1. GENERAL
   1. SUMMARY
      1. Section Includes:
         1. Non-rated solid-core doors with wood veneer faces.
         2. Factory finishing flush wood doors
         3. Factory fitting flush wood doors to frames and factory machining for hardware.
      2. Related Sections:

Retain Sections in subparagraphs below that contain requirements Contractor might expect to find in this Section but are specified in other Sections.

Retain one of first two options in first subparagraph below, depending on which Section is used to specify wood door frames if used. Fire-rated and non-fire-rated wood door frames are specified in both Sections.

* + - 1. Division 08 Section “Hollow Metal Doors and Frames” for hollow metal door frames.
      2. Division 08 Section “Door Hardware” for door hardware
      3. Division 08 Section "Glazing" for glass view panels in flush wood doors.
  1. SUBMITTALS
     1. Product Data: For each type of door indicated. Include details of core and edge construction and trim for openings. Include factory-finishing specifications.
     2. Shop Drawings: Indicate location, size, and hand of each door; elevation of each kind of door; construction details not covered in Product Data; location and extent of hardware blocking; and other pertinent data.
        1. Indicate dimensions and locations of mortises and holes for hardware.
        2. Indicate dimensions and locations of cutouts.
        3. Indicate doors to be factory finished and finish requirements.
     3. Samples for Verification:
        1. Factory finishes applied to actual door face materials, approximately 8 by 10 inches (200 by 250 mm), for each material and finish
     4. Warranty: Sample of special warranty.
  2. QUALITY ASSURANCE

Retain "Manufacturer Qualifications" Paragraph below if required for LEED. Before retaining, verify that manufacturers comply. Note that USGBC will allow credit for the full value of the door as certified wood if door manufacturer is listed for chain-of-custody certification and at least 70 percent of wood materials in the door are from certified forests; otherwise, it only allows credit for the value of certified wood materials used in making the door.

Revise first paragraph below or insert exceptions where types of doors specified are not available from a single manufacturer.

* + 1. Source Limitations: Obtain flush wood doors from single manufacturer.
    2. Quality Standard: In addition to requirements specified, comply with AWI's "Architectural Woodwork Quality Standards Illustrated."

Retain first subparagraph below if AWI standard is referenced in paragraph above. Retain second and third subparagraphs if WI standard is referenced in paragraph above.

* + - 1. Provide AWI Quality Certification Labels or an AWI letter of licensing for Project indicating that doors comply with requirements of grades specified.

Retain first paragraph below and one of first two options, together with one or more of last five options, if fire-rated doors are required.

Retain first subparagraph below if applicable and acceptable to authorities having jurisdiction.

Retain subparagraph below if required. The International Building Code allows an exception for buildings equipped throughout with fire-suppression sprinklers.

Retain paragraph below if Work of this Section is extensive or complex enough to justify a preinstallation conference.

* 1. DELIVERY, STORAGE, AND HANDLING
     1. Comply with requirements of referenced standard and manufacturer's written instructions.
     2. Package doors individually in plastic bags or cardboard cartons.
     3. Mark each door on top and bottom rail with opening number used on Shop Drawings.
  2. PROJECT CONDITIONS
     1. Environmental Limitations: Do not deliver or install doors until spaces are enclosed and weathertight, wet work in spaces is complete and dry, and HVAC system is operating and maintaining ambient temperature and humidity conditions at occupancy levels during the remainder of the construction period.

Generally retain paragraph above; retain paragraph below if humidity will be controlled during occupancy. If retaining below, retain one of three relative humidity ranges or insert another based on local climatological data. First option applies to Ontario, Quebec, and most of U.S. Second applies to damp coastal areas of southern U.S. and the Maritime Provinces. Third applies to dry southwestern U.S. and to Alberta, Manitoba, and Saskatchewan. See map and discussion about relative humidity and moisture content in AWI's quality standards.

* 1. WARRANTY

See Evaluations for door warranties.

When warranties are required, verify with Owner's counsel that special warranties stated in this article are not less than remedies available to Owner under prevailing local laws.

* + 1. Special Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace doors that fail in materials or workmanship within specified warranty period.
       1. Failures include, but are not limited to, the following:
          1. Warping (bow, cup, or twist) more than 1/4 inch (6.4 mm) in a 42-by-84-inch (1067-by-2134-mm) section.
          2. Telegraphing of core construction in face veneers exceeding 0.01 inch in a 3-inch (0.25 mm in a 76.2-mm) span.
       2. Warranty shall also include installation and finishing that may be required due to repair or replacement of defective doors.
       3. Warranty Period for Solid-Core Interior Doors: Life of installation.

