

SECTION 07760 – PREFORMED METAL SOFFITS

PART ONE – GENERAL

DESCRIPTION

This section includes pre-formed metal soffit panels and related flashings, closures, trim and accessories.

RELATED WORK

Section 06100: Rough Carpentry
Section 07600: Sheet Metal Flashing & Trim

SYSTEM DESCRIPTION

Performance Requirements:

Provide manufactured soffit panel assembly complying with performance requirements indicated and providing adequate venting as designed.

ASTM E1680-95 and E1646-95 Air and water infiltration tested and approved.

REFERENCE STANDARDS

American Iron and Steel Institute – AISI: “Light Gauge Cold-Formed Steel Design Manual”

American Society of Testing Materials: ASTM E 1680-95, E1646-95

Sheet Metal and Air Conditioning Contractors National Association – SMACNA: “Architectural Sheet Metal Manual”

QUALITY ASSURANCE

Installer Qualifications: Engage an experienced installer who has, for a minimum of ten (10) years, successfully completed soffit panel projects similar in material, design, scope and extent to that for this project.

SUBMITTALS

Product Data: Submit manufacturer’s product specifications, standard details, certified product test results, installation instructions and general recommendations, as applicable to materials and finishes for each component and for total system of pre-formed soffit panels.

Samples: Submit full width of panel, 24” long, indicating proposed panel profile. Additionally, submit manufacturer’s standard color chip for selected material type, color, gauge, texture and specified finish.

DELIVERY, STORAGE AND HANDLING

Deliver panels and other components so that they will not be damaged or deformed. Package materials for protection against damage during transportation or handling. Exercise care in unloading, storing, and erecting panels and accessories to prevent bending, warping, twisting and surface damage.

Stack materials on platforms or pallets, covered with tarpaulins or other suitable weather-tight and ventilated covering. Store materials to ensure dryness. Do not store panels in contact with other materials that might cause staining, denting or other surface damage.

PROJECT CONDITIONS

Field Measurements: Where possible, prior to fabrication of soffit panels and trim, take field measurements of structure and substrate to receive panel system. Allow for trimming panels where final dimensions cannot be established prior to fabrication.

WARRANTY

Provide manufacturer's standard 30 year written warranty for Kynar finish.

PART TWO – PRODUCTS

ACCEPTABLE MANUFACTURERS

Coated Metals Group (CMG)

CMG Ultra-Flush panels and system are specified for standard of quality. Equivalent products meeting or exceeding this standard may be accepted at the discretion of the General Contractor and Owner. All substitutions must be submitted in writing a minimum of two (2) weeks prior to the bid date. No substitutions which are not expressly accepted prior to the bid date shall be accepted.

SOFFIT PANEL SYSTEM

CMG's Ultra-Flush concealed anchor, pre-formed, pre-finished flush seam panel system.

MATERIALS

Steel: Hot-dipped zinc-coated steel sheet, ASTM A653, CS-Type B hot-dipped galvanized steel with a minimum yield strength of 40,000 psi. Steel shall be G-90 galvanized, non-chem treated, extra-smooth, minimum spangle, lock-forming quality.

Accessories: Provide components required for a complete soffit system including, but not limited to, trim, corners, J trim, Zee and hat furring. Shop-fabricate per SMACNA guidelines and details using same material, gauge and finish as soffit panels.

Sealant: Sealant for concealed joints in sheet metal shall be one part, non-hardening, non-skinning, non-drying, non-migrating Urethane sealant equivalent to NP-1 as manufactured by Sonneborn.

FINISHES

General: Soffit panels and sheet metal accessories exposed to view shall be coil coated with full strength, 70% Kynar 500 coating over a base coat of epoxy base primer. The dry-film thickness of the exterior coating shall be not less than .8 mil over a minimum .2 mil primer coat for a total dry-film thickness of 1.0 mil. A .5 mil standard wash coat over primer shall be applied to the reverse side.

Color shall be chosen from manufacturer's standard color chart.

Acceptable Manufacturer: Ultra-Clad by Coated Metals Group (CMG). (800) 784-0356

Coating Durability: Provide manufacturer's coating which has been field tested under normal range of weathering conditions for a minimum of 30 years without peel, blister, flake, chip, crack or check in finish, and without chalking in excess of 8 (ASTM D 3361), and without fading in excess of 5 NBS units.

Coating shall be protected promptly after application and cure by applying strippable film.

FABRICATION

General: Factory fabricate soffit panels to the greatest extent possible by manufacturer's standard procedures and processes, and as required to fulfill indicated performance requirements which have been demonstrated by factory testing. Comply with indicated profiles and dimensional requirements.

Metal Gauges: Thicknesses required for structural performance, but not less than manufacturer's recommended minimums for profiles and applications indicated, and not less than 26 gauge (.0179").

Fabricate soffit panels full length without joints and with 12" spacing between seams. Form one minor stiffening bead at mid-span, longitudinally along each panel.

Apply bituminous coating or other permanent separation materials on concealed panels surfaces where panels would otherwise be in direct contact with substrate materials which are non-compatible or could result in corrosion or deterioration of either material or finish.

Trim, Flashings, Closures, Etc: Fabricate in longest lengths possible. Provide weathertight joints and allow for expansion.

PART THREE – EXECUTION

INSPECTION

Examine substrate and areas to which the soffit panels are to be installed. Verify that dimensions are correct, adjacent or adjoining surfaces are dry, clean and reasonably smooth and free from defects, and there are no conditions that will adversely affect installation. Do not proceed with installation until unsatisfactory conditions have been corrected in an acceptable manner.

INSTALLATION

General: Comply with panel manufacturer's standard instructions and recommendations for the installation, as applicable to project conditions and supporting substrates. Anchor panels and other components of the work securely in place, with provisions for thermal or structural movement.

Soffit panels shall be installed in continuous lengths, having no end laps, cross joints or transverse seams. Panels shall be attached to structure by means of concealed anchors. No through penetration of the soffit panels shall be permitted, except where approved by the manufacturer.

Secure panels without warp or deflection. Shim and align panel units within installed tolerance of 1/4" in 20'-0" on level, plumb and slope and within 1/8" offset of adjoining faces and of alignment of matching profiles.

Install closures, gaskets, joint fillers and sealants where indicated and where required for weatherproof performance of panel system of types recommended by panel manufacturer.

Flashing: Details in installation which are not indicated shall be in accordance with NRCA Construction Details, SMACNA Architectural Sheet Metal Manual, AA Specifications for Sheet Metal Work, panel manufacturer's printed instructions and details and the approved shop drawings. Installation shall provide for expansion and contraction of flashing details.

Install work weathertight, plumb, level and true with components securely attached in accordance with manufacturer's instructions.

CLEANING AND PROTECTION

Damaged Units: Replace panels and other components of the work which have been damaged or have deteriorated beyond successful repair by means of finish touch-up or similar minor repair procedure.

Cleaning: Remove temporary protective coatings and strippable films as components are installed. Upon completion of panel installation, clean finished surfaces as recommended by panel manufacturer, and maintain clean condition during construction.

END OF SECTION