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 flat-lock panels that are used as the exterior and interior cladding

1.3 PERFORMANCE REQUIREMENTS
A. Structural Performance: provide flat-lock panel 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. Dead Load as required by applicable building code
   2. Live Load as required by applicable building code
   3. Wind Load: uniform pressure (define velocity pressure) of (insert design criteria) pound/square foot, acting inward and outward.
   4. Thermal Movements: provide panel assemblies that allow for thermal movements to prevent buckling, opening of joints and other thermal effects
B. Design the panel for a mechanically fastened assembly to substructure
C. Design panel tolerances to manufacturer’s standard tolerances
D. Metal panels to have a maximum allowable deflection of L/60

1.4 SUBMITTALS
A. Product Data: Manufacturer’s product literature
B. Finish Samples: submit color samples for final approval
C. Shop Drawings: submit shop drawings showing plans, sections and details

1.5 QUALITY ASSURANCE
A. Manufacturer Qualifications: Minimum of five years experience in manufacturing of metal panel products
B. Installer Qualifications: Acceptable to manufacturer
C. Engineering Qualifications: Provide engineering calculations for the metal panel assembly to be prepared by an engineer registered in the state the project is located

1.6 DELIVERY, STORAGE AND HANDLING
A. Delivery: deliver metal panels in manufacturer’s crates packed 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/AMERICLAD, 21925 Industrial Boulevard, Rogers, Minnesota 55374, Telephone: (866) 260-4047, www.americlad.com
   1. AC-5000 Flat-Lock Panel System
E. Approved equal submitted for approval 10 days prior to bid
2.2 MATERIALS
A. [Aluminum], [Zinc], [Copper], [Painted Steel], [Painted Aluminum]

2.3 FABRICATION
A. Tolerances
   1. Breaks, bend lines, and angles shall be true and surfaces
   2. Panel surfaces shall be free of blemishes, scratches or marks caused during fabrication process

2.4 ACCESSORIES
A. All fasteners shall be stainless steel
B. Panel clips: stainless steel clips

2.5 FINISHES
A. Paint for Steel and Aluminum
   1. Coating shall be a Applied Fluorocarbon Resin Utilizing a 70% Kynar 500/Hylar 5000 resin
   2. Color as selected by owner from paint manufacturer’s standard colors or Custom color as specified
   3. Material to be painted in accordance with either AAMA specification 2605 or 2604

B. Anodized Aluminum
   1. Clear Anodic Finish: AA-M12C22A41, mechanical finish, nonspecular as fabricated. Coating to have an anodic coating of 0.7 mil (0.018 mm) thickness
   2. Color Anodic Finish: AA-M12C22A42/A44, mechanical finish, nonspecular as fabricated. Color to be determined by Owner. Coating to have an anodic coating of 0.7 mil (0.018) thickness

C. Copper:
   1. Mill finish
   2. Pre-patinated

D. Zinc:
   1. Mill Finish [shiny]
   2. Pre-Weathered [Dark Gray], [Charcoal Gray]
PART 3 – EXECUTION

3.1 PREPARATION
   A. Coordinate drawings, diagrams, and instructions for installation

3.2 INSTALLATION
   A. Install panels plumb and level per shop drawing detailing
   B. Isolation tape or shim shall be installed where dissimilar materials come in contact

3.3 CLEANING AND PROTECTION
   A. Clean exposed surfaces after installation per manufacturer’s recommendation
   B. Touch up minor abrasions in finish with touch up paint supplied by finish applicator

END OF SECTION
FLAT LOCK PANEL SYSTEM

NOTE:
LOAD BEARING WALL COMPONENTS OF EITHER: 16GA STEEL STUDS, STRUCTURAL MEMBERS, MINIMUM 5/8" PLYWOOD OR CONCRETE. GYPSUM BOARD AND CEMENT BOARD ARE NOT A STRUCTURAL COMPONENT.

A COPING DETAIL
B BASE DETAIL
C WINDOW JAMB DETAIL (1)
D WINDOW JAMB DETAIL (2)
E TYPICAL HORIZONTAL DETAIL
F TYPICAL VERTICAL DETAIL
G INSIDE CORNER DETAIL (1)
H INSIDE CORNER DETAIL (2)
J OUTSIDE CORNER DETAIL (1)
K OUTSIDE CORNER DETAIL (2)
L WINDOW HEAD DETAIL
M WINDOW SILL DETAIL
NOTE:
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LOAD BEARING WALL COMPONENTS OF EITHER: 16GA STEEL STUDS, STRUCTURAL MEMBERS, MINIMUM 5/8" PLYWOOD OR CONCRETE. GYPSUM BOARD AND CEMENT BOARD ARE NOT A STRUCTURAL COMPONENT.
WINDOW JAMB DETAIL (1)  DETAIL C

NOTE:
LOAD BEARING WALL COMPONENTS OF EITHER: 16GA STEEL STUDS, STRUCTURAL MEMBERS, MINIMUM 5/8" PLYWOOD OR CONCRETE. GYPSUM BOARD AND CEMENT BOARD ARE NOT A STRUCTURAL COMPONENT.

FASTENERS
(NOT BY AMERICLAD)

WATERPROOF MEMBRANE
(NOT BY AMERICLAD)

OPTIONAL VENT MAT
(NOT BY AMERICLAD)

BACKER ROD & SEALANT
(NOT BY AMERICLAD)

STAINLESS STEEL
FLAT LOCK CLIPS

AC-5000 ALUMINUM
FLAT LOCK PANEL
NOTE:
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TYPICAL HORIZONTAL DETAIL

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FASTENER  
(NOT BY AMERICLAD)

STAINLESS STEEL FLAT LOCK CLIPS

AC-5000 ALUMINUM FLAT LOCK PANEL

OPTIONAL VENT MAT  
(NOT BY AMERICLAD)

WATERPROOF MEMBRANE  
(NOT BY AMERICLAD)
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OUTSIDE CORNER DETAIL (2)  

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WATERPROOF MEMBRANE
(NOT BY AMERICLAD)

OPTIONAL VENT MAT
(NOT BY AMERICLAD)

STAINLESS STEEL FLAT LOCK CLIPS

FASTENER
(NOT BY AMERICLAD)

AC-5000 ALUMINUM FLAT LOCK PANEL

Architectural Metal Products
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WATERPROOF MEMBRANE
(NOT BY AMERICLAD)

OPTIONAL VENT MAT
(NOT BY AMERICLAD)

FASTENER
(NOT BY AMERICLAD)

STAINLESS STEEL
FLAT LOCK CLIPS

AC-5000 ALUMINUM
FLAT LOCK PANEL

BACKER ROD & SEALANT
(NOT BY AMERICLAD)

FLASHING
(NOT BY AMERICLAD)
NOTE:
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