SECTION 08 52 00

WOOD WINDOWS

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\*\* NOTE TO SPECIFIER \*\* Harvey Building Products ; Wood Windows.  
This section is based on the products of Harvey Building Products , which is located at:1400 Main St.Waltham, MA 02451-1689Toll Free Tel: 800-822-0437Email: [request info (architects@harveybp.com)](https://arcat.com/rfi?action=email&company=Harvey%252BBuilding%252BProducts%252B&message=RE%253A%2520Spec%2520Question%2520(08550har)%253A%2520&coid=32985&spec=08550har&rep=&fax=)  
Web: <https://www.harveywindows.com>   
 [ [Click Here](https://arcat.com/company/harvey-building-products-32985) ] for additional information.  
Harvey Industries is the leading manufacturer of insulating windows and doors and the premier wholesale distributor of quality building products in the Northeastern part of the United States. Distribution is primarily professional contractors and builders via strategically located branches as well as an extensive fleet of company owned trucks.

1. GENERAL
   1. SECTION INCLUDES

\*\* NOTE TO SPECIFIER \*\* Delete items below not required for project.

* + 1. Wood Double Hung Windows.
    2. Wood Casement Windows.
    3. Fixed Lite Wood Casement Windows.
    4. Wood Awning Windows.
    5. Fixed Lite Wood Picture Windows.
    6. Window Accessories.
  1. RELATED SECTIONS

\*\* NOTE TO SPECIFIER \*\* Delete any sections below not relevant to this project; add others as required.

* + 1. Section 03 30 00 - Cast-in-Place Concrete.
    2. Section 04 27 23 - Cavity Wall Unit Masonry.
    3. Section 06 10 00 - Rough Carpentry.
    4. Section 06 20 00 - Finish Carpentry.
    5. Section 07 21 19 - Foamed-In-Place Insulation
    6. Section 07 46 16 - Aluminum Siding.
    7. Section 07 90 00 - Joint Protection.
  1. REFERENCES

\*\* NOTE TO SPECIFIER \*\* Delete references from the list below that are not actually required by the text of the edited section.

* + 1. American Architectural Manufacturers Association (AAMA):
       1. AAMA/WDMA/CSA 101/I.S.2/A440-05, A440-08, and A440-11 - NAFS - North American Fenestration Standard Specification for windows, doors, and skylights.
       2. AAMA 701/702 - Combined Voluntary Specifications for Pile Weather strip and Replaceable Fenestration Weather seals.
       3. AAMA 902 - Voluntary Specification for Sash Balances.
       4. AAMA 2400 - Standard Practice for Installation of Windows with a Mounting Flange in Stud Frame Construction.
    2. ASTM International (ASTM):
       1. ASTM E 283 - Standard Test Method for Determining the Rate of Air Leakage Through Exterior Windows, Curtain Walls and Doors Under Specified Pressure Differences Across the Specimen.
       2. ASTM E 330 - Standard Test Method for Structural Performance of Exterior Windows, Curtain Walls and Doors by Uniform Static Air Pressure Difference.
       3. ASTM E 547 - Standard Test Method for Water Penetration of Exterior Windows, Skylights, Doors and Curtain Walls by Cyclic Static Air Pressure Difference.
       4. ASTM E 2190 - Standard Specification for the Classification of the Durability of Sealed Insulating Glass Units.
       5. ASTM F 588 - Standard Test Methods for Measuring the Forced Entry Resistance of Window Assemblies, Excluding Glazing Impact.
    3. NFRC 100/200/500 - Procedures for Determining Fenestration Product U-Factors, Solar Heat Gain Coefficient (SHGc), and Visible Transmittance at Normal Incidence (VT)
  1. SUBMITTALS
     1. Submit under provisions of Section 01 30 00 - Administrative Requirements.
     2. Product Data: Manufacturer's data sheets on each product to be used, including:
        1. Manufacturer's technical data, product descriptions and installation guides.
        2. Elevation for each style window specified indicating its size, glazing type, muntin type and design.
        3. Manufacturer's head, jamb and sill details for each window type specified.

\*\* NOTE TO SPECIFIER \*\* Delete selection samples if colors have already been selected.

