

PART 1 - GENERAL

- 1.1 WORK INCLUDED .1 This section specifies requirements for providing all labour, tools, materials, and equipment for exterior waterproofing (horizontal and vertical) on below grade exterior surfaces of noted precast concrete wet well
- 1.2 RELATED WORK .1 Cast-in-place concrete: Section 03 30 00  
.2 Manholes, Catch Basins and Structures: Section 33 39 00
- 1.3 QUALITY ASSURANCE .1 Membrane: applied by applicator trained and approved by manufacturer for application of its products.  
.2 Applicators: minimum 5 years proven experience.  
.3 Contractor shall notify manufacturer's representative as to work start-up by applicator.  
.4 Manufacturer's representative:  
.1 Inspect substrate prior to commencement of work, during application of membrane and upon completion of work.  
.2 Provide technical assistance to applicator and assist where required in correct installation of membrane.
- 1.4 DELIVERY, STORAGE AND HANDLING .1 Deliver materials to the job site in undamaged and original packaging indicating the name of the manufacturer and product.  
.2 Store role materials in original packaging.  
.3 Store adhesives and primers at temperatures of 5°C and above to facilitate handling.  
.4 Keep solvent away from open flame or excessive heat.  
.5 Protect rolls from direct sunlight until ready for use.
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- 1.5 COORDINATION .1 Ensure continuity of the waterproofing membrane throughout the scope of this section.
- 1.6 ENVIRONMENTAL PROTECTION .1 Provide forced air circulation during installation and curing periods for enclosed applications.
- 1.7 WARRANTY .1 Contractor hereby warrants that the water-proofing membrane will stay in place and remain leakproof for two years from the date of completion certificate.
- .2 Waterproofing membrane manufacturer hereby warrants that the waterproofing membrane will remain in a watertight condition and will not leak as a result of faulty materials for a period of five years. Scope of warranty shall include material required to return the membrane to a watertight condition.

## PART 2 - PRODUCTS

- 2.1 MATERIALS .1 Exterior waterproofing for vertical and horizontal applications shall consist of sheet membrane waterproofing of composite sheets comprised of rubberized asphalt integrally bonded to a film of high density cross laminated polyethylene, minimum 1.5 mm (60 mils) thick. The material shall be suitable for application at low temperature.
- .1 Acceptable material: W.R. Grace Bituthene 3000, Bakor Blueskin WP200, or approved equivalent.
- .2 Exterior joint sealant shall be a non-shrink, non-hardening butyl rubber sealant.
- .1 Acceptable material: Conseal CS-202 or approved equivalent.
- .3 Exterior joint wrap shall be a non-shrink, non-hardening polyolefil back 300 mm wide joint wrap.
- .1 Acceptable material: Conseal CS-212 or approved equivalent.
- .4 Primer: as recommended by the waterproofing manufacturer.
- .5 Mastic and tapes: as recommended by membrane manufacturer.
- .6 Fillet T-joint sealant: as recommended by membrane manufacturer.

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- 2.1 MATERIALS (Cont'd)
- .7 Adhesives: as recommended by membrane manufacturer.
  - .8 Liquid membrane for detailing: as recommended by membrane manufacturer.

- 2.2 COMPATIBILITY
- .1 Ensure that all materials used are compatible.
  - .2 Provide proof of compatibility.

PART 3 - EXECUTION

- 3.1 GENERAL
- .1 Install materials only in suitable weather, when there is no threat of precipitation, and in accordance with manufacturer's instructions.

- 3.2 PREPARATION
- .1 Prime all surfaces to receive membrane waterproofing by means of roller or spray at a rate recommended by the manufacturer.
  - .2 Allow primer to dry adequately before proceeding with membrane. Avoid puddles.
  - .3 Treat only as much area as can be covered with membrane the same day. Primed surfaces not covered by waterproofing membrane during the same working day must be reprimed.
  - .4 Metal surfaces must be free of grease, oil dirt, loose paint, rust or other contaminants.
  - .5 Concrete surfaces shall be smooth, clean, dry and free of foreign matter.

