



PRODUCT SPECIFICATIONS

B & B Sheet Metal, 25-40 50th Avenue,
Long Island City, New York 11101
PHONE: 718-433-2501; FAX: 718-433-2709;
EMAIL: info@bbsheetmetal.com
WEBSITE: www.bbsheetmetal.com

SECTION 07 63 13 - ROOF DRAINAGE SHEET METAL

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes: [Custom fabricated] [Manufactured] sheet metal fabrications to convey rainwater from roof areas including:
1. Gutter Systems.
 - a. Americraft Gutter System.
- B. Related sections:
1. Section [07 50 00 - Membrane Roofing] [_____]: Roof system to coordinate with roof drainage sheet metal.
 2. Section 07 62 00 - Sheet Metal Flashings and Trim: Sheet metal flashings, counter flashings, and trim installed as part of roof system to prevent water penetration.
 3. Section 07 92 00 - Joint Sealants: Sealants and backing material used for installation of sheet metal.

1.2 REFERENCES

- A. American Society for Testing and Materials (ASTM):
1. ASTM A167 - Stainless and Heat-Resisting Chromium-Nickel Steel Plate, Sheet, and Strip.
 2. Section A308 - Steel Sheet, Terne (Lead-Tin Alloy) Coated by Hot-Dip Process.
 3. ASTM A653 - Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by Hot-Dip Process.
 4. ASTM B32 - Solder Metal.
 5. ASTM B101 - Lead-Coated Copper Sheet and Strip for Building Construction
 6. ASTM B209 - Aluminum and Aluminum-Alloy Sheet and Plate.
 7. ASTM B370 - Copper Sheet and Strip for Building Construction.
- B. National Roofing Contractors Association (NRCA): NRCA Roofing Manual.



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- C. Sheet Metal and Air Conditioning Contractors National Association (SMACNA) – SMACNA Architectural Sheet Metal Manual.

1.3 SUBMITTALS

- A. Submit in accordance with Section 01 33 00 - Submittal Procedures:
 - 1. Product data.
 - 2. Shop drawings for roof drainage sheet metal items showing profiles, dimensions, material gauges, fastening methods, and installation details.
 - 3. Sample of selected material and finish.
 - 4. Manufacturer's installation and maintenance instructions.

1.4 QUALITY ASSURANCE

- A. Perform work in accordance with applicable NRCA Roofing Manual and SMACNA Architectural Sheet Metal Manual details and requirements.

1.5 HANDLING

- A. Stack preformed material to prevent twisting, bending, or abrasion. Provide ventilation.
- B. Prevent contact with materials during storage which may cause discoloration, staining, or damage.

PART 2 - PRODUCTS

2.1 ACCEPTABLE MANUFACTURERS

- A. B & B Sheet Metal, Inc.
25-40 50th Avenue
Long Island City, New York 11101;
P: 718-433-2501 F: 718-433-2709
www.bbsheetmetal.com.
- B. Requests to use equivalent products of other manufacturers shall be submitted in accordance with Section 01630 - Product Substitution Procedures.



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2.2 MATERIALS

- A. Galvanized sheet steel: Zinc-coated steel sheet complying with ASTM A653, 26 gauge thick.
- B. Copper sheet: Plain copper sheet complying with ASTM B370 and weighing [16] [20] ounces per square foot.
- C. Pre-patinaed copper sheet: Copper sheet weighing 16 ounces per square foot and complying with ASTM B370 with greenish-brown patina oxidation film; Evergreen Copper as provided by B & B Sheet Metal.
- D. Lead-coated copper: Copper sheet with a thin lead coating complying with ASTM B101 and weighing 16 ounces per square foot.
- E. Aluminum sheet: 0.025 inch thick aluminum sheet complying with ASTM B209 and finished with thermoset polyester enamel finish.
 - 1. Color: [Brown] [High gloss white] [Bronze].
- F. Stainless steel: [26] [24] gauge corrosion resistant chromium, tin, and steel alloy complying with ASTM A167.
- G. Terne-coated stainless steel: 26 gauge stainless steel sheet with a hot dipped lead and tin terne coating complying with ASTM A167 and ASTM A308.
- H. Sealant: [Silicone] [Polyurethane] [Acrylic] [_____] type specified in Section 07 92 00 - Joint Sealants.
- I. Solder: ASTM B32.

