

SECTION 08210 - FLUSH WOOD DOORS

(CANADIAN VERSION)



PART 1 - GENERAL

1.1 RELATED DOCUMENTS

DRAWINGS AND GENERAL PROVISIONS OF THE CONTRACT INCLUDING GENERAL AND SUPPLEMENTARY CONDITIONS AND DIVISION 1—SPECIFICATION SECTIONS, APPLY TO WORK SPECIFIED IN THIS SECTION.

1.2 REFERENCE STANDARDS (MOST RECENT EDITION)

- A. ANSI / WDMA IS 1A 2003 - WINDOW AND DOOR MANUFACTURERS ASSOCIATION (WDMA)
- B. AWI / AWMAC - QUALITY STANDARDS OF THE ARCHITECTURAL WOODWORK INSTITUTE (AWI) AND THE ARCHITECTURAL WOODWORK MANUFACTURERS ASSOCIATION OF CANADA (AWMAC)
- C. CAN / CSA-O132.2.0-90 GENERAL REQUIREMENTS FOR WOOD FLUSH DOORS
- D. ASTM E 2074-00 - STANDARD METHODS OF FIRE TESTS FOR DOOR ASSEMBLIES
- E. UNDERWRITERS' LABORATORIES - UL 10B (NEUTRAL PRESSURE) AND UL 10C (POSITIVE PRESSURE) - FIRE TESTS OF DOOR ASSEMBLIES AND ULC S-104 STANDARD METHOD OF FIRE TESTS OF DOOR ASSEMBLIES
- F. NFPA 80 - FIRE DOORS AND WINDOWS
- G. ITS (WARNOCK HERSEY) - CERTIFICATION LISTINGS FOR FIRE DOORS
- H. ASTM E90-90 - MEASUREMENT OF AIRBORNE SOUND TRANSMISSION LOSS OF BUILDING PARTITIONS
- I. FSC - FOREST STEWARDSHIP COUNCIL GUIDELINES FOR ENVIRONMENTALLY CERTIFIED WOOD DOORS

1.3 SUMMARY

THIS SECTION INCLUDES :

- A. SOLID-CORE FLUSH WOOD DOORS WITH WOOD-VENEER, MEDIUM DENSITY OVERLAY (MDO), PAINT-GRADE, PLASTIC LAMINATE FACES.

- B. FACTORY PRE-FITTING, PRE-MACHINING FOR HARDWARE, DETAILING, AND FACTORY PREFINISHING.

1.4 SUBMITTALS

- A. **PRODUCT DATA:** SUBMIT DOOR MANUFACTURER'S PRODUCT CONSTRUCTION DATA, HARDWARE ATTACHMENT PERFORMANCE DATA, SPECIFICATIONS AND INSTALLATION INSTRUCTIONS FOR EACH TYPE OF WOOD DOOR, INCLUDING DETAILS OF CORE AND EDGE CONSTRUCTION, TRIM FOR LITE OPENINGS AND SIMILAR COMPONENTS.
- B. **SPECIFIC PRODUCT WARRANTY :** THE DOOR SHALL BE WARRANTED BY THE MANUFACTURER TO BE FREE OF MANUFACTURING DEFECTS FOR THE LIFE OF THE ORIGINAL INSTALLATION. WARRANTY SHALL PROVIDE FOR REPAIR OR REPLACEMENT OF THE DOOR AS ORIGINALLY FURNISHED. MANUFACTURER SHALL ELECT TO REPAIR OR REPLACE DEFECTIVE DOOR(S), AND WILL ASSUME REASONABLE COSTS ASSOCIATED WITH SAME. MANUFACTURER MAY, PER ITS DISCRETION, ELECT TO USE EITHER ITS OWN OR THIRD PARTY RESOURCES TO RESOLVE WARRANTY CLAIMS.
- C. **SHOP DRAWINGS:** PROVIDE THE FOLLOWING INFORMATION:
- 1) DOOR TYPE.
 - 2) DOOR SIZE.
 - 3) FIRE RATING.
 - A) NEUTRAL PRESSURE - UL 10B/UBC43-2 OR 7-2-94.
 - B) POSITIVE PRESSURE - UL 10C/UBC7-2-97.
 - 4) HARDWARE TYPES AND LOCATIONS.
 - 5) HARDWARE BLOCKING REQUIREMENTS AND LOCATION.
 - 6) VISION PANEL OR LOUVER CUTOUT SIZE AND LOCATION.
 - 7) PREFINISH SYSTEM TYPE AND APPROVED COLOR(S).
- D. **SAMPLES:**
- 1) COLOR SAMPLES FOR FACTORY PREFINISHING. MANUFACTURER MUST SUBMIT SAMPLES OF NOT LESS THAN 8" X 10" SIZE ON REPRESENTATIVE VENEER OR PAINTABLE SURFACE, WITH SAMPLE DATE INDICATED.
 - 2) CONSTRUCTION SAMPLES. CORNER SECTIONS WITH DOOR FACES, EDGES, AND CORE REPRESENTATIVE OF THE SPECIFIED DOOR TYPE(S). CORNER SAMPLES TO BE NOT LESS THAN 8" X 10".