Warranties for hollow-core doors vary with manufacturer and type of hollow core. Before retaining subparagraph below, verify availability of warranty period with manufacturers selected. Standard manufacturer's warranties generally go into effect on date of shipment, not date of Substantial Completion.

1. PRODUCTS
   1. MANUFACTURERS

See Editing Instruction No. 1 in the Evaluations for cautions about naming manufacturers. Retain paragraph and list of manufacturers in this article. See Section 016000 "Product Requirements."

* + 1. [Basis-of-Design Product](http://www.specagent.com/LookUp/?ulid=21&mf=04&src=wd): Subject to compliance with requirements, provide Western Oregon Door Company solid core doors or comparable product by one of the following:
       1. [Algoma Hardwoods, Inc](http://www.specagent.com/LookUp/?uid=123456809625&mf=04&src=wd).
       2. [Western](http://www.specagent.com/LookUp/?uid=123456809639&mf=04&src=wd) Oregon Door.
       3. [Vancouver Door Company](http://www.specagent.com/LookUp/?uid=123456789404&mf=04&src=wd).
       4. Approved equal.
  1. DOOR CONSTRUCTION, GENERAL
     1. Low-Emitting Materials: Fabricate doors with adhesives and composite wood products that do not contain urea formaldehyde.
     2. WDMA I.S.1-A Performance Grade: Heavy Duty.
     3. Particleboard-Core Doors:

Retain one or more of four options in first subparagraph below. Grade LD-2 makes a stronger door, has higher screw-holding capacity, and is standard with some manufacturers and optional with others. Before retaining last option, verify availability with door manufacturers.

* + - 1. Particleboard: ANSI A208.1, made with binder containing no urea-formaldehyde resin.
      2. Provide doors with either glued-wood-stave or structural-composite-lumber cores instead of particleboard cores for doors indicated to receive exit devices.
    1. Structural-Composite-Lumber-Core Doors:
       1. Structural Composite Lumber: WDMA I.S.10.
          1. Screw Withdrawal, Face: 700 lbf (3100 N).
          2. Screw Withdrawal, Edge: 400 lbf (1780 N).
  1. SOLID CORE VENEER-FACED DOORS FOR TRANSPARENT FINISH
     1. Solid core wood-faced door:

WDMA and WI have no Economy grade for doors.

* + - 1. Type: Interior door 20-minute labeled fire door or non-rated door.
      2. Grade: AWI Premium with grade ‘A’ face veneer
         1. Species: select white maple
         2. Cut: Plain (flat) sliced
         3. Match between veneer leaves: Slip match
         4. Assembly of veneer leaves on door faces: Balance match
         5. Room match: Door faces to be of compatible color and grain within each separate room
      3. Finish: factory-applied transparent finish
      4. Construction: 5-ply
      5. Core: Particle board grade 1-LD-2, 28-32 pcf; bonded to stiles and rails, sanded.
      6. Stiles: Minimum 2 inches structural composite lumber (SCL); provide ¼” minimum matching hardwood edge. Conceal crossbands.
      7. Rails:
         1. Bottom rail: 2 inches minimum
         2. Top rail: 2 inches minimum
      8. Lock blocks: Minimum 5 inches by 10 inches on lock side. Intermediate blocking to be installed for all panic hardware: minimum 5 inches deep.
      9. Fire rating labels: permanently affixed metal stamped on hinge stile – do not glue.
  1. LIGHT FRAMES

Retain one or more of "Wood Beads for Light Openings in Wood Doors," "Wood-Veneered Beads for Light Openings in Fire-Rated Doors," and "Metal Frames for Light Openings in Fire-Rated Doors" paragraphs below if light openings are required.

* + 1. Metal Frames for Light Openings in Fire-Rated Doors: Manufacturer's standard frame formed of 0.048-inch- (1.2-mm-) thick, cold-rolled steel sheet; with baked-enamel- or powder-coated finish; and approved for use in doors of fire-protection rating indicated.

Retain one of two options in first subparagraph below, usually first. First is typical 0.048-inch- (1.2-mm-) thick material; second is 0.118-inch- (3.0-mm-) thick material made specifically for doors and is expensive. Before specifying second option, verify availability with manufacturers selected.

* 1. FABRICATION

Retain one or more of "Wood Beads for Light Openings in Wood Doors," "Wood-Veneered Beads for Light Openings in Fire-Rated Doors," and "Metal Frames for Light Openings in Fire-Rated Doors" paragraphs below if light openings are required.

