Legend HBR Series
IMPACT CASEMENT SPECIFICATIONS

PART 1 - GENERAL

1.01 SECTION INCLUDES
A. Factory assembled aluminum clad wood casement windows [including fixed units], glass and glazing, operable hardware, weatherstripping, insect screen, and [grilles].
B. Anchorages, attachments, and accessories.

1.02 RELATED SECTIONS
A. Section 01340 - Shop Drawings, Product Data, and Samples.
B. Section 01610 - Delivery, Storage, and Handling.
C. Section 01710 - Final Cleaning.
D. Section 07200 - Batt and Blanket Insulation.
E. Section 07920 - Sealants and Caulking.
F. Section 08800 - Glass and Glazing.

1.03 REFERENCES
A. AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM):
   1. ASTM E-283 - Rate of Air Leakage Through Exterior Windows, Curtain Walls, and Doors.
   2. ASTM E-547 - Water Penetration of Exterior Windows, Curtain Walls, and Doors by Cyclic Static Air Pressure Difference.
   3. ASTM E-330 - Structural Performance of Exterior Windows, Curtain Walls, and Doors under Uniform Static Air Pressure Difference.
B. AMERICAN ARCHITECTURAL MANUFACTURERS ASSOCIATION (AAMA):
   1. AAMA/WDMA/CSA 101/I.S.2/A440-11 North American Fenestration Standard/Specification for Windows, Doors and Skylights.
C. WINDOW & DOOR MANUFACTURERS ASSOCIATION (WDMA):
   1. WDMA I.S-4 – 07 Industry Standard for Water-Repellent Preservative Treatment for Millwork
D. AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI)
E. NATIONAL FENESTRATION RATING COUNCIL (NFRC)

1.04 PERFORMANCE CRITERIA
A. Patio Door units shall meet requirements in accordance with AAMA/WDMA/CSA 101/I.S.2/A440-11.
B. Air leakage shall not exceed 0.30 cfm per sq.ft. of sash when tested in accordance with ASTM E-283 at 1.57 psf.
C. No water penetration shall be allowed when tested in accordance with ASTM E-547.
D. Window units shall withstand positive and negative wind loads without damage. The units shall be tested in accordance with ASTM E-330.

1.04 PERFORMANCE CRITERIA
A. Casement units shall meet requirements in accordance with AAMA 506-08 / NWWDA 101-I.S.2-97 / CSA A440.
B. Air leakage shall not exceed 0.30 cfm per sq.ft. of sash when tested in accordance with ASTM E-283 at 1.57 psf.
C. No water penetration shall be allowed when tested in accordance with ASTM E-547.
D. Window units shall withstand positive and negative wind loads without damage. The units shall be tested in accordance with ASTM E-330.
E. Window units shall meet impact requirements in accordance with AAMA 506-2000 / ASTM E-1886-05 / ASTM E-1996-06.

1.05 SUBMITTALS
A. Shop drawings shall be submitted in accordance with Section 01340.
B. Product data in the form of general catalogs, test lab reports, product performance, and warranty information shall be submitted in accordance with Section 01340.
C. Samples showing glazing, quality of construction, and finish shall be submitted in accordance with Section 01340.

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1.06 DELIVERY, STORAGE, AND HANDLING

A. In compliance with Section 01610, window units shall be delivered undamaged, with protective packaging and fitted with sash shipping blocks. Complete installation and finishing instructions shall be included.
B. Store units in a clean, dry place off the ground in an upright position.