1.5 QUALITY ASSURANCE

- A. **MANUFACTURER** : COMPANY SPECIALIZING IN MANUFACTURING PRODUCTS SPECIFIED IN SECTION WITH A MINIMUM OF FIVE YEARS DOCUMENTED EXPERIENCE. ALL DOORS MUST BE SUPPLIED THROUGH ONE COMPANY.
- B. **QUALITY STANDARD** : DOORS TO COMPLY WITH ANSI/WDMA IS 1A 2003 (WINDOW AND DOOR MANUFACTURERS ASSOCIATION).
- C. **FIRE RATINGS COMPLIANCE** : FIRE-RATED WOOD DOORS TO COMPLY WITH NFPA-80 REQUIREMENTS ACCORDING TO BUILDING CODE STANDARDS HAVING LOCAL JURISDICTION.
- 1) NEUTRAL PRESSURE TESTING - UBC 43-2 OR 7-2-94 ; OR UL10B.
 - 2) POSITIVE PRESSURE TESTING UBC 7-2-97 OR UL10C.
- D. **LABEL CERTIFICATION** : ALL DOORS REQUIRING FIRE-RATING WILL CARRY EITHER ULC OR ITS (WARNOCK HERSEY) LABEL. MANUFACTURER'S CERTIFICATION LABELS MAY BE USED FOR DOOR SIZE VARIATIONS IF APPROVED BY AHJ (AUTHORITY HAVING JURISDICTION).
- E. **ENVIRONMENTAL CERTIFICATION** : ALL DOORS REQUIRING ENVIRONMENTAL CERTIFICATION WILL BE MARKED WITH FOREST STEWARDSHIP COUNCIL (FSC) AUTHORIZED CERTIFICATION, E.G. SMARTWOOD APPROVAL AND CERTIFICATE NUMBER. ENVIRONMENTAL CERTIFICATION ENSURES THAT WOOD COMPONENTS COME FROM CERTIFIED FORESTS AND ARE PROCESSED BY CHAIN-OF-CUSTODY MANUFACTURERS.
- F. **DELIVERY/STORAGE/HANDLING** : STORE AND PROTECT DOORS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS AND ANSI/WDMA. FOLLOWING ARE GENERAL GUIDELINES. FOR MORE SPECIFIC INFORMATION REFER TO ANSI/WDMA'S APPENDIX SECTION "CARE AND INSTALLATION AT JOB SITE."
- 1) STORE DOORS FLAT AND OFF THE FLOOR ON A LEVEL SURFACE IN A DRY, WELL-VENTILATED BUILDING. DO NOT STORE ON EDGE. PROTECT DOORS FROM DIRT, WATER AND ABUSE.
 - 2) CERTAIN WOOD SPECIES ARE LIGHT SENSITIVE. PROTECT DOORS FROM EXPOSURE TO LIGHT (ARTIFICIAL OR NATURAL) AFTER DELIVERY.
 - 3) DO NOT SUBJECT INTERIOR DOORS TO EXTREMES IN EITHER HEAT OR HUMIDITY. HVAC SYSTEMS SHOULD BE OPERATIONAL AND BALANCED, PROVIDING A TEMPERATURE RANGE OF 50 TO 90 DEGREES FAHRENHEIT AND 30% TO 50% RELATIVE HUMIDITY.
 - 4) WHEN HANDLING DOORS, ALWAYS LIFT AND CARRY. DO NOT DRAG ACROSS OTHER DOORS OR SURFACES. HANDLE WITH CLEAN HANDS OR GLOVES.
 - 5) EACH DOOR WILL BE MARKED ON TOP RAIL WITH OPENING NUMBER.

