

SECTION 08410
ALUMINUM ENTRANCES AND STOREFRONTS

PART 1 GENERAL

1.01 Work Included

- A. Furnish and install aluminum entrance, entrance door frames complete with hardware, and related components as shown on the drawings and specified in this section.
- B. All doors shall be **CMI Architectural Products, Inc. #452 Wide Stile Entrance Door**. Other manufacturers requesting approval to bid their product as an equal must submit the following information fifteen days prior to close of bidding.
 - 1. A door corner sample as per requirements of architect.
 - 2. Test reports documenting compliance with requirements of Section 1.05.
- C. Glass and Glazing
 - 1. Reference Section 08800 for Glass and Glazing.
- D. Single Source Requirement
 - 1. All products listed in Section 1.02 shall be by the same manufacturer.

1.02 Related Work

- A. Section 08520 - Aluminum Windows
- B. Section 08900 - Glazed Curtain Walls

1.03 Items Furnished but Not Installed

1.04 Items Installed but Not Furnished

- A. Structural support of the framing, wood framing, structural steel and final cleaning.

1.05 Testing and Performance Requirements

- A. Test Units
 - 1. Air test unit shall be minimum size of 3'-0" x 7'-0".
- B. Test Procedures and Performances
 - 1. Entrance doors shall conform to all requirements for the door type referenced in 1.01.B. In addition, the following specific performance requirements shall be met.
 - 2. Air Infiltration Test
 - a. With door closed and locked, test unit in accordance with ASTM E 283 at a static air pressure difference of 1.57 psf.
 - b. Air infiltration shall not exceed .50 cfm per foot of perimeter crack length for single doors.

1.06 Quality Assurance

- A. Provide test reports from AAMA accredited laboratories certifying the performance as specified in 1.05.
- B. Test reports shall be accompanied by the entrance door manufacturer's letter of certification stating that the tested door meets or exceeds the referenced criteria for the appropriate AAMA door type.

1.07 References

1.08 Submittals

- A. Contractor shall submit shop drawings, finish samples, test reports, and warranties.
 - 1. Samples of materials may be requested without cost to owner, i.e., metal, glass, fasteners, anchors, frame sections, mullion section, corner section, etc.

1.09 Delivery, Storage, and Handling

1.10 Warranties

- A. Total Entrance Door System
 - 1. The responsible contractor shall assume full responsibility and warrant for one year the satisfactory performance of the total door installation which includes that of the manufacturer supplied doors, hardware, glass (including insulated units), glazing, anchorage and setting system, sealing, flashing, etc., as it relates to air, and structural adequacy as called for in the specifications and approved shop drawings.
 - 2. Any deficiencies due to such elements not meeting the specifications shall be corrected by the responsible contractor at his expense during the warranty period.

PART 2 PRODUCTS

2.01 Material

- A. Aluminum
 - 1. Extruded aluminum shall be 6063-T5 or T6 alloy and temper.
- B. Fasteners
 - 1. All exposed fasteners shall be stainless steel.
- C. Glass
 - 1. Reference Section 08800 for Glass and Glazing.

2.02 Fabrication

- A. General
 - 1. Major portions of the door sections shall have .125" wall thickness. Glazing stop sections shall have .050" wall thickness.
- B. Entrance Doors
 - 1. Door stiles shall be no less than 4 1/2" wide. Bottom rails shall be () tall. Dimensions do not include the glass stops.
 - 2. Door stiles and rails shall have hairline joints at corners. Concealed extruded aluminum shear blocks shall be secured with thru bolts to the stiles and with screws to the rails and shall be deep penetration and fillet welded.
 - 3. Weather stripping shall be synthetic wool pile and shall be installed in an adjustable astragal on one stile of pairs of doors.
- C. Door stops shall include synthetic wool pile weatherstripping.
- D. Glazing
 - 1. All units shall be dry glazed with EPDM gasket on both exterior and interior.
- E. Finish
 - 1. Anodic

- a. Finish all exposed areas of aluminum doors and components with electrolytically deposited color in accordance with Aluminum Association Designation AA-(). Color shall be ().

OR

- 1. Organic
 - a. Finish all exposed areas of aluminum doors and components with (). Color shall be ().

2.04 Hardware

- A. Hardware for aluminum entrances shall be furnished and installed in the doors by the door manufacturer. See Section 08710 for Door Hardware requirements.

PART 3 EXECUTION

3.01 Inspection

- A. Job Conditions
 - 1. Verify that openings are dimensionally within allowable tolerances, plumb, level, clean, provide a solid anchoring surface and are in accordance with approved shop drawings.

3.02 Installation

- A. Use only skilled tradesmen with work done in accordance with approved shop drawings and specifications.
- B. Plumb and align entrance door faces in a single plane for each wall plane and erect doors and materials square and true. Adequately anchor to maintain positions permanently when subjected to normal thermal movement, specified building movement, and specified wind loads.
- C. Adjust doors for proper operation after installation.
- D. Furnish and apply sealants to provide a weather tight installation at all joints and intersections and at opening perimeters. Wipe off excess material and leave all exposed surfaces and joints clean and smooth.

3.04 Protection and Cleaning

- A. After completion of entrance installation, entrance doors shall be inspected, adjusted, put into working order and left clean, free of labels, dirt, etc. Protection from this point shall be the responsibility of the general contractor.

END OF SECTION