SECTION 08 52 16

VINYL CLAD WOOD WINDOWS

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\*\* NOTE TO SPECIFIER \*\* Weather Shield Mfg., Inc.; Premium wood window products.  
 .  
 This section is based on the products of Weather Shield Mfg., Inc., which is located at:  
One Weather Shield Plaza P. O. Box 309  
Medford, WI 54451  
Toll Free Tel: 800-538-8836  
Tel: 715-748-6555  
Fax: 800-390-1225  
Email: [request info (archservices@weathershield.com)](http://admin.arcat.com/users.pl?action=UserEmail&company=Weather+Shield+Mfg.,+Inc.&coid=36464&rep=&fax=800-390-1225&message=RE:%20Spec%20Question%20(08555wea):%20%20&mf=)  
Web: [www.weathershield.com](http://www.weathershield.com)   
[ [Click Here](http://www.arcat.com/arcatcos/cos36/arc36464.html) ] for additional information.  
   
   
 Since 1955, we've made windows and doors at Weather Shield the best way we know how. By putting the wants of our customers first. Today, this philosophy remains the heart and soul of everything we do.  
   
 Our comprehensive brands consist of aluminum-clad wood, wood, vinyl-clad wood and vinyl windows and patio doors. We offer more styles, shapes, sizes and options in more product lines than anyone else in the industry. It's what drives us to design, engineer and manufacture the highest quality, most energy efficient products possible.  
   
 This specification includes ProShield Vinyl Clad Exterior / Wood Interior Awning Windows.  
   
 Enjoy the convenience of low-maintenance vinyl and the uncompromising beauty of natural wood you'll find in our ProShield line of vinyl-clad wood windows. We extrude our own vinyl to produce colors that are formulated for consistency, and we proudly mill the wood ourselves to help ensure only the best quality. With an abundance of sizes, shapes, styles and options, ProShield windows offer the design flexibility you'll want for your home.

1. GENERAL
   1. SECTION INCLUDES

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

* + 1. Vinyl Clad Wood Double-Hung Tilt Windows with Hardware.
    2. Vinyl Clad Wood Awning Windows with Hardware.
    3. Vinyl Clad Wood Casement Windows with Hardware.
    4. Vinyl Clad Wood Double-Slider Windows.
    5. Vinyl Clad Wood Direct-Set Windows.
    6. Vinyl Clad Wood Direct-Set Circle Windows.
    7. Glazing.
    8. Accessories.
  1. RELATED SECTIONS

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

* + 1. Section 06 10 00 - Rough Carpentry.
    2. Section 06 20 00 - Finish Carpentry.
    3. Section 07 21 16 - Blanket Insulation.
    4. Section 07 46 33 - Plastic Siding.
    5. Section 07 62 00 - Sheet Metal Flashing and Trim.
    6. Section 07 90 00 - Joint Protection.
    7. Section 08 83 13 - Mirrored Glass Glazing.
    8. Section 09 90 00 - Painting and Coating.
  1. REFERENCES

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

* + 1. ASTM C 1036 - Standard Specification for Flat Glass.
    2. ASTM C 1048 - Standard Specification for Heat-Treated Flat Glass - Kind HS, Kind FT Coated and Uncoated Glass.
    3. ASTM E 283 - Standard Test Method for Determining Rate of Air Leakage Through Exterior Windows, Curtain Walls and Doors Under Specified Pressure Differences Across the Specimen.
    4. ASTM E 330 - Standard Test Method for Structural Performance of Exterior Windows, Doors, Skylights and Curtain Walls by Uniform Static Air Pressure Difference.
    5. ASTM E 547 - Standard Test Method for Water Penetration of Exterior Windows, Skylights, Doors and Curtain Walls by Cyclic Static Air Pressure Difference.
    6. ASTM E 987 - Standard Test Methods for Deglazing Force of Fenestration Products.
    7. ASTM E 2190 - Standard Specification for Insulating Glass Unit Performance and Evaluation.
    8. ASTM F 588 - Standard Test Method for Measuring the Forced Entry Resistance of Window Assemblies, Excluding Glazing Impact.
    9. ANSI/AAMA/NWWDA 101/I.S. 2-97 - Voluntary Specifications for Aluminum, Vinyl (PVC) and Wood Windows and Glass Doors.
    10. WDMA I.S. 4-05 - Industry Standard for Water Repellent Preservative Non-Pressure Treatment for Millwork.
    11. NFRC 102 - Procedure for Measuring the Steady-State Thermal Transmittance of Fenestration Systems.
    12. NFRC 200 - Procedure for Determining Fenestration Product Solar Heat Gain Coefficient and Visible Transmittance at Normal Incidence.
    13. NFRC 500 - Procedure for Determining Fenestration Product Condensation Resistance Values.
    14. Insulating Glass Certification Council (IGCC).
    15. Safety glass tested in accordance with ANSI Z97.1.
    16. ANSI-SMA-1004 - Aluminum Tubular Framing Screens for Windows.
    17. FS L-S-125B - Screen, Insect Non-Metallic.
  1. SUBMITTALS
     1. Submit under provisions of Section 01 30 00.
     2. Product Data: Manufacturer's data sheets on each product to be used, including:
        1. Preparation instructions and recommendations.
        2. Storage and handling requirements and recommendations.
        3. Installation methods.
     3. Shop Drawings: Indicate opening dimensions, framed opening tolerances, affected related work; and installation requirements.

\*\* 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: For each finish product specified, two samples, minimum size 6 inches (150 mm) square, representing actual product, color, and patterns.
    3. Manufacturer's Certificates: Certify products meet or exceed specified requirements.
  1. QUALITY ASSURANCE
     1. Manufacturer Qualifications: Company specializing in manufacturing residential and commercial wood windows with minimum ten years documented experience.
     2. Installer Qualifications: Company specializing in performing residential and commercial installation of wood windows with minimum five years documented experience.

