
PART 1 - GENERAL1.1 RELATED
REQUIREMENTS

- .1 Section 07 52 00 Modified bitumen membrane roofing.

1.2 REFERENCES

- .1 The Aluminum Association Inc. (AAI)
 - .1 AAI-Aluminum Sheet Metal Work in Building Construction-2002.
 - .2 AAI DAF45-03, Designation System for Aluminum Finishes.
- .2 American Society for Testing and Materials International (ASTM)
 - .1 ASTM B 370-03, Standard Specification for Copper Sheet and Strip for Building Construction.
- .3 Canadian Roofing Contractors Association (CRCA)
 - .1 Roofing Specifications Manual 1997.
- .4 Canadian General Standards Board (CGSB)
 - .1 CAN/CGSB-51.32-M77, Sheathing, Membrane, Breather Type.
 - .2 CAN/CGSB-93.1-M85, Sheet Aluminum Alloy, Prefinished, Residential.
- .5 Canadian Standards Association (CSA International)
 - .1 CSA A123.3-05, Asphalt Saturated Organic Roofing Felt.
 - .2 CSA B111-1974(R2003), Wire Nails, Spikes and Staples.
- .6 Health Canada/Workplace Hazardous Materials Information System (WHMIS)
 - .1 Material Safety Data Sheets (MSDS).

1.3 ACTION AND
INFORMATIONAL
SUBMITTALS

.1 Provide submittals in accordance with Section 01 33 00 - Submittal Procedures.

.2 Product Data:

.1 Submit manufacturer's printed product literature for sheet metal flashing systems materials, specifications and datasheet and include product characteristics, performance criteria, physical size, finish and limitations.

.2 Submit two copies WHMIS MSDS - Material Safety Data Sheets in accordance with Section 01 35 29.06 - Health and Safety Requirements.

.3 Shop Drawings:

.1 Shop drawings: submit drawings stamped and signed by professional engineer registered or licensed in Ontario, Canada.

.4 Samples:

.1 Submit duplicate 50 x 50 mm samples of each type of sheet metal material, finishes and colours.

.5 Sustainable Design Submittals:

.1 LEED Canada-NC Version 1.0 CI Version 1.0 Submittals.

.6 Quality assurance submittals:

.1 Manufacturer's Instructions: submit manufacturer's installation instructions and special handling criteria, installation sequence, cleaning procedures.

.2 Manufacturer's Field Reports: submit to manufacturer's written reports within 3 days of review, verifying compliance of Work, as described in PART 3, FIELD QUALITY CONTROL.

1.4 QUALITY
ASSURANCE

.1 Pre-Installation Meetings: convene pre-installation meeting one week prior to beginning work of this Section, with contractor's representative and Departmental Representative.

.1 Verify project requirements.

- .2 Review installation and substrate conditions.
- .3 Co-ordination with other building subtrades.
- .4 Review manufacturer's installation instructions and warranty requirements.

1.5 DELIVERY, STORAGE AND HANDLING

- .1 Deliver, store and handle materials in accordance with manufactures Requirements.
- .2 Waste Management and Disposal:
 - .1 Separate waste materials for recycling in accordance with Section 01 74 21 - Construction/Demolition Waste Management and Disposal.

PART 2 - PRODUCTS

2.1 SHEET METAL MATERIALS

- .1 Copper sheet: to ASTM B 370 temper designation 24 gauge.
- .2 Aluminum-zinc alloy coated steel sheet: to ASTM A 792/A 792M, commercial quality, chemically treated for unpainted finish.

2.2 PREFINISHED STEEL SHEET

- .1 Prefinished steel with factory applied polyvinylidene fluoride.
 - .1 Colour selected by Departmental Representative from manufacturer's standard range.
 - .2 Coating thickness: not less than 22 micrometres.
 - .3 Resistance to accelerated weathering for chalk rating of 8, colour fade 5 units or less and erosion rate less than 20 % to ASTM D 822 as follows:
 - .1 Outdoor exposure period 2500 hours.

.2 Humidity resistance exposure
period 5000 hours.

2.3 PREFINISHED ALUMINUM SHEET

- .1 Finish: factory applied coating to
CAN/CGSB-93.1 supplemented and amended as
follows:
.1 colour selected by Departmental
Representative from manufacturer's standard
range.