- 3.3 APPLICATION
- .1 Do waterproofing work in accordance with membrane manufacturers printed application instructions.
  - .2 Apply membrane fully adhered to surfaces as indicated.
  - .3 Lap membrane joints minimum 300mm. Roll all seams continuously.
  - .4 Install reinforcing strip of membrane waterproofing over all outside corners. Install reinforcing strips prior to field membrane application.
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3.3 APPLICATION  
(Cont'd)

- .5 Centre reinforcing strip of membrane waterproofing over non-working joints and cracks up to a maximum of 5 mm. Width of reinforcing strip as recommended by manufacturer.
- .6 Notify Engineer of non-working joints over 5 mm and treat as directed.
- .7 Apply liquid mastic to horizontal and vertical terminations.
- .8 Seal daily terminations with mastic.
- .9 Seal penetrations through membrane with liquid membrane and sheet membrane as recommended by manufacturer.

PART 1 - GENERAL

- 1.1 WORK INCLUDED .1 This section specifies requirements for supplying and installing the sheet membrane air/vapour barrier system where shown on the Drawings and herein specified.
- 1.2 RELATED WORK .1 Rough Carpentry: Section 06 10 00  
.2 Sealants: Section 07 92 00  
.3 Hollow Metal Doors and Frames Section 08 11 14
- 1.3 REFERENCES .1 CAN/CGSB-51.34-M86 Vapour Barrier, Polyethylene Sheet, for Use in Building Construction.  
.2 CAN/CGSB-51.32-M77 Sheathing, Membrane Breather Type.

PART 2 - PRODUCTS

- 2.1 SHEET VAPOUR BARRIER .1 Exterior wall building wrap: single ply spunbonded polyolefin type.
- 2.2 ACCESSORIES .1 Joint sealing tape: air resistant pressure sensitive adhesive tape, type recommended by vapour barrier manufacturer, 50mm wide for lap joints and perimeter seals, 25mm wide elsewhere.  
.2 Sealants: as specified in Section 07 92 00.  
.3 Staples: minimum 6mm leg.  
.4 Moulded box vapour barrier: factory-moulded polyethylene box for use with recessed electric switch and outlet device boxes.
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PART 3 - EXECUTION

- 3.1 INSTALLATION .1 Install and inspect services prior to installing retarder.
- .2 Install sheet vapour retarder ceiling assemblies prior to installation of plywood to form continuous retarder.
- .3 Use sheets of largest practical size to minimize joints.
- .4 Inspect for continuity. Repair punctures and tears with sealing tape before work is concealed to the satisfaction of the Departmental Representative.
- 3.2 EXTERIOR SURFACE OPENINGS .1 Cut sheet vapour retarder to form openings, lap and seal material to frame.
- 3.3 PERIMETER SEALS .1 Seal perimeter of sheet vapour barrier as follows:  
.1 Apply continuous bead of sealant to substrate at perimeter of sheets.  
.2 Lap sheet over sealant and press into sealant bead.  
.3 Install staples through lapped sheets at sealant bead into wood substrate.  
.4 Allow for no gaps in sealant bead. Smooth out folds and ripples occurring in sheet over sealant.
- 3.4 LAP JOINT SEALS .1 Seal lap joints of sheet vapour barrier as follows:  
.1 Attach first sheet to substrate.  
.2 Apply continuous bead of sealant over solid backing at joint.  
.3 Lap adjoining sheet minimum 150mm and press into sealant bead.  
.4 Install staples through lapped sheets at sealant bead into wood substrate.  
.5 Allow for no gaps in sealant bead. Smooth out folds and ripples occurring in sheet over sealant.
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3.5 ELECTRICAL  
BOXES

- .1 Seal electrical switch and outlet device boxes that penetrate vapour barrier as follows:
  - .1 Install moulded box vapour barrier.
  - .2 Apply sealant to seal edges of flange to main vapour barrier and seal wiring penetrations through box cover.

3.6 OPENINGS

- .1 Equip openings with factory site installed air barrier and vapour retarder material for sealing to building air barrier and vapour retarder.
  - .1 Material: compatible with building air barrier and vapour retarder materials to provide required air tightness and vapour diffusion control.
  - .2 Material width: adequate to provide required air tightness and vapour diffusion control to building air barrier and vapour retarder from interior.