\*\* 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. Store products in manufacturer's unopened packaging until ready for installation.
     2. Store units in a dry location, off the ground, under cover, protected from weather and construction activities.
  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. Workmanship and Materials: 20-year limited warranty
     2. Insulating Glass: 20-year limited warranty.

1. PRODUCTS
   1. MANUFACTURERS
      1. Acceptable Manufacturer: Weather Shield Mfg., Inc., which is located at: One Weather Shield Plaza P. O. Box 309; Medford, WI 54451; Toll Free Tel: 800-538-8836; Tel: 715-748-6555; Fax: 800-390-1225; Email: [request info (archservices@weathershield.com)](http://admin.arcat.com/users.pl?action=UserEmail&company=Weather+Shield+Mfg.,+Inc.&coid=36464&rep=&fax=800-390-1225&message=RE:%20Spec%20Question%20(08555wea):%20%20&mf=); Web: [www.weathershield.com](http://www.weathershield.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.
  1. APPLICATIONS/SCOPE
     1. Vinyl Clad Wood Double-Hung Tilt Windows: ProShield Series as manufactured by Weather Shield Mfg., Inc. of Medford, Wisconsin.
        1. Performance:
           1. ANSI/AAMA/NWWDA 101/I.S. 2-97 and AAMA/WDMA/CSA 101/I.S.2/A440-05:

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

Rating: H-R15; maximum jamb size 44-1/2 inches by 77-1/2 inches (1130 mm by 1969 mm).

Rating: H-R25; maximum jamb size 44-1/2 inches by 65-1/2 inches (1130 mm by 1664 mm).

Rating: H-R45; maximum jamb size 35-1/2 inches by 65-1/2 inches (902 mm by 1664 mm).

* + - * 1. Air infiltration shall not exceed 0.30 cfm/ft2 (0.142 L/sm2) when tested according to ASTM E283.
        2. No water penetration when tested at the following pressure according to ASTM E547:

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

Rating: H-R15 - 2.86 psf (137 Pa).

Rating: H-R25 - 3.75 psf (180 Pa).

Rating: H-R45 - 6.75 psf (323 Pa).

* + - * 1. Window must withstand the following positive/negative structural test pressure without damage when tested according to ASTM E330:

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

Rating: H-R15 - plus 22.5/-22.5 psf (plus 31077/ minus 1077 Pa).

Rating: H-R25 - plus 37.5/-37.5 psf (plus 31796/ minus 1796 Pa).

Rating: H-R45 - plus 67.5/-67.5 psf (plus 33232/ minus 3232 Pa).

* + - * 1. Windows must pass a forced entry resistance test of at least Level 10 to meet requirements set forth in ASTM F588.
      1. Frame: Frame corners shall be miter cut, fusion welded and cleaned.
         1. Frame thickness: 5/8 inch (16 mm).
         2. Frame shall have standard jamb depth of 4-9/16 inch (116 mm).

\*\* NOTE TO SPECIFIER \*\* Select the following optional paragraph as required. Pine is standard. Delete if not required.

* + - * 1. Jamb Extensions: Provide with jamb extensions up to and including 12 inch (305 mm) overall jamb depth.

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

Provide factory applied (standard).

Provide shipped loose.

Jamb extensions match interior frame finish (with the exception of knotty pine).

* + - 1. Sash: Corners shall be miter cut, fusion welded and cleaned.
         1. Sash Lift: Provide with continuous finger lift at top rail of bottom sash.
         2. Sash shall be 1-3/16 inch (30 mm) thick.
         3. Top and bottom sash must tilt in from the inside for cleaning purposes without removal of screens.
      2. Hardware:
         1. Self-contained block and tackle balance system housed in a vinyl jamb liner. Vinyl extruded jamb liner to match exterior frame. Block and tackle balance housing colors to match jamb liner.
         2. Sash lock surface mounted mechanically, factory applied at meeting rails. Two flush-mounted tilt latches factory-applied to top rail of bottom sash. Two vinyl semi-recessed tilt latches factory-applied to top rail of top sash. Two sash locks are applied to all units 32 inch (813 mm) rough opening width and wider.

\*\* NOTE TO SPECIFIER \*\* Select the following sash lock material and one of the finish paragraphs. Delete the paragraphs not required.

Zinc die-cast handle/keeper finishes:

Goldtone/Beige (standard).

White/Beige.

* + - 1. Weather Stripping:
         1. White pile weather strip with center fin including:

One row at head parting stop.

One row at check rail.

* + - * 1. Three rows of beige pile weather strip with center fin applied at each jamb liner.
        2. Vinyl double bulb weather strip including:

One row at bottom sash bottom rail.

One row at check rail.

\*\* NOTE TO SPECIFIER \*\* Select one of the following three color paragraphs. Delete the paragraphs not required.

Color: white on white units.

Color: Tan on tan units.

Color: Cameo on cameo units.

\*\* NOTE TO SPECIFIER \*\* Select one of the following three screen screen/combination paragraphs. Delete the paragraphs not required.

* + - 1. Screens:
         1. Screen consists of .019 inch (0.5 mm) thick formed aluminum frames with baked-on acrylic coating, injection molded vinyl corner keys.

Half screen.

\*\* NOTE TO SPECIFIER \*\* NOTE TO SPECIFIER \*\* Select one of the following three paragraphs. Delete the paragraph not required. Fiberglass mesh is standard.

Mesh type/color: 18 x 16 mesh charcoal fiberglass.

