SECTION 08 14 23.16

WOOD DOORS

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\*\* NOTE TO SPECIFIER \*\* Algoma; wood doors.  
This section is based on the products of Algoma, which is located at:  
1001 Perry St.  
Algoma, WI 54201-1633  
Toll Free: 800-678-8910  
Phone: 920-487-5221  
Fax: 920-487-3636  
Email: algomasales@masonite.com  
Web: www.algomahardwoods.com  
For over 60 years, Algoma has manufactured high quality architectural flush and stile and rail wood doors. We are committed to providing architects, designers and specifiers a full selection of wood doors, in an almost infinite variety of styles, cores, veneers, quality levels and functional capabilities. Our talented crafts people can also provide a wide-range of factory-quality services for preserving quality, and improving look and feel. We are inspired to create interior doors that don't just blend into their surroundings, but make a statement all themselves. From exotic veneer species and special layups to specialty windows and glass, we work with you to make your vision a reality in all market segments.

1. GENERAL
   1. SECTION INCLUDES

\*\* NOTE TO SPECIFIER \*\* Delete items below not required for project.

* + 1. Flush wood doors with veneer faces, architectural hot press type.
    2. Stile and rail wood doors with veneer faces, architectural hot press type.
    3. High impact acrylic modified vinyl faced doors.
    4. Flush wood doors with veneer faces, commercial cold press type.
    5. Factory pre-fitting, pre-machining for hardware, detailing, glazing and factory prefinishing.
  1. RELATED SECTIONS

\*\* NOTE TO SPECIFIER \*\* Delete any sections below not relevant to this project; add others as required.

* + 1. Section 06 10 00 - Rough Carpentry.
    2. Section 06 20 00 - Finish Carpentry.
    3. Section 08 11 00 - Metal Doors and Frames.
    4. Section 08 71 53 - Security Door Hardware.
    5. Section 08 83 13 - Mirrored Glass Glazing.
    6. Section 09 90 00 - Painting and Coating.
    7. Section 28 32 43 - Radiation Dosimeters.
  1. REFERENCES

\*\* NOTE TO SPECIFIER \*\* Delete references from the list below that are not actually required by the text of the edited section.

* + 1. ASTM International (ASTM): ASTM E 90 - Standard Test Method for Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions and Elements.
    2. American National Standards Institute (ANSI):
       1. ANSI A 208.1 - Standard for Particleboard.
       2. ANSI A 208.2 - Standard for Medium Density Fiberboard for Interior Use.
    3. Window and Door Manufacturers Association (WDMA):
       1. WDMA I.S. 1A-13 - Industry Standard for Architectural Wood Flush Doors.
       2. WDMA I.S. 6A-13 - Industry Standard for Architectural Stile and Rail Doors.
    4. Architectural Woodwork Standards (AWS):
       1. Architectural Woodwork Institute (AWI): Quality Standards Illustrated (QSI).
       2. Woodwork Institute (WI): Manual of Millwork (MM).
    5. National Fire Protection Association (NFPA):
       1. NFPA 80 - Standard for Fire Doors and Other Opening Protectives.
       2. NFPA 252 - Standard Methods of Fire Tests of Door Assemblies.
    6. Underwriters' Laboratories (UL):
       1. UL 10B - Standard for Fire Tests of Door Assemblies.
       2. UL 10C - Standard for Positive Pressure Fire Tests of Door Assemblies.
       3. UL 752 - Standards Bullet-Resisting Equipment.
    7. ITS (Warnock Hersey): Certification Listings for Fire Doors.
    8. Forest Stewardship Council (FSC): Guidelines for environmentally certified wood doors.
    9. US Green Building Council (USGBC): LEED - Leadership in Energy and Environmental Design rating system.
  1. SUBMITTALS
     1. Submit under provisions of Section 01 30 00 - Administrative Requirements.
     2. Product Data: Manufacturer's product construction data, hardware attachment performance data, specifications and installation instructions for each type of wood door, including details of core, raised panel (if applicable), edge construction, trim for lite openings and similar components:
        1. Preparation instructions and recommendations.
        2. Storage and handling requirements and recommendations.
        3. Cleaning methods.

\*\* NOTE TO SPECIFIER \*\* Delete if not required.

* + 1. LEED Submittals: Submit documentation

\*\* NOTE TO SPECIFIER \*\* "Product Data for Credit MR 5" Subparagraph below applies to LEED-NC, LEED-CS, and LEED for Schools. It is recommended that additional research be done to determine if the wood door manufacturer has products that can contribute to the Regional Material credit. Delete if not required.

* + - 1. Product Data for Credit MR 5: For products and materials that comply with requirements for regional materials, documents indicating location of material manufacturer and point of extraction, harvest, or recovery for each raw material that contributes towards this credit. Include statement indicating distance to Project, cost for each regional material, and fraction by weight that is considered regional.

\*\* NOTE TO SPECIFIER \*\* "First option in "Certificates for (Credit MR 6) (Credit MR 7)" Subparagraph below applies to LEED-CS; second applies to LEED-NC, LEED-CI, and LEED for Schools. Delete if not required.

* + - 1. Certificates for Credit MR 6, LEED Core & Shell and Credit MR 7: Provide certificates of chain-of-custody by manufacturers, supplier, and distributors certifying that the products specified to be made from certified wood were made from wood obtained from forests certified by an FSC-accredited certification body to comply with FSC 1.2 Principals and Criteria. Include evidence that mill and distributor is certified for chain-of-custody by an FSC-accredited certification body. Include certification number. Wood products with FSC certification shall have material cost separated from other wood products. Installers of wood products are not required to have chain-of-custody certification.

\*\* NOTE TO SPECIFIER \*\* "Product Data for Credit IEQ 4.4" Subparagraph below applies to LEED-NC, LEED-CI, and LEED-CS. Delete if not required.

* + - 1. Product Data for Credit IEQ 4.4: For adhesives and composite wood products, indicating that product contains no added urea formaldehyde.

\*\* NOTE TO SPECIFIER \*\* "Laboratory Test Reports for Credit IEQ 4.4" Subparagraph below applies to LEED for Schools. Delete if not required.

* + - 1. Laboratory Test Reports for LEED for Schools Credit IEQ 4.4: For composite wood products, documentation indicating that products comply with the testing and product requirements of the California Department of Health Services' "Standard Practice for the Testing of Volatile Organic Emissions from Various Sources Using Small-Scale Environmental Chambers." All composite wood and agrifiber products shall meet this requirement. Provide products that are third party certified through SCS Indoor Advantage Gold.
    1. Shop Drawings: Including but not limited to door type, door size, fire rating, hardware types and locations, hardware blocking requirements and location, panel layout, vision panel, louver cutout or lite opening sizes and locations, prefinish system type and approved colors.

\*\* NOTE TO SPECIFIER \*\* The following paragraph applies to flush wood doors. Delete if not required.

* + 1. Verification Samples:
       1. Color Samples: Two samples, minimum 6 inches (150 mm) x 6 inches (150 mm), on veneer or paintable surface representing actual products and finishes specified.
       2. Construction Samples: Corner sections with door faces, edges, and core representative of the actual door types specified, not less than 6 inches (150 mm) x 6 inches (150 mm).

\*\* NOTE TO SPECIFIER \*\* The following paragraph applies to stile and rail doors. Delete if not required.

* + 1. Verification Samples:
       1. Color Samples: Two samples, minimum 6 inches (150 mm) x 6 inches (150 mm), on veneer or paintable surface representing actual products and finishes specified.
       2. Construction Samples: Corner sections with door faces, raised panels, sticking profile, edges, and core representative of the actual door types specified, not less than 6 inches (150 mm) x 6 inches (150 mm).
  1. QUALITY ASSURANCE
     1. Manufacturer's Qualifications: Company specializing in manufacturing products specified herein with a minimum of five years documented experience.

\*\* NOTE TO SPECIFIER \*\* Retain "Manufacturer Qualifications" and "Vendor Qualifications" paragraphs below if required for LEED.

* + - 1. A qualified manufacturer that is certified for chain of custody by an FSC-accredited certification body when FSC certified wood is specified.
      2. A qualified manufacturer that is a member in good standing of the Window and Door Manufacturers Association.

\*\* NOTE TO SPECIFIER \*\* Chain-of-custody certification is not required for subcontractors (entities that install products) but is required for vendors unless they are simply acting as an agent of manufacturer and the sale is actually between manufacturer and Contractor or subcontractor. Delete if not required.

* + 1. Vendor Qualifications: A vendor that is certified for chain of custody by an FSC-accredited certification body when FSC Certified wood is specified
    2. Single Source Requirements: To the greatest extent possible doors shall be supplied from a single manufacturer.
    3. Label Certification: Doors requiring fire-rating will carry either UL or ITS (Warnock Hersey) label. Manufacturer's certification labels may be used for door size variations if approved by AHJ (Authority Having Jurisdiction).

\*\* NOTE TO SPECIFIER \*\* Not available with cold press or stile and rail doors. Delete if not required.

* + 1. Environmental Certification: Doors requiring environmental certification will be marked with Forest Stewardship Council (FSC) chain of custody number to ensure wood components come from certified forests and are processed by certified chain-of-custody suppliers.
    2. Standards Compliance: Doors shall comply with WDMA I.S. 1A-13 (Window and Door Manufacturers Association) AWS Section 9 (Architectural Woodwork Institute) or, AWI with quality certification program (QCP).
    3. Product Performance: Provide documents showing compliance to the following WDMA attributes, validating the specified WDMA Performance Duty Level:
       1. Adhesive Bonding Durability: WDMA TM-6.
       2. Cycle Slam: WDMA TM-7.
       3. Hinge Loading: WDMA TM-8.
       4. Screw Holding: WDMA TM-10.
          1. Door Face.
          2. Vertical Door Edge.
          3. Horizontal Door Edge (applies when hardware is attached).
  1. DELIVERY, STORAGE, AND HANDLING
     1. Deliver, store and handle materials and products in strict compliance with manufacturer's instructions and recommendations and industry standards.
     2. Store materials in manufacturer's original sealed, labeled packaging until ready for installation and in accordance with manufacturer's instructions. Protect from damage.
     3. Store and protect doors in accordance with manufacturer's recommendations Including but not limited to the following.

\*\* NOTE TO SPECIFIER \*\* The first option applies to flush wood doors only. Delete if not required.