PART 1 - GENERAL

- 1.1 WORK INCLUDED .1 This section specifies asphalt shingle roofing and accessories including flashing, fascia, soffit, eavestroughs/downspouts as shown on the Project Drawings.
- 1.2 RELATED WORK .1 Rough Carpentry: Section 06 10 00  
.2 Sealants: Section 07 92 00
- 1.3 REFERENCES .1 CSA A123.1/A123.5-05(R2010), Asphalt Shingles Made from Organic Felt and Surfaced with Mineral Granules/Asphalt Shingle Application on Roof Slopes 1:3 and Steeper.  
.2 CAN/CSA A123.3-05(R2010), Asphalt Saturated Organic Roofing Felt.  
.3 CAN/CGSB-93.2-M91, Pre-finished Aluminum Siding, Soffits and Fascia, Prefinished for Residential Use.
- 1.4 STORAGE AND HANDLING .1 Provide and maintain dry, off-ground weatherproof storage.  
.2 Remove only in quantities required for same day use.
- 1.5 WARRANTY MATERIALS .1 Provide one (1) bundle of shingles in original wrapper for maintenance purposes.
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PART 2 - PRODUCTS

- 2.1 MATERIALS
- .1 Asphalt shingles: to CSA A123.1.
    - .1 Type: double layer laminate, extra-heavy fiber glass mat, 152 mm exposure, minimum 30 year warranty and minimum wind uplift to 100 mph (150 km/hr).
    - .2 Colour: as selected by the Departmental Representative.
    - .3 Texture: as selected by Departmental Representative.
  - .2 Building paper, and underlay for metal flashing: to CSA A123.3 organic felt No. 15.
  - .3 Cement: a high quality black asphaltic plastic cement used for cementing shingle tabs and roof flashings.
  - .4 Metal drip edge: minimum base aluminum thickness 26 gauge prefinished aluminum, white in colour.
  - .5 Nails: galvanized steel, sufficient length to penetrate 19 mm into deck.
  - .6 Prefinished aluminum fascia and continuous soffit vent system with factory applied coating to CAN/CGSB-93.2 supplemented and amended as follows:
    - .1 Type SF, base metal thickness 26 gauge.
    - .2 Class 1.
    - .3 Colour: white.
    - .4 Fasteners, hangers, clips, starter strips and other devices: of same material as sheet metal, of length and thickness suitable for application.
  - .7 Ridge vent: shingle-over ridge vent system, polypropylene construction with interior baffle system to prevent rain/snow infiltration complete with end caps.
  - .8 Eave protection: self adhering, waterproof, glass fibre reinforced rubberized asphalt membrane.
- 2.2 SOFFIT AND FASCIA FABRICATION
- .1 Fabricate aluminum soffit, fascias, flashings and other sheet aluminum work in accordance with Aluminum Association Aluminum Sheet Metal Work in Building Construction.
  - .2 Form pieces in 2.44 m maximum lengths. Make allowance for expansion at joints.

2.2 SOFFIT AND  
FASCIA FABRICATION  
(Cont'd)

- .3 Hem exposed edges on underside 12 mm. Lap 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 Form copings and fascias to profiles indicated of prefinished aluminum.

2.3 GUTTERS AND  
DOWNSPOUTS

- .1 Gutters and downspouts to be fabricated from 19 gauge thick aluminum sheet, factory prefinished white, size and profile indicated.
- .2 Gutters and downspouts to be seamless and continuous. Prefinished surface toward outside face, and face of seams.
- .3 Provide goosenecks, strainer baskets, and necessary fasteners.
- .4 Gutter fasteners: purpose made, prefinished white, aluminum nails, 150 mm long x 6 mm.

PART 3 - EXECUTION

3.1 APPLICATION

- .1 Install drip edge along eaves and rake ends, overhanging 12 mm, with minimum 75 mm flange extending onto roof decking and 38 mm down fascia. Nail to deck at 200 mm oc. Keep bottom edge of drip flange (at 45° angle bend) 5 mm to 9.5 mm away from fascia.
- .2 Eave protection:
  - .1 Apply eave protection along roof eaves (2 wythes), along rake edges (1 wythe), and at ridge vents (1 wythe total) or at other penetrations penetrating roof surface, all in accordance with manufacturer's recommendations.
  - .2 Extend eave protection from fascia to point on roof minimum 600 mm beyond inside face of exterior wall.
  - .3 Overlap end joints minimum 150 mm. Lap second course minimum 100 mm over top selvedge from course to course.
  - .4 Ensure ambient and surface temperatures are above 5°C during installation.

