Specifier Note:

This section covers the VanAir™ Ventilated Door by VanAir Design.

The VanAir™ Ventilated Door by VanAir Design is available with the following surface materials; wood veneer for transparent finish, MDF for premium paint, laminate (HPDL).

VanAir™ Ventilated Doors have a 2 year Warranty.

Consult VanAir for assistance in editing this section for the specific application. Visit [www.vanairdesign.com](http://www.vanairdesign.com) to locate a Territory Sales Manager in your region.

SECTION 08 14 16 – Flush WOOD DOORS

1. GENERAL
   * + 1. SUMMARY
          1. Section Includes:

Interior flush wood doors.

Acoustic (STC) rated wood doors.

* + - * 1. Related Requirements:

Section [**08 7100**] <**insert section number**>: Door hardware.

Section [**09 9123**] <**insert section number**>: Site painting.

Section <**insert section number**>: <**insert content description**>.

* + - 1. COORDINATION
         1. STC-Rated Doors: Where installed in hollow metal frames, fill frames with compressed mineral wool insulation.
      2. PREINSTALLATION MEETINGS
         1. Conduct pre-installation meeting at Project site.
         2. Discussion Topics:

Delivery, storage, and handling.

Coordination with hardware [**and access control**] installers.

Protection of installed doors.

<**insert topic**>

* + - 1. ACTION SUBMITTALS
         1. Product Data: Each type of door and finish.

Core and edge construction.

Finishes.

* + - * 1. Shop Drawings and Schedule:

Use same unit designations used in Contract Documents.

Hardware [**and wiring chase**] preparation.

* + - * 1. Samples for Selection:

Available standard [**stain**] [**and**] [**paint**] colors and gloss options. Submit samples in the form of actual materials; printed brochures are not acceptable.

* + - * 1. Samples for Verification:

Each required veneer species and factory finish; corner unit showing construction and finish minimum 8 by 10 inches (200 by 250 mm) <**insert size**>.

* + - 1. INFORMATIONAL SUBMITTALS
         1. Sustainable Design Submittals:

[Chain-of-Custody Certificates](http://www.arcomnet.com/sustainable_design.aspx?topic=146): For certified wood products. Include statement of costs.

Specifier Note:

Subparagraph below applies to LEED v4.

[Chain-of-Custody Qualification Data](http://www.arcomnet.com/sustainable_design.aspx?topic=148): For manufacturer and vendor.

Specifier Note

Subparagraph below applies to LEED v4.

[Laboratory Test Reports](http://www.arcomnet.com/sustainable_design.aspx?topic=18): For adhesives, indicating compliance with requirements for low-emitting materials.

Specifier Note

Subparagraph below applies to LEED v4.

[Laboratory Test Reports](http://www.arcomnet.com/sustainable_design.aspx?topic=17): For composite wood products, indicating compliance with requirements for low-emitting materials.

* + - 1. CLOSEOUT SUBMITTALS
         1. Maintenance data.
         2. Manufacturer warranties transferrable to Owner.
      2. QUALITY ASSURANCE

Specifier Note

Retain following paragraphs if required for LEED v4. Note that some states require specifications for publicly-funded projects to allow certification by agencies other than FSC.

* + - * 1. [Manufacturer Qualifications](http://www.arcomnet.com/sustainable_design.aspx?topic=25): Certified for chain of custody by an FSC-accredited certification body.

* + - * 1. [Vendor Qualifications](http://www.arcomnet.com/sustainable_design.aspx?topic=26): Certified for chain of custody by an FSC-accredited certification body.

Specifier Note

Mock-ups are not usual for wood doors, but if project size or complexity justifies cost they can be specified here. Sample text below is for projects that have full room mockups, such as hospital and hospitality projects.

* + - * 1. Mock-Ups: Supply doors for room mock-ups specified in Division 01.

Acceptable mock-ups in satisfactory condition at Substantial Completion may remain as part of the Work.