Mesh type/color: 20 x 20 mesh charcoal fiberglass.

Mesh type/color: 18 x 16 mesh black aluminum non-glare.

* + - * 1. Frame finish: matches exterior frame/sash.
      1. Combination Storm/Screen:
         1. Consisting of an extruded aluminum master frame, .053 inch (1.3 mm) thickness, containing a stationary storm panel above a stationary screen panel and an operating storm panel in the interior track.
         2. Storm panels shall be 3/32 inch (2.3 mm) thick glass with extruded aluminum perimeter edging with baked-on acrylic coating.
         3. Half screen consisting of .019 inch (0.5 mm) thick formed aluminum frame with baked-on acrylic coating, injection molded vinyl corner keys.

\*\* NOTE TO SPECIFIER \*\* NOTE TO SPECIFIER \*\* Select one of the following three paragraphs. Delete the paragraph not required. Fiberglass mesh is standard.

Mesh type/color: 18 x 16 mesh charcoal fiberglass.

Mesh type/color: 20 x 20 mesh charcoal fiberglass.

Mesh type/color: 18 x 16 mesh black aluminum non-glare.

* + - * 1. Frame finish: matches exterior frame/sash.
    1. Vinyl Clad Wood Awning Windows, ProShield Series as manufactured by Weather Shield Mfg., 1nc. of Medford, Wisconsin.
       1. Performance:
          1. ANSI/AAMA/NWWDA 101/I.S.2-97:

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

Rating: AP-LC50; maximum jamb size 48 inches by 30 inches (1219 mm by 762 mm).

Rating: AP-C55; maximum jamb size 59-1/2 inches by 35-1/2 inches (1511 mm by 902 mm), twin window 119-1/2 inches by 35-1/2 inches (3022 mm by 902 mm).

Rating: AP-C60; maximum jamb size 47-1/2 inches by 31-1/2 inches (1207 mm by 800 mm).

* + - * 1. Air infiltration shall not exceed 0.30 cfm/ft2 (1.5 L/sm2) when tested at 1.57 psf (75 Pa) according to ASTM E 283.
        2. No water penetration when tested at the following pressure according to ASTM E 547:

AP-LC50 - 7.50 psf (359 Pa).

* + - * 1. Positive/negative structural test pressure without damage when tested according to ASTM E 330:

AP-LC50 - plus 75.0/minus 75.0 psf (plus 3591/minus 3591 Pa).

* + - * 1. Pass a forced entry resistance test of at least Level 10 to meet requirements set forth in ASTM F 588.
      1. Frame: Frame corners shall be miter cut, fusion welded and cleaned.
         1. Frame thickness: 1-1/4 inch (32 mm).
         2. Frame shall have standard jamb depth of 4-9/16 inch (116 mm).

\*\* NOTE TO SPECIFIER \*\* Select the following optional paragraph as required. Pine is standard. Delete if not required.

* + - * 1. Jamb Extensions: Provide with jamb extensions up to and including 12 inch (305 mm) overall jamb depth.

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

Provide factory applied (standard).

Provide shipped loose.

Jamb extensions match interior frame finish (with the exception of knotty pine).

* + - 1. Sash:
         1. Corners miter cut, fusion welded and cleaned.
         2. Sash shall be 1-5/8 inch (41 mm) thick.
      2. Hardware:
         1. Operator shall be hardened steel drive worm, hinged gear arms, factory applied, and located on the sill of the window:

\*\* NOTE TO SPECIFIER \*\* Select one of the following case/handle paragraphs. Delete the paragraphs not required.

High pressure zinc die-cast case/handles:

\*\* NOTE TO SPECIFIER \*\* Select one of the following type and finish paragraphs. Folding handle is standard. Goldtone is standard. Delete the paragraphs not required.

Folding handle (standard).

Round handle.

T-handle.

ADA crank handle.

High pressure zinc die-cast case/handle finish:

Goldtone (standard).

White.

Corrosive Resistant for salt spray environments:

Goldtone.

White.

Adobe.

* + - * 1. Locks: manual lever. Zinc die-cast sequential locks with one, two or three pins to ensure sash alignment, pull the sash into a locked position.

\*\* NOTE TO SPECIFIER \*\* Select one of the following sash lock material and finish paragraphs. Goldtone is standard. Delete the paragraphs not required.

High pressure zinc die-cast sash lock finish:

Goldtone (standard).

White.

\*\* NOTE TO SPECIFIER \*\* Select one of the following hinge paragraphs. Delete the paragraph not required.

* + - * 1. Steel Hinges: Two concealed corrosion resistant steel adjustable hinges with stainless steel track, steel support arms, stainless steel reinforcing insert in low-friction sliding shoe.
        2. Stainless Steel Hinges: Two concealed stainless steel adjustable hinges shall consist of a stainless steel track, steel support arms and stainless steel reinforcing insert in low-friction sliding shoe.
      1. Weather Stripping:
         1. Flexible vinyl bulb weather strip at operator cover, exterior head and side jambs. Color shall match exterior frame finish.
         2. White pile weather strip with Mylar fin applied around perimeter of sash at exterior.
      2. Screens:
         1. Screen consists of .019 inch (0.5 mm) thick formed aluminum frames with baked-on acrylic coating or anodized finish, injection molded vinyl corner keys.

\*\* NOTE TO SPECIFIER \*\* NOTE TO SPECIFIER \*\* Select one of the following three paragraphs. Delete the paragraph not required. Fiberglass mesh is standard.

Mesh type/color: 18 x 16 mesh charcoal fiberglass.

Mesh type/color: 20 x 20 mesh charcoal fiberglass.

Mesh type/color: 18 x 16 mesh black aluminum non-glare.

