SECTION 10 71 13
EXTERIOR VERTICAL SUN CONTROL DEVICES

PART 1 – GENERAL

1.1 RELATED DOCUMENTS
A. The drawings and provisions of the General Conditions, and the sections included under Division 1 specification sections, apply to this section

1.2 SUMMARY
A. This section includes vertical aluminum sun control assemblies

1.3 PERFORMANCE REQUIREMENTS
A. Structural performance: provide exterior sun control device assemblies capable of withstanding the effects of load and stresses from wind loads, dead loads, snow loads and normal and expected thermal movement without evidence of permanent defects of the assemblies. System design for a mechanically fastened assembly to substructure.
   1. Wind Load as required by applicable building code
   2. Dead Load as required by applicable building code
   3. Snow Load as required by applicable building code
   4. Snow Drift Load as required by applicable building code
B. Design sun control device to eliminate vibration harmonics; wind whistles; and noises cause by thermal movement.

1.4 SUBMITTALS
A. Product Data: Manufacturer’s company literature
B. Shop Drawings: Submit shop drawings showing layout, profiles and product components, including anchorage, accessories, finish.
C. Structural Calculations: submit complete engineering calculations to support design.
D. Finish Samples: submit color samples for final approval

1.5 QUALITY ASSURANCE
A. Engineering Qualifications: Provide Engineering calculations for the sunshade system and mounting brackets, prepared by an engineer registered in the state the project is located
B. Manufacturer Qualifications: Minimum of Five years experience in manufacturing of exterior sun control devices
C. Installer Qualifications: Acceptable to manufacturer

1.6 DELIVERY, STORAGE AND HANDLING
A. Delivery: deliver sun control devices in manufacturer’s crates packaged for long haul transit
B. Storage: store materials in a dry and safe area
C. Handling: handle materials to avoid any damage to materials and finishes

1.7 WARRANTY
A. The contractor must warrant the materials to be free of defects in accordance with the general conditions. Finish warranty shall be extended by paint manufacturer’s standard warranty.

PART 2 – PRODUCTS

2.1 MANUFACTURER
A. Quality Metalcrafts, LLC, 21925 Industrial Boulevard, Rogers, Minnesota 55374, Telephone (866) 260-4047, www.americlad.com
   a. Americlad Exterior Sunshade Devices

2.2 MATERIALS
A. Aluminum Sheet: ASTM B209, Alloy 6061-T6, 5005-H34 or 3003-H14
B. Aluminum Extrusions: ASTM B221, Alloy 6063-T6 and/or 6061-T6

2.3 FABRICATION
A. Factory assembled sun control devices for a turnkey installation
B. Vertical sun control element will be mechanically fastened with stainless steel screws to the outriggers. Spot welds only to be used where mechanical fastening of parts is prohibitive.
C. Maintain blade spacing per approved shop drawings
2.4 VERTICAL SUN CONTROL DEVICES
A. Bracket: Specify bracket profile and thickness
B. Perimeter frame: 2 1/2” tube extrusion
C. Bullnose: Specify size and type from manufacturer’s selection
D. Insert: Specify size and type from manufacturer’s selection

2.5 SUN CONTROL DESIGN
a. Series AC-210 (2 1/2” perimeter frame)

2.6 FINISHES
A. High Performance Coating: Organic coating: Clean and prime exposed aluminum surfaces and apply a Kynar 500 finish conforming to AAMA 2605, color to be determined by the architect
B. Class I, Clear Anodic Finish: AA-M12C22A41, mechanical finish, nonspecular as fabricated. Coating to have an anodic coating of 0.7 mil (0.018 mm) thickness
C. Class I, Color Anodic Finish: AA-M12C22A42/A44, mechanical finish, nonspecular as fabricated. Color to be determined by Architect. Coating to have an anodic coating of 0.7 mil (0.018 mm) thickness

PART 3 – EXECUTION

3.1 PREPARATION
A. Coordinate drawings, diagrams, fixtures, instructions and instructions for installation of anchors to structure.

3.2 INSTALLATION
A. Attach anchorage to structure per shop drawing
B. Install sun control device units level and plumb

3.3 CLEANING AND PROTECTING
A. Clean exposed surfaces after installation per manufacturers recommendations
B. Touch up minor abrasions in finish with touch up paint supplied by finish applicator.

END OF SECTION
VERTICAL SUNSHADES - 2 1/2 " WIDE

A1 PERIMETER
A2 PERIMETER - GRATING
A3 PERIMETER - SQUARE CAP
A4 PERIMETER - BULLNOSE CAP
A5 PERIMETER - SLOPED CAP
A6 PERIMETER - PANEL & SQUARE CAP
A7 PERIMETER - PANEL & BULLNOSE CAP
A8 PERIMETER - PANEL & SLOPED CAP
B1 ANCHOR (1)
B2 ANCHOR (2)
B3 ANCHOR (3)
B4 ANCHOR (4)
B5 ANCHOR - GRATING
B6 ANCHOR - PANEL

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Architectural Metal Products
ALUMINUM GRATE

ALUMINUM CORNER SUPPORT ANGLE

PERIMETER EXTRUSION

COVER EXTRUSION
PERIMETER - SQUARE CAP DETAIL

1.375

1.500

D.L.O.

PANELS - PLATE, COMPOSITE OR HONEYCOMB

PANEL ADAPTOR EXTRUSION

ALUMINUM CORNER SUPPORT ANGLE

PERIMETER EXTRUSION

COVER ADAPTOR EXTRUSION

COVER EXTRUSION

2.500

0.750

0.500

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Architectural Metal Products
PERIMETER - BULLNOSE CAP DETAIL

1.375
1.500
1.750
2.500

PANELS - PLATE, COMPOSITE OR HONEYCOMB

PANEL ADAPTOR EXTRUSION

ALUMINUM CORNER SUPPORT ANGLE

PERIMETER EXTRUSION

COVER ADAPTOR EXTRUSION

COVER EXTRUSION

D.L.O.
PERIMETER - PANEL & SLOPED CAP DETAIL

ALUMINUM PLATE PANELS

PANEL ADAPTOR EXTRUSION

ALUMINUM CORNER SUPPORT
ANGLE

PERIMETER EXTRUSION

COVER ADAPTOR EXTRUSION

COVER EXTRUSION

P.F.D.

1.750

2.500
ANCHOR DETAIL (1)  DETAIL B1

FASTENER (NOT BY AMERICLAD)

ANCHOR EXTRUSION

WINDOW SYSTEM
(NOT BY AMERICLAD)

PERIMETER EXTRUSION

ALUMINUM CORNER SUPPORT
ANGLE

PANEL ADAPTOR EXTRUSION

PANELS - PLATE, COMPOSITE
OR HONEYCOMB

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Architectural Metal Products
ANCHOR DETAIL (3) DETAIL B3

FASTENER (NOT BY AMERICLAD)
ANCHOR EXTRUSION
PERIMETER EXTRUSION
ALUMINUM CORNER SUPPORT ANGLE
PANEL ADAPTOR EXTRUSION
PANELS - PLATE, COMPOSITE OR HONEYCOMB

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Architectural Metal Products
ANCHOR DETAIL (4)  DETAIL B4

FASTENER  (NOT BY AMERICLAD)

PANEL SYSTEM  (NOT BY AMERICLAD)

BACKER AND SEALANT  (NOT BY AMERICLAD)

ANCHOR EXTRUSION

PERIMETER EXTRUSION

ALUMINUM CORNER SUPPORT ANGLE

PANEL ADAPTOR EXTRUSION

PANELS - PLATE, COMPOSITE OR HONEYCOMB

D.L.O.  1.500

1.625

3.75

1.375

1.375

4.125

ALUMINUM CORNER SUPPORT ANGLE