* + - 1. DELIVERY, STORAGE, AND HANDLING
         1. Package factory-finished doors individually in manufacturer’s standard plastic bags, stretch wrap, or cardboard cartons.
         2. Store doors inside building in clean, dry location.
         3. Mark each door on top bottom rail with opening number used on Shop Drawings.
      2. FIELD CONDITIONS
         1. Environmental Limitations: Do not deliver or install doors until spaces are enclosed and weather tight, wet work in spaces is complete and dry, and HVAC system is operating and maintaining temperature between 60 and 90 deg F (16 and 32 deg C) and relative humidity at occupancy levels during remainder of construction period.
      3. MANUFACTURER WARRANTIES
         1. Manufacturer agrees to repair or replace doors that fail in materials or workmanship within specified warranty period.

Failures include, but are not limited to, the following:

Warping (bow, cup, or twist) more than 1/4 inch (6 mm) in 42-by-84-inch (1065-by-2130-mm) section.

Telegraphing of core construction in face veneers exceeding 0.01 inch in 3-inch (0.25 mm in 76-mm) span.

Warranty shall also include installation and finishing that may be required due to repair or replacement of defective doors.

* + - * 1. Warranty Periods:

VanAir™ Door | VanAir™ Vented Door | VanAir™ Ventilated Door: 2 years.

1. PRODUCTS
   * + 1. MANUFACTURERS
          1. Basis of Design: VanAir™ Door 2.0 | VanAir™ Vented Door 2.0 | VanAir™ Ventilated Door 2.0 by VanAir Design are specified to indicate requirements for quality and appearance.

Website: [vanairdesign.com](http://vanairdesign.com/)

Phone: 844-757-6437

* + - * 1. Subject to compliance with requirements, equivalent products of the following manufacturers will be acceptable.

Lynden Door, VanAir Ventilated Door Series

* + - * 1. Source Control: Supply all wood doors from a single manufacturer.
      1. MANUFACTURING STANDARDS

Specifier Note:

Although VanAir Design and most other wood door manufacturers can manufacture interior doors to AWS requirements, VanAir Design recommends WDMA standards because they include requirements for performance testing and have equivalent appearance requirements to AWS. Do not use both standards.

When flush doors that must match adjacent wood paneling or have other unusual requirements are needed, specify them per AWS standards with other architectural woodwork in Division 06.

* + - * 1. Interior Flush Wood Doors: Window & Door Manufacturers Association publication ANSI/WDMA I.S. 1A “Industry Standard for Interior Architectural Wood Flush Doors”.

Specifier Note:

Coordinate following with door hardware specification. VanAir doors are available with acoustical rating of STC 25 to STC 26, depending on construction.

* + - * 1. Acoustical Rating for Engineered Core Doors: Where indicated in door schedule on Drawings, provide STC <**insert number based on manufactures options**> doors supplied with seals and gaskets tested by manufacturer.
      1. SUSTAINABILITY REQUIREMENTS

Specifier Note:

Some states require specifications for publicly-funded projects to allow certification by agencies other than FSC.

* + - * 1. [Certified Wood](http://www.arcomnet.com/sustainable_design.aspx?topic=155): “FSC Pure” [**or “FSC Mixed Credit”**] per FSC STD-01-001 and FSC STD-40-004.

* + - * 1. [Adhesives](http://www.arcomnet.com/sustainable_design.aspx?topic=64): Meeting testing and product requirements of California Department of Public Health’s “Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers.”

* + - * 1. [Composite Wood Products](http://www.arcomnet.com/sustainable_design.aspx?topic=63): Manufactured with ultra-low-emitting formaldehyde resins as defined in California Air Resources Board’s “Airborne Toxic Control Measure to Reduce Formaldehyde Emissions from Composite Wood Products” or with no added formaldehyde.
      1. INTERIOR Engineered CORE FLUSH WOOD DOORS FOR TRANSPARENT FINISH – SELECT WOOD VENEER
         1. Basis of Design: VanAir™ Door 2.0 | VanAir™ Vented Door 2.0 | VanAir™ Ventilated Door 2.0 by VanAir Design.

