"400 HD" entrance specifications

I. GENERAL

DESCRIPTION

Work included: Furnish all necessary materials, labor and equipment for the complete installation of aluminum swing doors and frames as shown on the drawings and specified herein.

Work not included: Structural support of aluminum framing, trim, shims, and perimeter sealants. (Specifier: list any other exclusions.)

Related Work Specified Elsewhere: (Specifier List)

Quality Assurance

Drawings and specifications are based on the 400 HD entrance doors and 450 HD frames as manufactured by CMI Architectural Products, Inc., DeSmet, SD. When substitute products are to be considered, technical literature, samples, drawings and performance test data must be submitted ten (10) days prior to bid date. Test reports certified by an independent laboratory must be made available upon request.

PERFORMANCE REQUIREMENTS

Air infiltration: (applies only to single acting offset pivot or butt hinged doors.) Shall be tested in accordance with ASTM E 283 at a pressure differential of 1.567 P.S.F.. A single 3'-0" x 7'-0" entrance door and frame shall not exceed I.O CFM per lineal foot of perimeter crack.

Structural: Resistance to corner racking shall be tested by double moment load testing as follows:

a. Test section shall consist of a standard top door corner assembly. Side rail section shall be 24" long and top rail section shall be 12" long.

b. Anchor top rail positively to test bench so that corner pertrudes 3" beyond bench edge.

c. Anchor a lever arm positively to the side rail at a point 19" from inside edge of top rail. Attach weight support pad at a point 19" from inner edge of side rail.

d. Test section shall withstand a load of 380 pounds on the lever arm before reaching the point of failure. Failure is defined as a rotation of the lever arm in excess of 45°.

II. PRODUCTS

MATERIAL

Extrusions shall be 6063-T5 alloy and temper (ASTM B221 and alloy G.S. 10A-T5). Door stiles and rails shall be 2" in depth, and the sections shall have a minimum wall thickness of 3/16". Frame members shall be 2" at the face and 4 1/2" in depth and shall have a minimum wall thickness of 3/16" at exposed surfaces.

Fasteners used for assembly, shall be stainless steel, aluminum or zinc plated steel in accordance with ASTM A 164. Perimeter anchors shall be stainless steel or zinc plated steel. (Anchors are provided by glazing contractors). Glazing gaskets shall be E.P.D.M., Elastomeric or Neoprene.

HARDWARE

(Specifier Note) If entrance hardware must be furnished under the "Finish Hardware" section of the specifications; (please specify:) The finish hardware supplier shall be responsible for furnishing physical hardware to the entrance manufacturer prior to fabrication. If lock cylinders are to be master-keyed, it is recomended that cylinders be included under the "Finish Hardware" section of the specifications.

Hardware for entrance doors and frames shall be as follows:

1. Pivots/Butt Hinges_____
2. Locks:
   Active leaf_____
   Inactive leaf_____
3. Closer_____
4. Exit Devise_____
5. Push/Pull_____
6. Threshold_____
7. Miscellaneous_____

Include style, fihish, type, model, series, manufacturer, etc. to assure a complete description.

Refer to Section A for standard hardware offered with stock entrance packages.

Refer to Section D for complete list & description of door hardware.

FINISH

All exposed aluminum surfaces shall be free of scratches and other blemishes. All exposed surfaces shall be given a caustic etch by an anodic oxide treatment to obtain the following finish: (Specifier select).

An Architectural Class II clear anodic coating in accordance with Aluminum Association Standard AA-M12 C22 A31 designated as #20 Clear. An Architectural Class I anodic coating with integal color in accordance with the Aluminum Association Standard AA-M12 C22 A44 designated as #33 Dark Bronze.

ORGANIC COATING: High Performance fluorocarbon coatings in accordance with AAMA 605.2 specifications. Color as selected by Architect.

FABRICATION

The door stile and rail face dimensions shall be:

Stiles	Top Rail	Bott. Rail	Cross Rails
4"	4"	6 1/2"	4" & 6 1/2"

Corner construction shall consist of a mechanical fastener applied block and fillet weld connection. Glass stops shall be hook-in type, square fit for 1/4" or 1" glazing, with EPDM glazing gaskets. Door frames shall be 450 HD Series (2" x 4 1/2") requiring shear block assembly.

III. EXECUTION

INSTALLATION

400 HD doors and frames shall be installed, glazed and adjusted by experienced workmen in accordance with the manufacturer's installation instructions and/or approved shop drawings.

CLEANING AND PROTECTION

After installation, all metal surfaces shall be cleaned to remove mortar, plaster, paint or other contaminants. After cleaning, all work shall be protected against damage until it is accepted by the General Contractor. Thereafter, it shall be the responsibility of the General Contractor to maintain protection and provide final cleaning.