



A.I.A. SPECIFICATION FOR ALUMINUM CLAD CASEMENT WINDOW

SECTION 08550 WOOD WINDOWS & CLAD WOOD WINDOWS

PART 1 - GENERAL

1.01 SECTION INCLUDES

- A. Aluminum clad wood crank out & push out Casement windows with accessories and components as indicated on window schedule.

1.02 REFERENCED STANDARDS

- A. ASTM C1036 - Flat Glass
- B. ASTM E283 - Rate of Air Leakage Through Exterior Windows, Curtain Walls and Doors.
- C. ASTM E330 - Structural Performance of Exterior Windows, Curtain Walls and Doors by Uniform Static Air Pressure Performance.
- D. ASTM E547 - Water Penetration of Exterior Windows, Curtain Walls and Doors by Uniform Static Air Pressure Difference.
- E. ASTM E2190-08 - Specification for Sealed Insulated Glass Units.
- F. Federal Specifications- FL L-S-125B - Screening, Insect Non-Metallic.- FS DD-G-451D - Glass, Float or Plate, Sheet.
- G. AAMA/WDMA/CSA 101/I.S.2/A440-11 Standard and Specification for Windows, Doors and Skylights.
- H. ATSM E1886 - Standard Test Method for Performance of Exterior Windows, Curtain Walls, Doors, and Impact Protective Systems Impacted by Missile(s) and Exposed to Cyclic Pressure Differentials
- I. ASTM E1996 - Standard Specification for Performance of Exterior Windows, Curtain Walls, Doors, and Impact Protective Systems Impacted by Windborne Debris in Hurricanes

1.03 QUALITY ASSURANCE

- A. Sealed Durability of Insulating Glass – ASTM E2190-08.
- B. Argon Gas Concentration of Insulating Glass Units – ASTM E2649-09.
- C. Harmonized Insulating Glass Testing Standards as designated by IGCC and IGMA.
- D. NFRC Certification Program for Energy Ratings of Fenestration Products.
- E. AAMA Certification Program. AAMA Gold Label.

1.04 SYSTEM DESCRIPTION

- A. Design and Performance Requirements:
 - 1. Air, water, structural performance and forced entry resistance testing shall be at levels which meet the specifications as outlined in AAMA/WDMA/CSA 101/I.S.2/A440-11
 - 2. Impact resistance performance rating shall be Missile Level D, Windzone 4 per ASTM E 1886 and ASTM E 1996.
 - 3. All glass shall be select quality complying with FS DD-G-451 D.
 - 4. Insulating glass shall be manufactured and tested to comply with IGCC and ASTM E2190-08.

B. Energy Requirements:

- 1. All units tested are single lite residential as listed on the NFRC label adhered to the glass. Values are certified per NFRC Certification Program.

C. Emergency Escape & Rescue

- 1. Larger width & height units with standard hardware, as designated, shall comply with the International Residential Code (minimum clear opening of 5.7 sq.ft. or 5 sq. ft. for grade floor).

Note: Up to date performance data can be found in the technical data section on our website at <http://www.lincolnwindows.com>

1.05 SUBMITTALS

- A. Submit the following in accordance with Section 01330.
- B. Shop drawings showing rough openings, unit dimensions and fenestration of specialty units as required.
- C. Insulated Glass Warranty: Lincoln Wood Products, Inc. Lifetime Limited Warranty.

1.06 DELIVERY AND STORAGE

- A. Deliver products in manufacturer's original containers, dry, undamaged, seals and labels intact.
- B. Store and protect products from job site damage. Uninstalled products must be protected from exposure to the weather.

1.07 INSULATED GLASS WARRANTY

- A. Lincoln Wood Products, Inc. provides a ten (10) year limited warranty on general product found to be defective by virtue of materials or workmanship. Glass is covered for seal failure causing impaired visibility due to moisture, film or dust between the glass panes for twenty (20) years on insulated glass and ten (10) years on impact-resistant or laminated glass. For complete details, terms, conditions, limitations and exclusions, reference the most current warranty, available at www.lincolnwindows.com.

PART 2 - PRODUCTS

2.01 MANUFACTURER

Refer to drawings for window schedule indicating sizes and configuration of units and type of components, colors, glazing and additional data.

- A. Aluminum clad wood crank out & push out Casement windows as specified in this section and as manufactured by Lincoln Wood Products, Inc., Merrill, Wisconsin.