1.6 WARRANTY

MANUFACTURER'S SIGNED WARRANTY COVERING MANUFACTURING OR MATERIAL DEFECTS FOR THE SPECIFIED LENGTH OF THE ORIGINAL INSTALLATION, INCLUDING REPAIR, REPLACEMENT, MACHINING, DETAILING AND/OR PREFINISHING, IS A REQUIRED PART OF THE MANUFACTURER'S WARRANTY FOR INTERIOR DOORS. EXTERIOR APPLICATIONS PER MANUFACTURER.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

MANUFACTURERS ARE SUBJECT TO EVALUATION AND INCLUSION BY ARCHITECT/SPECIFIER. LISTED BELOW ARE PRIMARY MANUFACTURERS OF 5 PLY-HOT PRESS WOOD DOORS:

ALGOMA HARDWOODS, INC.
BAILLARGEON DOORS, INC.
EGGERS INDUSTRIES
LAMBTON DOORS
MARSHFIELD DOOR SYSTEMS

2.2 DOOR CONSTRUCTION, GENERAL

- A. **ENVIRONMENTALLY CERTIFIED DOORS** - ENVIRONMENTALLY CERTIFIED DOORS CARRY A CERTIFICATION AUTHORIZED UNDER AUTHORITY OF THE FOREST STEWARDSHIP COUNCIL (FSC) AND ARE CERTIFIED TO MEET FSC REQUIREMENTS AS PERTAINING TO CERTIFIED SOURCING, CONTENT AND CHAIN-OF-OWNERSHIP REQUIREMENTS FOR MATERIALS USED IN CONSTRUCTION OF THE DOOR.

CERTIFICATION SPECIFIED :

- £ No Environmental Certification Required
- £ FSC/Smartwood Certification Required

- B. **SPECIAL FUNCTION DOORS –**

SPECIAL FUNCTION DOORS SPECIFIED :

- £ No Special Function Doors
- £ Special Function Doors, as per Below

- 1) **SOUND TRANSMISSION CLASS (STC)** - AS IDENTIFIED BY DOOR SCHEDULE, DOORS TO CARRY AN ACOUSTICAL RATING FOR SOUND TRANSMISSION CLASS. STC RATINGS ARE DETERMINED THROUGH TESTING TO COMPLY WITH ASTM E90-90 METHODS. ALL ACCESSORIES REQUIRED FOR ACOUSTICAL RATING COMPLIANCE SUPPLIED BY DOOR MANUFACTURER WITH DOOR.

STC RATING SPECIFIED :

- £ No STC Doors Required
- £ STC-44
- £ STC Doors Per Door Schedule.

- 2) **LEAD-LINED** – AS IDENTIFIED BY DOOR SCHEDULE, DOORS TO HAVE CONTINUOUS LEAD SHEETING FROM EDGE TO EDGE BETWEEN THE CROSS BANDING AND THE CORE. LEAD THICKNESS AS SPECIFIED BELOW.

LEAD-LINED DOORS SPECIFIED :

- £ No Lead Lined Doors Required
- £ 1/32 in. Lead Sheets Each Door
- £ 1/16 in. Lead Sheets Each Door
- £ 1/8 in. Lead Sheets Each Door

LEAD-LINED 20 MINUTE RATING– AS IDENTIFIED BY DOOR SCHEDULE, DOORS TO HAVE CONTINUOUS LEAD SHEETING FROM EDGE TO EDGE BETWEEN THE CROSS BANDING AND THE CORE. LEAD THICKNESS AS SPECIFIED BELOW.