* + 1. Selection Samples: For each finish product specified, two complete sets of color chips representing manufacturer's full range of available colors and patterns.
    2. Verification Samples: Provide operating units of each style window specified.
       1. Verification samples may be operating scaled-down mock-ups of actual-size units.
       2. Operating hardware such as balances, sash locks and weather-stripping.
       3. Verification samples will be returned to manufacturer's representative at project closeout.
    3. Test Reports: Submit certified independent testing agency reports indicating window units meet or exceed specified performance requirements.
  1. QUALITY ASSURANCE
     1. Manufacturer Qualifications: Minimum ten (10) years producing vinyl (PVC) windows.
     2. Installer Qualifications: Utilize an installer having demonstrated experience on projects of similar size.
     3. Source Limitations: Obtain window units from one manufacturer through a single source.
     4. Testing: Provide window units independently tested and found to be in compliance with AAMA/WDMA/CSA 101/I.S.2/A440-05, A440-08, or A440-11 performance standards.
     5. Code Compliance: Provide windows that are labeled in compliance with the jurisdiction having authority over the project.

\*\* NOTE TO SPECIFIER \*\* Include a mock-up if the project size and/or quality warrant taking such a precaution. The following is one example of how a mock-up on a large project might be specified. When deciding on the extent of the mock-up, consider all the major different types of work on the project.

* + 1. Mock-Up: Provide a mock-up for evaluation of surface preparation techniques and application workmanship.
       1. Finish areas designated by Architect.
       2. Do not proceed with remaining work until workmanship, color, and sheen are approved by Architect.
       3. Refinish mock-up area as required to produce acceptable work.
  1. DELIVERY, STORAGE, AND HANDLING
     1. Deliver windows to project site in undamaged condition; handle windows to prevent damage to components and to finishes.
     2. Store products in manufacturer's unopened packaging, out of direct sunlight or high temperature locations, until ready for installation.
  2. PROJECT CONDITIONS
     1. Maintain environmental conditions (temperature, humidity, and ventilation) within limits recommended by manufacturer for optimum results. Do not install products under environmental conditions outside manufacturer's absolute limits.
  3. WARRANTY
     1. Submit manufacturer's standard warranty against defects in workmanship and materials.

\*\* NOTE TO SPECIFIER \*\* Select project type from the following two paragraphs and delete the one not required.

* + - 1. Residential: Ten year warranty on aluminum, vinyl and wood structural members. All exposed wood must be properly sealed within 48 hours upon installation. Insulated Glass is warranted against material obstruction of transparency resulting from film formation or dust collection on the interior glass surfaces for a period of twenty years according to the following formula:
         1. 0 years: 100 percent.
         2. 11 to 15 years: 50 percent.
         3. 16 to 20 years: 25 percent.
      2. Commercial Project Warranty: The warranty period for commercial project work such as apartments, housing authorities, and other buildings not used by individual homeowners is ten years, covering all wood, glass and component parts.
      3. Ten year warranty on screening and mechanical parts.

1. PRODUCTS
   1. MANUFACTURERS
      1. Acceptable Manufacturer: Harvey Building Products , which is located at:1400 Main St.Waltham, MA 02451-1689Toll Free Tel: 800-822-0437Email: [request info (architects@harveybp.com)](https://arcat.com/rfi?action=email&company=Harvey%252BBuilding%252BProducts%252B&message=RE%253A%2520Spec%2520Question%2520(08550har)%253A%2520&coid=32985&spec=08550har&rep=&fax=);Web: <https://www.harveywindows.com>

\*\* NOTE TO SPECIFIER \*\* Delete one of the following two paragraphs; coordinate with requirements of Division 1 section on product options and substitutions.