Specifier Note:

If more than one type of transparent flush doors are required, copy paragraph for additional types.

* + - * 1. VanAir Wood Veneer Flush Doors 2.0 <**insert drawing designation**>:

Specifier Note:

Wood flush door aesthetics are specified by choosing a Premium grade or Custom grade door. These designations determine the basic appearance of the door with respect to veneer grade, matching requirements, pair and set matching, vertical edge species and other attributes that determine the appearance in individual doors and doors in pairs.

Premium Grade: The highest grade commercially available in both material and fabrication. This grade is intended for the finest commercial, industrial and institutional buildings. Uses AA grade faces (A grade faces for Western Red Alder, White Pine, Douglas Fir and Redwood) that are assembled using book and center balance match; other face options are available but must be specified.

Custom Grade: The standard grade in both material and fabrication. This grade is intended for high-quality work. Uses A Grade faces that are assembled using book and running match; other face options are available but must be specified.

Note: If the Aesthetic Grade is not specified, Custom grade is the default.

WDMA Quality grade: [**Custom.**] [**Premium.**]

WDMA Performance Level: [**Extra Heavy Duty.**] [**Heavy Duty.**]

Specifier Note:

Although the standard veneer grade for Custom grade doors is A, they can be specified with AA veneer.

Faces:

Veneer Grade: [**AA.**] [**A.**]

Veneer Species: [**African Mahogany**] [**Anegre**] [**White Birch**] [**Cherry**] [**White Maple**] [**Red Oak**] [**White Oak**] [**Sapele**] [**Walnut**] <**Insert species**>.

Specifier Note:

Rift cut applies only to oak veneers.

Veneer Cut: [**Rotary cut**] [**Plain sliced (Flat cut)**] [**Quarter sliced**] [**Rift cut**].

Veneer Leaf Match: [**Book match.**] [**Slip match.**]

Veneer Face Match/Assembly: [**Running**] [**Balance**] [**Center-balance**].

Specifier Note:

Special veneer designs that may have more than one species can be specified in next subparagraph. Delete preceding “matching” and “assembly” subparagraphs.

Decorative Arrangement: [**See door elevations on Drawings.**] <**insert manufacturer designation or general description**>.

Pair Match: Provide for doors hung in same opening [**or separated only by mullions**].

Vertical Edges: Structural composite lumber [**Matching/Compatible Veneer edge band over structural composite lumber.**] [**Matching**/**Compatible Hardwood lumber that matches face veneer.**]

Horizontal Edges: Structural composite lumber. **[Hardwood]**

Core: VanAir core with air transfer channel and two modes of sound attention through porous absorption and resonant absorption. Certified by manufacturer on basis of testing per ASTM E779-10, Determining Air Leakage Rate by Fan Pressurization.

Single channel: Integrated air transfer channel in a Z-shaped profile with opposing ventilation slots routed into the front and back faces.

Dual channel: Integrated air transfer channel in a Y-shaped profile with opposing ventilation slots routed into the front and back faces.

Construction: Five Plies; Stiles and rails are bonded to core, entire unit is abrasive planed before veneering.

Specifier Note:

1-3/8 VanAir Doors are only available with visible crossband at the stile edge and ventilation slot edge.

Thickness: [**1-3/8 inch.**] [**1-3/4 inch.**]

* + - 1. INTERIOR Engineered CORE FLUSH WOOD DOORS FOR OPAQUE FINISH – PREMIUM PAINTED
         1. Basis of Design: VanAir™ Door 2.0 | VanAir™ Vented Door 2.0| VanAir™ Ventilated Door 2.0 by VanAir Design.
         2. Engineered Core Premium Painted Flush Doors <**insert drawing designation**>:

WDMA Quality grade: [**Custom.**] [**Premium.**]

WDMA Performance Level: [**Extra Heavy Duty.**] [**Heavy Duty.**]

Faces: Medium density overlay (MDO).