\*\* NOTE TO SPECIFIER \*\* Select one of the following frame finish paragraphs. Delete the paragraph not required.

* + - * 1. Frame finish: coordinates with case/handle hardware.

\*\* NOTE TO SPECIFIER \*\* Select one of the following finish paragraphs. Delete the paragraphs not required.

Goldtone acrylic paint.

White acrylic paint.

* + - * 1. Wood Veneer Frame finish: Wood veneer-wrapped craftsman bronze aluminum screen frame, with concealed corner keys and minimum of two visible sides.

\*\* NOTE TO SPECIFIER \*\* Select one of the following finish paragraphs. Delete the paragraphs not required.

Pine.

Maple.

* + 1. Vinyl Clad Wood Casement Windows: ProShield Series as manufactured by Weather Shield Mfg., Inc. of Medford, Wisconsin.
       1. Performance:
          1. AAMA/WDMA/CSA 101/I.S.2/A440-05 and ANSI/AAMA/NWWDA 101/I.S.2-97:

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

Rating: C-C-45; twin window maximum size 35-1/2inches by 77-1/2 inches (902 mm by 1969 mm).

Rating: C-C50; twin window direct-set stacked above maximum size 35-1/2 inches by 71-1/2 inches (902 mm by 1816 mm).

Rating: C-C55; twin window maximum size 35-1/2 inches by 77-1/2 inches (902 mm by 1969 mm).

* + - * 1. Air infiltration shall not exceed 0.30 cfm/ft2 (1.5 L/sm2) when tested at 1.57 psf (75 Pa) according to ASTM E 283.
        2. No water penetration when tested at the following pressure according to ASTM E 547:

C-R45 - 6.75 psf (323 Pa).

C-R50 - 7.50 psf (359 Pa).

C-R60 - 9.00 psf (431 Pa).

* + - * 1. Positive/negative structural test pressure without damage when tested according to ASTM E 330:

C-R45 - plus 67.5/ minus 67.5 psf (plus 3232/ minus 3232 Pa).

C-R50 - plus 75.0/ minus 7 5.0 psf (plus 3591/ minus 3591 Pa).

C-R60 - plus 90.0/ minus 90.0 psf (plus 4309/ minus 4309 Pa).

* + - * 1. Pass a forced entry resistance test of at least Level 10 to meet requirements set forth in ASTM F 588.
      1. Frame: Solid one-piece jambs, free from nails, screws or applied sash stops.
         1. Frame corners shall be miter cut, fusion welded and cleaned.
         2. Frame thickness: 1-1/4 inch (32 mm).
         3. Wood sill operator cover shall be chemically fastened to sill.
         4. Frame shall have standard jamb depth of 4-9/16 inch (116 mm).
         5. Jamb Extensions: Provide with jamb extensions up to and including 12 inch (305 mm) overall jamb depth.

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

Provide factory applied (standard).

Provide shipped loose.

Jamb extensions match interior frame finish.

* + - 1. Sash:
         1. Sash corners shall be miter cut, fusion welded and cleaned.
         2. Sash shall be 1-3/16 inch (30 mm) thick.
         3. Hardwood stile reinforcements are standard on units over 48 inches (1219 mm) rough opening height; optional on units up to and including 48 inch (1219 mm) rough opening height.
      2. Hardware:
         1. Operator shall be hardened steel drive worm, hinged gear arms, factory applied, and located on the sill of the window:

\*\* NOTE TO SPECIFIER \*\* Select one of the following case/handle paragraphs. Delete the paragraphs not required.

High pressure zinc die-cast case/handles:

\*\* NOTE TO SPECIFIER \*\* Select one of the following type and finish paragraphs. Folding handle is standard. Goldtone is standard. Delete the paragraphs not required.

Folding handle (standard).

Round handle.

T-handle.

ADA crank handle.

High pressure zinc die-cast case/handle finish:

Goldtone (standard).

White.

Corrosive Resistant for salt spray environments:

Goldtone.

White.

* + - * 1. Locks: manual lever. Zinc die-cast sequential locks with one, two or three pins to ensure sash alignment, pull the sash into a locked position.

\*\* NOTE TO SPECIFIER \*\* Select one of the following sash lock material and finish paragraphs. Goldtone is standard. Delete the paragraphs not required.

High pressure zinc die-cast sash lock finish:

Goldtone (standard).

White.

\*\* NOTE TO SPECIFIER \*\* Select one of the following hinge paragraphs. Delete the paragraph not required.

* + - * 1. Steel Hinges: Two concealed corrosion resistant steel adjustable hinges with stainless steel track, steel support arms, stainless steel reinforcing insert in low-friction sliding shoe.
        2. Stainless Steel Hinges: Two concealed stainless steel adjustable hinges shall consist of a stainless steel track, steel support arms and stainless steel reinforcing insert in low-friction sliding shoe.
      1. Weather Stripping:
         1. Flexible vinyl bulb weather strip at operator cover, exterior head and side jambs. Color shall match exterior frame finish.
         2. White pile weather strip with Mylar fin applied around perimeter of sash at exterior.
      2. Screens:
         1. Screen consists of .020 inch (0.5 mm) thick formed aluminum frames with baked-on acrylic coating or anodized finish, injection molded vinyl corner keys.

\*\* NOTE TO SPECIFIER \*\* NOTE TO SPECIFIER \*\* Select one of the following three paragraphs. Delete the paragraph not required. Fiberglass mesh is standard.

Mesh type/color: 18 x 16 mesh charcoal fiberglass.

Mesh type/color: 20 x 20 mesh charcoal fiberglass.

Mesh type/color: 18 x 16 mesh black aluminum non-glare.

\*\* NOTE TO SPECIFIER \*\* Select one of the following frame finish paragraphs. Delete the paragraph not required.