* + 1. Substitutions: Not permitted.
    2. Requests for substitutions will be considered in accordance with provisions of Section 01 60 00 - Product Requirements.
  1. MAJESTY WOOD DOUBLE HUNG WINDOWS
     1. Construction.
        1. Interior Frame and Sash: Select western pine.
        2. Exterior Frame: Extruded aluminum, wall thickness of 0.050 inch (1.3 mm). Head mitered and mechanically fastened. Sill fitted with closed cell foam sealing pads, butt joined and mechanically fastened.
        3. Exterior Sash: Clad with 0.019 inch (0.5 mm) thick roll formed aluminum.
        4. Interior Stile and Rails: 1-3/4 inch thick (44 mm) select western pine with mechanically secured mortise and tenon type construction. Recessed sash release latches and routed lift and pull handles.
        5. Composite Sill:
           1. Exterior Sill Section: Extruded aluminum.
           2. Mid Section: Vinyl.
           3. Interior section: Pine.
        6. Jamb Depth:

\*\* NOTE TO SPECIFIER \*\* Select one of the following two paragraphs as required for the project and delete the one not applicable.

* + - * 1. Replacement style frame / 3-1/4 inch (82.5 mm) jamb.
        2. New Construction style frame / 4-9/16 inch (115.9 mm) jamb (factory applied nail fin).
      1. Weather Stripping: Provide foam bulb weatherstrip in compliance with AAMA 701/702.
      2. Glazing: Dual Glazing - Double Low-E / Argon insulating glass units secured to sash frame using a silicone sealant and glazing bead. Complies with ASTM E 2190.
      3. Sash Balances: Factory calibrated block and tackle, complying with AAMA 902. Balance cords anchored to glass filled nylon terminal housings which lock in place once the sash is tilted in. Locking terminal and pivot bar system provides a positive interlock, allowing accurate alignment of the sash and the frame.
      4. Sash Locks: Recessed cam type anchored with screws driven into adjacent rail section. Double locks on widths 36-1/4 inches (921 mm) and greater.

\*\* NOTE TO SPECIFIER \*\* Select Exterior Cladding Color. Delete five of the next six paragraphs

* + - 1. Exterior Cladding Color: As selected by architect from manufacturers available color offering.
      2. Exterior Cladding Color: White.
      3. Exterior Cladding Color: Almond.
      4. Exterior Cladding Color: Bronze.
      5. Exterior Cladding Color: Forest green.
      6. Exterior Cladding Color: Black.

\*\* NOTE TO SPECIFIER \*\* Select Finish. Delete one of the following two paragraphs

* + - 1. Interior Wood Finish: Unfinished.
      2. Interior Wood Finish: Painted White.

\*\* NOTE TO SPECIFIER \*\* Select screen type required from the following four paragraphs

* + - 1. Screens: Locking half screen. Extruded aluminum frame with 18 x 16 charcoal finished fiberglass mesh.
      2. Screens: Locking half screen. Extruded aluminum frame with charcoal finished Virtually Invisible Enhanced Window Screen (VIEWS) fiberglass mesh with 25 percent more optical clarity.
      3. Screens: Full screen. Extruded aluminum frame with 18 x 16 charcoal finished fiberglass mesh.
      4. Screens: Full screen. Extruded aluminum frame with charcoal finished Virtually Invisible Enhanced Window Screen (VIEWS) fiberglass mesh with 25 percent more optical clarity.

\*\* NOTE TO SPECIFIER \*\* Select the grid options required from the following paragraphs and delete those not required.

* + - 1. Grids: Colonial contour grids between glass (GBG) dividers.
      2. Grids: Flat diamond grids between glass (GBG) dividers.
      3. Grids: Simulated divided lite grids (SDL) dividers.
      4. Grids: Interior wood snap-in dividers.
    1. Performance:
       1. Air Infiltration: Maximum 0.17 cfm/sq. ft. at 1.57 psf (25 mph) in accordance with ASTM E 283.
       2. Water Resistance: No leakage when tested at 5.43 psf in accordance with ASTM E 547.
       3. Uniform Load Deflection: Load deflection at 52.66 psf (positive) of 0.02 inches and load deflection at 52.66psf (negative) of 0.25 inches, in accordance with ASTM E 330.
       4. Structural Rating: H-R35: in accordance with AAMA/WDMA/CSA 101/I.S.2/A440-05 (test size 44 x 75 inches).
       5. Design Rating: DP 35.
       6. Forced Entry: Type A, Grade 10 in accordance with ASTM F 588.
       7. Thermal Transmittance: The following values are in accordance with NFRC 100/200/500.
          1. DG 2X Low-E/Argon No Grid: U-Factor 0.27/ R-Value 3.7/ SHGc 0.29/ VT 0.51.
          2. DG 2X Low-E/Argon With Grid: U-Factor 0.27/ R-Value 3.7/ SHGc 0.26/ VT 0.45.
  1. MAJESTY WOOD CASEMENT WINDOWS
     1. Construction.
        1. Interior Frame: Western pine, select grade with corners butt joined and mechanically fastened.
        2. Interior Sash: Western pine, select grade with corners mortise and tenon type construction and mechanically secured
        3. Exterior Frame: Extruded aluminum, wall thickness of 0.050 inches. Mitered and mechanically fastened.
        4. Exterior Sash: Extruded aluminum with corners mitered and joined with heavy-duty extruded aluminum corner gusset, sealed with joint sealant.
        5. Jamb Depth:

