

SECTION 085213 - METAL-CLAD WOOD WINDOWS AND DOORS

PART 1 - GENERAL

0.1 SUMMARY

- A. Section Includes:
 - 1. Aluminum-clad wood windows.
 - 2. Aluminum-clad hinged single commercial doors and door frames.
 - 3. Aluminum-clad hinged wood-framed French doors and door frames.

0.2 ACTION SUBMITTALS

- A. Product Data: For each type of product.
- B. Shop Drawings: Include plans, elevations, sections, hardware, accessories, insect screens, operational clearances, and details of installation, including anchor, flashing, and sealant installation.
- C. Samples: For each exposed product and for each color specified, 2 by 4 inches (50 by 100 mm) in size.
- D. Product Schedule: For wood windows and doors. Use same designations indicated on Drawings.

0.3 INFORMATIONAL SUBMITTALS

- A. Product Test Reports: For tests performed by a qualified testing agency.
- B. Sample Warranties: For manufacturer's warranties.

0.4 QUALITY ASSURANCE

- A. Manufacturer's Quality Assurance Program: Comply with window and door manufacturer's Super Enterprises Quality Assurance Program (QAP) including providing services of authorized manufacturer's representative during the submittal process and to provide Quality Assurance services during construction.

0.5 WARRANTY

- A. Manufacturer's Warranty: Manufacturer agrees to repair or replace wood windows and doors that fail in materials or workmanship within specified warranty period.
 - 1. Warranty Period:
 - a. Window Hardware and Components other than Glazing: 10 years from date of purchase.
 - b. Door Hardware and Components other than Glazing: 10 years from date of purchase.
 - c. Glazing Units: 10 years from date of purchase for stress cracks caused by manufacturing defects; and 20 years from date of purchase for seal failure caused by manufacturing defects and resulting in visible obstruction through the glass.
 - d. Aluminum-Cladding Finish: 20 years from date of purchase.

PART 2 - PRODUCTS

0.1 MANUFACTURERS

- A. Basis-of-Design Products: Subject to compliance with requirements, provide products by Marvin Windows and Doors, including the following:
 - 1. Typical Windows: Aluminum Clad Ultimate, unless otherwise indicated.
 - 2. Double Hung Windows: Aluminum Clad Ultimate Double Hung – Next Generation 2.0.
 - 3. Single Swing Commercial Doors: Aluminum Clad Commercial Door.
 - 4. Multiple Glazed Swing Doors and Glazed Stationary Panels: Clad Ultimate Outswing French Door and Inswing French Door.
 - 5. Simulated Divided Lites: SDLS, simulated divided lite with spacer bar.
 - 6. Insulating Glass: Low E2.
 - 7. Window Subsills: A246 subsill.
 - 8. Fiberglass Door Sill (Threshold): Ultrex Sill.
 - 9. Aluminum Door Sill (Threshold): Pemko product as selected by Architect.
- B. Authorized Distributor: Super Enterprises USA, Inc.
 - 1. Representative: Ben Derby, Commercial Territory Manager - Greater Philadelphia (cell 267-377-6289, bderby@supermarvin.com).
- C. Comparable Products: Subject to compliance with requirements, provide the basis-of-design products or comparable products by one of the following:
 - 1. Kolbe & Kolbe Millwork Co., Inc.
 - 2. Pella Corporation.

0.2 WINDOW PERFORMANCE REQUIREMENTS

- A. Product Standard: AAMA/WDMA/CSA 101/I.S.2/A440.
 - 1. Minimum Performance Class: LC.
 - 2. Minimum Performance Grade: 35.
- B. Thermal Transmittance: NFRC 100 maximum whole-window U-factor of 0.30 Btu/sq. ft. x h x deg F (1.71 W/sq. m x K).
- C. Solar Heat-Gain Coefficient (SHGC): NFRC 200 maximum whole-window SHGC of 0.27.

0.3 WOOD WINDOWS

- A. Operating Types: As indicated on Drawings.
- B. Frames and Sashes: Fine-grained wood lumber complying with AAMA/WDMA/CSA 101/I.S.2/A440; kiln dried to a moisture content of not more than 12 percent at time of fabrication; free of visible finger joints, blue stain, knots, pitch pockets, and surface checks larger than 1/32 inch (0.8 mm) deep by 2 inches (51 mm) wide; water-repellent preservative treated.
 - 1. Exterior Finish: Aluminum-clad wood.

