PART 1 - GENERAL

1.01 SECTION INCLUDES
   A. Factory assembled primed 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.
   B. AMERICAN ARCHITECTURAL MANUFACTURERS ASSOCIATION (AAMA):
   C. WINDOW & DOOR MANUFACTURERS ASSOCIATION (WDMA):
   D. AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI)
   E. NATIONAL FENESTRATION RATING COUNCIL (NFRC)

1.04 PERFORMANCE CRITERIA
   A. Casement units shall meet requirements in accordance with AAMA / NWWDA 101-I.S.2-11.
   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.

1.05 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.

1.06 DELIVERY, STORAGE, AND HANDLING
   A. In compliance with Section 01610, window units shall be delivered undamaged and with protective packaging. 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. Pinnacle Series Primed Wood Casement window units [including fixed units] as manufactured by Windsor Windows & Doors.

2.02 MATERIALS
A. Frame: Head and side jambs shall be select softwoods treated with water repellent preservative in accordance with NWWDA I.S.-4. Sill shall be a no-rot composite material. Frames are assembled with hardware installed, and sealed at corners with butyl 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 jamb extensions are available to match finished wall thickness. Factory set up units will also include low-maintenance PVC subsill, brickmould, and outside mull covers.

B. Sash: Shall be select pine treated with water repellent preservative accordance with NWWDA I.S.-4. Interior shall be clear pine while the exterior shall be cellular PVC. Corners shall be mortised and tenoned. Foam tape is applied to the back side of glass stop. NOTE: Prime Pinnacle seg top and round top in sash units will have a sash made up of clear pine interior and a primed wood exterior.

C. Finish: The exterior of the sash shall be white in color with a satin surface finish. This finish can be left as-is or repainted if other color is desired. The frame shall be primed and should be painted.

D. Glazing: Shall be 3/4" double pane LoE 366 insulating glass as standard, glazed with double-faced tape, a full perimeter bead of silicone, and interior wood stops. A wide array of other glass options is offered including clear, tinted, tempered, and obscure. Cardinal’s Preserve™ option is available on all LoE 366 glass. It is a removable, factory-applied protective film adhered to both interior and exterior surfaces of the glass.

E. Weatherstripping: Frame weatherstrip 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. An additional bulb sash weatherstrip is applied to the top rail and stiles for added protection against water penetration.

F. Hardware: Casements shall include a sealed hardened 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. Roundtop casements will use a single arm operator. Heavy duty concealed adjustable hinges open to 90 degrees and have an easy detach arm. Operator and hinge components have an electrocoated polymer corrosion resistant coating. 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 74". Special egress hardware and coastal Hardware are optional.

G. Screens: Shall be a fiberglass BetterVue™ screen set in painted aluminum frame. UltraVue™ Screen option is available. Champagne or white screen is standard. 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, fastened to sash with press pins. 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 either 13/16" flat, 3/4" profiled or 1" profiled. Two-toned inner grilles (1/2" profile only) are 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 exterior bars to the surfaces of the insulated glass. WDL is available in 7/8" and 1 1/4" Standard, 5/8" Putty, and 7/8" Putty exterior with Standard interior. All are available with or without innerbar between the glass. Exterior bars are cellular PVC.
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 01.