\*\* NOTE TO SPECIFIER \*\* Select one of the following two paragraphs as required for the project and delete the one not applicable.

* + - * 1. Replacement style frame / 3-1/4 inch (82.5 mm) jamb.
        2. New Construction style frame / 4-9/16 inch (115.9 mm) jamb (factory applied nail fin).
      1. Weather Stripping: Provide foam bulb weatherstrip in compliance with AAMA 701/702.Glazing: Triple Glazing - Double Low-E / Krypton insulating glass units secured to sash frame using a silicone sealant and glazing bead. Complies with ASTM E 2190.
      2. Hardware: Crank type actuators as manufactured by Amesbury Truth.

\*\* NOTE TO SPECIFIER \*\* Select Exterior Cladding Color from the following six paragraphs and delete those no required.

* + - 1. Exterior Cladding Color: As selected by architect from manufacturers available color offering.
      2. Exterior Cladding Color: White.
      3. Exterior Cladding Color: Almond.
      4. Exterior Cladding Color: Bronze.
      5. Exterior Cladding Color: Forest green.
      6. Exterior Cladding Color: Black

\*\* NOTE TO SPECIFIER \*\* Select Finish from the following two paragraphs and delete the one not required.

* + - 1. Interior Wood Finish: Unfinished.
      2. Interior Wood Finish: Painted White.

\*\* NOTE TO SPECIFIER \*\*Select screen type required from the following two paragraphs.

* + - 1. Screens: Full screen. Roll Formed aluminum frame with 18 x 16 charcoal finished fiberglass mesh.
      2. Screens: Full screen. Extruded aluminum frame with charcoal finished Virtually Invisible Enhanced Window Screen (VIEWS) fiberglass mesh with 25 percent more optical clarity.

\*\* NOTE TO SPECIFIER \*\* Select the grid options required from the following paragraphs and delete those not required.

* + - 1. Grids: Colonial contour grids between glass (GBG) dividers.
      2. Grids: Flat diamond grids between glass (GBG) dividers.
      3. Grids: Simulated divided lite grids (SDL) dividers.
      4. Grids: Interior wood snap-in dividers.
    1. Performance:
       1. Air Infiltration: Maximum 0.03 cfm/sq. ft. at 1.57 psf (25 mph) in accordance with ASTM E 283.
       2. Water Resistance: No leakage when tested at 5.43 psf in accordance with ASTM E 547.
       3. Uniform Load Deflection: Load deflection at 25.06 psf (positive) of 0.07 inches and load deflection at 25.06 psf (negative) of 0.89 inches, in accordance with ASTM E 330.
       4. Structural Rating: C-LC25 in accordance with AAMA/WDMA/CSA 101/I.S.2/A440-08 (test size 32 x 72 inches).
       5. Design Rating: DP 25.
       6. Forced Entry: Type B, Grade 10 in accordance with ASTM F 588.
       7. Thermal Transmittance: The following values are in accordance with NFRC 100/200/500.
          1. TG 2X Low-E/Krypton No Grid: U-Factor 0.26/ R-Value 3.8/ SHGc 0.22/ VT 0.38.
          2. TG 2X Low-E/Krypton With Grid: U-Factor 0.26/ R-Value 3.8/ SHGc 0.21/ VT 0.35.
  1. MAJESTY FIXED LITE WOOD CASEMENT WINDOWS
     1. Construction.
        1. Interior Frame: Western pine, select grade with corners butt joined and mechanically fastened.
        2. Interior Sash: Western pine, select grade with corners mortise and tenon type construction and mechanically secured
        3. Exterior Frame: Extruded aluminum, wall thickness of 0.050 inches. Mitered and mechanically fastened.
        4. Exterior Sash: Extruded aluminum with corners mitered and joined with heavy-duty extruded aluminum corner gusset, sealed with joint sealant.
        5. Jamb Depth:

