

This section includes residential and light commercial metal clad wood French doors, glass and glazing, operating hardware, head flashing and perimeter air seal. Sealants are referenced to Section [07900] [07 92 00]. Air barrier and vapour retarder continuity from door frames to adjacent construction is critical to successful building air tightness; specify compatible materials in conjunction with Sections [07260] [07 26 00] and [07270] [07 27 00]. This section includes performance, proprietary, and descriptive type specifications. Edit to avoid conflicting requirements.

1. General

1.1. SECTION INCLUDES

1. Wood doors, stile and rail design.
2. Factory glazed glass panels.
3. Operating hardware.
4. Brick mould for exterior trim.

1.2. RELATED SECTIONS

1. Section 05 50 00 - Metal Fabrications: Steel lintels.
2. Section [_____-_____] : Prepared opening.
[OR]
3. Section 06 11 00 - Wood Framing: Framed openings.
[OR]
4. Section [06 10 13 - Wood Blocking And Curbing: Rough wood perimeter blocking.
5. Section 07 26 00 - Vapour Retarders: Perimeter vapour seal between sliding door frame and adjacent construction.
6. Section 07 27 00 - Air Barriers: Perimeter air seal between sliding door frame and adjacent construction.
7. Section 07 21 16 - Blanket Insulation: Fibrous stuffing insulation at door frame perimeter.
[OR]
8. Section 07 21 19 - Foamed-in-place Insulation: Foam insulation at sliding door frame perimeter.
9. Section 07 92 00 - Joint Sealants: Perimeter sealant and backup materials.
10. Section 08 71 00 - Door Hardware - General: Cylinder locks.
11. Section 09 91 10 - Painting: Finishing wood doors.

1.3. REFERENCES

List reference standards that are included within the text of this section. Edit the following as required for project conditions.

1. AAMA (American Architectural Manufacturers Association – Installation Masters Certification Program.
2. Aluminum Association (AA), Designation System for Aluminum Finishes (2000).

3. ASTM A653/A653M - Specification for Sheet Steel, Zinc-Coated (Galvanized) or Zinc-Iron Alloy Coated (Galvannealed) by the Hot-Dip Process.
4. ASTM E283 - Test Method For Determining Rate of Air Leakage Through Exterior Windows, Curtain Walls, and Doors Under Specified Pressure Differences Across the Specimen.
5. ASTM E330 Test Method for Structural Performance of Exterior Windows, Curtain Walls, and Doors by Uniform Static Air Pressure Difference.
6. ASTM E331 - Test Method for Water Penetration of Exterior Windows, Skylights, Doors, and Curtain Walls by Uniform Static Air Pressure Difference.
7. AWMAC (Architectural Woodwork Manufacturers Association of Canada) - Quality Standards.
8. CAN/CGSB-12.3 - Flat, Clear Float Glass.
9. CAN/CGSB-12.8 – Insulating Glass Units.
10. CSA-A440-00 – Windows.
11. CSA-G164 - Hot Dip Galvanizing of Irregularly Shaped Articles.

1.4. SYSTEM DESCRIPTION

Use this article carefully; restrict statements to describe the combined result of the components used to assemble the system. Do not repeat statements made in the Section Includes article.

1. Doors: Exterior metal clad wood sections, factory fabricated, vision glass, threshold, related flashings, anchorage and attachment devices.
2. Configuration: [One] [Two] [Three] [Four] panel configuration.

The following paragraphs represent a suggested listing of performance criteria. If more stringent criteria is being considered, refer to ASTM test methods and associated documents for guidance.

3. System Design: Design and size components to withstand dead and live loads caused by pressure and suction of wind acting normal to plane of sliding door [as calculated in accordance with [] code] [to a design pressure of [] kPa ([] lb/sq ft) and a suction of [] kPa ([] lb/sq ft)] [and] [as measured in accordance with ASTM E330].
4. Member Deflection: Limit member deflection to [flexure limit of glass] [1/200] [] in any direction; with full recovery of glazing materials.
5. Lintel Deflection: Accommodate deflection of lintel without damage to components, deterioration of seals, or movement between door frame and perimeter framing.
6. Air and Vapour Seal: Maintain continuous air barrier and vapour retarder throughout assembly, primarily in line with inside pane of glass and heel bead of glazing compound.
7. System Internal Drainage: Drain water entering joints, condensation occurring in glazing channel, or migrating moisture occurring within system to the exterior by a weep drainage network.

Only include one or more of the following paragraphs when project conditions require the criteria.

8. Air Infiltration: Limit air infiltration through assembly to [0.03] [] L/s/sq m ([0.06] [] cfm/sq ft) of wall area, measured at a reference differential pressure across assembly of [75] [] Pa ([1.57] [] psf) as measured in accordance with [ASTM E283.] [].

9. Water Leakage: None, when measured in accordance with [ASTM E331] [_____] with a test pressure difference of [136.85] [_____] Pa ([2.86] [_____] psf).
10. Forced Entry Resistance: CAN/CSA A440.

