



SECTION 07 42 13

CARTER FABRICATING INC.

**“FUSION” METAL WALL PANELS SPECIFICATION
(1/8” or 3/16”ALUMINUM PLATE)**

SPEC NOTE: Optional text is indicated by square brackets []. Delete unwanted items and square brackets in final specification.

PART 1 - GENERAL

1.01 SECTION INCLUDES

- .1 Aluminum plate [pressure equalized rainscreen] [wet-seal] [dry- seal] panels.
- .2 [Supply only] [Supply and install].

SPEC NOTE: Re 101.3. Items listed are available at extra cost and not included with basic panel package.

- .3 Accessories including Z-girts, roof caps, drip flashing, jamb flashing through wall flashing, and all other architectural trims, fasteners and vapour and air barriers.

1.02 RELATED REQUIREMENTS BY OTHERS

- [.1 Section 06 10 00 – Rough Carpentry]
- [.2 Section 07 21 00 – Thermal Insulation]
- [.3 Section 07 27 00 – Air Barrier]
- [.4 Section 07 92 00 – Joint Sealants]

1.03 REFERENCE STANDARDS

.1 Aluminum Panels

- .1 AAMA 2605 Voluntary Specification, Performance Requirements and Test Procedures for Superior Performing Organic Coatings on Aluminum Extrusions and Panels.
- .2 ASTM B 209 Standard Specification for Aluminum and Aluminum-Alloy Sheet and Plate.

1.04 PRE-INSTALLATION MEETINGS

- .1 Coordinate products, techniques and sequencing of related work with Section [01 31 19 - Project Meeting] [and] [01 31 19.33 - Pre-Installation Meetings].

1.05 SUBMITTALS

- .1 Under provisions of [Section 01 33 00], provide the following:
 - .1 Product Data: manufacturer's printed sheets or pages illustrating the products to be incorporated into the project.
 - .2 Shop Drawings: Detail drawings showing openings, components, panel profile, dimensions, and other details of each condition and attachment such as treatment at edges, terminations, and flashings.
 - .3 Product Samples: 150 mm x 150 mm (6" x 6") showing specified finish for each location.
 - .4 Product Test Reports: Indicate compliance of product requirements from qualified independent testing agency.
 - .5 Manufacturer's Instructions: Indicate installation requirements, rough-in dimensions, and special procedures.
 - .6 Sample Warranty: As specified by this Section.
 - .7 Maintenance Data: Panel replacement instructions and cleaning information.

1.06 QUALITY ASSURANCE

- .1 Metal Wall Panel Manufacturer Qualifications: Minimum 3 years' experience in metal fabrication and supplying metal wall panel systems.
- .2 Metal Wall Panel Installer Qualifications: Minimum 3 years' experience installing commercial metal wall panel systems.

1.07 MOCK-UP

SPEC NOTE: Mock-up is only specified for special or large projects and only upon request.

- .1 Provide a mock-up on building consisting of complete cladding system, including but not limited to metal furring, panels, securement devices, sealants, and mouldings for approval. Cladding finish and mouldings to be of finish and colour as designated by the [Architect].
- .2 Location of mock-up to be as directed by [Architect]. Size to be four panels minimum in a 2 over 2 configuration.
- .3 Modify mock-up as necessary for [Architect] approval. Mock-up [may] [may not] remain in place as part of completed work. Mock-up to represent standard for completed work.

1.08 DELIVERY, STORAGE, AND HANDLING

- .1 Handle and store products to prevent damage, soiling, and in accordance with manufacturer's instructions.
- .2 Store packaged or bundled products in original and undamaged crates with manufacturer's seals and labels intact. Do not remove from packaging or crates until required for installation.

1.09 PACKAGING WASTE MANAGEMENT

- .1 Return undamaged pallets and crates to manufacturer of systems employed. All other plastics, packaging foam, banding and fasteners are to be disposed of by panel installer.

1.10 WARRANTY

- .1 Aluminum Panels: Provide manufacturer's standard [1 year] [2 year] warranty against panel integrity

- .2 Finish Coating Performance: Provide manufacturer's standard [20 year] warranty against fading, colour change, chalking, peeling, cracking, or delaminating of the coating system.

PART 2 – PRODUCTS

2.01 MANUFACTURERS

- .1 Aluminum metal panels to be obtained as single source from Carter Fabricating Inc., 135 Devon Road, Unit 11, Brampton, ON L6T 5A4; Tel: 905.487.1684; Fax: 905.487.1685; Email: jmckinley@carterfabricating.com; Web: www.carterfabricating.com

2.02 MATERIALS

SPEC NOTE: Delete items not required.