Vertical Edges: Hardwood over Structural composite lumber. [**Matching** **1/8 inch (3.2mm) high impact edge bonded to structural composite lumber.**].

Horizontal Edges: Structural composite lumber. **[Hardwood.]**

Core: VanAir core with air transfer channel and two modes of sound attention through porous absorption and resonant absorption. Certified by manufacturer on basis of testing per ASTM E779-10, Determining Air Leakage Rate by Fan Pressurization.

Single channel: Integrated air transfer channel in a Z-shaped profile with opposing ventilation slots routed into the front and back faces.

Dual channel: Integrated air transfer channel in a Y-shaped profile with opposing ventilation slots routed into the front and back faces.

Construction: Five Plies; Stiles and rails are bonded to core, entire unit is abrasive planed before veneering.

Thickness: [**1-3/8 inch**.] [**1-3/4 inch**.]

* + - 1. LAMINATE FINISH WOOD DOORS INTERIOR engineered CORE LAMINATE-FACED (HPDL) DOORS
         1. Basis of Design: VanAir™ Door | VanAir™ Vented Door | VanAir™ Ventilated Door by VanAir Design.
         2. Engineered Core Laminate (HPDL) Flush Doors <**insert drawing designation**>:

WDMA Quality grade: [**Custom.**] [**Premium.**]

WDMA Performance Level: [**Extra Heavy Duty.**] [**Heavy Duty.**]

Faces: High-pressure decorative laminates complying with NEMA LD 3, Grade HGS. Vertical and post formable grade laminates are not acceptable.

Colors, Patterns: **[Color and pattern selected by Architect from manufacturer’s standards] [Color and pattern to match Architect sample]** <**insert description**>.

Vertical Edges: Matching HPDL Edge Band applied after faces over Structural Composite Lumber. [**Matching** **1/8 inch (3.2mm) high impact edge bonded to structural composite lumber.**] **[Hardwood for [paint] [stain] finish.]**

Horizontal Edges: Structural composite lumber. [**Hardwood.**]

Core: VanAir core with air transfer channel and two modes of sound attention through porous absorption and resonant absorption. Certified by manufacturer on basis of testing per ASTM E779-10, Determining Air Leakage Rate by Fan Pressurization.

Single channel: Integrated air transfer channel in a Z-shaped profile with opposing ventilation slots routed into the front and back faces.

Dual channel: Integrated air transfer channel in a Y-shaped profile with opposing ventilation slots routed into the front and back faces.

Construction: Five Plies; Stiles and rails are bonded to core, entire unit is abrasive planed. High pressure decorative laminate with high density fiberboard (HDF) crossbands.

Thickness: 1-3/4 inch. [**1-3/8 inch (Structural composite lumber core and wood-based particleboard core only).**]

* + - 1. ACOUSTIC (STC) RATED INTERIOR FLUSH WOOD DOORS
         1. Acoustic Rated Interior Flush Wood Doors <**insert drawing designation**>:

Match appearance grade and applicable construction and performance requirements of [**transparent finish**] [**opaque finish**] [**laminate finish**] flush wood doors.

STC Ratings: Certified by manufacturer on basis of testing per ASTM E90 and E413. Rating requirements are stated in the door schedule on the Drawings.

Provide gasketing and [**door shoe**] [**mortise door bottom**] as required to meet manufacturers tested acoustic rating.

* + - 1. TRANSPARENT FINISH WOOD DOOR FRAMES
         1. Material: [**Solid lumber that matches species of door veneer.**] [**Door face veneer applied to structural composite lumber.**]

Specifier Note:

Standard frames are available in custom widths to match wall construction. Custom frames have additional dimension options.

