SECTION 07 05 43

CLADDING SUPPORT SYSTEMS

“FM4-MaxFlow”

1. GENERAL
   1. SECTION INCLUDES
      1. Drainable and ventilated metal rain screen furring system.
   2. RELATED SECTIONS
      1. Section 05 40 00 - Cold-formed Metal Framing
      2. Section 06 10 00 - Rough Carpentry
      3. Section 07 25 00 – Weather Barriers
      4. Section 07 27 00 – Air Barriers
      5. Section 07 42 13 – Metal Panels
      6. Section 07 42 13 – Composite Metal Panels
      7. Section 07 42 33 – High Pressure Plastic Laminate Panels
      8. Section 07 44 53 – Fiber Cement Panels
   3. REFERENCES
      1. ASTM International (ASTM)
         1. ASTM E84 – Standard Test Method for Surface Burning Characteristics of Building Materials
      2. IBC - International Building Code (International Code Council).
      3. IRC - International Residential Code (International Code Council).
   4. DESIGN REQUIREMENTS
      1. Components: Designed and manufactured to accommodate and withstand applicable dead and live loads in accordance with the Building Code.
      2. Components: Designed to accommodate positive venting and drainage of water.
      3. Thermal Movement: Design system to accommodate vertical and horizontal thermal movement of components without causing distortion or excessive stress on fasteners when subjected to recurring ambient temperature variations of 120 degrees F.
   5. SUBMITTALS
      1. Provide submittals in accordance with requirements of Division 01 33 00-Submittal Requirements
      2. Product Data
         1. Manufacturer’s data sheets on each product to be used.
      3. Shop Drawings: Provide shop drawings to include:
         1. Installation materials and details including furring channel spacings, fasteners, and fastener schedule.
         2. Termination details at wall penetrations including doors, windows and mechanical penetrations
         3. Insulation attachment and support system when applicable.
   6. QUALITY ASSURANCE
      1. Manufacturers Qualifications
         1. Minimum 5 years documented experience in the work of this Section
      2. Installers Qualifications
         1. Minimum 5 years documented experience in the work of this Section
         2. Approved by manufacturer.
      3. Mock-Up
         1. Install one 4 x 8 feet full size mock-up to review construction, coordination of work with other trades, and/or testing.
         2. Show installed furring channels on sheathing with relevant assembly components including water-resistive barrier, fasteners, cladding, cladding attachment, flashings, and relevant accessories for two cladding panels, panel joints, and one typical wall penetration.
         3. Locate mock-up as directed by Architect
      4. Pre-Installation Meetings
         1. Installer shall coordinate a pre-installation meeting with Owner, Architect, Contractor, and relevant project team members.
            1. Review means and methods of product installation including review of manufacturer’s installation instructions.
            2. Review substrates and structural support conditions to verify they are in compliance with manufacturer’s written requirements.
            3. Review and coordinate installation with the work of other Sections.
            4. Review any special conditions affecting the product installation.
            5. Review requirements related to tests and inspections as applicable.
   7. DELIVERY, STORAGE, AND HANDLING
      1. Deliver material and store in manufacturer’s original, unopened and undamaged packaging with identification labels intact
      2. Store on elevated platforms in a dry and flat area protected from weather, moisture, and construction activities.
      3. Handle components in accordance with manufacturer’s recommendations to prevent bending, twisting, warping, and edge damages.
   8. WARRANTY
      1. Provide manufacturer’s standard limited warranty.
      2. Ensure warranties are turned over to Owner in accordance with requirements of Division 01 30 00-Administrative Requirements.