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2.02 MATERIALS AND FINISHES

- A. **WOOD:** Kiln-dried selected soft woods, treated with water repellent preservative. Frame depth shall be 4-9/16", with jamb extensions available up to 10". Head and sill members shall be 1-3/16" thick, with the side jambs 1-3/16" thick. Sash thickness shall be 1-3/4".
- B. **METAL CLADDING AND FINISH:**
 - 1. Exterior of Frame & Sash: .050" extruded aluminum painted to meet AAMA 2605 paint performance requirements.
 - 2. Color: As scheduled.
- C. **GLASS:** 7/8" IG. 7/8" Laminated insulated impact resistant IG. Low "E" with Argon. Tempered. Tint: Bronze, Grey, Obscure, Clear. Warm edge tin plated spacer or foam spacer used. Steel spacer used on impact resistant IG. ***High altitude IG and IG units with glass less than 12" width or height have open breather tube and will not contain argon gas***
- D. **WEATHERSTRIPPING:** Rigid fin around sash perimeter. Foam bulb around frame perimeter.
- E. **SCREEN:** Factory-finished aluminum frame, .011x18x16 charcoal fiberglass cloth.
- F. **STANDARD WOOD GRILLES:** 5/8", 7/8", 1" Profiled select wood for attachment to interior of sash and designed for removal for glass cleaning.
- G. **FULL SURROUND GRILLES:** 5/8", 7/8", 1", 1-7/8" Profiled select wood for attachment to interior of sash and designed for removal for glass cleaning
- H. **INTERNAL MUNTINS:** 11/16" and 1" profiled aluminum grilles permanently sealed between two panes of insulating glass. Color to match exterior cladding unless otherwise scheduled. *Internal muntins not available on impact resistant products.*
- I. **SIMULATED DIVIDED LITES:** SDL glass is 7/8" insulated. Available in 2", 1-1/8" and 7/8" bar widths. Lite division is accomplished with the application of interlocking aluminum grids on the exterior and interlocking wood grids on the interior, both secured to the glass lite with an adhesive glazing tape. Glass may be with or without internal grid, as designated by customer. *Internal grid not available on impact resistant products.*
- J. **INTERIOR EXTENSION JAMBS:** Kiln-dried selected softwood, for transparent interior finish.

2.03 HARDWARE

- A. **OPERATOR:** Worm gear operator with dual arm action for operating sash.
- B. **SASH LOCKS:** Units are locked using a concealed multi-point sequential locking system.
- C. **HINGES:** Concealed hinges with nylon sliding bearing, reinforced with steel. Hinge track is stainless steel and fastened with stainless steel screws.
- D. **SNUBBER:** Units have one, two or three sash snubbers located on the side jamb dependant on height.

2.04 FABRICATION

- A. Fabricate frame, mullions and sash members for hairline fit, water and airtight.
- B. Metal Cladding: Formed aluminum shop fit to profile of exterior wood frame and sash. Corners of frame cladding shall have 45° mitered joints sealed with corner key and injected sealant. Sash cladding corners are butt joint and gasket sealed.
- C. The sash is compromised of solid wood with .050 aluminum clad on the exterior.
- D. Set insulating glass in a silicone bedding compound on exterior side of the glazing. Inside is wood stop glazed.
- E. Provide insect screens of roll formed frames with mesh set into frame and secured. Screen shall be spring mounted for easy installation and removal.
- F. Apply manufacturer's standard nailing fins and clear drip cap.

PART 3 - EXECUTION

3.01 INSPECTION

- A. Verify rough openings are correctly sized and located.
- B. Beginning of installation means acceptance of existing conditions.

3.02 PREPARATION

- A. Prepare opening to permit correct installation of window unit and air and vapor barrier seal.

3.03 INSTALLATION

- A. Install windows in accordance with manufacturer's instructions.
- B. Align windows plumb and level, free of warp or twist. Maintain dimensional tolerances, aligning with adjacent work. Secure assembly to frame openings without distortion or stress.
- C. Ensure air and vapor barrier is sealed to window frame. Coordinate placement of insulation in shim spaces around unit perimeter.
- D. Install sealant and related backing materials at exterior and interior of installed assembly.
- E. Close and latch operating sash.
- F. Lubricate hardware and moving parts as required to ensure smooth operation.

3.04 CLEANING

- A. Clean exterior and interior surfaces of window frames and glass after installation. Do not damage interior or exterior finishes.
- B. Remove labels and visible markings. Comply with manufacturer's recommendations for cleaning glass.
- C. Remove and replace glass that is broken, chipped, cracked, abraded or damaged at no expense to owner.

END OF SECTION