\*\* NOTE TO SPECIFIER \*\* Select one of the following two paragraphs as required for the project and delete the one not applicable.

* + - * 1. Replacement style frame / 3-1/4 inch (82.5 mm) jamb.
        2. New Construction style frame / 4-9/16 inch (115.9 mm) jamb (factory applied nail fin).
      1. Weather Stripping: Provide foam bulb weatherstrip in compliance with AAMA 701/702.
      2. Glazing: Triple Glazing - Double Low-E / Argon insulating glass units secured to sash frame using a silicone sealant and glazing bead. Complies with ASTM E 2190.

\*\* NOTE TO SPECIFIER \*\* Select Exterior Cladding Color from the following six paragraphs and delete those no required.

* + - 1. Exterior Cladding Color: As selected by architect from manufacturers available color offering.
      2. Exterior Cladding Color: White.
      3. Exterior Cladding Color: Almond.
      4. Exterior Cladding Color: Bronze.
      5. Exterior Cladding Color: Forest green.
      6. Exterior Cladding Color: Black

\*\* NOTE TO SPECIFIER \*\* Select Finish from the following two paragraphs and delete the one not required.

* + - 1. Interior Wood Finish: Unfinished.
      2. Interior Wood Finish: Painted White.

\*\* NOTE TO SPECIFIER \*\* Select the grid options required from the following paragraphs and delete those not required.

* + - 1. Grids: Colonial contour grids between glass (GBG) dividers.
      2. Grids: Flat diamond grids between glass (GBG) dividers.
      3. Grids: Simulated divided lite grids (SDL) dividers.
      4. Grids: Interior wood snap-in dividers.
    1. Performance:
       1. Air Infiltration: Maximum 0.01 cfm/sq. ft. at 1.57 psf (25 mph) in accordance with ASTM E 283.
       2. Water Resistance: No leakage when tested at 3.13 psf in accordance with ASTM E 547.
       3. Uniform Load Deflection: Load deflection at 20.05 psf (positive) of 0.07 inches and load deflection at 25.05 psf (negative) of 0.03 inches, in accordance with ASTM E 330.
       4. Structural Rating: F-R20 (DP20) in accordance with AAMA/WDMA/CSA 101/I.S.2/A440-08 (test size 60 x 72 inches).
       5. Forced Entry: Type D, Grade 10 in accordance with ASTM F 588.
       6. Thermal Transmittance: The following values are in accordance with NFRC 100/200/500.
          1. TG 2X Low-E/Argon No Grid: U-Factor 0.26/ R-Value 3.8/ SHGc 0.26/ VT 0.44.
          2. TG 2X Low-E/Argon With Grid: U-Factor 0.27/ R-Value 3.8/ SHGc 0.23/ VT 0.39.
  1. MAJESTY WOOD AWNING WINDOWS
     1. Construction.
        1. Interior Frame: Western pine, select grade with corners butt joined and mechanically fastened.
        2. Interior Sash: Western pine, select grade with corners mortise and tenon type construction and mechanically secured.
        3. Exterior Frame: Extruded aluminum, wall thickness of 0.050 inches. Mitered and mechanically fastened.
        4. Exterior Sash: Extruded aluminum with corners mitered and joined with heavy-duty extruded aluminum corner gusset, sealed with joint sealant.
        5. Jamb Depth:

\*\* NOTE TO SPECIFIER \*\* Select one of the following two paragraphs as required for the project and delete the one not applicable.

