

SECTION 08 14 33

STILE AND RAIL WOOD DOORS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section Includes:

- 1. Exterior stile and rail wood doors, transoms and sidelites.
- 2. Fitting stile and rail wood doors to frames and machining for hardware.
- 3. Prehanging doors in frames.

B. Related Sections:

- 1. Division 09 Section "Staining and Transparent Finishing" for field finishing stile and rail doors.

1.3 SUBMITTALS

A. Product Data: For each type of product indicated.

- 1. Include details of construction and glazing.

B. Maine State Housing Authority Green Standards Submittals:

- 1. Product Data for adhesives and composite wood materials, documentation indicating that products contain no urea formaldehyde.

C. Shop Drawings: For stile and rail wood doors. Indicate location, size, and hand of each door; elevation of each kind of door; construction details not covered in Product Data, including those for stiles, rails, panels, and moldings (sticking); and other pertinent data, including the following:

- 1. Dimensions of doors for factory fitting.
- 2. Locations and dimensions of mortises and holes for hardware.

D. Samples for Verification: Corner sections of doors, approximately 8 by 10 inches, with door faces and edgings representing typical range of color and grain for each species of veneer and solid lumber required.

- E. Product Certificates: For each type of door, from manufacturer.
- F. Warranty: Sample of special warranty.

1.4 QUALITY ASSURANCE

- A. Source Limitations: Obtain custom stile and rail wood doors from single manufacturer.
- B. Safety Glass: Provide products complying with testing requirements in 16 CFR 1201, for Category II materials, unless those of Category I are expressly indicated and permitted.

1.5 DELIVERY, STORAGE, AND HANDLING

- A. Comply with manufacturer's written instructions and requirements of quality standard referenced in Part 2.
- B. Package doors individually in opaque plastic bags or cardboard cartons.
- C. Mark each door on top and bottom edge with opening number used on Shop Drawings.

1.6 PROJECT CONDITIONS

- A. Environmental Limitations: Do not deliver or install doors until spaces are enclosed and weathertight, wet work in spaces is complete and dry, and temporary HVAC system is operating and maintaining ambient temperature and humidity conditions at occupancy levels during the remainder of the construction period.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. General: Use only materials that comply with referenced standards and other requirements specified.
 - 1. Assemble exterior doors and sidelites, including components, with wet-use adhesives complying with ASTM D 5572 for finger joints and with ASTM D 5751 for joints other than finger joints.
- B. Low-Emitting Materials: Provide doors made with adhesives and composite wood products that do not contain urea-formaldehyde resins.
- C. Panel Products: Any of the following:
 - 1. Veneer core plywood, made with adhesive containing no urea-formaldehyde resin.

2.2 EXTERIOR STILE AND RAIL WOOD DOORS

- A. Exterior Stile and Rail Wood Doors: Custom exterior doors complying with AWI's "Architectural Woodwork Quality Standards," and with other requirements specified.
1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
 - a. A. E. Sampson (207-273-4000)
 - b. Precision Millwork (207-761-3997)
 2. Panel Designs: Indicated by Drawings. Do not modify intended aesthetic effects, as judged solely by Architect, except with Architect's approval. If modifications are proposed, submit comprehensive explanatory data to Architect for review.
 3. Grade: Premium.
 4. Finish: Transparent.
 5. Wood Species and Cut for Transparent Finish: Red oak, quarter sawed/sliced stiles and rails, plain sawed/sliced panels.
 6. Door Construction for Transparent Finish:
 - a. Stile and Rail Construction: Clear lumber; may be edge glued for width. Select lumber for similarity of grain and color, and arrange for optimum match between adjacent pieces.
 - b. Raised-Panel Construction: Clear lumber; edge glued for width. Select lumber for similarity of grain and color, and arrange for optimum match between adjacent pieces.
 7. Stile and Rail Widths: As indicated.
 8. Raised-Panel Thickness: 1-3/4 inches.
 9. Molding Profile (Sticking): As selected by Architect from manufacturer's full range.
 10. Glass: Uncoated, clear, insulating-glass units made from two lites of 3.0-mm-thick, fully tempered glass with 1/4-inch interspace, complying with Division 08 Section "Glazing."

2.3 STILE AND RAIL WOOD DOOR FABRICATION

- A. Fabricate stile and rail wood doors in sizes indicated for field fitting.
- B. Factory fit doors to suit frame-opening sizes indicated, with the following uniform clearances and bevels unless otherwise indicated:
1. Clearances: Provide 1/8 inch at heads, jambs, and between pairs of doors. Provide 1/2 inch from bottom of door to top of decorative floor finish or covering. Where threshold is shown or scheduled, provide not more than 3/8 inch from bottom of door to top of threshold.
 2. Bevel non-fire-rated doors 1/8 inch in 2 inches at lock and hinge edges.
- C. 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.

1. Coordinate measurements of hardware mortises in metal frames to verify dimensions and alignment before factory machining.
- D. Glazed Openings: Glaze doors at factory with glass of type and thickness indicated, complying with Division 08 Section "Glazing." Install glass using manufacturer's standard elastomeric glazing sealant complying with ASTM C 920. Secure glass in place with removable wood moldings. Miter wood moldings at corner joints.
 - E. Transom and Side Panels: Fabricate panels to match adjoining doors in materials, finish, and quality of construction.
 - F. Exterior Doors: Factory treat exterior doors after fabrication with water-repellent preservative to comply with WDMA I.S.4. Flash top of outswinging doors with manufacturer's standard metal flashing.
 - G. Prehung Doors: Provide stile and rail doors as prehung units including doors, frames, weather stripping, and hardware.
 1. Provide wood door frames constructed of the same material as the door.
 2. Provide hardware, including weather stripping and thresholds, that complies with Division 08 Section "Door Hardware."

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine doors and substrates, with Installer present, for suitable conditions where wood stile and rail doors will be installed.
 1. Verify that installed 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.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 INSTALLATION

- A. Hardware: For installation, see Division 08 Section "Door Hardware."
- B. Install wood doors to comply with manufacturer's written instructions, AWI's "Architectural Woodwork Quality Standards," and other requirements specified.
- C. Factory-Fitted Doors: Align in frames for uniform clearance at each edge.

3.3 ADJUSTING

- A. Operation: Rehang or replace doors that do not swing or operate freely.

- B. Finished Doors: Replace doors that are damaged or 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 08 14 33