* + - * 1. Frame finish: coordinates with case/handle hardware.

\*\* NOTE TO SPECIFIER \*\* Select one of the following finish paragraphs. Delete the paragraphs not required.

Goldtone acrylic paint.

White acrylic paint.

* + - * 1. Wood Veneer Frame finish: Wood veneer-wrapped craftsman bronze aluminum screen frame, with concealed corner keys and minimum of two visible sides.

\*\* NOTE TO SPECIFIER \*\* Select one of the following finish paragraphs. Delete the paragraphs not required.

Pine.

Maple.

* + 1. Vinyl Clad Wood Direct Set Circle Top Windows, ProShield Series as manufactured by Weather Shield Mfg., Inc. of Medford, Wisconsin.
       1. Performance:
          1. ANSI/AAMA/NWWDA 101/I.S. 2-97:

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

Rating: F-C55; maximum jamb size 95-1/2 inches by 71-1/2 inches (2426 mm by 1816 mm).

Rating: F-LC65; maximum jamb size 59-1/2 inches by 59-1/2 inches (1511 mm by 1511 mm).

* + - * 1. Air infiltration shall not exceed 0.30 cfm/ft2 (1.5 L/sm2) at 1.57 psf (75 Pa) when tested according to ASTM E 283.
        2. No water penetration when tested at the following pressure according to ASTM E 547:

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

Rating: F-C55; 8.25 psf (395 Pa).

Rating: F-FR65; 9.75 psf (467 Pa).

* + - * 1. Positive/negative structural test pressure without damage when tested according to ASTM E 330:

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

F-C55; plus 82.5/minus 82.5 psf (plus 3950/minus 3950 Pa).

F-R655; plus 97.5/minus 97.5 psf (plus 4668/minus 4668 Pa).

* + - * 1. Pass a forced entry resistance test of at least Level 10 to meet requirements set forth in ASTM F 588.
      1. Frame: Includes arched jamb shall be laminated one-piece wood and sill shall be solid one-piece wood free from screws.
         1. Frame corners shall be miter cut, fusion welded and cleaned.
         2. Frame thickness shall be 1-3/16 inch (30 mm).
         3. Frame shall have standard jamb depth of 4-9/16 inch (116 mm).

\*\* NOTE TO SPECIFIER \*\* Select the following optional paragraph as required. Pine is standard. Delete if not required.

* + - * 1. Jamb Extensions: Provide with jamb extensions up to and including 12 inch (305 mm) overall jamb depth.

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

Provide factory applied (standard).

Provide shipped loose.

Jamb extensions match interior frame finish (with the exception of knotty pine).

* + 1. Vinyl Clad Wood Direct Set Windows, ProShield Series as manufactured by Weather Shield Mfg., Inc. of Medford, Wisconsin.
       1. Performance:
          1. ANSI/AAMA/NWWDA 101/I.S. 2-97:

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

Rating: F-C55; maximum jamb size 71-1/2 inches by 95-1/2 inches (1816 mm by 2426 mm).

Rating: F-RC65; maximum jamb size 59-1/2 inches by 59-1/2 inches (1511 mm by 1511 mm).

* + - * 1. Air infiltration shall not exceed 0.30 cfm/ft2 (1.5 L/sm2) at 1.57 psf (75 Pa) when tested according to ASTM E 283.
        2. No water penetration when tested at the following pressure according to ASTM E 547:

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

Rating: F-C55; 8.25 psf (395 Pa).

Rating: F-FR65; 9.75 psf (467 Pa).

* + - * 1. Positive/negative structural test pressure without damage when tested according to ASTM E 330:

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

F-C55; plus 82.5/minus 82.5 psf (plus 3950/minus 3950 Pa).

F-R655; plus 97.5/minus 97.5 psf (plus 4668/minus 4668 Pa).

* + - * 1. Pass a forced entry resistance test of at least Level 10 to meet requirements set forth in ASTM F 588.
      1. Frame: Includes arched jamb shall be laminated one-piece wood and sill shall be solid one-piece wood free from screws.
         1. Frame corners shall be miter cut, fusion welded and cleaned.
         2. Frame thickness shall be 1-3/16 inch (30 mm).
         3. Frame shall have standard jamb depth of 4-9/16 inch (116 mm).

\*\* NOTE TO SPECIFIER \*\* Select the following optional paragraph as required. Pine is standard. Delete if not required.

* + - * 1. Jamb Extensions: Provide with jamb extensions up to and including 12 inch (305 mm) overall jamb depth.

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

Provide factory applied (standard).

Provide shipped loose.

Jamb extensions match interior frame finish (with the exception of knotty pine).

* + 1. Vinyl Clad Wood Double Slider Windows: ProShield Series as manufactured by Weather Shield Mfg., Inc. of Medford, Wisconsin.
       1. Performance:
          1. AAMA/WDMA/CSA 101/I.S.2/A440-05 and ANSI/AAMA/NWWDA 101/I.S.2-97:

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

Rating: HS-R20; maximum size 72 inches by 60 inches (1829 mm by 1524 mm).

Rating: HS-R35; maximum size 54 inches by 42 inches (1372 mm by 1067 mm).

* + - * 1. Air infiltration shall not exceed 0.30 cfm/ft2 (1.5 L/sm2) when tested at 1.57 psf (75 Pa) according to ASTM E 283.
        2. No water penetration when tested at the following pressure according to ASTM E 547:

HS-R15 - 2.86 psf (137 Pa).

HS-R40 - 6.00 psf (287 Pa).

* + - * 1. Positive/negative structural test pressure without damage when tested according to ASTM E 330:

HS-R15 - plus 22.5/ minus 22.5 psf (plus 1077/ minus 1077 Pa).