1.5. SUBMITTALS FOR REVIEW

Do not request submittals if drawings sufficiently describe the products of this section or if proprietary specifying techniques are used. The review of submittals increases the possibility of unintended variations to drawings, thereby increasing the Specifier's liability. The following submittals are intended for review and approval or other action by the Consultant.

1. Section 01 33 00: Submission procedures.
2. Product Data: Indicate stile and rail core materials and construction; veneer species, type and characteristics.
3. Shop Drawings:
 1. Submit shop drawings in form of [paper] [electronic - PDF/AutoCAD files].
 2. Illustrate door opening criteria, elevations, sizes, types, swings, special blocking for hardware, [undercuts required,] [factory machining criteria,] [factory finishing criteria,] [and] [_____].

Include the following paragraph for submission of physical samples of door construction.

4. Samples: Submit [two] [_____] samples of door construction, [____ x ____] mm ([____ x ____] inch) in size cut from [top] [bottom] corner of door.

Include the following paragraph for submission of samples for selection of factory finish or site applied stain, colour, sheen, etc.

5. Samples: Submit [two] [_____] samples of door veneer, [____ x ____] mm ([____ x ____] inch) in size illustrating wood grain, stain colour, and sheen.

1.6. SUBMITTALS FOR INFORMATION

The following submittals are informational; responsive action by the Consultant is not required.

1. Section 01 33 00: Submission procedures.
2. Manufacturer's Installation Instructions: Indicate special installation instructions.

1.7. QUALITY ASSURANCE

1. Manufacturer [and Installer]: Company specializing in [residential] [commercial] fabrication of sliding doors [with [three] [_____] years minimum experience] [AAMA certified].

1.8. DELIVERY, STORAGE, AND PROTECTION

1. Section 01 61 00: Transport, handle, store, and protect products.
2. Package, deliver and store doors in manufacturer's packaging.

1.9. PROJECT CONDITIONS

1. Section 01 33 00: Coordination and meetings.

2. Coordinate the work with door opening construction, door frame and door hardware installation.

1.10. WARRANTY

1. Section [01700] [01 73 03] [_____]: Warranties.
2. Correct defective Work within a [five] [ten] year period after Date of Substantial Completion.
3. Warranty:
 1. Include coverage for degradation of colour finish, loss of adhesion, bubbling, cracking, flaking, or chipping.
 2. Include coverage for [delamination or separation of finish cladding from door and frame members] [_____].
4. Provide twenty (20) year manufacturer's limited warranty for insulated glass units from seal failure, interpane dusting or misting, and replacement of same.

2. Products

2.1. MANUFACTURERS

In this article, list the manufacturers acceptable for this project. Edit the subsequent descriptive specifications to identify project requirements and to eliminate any conflict with specified manufacturer's products.

1. All Weather Windows - Versailles French Terrace Doors. Phone: 1-800-638-5709. Web site: www.allweatherwindows.com E-mail: arch@allweatherwindows.com.
2. Other Acceptable Manufacturers:
 1. [_____].
 2. [_____].
 3. [_____].
3. Substitutions: [Refer to Section 01 61 00.] [Not permitted.]

2.2. MATERIALS

1. Wood: Clear hemlock species, of type suitable for [transparent] [opaque] finish.
2. Metal Cladding (Exterior Surface): Factory finished extruded aluminum, factory fit to profile of wood members, and exterior exposed surfaces.
3. Brick Mould: Factory finished extruded aluminum.
4. Fasteners: [Stainless] [Galvanized] steel.

2.3. GLAZING MATERIALS

Refer to manufacturer's literature for glazing performance options available.

1. Glass and Glazing Materials:
 1. Float glass: to CAN/CGSB-12.3, Glazing quality, [_____] mm thick:
 1. Low E (emissivity) glass, [_____] mm thick.
 2. Metallic Coating: [Low E.] [SunStop.]
 3. Light Transmittance: [81%.] [76%.] [69%.] [64%.] [43%.] [_____.]
 4. Shading Coefficient: [0.76.] [0.72.] [0.66.] [_____.]

5. U-Value: Winter [2.81] [1.97] [1.73] [1.67] [1.39] [__] maximum.

2.4. SEALED INSULATING GLASS

1. Insulating Glass Units: CAN/CGSB-12.8, [double] [triple] unit, [25] [__]mm ([1] [__] inch) overall thickness.
 1. Glass Thickness: [[__] mm each light.] [[__] mm () inner light.] [[__] mm () outer light.]
 2. Inter-space Thickness: 12 mm ([1/2] [__] inch) between lights with low conductivity spacers.
 3. Glass Coating: [Low E.] [SunStop.]
 4. Gas Fill at Space Between Lights: [Air.] [Inert Argon.]

2.5. ACCESSORIES

1. Anchors: [Galvanized] [Corrosion resistant] steel.
2. Reinforcing Steel: Galvanized steel.

Incorporate sealant materials by direct reference to Section 07 92 00. The following paragraphs only describe sealant type; coordinate with schedule in Section 07 92 00. Sealants used for glazing are specified in Section 08 80 50.

3. Sealant and Backing Materials: As specified in Section [07 92 00] [_____] of Types described below.
 1. Perimeter Sealant: Type [_____.]
 2. Sealant Used Within System (Not Used for Glazing): Type [_____.]