LEAD-LINED DOORS SPECIFIED :

- £ No Lead Lined Doors Required
- £ 1/32 in. Lead Sheets Each Door
- £ 1/16 in. Lead Sheets Each Door
- £ 1/8 in. Lead Sheets Each Door

- 3) **BULLET RESISTANT** – BULLET RESISTANT DOORS TO BE MANUFACTURED WITH SPECIAL BALLISTIC RATED MATERIALS WITHIN THE CORE ASSEMBLY PER DOOR MANUFACTURER’S CONSTRUCTION. PROTECTION LEVELS PER UL752 BULLET RESISTING EQUIPMENT AS SPECIFIED BELOW.

BULLET RESISTANT DOORS SPECIFIED :

- £ No Bullet Resistance
- £ Level 1 Bullet Resistance
- £ Level 2 Bullet Resistance
- £ Level 3 Bullet Resistance

C. NON-FIRE-RATED DOORS –

GENERAL SPECIFICATION – REFER TO ANSI/WDMA IS 1A 2003 FOR MORE SPECIFIC DEFINITIONS.

PERFORMANCE DUTY LEVEL - THE MINIMUM PERFORMANCE VALUES BASED ON THE AMOUNT AND SEVERITY OF USE. INTENDED FOR THE FINEST COMMERCIAL, INDUSTRIAL AND INSTITUTIONAL BUILDINGS.

- DUTY LEVEL SPECIFIED:**
- £ Heavy Duty
 - £ Extra Heavy Duty

AESTHETIC GRADE - THE HIGHEST GRADE COMMERCIALY AVAILABLE IN BOTH MATERIAL AND WORKMANSHIP. INTENDED FOR THE FINEST COMMERCIAL, INDUSTRIAL AND INSTITUTIONAL BUILDINGS.

- GRADE SPECIFIED:**
- £ Custom Grade
 - £ Premium Grade

- 1) CONSTRUCT USING ANSI / WDMA FIVE (5) PLY CONSTRUCTION, USING HOT PRESS METHOD FOR LAMINATING DOOR MATERIALS. SELECT CONSTRUCTION (REFER TO SECTION (2) FOR SPECIFIC INFORMATION). STILES AND RAILS MUST BE SECURELY BONDED TO THE CORE AND THEN ABRASIVELY PLANED PRIOR TO VENEERING.

2) CORE IS ONE OF THE FOLLOWING THREE TYPES:

- A) **PARTICLEBOARD CORE (PC-5)** TO COMPLY WITH ANSI STD. A208.1-1999 LD-1 OR LD-2 WITH SCREW HOLDING POWER OF 90 / 125 LBS., MODULUS OF RUPTURE OF 425 / 725 PSI, MODULUS OF ELASTICITY OF 79,800 / 150,000 PSI AND DENSITY OF 28 / 32 LBS. PER CUBIC FOOT
- B) **STAVE LUMBER CORE (SLC-5)** MAY BE A COMBINATION OF SOLID, LOW-DENSITY HARDWOOD LUMBER BLOCKS OR STRIPS NOT MORE THAN 2-1/2" WIDE OF ONE SPECIES OF WOOD BETWEEN 6% TO 9% MOISTURE CONTENT. JOINTS TO BE TIGHT AND STAGGERED IN ADJACENT ROWS. LUMBER DENSITY IS 25 TO 27 LBS. PER CUBIC FOOT.
- C) **STRUCTURAL COMPOSITE LUMBER CORE (SCLC-5)** IS AN ENGINEERED HARDWOOD COMPOSITE SOMETIMES REFERRED TO AS LSL (LAMINATED STRAND LUMBER). THE MATERIAL COMPLIES WITH ANSI/WDMA MINIMUM PERFORMANCE LEVELS FOR INTERIOR APPLICATIONS WITH SCREW HOLDING POWER OF 540 LBS., MODULUS OF RUPTURE OF 6,500 PSI, MODULUS OF ELASTICITY OF 1,300,000 PSI AND DENSITY OF 38 LBS PER CUBIC FOOT.