2. PRODUCTS
   1. MANUFACTURERS
      1. Acceptable Manufacturer: Albuild Systems, LLC as distributed by Old Country Millwork, Inc., 5855 Hooper Ave, Los Angeles, CA 90001. Phone: (323) 234-2940, Website: <https://www.ocmcoil.com/>, Email: [info@albuildsystems.com](mailto:info@albuildsystems.com)
      2. Substitutions: No substitutions are permitted
   2. SYSTEMS
      1. FM4 MaxFlow rain screen furring shall be structural 20 gauge cold-formed hat channels w/ Vertical-Horizontal Vent technology corrugated flanges 2 5/8’’ wide x 3/8’’ high & .024’’ aluminum corrugated furring strip 1’’ wide x 3/16’’ high (9/16’’ total depth)
      2. FM4 MaxFlow rain screen furring shall be structural 20 gauge cold-formed hat channels w/ Vertical-Horizontal Vent technology corrugated flanges 2 5/8’’ wide x 3/8’’ high & .024’’ aluminum corrugated furring strip 1’’ wide x 3/8’’ high (3/4’’ total depth)
      3. FM4 MaxFlow rain screen furring shall be structural 20 gauge cold-formed hat channels w/ Vertical-Horizontal Vent technology corrugated flanges 3’’ wide x 3/4’’ high & .024’’ aluminum corrugated furring strip 1’’ wide x 3/16’’ high (15/16’’ total depth)
      4. FM4 MaxFlow rain screen furring shall be structural 20 gauge cold-formed hat channels w/ Vertical-Horizontal Vent technology corrugated flanges 3’’ wide x 3/4’’ high & .024’’ aluminum corrugated furring strip 1’’ wide x 3/8’’ high (1 1/8’’ total depth)
      5. FM4 MaxFlow rainscreen furring shall be structural 18 gauge cold-formed hat channels w/ Vertical-Horizontal Vent technology corrugated flanges 2 5/8’’ wide x 3/8’’ high & .024’’ aluminum corrugated furring strip 1’’ wide x 3/16’’ high (9/16’’ total depth)
      6. FM4 MaxFlow rainscreen furring shall be structural 18 gauge cold-formed hat channels w/ Vertical-Horizontal Vent technology corrugated flanges 2 5/8’’ wide x 3/8’’ high & .024’’ aluminum corrugated furring strip 1’’ wide x 3/8’’ high (3/4’’ total depth)
      7. FM4 MaxFlow rainscreen furring shall be structural 18 gauge cold-formed hat channels w/ Vertical-Horizontal Vent technology corrugated flanges 3’’ wide x 3/4’’ high & .024’’ aluminum corrugated furring strip 1’’ wide x 3/16’’ high (15/16’’ total depth)
      8. FM4 MaxFlow rainscreen furring shall be structural 18 gauge cold-formed hat channels w/ Vertical-Horizontal Vent technology corrugated flanges 3’’ wide x 3/4’’ high & .024’’ aluminum corrugated furring strip 1’’ wide x 3/8’’ high (1 1/8’’ total depth)
      9. FM4 MaxFlow rainscreen furring shall be structural 20 gauge cold-formed hat channels w/ Vertical-Horizontal Vent technology corrugated flanges 2 5/8’’ wide x 3/8’’ high & .024’’ aluminum corrugated furring strip 1’’ wide x 3/16’’ high & 3M VHB RP+110GF Architectural Panel Tape 1’’ wide x .045’’ high   
         (9/16’’ + .045’’ total depth)
      10. FM4 MaxFlow rainscreen furring shall be structural 20 gauge cold-formed hat channels w/ Vertical-Horizontal Vent technology corrugated flanges 2 5/8’’ wide x 3/8’’ high & .024’’ aluminum corrugated furring strip 1’’ wide x 3/8’’ & 3M VHB RP+110GF Architectural Panel Tape 1’’ wide x .045’’ high   
          (3/4’’ + .045’’ total depth)
      11. FM4 MaxFlow rainscreen furring shall be structural 20 gauge cold-formed hat channels w/ Vertical-Horizontal Vent technology corrugated flanges 3’’ wide x 3/4’’ & .024’’ aluminum corrugated furring strip 1’’ wide x 3/16’’ high & 3M VHB RP+110GF Architectural Panel Tape 1’’ wide x .045’’ high  
          (15/16’’ + .045’’ total depth)
      12. FM4 MaxFlow rainscreen furring shall be structural 20 gauge cold-formed hat channels w/ Vertical-Horizontal Vent technology corrugated flanges 3’’ wide x 3/4’’ & .024’’ aluminum corrugated furring strip 1’’ wide x 3/8’’ high & 3M VHB RP+110GF Architectural Panel Tape 1’’ wide x .045’’ high  