2.6. HARDWARE

1. Pull Handles: [Manufacturer's standard type] [_____), [lockable].
2. Threshold: Extruded aluminum, wood reinforced, sloped to exterior.
3. Cylinder Locks: To manufacturer's standard, [_____] colour.

2.7. COMPONENTS

The following paragraphs identify the nominal dimensions of the primary members. If performance specifying, ensure no conflict exists.

1. Doors: [44] [57] mm ([13/4] [21/4] inches) thick; veneer and lumber stile and rail construction; [mortised and tenoned] [doweled and glued] joints.
2. Frames: Solid wood.
3. Glass Stops: Of same species as door facing, interior applied.
4. Metal Cladding with integral attachment flange, water drip at head member, sills sloped for positive wash.
5. Metal Brick Mould: 50 mm (2 inch) wide profile with integral attachment flange.

Custom jamb extensions are available up to 206 mm (8-1/4").

6. Jamb Extensions: [114] [165] [__] mm ([4-1/2] [6-1/2] [__] inch) nominal thickness, [stain grade wood] [paint grade wood]; fit under sash to project [12] [__] mm ([1/2] [__] inch) beyond interior wall face; one piece full width of opening.
7. Decorative Internal Grilles:

1. Size: [8 mm (5/16 inch)] [16 mm (5/8 inch)] wide.
2. Colour: [Gold.] [White.] [Patina.] [Lead.] [Wicker.]
3. Profile: [Double ladder] [rectangular] [perimeter] [top ladder] [empress].
8. Simulated Divided Lite Grilles:
 1. Formed wood or aluminum, fitted against interior and exterior of glazed surface.
 2. Size: [23 mm (7/8 inch)] [33 mm (1-5/16 inch)] wide.
9. Weather Stripping: Manufacturer's standard, profiled to effect a continuous tight fitting weather seal.
10. Fasteners: [Stainless] [Galvanized] steel.
11. Threshold: Extruded aluminum, wood reinforced; sloped for positive wash; one piece full width of opening.

2.8. FABRICATION

1. Size and fabricate door assembly to allow for tolerances of rough framed openings, clearances, shim spacing and shims around perimeter of assemblies.
2. Ensure joints and connections are flush, hairline, and waterproof.
3. Finger joints not permitted.
4. Form sills and stools in one piece. Slope sills for wash.

Certain vertical rod panic devices may require special consideration for the astragal shape and installation placement. Astragals are usually provided by a door manufacturer and are not usually provided under door hardware schedule listings.

5. Astragals for Double Doors: [Wood] [Steel] [Aluminum], [_____] shaped, overlapping and recessed [at face edge] [at mid-door thickness], specifically for double doors.
6. At exterior doors, provide aluminum flashing at the top and bottom rail for full thickness and width of door.

Utilize the following paragraph when factory machining for hardware is required.

7. Factory machine doors for finish hardware in accordance with hardware requirements and dimensions. Do not machine for surface hardware.
8. Install glass in units in accordance with manufacturer's standard method.

2.9. FINISHES

Refer to manufacturer's standard colour range for cladding and brickmould.

1. Exterior Metal Cladding [and Brick Mould]: Duranar XL enamel, to [_____] colour [as selected].]
2. Interior Surfaces: Finish with transparent materials as specified in Section [09 91 10] [_____].
3. Threshold: Mill finish.
4. Handle and Lock: [brass] [Brushed nickel].
5. Hinges: [Brushed brass] [brushed nickel].
6. Locks: [Baked enamel [_____] colour [as selected].] [_____].

3. Execution

3.1. EXAMINATION

1. Section 01 73 03: Verification of existing conditions before starting work.
2. Verify that opening sizes and tolerances are acceptable.
3. Do not install doors in frame openings that are not plumb or are out of tolerance for size or alignment.

3.2. INSTALLATION

Utilize the first paragraph below for proprietary specifying.

1. Install doors in accordance with manufacturer's instructions to AAMA Installation Masters Certification Program.

3.3. INSTALLATION TOLERANCES

Utilize the first paragraph when referencing AWMAC Quality Standards; utilize the subsequent three paragraphs for detailed statements. Delete the following paragraph when factory fitting is specified.

1. Conform to AWMAC requirements for fit, clearance, and joinery tolerances.
[OR]
2. Maximum Diagonal Distortion (Warp): [3] [____] mm ([1/8] [____] inch) measured with straight edge or taut string, corner to corner, over an imaginary 915 x 2130 mm (36 x 84 inch) surface area.
3. Maximum Vertical Distortion (Bow): [3] [____] mm ([1/8] [____] inch) measured with straight edge or taut string, top to bottom, over an imaginary 915 X 2130 mm (36 x 84 inch) surface area.
4. Maximum Width Distortion (Cup): [3] [____] mm ([1/8] [____] inch) measured with straight edge or taut string, edge to edge, over an imaginary 915 X 2130 mm (36 x 84 inch) surface area.

3.4. ADJUSTING

1. Section 01 73 03: Adjusting installed work.
2. Adjust door for smooth and balanced door movement.
3. Adjust closer for full closure.

END OF SECTION