- .1 Aluminum Wall Panels
 - .1 "Fusion" CRP-12 Carter riveted panel [Pressure Equalized Rainscreen] [wet-seal] [dry-seal] wall cladding.
 - .2 Thickness: [3.2 mm (1/8")] [4.8 mm (3/16")].
 - .3 Panel Depth: 25 mm (1") plus 25 mm (1") from panel depth to substrate i.e. 50 mm (2") from face to sub-girts.
 - .4 Aluminum Plate Material: [3.2 mm (1/8")] [4.8 mm (3/16")] plate to ASTM B 209.
 - .5 Accessories: Manufacturer's standard, as shown on drawings, and as follows:
 - .1 Z-girts: 18 ga. steel galvanized to ASTM A653 G90.
 - .2 Aluminum Extrusions: Mill finish 6061-T6.
 - .3 Rivets: Structural aluminum, colour matched to panel.
 - .4 Sub-Girt Screws: Buildex #12 x 1" self-drilling, hex washer head, with Climaseal finish.

SPEC NOTE: Re 2.02.7.5. Specify #10 x 1/2" fastener for metal substrate, #12 x 1-1/2" fastener for wood substrate, and Tapcon fastener for concrete substrate.

- .5 Mid-Clip Screws: [#10 x 1/2", Type 410 s.s.] [Buildex #12 x 1-1/2" self drilling hex washer, with Climaseal finish] [Tapcon 1/4" dia. x 2-3/4" 410 s.s. hex head].

2.03 FABRICATION

- .1 Aluminum Panels: [3 mm (1/8") [4.8 mm (3/16") solid thickness pan formed units, with PPG Duranar finish.
- .2 Fabrication Method: Rout and return or radius bent system with [non-welded] [welded] corners and [3.2 mm (1/8") radius pan formed edges] [back-cut 90° edges].
 - .3 Fabricated Panel Tolerances
 - .1 Length: Plus 1.6 mm (0.062 inch).
 - .2 Width: Plus 1.6 mm (0.062 inch).
 - .3 Depth: Plus or minus 0.2 mm (0.008 inch).
 - .4 Panel Bow: 0.8 percent maximum of panel length or width.
 - .5 Squareness: 5 mm (0.2 inch) maximum.
- .4 Rainscreen Panels: Provide for positive drainage of condensation and water entering at joints to exterior face of wall in accordance with [NRC "Rain Screen Principles"]. Panels to have drainage holes in bottom of each panel measuring 10 mm (3/8") diameter on 16" centres, to AAMA 508.

SPEC NOTE: Finishes below are shown as example only. Specify actual finish(es) as per coil manufacturer.

- .5 Finishes
 - [.1 PPG Duranar (PVdF) fluoropolymer containing 70% Kynar 500/Hylar 5000 resins to AAMA 620, [____ colour].]
 - [.2 [Class I .0007 #14] [Class II .0004 #17] clear anodized finish]].

PART 3 – EXECUTION

3.01 EXAMINATION

- .1 Verify that substrate conditions are acceptable prior to installation of products. Commencement of work or any parts thereof indicate acceptance of prepared substrates.
- .2 Surfaces to receive panel system barrier to be sound, dry, clean, and free from oil, grease, dirt, excess mortar or other contaminants. Fill spalled areas to provide an even plane.

3.02 PREPARATION

- .1 Protect adjacent work areas and finished surfaces from damage by this Section of Work.

3.03 INSTALLATION

- .1 Aluminum Panels
 - .1 Install panels plumb, level and true, and in accordance with manufacturer's written instructions.
 - .2 Anchor panels securely in place in accordance with fabricator's approved shop drawings.
 - .3 Installation Tolerances: Maximum deviation from horizontal and vertical alignment of installed panels not to exceed 6.4 mm (0.25") in 6.1 m (20 feet), non-cumulative.

3.04 SITE QUALITY CONTROL

- .1 Upon Owner's request, provide wall panel fabricator's site service or periodic site visit to inspect product installation in accordance with fabricator's instructions.

3.05 ADJUSTING

- .1 Repair panels with minor damage so that repairs are not discernible at a distance of 3.1 m (10'-0").
- .2 Remove and replace panels damaged beyond repair.

3.06 CLEANING

- .1 Clean installed products in accordance with manufacturer's instructions prior to Owner's acceptance.

3.07 WASTE MANAGEMENT

- .1 Remove from site damaged panels, packaging, temporary coverings, protective film and other debris resulting from the Work of this Section.

3.08 PROTECTION

- .1 Protect installed panel finishes from damage during construction.
- .2 Provide protective measures as required to ensure that installed panels are not damaged by the work of other trades.

END OF SECTION