



DIVISION 8 OPENINGS

GENERAL

Doors, Windows and other openings are critical to efficient building envelopes and effective building security. Ensure that security features are coordinated with Division 28 requirements located within this document.

In renovation and fit out projects such components no longer in serviceable condition shall be repaired or replaced.

Windows, Doors or Openings no longer able to maintain envelope integrity shall also be identified, costed and considered for replacement as part of design efforts.

All doors shall have a minimum 3'-0" width and 7'-0" height. Heavy duty hinges or continuous hinges are required. Knock down frames are to be avoided.

Knock down door frames shall be avoided.

All doors shall have locking hardware approved by the security representative of American University.

Opening's materials/products shall be built with FSC Certified wood cores and veneers and/or contain the maximum amount of recycled content allowed that retains material integrity, contain as much locally harvested and processed or extracted and processed (within 500 miles) material, and rapidly renewable content as feasible.

All exterior doors and jambs should be hollow metal (steel) or aluminum and glass (storefront systems) made from recyclable material. Steel doors shall be a minimum of 16 gauge; jambs shall be a minimum of 14 gauge.

All exterior handicap door access operator switches must be completely protected from the weather. Door controls and push plates must be hard wired. Door operators must work with card readers where applicable.

Doors in high-traffic areas, loading docks, mechanical rooms, and corridors must be designed to include metal door edge guards and protection plates on both sides. The frame and door hardware shall be designed to accept this additional weight.

See entryway walk off mat requirements in Division 12 Furnishings.



EXTERIOR ENTRANCE DOORS

Preferred entrance doors are Fiberglass Reinforced Polyester (FRP) Exit Door Systems by Special-Lite or approved equal.

Provide extra space for and factory installed bracing for door hardware, automatic openers, and access control and/or security wiring.

Entrance doors shall have door sweeps and/or manufacturers gasket assemblies suitable for pest exclusion.

Continuous hinges are preferred.

FLOOR AND JAMB ANCHORS

The number of anchors provided on each jamb shall follow manufacturer's recommendation for commercial applications.

Floor anchors shall be securely welded or screwed inside each jamb, with two holes provided at each jamb for anchorage.

Frames for installation in masonry walls shall be provided with adjustable wire type jamb anchors. Anchors shall be not less than 0.156" diameter steel wire.

Frames for installation in stud partitions shall be provided either with steel anchors of not less than 18 gauge thickness, securely welded inside each jamb, or insert type with notched clip to engage stud inserted to back of the frame as identified above.

FABRICATION AND STORAGE

Stave lumber doors shall be AWI specification symbol SLC-5. Wood used in construction of the doors shall be thoroughly seasoned, low-density, non-resinous, kiln-dried hardwood with moisture content between 5% and 8%.

Contractors shall store and transport doors as per the manufacturer's requirements. The Contractor shall replace doors and frames damaged by improper storage and moving upon request.

All doors trimmed on site shall be resealed or primed and painted at the trim area. This includes edges and installs in place openings or glass kits.



Doors with missing, altered or unreadable ratings will be rejected and replaced at no cost to the University.

METAL DOORS AND FRAMES

Fire-rated doors required to be B-Label classification shall be made of recycled metal. On labeled fire doors, all closers shall be of a "non-hold-open" type approved by Underwriters Laboratories (UL).

Fire rated doors that open to corridors and contain glass shall use 1/4" UL fire-rated tempered glass.

Where specified or scheduled, doors shall be provided with either aluminum or steel moldings to secure glass in accordance with glass opening sizes as shown on approved shop drawings.

WINDOW ASSEMBLIES

In large window assemblies, install a double balance in order to provide a window that is easier to open and to decrease the frequency of repairs.

Operable windows above ground level may require the addition of safety hardware to limit opening. Confirm feasibility of operable windows readily accessible from the ground with Risk Management.

All screws and other miscellaneous fastening devices incorporated in the product shall be concealed within the window assembly.

Plastic materials are not acceptable.

Minimum warranties:

- A. Windows shall be warranted against defects in material and workmanship for a period of one (1) year from date of installation
- B. Insulating glass shall be warranted to be free from obstruction of vision by film formation or dust collection between the interior surfaces of the glass panes for a period of ten (10) years from date of installation pigmented organic finishes of the window and related component parts shall be warranted against blistering, cracking, peeling or chipping for a period of fifteen (15) years from the date of installation
- C. Where natural ventilation strategies are used, LEED and ASHRAE standards



must be met to comply with applicable code and regulatory requirements and shall support AU's continuous commissioning LEED prototype for Indoor Air Quality (IAQ).

FIRE-RATED FLUSH WOOD DOORS – 08 14 16

Type and construction shall be the standard of the manufacturer, with the following exceptions:

1. Provide balanced construction by furnishing manufacturer's laminated stile edge for improved screw holding to both stiles of all C-Label and B-Label doors
2. Stile edge split resistance shall exceed 751 pounds, in accordance with ASTM D143-52

SOUND-RETARDANT DOORS – 08 34 73

Doors shall have the AWI specification symbol SR. Doors shall be five-ply and shall be the standard of the manufacturer, with matching edge strips bonded to particleboard or stave lumber core with resin glue.

Doors shall be furnished complete with automatic threshold-sealing-device gaskets. Doors shall be not less than 1 3/4" (unless otherwise stated), according to the manufacturer's standard, in order to provide the sound transmission class specified.

OVERHEAD COILING DOORS – 08 33 23

All overhead doors shall be serviceable. Standard manufacturer is Overhead Door Company due to existing in- place service contract.

HARDWARE – 08 71 00, 08 71 11

Prepare steel frame units to receive mortised and concealed hardware (including cut-outs, reinforcing, drilling and tapping) in accordance with the final finish Hardware Schedule and templates provided by the hardware supplier. Comply with requirements of ANSI A115.1.

Coordinate all door hardware selections for access and security with requirements with University Safety and Security Services. Door assemblies may require additional width or bracing to accommodate required security hardware.



AUTOMATIC DOOR OPERATORS – 08 71 13

For doors heavier than 350 pounds, the Consultant will request product and/or performance information for review by Facilities Management.

Provide additional backing to accommodate the door operator.

Include one-year emergency service, required maintenance with end of warranty adjustment during the first year after Substantial Completion.

END OF DIVISION 8