* + - 1. Compliance: WDMA and AWS Standards.
      2. Compliance: WDMA Standards.
      3. Store doors flat and off the floor on a level surface in a dry, well-ventilated building. Do not store on edge. Protect/cover doors from dirt, water and abuse.
      4. Certain wood species are light sensitive. Protect doors from exposure to light (artificial or natural) after delivery.
      5. When handling doors, always lift and carry. Do not drag across other doors or surfaces. Handle with clean hands or gloves.
      6. Each door will be marked on top rail with opening number.
  1. PROJECT CONDITIONS
     1. Maintain environmental conditions (temperature, humidity and ventilation) within limits recommended by manufacturer for optimum results. Do not install products under environmental conditions outside manufacturer's absolute limits.

\*\* NOTE TO SPECIFIER \*\* The option below is for hot press doors. Delete if not required.

* + - 1. Do not subject interior doors to extremes in either heat or humidity. HVAC systems shall be operational and balanced, providing a temperature range of 50 to 90 degrees Fahrenheit (10 to 32 degrees C) and 25 percent to 55 percent relative humidity.

\*\* NOTE TO SPECIFIER \*\* The option below is for cold press and stile and rail doors. Delete if not required.

* + - 1. Do not subject interior doors to extremes in either heat or humidity. HVAC systems shall be operational and balanced, providing a temperature range of 50 to 90 degrees Fahrenheit (10 to 32 degrees C) and 25 percent to 55 percent relative humidity.
  1. WARRANTY
     1. Manufacturer's Standard Warranty: In interior applications, life of original installation, against defects in materials or workmanship. Warranty shall provide for repair or replacement of defective door(s) as originally furnished at Manufacturer option. Manufacturer will assume reasonable costs associated with same, including rehanging.
        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-inches (1067-by-2134-mm) section.
           2. Telegraphing of core construction in face veneers exceeding 0.01 inch in a 3 inches (0.25 mm in a 76.2-mm) span.

1. PRODUCTS
   1. MANUFACTURERS
      1. Acceptable Manufacturer: Algoma , which is located at: 1001 Perry St.; Algoma, WI 54201-1633; Toll Free Tel: 800-678-8910; Tel: 920-487-5221; Fax: 920-487-3636; Email: [request info (algoma@algomahardwoods.com)](http://admin.arcat.com/users.pl?action=UserEmail&company=Algoma+&coid=30268&rep=&fax=920-487-3636&message=RE:%20Spec%20Question%20(08210alg):%20%20&mf=); Web: [www.algomahardwoods.com](http://www.algomahardwoods.com)

\*\* NOTE TO SPECIFIER \*\* Delete one of the following two paragraphs; coordinate with requirements of Division 1 section on product options and substitutions.

* + 1. Substitutions: Not permitted.
    2. Requests for substitutions will be considered in accordance with provisions of Section 01 60 00 - Product Requirements.

\*\* NOTE TO SPECIFIER \*\* Delete if not required.

* 1. ARCHITECTURAL HOT-PRESS FLUSH WOOD DOORS

\*\* NOTE TO SPECIFIER \*\* Delete if not required.

* + 1. Architectural Hot-Press Flush Wood Doors: As manufactured by Algoma.

\*\* NOTE TO SPECIFIER \*\* Delete options for quality standards not required.

* + - 1. Quality Standards: WDMA I.S. 1A-13 (Window and Door Manufacturers Association).
      2. Quality Standards: AWS Section 9 (Architectural Woodwork Institute).
      3. Quality Standards: AWI with quality certification program (QCP).
      4. Quality Standards: As scheduled and indicated on Drawings.

\*\* NOTE TO SPECIFIER \*\* Delete fire rating requirements if not required.

* + - 1. Fire Rating: According to NFPA 80 requirements and building code standards having local jurisdiction, specific rating as specified with each product.

\*\* NOTE TO SPECIFIER \*\* Delete options for testing not required.

* + - * 1. Neutral Pressure Testing: UBC 7-2, UL10B. Doors require the addition of a Category G gasket to the frame.
        2. Positive Pressure Testing: UBC 7-2, UL10C. Doors require no additional seal or gasket.

\*\* NOTE TO SPECIFIER \*\* Delete STC requirements if not required.

* + - 1. Sound Transmission Class (STC): ASTM E 90, doors to carry an acoustical rating for sound transmission class as scheduled and indicated on Drawings; accessories required for acoustical rating compliance supplied by door manufacturer with door.

\*\* NOTE TO SPECIFIER \*\* Delete lead-lined requirements if not required.

* + - 1. Lead-Lined: Doors to have continuous lead sheeting from edge to edge between the cross banding and the core in locations as scheduled and indicated on Drawings.

\*\* NOTE TO SPECIFIER \*\* Delete options for lead thickness not required.

* + - * 1. Lead Thickness: 1/16 inch (1.6 mm).
        2. Lead Thickness: 1/8 inch (3.2 mm).
        3. Lead Thickness: As scheduled and indicated on Drawings.

\*\* NOTE TO SPECIFIER \*\* Delete bullet resistance requirements if not required.

* + - 1. Bullet Resistance: Doors manufactured with ballistic rated materials within the core assembly in locations as scheduled and indicated on Drawings. .

\*\* NOTE TO SPECIFIER \*\* Delete resistance level not required.

* + - * 1. Resistance Level (UL 752): Level 1.
        2. Resistance Level (UL 752): Level 2.
        3. Resistance Level (UL 752): Level 3.
        4. Resistance Level (UL 752): As scheduled and indicated on Drawings.

\*\* NOTE TO SPECIFIER \*\* Delete the environmental certification if not required.

* + - 1. Environmental Certification: Materials used in construction of the door shall meet Forest Stewardship Council (FSC) requirements as pertaining to certified sourcing, recycled material content and chain-of-ownership requirements.

\*\* NOTE TO SPECIFIER \*\* Delete UF free requirements if not required.

* + - 1. Urea Formaldehyde Content: LEED EQ 4.4 NAUF (no added urea formaldehyde). SCS Indoor Advantage Gold.

\*\* NOTE TO SPECIFIER \*\* The following door construction options apply to non fire rated doors and 1/3 hour fire rated doors. Delete if not required.

* + 1. Door Construction: Constructed using Hot Press method for laminating face veneers and crossbanding to the core. Cold pressing is not acceptable.

\*\* NOTE TO SPECIFIER \*\* Delete options for fire rating required.

* + - 1. Fire Rating: None.
      2. Fire Rating: 1/3 hour fire rated doors.
      3. Fire Rating: As scheduled and indicated on Drawings.

\*\* NOTE TO SPECIFIER \*\* WDMA and AWS standards identify an Aesthetic grade as well as a performance standard. Premium grade is the highest grade commercially available in both material and workmanship; intended for the finest commercial, industrial and institutional buildings. Custom grade is the typical and normal grade in both material and workmanship, intended for high-quality work. Delete options for aesthetic grade not required.

* + - 1. Aesthetic Grade: Premium.
      2. Aesthetic Grade: Custom.
      3. Aesthetic Grade: As scheduled and indicated on Drawings.

\*\* NOTE TO SPECIFIER \*\* Extra Heavy Duty typically involves doors where use is considered heavy and frequent, and requires the highest minimum performance standards. Heavy Duty typically involves doors where usage is moderate, and requires intermediate minimum performance standards. Standard Duty typically involves doors where frequency of use is low, and requires the lowest minimum performance standards. Delete options for performance standard not required.

* + - 1. Performance Standard: Extra Heavy Duty.
      2. Performance Standard: Heavy Duty.
      3. Performance Standard: Standard Duty.
      4. Performance Standard: As scheduled and indicated on Drawings.

\*\* NOTE TO SPECIFIER \*\* Structural Composite Lumber Core (SCLC-5) is sometimes referred to as LSL (Laminated Strand Lumber). Delete options for core materials not required.

* + - 1. Core Material: Particleboard Core (PC-5); to comply with ANSI Standard A208.1 LD-2, with screw holding power of 117 lbs, modulus of rupture of 406 psi, modulus of elasticity of 72,500 psi and density of 30-35 lbs per cubic foot. Screw holding is particular to duty level specified.
      2. Core Material: Structural Composite Lumber Core (SCLC-5); engineered hardwood composite, minimum performance levels for screw holding power of 550 lbs, modulus of rupture of 4,000 psi, modulus of elasticity of 600,000 psi and density of 38 lbs per cubic foot.
      3. Core Material: Stave Lumber Core (SLC-5) may be a combination of solid, low-density lumber blocks or strips not more than 2-1/2 inches (64 mm) wide of one species of wood between 6 percent to 9 percent moisture content. Joints to be tight and staggered in adjacent rows. Lumber density is 25 to 27 lbs per cubic foot.
      4. Core Material: As scheduled and indicated on Drawings.
      5. Crossbands: Wood-based composites of a minimum thickness of 1/16 inch (1.6 mm). Crossbands and face veneers are laminated to the core with Type 1 (per WDMA) interior use glue using the Hot Press method. Crossbands shall extend full width of the door. Minimum properties include internal bond of 100 psi and density of 50 lbs per cubic foot.
      6. Stiles and Rails (Horizontal Edges): Securely bonded to the core and then abrasively planed prior to veneering.
      7. Stiles (Vertical Edges):

\*\* NOTE TO SPECIFIER \*\* Constructions with laminated or veneered edges may use structural composite lumber as an inner stile component when WDMA standards are specified. If AWS is required a 1 inch (25 mm) minimum hardwood inner shall be used for veneer/HPL edges. Delete options for inner stile not required.

* + - * 1. Inner Stiles (WDMA/AWS): May use structural composite lumber for laminated or veneered edges.
        2. Inner Stiles: As scheduled and indicated on Drawings.

\*\* NOTE TO SPECIFIER \*\* Delete options for stile materials not required.

* + - * 1. Stile Materials: Hardwood, one piece.
        2. Stile Materials: Hardwood, laminated.
        3. Stile Materials: Hardwood, veneered.
        4. Stile Materials, Edge: High impact acrylic vinyl.
        5. Stile Materials: As scheduled and indicated on Drawings.

\*\* NOTE TO SPECIFIER \*\* Delete options for stile types not required.

* + - * 1. Stile Type: Compatible, similar in overall color, grain, character and contrast as the face veneer.
        2. Stile Type: Matching, same species as face veneer.
        3. Stile Type: Closed Grain Hardwood, manufacturer's option for painted stile edges.
        4. Stile Type: As scheduled and indicated on Drawings.

\*\* NOTE TO SPECIFIER \*\* Delete options for rails not required.

* + - 1. Rails (Horizontal Edges): Solid wood meeting the minimum requirements of WDMA.
      2. Rails (Horizontal Edges): Structural composite lumber meeting the minimum requirements of WDMA.
      3. Rails (Horizontal Edges): As scheduled and indicated on Drawings.

