

SECTION 07612 - Metal Roofing Systems

PART 1 GENERAL

1.01 SUMMARY

A. SECTION INCLUDES

- 1. Factory formed standing seam metal roofing panels.**
- 2. Accessories including regular and thermal seam clips, flashings, closures and sealants.**

B. RELATED SECTIONS

Section 07200 - Insulation
Section 07190 - Vapour Barrier
Section 07900 - Joint Sealant
Section 05120 - Structural steel
Section 05210 - Steel Joists
Section 05310 - Steel Deck
Section 06100 - Plywood Sheeting

C. REFERENCES

- 1. CAN/C.S.A Standard S136 latest edition for the Design of Cold Formed Steel Structural Members.**
- 2. Canadian Sheet Building Institute Standards 10M and 20M.**
- 3. National Building Code of Canada (Latest edition)**

D. SYSTEM DESCRIPTION

- 1. Roofing Panels manufactured, fabricated and installed to withstand structural and thermal movement, wind loading and weather exposure to maintain manufacturer's performance criteria without defects, damage, failure of infiltration of water.**
- 2. Design system to -40 C to 80 C.**

E. SUBMITTALS

- 1. Submit duplicate 200 x 200 mm samples of roof system, colors and finishes, in accordance with Section 01300.**
- 2. Submit shop drawings indicating type of preformed metal panels, thicknesses of metal components, size, spacing and location of supports, connections, type and locations of fastenings, sealing, finish and colour in accordance with Section 01300.**

F. PROTECTION

1. Protect prefinished steel during fabrication, transportation, site storage and erection in accordance with CSSBI Standards.

G. QUALITY ASSURANCE

1. Installer's Qualifications: Firm with 5 years experience in installation of systems similar in size and complexity to those required or this project.

H. WARRANTY

1. Submit a two year warranty for the work of this Section against defects in materials and workmanship.

PART 2 PRODUCT

A. MATERIALS

1. Air / Vapour Barrier selected in accordance with Section 07190.
2. Insulation: selected in accordance with Section 07200.
3. Sealant: in accordance with Section 07910 and manufacturer's recommendation.
4. Flashing and trims: same prefinished metal material and finish as roof panels.
5. Closures: as recommended by manufacturer.
6. Prefinished Metal Roof panels .
 - Minimum[0.61 mm] thick , [zinc coated / galvalume], commercial grade A to ASTM A446.
 - Finish: [Perspectra] series .
 - Color [].
 - Profile: interlocking standing seam at 400 mm o/c.
 - Roof panel support system: concealed fastener, purpose-made thermally responsive clip system, and allow full thermal expansion and contraction of roof sheet. Provide clips with minimum Z275 zinc coating.
 - 18 GA Z275 galvanized "Z" bars to suit insulation depth.
 - Acceptable Product: "CRS" by Classic Roofing Systems.
7. Seam clips and other fasteners: as specified by panel manufacturer, to resist wind uplift and sliding snow.
8. Ridge caps, closers and valleys.
 - Made from same material as Roof panels with matching color.
 - Vented closers has to be used, if ventilation is needed through Ridge cap,
 - CR-Vented closer system gives Air-flow values 170 cm² / 1meter (8 sqinch / 1ft)
 - Solid closer can be used, if ventilation is not needed trough Ridge cap.

9. Snow Fence [One] [two] pipe system:
- Galvalume pipe minimum 32 mm diameter and 1.3 mm wall thickness.
 - Galvanized base combination fastened to roof seam.
 - All bolts, nuts and washers stainless steel.
 - Acceptable Product: "CR - SF" by Classic Roofing Systems.
10. Touch-up paint: as recommended by panel manufacturer

PART 3. EXECUTION

A. Verification of Conditions.

1. Examine areas and conditions under which work is to be performed and identify conditions detrimental to proper or timely completion. Do not proceed until unsatisfactory conditions have been corrected.
2. Comply with manufacturer's product data, recommendations and installations instructions for substrate verification, preparation requirements and installation.

B. PREPARATION

1. Coordinate metal roofing with other work (drainage, flashing, and trim, deck substrates, parapets, coping, walls) and other adjoining work to provide a non-corrosive and leak-proof installation.
2. Prevent galvanic action of dissimilar metals.

C. INSTALLATION

1. Install membrane air/vapour barrier primed to substrate. Ensure all joints are properly lapped, sealed and tied in with roof and wall air/vapour barriers to ensure airtight construction.
2. Closely follow details shown on drawings to provide a continuous air/vapour seal.
3. Attached thermal clip panel support using fasteners of type and size recommended by the manufacturer to resist uplift forces.
4. Lay insulation in accordance with Section 07200.
5. Install starters and other parts needed for proper roof installation.
6. Install exterior roof panels using hidden seam fasteners, with folded bottom edge hooked to the starter trim, with accordance to the manufacturer's installation procedure. Fold seam [90 degree single seam] or [180 degree double seam].
7. Install outer roof panels with folded sides and hook them to starter trim or use gable-end flashing, according to manufacturer's installation procedure
8. Install Snow Fence Base combination to every second seam in proper distance from roof edge with accordance to the manufacturer recommendations. No holes allowed through the roof panel or seam.
9. Remove manufacturer's protective film from surfaces of roofing panels.

- 10. Install ridge cap and metal closures in accordance with manufacturer's specifications.**
- 11. Touch-up minor paint abrasions with touch-up paint and clean the roof by dry wiping.**
- 12. No exposed fasteners allowed, unless approved by the architect.**