* + - * 1. Replacement style frame / 3-1/4 inch (82.5 mm) jamb.
        2. New Construction style frame / 4-9/16 inch (115.9 mm) jamb (factory applied nail fin).
      1. Weather Stripping: Provide foam bulb weatherstrip in compliance with AAMA 701/702.Glazing: Triple Glazing - Double Low-E / Krypton insulating glass units secured to sash frame using a silicone sealant and glazing bead. Complies with ASTM E 2190.
      2. Hardware: Lever type actuators as manufactured by Amesbury Truth.

\*\* NOTE TO SPECIFIER \*\* Select Exterior Cladding Color from the following six paragraphs and delete those no required.

* + - 1. Exterior Cladding Color: As selected by architect from manufacturers available color offering.
      2. Exterior Cladding Color: White.
      3. Exterior Cladding Color: Almond.
      4. Exterior Cladding Color: Bronze.
      5. Exterior Cladding Color: Forest green.
      6. Exterior Cladding Color: Black

\*\* NOTE TO SPECIFIER \*\* Select Finish from the following two paragraphs and delete the one not required.

* + - 1. Interior Wood Finish: Unfinished.
      2. Interior Wood Finish: Painted White.

\*\* NOTE TO SPECIFIER \*\* Select screen type required from the following two paragraphs

* + - 1. Screens: Full screen. Extruded aluminum frame with 18 x 16 charcoal finished fiberglass mesh.
      2. Screens: Full screen. Extruded aluminum frame with charcoal finished Virtually Invisible Enhanced Window Screen (VIEWS) fiberglass mesh with 25 percent more optical clarity.

\*\* NOTE TO SPECIFIER \*\* Select the grid options required from the following paragraphs and delete those not required.

* + - 1. Grids: Colonial contour grids between glass (GBG) dividers.
      2. Grids: Flat diamond grids between glass (GBG) dividers.
      3. Grids: Simulated divided lite grids (SDL) dividers.
      4. Grids: Interior wood snap-in dividers.
    1. Performance:
       1. Air Infiltration: Maximum 0.03 cfm/sq. ft. at 1.57 psf (25 mph) in accordance with ASTM E 283.
       2. Water Resistance: No leakage when tested at 5.43 psf in accordance with ASTM E 547.
       3. Uniform Load Deflection: Load deflection at 35.09 psf (positive) of 0.02 inches and load deflection at 55.09 psf (negative) of 0.30 inches, in accordance with ASTM E 330.
       4. Structural Rating: AP-C35 (DP35) in accordance with AAMA/WDMA/CSA 101/I.S.2/A440-05 (test size 48 x 39 inches).
       5. Forced Entry: Type B, Grade 10 in accordance with ASTM F 588.
       6. Thermal Transmittance: The following values are in accordance with NFRC 100/200/500.
          1. TG 2X Low-E/Krypton No Grid: U-Factor 0.26/ R-Value 3.8/ SHGc 0.22/ VT 0.38.
          2. TG 2X Low-E/Krypton With Grid: U-Factor 0.26/ R-Value 3.8/ SHGc 0.21/ VT 0.35.
  1. MAJESTY FIXED LITE WOOD PICTURE WINDOWS
     1. Construction.
        1. Interior Frame: Western pine, select grade with corners butt joined and mechanically fastened.
        2. Exterior Frame: Extruded aluminum, wall thickness of 0.050 inches. Mitered and mechanically fastened.
        3. Exterior Sash: Clad with 0.019 inch (0.5 mm) thick roll formed aluminum.
        4. Interior Stile and Rails: 1-3/4 inch thick (44 mm) select western pine with mechanically secured mortise and tenon type construction.
        5. Composite Sill:
           1. Exterior Sill Section: Extruded aluminum.
           2. Mid section: Vinyl.
           3. Interior section: Pine.
        6. Jamb Depth:

\*\* NOTE TO SPECIFIER \*\* Select one of the following two paragraphs as required for the project and delete the one not applicable.

* + - * 1. Replacement style frame / 3-1/4 inch (82.5 mm) jamb.
        2. New Construction style frame / 4-9/16 inch (115.9 mm) jamb (factory applied nail fin).
      1. Weather Stripping: Provide foam bulb weatherstrip in compliance with AAMA 701/702.
      2. Glazing: Triple Glazing - Double Low-E / Argon insulating glass units secured to sash frame using a silicone sealant and glazing bead. Complies with ASTM E 2190.