\*\* NOTE TO SPECIFIER \*\* Delete options for blocking requirements not required.

* + - 1. Hardware Blocking: Minimum 5 inch (127 mm) bottom rail.
      2. Hardware Blocking: Minimum 5 inch (127 mm) top rail.
      3. Hardware Blocking: Minimum 5 inch (127 mm) top rail for specialized hardware and 5 inch (127 mm) bottom rail.
      4. Hardware Blocking: As scheduled and indicated on Drawings.

\*\* NOTE TO SPECIFIER \*\* Delete if not required.

* + - 1. Veneer: Medium Density Overlay (MDO).
         1. Apply MDO to standard-thickness, closed-grain, hardwood face veneers or directly to high-density hardboard cross bands.

\*\* NOTE TO SPECIFIER \*\* Delete if not required.

* + - 1. Veneer: Paint-grade.

\*\* NOTE TO SPECIFIER \*\* Delete material not required.

* + - * 1. Material: Birch.
        2. Material: Popular.
        3. Material: Any closed-grain hardwood of mill option.

\*\* NOTE TO SPECIFIER \*\* Delete if not required.

* + - 1. Veneer: High Pressure Decorative Laminate (HPDL).

\*\* NOTE TO SPECIFIER \*\* 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. Delete grade not required.

* + - * 1. High-pressure decorative laminates complying with NEMA LD 3, Grade HGS.
        2. High-pressure decorative laminates complying with NEMA LD 3, Grade HSH.

\*\* NOTE TO SPECIFIER \*\* Delete color selection provision not required.

* + - * 1. Colors, Patterns, and Finishes: As scheduled.
        2. Colors, Patterns, and Finishes: As selected by Architect from laminate manufacturer's full range of products.
      1. Face: High impact acrylic vinyl.
         1. Colors, Patterns and finishes: As scheduled.
         2. Colors, Patterns and finishes: As selected by Architect from the manufacturer's full range of products.

\*\* NOTE TO SPECIFIER \*\* Five aspects of veneer selection are to be specified. The aspects are face grade, cut, veneer species match between veneer leaves, assembly of veneer leaves on face. Delete if not required.

* + - 1. Wood Veneers:

\*\* NOTE TO SPECIFIER \*\* Delete options for face grade not required.

* + - * 1. Face Grade: AA.
        2. Face Grade: A.
        3. Face Grade: As scheduled and indicated on Drawings.

\*\* NOTE TO SPECIFIER \*\* Delete options for veneer cut not required.

* + - * 1. Veneer Cut: Sliced.
        2. Veneer Cut: Rotary.
        3. Veneer Cut: Rift.
        4. Veneer Cut: Quartered.
        5. Veneer Cut: As scheduled and indicated on Drawings.

\*\* NOTE TO SPECIFIER \*\* Delete options for veneer species not required.

* + - * 1. Veneer Species: Red oak.
        2. Veneer Species: White oak.
        3. Veneer Species: White birch.
        4. Veneer Species: Natural birch.
        5. Veneer Species: Paint grade birch.
        6. Veneer Species: Red birch.
        7. Veneer Species: Cherry.
        8. Veneer Species: Maple.
        9. Veneer Species: Medium density overlay (MDO).
        10. Veneer Species: African mahogany.
        11. Veneer Species: Anigre.
        12. Veneer Species: Walnut.
        13. Veneer Species: Ash.
        14. Veneer Species: Sapeli.
        15. Veneer Species: Makore.
        16. Veneer Species: Fir.
        17. Veneer Species: Poplar.
        18. Veneer Species: As scheduled and indicated on Drawings.

\*\* NOTE TO SPECIFIER \*\* Delete options for veneer match not required.

* + - * 1. Veneer Matching: Book matched.
        2. Veneer Matching: Slip matched.
        3. Veneer Matching: Random.
        4. Veneer Matching: As scheduled and indicated on Drawings.

\*\* NOTE TO SPECIFIER \*\* Delete options for veneer assembly not required.

* + - * 1. Veneer Assembly: Running.
        2. Veneer Assembly: Balance.
        3. Veneer Assembly: Center.
        4. Veneer Assembly: As scheduled and indicated on Drawings.
      1. Pair and Set Matching: For openings with more than one door, includes doors separated by a mullion.

\*\* NOTE TO SPECIFIER \*\* Delete options for door faces not required.

* + - * 1. Door Faces: Not matched.
        2. Door Faces: Pair matched.
        3. Door Faces: Set matched.
        4. Door Faces: As scheduled and indicated on Drawings.

\*\* NOTE TO SPECIFIER \*\* Delete options for transom and side panels not required.

* + - 1. Transom and Side Panels: Fabricate panels with same construction, exposed surfaces, and finish specified for associated doors.

\*\* NOTE TO SPECIFIER \*\* Delete matching options not required.

* + - * 1. Transom and Side Panel Faces: Not matched.
        2. Transom and Side Panel Faces: Pair matched.
        3. Transom and Side Panel Faces: As scheduled and indicated on Drawings.
      1. Glazing: Complies with designated fire ratings.

\*\* NOTE TO SPECIFIER \*\* Delete glazing specified not required.

* + - * 1. Glazing: Factory glazed.
        2. Glazing: Site glazed.
        3. Glazing: As scheduled and indicated on Drawings.

\*\* NOTE TO SPECIFIER \*\* Delete options for surface applied moulding not required.

* + - 1. Surface Applied Mouldings: None.
      2. Surface Applied Mouldings: Factory applied moulding frames to be compatible with face veneer. Profile and configuration per door manufacturers standard. Moulding frames to be applied with both glue and nails.
      3. Surface Applied Mouldings: As scheduled and indicated on Drawings.

\*\* NOTE TO SPECIFIER \*\* The following door construction options apply to 20 minute, 3/4 hour, 1 hour and 1-1/2 hour fire rated doors. Delete if not required.

* + 1. Door Construction: Constructed using Hot Press method for laminating face veneers and crossbanding to the core. Cold pressing is not acceptable.

\*\* NOTE TO SPECIFIER \*\* Delete options for fire rating required.

* + - 1. Fire Rating: None.
      2. Fire Rating: 20 minute fire rated doors.
      3. Fire Rating: 3/4 hour fire rated doors.
      4. Fire Rating: 1 hour fire rated doors.
      5. Fire Rating: 1-1/2 hour fire rated doors.
      6. Fire Rating: As scheduled and indicated on Drawings.

\*\* NOTE TO SPECIFIER \*\* Delete options for performance not required.

* + - 1. Performance: Category A Positive Pressure; openings have intumescent required for compliance contained within door and require no additional installation of intumescent strips.
      2. Performance: Category B Positive Pressure; openings require the addition of intumescent strips to the door and/or frame.
      3. Performance: As scheduled and indicated on Drawings.
      4. Mineral Core: Non-combustible mineral composite material.
      5. Crossbands: Wood-based composites of a minimum thickness of 1/16 inch (1.6 mm). Crossbands and face veneers are laminated to the core with Type 1 interior use glue using the Hot Press method. Crossbands shall extend the full width of the door. Minimum properties include internal bond 200 psi and density of 58 lbs per cubic foot.
      6. Stiles (Vertical Edges): Standard laminated edge construction. Inner and outer stiles cannot contain salt treating.

\*\* NOTE TO SPECIFIER \*\* Delete options for stile types not required.

* + - * 1. Stile Type: Compatible, similar in overall color, grain, character and contrast as the face veneer.
        2. Stile Type: Matching, same species as face veneer.
        3. Stile Type: Closed Grain Hardwood, manufacturer's option for painted stile edges.
        4. Stile Type: As scheduled and indicated on Drawings.
      1. Rails (Horizontal Edges): Rails are solid wood or other material contained in manufacturer's fire door approvals.

\*\* NOTE TO SPECIFIER \*\* Delete options for blocking requirements not required.

* + - 1. Hardware Blocking: Minimum 5-1/2 inch (140 mm) bottom rail.
      2. Hardware Blocking: Minimum 5-1/2 inch (140 mm) top rail.
      3. Hardware Blocking: Minimum 5-1/2 inch (140 mm) top rail for specialized hardware and 5-1/2 inch (140 mm) bottom rail.
      4. Hardware Blocking: Lockblock, 4-1/2 inches (114 mm) x 10 inches (254 mm).
      5. Hardware Blocking: Lockblock, 4-1/2 inches (114 mm) x 18 inches (457 mm).
      6. Hardware Blocking: As scheduled and indicated on Drawings.

\*\* NOTE TO SPECIFIER \*\* Five aspects of veneer selection shall be specified. The aspects are face grade, cut, veneer species match between veneer leaves, assembly of veneer leaves on face.

* + - 1. Veneers:

\*\* NOTE TO SPECIFIER \*\* Delete options for face grade not required.

* + - * 1. Face Grade: AA.
        2. Face Grade: A.
        3. Face Grade: B.
        4. Face Grade: As scheduled and indicated on Drawings.

\*\* NOTE TO SPECIFIER \*\* Delete options for veneer cut not required.

* + - * 1. Veneer Cut: Sliced.
        2. Veneer Cut: Rotary.
        3. Veneer Cut: Rift.
        4. Veneer Cut: Quartered.
        5. Veneer Cut: As scheduled and indicated on Drawings.

\*\* NOTE TO SPECIFIER \*\* Delete options for veneer species not required.

* + - * 1. Veneer Species: Red oak.
        2. Veneer Species: White oak.
        3. Veneer Species: White birch.
        4. Veneer Species: Natural birch.
        5. Veneer Species: Paint grade birch.
        6. Veneer Species: Red birch.
        7. Veneer Species: Cherry.
        8. Veneer Species: Maple.
        9. Veneer Species: Medium density overlay (MDO).
        10. Veneer Species: African mahogany.
        11. Veneer Species: Anigre.
        12. Veneer Species: Walnut.
        13. Veneer Species: Ash.
        14. Veneer Species: Sapeli.
        15. Veneer Species: Makore.
        16. Veneer Species: Fir.
        17. Veneer Species: Poplar.
        18. Veneer Species: As scheduled and indicated on Drawings.

\*\* NOTE TO SPECIFIER \*\* Delete options for veneer match not required.

* + - * 1. Veneer Matching: Book matched.
        2. Veneer Matching: Slip matched.
        3. Veneer Matching: Random.
        4. Veneer Matching: As scheduled and indicated on Drawings.

\*\* NOTE TO SPECIFIER \*\* Delete options for veneer assembly not required.

