

SECTION 07620

SHEET METAL FLASHING AND TRIM

PART 1 GENERAL

1.1 SUMMARY

- A. Section includes flashings and counterflashings, sheet metal roofing and fabricated sheet metal items, as indicated in Schedule.
 - 1. Provide reglets and accessories, precast concrete splash pads, and/or sheet metal splash pans.
- B. Related Sections:
 - 1. Section 03100 - Concrete Forms and Accessories: Placement of recessed flashing reglets and accessories.
 - 2. Section 04810 - Unit Masonry Assemblies: Through-wall flashings in masonry.
 - 3. Section 07900 - Joint Sealers.
 - 4. Section 09900 - Paints and Coatings: Field painting.
 - 5. Division 15 - Mechanical: Hangers and Supports.

1.2 REFERENCES

- A. American Architectural Manufacturers Association:
 - 1. AAMA 611 - Voluntary Specification for Anodized Architectural Aluminum.
 - 2. AAMA 2603 - Voluntary Specification, Performance Requirements and Test Procedures for Pigmented Organic Coatings on Aluminum Extrusions and Panels.
 - 3. AAMA 2604 - Voluntary specification, Performance Requirements and Test Procedures for High Performance Organic Coatings on Aluminum Extrusions and Panels.
 - 4. AAMA 2605 - Voluntary Specification, Performance Requirements and Test Procedures for Superior Performing Organic Coatings on Aluminum Extrusions and Panels.
- B. ASTM International:
 - 1. ASTM A653/A653M - Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process.
 - 2. ASTM A666 - Standard Specification for Austenitic Stainless Steel Sheet, Strip, Plate, and Flat Bar.
 - 3. ASTM A924/A924M - Standard Specification for General Requirements for Steel Sheet, Metallic-Coated by the Hot-Dip Process.
 - 4. ASTM B32 - Standard Specification for Solder Metal.
 - 5. ASTM B101 - Standard Specification for Lead-Coated Copper Sheet and Strip for Building Construction.
 - 6. ASTM B209M - Standard Specification for Aluminum and Aluminum-Alloy Sheet and Plate (Metric).
 - 7. ASTM B370 - Standard Specification for Copper Sheet and Strip for Building Construction.
 - 8. ASTM B749 - Standard Specification for Lead and Lead Alloy Strip, Sheet,

- and Plate Products.
- 9. ASTM D226 - Standard Specification for Asphalt-Saturated Organic Felt Used in Roofing and Waterproofing.
- 10. ASTM D4397 - Standard Specification for Polyethylene Sheeting for Construction, Industrial, and Agricultural Applications.
- 11. ASTM D4586 - Standard Specification for Asphalt Roof Cement, Asbestos-Free.
- C. Copper Development Association Inc.:
 - 1. CDA - Copper in Architecture - Handbook.
- D. Federal Specification Unit:
 - 1. FS TT-C-494 - Coating Compound, Bituminous, Solvent Type, Acid Resistant.
- E. Sheet Metal and Air Conditioning Contractors:
 - 1. SMACNA - Architectural Sheet Metal Manual.

1.3 DESIGN REQUIREMENTS

- A. Sheet Metal Flashings: Conform to the criteria of SMACNA "Architectural Sheet Metal Manual" and/or Copper Development Association "Copper in Architecture - Handbook".
- B. Gutter and Downspout Components: Conform to SMACNA Manual, CDA Handbook, SSINA Standard Practice, and/or NRCA Details for sizing components for rainfall intensity determined by storm occurrence of 1 in 5 years.
- C. Maintain one copy of each document on site.

1.4 SUBMITTALS

- A. General Requirements: Requirements for submittal procedures.
- B. Shop Drawings: Indicate material profile, jointing pattern, jointing details, fastening methods, flashings, terminations, and installation details.
- C. Product Data: Submit data on manufactured components metal types, finishes, and characteristics.
- D. Samples:
 - 1. Submit two samples, size as directed by the Engineer, illustrating seam, external and/or internal corners, valley, ridge, junction to vertical dissimilar surface, material and finish.

1.5 QUALIFICATIONS

- A. Fabricator and Installer: Company specializing in sheet metal work with minimum ten years documented experience.

1.6 PRE-INSTALLATION MEETINGS

- A. General Requirements: Administrative requirements for pre-installation meeting.
- B. Convene minimum one week prior to commencing work of this section.