Delete first paragraph below if no doors are required to be factory fitted. Retain paragraph and revise to indicate exceptions if only some doors are required to be factory fitted. Plastic-laminate-edged and factory-finished doors must be factory fitted and machined. Fire-rated and plastic-laminate-faced doors with wood edges should also be factory fitted and machined. Factory fitting and machining for other doors are optional. See Evaluations.

Standard fitting may be inadequate for doors 2-1/2 inches (64 mm) thick or more or for doors exposed to wide changes in humidity and temperature.

* + 1. Factory fit doors to suit frame-opening sizes indicated. Comply with clearance requirements of referenced quality standard for fitting unless otherwise indicated.
       1. Comply with requirements in NFPA 80 for fire-rated doors.

Delete first paragraph below if no doors are required to be factory machined. Retain paragraph and revise to indicate exceptions if only some doors are required to be factory machined. See Evaluations.

* + 1. Factory machine doors for hardware that is not surface applied. Locate hardware to comply with DHI-WDHS-3. Comply with final hardware schedules, door frame Shop Drawings, DHI A115-W series standards, and hardware templates.

Retain first subparagraph below for metal frames for wood doors.

* + - 1. Coordinate with hardware mortises in metal frames to verify dimensions and alignment before factory machining.
      2. Metal Astragals: Factory machine astragals and formed-steel edges for hardware for pairs of fire-rated doors.
  1. FACTORY FINISHING

Retain this article if factory finishing is required. Factory finishing can be used to help comply with LEED-NC, LEED-CS, or LEED-CI Credit IEQ 4.2, which limits VOC content of paints and coatings used within building. Factory finishing also has other advantages. See Evaluations.

* + 1. General: Comply with referenced quality standard for factory finishing. Complete fabrication, including fitting doors for openings and machining for hardware that is not surface applied, before finishing.
       1. Finish faces, all four edges, edges of cutouts, and mortises. Stains and fillers may be omitted on bottom edges, edges of cutouts, and mortises.

Retain one of first three paragraphs below. Revise if finishing is performed at another location such as a woodworking shop.

* + 1. Finish doors at factory.
    2. Transparent Finish:

Usually retain same grade for finish as specified for doors.

* + - 1. Grade: Premium.
      2. Finish: AWI catalyzed polyurethane system.
      3. Staining: As selected by Owner from manufacturer's full range.
      4. Sheen: Satin.

Retain first paragraph below if applicable. Indicate here or on Drawings if doors and transoms are rabbeted. Verify that transom sizes and attachment methods comply with fire-protection ratings if fire-rated doors with transoms are used.

1. EXECUTION
   1. EXAMINATION
      1. Examine doors and installed door frames before hanging doors.
         1. Verify that frames comply with indicated requirements for type, size, location, and swing characteristics and have been installed with level heads and plumb jambs.
         2. Reject doors with defects.
      2. Proceed with installation only after unsatisfactory conditions have been corrected.
   2. INSTALLATION
      1. Hardware: For installation, see Section 08 71 00 "Door Hardware"
      2. Installation Instructions: Install doors to comply with manufacturer's written instructions and the referenced quality standard, and as indicated.
      3. Job-Fitted Doors: Align and fit doors in frames with uniform clearances and bevels as indicated below; do not trim stiles and rails in excess of limits set by manufacturer. Machine doors for hardware. Seal edges of doors, edges of cutouts, and mortises after fitting and machining.
         1. Clearances: Provide 1/8 inch (3.2 mm) at heads, jambs, and between pairs of doors. Provide 1/8 inch (3.2 mm) from bottom of door to top of decorative floor finish or covering unless otherwise indicated. Where threshold is shown or scheduled, provide 1/4 inch (6.4 mm) from bottom of door to top of threshold unless otherwise indicated.
         2. Bevel non-fire-rated doors 1/8 inch in 2 inches (3-1/2 degrees) at lock and hinge edges.
            1. Factory-Fitted Doors: Align in frames for uniform clearance at each edge.
            2. Factory-Finished Doors: Restore finish before installation if fitting or machining is required at Project site.
   3. ADJUSTING
      1. Operation: Rehang or replace doors that do not swing or operate freely.
      2. Finished Doors: Replace doors that are damaged or that do not comply with requirements. Doors may be repaired or refinished if work complies with requirements and shows no evidence of repair or refinishing.

**END OF SECTION**