* + - * 1. Veneer Assembly: Running.
        2. Veneer Assembly: Balance.
        3. Veneer Assembly: Center.
        4. Veneer Assembly: As scheduled and indicated on Drawings.
      1. Pair and Set Matching: For openings with more than one door, includes doors separated by a mullion.

\*\* NOTE TO SPECIFIER \*\* Delete options for door faces not required.

* + - * 1. Door Faces: Not matched.
        2. Door Faces: Pair matched.
        3. Door Faces: Set matched.
        4. Door Faces: As scheduled and indicated on Drawings.

\*\* NOTE TO SPECIFIER \*\* Delete options for transom and side panel faces not required.

* + - 1. Transom and Side Panels: Fabricate panels with same construction, exposed surfaces, and finish specified for associated doors.

\*\* NOTE TO SPECIFIER \*\* Delete matching options not required.

* + - * 1. Transom and Side Panel Faces: Not matched.
        2. Transom and Side Panel Faces: Pair matched.
        3. Transom and Side Panel Faces: As scheduled and indicated on Drawings.
      1. Glazing: Complies with designated fire ratings.

\*\* NOTE TO SPECIFIER \*\* Delete glazing specified not required.

* + - * 1. Glazing: Factory glazed.
        2. Glazing: Site glazed.
        3. Glazing: As scheduled and indicated on Drawings.

\*\* NOTE TO SPECIFIER \*\* Delete options for surface applied moulding not required.

* + - 1. Surface Applied Mouldings: None.
      2. Surface Applied Mouldings: Factory applied moulding frames to be compatible with face veneer. Profile and configuration per door manufacturers standard. Moulding frames to be applied with both glue and nails.
      3. Surface Applied Mouldings: As scheduled and indicated on Drawings.
    1. Door Fabrication:

\*\* NOTE TO SPECIFIER \*\* Delete thickness not required.

* + - 1. Door Thickness: 1-3/8 inches (35 mm).
      2. Door Thickness: 1-3/4 inches (45 mm).
      3. Door Thickness: 2-1/4 inches (57 mm).
      4. Door Thickness: As scheduled.
      5. Factory-prefit and bevel doors (3 degrees) to suit frame sizes indicated, with 1/4 inch (6.4 mm) prefit in width, +/- 1/32 inch (0.8 mm), tolerances. Prefit top of door 1/8 inch (3.2 mm) +/- 1/16 inch (1.6 mm), and undercut as designated by floor condition. For fire-rated doors comply with NFPA 80 for prefits and undercuts.
      6. Factory pre-machine doors for hardware that is not surface applied. Locations and hole patterns to comply with specified hardware requirements as per NFPA 80 standards for doors specified; and to maintain door manufacturer's warranty.
         1. Specific locations for hardware will be coordinated between frame and door manufacturers.
         2. Specific hardware preps will be per hardware schedules) provided. Hardware preps to be neatly and cleanly squared as required per hardware templates.
         3. Metal astragals and channels to be supplied where fire-ratings will not allow metal-free edges.
      7. Factory Preparation for Light Openings and Louvers: Cut and trim openings through doors to comply with NFPA 80 requirements where indicated; and to maintain door manufacturer's warranty.

\*\* NOTE TO SPECIFIER \*\* Delete options for vision panels not required.

* + - 1. Vision Panels: Wood beads and wood louvers to be compatible with face veneer. Profiles and installation per door manufacturer's standards.
      2. Vision Panels: Metal vision panels and louvers supplied primed.
      3. Vision Panels: Metal vision panels and louvers supplied primed and painted.
    1. Finishes: Final color, build, and sheen as approved by Architect based on actual review samples.

\*\* NOTE TO SPECIFIER \*\* Delete the following paragraph if factory finishing not required.

* + - 1. Finish Location: Factory Finishing; including beading and mouldings to be finished at the factory, with UV cured system with performance properties equivalent to TR-6 or OP-6 Catalyzed Polyurethane (WDMA) and System 9 (AWS).
         1. Factory pre-finished doors to be individually protected with either transparent or opaque (for cherry, mahogany, teak, walnut) poly-wrap at the factory.

\*\* NOTE TO SPECIFIER \*\* Transparent finishes provide a clear protective coating over the wood, allowing the natural color and grain of the selected wood species to provide the appearance desired by the specifier and owner. Stain is often applied to wood surface underneath the transparent clear finish to add more color and design flexibility. Delete the finish type not required.

* + - * 1. Factory-Finish Type: Transparent, clear protective coating.
        2. Factory-Finish Type: Opaque, solid painted colors.
        3. Factory-Finish Type: Primer only, solid color priming coat for doors to be field painted.

\*\* NOTE TO SPECIFIER \*\* Delete the following paragraph if field finishing not required.

* + - 1. Finish Location: Field Finishing; including beading and mouldings to be field finished. Proper procedures are critical to ensure satisfactory results. Additional preparatory work is required and should be in compliance with industry standards. Final appearance of field finished doors is not warranted by the door manufacture.
         1. Finishing: Refer to Section 09900 - Painting for finishing of doors.

\*\* NOTE TO SPECIFIER \*\* Delete if not required.

* 1. ARCHITECTURAL HOT-PRESS STILE AND RAIL WOOD DOORS

\*\* NOTE TO SPECIFIER \*\* Delete if not required.

* + 1. Architectural Hot-Press Stile and Rail Wood Doors: As manufactured by Algoma.
       1. Quality Standards: WDMA I.S. 6A-13 (Window and Door Manufacturers Association).

\*\* NOTE TO SPECIFIER \*\* Delete fire rating requirements if not required.

* + - 1. Fire Rating: According to NFPA 80 requirements and building code standards having local jurisdiction, specific rating as specified with each product.

\*\* NOTE TO SPECIFIER \*\* Delete options for testing not required.

* + - * 1. Neutral Pressure Testing: UBC 7-2, UL10B.
        2. Positive Pressure Testing: UBC 7-2, UL10C.

\*\* NOTE TO SPECIFIER \*\* Delete options for door thickness not required.

* + - 1. Door Thickness: 1-3/8 inches (35 mm).

\*\* NOTE TO SPECIFIER \*\* Veneered profile panels are considered the standard while rim raised lumber banded panels are available at an additional charge. Delete options for panel construction not required.

* + - * 1. Panel Construction: Veneered profiled panels, 3/4 inch (19 mm) thick.
        2. Panel Construction: Rim raised lumber banded panels.
        3. Panel Construction: Flat panels, 1/4 inch (6.4 mm) thick.
        4. Panel Construction: As scheduled and indicated on Drawings.
      1. Door Thickness: 1-3/4 inches (44.5 mm).

\*\* NOTE TO SPECIFIER \*\* Veneered profile panels are considered the standard while rim raised lumber banded panels are available at an additional charge. Delete options for panel construction not required.

* + - * 1. Panel Construction: Veneered profiled panels, 1-1/8 inches (28.5 mm) thick.
        2. Panel Construction: Rim raised lumber banded panels, 1-1/2 inches (38 mm) thick.
        3. Panel Construction: Flat panels, 5/8 inch (16 mm) thick.
        4. Panel Construction: As scheduled and indicated on Drawings.
      1. Door Thickness: 2-1/4 inches (57 mm).

\*\* NOTE TO SPECIFIER \*\* Veneered profile panels are considered the standard while rim raised lumber banded panels are available at an additional charge. Delete options for panel construction not required.

* + - * 1. Panel Construction: Veneered profiled panels, 1-1/8 inches (28.5 mm) thick.
        2. Panel Construction: Rim raised lumber banded panels, 1-1/2 inches (38 mm) thick.
        3. Panel Construction: Flat panels, 5/8 inch (16 mm) thick.
        4. Panel Construction: As scheduled and indicated on Drawings.
      1. Door, Panel Thickness: As scheduled and indicated on Drawings.

\*\* NOTE TO SPECIFIER \*\* Veneered profile panels are considered the standard while rim raised lumber banded panels are available at an additional charge. Delete options for panel construction not required.

* + - * 1. Panel Construction: Veneered profiled panels.
        2. Panel Construction: Rim raised lumber banded panels.
        3. Panel Construction: Flat panels.
        4. Panel Construction: As scheduled and indicated on Drawings.

\*\* NOTE TO SPECIFIER \*\* The following door construction options apply non fire rated doors. Delete if not required.

* + 1. Door Construction: Constructed using WDMA I.S. 6A-13 construction, using Hot Press method for laminating door materials. Door construction of stiles and rails shall include crossbanding between core material and face veneers. Edge banding and sticking profile shall be solid lumber; veneered profile is not acceptable.

\*\* NOTE TO SPECIFIER \*\* WDMA and AWS standards identify an Aesthetic grade as well as a performance standard. Premium grade is the highest grade commercially available in both material and workmanship; intended for the finest commercial, industrial and institutional buildings. Custom grade is the typical and normal grade in both material and workmanship, intended for high-quality work. Delete options for aesthetic grade not required.

* + - 1. Aesthetic Grade: Premium.
      2. Aesthetic Grade: Custom.
      3. Aesthetic Grade: As scheduled and indicated on Drawings.

\*\* NOTE TO SPECIFIER \*\* Structural Composite Lumber Core (SCLC) is sometimes referred to as LSL (Laminated Strand Lumber). Delete options for core materials not required.

* + - 1. Core Materials: Structural Composite Lumber Core (SCLC); engineered hardwood composite, performance levels for screw holding power of 550 lbs, modulus of rupture of 4,000 psi, modulus of elasticity of 600,000 psi and density of 38 lbs per cubic foot.
         1. Rails (Horizontal Edges): SCLC.
      2. Core Materials: Stave Lumber Core (SLC) may be a combination of solid, low-density hardwood lumber blocks or strips not more than 2-1/2 inches (64 mm) wide of one species of wood between 6 percent to 9 percent moisture content. Joints to be tight and staggered in adjacent rows. Lumber density is 25 to 27 lbs per cubic foot.
         1. Rails (Horizontal Edges): Structural composite lumber, meets minimum requirements of WDMA.
      3. Core Materials: As scheduled and indicated on Drawings.
      4. Stiles (Vertical Edges): Standard edge construction. Inner and outer stiles cannot contain salt treating.

\*\* NOTE TO SPECIFIER \*\* Delete options for stile types not required.

* + - * 1. Stile Type: Compatible, similar in overall color, grain, character and contrast as the face veneer.
        2. Stile Type: Matching, same species as face veneer.
        3. Stile Type: Closed Grain Hardwood, manufacturer's option for painted stile edges.
        4. Stile Type: As scheduled and indicated on Drawings.

