Fasteners for Stainless Steel Sheet Metal:
         a) Pop Rivets: Pop rivets with stainless steel body and mandrel. Lap and seal all joints with silicone rubber sealant.
         b) Exposed Fasteners: Stainless steel screws with bonded neoprene washers.
         c) Stainless Steel-to-Wood: Stainless steel screws, minimum 1-1/4 inch in length.
         d) Stainless Steel-to-Concrete or -Masonry: expansion anchors with stainless steel sheath and drive nail, minimum 1-inch in length.
   c. Prefinished Galvanized Sheet Metal:
      i. If galvanized metal must be used, it shall be G-90, hot-dipped, galvanized steel sheet conforming to ASTM A527 requirements; minimum 24 gauge thickness.
i. All exposed galvanized sheet metal must receive a fluorocarbon coating, factory pre-finished, coil-coating color finish.


e. Liquid-Applied Membrane (LAM) Flashings:
   i. At irregular-shaped roof penetrations, use flexible, polymethyl methacrylate (PMMA) resin flashing system

f. Through-Wall Flashings:
   i. As a minimum, install through-wall flashings at the following locations:
      a) Along the base of exterior walls.
      b) At structural steel shelf angle supports.
      c) At the head conditions (i.e. at lintel angle or bond beam supports) of exterior doors, windows, louvers, and other wall openings.
      d) At sill conditions of exterior doors and windows.
      e) Beneath stone, cast stone, and masonry copings.
   ii. Acceptable Products:
      a) Copper Sheet Metal Thru-Wall Flashing (for use at all exposed and concealed locations): Cold-rolled copper, Temper H00, ASTM B370, minimum 20 oz. weight.
         i. Fabricate through-wall metal flashings with bi-directional deformation for integral mortar bond.
         ii. Solder: ASTM B32, Class 50A or 50B, bar form, 50% block tin and 50% pig lead.
         iii. Flux: Conforming to ASTM B813. Clean metal immediately after soldering to ensure that no acid remains on the metal.
      b) Sheet Membrane Flashings (transition flashing to be used in conjunction with copper sheet metal through-wall flashing):
         i. Concealed Wall Conditions: Wall Flashing
         ii. High-Temperature Conditions (i.e. underneath exposed metal): High Temperature Membrane.
         iii. Compressed Conditions (i.e. beneath stone copings): Reinforced, self-adhesive sheet membrane.
         iv. All sheet membrane flashing installations to receive primer unless the manufacturer states in writing that primer will adversely affect the sheet membrane’s adhesion or long term performance.
      c) Composite/Laminated Through-Wall Flashing: Self-Adhering Copper Fabric Flashing” composite sheet membrane consisting of a polyethylene film laminated to a 7-ounce copper sheet.