- 3.1 APPLICATION (Cont'd)
- .3 Apply building paper underlayment parallel to eaves over remaining roof area. Lap each layer at 100 mm at edges and 150 mm at ends.
  - .4 Do asphalt shingle work in accordance with CAN/CSA-A123.5 except where specified otherwise, and as follows:
    - .1 Provide ridge shingles as required. Start ridges at end away from prevailing wind direction. Bend shingle down to extend equal distance on each side of ridge.
    - .2 Cement shingles at three (3) places spaced equally across length of shingle, using 25 mm diameter spot of adhesive at all locations where "self-stick" installation is inadequate.
    - .3 Provide minimum four nails/shingle.
  - .5 Install ridge vent along ridge of roof. Cover with cap shingles. Use additional cement where required to ensure no blow-off. Cap ends.
- 3.2 INSTALLATION OF ACCESSORIES
- .1 Install soffits and fascias as detailed.
  - .2 Use concealed fastenings except where approved before installation.
  - .3 Lock end joints and caulk with sealant.
- 3.3 GUTTER AND DOWNSPOUT INSTALLATION
- .1 Install gutters and secure to building at 600 mm oc, with aluminum nails. Ensure positive drainage to downspouts. Caulk edge of gutters to face of fascia.
  - .2 Install downspouts, and rubber booting to lead water to rain water pick-up system. Secure downspouts to wall with straps at 1.8 m oc, minimum 3 straps on each downspout.
- 3.4 CLEAN-UP
- .1 Upon completion of the work, clean area of all unused material, packages and containers.
  - .2 Remove deposits, stains, and protection and clean metals left unpainted and exposed to view with cleaners recommended by the manufacturer.

PART 1 - GENERAL

- 1.1 RELATED SECTIONS
- .1 Section 06 10 00 - Rough Carpentry.
- 1.2 REFERENCES
- .1 American National Standards Institute (ANSI)  
.1 ANSI A135.6-06, Hardboard Siding Standard.
- .2 ASTM International  
.1 ASTM D 5116-10, Standard Guide For Small-Scale Environmental Chamber Determinations of Organic Emissions From Indoor Materials/Products.
- .3 Canadian General Standards Board (CGSB)  
.1 CAN/CGSB-51.32-M77, Sheathing, Membrane, Breather Type.
- .4 CSA International  
.1 CSA B111-1974(R2003), Wire Nails, Spikes and Staples.  
.2 CSA O121-08, Douglas Fir Plywood.  
.3 CSA O151-09, Canadian Softwood Plywood.  
.4 CAN/CSA-Z809-08, Sustainable Forest Management.
- .5 Environmental Choice Program (ECP)  
.1 CCD-045-95, Sealants and Caulking Compounds.
- .6 Forest Stewardship Council (FSC)  
.1 FSC-STD-01-001-2004, FSC Principle and Criteria for Forest Stewardship.
- .7 National Lumber Grading Authority (NLGA)  
.1 NLGA Standard Grading Rules for Canadian Lumber, 2014.
- .8 Sustainable Forestry Initiative (SFI)  
.1 SFI-2010-2014 Standard.
- 1.3 ACTION AND INFORMATIONAL SUBMITTALS
- .1 Submit in accordance with Section 01 33 00 - Submittal Procedures.
- .2 Product Data:  
.1 Submit manufacturer's instructions, printed product literature and data sheets for wood siding and include product characteristics, performance criteria, physical size, finish and limitations.  
.2 Submit two (2) copies of WHMIS MSDS in accordance with Section 01 35 29 - Health and Safety
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- 1.3 ACTION AND INFORMATIONAL SUBMITTALS (Cont'd)
- .2 Product Data:(Cont'd)
    - .2 (Cont'd) Requirements. Indicate VOC's for caulking materials during application and curing.
  - .3 Shop Drawings:
    - .1 Submit drawings stamped and signed by professional engineer registered or licensed in Province of Prince Edward Island, Canada.
- 1.4 QUALITY ASSURANCE
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- .1 Test Reports: submit certified test reports showing compliance with specified performance characteristics and physical properties.
  - .2 Certificates: submit product certificates signed by manufacturer certifying materials comply with specified performance characteristics and criteria and physical requirements.
- 1.5 DELIVERY, STORAGE AND HANDLING
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- .1 Deliver, store and handle materials in accordance with Section 01 61 00 - Common Product Requirements and with manufacturer's written instructions.
  - .2 Delivery and Acceptance Requirements: deliver materials to site in original factory packaging, labelled with manufacturer's name and address.
  - .3 Storage and Handling Requirements:
    - .1 Store materials in a dry location and in accordance with manufacturer's recommendations in clean, dry, well-ventilated area.
    - .2 Store and protect wood siding from nicks, scratches, and blemishes.
    - .3 Replace defective or damaged materials with new.
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PART 2 - PRODUCTS