* + - * 1. Frame Profile: [**Standard double rabbet.**] [**Custom double rabbet.**]

Specifier Note:

Wood frames can be supplied without casing trim.

* + - * 1. Trim: [**Solid lumber that matches species of door veneer.**] [**Door face veneer applied to lumber or medium density fiberboard.**]
        2. Trim Stile: [**Colonial Casing.**] [**Contemporary Casing.**] [**Sleek Casing.**] [**Traditional Casing.**]
      1. PAINT FINISH WOOD DOOR FRAMES
         1. Material: Paint grade hardwood.

Specifier Note:

Standard frames are available in custom widths to match wall construction. Custom frames have additional dimension options.

* + - * 1. Frame Profile: [**Standard double rabbet.**] [**Custom double rabbet.**]

Specifier Note:

Wood frames can be supplied without casing trim.

* + - * 1. Trim: Paint grade [**softwood**] [**or**] [**medium density fiberboard**].
        2. Trim Stile: [**Colonial Casing.**] [**Contemporary Casing.**] [**Sleek Casing.**] [**Traditional Casing.**]
      1. FABRICATION
         1. Door Pairs [**and Fixed Side Panels**]:

Specifier Note:

First two options are for AA veneer, the second is for installations where there is more than one pair. Running match is the most common assembly method for A grade veneer.

Veneer Matching: [**Pair match.**] [**Set match.**] [**Running match.**]

Continuous match means the veneer extends from floor to top of the transom. End match transoms have mirror match at top of door.

* + - * 1. Transoms and Side Panels: Same construction as adjacent doors.

Transom Veneer: [**Continuous match.**] [**End match.**]

* + - * 1. Factory Fitting: Fit to frame openings with clearances specified in WDMA I.S. 1A.

Undercut: Maximum 3/8 inch (10 mm) above thresholds.

* + - * 1. Factory Machining: Machine doors for hardware that is not surface applied.

Verify dimensions for hardware mortises in metal frames before machining.

* + - * 1. Openings:

Cut and trim openings [**and install glazing**] at factory.

* + - * 1. Contractor Option: Doors supplied with wood frames may have hardware installed at factory.
        2. Door Frames:

Supply frames with temporary spreader bars at base.

Where indicated provide matching [**sidelite**] [**and**] [**transom**] frames with rectangular wood beads for glazing.

* + - 1. FINISHES
         1. Finish Grade: Match grade of door.
         2. Transparent: WDMA TR-8, UV-Cured Acrylated Polyester/Urethane.

Staining: [**Standard color selected by Architect.**] [**Match Architect’s sample.**] [**None.**]

Sheen: Satin.

* + - * 1. Factory-Primed: Primer suitable for finish paint specified in Section 099123 – Interior Painting.
        2. Factory-Painted: WDMA I.S. 1-A System OP-8, UV-Cured Acrylated Polyester/Urethane.

Color: [**As selected by Architect from manufacturer’s standard line.**] [**Match Architects’ paint sample.**]

Sheen: Satin.

1. EXECUTION
   * + 1. EXAMINATION
          1. Verify that door frames are plumb, square, and accurate size.
          2. Inspect each door before installation for damage and defects per WDMA Section F-6.
       2. INSTALLATION
          1. Hardware installation is conforming to Section 08 71 00 – Door Hardware.
          2. Reference Standards:

Specifier Note:

I.S. 1A is for flush doors.

Wood Doors: WDMA I.S. 1A.

* + - * 1. Align doors with uniform vertical and top edge clearance.
      1. REPAIR
         1. Repair of damage or defects is subject to Architect’s acceptance, including removal of soiling. Provide new replacement doors for doors that cannot be satisfactorily repaired.
      2. PROTECTING AND CLEANING
         1. Protect installed doors from damage and soiling.
         2. Clean doors shortly before inspection for Substantial Completion.

**END OF SECTION**