1.7 DELIVERY, STORAGE AND HANDLING

- A. General Requirements: Product requirements for product storage and handling.
- B. Stack material to prevent twisting, bending, and abrasion, and to provide ventilation. Slope metal sheets to ensure drainage.
- C. Prevent contact with materials causing discoloration or staining.

1.8 COORDINATION

- A. General Requirements: Administrative requirements for coordination and project conditions.
- B. Coordinate with Work of Section 03100 and Section 04810 for installing recessed flashing reglets.

PART 2 PRODUCTS

2.1 SHEET METAL FLASHING AND TRIM

- A. Manufacturer: Any internationally recognized manufacturer having an official technical agreement to conformity with standards for the product.
- B. Aluminum Sheet: ASTM B209M, alloy and temper as required for application and finish; 0.8 mm thick; finish and color as selected by the Engineer.

2.2 ACCESSORIES

- A. Fasteners: Same material and finish as flashing metal.
- B. Underlayment: ASTM D4397, 0.25 mm polyethylene.
- C. Slip Sheet: As recommended by manufacturer.
- D. Primer: As recommended by manufacturer.
- E. Protective Backing Paint: As recommended by manufacturer.
- F. Sealant: Type as specified in Section 07900.
- G. Plastic Cement: ASTM D4586, Type I.
- H. Reglets: As recommended by manufacturer.

- I. Splash Pads: Precast concrete type, of sizes and profiles as indicated; minimum 29 MPa at 28 days, with minimum 5 percent air entrainment.
- J. Downspout Boots and/or Shoes: As recommended by manufacturer.
- K. Solder: ASTM B32; type suitable for application and material being soldered.

2.3 FABRICATION

- A. Form sections shape indicated on Drawings, accurate in size, square and free from distortion or defects.
- B. Fabricate cleats of same material as sheet metal, interlocking with sheet.
- C. Form pieces in single length sheets.
- D. Hem exposed edges on underside 13 mm; miter and seam corners.
- E. Form material with standing, batten and/or flat lock seams, except where otherwise indicated. At moving joints, use sealed lapped, bayonet-type or interlocking hooked seams.
- F. Tin edges of copper sheet to be soldered. Solder shop formed metal joints. After soldering, remove flux. Wipe and wash solder joints clean. Weather seal joints.
- G. Fabricate corners from one piece with minimum 450 mm long legs; seam and/or solder for rigidity, seal with sealant.
- H. Fabricate vertical faces with bottom edge formed outward 6 mm and hemmed to form drip.
- I. Fabricate flashings to allow toe to extend 50 mm over roofing gravel and/or paver. Return and brake edges.
- J. Fabricate guards as detailed on drawings.
- K. Fabricate gutters to profile and size indicated.
- L. Fabricate downspouts to profile and size indicated.
- M. Fabricate accessories in profile and size to suit gutters and downspouts.
 - 1. Anchorage Devices: Type recommended by fabricator.
 - 2. Gutter Supports: Type recommended by fabricator.
 - 3. Downspout Supports: Type recommended by fabricator.
- N. Fabricate splash pans of same metal type as downspouts, dimension as recommended by fabricator.
- O. Seal metal joints.

2.4 FACTORY FINISHING

- A. Factory Finish: as recommended by finish system manufacturer.
- B. Primer Coat: Finish concealed side of metal sheets with primer compatible with finish system, as recommended by finish system manufacturer.

PART 3 EXECUTION

3.1 EXAMINATION

- A. General Requirements: Administrative requirements for coordination and project conditions.
- B. Verify roof openings, curbs, pipes, sleeves, ducts, and vents through roof are solidly set, reglets in place, and nailing strips located.
- C. Verify roofing termination and base flashings are in place, sealed, and secure.

3.2 PREPARATION

- A. Install starter and edge strips, and cleats before starting installation.
- B. Install surface mounted reglets to lines and levels indicated on Drawings. Seal top of reglets with sealant.
- C. Paint concealed metal surfaces with protective backing paint to minimum dry film thickness of 0.4 mm.

3.3 INSTALLATION

- A. Install work in accordance with the drawings, to the manufacturer's recommendations and to the approval of the Engineer.

3.4 FIELD QUALITY CONTROL

- A. General Requirements: Quality requirements for testing and inspection services, and execution requirements for testing, adjusting and balancing.
- B. Inspection will involve surveillance of Work during installation to ascertain compliance with specified requirements.

3.5 SCHEDULES

- A. As indicated on drawings and where directed by the Engineer.

END OF SECTION