- a. Aluminum Finish: Manufacturer's standard fluoropolymer two-coat system with fluoropolymer color topcoat containing not less than 70 percent polyvinylidene fluoride resin by weight and complying with AAMA 2605.
 - b. Color: Ebony.
 - 2. Interior Finish: Manufacturer's standard factory-prime coat.
 - 3. Exterior Window Trim Profiles: Unless otherwise indicated or directed, provide the following profiles:
 - a. Brick Molding: At units located in brick.
 - b. Flat Casing: At units located within board-and-batten siding.
 - C. Insulating-Glass Units: ASTM E 2190, certified through IGCC as complying with requirements of IGCC.
 - 1. Overall Thickness: 7/8 inch unless otherwise indicated.
 - 2. Glass: ASTM C 1036, Type 1, Class 1, q3.
 - a. Tint: Clear.
 - b. Safety Glass: Provide Kind FT, fully tempered, labeled safety glass.
 - 3. Lites: Two.
 - 4. Filling: Fill space between glass lites with argon.
 - 5. Spacer: Stainless-steel
 - 6. Low-E Coating: As indicated by manufacturer's product designation.
 - D. Glazing System: Manufacturer's standard factory-glazing system that produces weathertight seal.
- 0.4 HARDWARE
- A. Hardware, General: Provide manufacturer's standard corrosion-resistant hardware to accommodate sash weight and dimensions.
 - 1. Exposed Hardware Color and Finish: As selected by Architect from manufacturer's full range.
 - B. Projected Window Hardware:
 - 1. Gear-Type Rotary Operators: Complying with AAMA 901 when tested according to ASTM E 405, Method A. Provide operators that function without requiring the removal of interior screens or using screen wickets.
 - a. Type and Style: As selected by Architect from manufacturer's full range of types and styles.
 - 2. Hinges: Manufacturer's standard type for sash weight and size indicated.
 - 3. Single-Handle Locking System: Operates positive-acting arms that pull sash into locked position. Provide one arm on sashes up to 29 inches (735 mm) tall and two arms on taller sashes.
 - 4. Limit Devices: Limit clear opening to dimension as directed by Architect for ventilation; with custodial key release.
 - C. Hung Window Hardware:
 - 1. Counterbalancing Mechanism: AAMA 902.
 - 2. Locks and Latches: Operated from the inside only.
 - 3. Tilt Hardware: Releasing tilt latch allows sash to pivot about horizontal axis.

D. Commercial Door Hardware:

1. Hinges: Manufacturer's standard ball bearing hinges; finish as selected by Architect from manufacturer's full range.
2. Door Locks: As specified in Section 087100 "Door Hardware."

E. French Door Hardware:

1. Hinges: Manufacturer's standard adjustable hinges; finish as selected by Architect from manufacturer's full range.
2. Door Locks: Manufacturer's standard multi-point lock on active panel, and as follows:
 - a. Active Panel: Active exterior handle set, keyed; and active interior handle set.
 - b. Inactive Panel: Dummy exterior handle set and dummy interior handle set.
 - c. Handle Type and Style: As selected by Architect from manufacturer's full range of types and styles.
3. Fiberglass Door Sill (Threshold): Manufacturer's standard material and as follows:
 - a. Color: Bronze.
 - b. Liner Material: Oak.

F. Weather Stripping: Provide full-perimeter weather stripping for each operable sash and active door panel; colors as follows:

1. Exterior: Black, unless otherwise indicated.
2. Interior: White, unless otherwise indicated.
3. French Doors: Beige.

0.5 ACCESSORIES

A. Simulated Divided Lites: Provide divider grilles in designs indicated for each sash lite.

1. Quantity and Type: Three per sash, two permanently located at exterior and interior lites and one permanently located between insulating-glass lites.
2. Material: Manufacturer's standard aluminum cladding on exterior, matching window cladding color.
3. Pattern: As indicated on Drawings.
4. Profile: Putty profile at exterior; Ogee at interior.

B. Fasteners: Noncorrosive and compatible with window and door members, trim, hardware, anchors, and other components.

1. Exposed Fasteners: Do not use exposed fasteners to the greatest extent possible. For application of hardware, use fasteners that match finish hardware being fastened.

0.6 INSECT SCREENS

A. General: Fabricate insect screens to integrate with window frame. Provide screen for each operable exterior sash. Screen wickets are not permitted.

1. Type and Location: Full, inside for project-out; and full, outside for double-hung sashes.

B. Aluminum Frames: Complying with SMA 1004 or SMA 1201.