\*\* NOTE TO SPECIFIER \*\* Five aspects of veneer selection shall be specified. The aspects are face grade, cut, veneer species match between veneer leaves, assembly of veneer leaves on face.

* + - 1. Veneers: Minimum 1/16 inch (1.6 mm thickness).

\*\* NOTE TO SPECIFIER \*\* Delete options for face grade not required.

* + - * 1. Face Grade: AA.
        2. Face Grade: A.
        3. Face Grade: As scheduled and indicated on Drawings.

\*\* NOTE TO SPECIFIER \*\* Delete options for veneer cut not required.

* + - * 1. Veneer Cut: Sliced.
        2. Veneer Cut: Rift.
        3. Veneer Cut: Quartered.
        4. Veneer Cut: As scheduled and indicated on Drawings.

\*\* NOTE TO SPECIFIER \*\* Delete options for veneer species not required.

* + - * 1. Veneer Species: Red oak.
        2. Veneer Species: White oak.
        3. Veneer Species: Cherry.
        4. Veneer Species: African mahogany.
        5. Veneer Species: Walnut.
        6. Veneer Species: Maple.
        7. Veneer Species: Ash.
        8. Veneer Species: White birch.
        9. Veneer Species: Alder.
        10. Veneer Species: VG fir.
        11. Veneer Species: Sapeli.
        12. Veneer Species: Ponderosa pine.
        13. Veneer Species: Paint grade.
        14. Veneer Species: As scheduled and indicated on Drawings.

\*\* NOTE TO SPECIFIER \*\* Delete options for veneer match not required.

* + - * 1. Veneer Matching: Book matched.
        2. Veneer Matching: Slip matched.
        3. Veneer Matching: Random.
        4. Veneer Matching: As scheduled and indicated on Drawings.

\*\* NOTE TO SPECIFIER \*\* Delete options for veneer assembly not required.

* + - * 1. Veneer Assembly: Running.
        2. Veneer Assembly: Balance.
        3. Veneer Assembly: Center.
        4. Veneer Assembly: As scheduled and indicated on Drawings.
      1. Assembly of Stile and Rail Components: Stiles, rails, and mullions shall be joined with both 1/2 inch (12.7 mm) wooden dowels and cope and stick joints and bonded with glue. Doweled butt joints or cope and stick only joints are not allowed.
      2. Transom and Side Panels: Fabricate units with same construction, exposed surfaces, and finish specified for associated doors.

\*\* NOTE TO SPECIFIER \*\* The following door construction options apply 20 minute, 3/4 hour, 1 hour and 1-1/2 hour fire rated doors. Delete if not required.

* + 1. Door Construction: Constructed using WDMA I.S. 6A-13 construction, using Hot Press method for laminating door materials. Door construction of stiles and rails shall include crossbanding between core material and face veneers. Edge banding and sticking profile shall be solid lumber; veneered profile is not acceptable.

\*\* NOTE TO SPECIFIER \*\* Delete options for fire rating required.

* + - 1. Fire Rating: None.
      2. Fire Rating: 20 minute fire rated doors.

\*\* NOTE TO SPECIFIER \*\* Delete thickness not required.

* + - * 1. Door Thickness: 1-3/4 inches (44.5 mm).
        2. Door Thickness: 2-1/4 inches (63.5 mm).

\*\* NOTE TO SPECIFIER \*\* Veneered profile panels are considered the standard while rim raised lumber banded panels are available at an additional charge. Delete options for panel construction not required.

* + - * 1. Panel Construction: Veneered profiled panels, 1-1/8 inches (28.5 mm) thick.
        2. Panel Construction: Rim raised lumber banded panels, 1-1/2 inches (38 mm) thick.
        3. Panel Construction: Flat panels, 5/8 inch (16 mm) thick.
        4. Panel Construction: As scheduled and indicated on Drawings.
      1. Fire Rating: 3/4 hour fire rated doors.
         1. Door, Panel Thickness: As scheduled and indicated on Drawings.
      2. Fire Rating: 1 hour fire rated doors.
         1. Door, Panel Thickness: As scheduled and indicated on Drawings.
      3. Fire Rating: 1-1/2 hour fire rated doors.
         1. Door, Panel Thickness: As scheduled and indicated on Drawings.
      4. Fire Rating: As scheduled and indicated on Drawings.
         1. Door, Panel Thickness: As scheduled and indicated on Drawings.

\*\* NOTE TO SPECIFIER \*\* Based on changes in the International Council of Building Officials (ICBO) standards and the Uniform Building Code (UBC), some states and/or municipalities may require positive pressure approved openings. This is identified by requirements to meet UBC 7.2 and/or UL10C. Neutral or positive pressure shall be specified, as well as the positive pressure category type. Identify requirements below. Delete options for performance not required.

* + - 1. Performance: Category A Positive Pressure; openings have intumescent required for compliance contained within door and require no additional installation of intumescent strips.
      2. Performance: Category B Positive Pressure; openings require the addition of intumescent strips to the door and/or frame.
      3. Performance: As scheduled and indicated on Drawings.

\*\* NOTE TO SPECIFIER \*\* WDMA and AWS standards identify an Aesthetic grade as well as a performance standard. Premium grade is the highest grade commercially available in both material and workmanship; intended for the finest commercial, industrial and institutional buildings. Custom grade is the typical and normal grade in both material and workmanship, intended for high-quality work. Delete options for aesthetic grade not required.

* + - 1. Aesthetic Grade: Premium.
      2. Aesthetic Grade: Custom.
      3. Aesthetic Grade: As scheduled and indicated on Drawings.

\*\* NOTE TO SPECIFIER \*\* Structural Composite Lumber Core (SCLC) is sometimes referred to as LSL (Laminated Strand Lumber) and is only available with 20 minute rated doors. Delete options for core and edge materials not required.

* + - 1. Core Materials: Structural Composite Lumber Core (SCLC); engineered hardwood composite, minimum performance levels for screw holding power of 550 lbs, modulus of rupture of 4,000 psi, modulus of elasticity of 600,000 psi and density of 38 lbs per cubic foot.
         1. Rails (Horizontal Edges): Solid wood or other material contained in manufacturer's fire door approvals.
      2. Core Materials: Stave Lumber Core (SLC) may be a combination of solid, low-density hardwood lumber blocks or strips not more than 2-1/2 inches (64 mm) wide of one species of wood between 6 percent to 9 percent moisture content. Joints to be tight and staggered in adjacent rows. Lumber density is 25 to 27 lbs per cubic foot.
         1. Rails (Horizontal Edges): Solid wood or other material contained in manufacturer's fire door approvals.
      3. Core and Edge Materials: Non-combustible mineral composite materials and intumescents as per manufacturer's approvals.
      4. Core and Edge Materials: As scheduled and indicated on Drawings.
      5. Crossbands and Face Veneers: Laminated to the core with Type 1 interior glue using the Hot Press process. Minimum properties include internal bond 100 psi and density of 50 lbs per cubic foot.
      6. Stiles (Vertical Edges): Standard laminated edge construction. Inner and outer stiles cannot contain salt treating.

\*\* NOTE TO SPECIFIER \*\* Delete options for stile types not required.

* + - * 1. Stile Type: Standard, maple.
        2. Stile Type: Compatible, similar in overall color, grain, character and contrast as the face veneer.
        3. Stile Type: Matching, same species as face veneer.
        4. Stile Type: Closed Grain Hardwood, manufacturer's option for painted stile edges.
        5. Stile Type: As scheduled and indicated on Drawings.

\*\* NOTE TO SPECIFIER \*\* Five aspects of veneer selection shall be specified. The aspects are face grade, cut, veneer species match between veneer leaves, assembly of veneer leaves on face.

* + - 1. Veneers: Minimum 1/16 inch (1.6 mm thickness).

\*\* NOTE TO SPECIFIER \*\* Delete options for face grade not required.

* + - * 1. Face Grade: AA.
        2. Face Grade: A.
        3. Face Grade: As scheduled and indicated on Drawings.

\*\* NOTE TO SPECIFIER \*\* Delete options for veneer cut not required.

* + - * 1. Veneer Cut: Sliced.
        2. Veneer Cut: Rift.
        3. Veneer Cut: Quartered.
        4. Veneer Cut: As scheduled and indicated on Drawings.

\*\* NOTE TO SPECIFIER \*\* Delete options for veneer species not required.

* + - * 1. Veneer Species: Red oak.
        2. Veneer Species: White oak.
        3. Veneer Species: Cherry.
        4. Veneer Species: African mahogany.
        5. Veneer Species: Walnut.
        6. Veneer Species: Maple.
        7. Veneer Species: Ash.
        8. Veneer Species: White birch.
        9. Veneer Species: Alder.
        10. Veneer Species: VG fir.
        11. Veneer Species: Sapeli.
        12. Veneer Species: Ponderosa pine.
        13. Veneer Species: Paint grade.
        14. Veneer Species: As scheduled and indicated on Drawings.

\*\* NOTE TO SPECIFIER \*\* Delete options for veneer match not required.

* + - * 1. Veneer Matching: Book matched.
        2. Veneer Matching: Slip matched.
        3. Veneer Matching: Random.
        4. Veneer Matching: As scheduled and indicated on Drawings.

\*\* NOTE TO SPECIFIER \*\* Delete options for veneer assembly not required.

* + - * 1. Veneer Assembly: Running.
        2. Veneer Assembly: Balance.
        3. Veneer Assembly: Center.
        4. Veneer Assembly: As scheduled and indicated on Drawings.
      1. Transom and Side Panels: Fabricate panels with same construction, exposed surfaces, and finish specified for associated doors.
    1. Door Fabrication:
       1. Factory-prefit and bevel doors (3 degrees) to suit frame sizes indicated, with 1/4 inch (6.4 mm) prefit in width, + 0 inches (0 mm) / - 1/32 inch (0.8 mm), tolerances. Prefit top of door 1/8 inch (3.2 mm) + 1/16 inch (1.6 mm) / - 0 inches (0 mm), and undercut as designated by floor condition. For fire-rated doors comply with NFPA 80 for prefits and undercuts.
       2. Factory pre-machine doors for hardware that is not surface applied. Locations and hole patterns to comply with specified hardware requirements as per NFPA 80 standards for doors specified; and to maintain door manufacturer's warranty.
          1. Specific locations for hardware will be coordinated between frame and door manufacturers.
          2. Specific hardware preps will be per hardware schedules) provided. Hardware preps to be neatly and cleanly squared as required per hardware templates.
          3. Metal astragals and channels to be supplied where fire-ratings will not allow metal-free edges.
       3. Factory Preparation for Light Openings and Louvers: Cut and trim openings through doors to comply with NFPA 80 requirements where indicated; and to maintain door manufacturer's warranty.
       4. Vision Panels: Wood beads and wood louvers to be compatible with face veneer. Profiles and installation per door manufacturer's standards.