CORE MATERIALS SPECIFIED :

- £ Particleboard Core (PC-5) LD-1
- £ Particleboard Core (PC-5) LD-2
- £ Stave Lumber Core (SLC-5)
- £ Structural Composite Lumber Core (SCLC-5)

3) **CROSSBANDS** ARE WOOD-BASED ENGINEERED COMPOSITES OF A MINIMUM THICKNESS OF 1/16". CROSSBANDS AND FACE VENEERS ARE LAMINATED TO THE CORE WITH TYPE 1 INTERIOR USE GLUE USING THE HOT PRESS PROCESS. CROSSBANDS MUST EXTEND THE FULL WIDTH OF THE DOOR. MINIMUM PROPERTIES INCLUDE INTERNAL BOND OF 200 PSI AND DENSITY OF 50 - 65 LBS. PER CUBIC FOOT.

4) **STILES (VERTICAL EDGES)** - STILES ARE HARDWOOD, ONE PIECE, LAMINATED OR VENEERED. CONSTRUCTIONS WITH LAMINATED EDGES MAY USE STRUCTURAL COMPOSITE LUMBER AS AN INNER STILE COMPONENT.

- A) **COMPATIBLE** - SIMILAR IN OVERALL COLOR, GRAIN, CHARACTER AND CONTRAST AS THE FACE VENEER.
- B) **MATCHING** - SAME SPECIES AS FACE VENEER.
- C) **CLOSED GRAIN HARDWOOD** - MANUFACTURER'S OPTION FOR PAINTED STILE EDGES.

STILE TYPE SPECIFIED:

- £ Closed Grain Hardwood
- £ Compatible
- £ Matching
- £ Plastic Laminate

- 5) **RAILS (HORIZONTAL EDGES)** - RAILS ARE SOLID WOOD, STRUCTURAL COMPOSITE LUMBER MEETING THE MINIMUM REQUIREMENTS OF ANSI / WDMA.
- 6) **HARDWARE BLOCKING** (ELIMINATES THROUGH-BOLTING AND IMPROVES SCREW WITHDRAWAL RESISTANCE FOR HEAVY-USE AREAS) - SPECIFY MINIMUM 5" TOP RAIL FOR SPECIALIZED HARDWARE AND/OR 5" BOTTOM RAIL FOR SPECIALIZED HARDWARE OR UNDERCUTTING FLEXIBILITY.

BLOCKING REQUIREMENTS SPECIFIED :

- £ Minimum 5 in. Top Rail
- £ Minimum 5 in. Bottom Rail
- £ Minimum 5 in. Top and 5 in. Bottom Rail

- 7) **VENEERS** - THERE ARE FIVE ASPECTS OF VENEER SELECTION, WHICH MUST BE SPECIFIED. THE ASPECTS ARE (1) FACE GRADE, (2) CUT, (3) VENEER SPECIES (4) MATCH BETWEEN VENEER LEAVES, (5) ASSEMBLY OF VENEER LEAVES ON FACE. REFER TO ANSI /WDMA IS 1A FOR SPECIFIC DEFINITIONS AND ATTRIBUTES.

- FACE GRADE SPECIFIED:**
- £ - AA -
 - £ - A -
 - £ - B -

- VENEER CUT SPECIFIED:**
- £ Quartered
 - £ Rift
 - £ Rotary
 - £ Sliced

- VENEER SPECIES SPECIFIED:**
- £ African Mahogany
 - £ Anigre
 - £ Ash
 - £ Cherry
 - £ Fir
 - £ Honduran Mahogany
 - £ Makore
 - £ Medium Density Overlay (MDO)
 - £ Natural Birch
 - £ Paint Grade Birch
 - £ Red Birch
 - £ Red Oak
 - £ Sapeli
 - £ Walnut
 - £ White Birch
 - £ White Oak

- VENEER MATCH SPECIFIED:**
- £ Book
 - £ Random
 - £ Slip

VENEER ASSEMBLY SPECIFIED: £ Balance
£ Center
£ Running

8) PAIR AND SET MATCH

FOR OPENINGS WITH MORE THAN ONE DOOR, DOOR FACES MUST BE PAIR OR SET MATCHED. THIS INCLUDES DOORS SEPARATED BY A MULLION.

