PART 1- GENERAL

1.1 RELATED REQUIREMENTS

.1 Section 07 31 13 – Asphalt Shingles.

1.2 REFERENCE STANDARDS

.1 ASTM International
- .1 ASTM A 653/A 653M-15e1, Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process.
- .2 ASTM A 792/A 792M-10(2015), Standard Specification for Steel Sheet, 55% Aluminum-Zinc Alloy-Coated by the Hot-Dip Process.
- .3 ASTM D 523-14, Standard Test Method for Specular Gloss.

.2 Canadian Roofing Contractors Association (CRCA)
- .1 Roofing Specifications Manual 2012.

.3 Canadian Sheet Steel Building Institute (CSSBI)
- .1 CSSBI B17-2002 Barrier Series Prefinished Steel Sheet: Product Performance & Applications.

.4 CSA Group
- .1 CSA A123.22-08(2013) Self-Adhering Polymer Modified Bituminous Sheet Materials Used as Steep Roofing Underlayment for Ice Dam Protection.

.5 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 including product specifications and technical data sheets for sheet metal flashing fasteners and accessory materials. 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 - Health and Safety Requirements.

.3 Shop Drawings:
- .1 Submit shop drawings for all sheet metal fabrications.
- .2 Indicate sheet thickness, flashing dimensions and fastenings. Include anchorage, expansion joints and other provisions for thermal movement.
- .3 Submit manufacturer's catalogue cut sheets for manufactured items.
- .4 Samples:

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

1.4 PRE-INSTALLATION MEETING

.1 Include sheet metal flashing and trim on agenda of pre-installation meetings of affected sections.

1.5 DELIVERY, STORAGE AND HANDLING

.1 Deliver, store and handle materials in accordance with Section 01 61 00 - Common Product Requirements.

.2 Handle and store flashing materials to prevent creasing, buckling, scratching, or other damage.

PART 2 - PRODUCTS

2.1 SUSTAINABLE REQUIREMENTS

.1 Materials and products in accordance with Section 01 47 15 – Sustainable Requirements

2.2 BASE SHEET METAL MATERIALS

.1 Aluminum-zinc alloy coated steel sheet: to ASTM A 792/A 792M, commercial quality, grade 33 with AZ180 coating, regular spangle surface, not chemically treated for paint finish, 0.61 mm base metal thickness.

2.3 PREFINISHED STEEL SHEET

.1 Prefinished steel with factory applied primer and polyvinyl chloride heat-cured topcoat.
- .1 Class F1S.
- .2 Colour selected by Departmental Representative from manufacturer's full range.
- .3 Specular gloss: 30 units +/- 5 in accordance with ASTM D 523.
- .4 Coating thickness: not less than 200 micrometres.
- .5 Resistance to accelerated weathering for chalk rating of 8, colour fade 5 units or less and erosion rate less than 20 % to ASTM D 45878 as follows:
  - .1 Cycle #4 General Metal Coatings.
  - .2 Exposure period: 2000 hours.

2.4 ACCESSORIES

.1 Isolation coating: alkali resistant bituminous paint.

.2 Self-adhesive membrane underlay and tie-in membrane for metal flashings: To CSA A123.22 or ASTM D 1970, minimum 1.0 thickness.

.3 Sealants: in accordance with Section 07 92 00, in colour to match flashing finish colour.

.4 Cleats and hook strips: of same material, and temper as sheet metal, minimum continuous. Thickness 0.61 mm same as sheet metal being secured.

.5 Nails: of same material as sheet metal, ring thread] flat head roofing nails of length and thickness suitable for metal flashing application.

2.5 FABRICATION

.1 Fabricate sheet steel flashings and other sheet steel work in accordance with applicable CRCA 'FL' series details.

.2 Form pieces in 2400 mm maximum lengths.
- .1 Make allowance for expansion at joints.

.3 Hem exposed edges on underside 12 mm.
- .1 Mitre and seal corners with sealant.

.4 Form sections square, true and accurate to size, free from distortion and other defects detrimental to appearance or performance.

.5 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 of 0.61 mm thick prefinished steel.

PART 3 - EXECUTION

3.1 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 in accordance with CRCA FL series details, FL 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.
- .2 Provide self-adhesive membrane to tie into adjacent assemblies.

.4 Lock end joints and caulk with sealant.

.5 Where flashing installed with mechanical fasteners, install fasteners in slots or oversize holes to allow expansion and contraction of flashings.

.6 Provide isolation coating or impervious self-adhesive membrane to separate aluminum items from concrete and masonry.

3.3 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.

END OF SECTION