2.4 ACCESSORIES

- .1 Isolation coating: alkali resistant
bituminous paint.
- .2 Plastic cement: to CAN/CGSB 37.5.
.1 Maximum VOC limit 50 g/L to SCAQMD Rule
1168 to GSES GS-36.
- .3 Underlay for metal flashing: asphalt laminated
3.6 to 4.5 kg kraft paper.
- .4 Cleats: of same material, and temper as sheet
metal, minimum 5 mm wide. same as sheet metal
being secured.
- .5 Fasteners: of same material as sheet metal,
to CSA B111, flat head roofing nails of length
and thickness suitable for metal flashing
application.
- .6 Washers: of same material as sheet metal, 1
mm thick with rubber packings.
- .7 Flux: rosin, cut hydrochloric acid, or
commercial preparation suitable for materials
to be soldered.
- .8 Touch-up paint: as recommended by prefinished
material manufacturer.
.1 Maximum VOC limit 150 g/L to Standard
GS-11 to SCAQMD Rule 1113.

2.5 FABRICATION

- .1 Fabricate metal flashings and other sheet
metal work in accordance with applicable CRCA

'FL' series details.

- .2 Fabricate aluminum flashings and other sheet aluminum work in accordance with AAI-Aluminum Sheet Metal Work in Building Construction.
- .3 Form pieces in 2400 mm maximum lengths.
 - .1 Make allowance for expansion at joints.
- .4 Hem exposed edges on underside 12 mm.
 - .1 Mitre and seal corners with sealant.
- .5 Form sections square, true and accurate to size, free from distortion and other defects detrimental to appearance or performance.
- .6 Apply isolation coating to metal surfaces to be embedded in concrete or mortar.

2.6 METAL FLASHINGS

- .1 Form flashings, copings and fascias to profiles indicated prefinished anodized aluminum and copper as indicated on drawings.

2.7 REGLETS AND CAP FLASHINGS

- .1 Form recessed reglets, metal cap flashing of sheet metal to be built-in masonry work for base flashings as detailed.
 - .1 Provide slotted fixing holes and steel/plastic washer fasteners.
 - .2 Cover face and ends with plastic tape.

2.8 ALUMINUM FINISHES

- .1 Finish exposed surfaces of aluminum components in accordance with AA DAF45.
 - .1 As fabricated or mill finish:
 - .2 Clear anodic finish.
 - .3 Integral colour anodic finish: Colour to match Departmental Representative's.
- .2 Appearance and properties of anodized finishes designated by Aluminum Association as Architectural Class 1, Architectural Class 2, and Protective and Decorative: to AAMA/WDMA/CSA-101/I.S.2/A440, for coating Classes 1, 2 and 3 respectively.

PART 3 - EXECUTION3.1 MANUFACTURER'S
INSTRUCTIONS

- .1 Compliance: comply with manufacturer's written recommendations, including product technical bulletins, handling, storage and installation instructions, and datasheets.

3.2 INSTALLATION

- .1 Install sheet metal work as detailed.
- .2 Use concealed fastenings except where approved before installation.
- .3 Provide underlay under sheet metal.
 - .1 Secure in place and lap joints 100 mm.
- .4 Counterflash bituminous flashings at intersections of roof with vertical surfaces and curbs.
 - .1 Flash joints using S-lock forming tight fit over hook strips.
- .5 Lock end joints and caulk with sealant.
- .6 Install surface mounted reglets true and level, and caulk top of reglet with sealant.
- .7 Insert metal flashing into reglets or under cap flashing to form weather tight junction.
- .8 Turn top edge of flashing into recessed reglet or mortar joint minimum of 25 mm. Lead wedge flashing securely into joint.
- .9 Caulk flashing at reglets and cap flashing with sealant.

3.3 FIELD QUALITY
CONTROL

- .1 Manufacturer's Field Services:
 - .1 Provide manufacturer's field services consisting of product use recommendations and periodic site visits for inspection of product installation in accordance with manufacturer's instructions.

3.4 CLEANING

- .1 Proceed in accordance with Section 01 74 11 - Cleaning.
- .2 On completion and verification of performance of installation, remove surplus materials, excess materials, rubbish, tools and equipment.
- .3 Leave work areas clean, free from grease, finger marks and stains.