MATCHING REQUIREMENTS : £ Not Matching
£ Matching

9) TRANSOM AND SIDE PANELS

FABRICATE MATCHING PANELS WITH SAME CONSTRUCTION, EXPOSED SURFACES, AND FINISH SPECIFIED FOR ASSOCIATED DOORS.

MATCHING REQUIREMENTS : £ Not Matching
£ Matching

D. FIRE-RATED DOORS

- 1) CONSTRUCT USING ANSI / WDMA FIVE (5) PLY CONSTRUCTION, USING HOT PRESS METHOD FOR LAMINATING DOOR MATERIALS. SELECT CONSTRUCTION (REFER TO SECTION (2) FOR SPECIFIC INFORMATION) :

FIRE RATING SPECIFIED :

£ Wood Core 20 Minute
£ Mineral Core FD 45 Minute
£ Mineral Core FD 60 Minute
£ Mineral Core FD 90 Minute

CATEGORY A POSITIVE PRESSURE OPENINGS HAVE ALL THE INTUMESCENT REQUIRED FOR COMPLIANCE CONTAINED WITHIN THE DOOR AND REQUIRE NO ADDITIONAL INSTALLATION OF INTUMESCENT STRIPS.

CATEGORY B POSITIVE PRESSURE OPENINGS REQUIRE THE ADDITION OF INTUMESCENT STRIPS TO THE DOOR AND/OR FRAME.

NEUTRAL/POSITIVE PRESSURE SPECIFIED :

£ Neutral Pressure
£ Positive Pressure Category A
£ Positive Pressure Category B

- 2) CORE IS ONE OF THE FOLLOWING FOUR TYPES :

- A) **PARTICLEBOARD CORE** TO COMPLY WITH ANSI STND. A208.1-1999 LD-1 OR LD-2 WITH SCREW HOLDING POWER OF 90 / 125 LBS., MODULUS OF RUPTURE OF 425 / 725 PSI, MODULUS OF ELASTICITY OF 79,800 / 150,000 PSI AND DENSITY OF 28 / 32 LBS. PER CUBIC FOOT. FOR USE ONLY WITH 1/3 HOUR RATED DOORS.

- B) **STAVE LUMBER CORE** MAY BE A COMBINATION OF SOLID, LOW-DENSITY HARDWOOD LUMBER BLOCKS OR STRIPS NOT MORE THAN 2-1/2" WIDE OF ONE SPECIES OF WOOD AT 6% TO 9% MOISTURE CONTENT. JOINTS TO BE TIGHT AND STAGGERED IN ADJACENT ROWS. LUMBER DENSITY IS 25 TO 27 LBS. PER CUBIC FOOT. FOR USE ONLY WITH 1/3 HOUR RATED DOORS.
- C) **STRUCTURAL COMPOSITE LUMBER CORE** IS AN ENGINEERED HARDWOOD COMPOSITE. THE MATERIAL COMPLIES WITH ANSI / WDMA MINIMUM PERFORMANCE LEVELS FOR INTERIOR APPLICATIONS WITH SCREW HOLDING POWER OF 540 LBS., MODULUS OF RUPTURE OF 6,500 PSI, MODULUS OF ELASTICITY OF 1,300,000 PSI AND DENSITY OF 38 LBS PER CUBIC FOOT. FOR USE ONLY WITH 1/3 HOUR RATED DOORS.
- D) **MINERAL CORE** IS A NON-COMBUSTIBLE MINERAL COMPOSITE MATERIAL THAT IS NECESSARY FOR HIGHER HOURLY RATINGS PER MANUFACTURER'S APPROVAL(S).
- 3) **CROSSBANDS** ARE WOOD-BASED ENGINEERED COMPOSITES OF A MINIMUM THICKNESS OF 1/16". CROSSBANDS AND FACE VENEERS ARE LAMINATED TO THE CORE WITH TYPE 1 GLUE USING THE HOT PRESS PROCESS. CROSSBANDS MUST EXTEND THE FULL WIDTH OF THE DOOR. MINIMUM PROPERTIES INCLUDE INTERNAL BOND 200 PSI AND DENSITY OF 50-65 LBS. PER CUBIC FOOT.
- 4) **STILES (VERTICAL EDGES)** - PROVIDE MANUFACTURER'S STANDARD LAMINATED EDGE CONSTRUCTION WITH IMPROVED SCREW-HOLDING CAPABILITY AND SPLIT RESISTANCE. BOTH INNER AND OUTER STILES CANNOT CONTAIN SALT TREATING.
- A) **COMPATIBLE** - SIMILAR IN OVERALL COLOR, GRAIN, CHARACTER AND CONTRAST AS THE FACE VENEER.
- B) **MATCHING** - SAME SPECIES AS FACE VENEER.
- C) **CLOSED GRAIN HARDWOOD** - MANUFACTURER'S OPTION FOR PAINTED STILE EDGES.

