

MEKJO METALS LLC.

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FORMED METAL SOFFIT AND WALL PANELS (SECTION 074113.13)

PART 1 – GENERAL

1.1 SUMMARY

- **Section Includes:** Preformed concealed-fastener metal fascia, 1" flush soffit panels, flush wall panels, and matching perimeter edge flashings.

1.2 ADMINISTRATIVE & QUALITY REQUIREMENTS

- **Pre-installation Conference:** Conduct a mandatory conference at the project site to coordinate structural framing alignment, weather barriers, drainage plans, flashing details, and trim intersections.
- **Installer Qualifications:** The installation entity must employ supervisors and field installers with a minimum of 3 years of documented, continuous experience specializing in concealed-fastener metal wall and soffit systems.
- **Mockups:** Build a site mockup (minimum 4-foot by 4-foot area) to verify aesthetic selections, component profiling, interlocking seam tolerances, and workmanship standards.

1.3 SUBMITTALS

- **Product Data:** Submit manufacturer's technical data sheets, product profiles, installation instructions, and performance certifications for panels, fasteners, and accessories.
- **Shop Drawings:** Provide detailed installation drawings showing panel layouts, seam directions, layout dimensions, flashing profiles, anchoring details, and trim intersections.
- **Samples for Verification:** Submit two full-width, 12-inch-long panel samples in the specified gauge showing the requested texture finish. Include standard color charts for final selection.
- **Qualification Data:** Submit documented proof of the installing contractor's experience, verifying compliance with the minimum experience requirements.

1.4 PERFORMANCE & TESTING REQUIREMENTS

- **Structural Performance:** Provide metal wall and soffit panel systems tested in accordance with ASTM E 1592 or UL 580 to safely withstand regional design wind loads.
- **Air Infiltration:** Panel systems must limit air leakage through assembly joints to no more than 0.06 cfm/sq. ft. when tested at a static pressure differential of 6.24 psf per ASTM E 283.
- **Water Penetration:** Conduct assembly testing per ASTM E 331. There must be no uncontrolled water penetration through panel joints when exposed to a static pressure differential of 6.24 psf for a minimum duration of 15 minutes.

1.5 DELIVERY, STORAGE, AND HANDLING

- **Packaging:** Metal panels must be packaged to prevent bending, warping, twisting, or surface scratching during transit.
- **Storage:** Stack panels horizontally on elevated platforms or pallets. Store at a positive slope to ensure moisture drainage and prevent water staining.
- **Protective Film:** Retain the factory strippable protective covering on the panels until the installation process begins.

1.6 WARRANTY

- **Manufacturer Coating Performance Warranty:** Mekjo metals llc. standard commercial **40-year limited film integrity and chalk/fade paint warranty** backed by the coating manufacturer for the specified geographic and environmental conditions.
- **Contractor Workmanship Warranty:** A 2-year watertight and weatherproof warranty covering panels, flashings, sealants, fasteners, and accessories starting from the date of Substantial Completion. **This workmanship warranty must be issued independently by the installing contractor and is not provided or backed by Mekjo metals llc.**

PART 2 – PRODUCTS

2.1 MANUFACTURER

- **System Supplier:** Mekjo metals llc., P.O. Box 1070, 1415 2nd Ave N, Fargo, ND 58107; Phone: 701-970-9262; Email: sales@mekjometals.com.

2.2 FLUSH WALL & SOFFIT PANELS

- **Panel Profile:** 1" Flush Wall / Soffit Panel System; Concealed Fastener Metal Panel with interlocking seams and no reveal, providing a flat appearance with a minimal gap between the panel side laps.
- **Material Substrates:** Structural AZ50 Minimum Galvalume®/Zincalume® steel conforming to ASTM A 792.
- **Thickness & Dimensions:**
 - **Available Gauges:** 22-Gauge, 24-Gauge, 26-Gauge, and 28-Gauge.
 - **Standard Face Sizes:** 12", 14", 16", 18", and 20".
 - **Custom Face Sizes:** 13", 15", 17", and 19" (Available upon request).
 - **Panel Length:** 1' minimum to 45' maximum.
 - **Reveal:** None.
 - **Seam / Rib Height:** 1-inch deep.
- **Exterior Finish:** High-performance PVDF Coating System engineered for superior resistance to UV degradation, scratching, and chalking.
 - **Texture Options:** Standard Smooth Finish or optional WeatherXL™ Crinkle Finish.
 - **Color:** As selected by the Architect from the manufacturer's standard color range.

- **Surface Profiles:** Stiffening Ribs, Pencil Ribs, or Vent Strips are available upon request to prevent oil-canning and provide attic airflow.

2.3 FLASHING AND TRIM

- **Fabrication:** Form all flashings, gravel stops, coping, fascia, and trim profiles in maximum 10-foot or 12-foot lengths. Hem all exposed edges to minimize oil-canning and provide a straight, finished appearance.
- **Material Match:** Fabricate all visible flashing components using the exact same metal substrate, gauge, paint system, texture, and coating batch as the adjoining flush wall/soffit panels.

2.4 SYSTEM ACCESSORIES

- **Underlayment:** High-performance synthetic underlayment or self-adhering high-temperature sheet underlayment stable up to 220°F.
 - **Fasteners:** Concealed installation clips and self-tapping fasteners engineered to meet structural wind load criteria.
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PART 3 – EXECUTION

3.1 SUBSTRATE PREPARATION & TOLERANCES

- **Examination:** Verify that structural framing, framing walls, or solid substrates are aligned and flat before panel placement. Confirm all air/water barriers are completely sealed.
- **Installation Tolerances:** Shim and align panels within a maximum tolerance of 1/4 inch in 20 feet on slope/alignment lines. Maintain an offset limit of 1/8 inch between adjoining faces.

3.2 INSTALLATION METHODOLOGY

- **Application:** Suitable for horizontal or vertical installations over a solid substrate across residential, commercial, agricultural, or interior spaces.
- **Concealed Fastening:** Secure panels using concealed fasteners or interlocking clips inside the side laps to maintain a clean, flat surface profile.
- **Thermal Movement:** Install flashings, trim, and panels with dedicated provisions for structural and thermal expansion. Space flashing expansion joints at a maximum of 10 feet.
- **Galvanic Protection:** Isolate dissimilar metals or corrosive substrates at all contact points using non-conductive barriers to prevent galvanic corrosion.

3.3 CLEANING AND PROTECTION

- **Protective Film Removal:** Strip away the factory-applied protective film from all panels within 48 hours of installation. Do not leave the protective covering exposed to direct sunlight for extended periods to prevent adhesive transfer.
- **Field Cutting:** Cut all panels using shears, nibblers, or snips. **The use of abrasive saw blades or carborundum cutoff wheels is strictly prohibited**, as hot metal shavings can melt into and ruin the PVDF paint system.

- **Touch-Up Paint:** Clean all minor installation surface scratches and apply manufacturer-approved air-dry touch-up paint sparingly using a fine brush. Replace any panels that display deep gouges or structural deformation.
- **Final Cleanup:** Remove all metal filings, loose fasteners, and scrap materials from the finished panel surfaces daily to prevent surface rust spotting. Clean panels using clean water and a mild non-abrasive detergent if necessary.