- 2.1 MATERIALS
- .1 Lumber siding: to NLGA Standard Grading Rules for Canadian Lumber.
    - .1 Bevel siding: western red cedar grade, factory primed, 12mm thick, 140mm wide, mitred trim pieces and corner width.
    - .2 CAN/CSA-Z809 or FSC certified.
  - .2 Exterior wall sheathing paper: to CAN/CGSB-51.32 spunbonded olefin type coated as indicated.
  - .3 Fasteners: nails to CSA B111, hot galvanized steel sized as required, ring thread type with flat head.
  - .4 Sealants: to Section 07 92 00.

PART 3 - EXECUTION

- 3.1 EXAMINATION
- .1 Verification of Conditions: verify that conditions of substrate previously installed under other Sections or Contracts are acceptable in accordance with manufacturer's written instructions.
    - .1 Visually inspect substrate in presence of Departmental Representative.
    - .2 Inform Departmental Representative of unacceptable conditions immediately upon discovery.
    - .3 Proceed with installation only after unacceptable conditions have been remedied and after receipt of written approval to proceed from Departmental Representative.
- 3.2 MANUFACTURER'S INSTRUCTIONS
- .1 Compliance: comply with manufacturer's written data, including product technical bulletins, product catalogue installation instructions, product carton installation instructions, and data sheets.
- 3.3 INSTALLATION
- .1 Install hardboard to manufacturers' written instructions.
  - .2 Install one layer sheathing paper horizontally by stapling, lapping edges 100 mm.
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- 3.3 INSTALLATION (Cont'd)
- .3 Install sill flashings, wood starter strips, inside corner flashings, edgings and flashings over openings.
  - .4 Fasten wood siding in straight, aligned lengths to furring and blocking at 400mm on centre maximum using two nails at each fixing location. Intermediate butt joints are not permitted. Stagger butt joints not less than 800 mm and distribute evenly over wall faces. Cut butt joints at 45 degrees and for vertical siding slope to outside. Seal cut surfaces. [Apply mm battens over vertical joints].
  - .5 Fasten plywood siding so that edges are supported. Maintain 1.5 mm wide gap between sheets. Nail at 300 mm on centre along intermediate supports 400mm on centre and 150 mm along edges. Caulk vertical joints, windows and doors.
  - .6 For plywood clapboard siding: install starter strip. Place bottom of first course 3 mm below starter strip. Nail along bottom edge at studs, penetrate siding and courses lap. Butt joints on studs and nail top and bottom each side. Adjacent siding pieces to touch lightly at butt joints. Leave 5 mm space between siding and window and door trim, caulk with sealant.
- 3.4 CLEANING
- .1 Leave Work area clean at end of each day.
  - .2 Final Cleaning: upon completion remove surplus materials, rubbish, tools and equipment in accordance with Section 01 10 10.
  - .3 Waste Management: separate waste materials for reuse and recycling in accordance with Section 01 10 10.
    - .1 Remove recycling containers and bins from site and dispose of materials at appropriate facility.
- 3.5 PROTECTION
- .1 Protect installed products and components from damage during construction.
  - .2 Repair damage to adjacent materials caused by wood siding installation.

PART 1 - GENERAL

- 1.1 RELATED WORK .1 Rough Carpentry: Section 06 10 00  
.2 Sealants: Section 07 92 00
- 1.2 REFERENCES .1 ASTM D523-2014 Test Method for Specular Gloss.  
.2 CAN/CGSB-51.32-M77 Sheathing, Membrane, Breather Type.  
.3 CAN/CGSB-93.1-M85 Sheet, Aluminum Alloy, Prefinished, Residential.  
.4 Aluminum Association Aluminum Sheet Metal Work in Building Construction.  
.5 Canadian Roofing Contractors Association (CRCA) Manual.
- 1.3 SUBMITTALS .1 Submit duplicate 50 mm x 50 mm samples of each type of sheet metal material, colour and finish.  
.2 Submit shop drawings in accordance with Section 01 33 00.

PART 2 - PRODUCTS

- 2.1 PREFINISHED STEEL SHEET FLASHING .1 Prefinished steel, with factory applied silicone modified polyester.  
.1 Class F1S.  
.2 Colour as per Departmental Representative.  
.3 Specular gloss: 30 units +/- 5 in accordance with ASTM D523.  
.4 Thickness - 0.76 mm (22 gauge).
- 2.2 ALUMINUM SHEET .1 Base sheet: proprietary utility sheet, plain, 0.60 mm (24 gauge) minimum thickness.  
.2 Finish: factory applied coating to CAN/CGSB-93.1 supplemented and amended as follows:  
.1 Type 1 - postforming sheet.  
.2 Class F1S - finish coated one side.
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- 2.2 ALUMINUM SHEET .2 Finish:(Cont'd)  
(Cont'd) .3 Colour of coating: to be commercially uniform  
and match the colour selected by the Departmental  
Representative.
- 2.3 ACCESSORIES .1 Isolation coating: alkali resistant bituminous  
paint.
- .2 Underlay for metal flashing: dry sheathing to  
CAN/CGSB-51.32.
- .3 Sealants: as per Section 07 92 00.
- .4 Cleats: of same material as flashing specified, and  
temper as sheet metal, minimum 50 mm wide. Thickness  
0.76 mm (22 gauge).
- .5 Fasteners: of same material as sheet metal, ring  
thread flat head roofing nails of length and  
thickness suitable for metal flashing application.
- .6 Washers: of same material as sheet metal, with  
rubber packings.
- 2.4 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 Aluminum Association  
Aluminum Sheet Metal Work in Building Construction.
- .3 Form pieces in 2400 mm maximum lengths. Make  
allowance for expansion at joints.
- .4 Hem exposed edges on underside 12 mm. Miter 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.
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2.5 METAL CAP  
FLASHINGS

- .1 Form flashings, copings and fascias to profiles of prefinished steel.
- .2 Form flashings in accordance with CRCA FL series details. Provide slotted fixing holes and steel/plastic washer fasteners. Cover face and ends with plastic tape.

PART 3 - EXECUTION

3.1 INSTALLATION

- .1 Install sheet metal work in accordance with CRCA FL series details, Aluminum Sheet Metal Work in Building Construction.
- .2 Use concealed fastenings except where approved before installation.
- .3 Provide underlay under sheet metal. Secure in place and lap joints 100 mm.
- .4 Counterflash bituminous flashings at intersections of roof with vertical surfaces and curbs. 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 under cap flashing to form weathertight junction.
- .8 Caulk flashing at reglet cap flashing with sealant.

PART 1 - GENERAL

- 1.1 WORK INCLUDED .1 This Section specifies requirements for supplying, and applying sealants as indicated.
- 1.2 RELATED WORK .1 Cast-in-place Concrete: Section 03 30 00  
.2 Rough Carpentry: Section 06 10 00.  
.3 Air/Vapour Barriers: Section 07 28 00  
.4 Wood Siding: Section 07 46 23  
.5 Metal Flashing and Trim: Section 07 62 00  
.4 Hollow Metal Doors and Frames: Section 08 11 14
- 1.3 REFERENCES .1 ASTM C920-2014, Specification for Elastomeric Joint Sealants.  
.2 CAN/CGSB-19.13-M87 Sealing Compound, One Component, Elastomeric, Chemical Curing.  
.3 CAN/CGSB-19.24-M90 Multi-component, Chemical Curing Sealing Compound.
- 1.4 DELIVERY, STORAGE AND HANDLING .1 Deliver and store materials in original wrappings and containers with manufacturer's seals and labels intact. Protect from freezing, moisture and water.
- 1.5 ENVIRONMENTAL AND SAFETY REQUIREMENTS .1 Sealant and substrate materials to be minimum 5°C.  
.2 Should it become necessary to apply sealants below 5°C, consult sealant manufacturer and follow their recommendations.  
.3 Comply with requirements of Workplace Hazardous Materials Information System (WHMIS) regarding use, handling, storage, and disposal of hazardous materials; and regarding labelling and provision of material safety data sheets acceptable to Labour Canada.
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1.5 ENVIRONMENTAL .4 Conform to manufacturer's recommended temperatures,  
AND SAFETY relative humidity and substrate moisture content for  
REQUIREMENTS application and curing of sealants including special  
(Cont'd) conditions governing use.

PART 2 - PRODUCTS

- 2.1 MATERIALS .1 Primers: type recommended by sealant manufacturer.
- .2 Joint fillers:  
.1 General: compatible with primers and sealants,  
outsized 30 to 50%.  
.2 Polyethylene, urethane, neoprene or vinyl:  
extruded closed cell foam, Shore A hardness 20.
- .3 Bond breaker: pressure sensitive plastic tape, which  
will not bond to sealants.
- .4 Sealants:  
.1 Interior and exterior caulking around perimeter  
of pressed steel frames and to base of frames to  
flooring: to CAN/CGSB-19.13, one-component, moisture  
curing, modified polyurethane, paintable, normal  
temperature range dry conditions, movement range to  
10%.  
.2 Interior control and expansion joints: to  
CAN/CGSB-19.24 multi-component sealant, self  
levelling, for joint movement up to 25%.  
.3 Interior locations including: at corner joints  
where masonry walls butt into continuous walls, at  
masonry walls and concrete floor slabs, and at  
equipment pads to floor slabs, except where another  
sealant is specified: to CGSB 19.13.
- .5 Joint cleaner: xylol, methylethyleketon or  
non-corrosive type recommended by sealant  
manufacturer and compatible with joint forming  
materials.
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PART 3 - EXECUTION

- 3.1 PREPARATION
- .1 Examine joint sizes and conditions to establish correct depth to width relationship for installation of backup materials and sealants.
  - .2 Remove by brushing, scrubbing, scraping or grinding loose mortar, dust, oil, grease, oxidation, mill scale, coatings and all other materials affecting bond of compounds from surfaces to which sealant compounds must adhere, except for painted surfaces.
  - .3 Clean down caulked metal surfaces with clean cellulose sponges or rags soaked in solvent recommended by sealant manufacturer, and wipe dry with clean cloths. Confirm solvent is not injurious to painted surfaces.
  - .4 Confirm releasing agents, coatings or other treatments have either not been applied to joint surfaces, or that they are entirely removed.
  - .5 Confirm joint surfaces are dry and frost free.
- 3.2 APPLICATION
- .1 Apply sealant products where indicated on the drawings and as outlined in Clause 2.1 of this Section.
  - .2 Where necessary to prevent staining, mask adjacent surfaces before priming and caulking.
  - .3 Prime sides of joints in accordance with sealant manufacturer's instructions immediately prior to caulking.
  - .4 Apply sealants, primers, joint fillers, and bond breaker if required, to manufacturer's instructions. Apply sealant using gun with proper size nozzle. Use sufficient pressure to fill voids and joints solid. Superficial pointing with skin bead is not acceptable.
  - .5 Form surfaces of sealant with full bead, smooth, free from ridges, wrinkles, sages, air pockets, embedded impurities. Neatly tool surface to a slight concave joint.
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- 3.3 CURING .1 Cure sealants in accordance with sealant manufacturer's instructions.
- .2 Do not cover up sealant until proper curing has taken place.
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- 3.4 CLEANING .1 Clean adjacent surfaces immediately and leave work neat and clean.
- .2 Remove excess and droppings, using recommended cleaners as work progresses.
- .3 Remove masking tape after initial set of sealant.
- .4 Do not use chemicals, scrapers, or other tools which would damage surfaces of caulked materials when excess compounds or droppings are removed. Repair Work damaged by cleaning.