STILE TYPE SPECIFIED :

- £ *Blind*
- £ *Compatible*
- £ *Matching*

- 5) **RAILS (HORIZONTAL EDGES)** - RAILS ARE SOLID WOOD OR LAMINATED EDGE CONSTRUCTION OR OTHER MATERIAL CONTAINED IN MANUFACTURER'S FIRE DOOR APPROVALS.
- 6) **HARDWARE BLOCKING** (ELIMINATES THROUGH-BOLTING AND IMPROVES SCREW WITHDRAWAL RESISTANCE FOR HEAVY-USE AREAS) - SPECIFY MINIMUM 5" TOP RAIL FOR SPECIALIZED HARDWARE AND/OR 5" BOTTOM RAIL FOR SPECIALIZED HARDWARE OR UNDERCUTTING FLEXIBILITY AND/OR BLOCKING FOR LOCKSET INSTALLATION.

RAIL BLOCKING REQUIREMENTS SPECIFIED :

- £ *Minimum 5 in. Top Rail*
- £ *Minimum 5 in. Bottom Rail*
- £ *Minimum 5 in. Top and 5 in. Bottom Rail*

LOCK BLOCKING REQUIREMENTS SPECIFIED :

- £ *Lock Blocks-Minimum 4-1/2 in. x 10 in.*
- £ *Lock Blocks Minimum 4-1/2 in. x 18 in.*

- 7) **VENEERS** - THERE ARE FIVE ASPECTS OF VENEER SELECTION, WHICH MUST BE SPECIFIED. THE ASPECTS ARE (1) FACE GRADE, (2) CUT, (3) VENEER SPECIES (4) MATCH BETWEEN VENEER LEAVES, (5) ASSEMBLY OF VENEER LEAVES ON FACE. REFER TO ANSI / WDMA IS 1A (G-11) FOR SPECIFIC DEFINITIONS AND ATTRIBUTES. SELECT FROM EACH OF APPROPRIATE BOXES :

FACE GRADE SPECIFIED:

- £ *- AA -*
- £ *- A -*
- £ *- B -*

VENEER CUT SPECIFIED:

- £ *Quartered*
- £ *Rift*
- £ *Rotary*
- £ *Sliced*

VENEER SPECIES SPECIFIED:

- £ *African Mahogany*
- £ *Anigre*
- £ *Ash*
- £ *Cherry*
- £ *Fir*
- £ *Honduran Mahogany*
- £ *Makore*
- £ *Medium Density Overlay (MDO)*
- £ *Natural Birch*
- £ *Paint Grade Birch*
- £ *Plastic Laminate*
- £ *Poplar*
- £ *Red Birch*
- £ *Red Oak*
- £ *Sapelli*
- £ *Walnut*
- £ *White Birch*
- £ *White Oak*

VENEER MATCH SPECIFIED:

- £ *Book*
- £ *Random*
- £ *Slip*

VENEER ASSEMBLY SPECIFIED: £ Balance
 £ Center
 £ Running

8) PAIR AND SET MATCH

FOR OPENINGS WITH MORE THAN ONE DOOR, DOOR FACES MUST BE PAIR OR SET MATCHED. THIS INCLUDES DOORS SEPARATED BY A MULLION.