HS-R40 - plus 60.0/ minus 60.0 psf (plus 2873/ minus 2873 Pa).

* + - * 1. Pass a forced entry resistance test of at least Level 10 to meet requirements set forth in ASTM F 588.
      1. Frame: Solid one-piece jambs, free from nails, screws or applied sash stops.
         1. Frame corners shall be miter cut, fusion welded and cleaned.
         2. Frame thickness: 5/8 inch (16 mm) head and side jambs and 0.070 inch (1.7 mm) sloped vinyl sill track.
         3. Wood sill operator cover shall be chemically fastened to sill.
         4. Frame shall have standard jamb depth of 4-9/16 inch (116 mm).

\*\* NOTE TO SPECIFIER \*\* Select the following optional paragraph as required. Pine is standard. Delete if not required.

* + - * 1. Jamb Extensions: Provide with jamb extensions up to and including 12 inch (305 mm) overall jamb depth.

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

Provide factory applied (standard).

Provide shipped loose.

Jamb extensions match interior frame finish.

* + - 1. Sash:
         1. Sash corners shall be miter cut, fusion welded and cleaned.
         2. Sash shall be 1-3/16 inch (30 mm) thick.
         3. Active sash removable from the inside for cleaning purposes without removal of screens.
         4. Continuous wood finger pull at active meeting stile.
      2. Hardware:
         1. Lock: Zinc die-cast sash lock surface mounted mechanically, factory applied at meeting stiles.

\*\* NOTE TO SPECIFIER \*\* Select one of the following sash lock material and finish paragraphs. Goldtone is standard. Delete the paragraphs not required.

High pressure zinc die-cast sash lock finish:

Goldtone (standard).

White.

* + - 1. Weather Stripping:
         1. White pile weather strip with center fin including:

Four rows at vinyl head track.

Two rows at side jamb parting stops.

One row along full length of exterior sill track.

One row along full length of interior sill track.

One row along full length of sill filler.

One row at meeting stiles.

* + - * 1. Vinyl double bulb weather strip including:

One row at meeting stiles.

One bulb weather strip at the end rails of each sash.

\*\* NOTE TO SPECIFIER \*\* Select one of the following three color paragraphs. Delete the paragraphs not required.

Color: white on white units.

Color: Tan on tan units.

Color: Cameo on cameo units.

* + - 1. Screens:
         1. Screen consists of .019 inch (0.5 mm) thick formed aluminum frames with baked-on acrylic coating or anodized finish, injection molded vinyl corner keys.

\*\* NOTE TO SPECIFIER \*\* NOTE TO SPECIFIER \*\* Select one of the following three paragraphs. Delete the paragraph not required. Fiberglass mesh is standard.

Mesh type/color: 18 x 16 mesh charcoal fiberglass.

Mesh type/color: 20 x 20 mesh charcoal fiberglass.

Mesh type/color: 18 x 16 mesh black aluminum non-glare.

* + - * 1. Frame finish: coordinates with exterior frame finish.
      1. Combination Storm/Screen:
         1. Consisting of an extruded aluminum master frame, .053 inch (1.3 mm) thickness, containing a stationary storm panel above a stationary screen panel and an operating storm panel in the interior track.
         2. Storm panels shall be 3/32 inch (2.3 mm) thick glass with extruded aluminum perimeter edging with baked-on acrylic coating.
         3. Half screen consisting of .019 inch (0.5 mm) thick formed aluminum frame with baked-on acrylic coating, injection molded vinyl corner keys.

\*\* NOTE TO SPECIFIER \*\* NOTE TO SPECIFIER \*\* Select one of the following three paragraphs. Delete the paragraph not required. Fiberglass mesh is standard.

Mesh type/color: 18 x 16 mesh charcoal fiberglass.

Mesh type/color: 20 x 20 mesh charcoal fiberglass.

Mesh type/color: 18 x 16 mesh black aluminum non-glare.

* + - * 1. Frame finish: matches exterior frame/sash.

\*\* NOTE TO SPECIFIER \*\* Select the window materials and finishes required from the following paragraphs. Delete the paragraphs not required.

* 1. WINDOW MATERlALS
     1. Wood Frame Materials:
        1. Exterior frame members pine, kiln dried to a moisture content of 6-12 percent at the time of fabrication and treated with a water-repellent preservative.
        2. Exterior frame clad with .079 inch (2 mm) thick extruded unplasticized polyvinylchloride. Frame extrusion shall be designed to include no less than three individual chambers.
        3. Interior frame materials: Kiln dried to a moisture content of 6-12 percent at the time of fabrication and treated with a water-repellent preservative. Milled from:

\*\* NOTE TO SPECIFIER \*\* Select one of the following paragraphs. Pine is standard. Delete the paragraphs not required.

* + - * 1. Pine (standard).
        2. Ash.
        3. Maple.
    1. Wood Sash Materials:
       1. Exterior sash shall be composed of two materials, an extruded unplasticized polyvinylchloride exterior of .067 inch (1.7 mm) thickness bonded to the interior wood substrate. Exterior sash corners shall be miter cut, fusion welded and cleaned. Extruded exterior to form a tubular design with an integral weep system preventing water buildup from deteriorating the interior wood substrate.
       2. Interior sash materials to be kiln dried to a moisture content of 6-12 percent at the time of fabrication and treated with a water-repellent preservative. Interior sash corners shall be square cut, siliconed and snap fit into the exterior vinyl sash. Sash extrusion shall be designed to include no less than two individual chambers. Milled from:

\*\* NOTE TO SPECIFIER \*\* Select one of the following paragraphs. Pine is standard. Delete the paragraphs not required.

* + - * 1. Pine (standard).
        2. Ash.
        3. Maple.
    1. Frame and Sash Finish:
       1. Exterior vinyl finish:
          1. Colors:

\*\* NOTE TO SPECIFIER \*\* Select one of the following paragraphs. Delete the paragraphs not required. Designer colors are available in 47 designer colors.

White.

Cameo.

Tan.

* + - 1. Interior finish:
         1. Clear treated wood, no prime.
         2. Primed.
         3. Prefinished with low gloss, two-component acrylic polyurethane:

White.

* + 1. Glazing: Select quality complying with ASTM C 1036. Insulating glass IGCC certified to performance level CBA when tested in accordance with ASTM E 2190.
       1. Glazing Method:

\*\* NOTE TO SPECIFIER \*\* Select one of the following paragraphs. Delete the paragraph not required. Insulating glass is standard. Note that triple layered glass is available only on limited products based on type, size etc. Contact manufacturer for availability.

* + - * 1. Single glazed consisting of one lite of clear annealed glass.
        2. Insulated glass consisting of two lites of clear annealed glass.
        3. Triple insulated glass consisting of three lites of clear annealed glass.
      1. Glass type:

\*\* NOTE TO SPECIFIER \*\* Select one of the following paragraphs. Delete the paragraph not required. Clear glass is standard

* + - * 1. Clear (standard).
        2. Clear tempered glass.
        3. Clear laminated glass.
        4. Low E2 coating: applied to number two surface (available on insulated units only).
        5. Insulated glass airspace as follows:

\*\* NOTE TO SPECIFIER \*\* Select one of the following paragraphs. Delete the paragraph not required.

Air (standard).

Argon gas.

Krypton/argon gas.

Altitude adjusted (not available with argon or krypton/argon gases).

* + - * 1. Zo-e-shield 5: insulated glass consisting of one lite of multi-layered Low E3 coating applied to the number two surface, EasyCare coating applied on number one surface and one lite of clear annealed glass with warm-edge spacer system and argon gas in airspace.
        2. Zo-e-shield 6: insulated glass consisting of one lite of multi-layered Low E3 coating applied to the number two surface, EasyCare coating applied on number one surface and one lite of laminated glass with .030 inch polyvinyl butyral interlayer with warm-edge spacer system and argon gas in airspace.

\*\* NOTE TO SPECIFIER \*\* Note that triple layered glass is available only on limited products based on type, size etc. Contact manufacturer for availability..

* + - * 1. Zo-e-shield 7: triple insulated glass consisting of one lite of multi-layered Low E3 coating applied to the number two surface, EasyCare coatings applied on number one surface, one surface of Low E2 coating applied to the number five surface of annealed glass and one center lite of clear annealed glass with warm-edge spacer system and krypton/argon gas in two airspaces
        2. Specialty glass:

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

Obscure.

Bronze.

Gray.

As selected by the Architect.

* + - 1. One lite insulated glass shall be sealed with an advanced warm-edge spacer system with integrated edge seal and foil laminate moisture vapor barrier. Spacer shall be:

\*\* NOTE TO SPECIFIER \*\* Select one of the following paragraphs. Delete the paragraphs not required. Gray warm-edge is standard.

* + - * 1. Gray warm-edge.
        2. Charcoal warm edge.
      1. Glass shall be siliconed at sash exterior to allow reglazing from the interior with wood glazing bead.

\*\* NOTE TO SPECIFIER \*\* Select the optional grills/divided lites as required from the following three paragraphs. Delete the paragraphs not required.

* + 1. Interior Removable Grilles:
       1. Pattern:

\*\* NOTE TO SPECIFIER \*\* Select one of the following paragraphs. Delete the paragraphs not required. Lite cut for custom configurations subject to approval of Weather Shield.

* + - * 1. Rectangular.
        2. Custom configuration as indicated on the Drawings.
      1. Full perimeter wood grilles with no exposed fastening devices:
         1. Size: 7/8 inch (22 mm) colonial.
      2. Wood Species:

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

* + - * 1. Pine.
        2. Ash.
        3. Maple.
        4. Primed.
        5. Prefinished white.
      1. Finish:

\*\* NOTE TO SPECIFIER \*\* Select one of the following paragraphs. Delete the paragraph not required.

* + - * 1. Primed.
        2. Prefinished.
    1. Airspace Grilles: Aluminum in sealed airspace:
       1. Pattern:

\*\* NOTE TO SPECIFIER \*\* Select one of the following paragraphs. Delete the paragraphs not required. Lite cut for custom configurations subject to approval of Weather Shield.

* + - * 1. Rectangular.
        2. Diamond (5/8 inch (16 mm) flat only).
        3. Custom configuration as indicated on the Drawings.

\*\* NOTE TO SPECIFIER \*\* Select one of the following grill paragraphs. Delete the paragraphs not required.

* + - 1. Prefinished grilles in sealed airspace, prefinished single color:

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

* + - * 1. Size: 5/8 inch (16 mm) flat.
        2. Size: 11/16 inch (17 mm) sculptured.
        3. Size: 15/16 inch (24 mm) sculptured.
        4. Finish: Prefinished single color:

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

White.

Cameo.

Tan.

* + - 1. Aluminum grilles in sealed airspace, prefinished two-tone color:

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

* + - * 1. Size: 5/8 inch (16 mm) flat.
        2. Size: 11/16 inch (17 mm) sculptured.
        3. Finish: Prefinished two color tone:

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

White/tan interior.

Cameo/white interior.

Tan/white interior.

* + 1. Simulated Divided Lites: Exterior and interior wood muntins adhered to glass with double-coated acrylic foam tape.
       1. Profile:
          1. Size: 5/8 inch (16 mm).
          2. Size: 7/8 inch (22 mm).
       2. Adobe anodized aluminum grilles in sealed airspace.
       3. Pattern:

\*\* NOTE TO SPECIFIER \*\* Select one of the following paragraphs. Delete the paragraph not required. Lite cut for custom configurations subject to approval of Weather Shield.

* + - * 1. Rectangular.
        2. Marginal.
        3. Custom configuration as indicated on the Drawings.
      1. Finish: Finish to match exterior/interior sash finish.

\*\* NOTE TO SPECIFIER \*\* Select the Accessories and Trim required from the following paragraphs. Delete the paragraphs not required.

* + 1. Accessories and Trim
       1. Interior Installation Clips:

\*\* NOTE TO SPECIFIER \*\* Select one of the following paragraphs. Delete the paragraph not required.

* + - * 1. Provide clips shipped loose (standard).
        2. Provide clips factory applied.

\*\* NOTE TO SPECIFIER \*\* Select one of the following paragraphs. Delete the paragraph not required.

* + - * 1. Size: 5-1/2 inch (140 mm).
        2. Size: 11 inch (279 mm).
      1. Exterior Vinyl Casings: Color to match exterior frame.

\*\* NOTE TO SPECIFIER \*\* Select one of the following paragraphs. Delete the paragraph not required.

* + - * 1. Provide factory applied (standard).
        2. Provide shipped loose.

\*\* NOTE TO SPECIFIER \*\* Select one or more of the following size/type paragraphs. Delete the paragraphs not required. Custom profile subject to approval of Weather Shield.

* + - * 1. Size/Type: 1-1/4 inch (32 mm) brick mould with integral J-channel (standard).
        2. Size/Type: 7/8 inch (22 mm) J-channel.
      1. Interior Trim Styles:

\*\* NOTE TO SPECIFIER \*\* Select one of the following size/type paragraphs. Delete the paragraphs not required.

* + - * 1. B - 5/8 inch by 2-7/16 inch (16 mm by 62 mm).
        2. C - 5/8 inch by 2-1/4 inch (16 mm by 57 mm).
        3. D - 1/2 inch by 2-1/4 inch (13 mm by 57 mm).
        4. E - 11/16 inch by 3-1/2 inch (17 mm by 89 mm).
        5. F - 11/16 inch by 2-1/4 inch (17 mm by 57 mm).
        6. G - 3/4 inch by 3-7/16 inch (19 mm by 87 mm).
        7. H - 1-1/16 inch by 3-1/2 inch (27 mm by 89 mm).
        8. I - 5/8 inch by 2-1/4 inch (16 mm by 57 mm).
        9. J - 11/16 inch by 2-7/16 inch (17 mm by 62 mm).
        10. K - 1-3/16 inch by 3-7/16 inch (30 mm by 87 mm).
        11. L - 1-1/16 inch by 3-1/2 inch (27 mm by 89 mm).
        12. Wood species:

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

Pine.

Ash.

Maple.

\*\* NOTE TO SPECIFIER \*\* Select one of the following finish paragraphs. Delete the paragraph not required.

* + - * 1. Finish: Primed.
        2. Finish: Prefinished to match frame.
      1. Wood Rosettes:

\*\* NOTE TO SPECIFIER \*\* Select one of the following size paragraphs. Delete the paragraph not required.

* + - * 1. Size: 2-1/2 inch by 2-1/2 inch (64 mm by 64 mm).
        2. Size: 3-5/8 inch by 3-5/8 inch (92mm by 92 mm).
        3. Wood species:

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

Pine.

Ash.

Maple.

\*\* NOTE TO SPECIFIER \*\* Select one of the following finish paragraphs. Delete the paragraph not required.

* + - * 1. Finish: Primed.
        2. Finish: Prefinished to match frame.

1. EXECUTION
   1. EXAMINATION
      1. Do not begin installation until substrates have been properly prepared.
      2. If substrate preparation is the responsibility of another installer, 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 in accordance with manufacturer's instructions.
      2. Install window unit plumb, level and square with no distortion of frame members.
      3. Fill perimeter frame to wall opening cavity with batt insulation. Do not use expansive foam insulation.
      4. Apply approved sealant in accordance with Section 07 90 00 - Joint Protection
      5. Do not puncture prefinished exterior surfaces. Refer to installation instructions for complete installation recommendations.
   4. ADJUSTING AND CLEANING
      1. Adjust operating sash and hardware to provide tight fit at contact points and at the weather stripping for smooth operation.

\*\* NOTE TO SPECIFIER \*\* Select the following paragraph for doors and delete if not required.

* + 1. After installation adjust door units for proper operation, without binding, sticking, or racking.
    2. Remove excess sealant materials and visible labels from glass. Clean glass surfaces promptly after installation.
    3. Initiate and maintain all protection and other precautions required to ensure windows are in acceptable condition at time of substantial completion.
  1. PROTECTION
     1. Protect installed products until completion of project.
     2. Touch-up, repair or replace damaged products before Substantial Completion.
  2. SCHEDULES

\*\* NOTE TO SPECIFIER \*\* Retain Paragraph below if required to suit project requirements. Identify products by name on the Drawings or use this paragraph to define the location of each type of material to be used. The following are some examples of schedule references. Edit as required to suit project or delete and identify products on the Drawings.

* + 1. North Elevation:
       1. Opening No. W1: Size 36 by 60 inch (900 by 1 520 mm) ProShield Series Vinyl Clad Wood Casement Windows.
    2. East Elevation:
       1. Opening No. W10: Size 36 by 60 inch (900 by 1 520 mm) ProShield Series Vinyl Clad Wood Awning Windows.

END OF SECTION