PART 2 – PRODUCTS

2.01 MANUFACTURER

A. Legend^{HBR} Series Casement window units [including fixed units] as manufactured by Windsor Windows & Doors.

2.02 MATERIALS

A. Frame: Head and side jambs utilize rigid thermally – forming PVC laminated softwoods treated with water repellant preservative in accordance with NWWDA I.S.-4. Sill shall be a finished no-rot composite material. Frames are assembled with hardware installed, and sealed at corners with closed cell foam gaskets. Lock and hinge side stops are face nailed. Jamb thickness shall be 1 1/4". Standard set up jamb width shall be 4 9/16" (4 1/8" basic jamb with 7/16" extender). Other extenders available to match finished wall thickness. Factory set up units will also include low maintenance cellular PVC subsill, brickmould, and outside mull covers. Installation clips and screws will be provided with units.
B. Sash: Wood interior shall be select pine treated with water repellent preservative. Corners shall be coped and stapled. Exterior surfaces shall consist of aluminum extrusion with lapped corners held together by color-matched injected-molded corner keys. Foam tape is applied to the back side of glass stop.
C. Finish: The frame shall be cellular PVC and can be finished with acrylic latex paint. All sash aluminum exterior surfaces shall be covered with a factory applied, polyester powder-coat paint in 22 standard and 20 feature colors. Anodized colors are also available.
D. Glazing: Venting units shall be 3/4" IG Sea Storm^{TM} Laminated LoE^{2} insulating glass as standard, glazed with double-faced tape plus a full perimeter of structural silicone, and interior wood stops. 1" Sea Storm^{TM} Laminated LoE^{2} insulating glass is standard for all stationary and picture units. Cardinal's Preserve^{TM} option is standard for Sea Storm^{TM} Impact IG. It is a removable, factory-applied protective film adhered to both interior and exterior surfaces of the glass.
E. Weatherstripping: Shall be closed-cell foam encased in TPE film. It shall be installed as a full perimeter seal for positive protection against air and water infiltration. Additional leaf weatherstrip is applied to the top rail and stiles for added protection against water penetration.
F. Hardware: Casements shall include a sealed stainless steel worm gear sash operator with a folding/nesting handle. The operator will be a dyad on units under 20" wide and a dual arm on units 20" and wider. Heavy duty concealed adjustable hinges open to 90 degrees, and have an easy detach arm. Operator, hinge, and locking systems are to be stainless steel. Interior hardware finish options include champagne, black, bronze, white, brass, oil-rubbed bronze, and satin nickel. The concealed, sequential locking system utilizes 1 locking point through 26" sizes, 2 locking points on 32" through 44" sizes, and 3 locking points on 50" through 68". Special egress hardware is optional.
G. Screens: Shall be a fiberglass BetterVue^{TM} screen set in painted aluminum frame. UltraVue^{TM} Screen option is available. Champagne screen is standard. White is also available. Our insect screens are intended to allow air and light in and keep insects out. The screen is not intended to stop children, adults or animals from falling out an open window.
H. Grilles: (Extra when specified) Colonial grilles shall be select pine with moulded edges. Stick grilles are fastened to sash with press pins, while perimeter grilles use a hidden clip system. Stick grilles and perimeter grilles are available in 7/8" or 1-1/4" widths. White, cinnamon, bronze, tan, ivory, hunter green, or black; aluminum inner grilles (in air space) are also available in 13/16" flat or 3/4" profiled. Two-toned inner grilles are also available with a white interior, and a bronze, green, tan, ivory, or black exterior. Windsorlite (WDL) simulates true divided lite, but is created by adhesively fixing the wood interior and aluminum exterior to the surfaces of the insulated glass; when ordered interior primed, the interior WDL bars will be cellular PVC. WDL is available in 5/8", 7/8" and 1-1/4" widths. See Divided Lite Options for profile details. All are available with or without inner bar between the glass. Exterior bars are available in 22 standard and 20 feature colors.

PART 3 - EXECUTION

3.01 EXAMINATION

A. Verify that there is no visible damage to the unit before installation.

3.02 INSTALLATION

A. Verify the rough opening is of the recommended size and that it is plumb, level, and square.
B. Install the window unit in accordance with the manufacturer's recommendations. On operating units, remove shipping blocks after unit is fully installed.
C. Install sealant, backing material, and insulation around opening perimeter in accordance with Section 07900 and Section 07920.

3.03 ADJUSTMENT AND CLEANING

A. Operate unit and verify that all hardware operates freely. Make any adjustments necessary.
B. Cover the window unit to avoid damage due to spray paint, plaster, and other construction operations.
C. Remove all visible labels and instructions.
D. Final cleaning of glass in accordance of Section 01710