MATCHING REQUIREMENTS : £ Not Matching
 £ Matching

9) TRANSOM AND SIDE PANELS

FABRICATE MATCHING PANELS WITH SAME CONSTRUCTION, EXPOSED SURFACES, AND FINISH SPECIFIED FOR ASSOCIATED DOORS.

MATCHING REQUIREMENTS: £ Not Matching
 £ Matching

2.3 DOOR FABRICATION

- A. **FACTORY-PREFIT AND BEVEL DOORS** (3°) TO SUIT FRAME SIZES INDICATED, WITH 3/16" PREFIT IN WIDTH, +0"/-1/32", TOLERANCES. PREFIT TOP OF DOOR 1/8" +1/16"/ -0", AND UNDERCUT AS DESIGNATED BY FLOOR CONDITION. FOR FIRE-RATED DOORS COMPLY WITH NFPA 80 FOR PREFITS AND UNDERCUTS.

- B. **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 SCHEDULE(S) 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 EDGE(S).

- C. **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.
 - 1) **WOOD BEADS AND WOOD LOUVERS** TO BE COMPATIBLE WITH FACE VENEER. PROFILES AND INSTALLATION PER DOOR MANUFACTURER'S STANDARD(S).
 - 2) **METAL VISION PANELS AND LOUVERS** SUPPLIED PRIMED AND/OR PAINTED.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. CONFIRM THAT FRAMES COMPLY WITH TYPE, SIZE, LOCATION AND SWING REQUIREMENTS AND THAT THEY ARE INSTALLED PLUMB AND SQUARE.
- B. INSPECT DOORS FOR ANY DAMAGE, MANUFACTURING DEFECTS OR PREFINISH INCONSISTENCY, E.G. WRONG COLOR OR POOR FINISH.
- C. IF FRAMES AND DOORS PASS INSPECTIONS (SEE A AND B ABOVE), PROCEED TO INSTALLATION. IF THERE ARE ANY ISSUES IN EITHER FRAMES OR DOORS, DO NOT PROCEED TO INSTALLATION. CONTACT APPROPRIATE SUPPLIER TO CORRECT UNSATISFACTORY CONDITIONS, AND PROCEED WITH INSTALLATION ONLY AFTER CORRECTIONS HAVE BEEN MADE.

3.2 INSTALLATION

INSTALLATION OF WOOD DOORS TO COMPLY WITH ANSI / WDMA IS 1A, SPECIFIC DOOR MANUFACTURERS SPECIFIC INSTRUCTIONS, AND NFPA 80.

3.3 ADJUSTING AND PROTECTING

- A. AFTER INSTALLATION OF DOOR IN FRAME, OPERATE DOOR TO ENSURE THAT THE DOOR SWINGS FREELY AND THAT ALL HARDWARE FUNCTIONS CORRECTLY. IF NOT, MAKE ADJUSTMENTS AS REQUIRED TO PROVIDE AN OPERABLE OPENING.
- B. IF REQUIRED, PROTECT DOORS FOLLOWING INSTALLATION FROM DAMAGE THAT MAY OCCUR AS A RESULT OF PROJECT COMPLETION.

END OF SECTION 08210

WE CAN PROVIDE THE "ELECTRONIC VERSION" OF
"08210 FLUSH WOOD DOOR SPECIFICATION" BY E-MAIL.
PLEASE CALL YOUR CUSTOMER SERVICE REPRESENTATIVE
OR WRITE US AT SALES@LAMBTONDOORS.COM