

**PART - 1 GENERAL**

**1.1 SUMMARY**

- .1 Section Includes:
  - .1 Labour, Products, equipment and services necessary to complete the work of this Section, including but not limited to:
    - .1 Solid-core wood doors with, plastic laminate and MDO faces.
    - .2 Transom panels.
  - .2 Related Requirements
    - .1 Comply with Conditions of the Contract and Division 01 - General Requirements.

**1.2 REFERENCES**

- .1 Abbreviations and Acronyms:
  - .1 AWMAC: Architectural Woodwork Manufacturers Association of Canada; [www.awmac.com](http://www.awmac.com).
  - .2 FSC: Forest Stewardship Council; [www.fsccanada.org](http://www.fsccanada.org).
  - .3 MDO: Medium Density Overlay.
  - .4 NAAWS: North American Architectural Woodwork Standards, latest edition including all errata and supplements, a jointly sponsored by Architectural Woodwork Manufacturers Association of Canada (AWMAC) and the Woodwork Institute (WI).
- .2 Reference Standards:
  - .1 ANSI/WDMA IS-1A, Architectural Wood Flush Doors.
  - .2 ASTM E90, Standard Test Method for Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions and Elements.
  - .3 ASTM E413, Classification for Rating Sound Insulation.
  - .4 CSA O112 Series-M77 (R2006), CSA Standards for Wood Adhesive.

**1.3 DEFINITIONS**

- .1 Exposed surfaces: Surfaces visible when doors are opened, backs of hinged doors and edges of hinged doors exposed when opened.
- .2 Pre-machined: Factory prepared cut-outs for hardware and glazing. Site trimming of work will not be permitted, except trimming of door height.

**1.4 SUBMITTALS**

- .1 Product Data: For each type of door include details of core and edge construction, and trim for openings.
- .2 Samples:
  - .1 Door Sample: Submit one 300 mm x 300 mm (12" x 12") corner sample showing construction, edge details, core, and face veneers.
  - .2 Frame Sample: Submit one 300 mm (12") long corner sample showing profiles, jointing method, face veneer, and glazing details.
  - .3 Provide glass size, type and thickness for factory glazed doors.

- .3 Shop Drawings: Indicate location, size, type, and hand of each door; elevation of each kind of door; construction details not covered in Product Data; door schedule; and other pertinent data including the following:
  - .1 Dimensions and locations of hardware blocking.
  - .2 Dimensions and locations of cutouts, mortises and holes for hardware.
  - .3 Identify cut outs for louvers and glazing.
  - .4 Undercuts.
  - .5 Factory finish requirements.
  - .6 Jointing, fastening and related items.

1.5 **QUALITY ASSURANCE**

- .1 Qualifications: Work of this Section shall be done by manufacturer and tradesmen with experience in successful manufacture and installation of this type of work and of quality as indicated on Drawings and as specified. Submit proof of such experience with list of installations in Ontario upon Consultant's request.
- .2 Quality of work and materials: Unless otherwise specified, comply with the requirements for Premium Grade in accordance with the NAAWS standards.
- .3 Factory Finish: Apply finish in accordance with the NAAWS standards and to match samples at Consultant's office.
- .4 Finish Matching: Finish for solid wood members shall match wood veneer finish.
- .5 Source Limitations, Doors: Obtain doors through one source from a single manufacturer.
- .6 Source Limitations, Frames: Obtain frames through one source from a single manufacturer.

1.6 **DELIVERY, STORAGE, AND HANDLING**

- .1 Package doors individually in cardboard cartons and wrap bundles of doors in plastic sheeting.
- .2 Ensure complete protection of edges and finishes during shipment to the job site.
- .3 Mark each door on top and bottom rail with opening number used on Shop Drawings.
- .4 Store work in well ventilated room, off floor, in accordance with manufacturer's recommendations.

1.7 **PROJECT CONDITIONS**

- .1 Environmental Limitations: Do not deliver or install doors until building is enclosed, wet work is complete, and HVAC system is operating and will maintain temperature and relative humidity at occupancy levels during the remainder of the construction period.

1.8 **WARRANTY**

- .1 Provide a life-time warranty commencing on date of Substantial Performance against defects in the materials and workmanship for wood doors, including but not limited to warping, cupping, twisting, shrinkage, swelling, delamination and splitting.

**PART - 2 PRODUCTS**

2.1 **GENERAL**

- .1 All composite wood and agrifibre products (including core materials) used in the building must not contain added formaldehyde.

- .2 Adhesives used to fabricate laminated assemblies used in the building that contain composite wood and agrifibre products must not contain added formaldehyde.
- .3 Adhesives used must meet VOC requirements.
- .4 Regulatory Requirements:
  - .1 Conform to NAAWS standards Section 9 or ASNI/WDMA I.S. 1A for wood flush doors and NAAWS standards Section 9 or ANSI/WDMA I.S. 6A for stile and rail doors, except as specified herein.
  - .2 Submit certification that acoustic rated door construction meets ASTM E90 and ASTM E413 classification as indicated on Drawings or Schedule.