\*\* NOTE TO SPECIFIER \*\* Select Exterior Cladding Color from the following six paragraphs and delete those no required.

* + - 1. Exterior Cladding Color: As selected by architect from manufacturers available color offering.
      2. Exterior Cladding Color: White.
      3. Exterior Cladding Color: Almond.
      4. Exterior Cladding Color: Bronze.
      5. Exterior Cladding Color: Forest green.
      6. Exterior Cladding Color: Black

\*\* NOTE TO SPECIFIER \*\* Select Finish from the following two paragraphs and delete the one not required.

* + - 1. Interior Wood Finish: Unfinished.
      2. Interior Wood Finish: Painted White.

\*\* NOTE TO SPECIFIER \*\* Select the grid options required from the following paragraphs and delete those not required.

* + - 1. Grids: Colonial contour grids between glass (GBG) dividers.
      2. Grids: Flat diamond grids between glass (GBG) dividers.
      3. Grids: Simulated divided lite grids (SDL) dividers.
      4. Grids: Interior wood snap-in dividers.
    1. Performance:
       1. Air Infiltration: Maximum 0.01 cfm/sq. ft. at 1.57 psf (25 mph) in accordance with ASTM E 283.
       2. Water Resistance: No leakage when tested at 9.0 psf in accordance with ASTM E 547.
       3. Uniform Load Deflection: Load deflection at 82.5 psf (positive) of 0.01 inches and load deflection at 82.5 psf (negative) of 0.01 inches, in accordance with ASTM E 330.
       4. Structural Rating: F-LC55 [DP 55] in accordance with ANSI/AAMA/NWWDA 101/I.S.2 (test size 54 x 54 inches).
       5. Forced Entry: Type D, Grade 40 in accordance with ASTM F 588.
       6. Thermal Transmittance: The following values are in accordance with NFRC 100/200/500.
          1. DG 2X Low-E/Argon No Grid: U-Factor 0.25/ R-Value 4.0/ SHGc 0.27/ VT 0.51.
          2. DG 2X Low-E/Argon With Grid: U-Factor 0.25/ R-Value 4.0/ SHGc 0.25/ VT 0.46.

\*\* NOTE TO SPECIFIER \*\* Mullion options - Delete entire paragraph if mullions are not required. Note that certain configurations and sizes not available for mulling. Contact the manufacturer for additional information.

* 1. WINDOW ACCESSORIES
     1. Mullions:

\*\* NOTE TO SPECIFIER \*\* Select one of the following paragraphs and delete the one not required.

* + - 1. Factory Mull
      2. Field Mull

1. EXECUTION
   1. EXAMINATION
      1. Verify rough opening size is of sufficient size to receive window unit and complies with manufacturer's requirements for opening clearances.
      2. Verify that sill plate is level
      3. Notify Architect of unsatisfactory preparation before proceeding.
   2. PREPARATION
      1. Clean surfaces thoroughly prior to installation.
      2. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.
   3. INSTALLATION
      1. Install window units in accordance with manufacturer's printed instructions.
      2. Apply sealant around perimeter of window unit between nail fin and exterior sheathing of wall. Refer to Section 07 90 00 - Joint Protection Joint Sealants.
      3. Install window unit level and plumb. Center window unit in opening and secure window unit by nailing through nail fin and screw through jambs as indicated in manufacturer's instructions.
      4. Flash window in accordance with AAMA's "Standard Practice for Installation of Windows with a Mounting Flange in Stud Frame Construction".
      5. Insulate between window frame and rough opening with insulation. Refer to Section 07 21 19 - Foamed-In-Place Insulation Building Insulation.
   4. ADJUSTING
      1. Adjust units for smooth operation without binding or racking
      2. Adjust sash locks and screens for smooth operation.
   5. CLEANING
      1. Clean soiled surfaces and glass prior to substantial completion.
   6. PROTECTION
      1. Protect installed products until completion of project.
      2. Touch-up, repair or replace damaged products before Substantial Completion.

END OF SECTION