\*\* NOTE TO SPECIFIER \*\* Delete the following paragraph if factory finishing not required.

* + 1. Finishes: Final color, build, and sheen as approved by Architect based on actual review samples.

\*\* NOTE TO SPECIFIER \*\* Delete the following paragraph if factory finishing not required.

* + - 1. Finish Location: Factory Finishing; including beading and mouldings to be finished at the factory, with system meeting performance properties equivalent to AWS system 11 catalyzed polyurethane per AWS Section 5.
         1. Factory pre-finished doors to be individually protected with either transparent or opaque (for cherry, mahogany, teak, walnut) poly-wrap at the factory.

\*\* NOTE TO SPECIFIER \*\* Transparent finishes provide a clear protective coating over the wood, allowing the natural color and grain of the selected wood species to provide the appearance desired by the specifier and owner. Stain is often applied to wood surface underneath the transparent clear finish to add more color and design flexibility. Delete the finish type not required.

* + - * 1. Factory-Finish Type: Transparent, clear protective coating.
        2. Factory-Finish Type: Opaque, solid painted colors.
        3. Factory-Finish Type: Primer only, solid color priming coat for doors to be field painted.

\*\* NOTE TO SPECIFIER \*\* Delete the following paragraph if field finishing not required.

* + - 1. Finish Location: Field Finishing; including beading and mouldings to be field finished. Proper procedures are critical to ensure satisfactory results. Additional preparatory work is required and should be in compliance with WDMA I.S. 6A-13. Final appearance of field finished doors is not warranted by the door manufacture.
         1. Finishing: Refer to Section 09900 - Painting for finishing of doors.

\*\* NOTE TO SPECIFIER \*\* Delete if not required.

* 1. HIGH IMPACT ACRYLIC MODIFIED VINYL FACED DOORS
     1. Interior Solid-Core Doors:
        1. Basis-of-Design Product: Subject of compliance with requirements, provide Algoma; "RhinoDoor" or a comparable product by one of the following:
           1. Algoma "RhinoDoor".
           2. Mohawk.
           3. Marshfield "Durable Door".

\*\* NOTE TO SPECIFIER \*\* Delete options for door thickness not required.

* + - 1. Door Thickness: 1-3/8 inches (35 mm).
      2. Door Thickness: 1-3/4 inches (44.5 mm).

\*\* NOTE TO SPECIFIER \*\* Delete grade not required.

* + - 1. Aesthetic Grade: Premium.
      2. Aesthetic Grade: Custom.
      3. WDMA Performance Grade I.S.1-A: Extra Heavy Duty.
      4. Faces: Chemical-and stain-resistant, high-impact, acrylic modified vinyl faces.

\*\* NOTE TO SPECIFIER \*\* Delete color range not required.

* + - 1. Color as selected from manufacturer's full range of solid colors
      2. Color as selected from manufacturer's full range of wood grain patterns
      3. Vertical edges shall be 1/8 inch (3.2 mm) matching high impact acrylic material bonded to structural composite lumber. Removable edges are not permitted.
      4. Horizontal Edges: Structural composite lumber

\*\* NOTE TO SPECIFIER \*\* Delete core not required.

* + - 1. Core: Wood-based particleboard.
      2. Core: Structural composite lumber.
      3. Core: Fire-resistant composite.
      4. Core: Specialty core as required and door schedule.
      5. Construction: Five plies. Stiles and rails are bonded to core, then entire unit is abrasive planed before faces and cross bands are applied.

\*\* NOTE TO SPECIFIER \*\* Delete through bolting provision not required.

* + - * 1. Doors shall meet specified WDMA Performance Duty Level, including face screw holding requirement. Surface applied hardware shall be installed with screws; through bolts are not acceptable.
        2. Doors shall meet specified WDMA Performance Duty level, with the exception of face screw holding requirement. Surface applied hardware shall be installed with through bolts.

\*\* NOTE TO SPECIFIER \*\* Delete if not required.

* + - 1. Regional Materials: Where available based on inclusive list of approved manufacturers, flush wood doors shall be manufactured within 500 miles (800 km) of Project site from materials that have been extracted, harvested, or recovered, as well as manufactured, within 500 miles (800 km) of Project site.

\*\* NOTE TO SPECIFIER \*\* Retain first "Low-Emitting Materials" Paragraph below if required for LEED-NC, LEED-CS, or LEED-CI Credit IEQ 4.4. Before retaining, verify availability with manufacturers.

* + - 1. Low-Emitting Materials: Fabricate doors with adhesives and composite wood products that do not contain added urea formaldehyde.

\*\* NOTE TO SPECIFIER \*\* Retain "Low-Emitting Materials" Paragraph below if required for LEED for Schools Credit IEQ 4.4.

* + - 1. Low-Emitting Materials: Fabricate doors that comply with the testing and product requirements of the California Department of Health Services' "Standard Practice for the Testing of Volatile Organic Emissions from Various Sources Using Small-Scale Environmental Chambers." All composite wood and agrifiber products shall meet this requirement. Prefer products that are third party certified through SCS Indoor Advantage Gold.
    1. Core Construction:

\*\* NOTE TO SPECIFIER \*\* Retain "Particleboard-Core Doors" Paragraph below if doors have particleboard cores.

* + - 1. Wood-Based Particleboard-Core Doors:
         1. Provide wood-based particleboard core doors with a minimum density per ANSI A208.1, Grade LD-2 as required to meet WDMA Performance Duty level specified without added blocking.

\*\* NOTE TO SPECIFIER \*\* Retain "Structural-Composite-Lumber-Core Doors" Paragraph below if doors have structural-composite-lumber-cores.

* + - 1. Structural-Composite-Lumber-Core Doors:
         1. Provide Structural Composite Lumber core as required to meet WDMA Performance Duty Level specified. Provide Structural Composite Lumber core for doors with glass openings as required to meet stile dimensions shown on door schedule and elevations. Provide Structural Composite Lumber core for all doors with the exception of 45-90 minute fire rated and sound rated doors.
         2. Structural Composite Lumber: WDMA T.M.10.

Screw Withdrawal, Face: 700 lbf (3100 N).

Screw Withdrawal, Edge: 400 lbf (1780 N), but not less than as required to meet WDMA performance level specified.

* + 1. Door Fabrication:

\*\* NOTE TO SPECIFIER \*\* 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 shall 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 NFPA 80 requirements for fire-rated doors.

\*\* NOTE TO SPECIFIER \*\* 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, BHMA-156.115-W, and hardware templates.

\*\* NOTE TO SPECIFIER \*\* 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.

\*\* NOTE TO SPECIFIER \*\* Retain "Metal Astragals" Subparagraph below with pairs of factory-fitted, fire-rated doors where astragals, etc., are required.

* + - * 1. Metal Astragals: Factory machine astragals and formed-steel edges for hardware for pairs of fire-rated doors.

\*\* NOTE TO SPECIFIER \*\* Retain "Transom and Side Panels" 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 using fire-rated doors with transoms.

* + - 1. Transom and Side Panels: Fabricate matching panels with same construction, exposed surfaces, and finish as specified for associated doors. Finish bottom edges of transoms and top edges of rabbeted doors same as door stiles.

\*\* NOTE TO SPECIFIER \*\* Retain subparagraph below if applicable or revise if another method of attachment is required. Delete provision for meeting rail profile "rabbeted".

* + - * 1. Fabricate door and transom panels with full-width, solid-lumber meeting rails.
        2. Fabricate door and transom panels with full-width, solid-lumber, rabbeted, meeting rails.
        3. Provide factory-installed spring bolts for concealed attachment into jambs of metal door frames.
      1. Openings: Factory cut and trim openings through doors.
         1. Light Openings: Trim openings with moldings of material and profile indicated.

\*\* NOTE TO SPECIFIER \*\* Note: NFPA 80 2010 Edition requires that fire rated doors have glass installed by door manufacturer or in licensed shop under label listing service. If retaining paragraph below, also retain Factory Glazing requirement in Article 1.2.

* + - * 1. Glazing: Factory install glazing in fire rated and in doors indicated to be factory finished. Comply with applicable requirements in Section 088000 "Glazing."
        2. Louvers: Factory installed louvers in prepared openings.

\*\* NOTE TO SPECIFIER \*\* Retain "Fire-Rated Wood Doors" Paragraph below if applicable.

* + 1. Fire-Rated Wood Doors:
       1. Doors complying with NFPA 80 that are listed and labeled by a qualified testing agency, for fire-protection ratings indicated, based on testing at positive pressure according to NFPA 252 or UL 10C.

\*\* NOTE TO SPECIFIER \*\* Retain "Temperature-Rise Limit" Subparagraph below if required. The International Building Code allows an exception for buildings equipped throughout with fire-suppression sprinklers.

* + - 1. Temperature-Rise Limit: Where indicated.
      2. Temperature-Rise Limit: At vertical exit enclosures and exit passageways.
      3. Temperature-Rise Performance: Provide doors that have a maximum transmitted temperature end point of not more than 250 degree F (121 degree C) above ambient after 30 minutes of standard fire-test exposure.
      4. Cores: Provide core specified or fire-resistant composite core as needed to provide fire-protection rating indicated.
      5. Blocking: Provide composite blocking approved for use in doors of fire-protection ratings indicated as needed to maintain WDMA performance level and eliminate through-bolting hardware.

\*\* NOTE TO SPECIFIER \*\* For edge construction, choose Category A for all Positive Pressure constructions; if intumescent is required by the manufacturer for fire rating, the intumescent shall be on the door. Choose Category B for all Positive Pressure constructions; if intumescent is required by the manufacturer for fire rating, the intumescent is to be installed on the frame. Delete one of the following paragraphs.

* + - 1. Edge Construction: Category A - intumescent included in door construction where required.
      2. Edge Construction: Category B - intumescents applied to frames by door installer where required.

\*\* NOTE TO SPECIFIER \*\* Retain "Pairs" Subparagraph below if steel edges and astragals are unacceptable. Coordinate availability and ratings with manufacturers.

* + - 1. Pairs: Provide fire-retardant stiles that are listed and labeled for applications indicated without formed-steel edges and astragals.

\*\* NOTE TO SPECIFIER \*\* Retain "Pairs" Subparagraph below if steel edges and astragals are acceptable.

