

SECTION 08 1433- THERMAL FUSED 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 1 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section Includes:

- 1. Interior flush thermal fused wood doors with simulated stile and rail panels.
- 2. Interior wood frames.
- 3. Factory fitting wood doors to frames and factory machining for hardware.

B. Related Sections:

- 1. Division 01 Section "Execution" for Asset Tagging
- 2. Division 08 Section "Hollow Metal Doors and Frames" for wood doors in steel frames.
- 3. Division 08 Sections "Door Hardware" and "Access Control Hardware" for door hardware for thermal fused stile and rail wood doors and wood frames.
- 4. Division 28 Section "Access Control" for access control devices installed at door openings and provided as part of a security access system.

C. Standards and References: Comply with the version year adopted by the Authority Having Jurisdiction.

- 1. ANSI A208.1 - Particleboard.
- 2. A115-W - Wood Door Hardware Standards; Hardware Preparations.
- 3. Window and Door Manufacturers Association - WDMA I.S.1-A Architectural Wood Flush Doors for performance standards.

1.3 SUBMITTALS

- A. Product Data: For each type of door indicated. Include details of core and edge construction
- B. Door hardware supplier is to furnish templates, template reference number and/or physical hardware to the door supplier in order to prepare the doors and frames to receive the finish hardware items.
- C. Shop Drawings: Indicate location, size, and hand of each door; elevation of each kind of door; construction details not covered in Product Data; and other pertinent data.
 - 1. Indicate dimensions and locations of mortises and holes for hardware.
- D. Samples for Initial Selection at the request of Architect.

1. Corner sections of doors, 8 by 10 inches, with door faces and edges representing actual materials to be used.

E. Warranty: Sample of special warranties.

1.4 QUALITY ASSURANCE

- A. Comply with the most current edition of the Northwestern University Design Standards.
- B. Source Limitations: Obtain thermal fused stile and rail wood doors through one source from a single manufacturer.
- C. Quality Standard: In additions to requirements specified, comply with WDMA I.S.1-A, latest edition, "Industry Standard for Architectural Wood Flush Doors" for following minimum values (for particle core doors):
 1. NWWDA TM-8 Hinge Loading Test 1,000 lbs.
 2. NWWDA TM-10 Edge Screw Holding Test 700 lbs.
 3. NWWDA TM-10 Face Screw Holding Test 650 lbs.
- D. Pre-Submittal Conference: Conduct conference in compliance with requirements in Division 01 Section "Project Meetings" with attendance by representatives of Supplier, Installer, and Contractor to review proper methods and procedures for receiving, handling, and installing thermal fused stile and rail wood doors.

1.5 DELIVERY, STORAGE, AND HANDLING

- A. Comply with requirements of referenced standard and manufacturer's written instructions.
- B. Mark each door on top rail 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 HVAC system is operating and maintaining ambient temperature and humidity conditions at occupancy levels during the remainder of the construction period.

1.7 WARRANTY

- A. 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:
 - a. Warping (bow, cup, or twist) more than 1/4 inch in a 42-by-84-inch section.
 - b. Delaminating of face on doors.
 2. Warranty includes installation that may be required due to repair or replacement of defective doors.
 3. Warranty Period for Thermal Fused Stile and Rail Interior Doors: One year from the date of manufacturer's invoice according to manufacturer's written warranty.

PART 2 - PRODUCTS

2.1 THERMAL FUSED STILE AND RAIL DOOR CONSTRUCTION - GENERAL

- A. Assemble doors, including components, with minimum WDMA Type I adhesives.
- B. Particleboard Core Doors:
 - 1. Particleboard: ANSI A208.1, Grade M-2.
 - 2. Wood Stiles and Rails: As required to meet Extra Heavy Duty Performance level.
 - 3. Blocking: As required to meet Extra Heavy Duty Performance level.

2.2 THERMAL FUSED STILE AND RAIL DOORS FOR OPAQUE FINISH - INTERIOR

- A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - 1. The Maiman Company - Reveal Series.
 - 2. Substitutions: Requests for substitution and product approval in compliance with the specifications must be submitted in writing and in accordance with the procedures and time frames outlined in Division 01, Substitution Procedures. Approval of requests is at the discretion of the architect, owner, and their designated consultants.
- B. Interior Solid Core Doors:
 - 1. Thermal Fused Stile and Rail Construction: M-2 structural engineered core; edgebands flexible polymer to match.
 - 2. Flat-Panel Construction:
 - a. Wood-based panel product.
 - 3. Surfaces for Opaque Finish: Manufacturer's standard mill option paintable overlay thermally fused to the core stiles and rails and panels.
 - 4. Size, Layout and Thickness: As indicated on Drawings.

2.3 INTERIOR WOOD FRAMES

- A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - 1. The Maiman Company.
- B. Non-Rated Wood Door Frames: Frames, complete with transom and sidelite frames, fabricated from veneered structural composite lumber for transparent finish or solid lumber close grained hardwood for opaque finish.
- C. Wood species for Opaque Finishes: Manufacturer's standard mill option paint grade species.
- D. Frame Profiles: As indicated on Drawings.

2.4 FABRICATION

- A. Factory fit doors to suit frame opening sizes indicated. Comply with clearance requirements of referenced quality standard for fitting unless otherwise indicated.
- B. Factory machine doors for hardware that is not surface applied. Comply with final hardware schedules, door frame Shop Drawings, DHI A115-W series standards, and hardware templates.
 - 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.
- C. Electrical Raceways: Provide thermal fused stile and rail wood doors receiving electrified hardware with concealed wiring harness and standardized Molex™ plug connectors on both ends to accommodate up to twelve wires. Provide ALL thermal fused doors with raceway for future expansion of access control. Coordinate connectors on end of the wiring harness to plug directly into the electrified hardware and the through wire transfer hardware or wiring harness specified in hardware sets in Division 08 "Door Hardware". Wire nut connections are not acceptable.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. 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.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 INSTALLATION

- A. Hardware: For installation, see Division 8 Section "Door Hardware."
- B. Installation Instructions: Install doors to comply with manufacturer's written instructions and the referenced quality standard, and as indicated.
- C. Factory Fitted Doors: Align in frames for uniform clearance at each edge.
- D. Factory Finished Doors: Restore finish before installation if fitting or machining is required at Project site.

3.3 ADJUSTING

- A. Operation: Re-hang or replace doors that do not swing or operate freely.
- B. Replace doors that do not comply with requirements. Doors may be repaired if work complies with requirements and shows no evidence of repair.

NORTHWESTERN UNIVERSITY
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JOB # _____

FOR: _____
ISSUED: 2/25/2019

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