2.3 GUTTER SYSTEM

- A. Provide gutter system as indicated on Drawings and reviewed shop drawings to collect water at roof edges and convey to downspouts including all components and accessories for a complete, secure, functional system; Americraft Gutter System as manufactured by B & B Sheet Metal.
- B. Material: [Plain copper sheet.] [Evergreen pre-patinaed copper sheet.] [Lead-coated copper sheet.] weighing 18 ounces per square foot.
- C. Shape and size: Half round profile, [5] [6] inches wide in maximum lengths up to 18 feet in order to eliminate field joints.



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- D. Accessories: Provide gutter system with the following and other accessories manufactured by B & B Sheet Metal and as indicated on Drawings and reviewed shop drawings or as otherwise required for a complete, secure, functional installation. Accessory sizes shall be compatible with gutter width. Where appropriate fabricated accessories from same material and finish as gutter.
1. Gutter connector: Metal strap connector with locking device and neoprene gasket for joining and sealing two lengths of gutter.
 2. Fascia hanger: Strap type anchor fitting under gutter for attachment of fascia panels in front of gutter.
 3. Miter/corner: Half round seamless [inside] [outside] mitered corner piece for connecting two intersecting gutter sections.
 4. Soldered stop end: Half round gutter end cap to be installed by soldering.
 5. Push-in stop end: Half round gutter end cap with neoprene gasket. Installed by pushing into gutter.
 6. Ball stop end: Quarter ball gutter end cap installed by soldering,
 7. Gutter hook: J shaped strap for suspending gutter from roof structure.
 8. Leaf protector: Perforated half-round piece with fixing brackets installed on top of gutter to prevent gutter and downspouts being clogged with leaves. Provided in 72-3/4 inches lengths.
 9. Gutter sieve: Dome-shaped wire piece inserted into gutter outlet to prevent leaves and other debris entering downspout.
 10. Star outlet: Funnel shaped outlet to convey water from gutter to downspout and installed with folding tabs.
 11. Gutter outlet: Cylinder shaped outlet to convey water from gutter to downspout and installed by soldering.
 12. Elbow: Seamless pipe connector forming 72 degrees angle.
 13. Downspout bracket: Strap bracket for supporting downspouts with threaded socket for wall attachment.



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14. Downspout connector: Cylinder shaped piece for connecting two sections of downspout.

2.4 FABRICATION

- A. Fabricate sections to profiles and dimensions indicated on Drawings and reviewed shop drawings.
- B. Linear components: Form in longest possible lengths with 8 foot as minimum.
- C. Intersections: Cope to fit accurately and solder.
- D. Edges: Turn back all exposed edges to form 1/2 inch hem.
- E. Soldering: Clean and tin materials. Completely fill seams with solder. Soldering on exposed finished surfaces shall be neat, full flowing, and smooth. after soldering, remove flux and wipe and wash joints clean.

PART 3 - EXECUTION

3.1 PREPARATION

- A. Coordinate provision of roof drainage sheet metal with type and installation of exterior walls and parapets, roof deck and membrane, wood blocking and nailers, exterior wall finishes, and other work related to sheet metal.
- B. Deliver sheet metal to site in time for accurate placement and coordination with other work.
- C. Verify roof membrane terminations and base flashings are in place, sealed, and secure.
- D. Coat dissimilar materials in contact with sheet metal:
 - 1. Concrete and masonry: One coat bituminous paint.
 - 2. Wood: 2 coats aluminum paint.

3.2 INSTALLATION

- A. Install roof drainage sheet metals in accordance with Drawings, reviewed shop drawings, manufacturer's instructions and standards of workmanship as published by SMACNA.
- B. Do not allow sheet metal to come in contact with dissimilar materials.



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- C. Do not install bent, twisted, scratched, or otherwise damaged sheet metal fabrications. Remove from site and replace.
- D. Erect sheet metal plumb and level without bulges or waves.
- E. Fit sheet metal fabrications tight in place. Make corners square, and surfaces true and straight in planes.
- F. Secure sheet metal in place using concealed fasteners unless shown otherwise. Lap and seal all joints. Exposed fasteners shall be covered with sealant.
- G. Protect finishes of exposed to view sheet metal fabrications. Avoid gouging, scratching, and denting. Use cotton gloves when handling and installing unprotected sheet metal in order to avoid soiling exposed to view surfaces.

3.3 CLEANING

- A. Remove excess sealant by moderate use of mineral spirits or other solvent acceptable to sealant manufacturer.
- B. Exercise care in removing mortar, cementitious materials, and sand from roof drainage sheet metal. Do not wipe surfaces in order to avoid scratching.
- C. Wash exposed surfaces with solution of mild detergent applied with soft cloth. Wipe surfaces clean.

END OF SECTION