## 2.2 **MATERIALS**

- .1 Plastic Laminate Veneer: NEMA LD3, HGS, high pressure paper based decorative laminates, 1.2 mm (0.048") thick. Refer to Section 00 01 30 List of Materials for product, manufacturer, colour and other requirements.
- .2 Plywood Door Face for Paint Finish: CSA 0115, 3 ply, 3 mm (1/8") thick minimum, birch veneer, paint grade.
- .3 Exposed solid members and trim: wood species as indicated in Section 00 01 30 List of Materials, quarter sawn, architectural grade, matched for compatibility of grain and colour.
- .4 Exposed Vertical Edges: Veneer minimum 13 mm (1/2") thick, of same species as face veneer for transparent finish; hardwood for paint finish.
- .5 Particleboard: CSA-O188.1, extruded particle board, minimum density of 448 kg/cu.m. (28 pcf).
- .6 Medium Density Fibreboard: Premium grade, minimum 768 kg/cu.m. (48 pcf.) density, fire retardant treated, acceptable to authority having jurisdiction.
- .7 Crossbanding: Composite or 1.6 mm(1/16") thick hardwood.
- .8 Stiles and Rails: Hardwood or structural composite lumber/hardwood. Stile thickness minimum 38 mm(1-1/2") and rail thickness minimum 28 mm(1-1/8").
- .9 Hardware Blocking, Non-Rated Doors: 150 mm(6") glued block or structural composite lumber in particleboard core doors as follows:
  - .1 Top rail blocking in doors indicated to have closers.
  - .2 Bottom rail blocking in doors indicated to have kick or mop plates, and mortised or surface bottom door sweeps.
  - .3 Midrail blocking, in doors indicated to have exit devices.
- .10 Resilient Bumpers: Round, black rubber, 3 mm(1/8") thick, adhesive mount.
- .11 Factory Finish: NAAWS System 5, Premium Grade, Conversion Varnish .
- .12 Adhesive: Waterproof type, suitable for specific end use.
- .13 Metal Louvres: in accordance with Division 23.
- .14 Vision Frames for Unrated Doors: Wood, of same species as door facing; mitre corners; prepared for countersink tamper resistant screws.
- .15 Glazing: Refer to Section 08 80 00.
- .16 Transom and Side Panels:
  - .1 Construction: To match adjacent door.

2.3 **FABRICATION - GENERAL**

- .1 Pre-machine work in factory.

2.4 **FABRICATION - DOORS**

- .1 Plastic Laminate Clad Doors, Solid Core: Particleboard core, 5 ply construction, full length stiles and rails bonded to core. NAAWS Type D edge unless indicated otherwise. Laminate crossbandings to core, stiles and rails. Hot press veneer in accordance with manufacture's instructions.
- .2 Paint Grade Doors, Solid Core: Particleboard core, 7 ply construction, full length stiles and rails bonded to core. NAAWS Type A edge unless indicated otherwise. Laminate plywood face to stiles, rails and core, under pressure and in accordance with manufacturer's instruction.
- .3 Completely seal wood edges and edges of cut-outs in shop for doors scheduled to receive paint finish. Apply sealer in accordance with the manufacturer's printed instructions.
- .4 Bevel edges of single acting doors 3 mm(1/8") on lock side and 1.6 mm(1/16") on hinge side.
- .5 Undercut doors for carpet in the plant.
- .6 Sand smooth work and clean surfaces free of dust before applying successive coat. Carefully sand with even strokes to provide perfect, scratch-free surface.

**PART - 3 EXECUTION**

3.1 **INSTALLATION**

- .1 Install work of this Section plumb, square, true, rigid and secure. Conceal fastenings in the finished work unless otherwise indicated on final reviewed shop drawings and in accordance with manufacturer's printed instructions.
- .2 Install wood doors after finishing of walls.
- .3 Ensure that top and bottom edges of wood doors are sealed if they are cut to fit, in accordance with door manufacturer's instructions and warranty requirements.
- .4 Install doors in accordance with manufacturer's instructions.
- .5 Pilot drill screw and bolt holes.
- .6 Machine cut for hardware. Core for handsets and cylinders.
- .7 Coordinate installation of doors with installation of frames specified in Section 06 20 00, and hardware specified in Section 08 71 00.
- .8 Conform to NAAWS standards for fit, clearance, and joint tolerances
- .9 Provide even margins between doors and jambs and doors and finished floor as follows:
  - .1 Hinge side: 3 mm (1/8").
  - .2 Latchside and head: 3 mm(1/8").
  - .3 Finished floor for non-rated assemblies: 12 mm (1/2").

3.2 **ADJUSTMENT AND CLEANING**

- .1 Adjust doors to swing freely, smoothly and easily, to remain stationary at any point, to close evenly and tightly against stops without binding, and to latch positively when doors are closed with moderate force.

- .2 Adjust hardware so that latches and locks operate smoothly and without binding, and closers act positively with the least possible resistance in use. Lubricate hardware if required by Supplier's instructions.
- .3 Ensure that doors equipped with closers operate to close doors firmly against anticipated wind and building air pressure, and to enable doors to be readily opened as suitable for function, location and traffic.
- .4 Clean hardware after installation in accordance with Supplier's instructions.
- .5 Sand and clean woodwork to leave free from finish defects in any exposed part.

END OF SECTION