* + - 1. Pairs: Provide formed-steel edges and astragals with intumescent seals as required.

\*\* NOTE TO SPECIFIER \*\* Delete types not required.

* + - * 1. Edges: Steel edges and astragals primed for field painting.
        2. Edges: Steel edges and astragals with baked enamel finish, color as selected from manufacturer's standard offering.
        3. Edges: Veneer wrapped steel edges and astragals. Veneer shall be same specie as face.
        4. Edges: Stainless steel edges and astragals with No. 4 finish.

\*\* NOTE TO SPECIFIER \*\* Retain "Smoke- and Draft-Control Door Assemblies" Paragraph below if required. The IBC requires fire door assemblies to comply with smoke- and draft-control requirements in corridors, smoke barriers, and smoke partitions.

* + 1. Smoke- and Draft-Control Door Assemblies: Listed and labeled for smoke and draft control, based on testing according to UL 1784.

\*\* NOTE TO SPECIFIER \*\* Delete if not required.

* + 1. Dutch Doors:
       1. Provide Dutch doors with internal wood blocking, flush cut as required.

\*\* NOTE TO SPECIFIER \*\* Delete if not required.

* + - 1. Provide with shelf.

\*\* NOTE TO SPECIFIER \*\* Delete shelf width not required.

* + - * 1. Shelf width shall be 8 inches (203 mm).
        2. Shelf width shall be 10 inch (254 mm).
        3. Shelf width shall be 12 inch (305 mm).
        4. Shelf width shall be as shown.

\*\* NOTE TO SPECIFIER \*\* Delete if not required.

* + - 1. Provide 20 minute fire rating where indicated on door schedule.

\*\* NOTE TO SPECIFIER \*\* Delete if not required.

* + 1. Acoustic Rated Wood Doors - STC 28-47:
       1. Provide core indicated or special construction core as required to meet STC rating indicated on door schedule. All STC ratings shall be tested as operable.
       2. Provide gasketing and door shoe or mortise door bottom as required to meet manufacturers tested acoustic rating.
       3. Hollow metal frames shall be fully grouted or packed with mineral wool where acoustic rated wood doors are installed.
       4. The Sound Transmission Class (STC) specified shall be certified by the manufacturer to be based on tests conducted at an independent testing agency in accordance with ASTM E90-90 and E413-87.

\*\* NOTE TO SPECIFIER \*\* Delete if not required.

* + 1. Radiation Shielded Wood Doors:
       1. Provide manufacturer's standard construction radiation shielded doors.

\*\* NOTE TO SPECIFIER \*\* Delete lead thickness not required.

* + - 1. Lead thickness of 1/16 inch (1.6 mm).
      2. Lead thickness of 1/8 inch (3.2 mm).
      3. Lead thickness of as indicated in door schedule.
      4. Provide wood/lead astragals on radiation shielded pairs in lead thickness indicated. Finish astragals to match face material.

\*\* NOTE TO SPECIFIER \*\* Delete if not required.

* 1. COMMERCIAL COLD-PRESS FLUSH WOOD DOORS

\*\* NOTE TO SPECIFIER \*\* Delete if not required.

* + 1. Commercial Cold-Press Flush Wood Doors: As manufactured by Algoma.
       1. Quality Standards: WDMA I.S. 1A-13 (Window and Door Manufacturers Association).

\*\* NOTE TO SPECIFIER \*\* Delete fire rating requirements if not required.

* + - 1. Fire Rating: According to NFPA 80 requirements and building code standards having local jurisdiction, specific rating as specified with each product.

\*\* NOTE TO SPECIFIER \*\* Delete options for testing not required.

* + - * 1. Neutral Pressure Testing: UBC 7-2, UL10B.
        2. Positive Pressure Testing: UBC 7-2, UL10C.

\*\* NOTE TO SPECIFIER \*\* Delete STC requirements if not required.

* + - 1. Sound Transmission Class (STC): ASTM E 90, doors to carry an acoustical rating for sound transmission class as scheduled and indicated on Drawings; accessories required for acoustical rating compliance supplied by door manufacturer with door.

\*\* NOTE TO SPECIFIER \*\* Delete lead-lined requirements if not required.

* + - 1. Lead-Lined: Doors to have continuous lead sheeting from edge to edge between the cross banding and the core in locations as scheduled and indicated on Drawings.

\*\* NOTE TO SPECIFIER \*\* The following door construction options apply to non fire rated doors and 1/3 hour fire rated doors. Delete if not required.

* + 1. Door Construction: Constructed using Cold Press method for laminating door skin to the core.

\*\* NOTE TO SPECIFIER \*\* Delete options for fire rating required.

* + - 1. Fire Rating: None.
      2. Fire Rating: 1/3 hour fire rated doors.
      3. Fire Rating: As scheduled and indicated on Drawings.

\*\* NOTE TO SPECIFIER \*\* WDMA and AWS standards identify an Aesthetic grade as well as a performance standard. Custom grade is the typical and normal grade in both material and workmanship, intended for high-quality work.

* + - 1. Aesthetic Grade: Custom.

\*\* NOTE TO SPECIFIER \*\* Extra Heavy Duty typically involves doors where use is considered heavy and frequent, and requires the highest minimum performance standards. Heavy Duty typically involves doors where usage is moderate, and requires intermediate minimum performance standards. Standard Duty typically involves doors where frequency of use is low, and requires the lowest minimum performance standards. Delete options for performance standard not required.

* + - 1. Performance Standard: Extra Heavy Duty.
      2. Performance Standard: Heavy Duty.
      3. Performance Standard: Standard Duty.
      4. Performance Standard: As scheduled and indicated on Drawings.
      5. Cores: Particleboard to comply with ANSI Standard A 208.1 LD-1, with screw holding power of 81 lbs, modulus of rupture of 406 psi and modulus of elasticity of 72,500 psi.
      6. Door Skins: Comprised of crossbands which are wood-based composites of a minimum thickness of 1/16 inch (1.6 mm) and face veneers, that are laminated to the core with Type 1 interior use glue. Minimum properties of the crossband include internal bond of 100 psi and density of 50 lbs per cubic foot.
      7. Stiles (Vertical Edges):

\*\* NOTE TO SPECIFIER \*\* Constructions with laminated or veneered edges may use structural composite lumber as an inner stile component when WDMA standards are specified. If AWS is required a 1 inch (25 mm) minimum hardwood inner shall be used for veneer/HPL edges. Delete options for inner stile not required.

* + - * 1. Inner Stiles (WDMA/AWS): May use structural composite lumber for laminated or veneered edges.
        2. Inner Stiles: As scheduled and indicated on Drawings.

\*\* NOTE TO SPECIFIER \*\* Delete options for stile materials not required.

* + - * 1. Stile Materials: Hardwood, one piece.
        2. Stile Materials: Hardwood, laminated.
        3. Stile Materials: Hardwood, veneered.
        4. Stile Materials: As scheduled and indicated on Drawings.

\*\* NOTE TO SPECIFIER \*\* Delete options for stile types not required.

* + - * 1. Stile Type: Standard, maple.
        2. Stile Type: Compatible, similar in overall color, grain, character and contrast as the face veneer.
        3. Stile Type: Matching, same species as face veneer.
        4. Stile Type: Closed Grain Hardwood, manufacturer's option for painted stile edges.
        5. Stile Type: As scheduled and indicated on Drawings.

\*\* NOTE TO SPECIFIER \*\* Delete options for rails not required.

* + - 1. Rails (Horizontal Edges): Solid wood meeting the minimum requirements of WDMA.
      2. Rails (Horizontal Edges): Structural composite lumber meeting the minimum requirements of WDMA.
      3. Rails (Horizontal Edges): As scheduled and indicated on Drawings.

\*\* NOTE TO SPECIFIER \*\* Delete options for blocking requirements not required.

* + - 1. Hardware Blocking: Minimum 5 inch (127 mm) bottom rail.
      2. Hardware Blocking: Minimum 5 inch (127 mm) top rail.
      3. Hardware Blocking: Minimum 5 inch (127 mm) top rail for specialized hardware and 5 inch (127 mm) bottom rail.
      4. Hardware Blocking: As scheduled and indicated on Drawings.

\*\* NOTE TO SPECIFIER \*\* Delete if not required.

* + - 1. Veneer: Medium Density Overlay (MDO).
         1. Apply MDO to standard-thickness, closed-grain, hardwood face veneers or directly to high-density hardboard cross bands.

\*\* NOTE TO SPECIFIER \*\* Delete if not required.

* + - 1. Veneer: Paint-grade.

\*\* NOTE TO SPECIFIER \*\* Delete material not required.

* + - * 1. Material: Birch.
        2. Material: Any closed-grain hardwood of mill option.

\*\* NOTE TO SPECIFIER \*\* Five aspects of veneer selection shall be specified. The aspects are face grade, cut, veneer species match between veneer leaves, assembly of veneer leaves on face. Delete if not required.

* + - 1. Veneers:

\*\* NOTE TO SPECIFIER \*\* Delete options for face grade not required.

* + - * 1. Face Grade: A.
        2. Face Grade: As scheduled and indicated on Drawings.

\*\* NOTE TO SPECIFIER \*\* Delete options for veneer cut not required.

* + - * 1. Veneer Cut: Rotary.
        2. Veneer Cut: As scheduled and indicated on Drawings.

\*\* NOTE TO SPECIFIER \*\* Delete options for veneer species not required.

* + - * 1. Veneer Species: Red oak.
        2. Veneer Species: White birch.
        3. Veneer Species: Natural birch.
        4. Veneer Species: Paint grade birch.
        5. Veneer Species: As scheduled and indicated on Drawings.
        6. Veneer Matching: Book matched.
        7. Veneer Assembly: Running.
      1. Pair and Set Matching: For openings with more than one door, includes doors separated by a mullion.

\*\* NOTE TO SPECIFIER \*\* Delete options for door faces not required.

* + - * 1. Door Faces: Not matched.
        2. Door Faces: Pair matched.
        3. Door Faces: Set matched.
        4. Door Faces: As scheduled and indicated on Drawings.
      1. Glazing: Complies with designated fire ratings.

\*\* NOTE TO SPECIFIER \*\* Delete glazing specified not required.

* + - * 1. Glazing: Factory glazed.
        2. Glazing: Site glazed.
        3. Glazing: As scheduled and indicated on Drawings.

\*\* NOTE TO SPECIFIER \*\* Delete options for surface applied moulding not required.

