SECTION 08555

ALUMINUM-CLAD WOOD WINDOWS AND PATIO DOORS

JELD-WEN Custom Epic Series

Display hidden notes to specifier. (Don't know how? [Click Here](http://www.arcat.com/sd/display_hidden_notes.shtml))

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\*\* NOTE TO SPECIFIER \*\* JELD-WEN, Inc.; aluminum-clad-wood windows and patio doors.  
This section is based on the products of JELD-WEN, Inc., which is located at:  
2645 Silver Crescent Dr. Suite 400  
Charlotte, NC 28273   
Toll Free Tel: 800-535-3936  
Tel: 541-850-2606  
Fax: 541-851-4333  
Email: [request info (Architectural\_Inquiries@jeld-wen.com)](http://admin.arcat.com/users.pl?action=UserEmail&company=JELD-WEN,+Inc.&coid=33445&rep=&fax=541-851-4333&message=RE:%20Spec%20Question%20(08555jwe):%20%20&mf=)  
Web: [www.jeld-wen.com](http://www.jeld-wen.com)   
 [ [Click Here](http://www.arcat.com/arcatcos/cos33/arc33445.html) ] for additional information.  
As a JELD-WEN customer, you can count on us to provide reliable products and service. We are a comprehensive source for dependable wood, vinyl and aluminum windows; wood and wood composite interior doors; and wood, steel, engineered wood and fiberglass exterior doors.

1. GENERAL
   1. SECTION INCLUDES

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

* + 1. Wood Windows and Patio Doors: (Custom Epic Series)
       1. Awning windows
       2. Casement
       3. Double-hung windows.
       4. Fixed Double-hung windows.
       5. Fixed Casement windows.
       6. Insash Casement/Awning Radius and geometric windows.
       7. In-swing patio doors.
       8. Out-swing patio doors.
  1. REFERENCES

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

* + 1. Window and Door Manufacturers Association (WDMA):
    2. AAMA/WDMA/CSA 101/I.S.2/A440 North American Fenestration Standard / Specification for windows, doors, and skylights (NAFS)ASTM International (ASTM):

\*\* NOTE TO SPECIFIER \*\* In applications where hurricane resistance is not required, Delete ASTM E 1886 and E 1996 references.

* + - 1. ASTM E 1886 - 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.
      2. ASTM E 1996 - Standard Specification for Performance of Exterior Windows, Curtain Walls, Doors and Impact Protective Systems Impacted by Windborne Debris in Hurricanes.
    1. National Fenestration Rating Council (NFRC):
       1. NFRC 100 - Procedure for Determining Fenestration Thermal Properties.
       2. NFRC 200 - Solar Heat Gain Coefficient and Visible Transmittance.

\*\* NOTE TO SPECIFIER \*\* Delete Florida TAS information if project is not within the high velocity hurricane zone.

* + 1. South Florida Building Code Impact Test Procedures (Miami-Dade TAS):
       1. TAS 201 - Impact Test Procedures.
       2. TAS 202 - Criteria for testing Impact and Non-Impact Resistant Building Envelope Components using Uniform Static Air Pressure.
       3. TAS 203 - Criteria for testing Products Subject to Cyclic Wind Pressure Loading.
    2. Window and Door Manufacturers Association (WDMA): WDMA I.S.4; Water Repellent Preservative Non-Pressure treatment for Millwork
  1. SUBMITTALS
     1. Submit under provisions of Section 01300.
     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: Submit shop drawings indicating details of construction, flashings and relationship with adjacent construction.

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

* + 1. Selection Samples: For each factory-finished product specified, two complete sets of color chips representing manufacturer's full range of available finishes.
    2. Verification Samples: For each factory-finished product specified, two samples, minimum size 6 inches (150 mm) square, representing actual finishes.
    3. Quality Assurance Submittals:

\*\* NOTE TO SPECIFIER \*\* Delete Design Data, Test Reports submittal requirements when a propriety specification is used and can be held. Retain Design Data, Test Reports submittal requirement when other products may be submitted as substitution.

* + - 1. Design Data, Test Reports: Provide manufacturer test reports indicating product compliance with indicated requirements.
      2. WDMA Hallmark certification.
    1. Closeout Submittals: Refer to Section 01700 Closeout Submittals.
  1. QUALITY ASSURANCE
     1. Installer Qualifications: Minimum 2 years installing similar assemblies.
     2. Certifications: WDMA Hallmark certification label indicating assemblies meet the design requirements.

\*\* 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 installation techniques and workmanship.
       1. Mock-ups shall incorporate surrounding construction, including wall assembly fasteners, flashing, and other related accessories installed in accordance with manufacturer's approved installation methods.
       2. Do not proceed with remaining work until workmanship is approved by Architect.
       3. Modify mock-up as required to produce acceptable work.

\*\* NOTE TO SPECIFIER \*\* Delete one of the two following subparagraphs.

* + - 1. At Substantial Completion, approved mockups may become part of completed Work.
      2. Demolish mockups and remove from site.
    1. Pre-installation Meeting: Conduct pre-installation meeting on-site two weeks prior to commencement of installation.
  1. DELIVERY, STORAGE, AND HANDLING
     1. Deliver, store and handle materials and products in strict compliance with manufacturer's instructions and recommendations and industry standards.
     2. Deliver and store assembly materials and components in manufacturer's original, unopened, undamaged containers with identification labels intact. Protect from damage.
  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 recommended limits.
  3. WARRANTY
     1. Manufacturer's Standard Warranty: Assemblies will be free from defects in materials and workmanship from the date of Manufacture for the time periods indicated below:

\*\* NOTE TO SPECIFIER \*\* Delete options for products not required.

* + - 1. Patio Door Units: 20 years.
      2. Window Units: 20 years.
      3. Clad Finishes: 20 years against peeling, checking, cracking caulk or color change.
      4. Pine Wood Products: 20 years against wood decay and termites.

\*\* NOTE TO SPECIFIER \*\* Specialty glazing includes patterned and textured glass. Insulated glass that incorporates a specialty glass may be eligible for an extended warranty, but requires input from the manufacturer. Contact a JELD-WEN representative to discuss design options and their effect on the warranty. Delete options for products not required.

* + - 1. Glazing:
         1. Insulated Glass: 20 years against seal breakage.
         2. Laminated Glass: 5 years against delamination.
         3. Hurricane Glass: 5 years against delamination.
         4. Specialty Glazing: 5 years.

1. PRODUCTS
   1. MANUFACTURERS
      1. Acceptable Manufacturer: JELD-WEN, Inc., which is located at: 2645 Silver Crescent Dr. Suite 400; Charlotte, NC 28273 ; Toll Free Tel: 800-535-3936; Tel: 541-850-2606; Fax: 541-851-4333; Email: [request info (Architectural\_Inquiries@jeld-wen.com)](http://admin.arcat.com/users.pl?action=UserEmail&company=JELD-WEN,+Inc.&coid=33445&rep=&fax=541-851-4333&message=RE:%20Spec%20Question%20(08555jwe):%20%20&mf=); Web: [www.jeld-wen.com](http://www.jeld-wen.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 01600.
  1. ALUMINUM-CLAD WINDOWS AND PATIO DOORS - GENERAL
     1. Design Requirements:
        1. Compliance: Provide assemblies capable of complying with requirements indicated, based on testing manufacturer's patio doors that are representative of those specified.
        2. Test Size: In compliance with requirements of AAMA/WDMA/CSA 101/ I.S.2/A440.

\*\* NOTE TO SPECIFIER \*\* Include patio door design pressure (DP) ratings as part of the performance requirements. Required DP will vary dependent on project site, the location in the building and door size. Coordinate DP with the Structural Engineer. DP ratings and related patio door size and style are available at www.jeld-wen.com or by contacting a JELD-WEN representative. Insert value or refer to drawing information.

* + - 1. Structural Requirements: Provide assemblies complying with requirements indicated:
         1. Performance Class: As indicated on drawings.
         2. Performance Class: \_\_\_\_\_\_\_\_.
         3. Performance Grade: As indicated on drawings.
         4. Performance Grade: \_\_\_\_\_\_\_\_.

\*\* NOTE TO SPECIFIER \*\* Delete Impact Resistance requirement if products will not be used in a high velocity hurricane zone or will be used in conjunction with another type of approved hurricane protection device.

* + - 1. Impact (Windborne-Debris) Resistance:
         1. Provide windows capable of resisting impact from windborne debris, when tested in accordance with ASTM E 1886, ASTM E 1996.

\*\* NOTE TO SPECIFIER \*\* Notice of Authorization (NOA) from Miami-Dade Code Officials is type and size specific. Information is available at www.jeld-wen.com or by contacting a JELD-WEN representative.

* + - * 1. Provide windows that have been tested in accordance with TAS 201, TAS 202, and TAS 203.

\*\* NOTE TO SPECIFIER \*\* Include NFRC ratings as part of the performance requirements. NFRC ratings qualifying for the Energy Star program are based on the performance of whole assembly. Qualifying assemblies vary to fit the needs of different regions throughout the country. NFRC ratings and related JELD-WEN size and styles are available at www.jeld-wen.com or by contacting a JELD-WEN representative. Insert values or the phrase ' As scheduled and indicated on Drawings' as applicable.

* + - 1. NFRC Requirements: Provide assemblies complying with the following total window ratings:
         1. U-Factor: \_\_\_\_\_\_\_\_ in accordance with NFRC 100.
         2. Solar Heat Gain Coefficient (SHGC): \_\_\_\_\_\_\_\_ in accordance with NFRC 200.
         3. Visible Transmittance (VT): \_\_\_\_\_\_\_\_ in accordance with NFRC 200.
    1. Installation Accessories:

\*\* NOTE TO SPECIFIER \*\* Accessories compatible with windows, patio doors and required installation may be specified in this section or in related sections. Coordinate with related sections so as not to duplicate information.

* + - 1. Flashing: Refer to Section 07600 - Flashing and Sheet Metal.

\*\* NOTE TO SPECIFIER \*\* Insert product and manufacturer in blank below or delete line as applicable. Delete options for sealants not required.

* + - 1. Sealants: OSI Sealants by Henkel Corporation.
      2. Sealants: Refer to Section 07920 - Joint Sealants.
      3. Sealants: Manufacturer recommended sealants maintain watertight conditions.
    1. Materials:

\*\* NOTE TO SPECIFIER \*\* AuraLast® is a trademark preservative treatment by JELD-WEN and is distinguished from traditional preservation methods by its minimum treatment penetration of 92 percent.

* + - 1. Exterior Wood:
         1. Material: Western Pine, preservative treated with AuraLast by JELD-WEN, Inc. in accordance with WDMA I.S.4.
         2. Material: Mahogany
         3. Material: Vertical Grain Douglas Fir
         4. Material: Custom Species
      2. Interior Wood:

\*\* NOTE TO SPECIFIER \*\* Delete materials not required.

* + - * 1. Material: Standard, Western Pine.
        2. Material: Mahogany.
        3. Material: Vertical Grain Douglas Fir.
        4. Material: Custom Species
    1. Installation Accessories:

\*\* NOTE TO SPECIFIER \*\* Accessories compatible with windows, patio doors and required installation may be specified in this section or in related sections. Coordinate with related sections so as not to duplicate information.

* + - 1. Flashing: Refer to Section 07600 - Flashing and Sheet Metal.

\*\* NOTE TO SPECIFIER \*\* Insert product and manufacturer in blank below or delete line as applicable. Delete options for sealants not required.

* + - 1. Sealants: \_\_\_\_\_\_\_\_.
      2. Sealants: Refer to Section 07920 - Joint Sealants.
      3. Sealants: Provide manufacturer recommended sealants maintain watertight conditions.

\*\* NOTE TO SPECIFIER \*\* Interior wood is left unfinished for field finishing unless indicated otherwise. Delete options not required.

* + 1. Interior Finishes for windows:
       1. Finish: Standard, unfinished.
       2. Finish: Optional primed finish.
       3. Finish: Optional pre-finished paint.

\*\* NOTE TO SPECIFIER \*\* Delete color not required.

* + - * 1. Color: As selected by Architect.
        2. Color: Brilliant White.
        3. Color: Ivory.
        4. Color: Desert Sand.
      1. Finish: Optional pre-finished stain finish.

\*\* NOTE TO SPECIFIER \*\* Delete color not required.

* + - * 1. Color: As selected by Architect.
        2. Color: Cider.
        3. Color: Cordovan.
        4. Color: Fruitwood.
        5. Color: Walnut
        6. Color: Wheat.
      1. Finish: Optional pre-finished clear lacquer finish.
    1. Exterior Finishes for Windows:

\*\* NOTE TO SPECIFIER \*\* Delete finish not required.

* + - 1. AAMA 2605 PVDF Colors
         1. Color: As selected by Architect
         2. Color: Brilliant White
         3. Color: Desert Sand
         4. Color: Chestnut Bronze
         5. Color: Black Licorice
         6. Color: French Vanilla
         7. Color: Hartford Green
         8. Color: Mesa Red
         9. Color: Arctic Silver
         10. Color: Dark Chocolate
         11. Color: As selected by Architect
         12. Color: Hunter Green
         13. Color: Redwood
         14. Color: Heirloom White
         15. Color: Sage Brown
         16. Color: Smoke
         17. Color: Bone White
         18. Color: Cascade
         19. Color: Dark Buckskin
         20. Color: Ivory
         21. Color: Luxury Bronze
         22. Color: Mocha Cream
         23. Color: Sea Foam
         24. Color: Steele Gray
         25. Color: Luxury White
         26. Color: Luxury Champagne
         27. Color: Luxury Cambridge
         28. Color: Black Emerald
         29. Color: Capri Blue
         30. Color: Clover Mist
         31. Color: Light Buckskin
         32. Color: Dark Ivy
         33. Color: Deep Ivy
         34. Color: Deep Summer
         35. Color: Garnet
         36. Color: Haverstraw
         37. Color: Hudson Blue
         38. Color: Ivy
         39. Color: Liberty Blue
         40. Color: Mosaic Green
         41. Color: Pueblo Tan
         42. Color: Rosewood
         43. Color: Scarlet Haze
         44. Color: Teal
         45. Color: Wedgewood
         46. Color: Special Finish

\*\* NOTE TO SPECIFIER \*\* Prefinished sash only colors not available for windows. Delete if not required.

* + 1. Interior Finishes for Patio Doors:
       1. Color: Standard, unfinished.
       2. Color: Optional primed finish.
       3. Color: Optional pre-finished paint.

\*\* NOTE TO SPECIFIER \*\* Delete color not required.

* + - * 1. Color: As selected by Architect.
        2. Color: Brilliant White.
        3. Color: Ivory.
        4. Color: Desert Sand
      1. Color: Optional pre-finished stain finish.

\*\* NOTE TO SPECIFIER \*\* Delete color not required.

* + - * 1. Color: As selected by Architect.
        2. Color: Cider.
        3. Color: Cordovan.
        4. Color: Fruitwood.
        5. Color: Walnut
        6. Color: Wheat.
      1. Color: Optional pre-finished clear lacquer finish
    1. Exterior Finishes for Patio Doors:

\*\* NOTE TO SPECIFIER \*\* Delete finish not required.

* + - 1. AAMA 2605 PVDF Colors
         1. Color: As selected by Architect
         2. Color: Brilliant White
         3. Color: Desert Sand
         4. Color: Chestnut Bronze
         5. Color: Black Licorice
         6. Color: French Vanilla
         7. Color: Hartford Green
         8. Color: Mesa Red
         9. Color: Arctic Silver
         10. Color: Dark Chocolate
         11. Color: As selected by Architect
         12. Color: Hunter Green
         13. Color: Redwood
         14. Color: Heirloom White
         15. Color: Sage Brown
         16. Color: Smoke
         17. Color: Bone White
         18. Color: Cascade
         19. Color: Dark Buckskin
         20. Color: Ivory
         21. Color: Luxury Bronze
         22. Color: Mocha Cream
         23. Color: Sea Foam
         24. Color: Steele Gray
         25. Color: Luxury White
         26. Color: Luxury Champagne
         27. Color: Luxury Cambridge
         28. Color: Black Emerald
         29. Color: Capri Blue
         30. Color: Clover Mist
         31. Color: Light Buckskin
         32. Color: Dark Ivy
         33. Color: Deep Ivy
         34. Color: Deep Summer
         35. Color: Garnet
         36. Color: Haverstraw
         37. Color: Hudson Blue
         38. Color: Ivy
         39. Color: Liberty Blue
         40. Color: Mosaic Green
         41. Color: Pueblo Tan
         42. Color: Rosewood
         43. Color: Scarlet Haze
         44. Color: Teal
         45. Color: Wedgewood
         46. Color: Special Finish

\*\* NOTE TO SPECIFIER \*\* Prefinished sash only colors not available for windows. Delete if not required. Delete if not required. Also delete options in Part 1 and 3 of this section corresponding to products selected.

* 1. ALUMINUM-CLAD WINDOW ASSEMBLlES
     1. Basis of Design: Custom EPIC Series window assemblies as manufactured by JELD-WEN, Inc.
     2. Window Fabrication:
        1. Awning windows.
           1. Frame: Corner joints mechanically fastened.
           2. Sash: Corner joints mortised and tenoned, glued and nailed from interior.
           3. Glass: Mounted using silicone glazing compound on exterior, secured with interior applied profiled wood stops.

Glazing Bead: Traditional Beveled

Glazing Bead: Contemporary Square

* + - 1. Casement windows.
         1. Frame: Corner joints mechanically fastened.
         2. Sash: Corner joints mortised and tenoned, glued and nailed from interior.
         3. Glass: Mounted using silicone glazing compound on exterior, secured with interior applied profiled wood stops.

Glazing Bead: Traditional Beveled

Glazing Bead: Contemporary Square

* + - 1. Double-hung windows.
         1. Frame: Corner joints mechanically fastened.
         2. Sash: Corner joints mortised and tenoned, glued and nailed from interior.
         3. Glass: Mounted using silicone glazing compound on exterior, secured with interior applied profiled wood stops.

Glazing Bead: Traditional Beveled

Glazing Bead: Contemporary Square

* + - 1. Fixed Casement/Awning
         1. Frame: Corner joints mechanically fastened.
         2. Sash: Corner joints mortised and tenoned, glued and nailed from interior.
         3. Glass: Mounted using silicone glazing compound on exterior, secured with interior applied profiled wood stops.

Glazing Bead: Traditional Beveled

Glazing Bead: Contemporary Square

* + - 1. Fixed Double-Hung
         1. Frame: Corner joints mechanically fastened.
         2. Sash: Corner joints mortised and tenoned, glued and nailed from interior.
         3. Glass: Mounted using silicone glazing compound on exterior, secured with interior applied profiled wood stops.

Glazing Bead: Traditional Beveled

Glazing Bead: Contemporary Square

Glazing Bead: Flush

* + - 1. Insash Radius and geometric Casement/Awning windows.
         1. Frame: Corner joints mechanically fastened.
         2. Sash: Corner joints mortised and tenoned, glued and nailed from interior.
         3. Glass: Mounted using silicone glazing compound on exterior, secured with interior applied profiled wood stops.

Glazing Bead: Traditional Beveled

Glazing Bead: Contemporary Square

* + 1. Frames:
       1. Material: Select kiln-dried pine AuraLast treated wood.
       2. Casement, Awning and Picture Base Frame: 3-3/8 inch (85.7 mm)
       3. Double-Hung Window Base Frame: 5-9/16 inch (141 mm)
       4. Cladding: 0.050 inch (1.27mm) extruded aluminum
    2. Sash: Select kiln-dried pine AuraLast treated wood.

\*\* NOTE TO SPECIFIER \*\* Delete options for sashes corresponding to patio door types not required.

* + - 1. Cladding: 0.050 inch (1.27 mm)
      2. Sash Thickness:
         1. Double-Hung Windows: 1-3/4 inches (44 mm).
    1. Exterior Trim:

\*\* NOTE TO SPECIFIER \*\* Select optional casing when construction conditions or aesthetics require inclusion. Utilize the following trims for indicated applications: Brickmould with masonry veneers; Flat Casing for narrow, Adams Casing for medium aesthetic conditions. Delete casing not required.

* + - 1. As selected from Manufacturer's standard offering.
      2. Casing: Standard, Aluminum Brickmould, 1-3/8 inches (34.9 mm)
      3. Casing: Optional, Aluminum Flat Casing, 2-29/32 inches (73.8 mm)
      4. Casing: Optional, Aluminum Adams Casing, 2-29/32 inches (73.8mm)
      5. Casing: Optional, Aluminum Manchester Casing, 3-29/32 inches (99.2 mm)
      6. Casing: Optional, Aluminum Pendleton Casing, 3-1/2 inches (88.9 mm)

\*\* NOTE TO SPECIFIER \*\* Delete sills not required.

* + - 1. Sill Nosing: Standard, Sill Nose, 19/32 inch (15.1 mm)
      2. Sill Nosing: Optional Extended Sill Nose, 2-1/16 inch (52.4 mm)
      3. Extended Sill Horns
    1. Factory Applied Extension Jambs: Provide on four sides of frame interior 5/4 up to 7-1/2 inch (190.5 mm).
    2. Weatherstripping: Foam lined jamb liners forming a compression seal against sash stiles, dual durometer bulb seal between top and bottom rails of sash and frame, and bulb seal between top rail and header, and between sash meeting rails.

\*\* NOTE TO SPECIFIER \*\* In applications where both operable and non-operable casement or awning windows are desired, to maintain the aesthetic profile specify "stationary" awning or casement units.

* + 1. Window Hardware:
       1. Awning Windows:
          1. Hinges: Sliding steel reinforced nylon shoe in stainless steel track.
          2. Operator: Standard, Single pull scissor arm with track
          3. Operator: Optional, Dual pull scissor arm with bracket
          4. Operator/Hinge Color: Standard, Stainless Steel
          5. Color: Optional, Standard
          6. Handle Profile: Standard, Nesting Crank Handle
          7. Handle Profile: Optional, Round Handle

\*\* NOTE TO SPECIFIER \*\* Delete finish not required.

* + - * 1. Color: As selected by architect
        2. Color: Standard, Chestnut Bronze finish.
        3. Color: Standard, Desert Sand finish.
        4. Color: Standard, White finish.
        5. Color: Optional Antique Brass finish.
        6. Color: Optional Brushed Chrome finish.
        7. Color: Optional Polished Brass finish.
        8. Color: Optional Polished Chrome finish.
        9. Color: Optional Authentic Oil-Rubbed Bronze finish.
        10. Color: Optional Black Powder Coat finish.
        11. Color: Optional Satin Nickel finish.
      1. Casement Windows:
         1. Hinges: Sliding steel reinforced nylon shoe in stainless steel track.
         2. Hinges: Optional, Egress Hinge
         3. Operator: Standard, Single pull scissor arm with track
         4. Operator: Optional, Dual pull scissor arm with bracket
         5. Operator/Hinge Color: Standard, Stainless Steel
         6. Handle Profile: Standard, Nesting Crank Handle
         7. Handle Profile: Optional, Round Handle

\*\* NOTE TO SPECIFIER \*\* Delete finish not required.

* + - * 1. Color: As selected by architect
        2. Color: Standard, Chestnut Bronze finish.
        3. Color: Standard, Desert Sand finish.
        4. Color: Standard, White finish.
        5. Color: Optional Antique Brass finish.
        6. Color: Optional Brushed Chrome finish.
        7. Color: Optional Polished Brass finish.
        8. Color: Optional Polished Chrome finish.
        9. Color: Optional Authentic Oil-Rubbed Bronze finish.
        10. Color: Optional Black Powder Coat
        11. Color: Optional Satin Nickel finish.
      1. Double-Hung Windows:
         1. Balance: Compression type block and tackle.

\*\* NOTE TO SPECIFIER \*\* Delete locks not required.

* + - * 1. Lock: Standard, cam action.
        2. Lock: Optional keyed locks.
        3. Lock: Optional custodial locks.
        4. Lock: Optional interior sash lifts.
        5. Sash retainer: Recessed top and bottom

\*\* NOTE TO SPECIFIER \*\* Delete jamb liner color not required.

* + - * 1. Jamb Liner Color: Beige.
        2. Jamb Liner Color: White.

\*\* NOTE TO SPECIFIER \*\* Delete finish not required.

* + - * 1. Color: As selected by Architect
        2. Color: Standard, Chestnut Bronze finish.
        3. Color: Standard, Desert Sand finish.
        4. Color: Standard, White finish.
        5. Color: Optional Antique Brass finish.
        6. Color: Optional Brushed Chrome finish.
        7. Color: Optional Brushed Nickel finish.
        8. Color: Optional Polished Brass finish.
        9. Color: Optional Polished Chrome finish.
        10. Color: Optional Authentic Oil-Rubbed Bronze finish.
        11. Color: Optional Black Powder Coat finish.
        12. Color: Optional Satin Nickel finish.
      1. Fixed Windows: None

\*\* NOTE TO SPECIFIER \*\* Various types of glass are available. The most common types have been included here. Contact a JELD-WEN representative when other options are required. Reflective glare from glazing has been found to affect the beach nesting of turtles in coastal environments. Some governing authorities require the use of turtle glass which uses tinted glass to achieve an industry-approved, inside-to-outside visible light transmittance value of 45 percent or less (visible spectrum = 400 to 700 nanometers). Verify the requirements for turtle glass with local authorities in coastal environments. Laminated glass uses a vinyl interlayer to provide added security against impact, comfort with higher STC ratings and energy savings by blocking UV energy. Hurricane glass differs from laminated by a thicker vinyl interlayer. Specify hurricane glass over laminated when windborne debris impact resistance is required.

* + 1. Glazing for Windows:

\*\* NOTE TO SPECIFIER \*\* Delete options for strength not required.

* + - 1. Strength: Standard, tempered glass.
      2. Strength: Optional Hurricane Glass.
      3. Strength: Optional laminated glass.

\*\* NOTE TO SPECIFIER \*\* Delete options for glazing type and associated subparagraphs not required.

* + - 1. Glazing Type: Insulated glass.
         1. Description: Two panes of glass utilizing continuous roll formed stainless steel spacer and dual seal sealants.
         2. Overall Nominal Thickness: 3/4 inch (19 mm).

\*\* NOTE TO SPECIFIER \*\* Delete type not required.

* + - * 1. Glass Coating: Standard, Low-E 366.
        2. Glass Coating: Optional, Low-E.
        3. Glass Coating: Optional, Low-E 180.
        4. Glass Coating: Optional, Low-E EC.
        5. Glass Coating: Optional, Low-E EC 366.
        6. Glass Coating: As selected by Architect.
        7. Glass Protection: Plastic preserve film on interior and exterior of glass.

\*\* NOTE TO SPECIFIER \*\* Argon option is only available with Low E coating and cannot be used with capillary tubes. Delete air space gas not required. Installations at elevations above 4,000 feet Mean Sea Level require glazing known as High Altitude glazing with capillary tubes to equalize environmental stress.

* + - * 1. Air Space: Standard, Argon-filled airspace.
        2. Air Space: Optional air-filled airspace with capillary tubes.
      1. Glazing Type: Triple Glazing

\*\* NOTE TO SPECIFIER \*\* For annealed glass, fill in blank below with value between 1/8 inch (3 mm) and 1/4 inch (6.4 mm); for tempered glass, fill in blank below with value between 3/8 inch (9.5 mm) and 1/2 inch (12.7 mm) or insert the phrase ' As scheduled and indicated on Drawings'.

* + - * 1. Overall Nominal Thickness: 1-1/4 inch (31.75 mm).

\*\* NOTE TO SPECIFIER \*\* Delete type not required.

* + - * 1. Glass Coating: Standard, Low-E.
        2. Glass Coating: As selected by Architect.

\*\* NOTE TO SPECIFIER \*\* Delete if not required.

* + 1. Exterior Insect Screens:
       1. Material: Charcoal fiberglass screen cloth (18 by 16 mesh) set in painted roll formed aluminum frame.

\*\* NOTE TO SPECIFIER \*\* Delete frame color not required.

* + - 1. Frame Color: As selected by Architect.
      2. Frame Color: Black Licorice.
      3. Frame Color: Brilliant White.
      4. Frame Color: Chestnut Bronze.
      5. Frame Color: Desert Sand.
      6. Frame Color: French Vanilla.
      7. Frame Color: Hartford Green.
      8. Frame Color: Heirloom White.
      9. Frame Color: Hunter Green.
      10. Frame Color: Mesa Red.
      11. Frame Color: Redwood.
      12. Frame Color: Sage Brown.
      13. Frame Color: Smoke.
      14. Frame Color: Matched Custom Color.

\*\* NOTE TO SPECIFIER \*\* SDL and PDL Grilles are not available for textured glass. Grilles between the glass are not available on monolithic glass. Select grilles, profiles and widths based on the desired aesthetic appearance of the window. Delete if not required.

* + 1. Grilles:

\*\* NOTE TO SPECIFIER \*\* Delete types not required.

* + - 1. Type: Simulated Divided Lites (SDL).
         1. Exterior Muntins:

Material: Extruded aluminum permanently applied to exterior of insulating glass unit.

\*\* NOTE TO SPECIFIER \*\* Select profile based on desired aesthetics. Utilize bead stop for a flattened curve aesthetic and a putty profile for a deeper angular aesthetic. Delete profiles not required.

Profiles: Beaded profiles.

\*\* NOTE TO SPECIFIER \*\* Delete widths not required.

Beaded Profile Width: 5/8 inch (15.9 mm)

Beaded Profile Width: 7/8 inch (22 mm).

Beaded Profile Width: 1-1/8 inches (28.5 mm).

Beaded Profile Width: 1-3/8 inches (34.9 mm).

Profiles: Putty profiles.

\*\* NOTE TO SPECIFIER \*\* Delete widths not required.

Putty Profile Width: 5/8 inch (15.9 mm)

Putty Profile Width: 7/8 inch (22 mm).

Putty Profile Width: 1-1/8 inches (28.5 mm).

Pattern: As scheduled and indicated on Drawings.

\*\* NOTE TO SPECIFIER \*\* Delete finish not required.

Color: As selected by Architect.

Color: Brilliant White.

Color: Chestnut Brown.

Color: Desert Sand.

Color: French Vanilla.

Color: Hartford Green.

Color: Mesa Red.

Color: Arctic Silver

Color: Dark Chocolate

\*\* NOTE TO SPECIFIER \*\* Internal shadow bar will give the appearance of a true divided lite and is standard on all SDL units. Internal shadow bar may be deleted at the design professional's option. Delete internal shadow bar if not required.

* + - * 1. Internal Shadow Bar:

Standard, Light Bronze finish.

Optional Silver finish.

* + - * 1. Interior Spacer Bars:

Standard: Steel

Optional: Black

Optional: Grey

* + - * 1. Interior Muntins:

Material: Clear pine permanently bonded to interior of insulating glass unit.

Profile: Standard, Traditional Bar

Profile: Optional, High Profile Bead

* + - 1. Type: Full Surround Wood Grilles.
         1. Material: Unfinished clear pine.
         2. Profile: Modified OGEE.
         3. Pattern: As scheduled and indicated on Drawings.

\*\* NOTE TO SPECIFIER \*\* Delete size not required.

* + - * 1. Size: 7/8 inch (22 mm).
        2. Size: 1-1/8 inches (28.5 mm).
        3. Size: 1-3/8 inches (34.9 mm).
      1. Type: Grilles Between the Glass (GBG).
         1. Material: Made of roll formed aluminum suspended within the air cavity.

\*\* NOTE TO SPECIFIER \*\* Utilize flat for a narrow aesthetic and a contour profile for a wider aesthetic. Delete profile not required.

* + - * 1. Profile: Flat.

Flat Profile Width: Flat profile 5/8 inch (15.9 mm).

* + - * 1. Profile: Contour.

\*\* NOTE TO SPECIFIER \*\* Delete width not required.

Contour Profile Width: Contour profile, 23/32 inch (18.25 mm).

Contour Profile Width: Contour profile, 1 inch (25.4 mm).

* + - * 1. Pattern: As scheduled and indicated on Drawings.

\*\* NOTE TO SPECIFIER \*\* Delete finish not required.

* + - * 1. Color: As selected by Architect
        2. Color: Brilliant White.
        3. Color: Chestnut Brown.
        4. Color: Desert Sand.
        5. Color: French Vanilla.
        6. Color: Hartford Green.
        7. Color: Mesa Red.
        8. Color: Arctic Silver
        9. Color: Dark Chocolate.

\*\* NOTE TO SPECIFIER \*\* Delete if not required. Also delete options in Part 1 and 3 of this section corresponding to products selected.

* 1. ALUMINUM-CLAD PATIO DOOR ASSEMBLIES
     1. Basis of Design: Custom EPIC Series patio door assemblies as manufactured by JELD-WEN, Inc.

\*\* NOTE TO SPECIFIER \*\* Delete options for patio door type not required. Also delete options in the following paragraphs corresponding to patio door type selection, as described in the notes to specifier.

* + - 1. Patio Door Type: In-swing patio doors, wood construction
      2. Patio Door Type: Out-swing patio doors, wood construction.
      3. Patio Door Type: Types as scheduled and indicated on Drawings.
    1. Patio Door Fabrication:
       1. Frame: Top and bottom rails are solid pine veneer laminated to kiln dried edge-and-end-glued core. Stiles are same veneer laminated to Timberstrand core.
       2. Glass: Mounted using silicone glazing compound.
          1. Glazing Bead: Traditional Beveled
          2. Glazing Bead: Contemporary Square
          3. Glazing Bead: Flush
    2. Frames:
       1. Material: Select kiln-dried pine AuraLast treated wood.
       2. Jamb Width: 4-9/16 inches (116 mm).
       3. Cladding: 0.050 inch (1.27 mm) extruded aluminum.
    3. Swinging Door Panels:

\*\* NOTE TO SPECIFIER \*\* Number of panels per patio door unit varies by door size. Include number of panels under "Size" in Part 3 Schedule Article.

* + - 1. Material: Select kiln-dried pine AuraLast treated wood and Timberstrand engineered wood substrate.
      2. Cladding: 0.050 inch (1.27 mm) extruded aluminum.
      3. Thickness: 1-23/32 inch (43.7 mm).

\*\* NOTE TO SPECIFIER \*\* Delete options for layout corresponding to patio door types not required.

* + - 1. Layout: 6-5/8 inch (168.3 mm) top rail and stiles,
      2. Stiles:
         1. Wide: 6-5/8 inch (168.3 mm)
         2. Narrow: 4-5/8 inch (117.8 mm)
      3. Bottom Rail:
         1. 11 inch (279.4 mm).
         2. 11 inch with Craftsman Options (279.4 mm)
    1. Exterior Trim:

\*\* NOTE TO SPECIFIER \*\* Select optional casing when construction conditions or aesthetics require inclusion. Utilize the following trims for indicated applications: Brickmould with masonry veneers; Flat Casing for narrow, Adams Casing for medium aesthetic conditions. Delete casing not required.

* + - 1. As selected from Manufacturer's standard offering.
      2. Casing: Standard, Aluminum Brickmould, 1-3/8 inches (34.9 mm)
      3. Casing: Optional, Aluminum Flat Casing, 2-29/32 inches (73.8 mm)
      4. Casing: Optional, Aluminum Adams Casing, 2-29/32 inches (73.8mm)
      5. Casing: Optional, Aluminum Manchester Casing, 3-29/32 inches (99.2 mm)
      6. Casing: Optional, Aluminum Pendleton Casing, 3-1/2 inches (88.9 mm)
    1. Extension Jambs: Factory applied on three sides of frame interior, in wall depths up to 6-9/16 inch (166.7 mm).

\*\* NOTE TO SPECIFIER \*\* Delete options for weatherstripping corresponding to patio door types not required.

* + 1. Weatherstripping: Continuous dual foam filled bulb seal compressed between exterior of panel and three sides of frame. Manufacturer's standard two-piece adjustable astragal on double door units.
    2. Sills:
       1. Standard: 1/2 inch (12.7 mm) high, ADA accessible, dark bronze anodized aluminum with kick plate and integral door sweep at panel.
       2. Optional, No Sill

\*\* NOTE TO SPECIFIER \*\* Custom EPIC patio doors come standard with no handle set or bore.

* + 1. Hardware:
       1. Swinging Doors
          1. Hinges

Hinges: Standard, Ball Bearing Hinge.

Hinges: Optional, 4 1/2" Ball Bearing Hinges (Square Corners)

\*\* NOTE TO SPECIFIER \*\* Delete options for hinge finish not required.

Hinge Color: As selected by Architect

Hinge Color: Brushed Chrome.

Hinge Color: Polished Brass.

Hinge Color: Authentic Oil-Rubbed Bronze.

Hinge Color: Satin Nickel

\*\*NOTE TO SPECIFIER \*\* Delete options for Hardware not required

* + - * 1. Locks:

Locks: Standard, No Lock

Locks: Optional, 3 5/8 Lock & Deadbolt

Locks: Optional, 5 1/2 Lock & Deadbolt

* + - * 1. Handle Sets:

Handle Sets: Standard, No Handle

Handle Sets: Optional, Schlage Entry AL53P Saturn Lever

Handle Sets: Optional, Schlage Entry AL53P Neptune Lever

Handle Sets: Optional, Von Duprin 996L Rhodes w/Escutch & Lock (1 per act)

Handle Sets: Optional, Von Duprin 996L Sparta w/Escutch & Lock (1 per act)

Handle Sets: Optional, Donjo 4"x16" Pull Plate (No Cylinder Lock)

\*\* NOTE TO SPECIFIER \*\* Delete finishes not required.

Handle Set Color:

Handle Set Color: As Selected by Architect

Handle Set Color: Standard, Bronze finish.

Handle Set Color: Optional, Satin finish.

\*\* NOTE TO SPECIFIER \*\* Delete Exit Devices not required.

* + - * 1. Exit Device:

Exit Device: Standard, None

Exit Device: Optional, Von Duprin - Exit Device (1 per active panel)

Exit Device: Falcon - Exit Device w/Crossbar

\*\* NOTE TO SPECIFIER \*\* Delete Closer Options not required.

* + - * 1. Closer Option:

Closer Option: Standard, None

Closer Option: Optional, LCN1461 Closer - 1 per active panel

Closer Option Color: Standard, Powder Coat Dark Bronze finish

Closer Option Color: Optional, Powder Coat Aluminum

\*\* NOTE TO SPECIFIER \*\* Delete Kickplates not required.

* + - * 1. Kickplate

Kickplate: Standard, None

Kickplate: Optional, Donjo Interior Only

Kickplate: Optional, Donjo Exterior Only

Kickplate: Optional, Donjo Interior/Exterior Only

Kickplate Color: Authentic Oil Rubbed Bronze

Kickplate Color: Stainless Steel

\*\* NOTE TO SPECIFIER \*\* Various types of glass are available. The most common types have been included here. Contact a JELD-WEN representative when other options are required. Reflective glare from glazing has been found to affect the beach nesting of turtles in coastal environments. Some governing authorities require the use of turtle glass which uses tinted glass to achieve an industry-approved, inside-to-outside visible light transmittance value of 45 percent or less (visible spectrum = 400 to 700 nanometers). