

Section 07 46 19S - Preformed Steel Siding

Part 1 General

- .1 System-1: Installation over building paper or air barrier membrane, on exterior grade gypsum board or exterior grade wood sheathing.

1.2 RELATED SECTIONS

- .1 Section 01 11 00 – Summary of Work
- .2 Section 01 33 00 – Submittal Procedures.
- .3 Section 01 35 00 LEED Requirements.
- .4 Section 01 61 00 – Common Product Requirements.
- .5 Section 01 74 21 – Construction/Demolition Waste Management and Disposal.
- .6 Section 01 78 00 – Closeout Submittals.
- .7 Section 05 41 00 – Structural Metal Stud Framing.
- .8 Section 06 10 00 – Rough Carpentry.
- .9 Section 07 62 00 Sheet Metal Flashing and Trim.
- .10 Section 07 92 00 – Joint Sealing.

1.3 REFERENCES

- .1 American National Standards Institute (ANSI).
 - .1 ANSI B18.6.4-99, Thread Forming and Thread Cutting Tapping Screws and Metallic Drive Screws.
- .2 American Society for Testing and Materials International, (ASTM).
 - .1 ASTM B117-16, Standard Method Of Salt Spray (Fog) Testing.
 - .2 ASTM 2244-15a, Standard Practice for Calculation of Colour Tolerances and Colour Differences from Instrumentally Measured Colour Coordinates.
 - .3 ASTM D522/D522M-13, Standard Test Methods for Mandrel Bend Test of Attached Organic Coating.
 - .4 ASTM D968-15, Standard Test Methods for Abrasion Resistance of Organic Coatings by Falling Abrasion.
 - .5 ASTM D1005-95/2013), Standard Test Method For Measurement Of Dry-Film Thickness Of Organic Coatings Using Micrometers.
 - .6 ASTM D523, Standard Test Method for Specular Gloss.
 - .7 ASTM D2247-15, Standard Practice For Testing Water Resistance of Coatings in 100% Relative Humidity.
 - .8 ASTM D2794-93(2010), Standard Test Method For Resistance of Organic Coatings to

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- the Effects of Rapid Deformation (Impact).
- .9 ASTM D3359-09e2, Standard Test Methods For Measuring Adhesion by Tape Test.
- .10 ASTM D3363-05(2011)e2, Standard Test Method For Hardness by Pencil Test.
- .11 ASTM D4214-07(2015), Standard Test Methods For Evaluating the Degree of Chalking of Exterior Paint Films.
- .3 Canadian General Standards Board (CGSB).
 - .1 CAN/CGSB-51.32-M77, Sheathing, Membrane, Breather Type.
 - .2 CAN/CGSB-93.4, Galvanized and Aluminum-Zinc Alloy Coated Steel Siding Soffits and Fascia, Prefinished, Residential.
 - .3 CGSB 93.5, Installation of Metal Residential Siding, Soffits and Fascia.
- .4 Canada Green Building Council (CaGBC):
 - .1 LEED Canada 2009 Rating System: LEED Canada for New Construction and Major Renovations. LEED Canada for Core and Shell Development. [Website: www.cagbc.org]
- .5 Canadian Standards Association (CSA International).
 - .1 CSA B111-1974(R2003), Wire Nails, Spikes and Staples.
- .6 Environmental Choice Program (ECP).
 - .1 CCD-045-[95], Sealants and Caulking Compounds.
- .7 SCAQMD South Coast Air Quality Management District, California State (SCAQMD):
 - .1 SCAQMD Rule #1168, June 2006
- 8. Canadian Construction Materials Centre (CCMC) number. LUX Architectural Products official CCMC number: CCMC 14137-L

1.4 DESIGN

- .1 Siding shall be designed to withstand positive wind load of [] 1 kPa and negative load of [] 0.6 kPa at a maximum allowable deflection of [] [1/180] of span between attachments.
- .2 Indicate test data supporting the above requirements on shop drawing submission.

1.5 SUBMITTALS – ACTION AND INFORMATION

- .1 Product Data: Submit manufacturer's printed product literature, specifications and data sheet in accordance with Section 01 33 00 - Submittal Procedures.
 - .1 Submit two copies of WHMIS MSDS - Material Safety Data. Indicate VOC's for caulking materials during application and curing.

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- .2 Shop Drawings:
 - .1 Submit shop drawings in accordance with Section 01 33 00 - Submittal Procedures.
 - .2 Indicate dimensions, profiles, attachment methods, schedule of wall elevations, trim and closure pieces, [soffits, fascia, metal furring, and related work].
- .3 Samples:
 - .1 Submit samples in accordance with Section 01 33 00 - Submittal Procedures.
 - .2 Submit duplicate 300 mm samples of siding material, of colour and profile specified.
- .4 Manufacturer's Instructions:
 - .1 Submit manufacturer's installation instructions.
- .5 Sustainable Design Submittals
 - .1 LEED Submittals: submit LEED submittal forms for Credit MR 4 in accordance with Section 01 32 16 LEED Submittal Forms and Section 01 35 18 LEED Requirements and the following:
 - .1 Recycled Content: provide listing of products incorporating recycled content. Include details of percentages of post- consumer and pre-consumer recycled content for materials and products. Indicate material and product costs.
 - .2 LEED Submittals: submit LEED submittal forms for Credit MR 5 in accordance with Section 01 32 16 LEED Submittal Forms and Section 01 35 18 LEED Requirements and the following:
 - .1 Regional Materials: provide evidence that project incorporates required percentage [20] [30] % of regional materials/products, showing their cost, distances from extraction to manufacture and manufacture to project site, and total cost of materials for project.

1.6 QUALITY ASSURANCE

- .1 Test Reports: certified test reports showing compliance with specified performance characteristics and physical properties.
- .2 Certificates: product certificates signed by manufacturer certifying materials comply with specified performance characteristics and criteria and physical requirements.
- .3 Manufacturer: All products and components from same manufacturer/supplier.

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1.7 DELIVERY, STORAGE, AND HANDLING

- .1 Deliver, store and handle materials in accordance with Section [01 61 00 - Common Product Requirements] [with manufacturer's written instructions].
- .2 Delivery and Acceptance Requirements:
 - .1 Deliver materials to site in original factory packaging, labelled with manufacturer's name and address.
- .3 Storage and Handling Requirements:
 - .1 Store materials [off ground] [indoors] [in dry location] and in accordance with manufacturer's recommendations in clean, dry, well-ventilated area.
 - .2 Stack panel sheets tilted to provide water run-off.
 - .3 Store and protect siding from nicks, scratches, and blemishes.
 - .4 Replace defective or damaged materials with new.
- .4 Waste Management and Disposal:
 - .1 Separate waste materials for [reuse] [and] [recycling] in accordance with Section [01 74 19 - Management and Disposal.]

Part 2 Products

2.1 ACCEPTABLE MANUFACTURER

- .1 LUX Architectural Products Inc.
 - .1 Edmonton: 14525 112 Avenue N.W., Edmonton, Alberta T5M2V5.
Phone: 780.540.0589, Toll Free: 1.800.540.0589

2.2 MATERIALS

- .1 Exterior Sheet: 0.559 base metal with Z275 zinc coating, factory prefinished to [Consultant's] [Owner's] selection.

2.3 FINISHES

- .1 Finish: Prefinished, coil coated. 1.0 mil fluoropolymer (PVDF)
- .2 Colour: As selected by Owner from manufacturer's standard colours.

2.4 SIDING/ CLADDING COMPONENTS

- .1 Metal Panel Siding: Lux Panel - Roll-formed, galvanized steel, to custom profile, for horizontal or vertical installations:

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- .1 Base Metal Thickness: 0.559 mm (24 gauge).
- .2 Exposed Face: 100 mm (4 inch).
- .3 Profile: .438 mm deep, 100.88 width, bevelled face edges, preformed interlocking joints, fastener holes pre-punched.
- . Metal Panel Siding: Lux Panel - Roll-formed, galvanized steel, to custom profile, for horizontal or vertical installations:
 - .1 Base Metal Thickness: 0.559 mm (24 gauge).
 - .2 Exposed Face: 152 mm (6 inch).
 - .3 Profile: .438 mm deep, 152.88 width, bevelled face edges, preformed interlocking joints, fastener holes pre-punched.
- .2 Exposed Metal Trim:
 - .1 Composition: Match to metal siding panel.
 - .2 Finish/Colour: Match to metal siding panel.
 - .3 Base Metal Thickness: 0.559 mm (24 gauge).
 - .4 Shapes: Starter Strip, base trim, J-Channel, Hidden Closure, Outside Corner, Inside Corner, Joiner J, Drip Cap, Window Batten, Open Outside Corner, Open Inside Corner, Three Piece Outside Corner, Two Piece J-Channel, Three Piece Inside Corner, Two Piece Joiner J, Soffit J, Fascia Trim, L Trim, Two Piece Window Batten.
- .3 Soffit:
 - .1 Colour: [custom colour] [colour match to wall panel].
 - .2 Profile: flat sheet 'V' crimped for stiffness, vents preformed with elongated slits and small perforations. Vented 0.1 m² of opening for every 30 m² of building area.
 - .3 Thickness: Match to metal siding panel, 0.559 mm.
- .4 Fascia and exposed trim:
 - .1 Colour: [custom colour] [colour match to wall panel].
 - .2 Profile: [custom] [manufacturer's standard] as indicated.
 - .3 Pattern: [plain] [pattern] surface.
 - .4 Base Metal Thickness: 0.559 mm (24 gauge).
 - .5 Profile: flat sheet "V" crimped for stiffness, preformed with elongated slits and small perforations.

2.5 FASTENERS

- .1 Screws: ANSI B18.6.4. Purpose made [aluminium alloy] [stainless steel], [cadmium plated steel].

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2.6 JOINT SEALANTS

- .1 Sealants: Section 07 92 00 – Joint Sealants.
- .2 Sealant: [one component acrylic to CGSB 19-GP-5M:
 - .1 [two component polysulphide to CAN/CGSB-19.24]
 - .2 [one component silicone to CAN/CGSB-19.18]
 - .3 [VOC content compliant with SCAQMD Rule #1168, June 2006].

2.7 MEMBRANE

- .1 Membrane: Building paper, #15 asphalt felt to CSA A123.3.
- .2 Exterior Wall Sheathing Membrane: to CAN2-51.32, [single ply] [laminated] [spunbound olefin] type [coated] [impregnated] [as indicated].

Part 3 Execution

3.1 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.

3.2 EXAMINATION

- .1 Confirm acceptability of wall sheathing of soundness, measurement and flatness.
- .2 Verify that building framing members are ready to receive siding system.

3.3 PREPARATION

- .1 Protect siding surfaces with isolation coating from concrete, mortar, plaster or other cementitious surfaces.

3.4 INSTALLATION

- .1 Install membrane on exterior sheathing horizontally by [stapling] [nailing].
 - .1 Lap horizontal edges minimum 75 mm; vertical edges minimum 150 mm.
 - .2 Install two [single] [double] layer application.
- .2 Install continuous starter strips, inside [and outside] corners, edgings, soffit, drip, cap, sill and window/door opening flashings as indicated.
- .3 Install outside corners, fillers and closure strips with carefully formed and profiled work.
- .4 Install control or expansion over and in alignment with building control or expansion joints. Install where and as indicated.

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- .5 Install components in accordance with manufacturer's written instructions.
- .6 Install siding [and attachments] [sequentially] [from sill up], to manufacturer written instructions.
- .7 Attach components to allow for thermal movement.
- .8 Install soffit and fascia cladding as indicated.
- .9 Maintain joints in exterior cladding, true to line, tight fitting, hairline joints.
- .10 Apply joint sealant at junctions with adjoining work with sealant. Do work in accordance with Section [07 92 00 - Joint Sealing].

3.5 CLEANING

- .1 Upon completion of installation, remove surplus materials, rubbish, tools and equipment barriers.
- .2 Wash interior and exterior surfaces with solution recommended by manufacturer.
- .3 Remove excess sealant as recommended by manufacturer.

END OF SECTION