* + - 1. Surface Applied Mouldings: None.
      2. Surface Applied Mouldings: Factory applied moulding frames to be compatible with face veneer. Profile and configuration per door manufacturers standard. Moulding frames to be applied with both glue and nails.
      3. Surface Applied Mouldings: As scheduled and indicated on Drawings.

\*\* NOTE TO SPECIFIER \*\* The following door construction options apply 20 minute, 3/4 hour, 1 hour and 1-1/2 hour fire rated doors. Delete if not required.

* + 1. Door Construction: Constructed using Cold Press method for laminating skin to the core.

\*\* NOTE TO SPECIFIER \*\* Delete options for fire rating required.

* + - 1. Fire Rating: None.
      2. Fire Rating: 3/4 hour fire rated doors.
      3. Fire Rating: 1 hour fire rated doors.
      4. Fire Rating: 1-1/2 hour fire rated doors.
      5. Fire Rating: As scheduled and indicated on Drawings.

\*\* NOTE TO SPECIFIER \*\* Delete options for performance not required.

* + - 1. Performance: Category A Positive Pressure; openings have intumescent required for compliance contained within door and require no additional installation of intumescent strips.
      2. Performance: Category B Positive Pressure; openings require the addition of intumescent strips to the door and/or frame.
      3. Performance: As scheduled and indicated on Drawings.

\*\* NOTE TO SPECIFIER \*\* WDMA and AWS standards identify an Aesthetic grade as well as a performance standard. Custom grade is the typical and normal grade in both material and workmanship, intended for high-quality work.

* + - 1. Aesthetic Grade: Custom.

\*\* NOTE TO SPECIFIER \*\* Extra Heavy Duty typically involves doors where use is considered heavy and frequent, and requires the highest minimum performance standards. Heavy Duty typically involves doors where usage is moderate, and requires intermediate minimum performance standards. Standard Duty typically involves doors where frequency of use is low, and requires the lowest minimum performance standards. Delete options for performance standard not required.

* + - 1. Performance Standard: Extra Heavy Duty.
      2. Performance Standard: Heavy Duty.
      3. Performance Standard: Standard Duty.
      4. Performance Standard: As scheduled and indicated on Drawings.
      5. Mineral Core: Non-combustible mineral composite material.
      6. Door Skins: Comprised of crossbands which are wood-based composites of a minimum thickness of 1/16 inch (1.6 mm) and face veneers, that are laminated to the core with Type 1 interior use glue. Minimum properties of the crossband include internal bond of 100 psi and density of 58 lbs per cubic foot.
      7. Stiles (Vertical Edges): Standard laminated edge construction. Inner and outer stiles cannot contain salt treating.

\*\* NOTE TO SPECIFIER \*\* Delete options for stile types not required.

* + - * 1. Stile Type: Standard, maple.
        2. Stile Type: Compatible, similar in overall color, grain, character and contrast as the face veneer.
        3. Stile Type: Matching, same species as face veneer.
        4. Stile Type: Closed Grain Hardwood, manufacturer's option for painted stile edges.
        5. Stile Type: As scheduled and indicated on Drawings.
      1. Rails (Horizontal Edges): Rails are solid wood or other material contained in manufacturer's fire door approvals.

\*\* NOTE TO SPECIFIER \*\* Delete options for blocking requirements not required.

* + - 1. Hardware Blocking: Minimum 5-1/2 inch (140 mm) bottom rail.
      2. Hardware Blocking: Minimum 5-1/2 inch (140 mm) top rail.
      3. Hardware Blocking: Minimum 5-1/2 inch (140 mm) top rail for specialized hardware and 5-1/2 inch (140 mm) bottom rail.
      4. Hardware Blocking: Lockblock, 4-1/2 inches (114 mm) x 10 inches (254 mm).
      5. Hardware Blocking: Lockblock, 4-1/2 inches (114 mm) x 18 inches (457 mm).
      6. Hardware Blocking: As scheduled and indicated on Drawings.

\*\* NOTE TO SPECIFIER \*\* Delete if not required.

* + - 1. Veneer: Medium Density Overlay (MDO).
         1. Apply MDO to standard-thickness, closed-grain, hardwood face veneers or directly to high-density hardboard cross bands.

\*\* NOTE TO SPECIFIER \*\* Delete if not required.

* + - 1. Veneer: Paint-grade.

\*\* NOTE TO SPECIFIER \*\* Delete material not required.

* + - * 1. Material: Birch.
        2. Material: Any closed-grain hardwood of mill option.

\*\* NOTE TO SPECIFIER \*\* Five aspects of veneer selection shall be specified. The aspects are face grade, cut, veneer species match between veneer leaves, assembly of veneer leaves on face. Delete if not required.

* + - 1. Veneers:

\*\* NOTE TO SPECIFIER \*\* Delete options for face grade not required.

* + - * 1. Face Grade: A.
        2. Face Grade: As scheduled and indicated on Drawings.

\*\* NOTE TO SPECIFIER \*\* Delete options for veneer cut not required.

* + - * 1. Veneer Cut: Rotary.
        2. Veneer Cut: As scheduled and indicated on Drawings.

\*\* NOTE TO SPECIFIER \*\* Delete options for veneer species not required.

* + - * 1. Veneer Species: Red oak.
        2. Veneer Species: White birch.
        3. Veneer Species: Natural birch.
        4. Veneer Species: Paint grade birch.
        5. Veneer Species: As scheduled and indicated on Drawings.
        6. Veneer Matching: Book matched.
        7. Veneer Assembly: Running.
      1. Pair and Set Matching: For openings with more than one door, includes doors separated by a mullion.

\*\* NOTE TO SPECIFIER \*\* Delete options for door faces not required.

* + - * 1. Door Faces: Not matched.
        2. Door Faces: Pair matched.
        3. Door Faces: Set matched.
        4. Door Faces: As scheduled and indicated on Drawings.
      1. Glazing: Complies with designated fire ratings.

\*\* NOTE TO SPECIFIER \*\* Delete glazing specified not required.

* + - * 1. Glazing: Factory glazed.
        2. Glazing: Site glazed.
        3. Glazing: As scheduled and indicated on Drawings.

\*\* NOTE TO SPECIFIER \*\* Delete options for surface applied moulding not required.

* + - 1. Surface Applied Mouldings: None.
      2. Surface Applied Mouldings: Factory applied moulding frames to be compatible with face veneer. Profile and configuration per door manufacturers standard. Moulding frames to be applied with both glue and nails.
      3. Surface Applied Mouldings: As scheduled and indicated on Drawings.
    1. Door Fabrication:
       1. Door Thickness: 1-3/4 inches (45 mm).
       2. Factory-prefit and bevel doors (3 degrees) to suit frame sizes indicated, with 1/4 inch (6.4 mm) prefit in width, +/- 1/32 inch (0.8 mm), tolerances. Prefit top of door 1/8 inch (3.2 mm) +/- 1/16 inch (1.6 mm), and undercut as designated by floor condition. For fire-rated doors comply with NFPA 80 for prefits and undercuts.
       3. Factory pre-machine doors for hardware that is not surface applied. Locations and hole patterns to comply with specified hardware requirements as per NFPA 80 standards for doors specified; and to maintain door manufacturer's warranty.
          1. Specific locations for hardware will be coordinated between frame and door manufacturers.
          2. Specific hardware preps will be per hardware schedules) provided. Hardware preps to be neatly and cleanly squared as required per hardware templates.
          3. Metal astragals and channels to be supplied where fire-ratings will not allow metal-free edges.
       4. Factory Preparation for Light Openings and Louvers: Cut and trim openings through doors to comply with NFPA 80 requirements where indicated; and to maintain door manufacturer's warranty.

\*\* NOTE TO SPECIFIER \*\* Delete options for vision panels not required.

* + - 1. Vision Panels: Wood beads and wood louvers to be compatible with face veneer. Profiles and installation per door manufacturer's standards.
      2. Vision Panels: Metal vision panels and louvers supplied primed.
      3. Vision Panels: Metal vision panels and louvers supplied primed and painted.
    1. Finishes: Final color, build, and sheen as approved by Architect based on actual review samples.

\*\* NOTE TO SPECIFIER \*\* Delete the following paragraph if factory finishing not required.

* + - 1. Finish Location: Factory Finishing; including beading and mouldings to be finished at the factory, with UV cured system with performance properties equivalent to TR-6 or OP-6 Catalyzed Polyurethane (WDMA) and System 9 (AWS).
         1. Factory pre-finished doors to be individually protected with either transparent or opaque (for cherry, mahogany, teak, walnut) poly-wrap at the factory.

\*\* NOTE TO SPECIFIER \*\* Transparent finishes provide a clear protective coating over the wood, allowing the natural color and grain of the selected wood species to provide the appearance desired by the specifier and owner. Stain is often applied to wood surface underneath the transparent clear finish to add more color and design flexibility. Delete the finish type not required.

* + - * 1. Factory-Finish Type: Transparent, clear protective coating.
        2. Factory-Finish Type: Opaque, solid painted colors.
        3. Factory-Finish Type: Primer only, solid color priming coat for doors to be field painted.

\*\* NOTE TO SPECIFIER \*\* Delete the following paragraph if field finishing not required.

* + - 1. Finish Location: Field Finishing; including beading and mouldings to be field finished. Proper procedures are critical to ensure satisfactory results. Additional preparatory work is required and should be in compliance with industry standards. Final appearance of field finished doors is not warranted by the door manufacture.
         1. Finishing: Refer to Section 09900 - Painting for finishing of doors.

1. EXECUTION
   1. EXAMINATION AND PREPARATION
      1. Examine and prepare openings and substrates using the methods recommended by manufacturer for achieving best result for the substrates under project conditions.
         1. Confirm that frames comply with type, size, location and swing requirements and that they are installed plumb and square.
         2. Inspect doors for any damage, manufacturing defects or prefinish inconsistency prior to installation, including but not limited to wrong color or poor finish.
      2. Do not proceed with installation until openings and substrates have been prepared using the methods recommended by manufacturer and deviations from manufacturer's recommended tolerances are corrected. Commencement of installation constitutes acceptance of conditions.
      3. If preparation is the responsibility of another installer, notify Architect in writing of deviations from manufacturer's recommended installation tolerances and conditions.
   2. INSTALLATION
      1. Install wood doors to comply with WDMA or AWI, specific door manufacturer's instructions, and NFPA 80.
   3. ADJUSTING AND PROTECTION
      1. After installation of door in frame, operate door to ensure that the door swings freely and that hardware functions correctly. Adjust as required to provide proper operation of opening.
      2. Protect installed products until completion of project.
      3. Touch-up, repair or replace damaged products before Substantial Completion.

END OF SECTION