          (1 1/8’’ + .045’’ total depth)
      13. FM4 MaxFlow rainscreen furring shall be structural 18 gauge cold-formed hat channels w/ Vertical-Horizontal Vent technology corrugated flanges 2 5/8’’ wide x 3/8’’ high & .024’’ aluminum corrugated furring strip 1’’ wide x 3/16’’ high & 3M VHB RP+110GF Architectural Panel Tape 1’’ wide x .045’’ high  
          (9/16’’ + .045’’ total depth)
      14. FM4 MaxFlow rainscreen furring shall be structural 18 gauge cold-formed hat channels w/ Vertical-Horizontal Vent technology corrugated flanges 2 5/8’’ wide x 3/8’’ high & .024’’ aluminum corrugated furring strip 1’’ wide x 3/8’’ high & 3M VHB RP+110GF Architectural Panel Tape 1’’ wide x .045’’ high  
          (3/4’’ + .045’’ total depth)
      15. FM4 MaxFlow rainscreen furring shall be structural 18 gauge cold-formed hat channels w/ Vertical-Horizontal Vent technology corrugated flanges 3’’ wide x 3/4’’ high & .024’’ aluminum corrugated furring strip 1’’ wide x 3/16’’ high & 3M VHB RP+110GF Architectural Panel Tape 1’’ wide x .045’’ high  
          (15/16’’ + .045’’ total depth)
      16. FM4 MaxFlow rainscreen furring shall be structural 18 gauge cold-formed hat channels w/ Vertical-Horizontal Vent technology corrugated flanges 3’’ wide x 3/4’’ high & .024’’ aluminum corrugated furring strip 1’’ wide x 3/8’’ high & 3M VHB RP+110GF Architectural Panel Tape 1’’ wide x .045’’ high  
          (1 1/8’’ + .045’’ total depth)
   3. MATERIAL  
      1. Fabricate channels from 20 gauge steel grade 33-37 galvanized structural steel
         1. Finish: AZ50 Zincalume®️ hot dip zinc/aluminum alloy
      2. Fabricate channels from 18 gauge commercial grade galvanized structural steel
         1. Finish: AZ50 Zincalume®️ hot dip zinc/aluminum alloy
      3. Fabricate corrugated strips from .024’’ thick aluminum
         1. Finish: mill finish
      4. Apply double-sided closed cell foam bonding tape
         1. Finish: black or grey
   4. FASTENERS
      1. Self-drilling/self-tapping, corrosion resistant fasteners sized and spaced according to the engineer’s recommendations for applicable substrate and structural loads
      2. Corrosion resistant finish similar to the hat channel
      3. Stainless steel
3. EXECUTION
   1. EXAMINATION
      1. Installer shall examine all substrate prior to installation to determine that it is properly prepared, and all wall assembly components are in satisfactory condition. Notify the Architect of any unsatisfactory conditions before proceeding.
      2. Planar tolerance: Substrate shall exhibit a planar tolerance not to exceed ¼” in 10 feet.
   2. PREPARATION
      1. Verify locations of all building elements that will affect the installation of the rainsceen furring channels such building expansion joints, control joints, wall penetrations and projecting structural elements.
   3. INSTALLATION
      1. Install rainscreen furring channels in accordance with the manufacturer’s instructions and approved submittals.
      2. Rainscreen furring shall be aligned and installed true, level, and plumb in a workman like manner.
      3. Install fasteners of approved type and length in metal or wood framing members at locations and spacing in accordance with engineers’ recommendations and approved shop drawings.
   4. PROTECTION
      1. Protect installed product until installation of the finished cladding system.
      2. Touch-up field cuts and abrasions on finishes prior to installation of the finished cladding system in accordance with manufacturer’s recommendations.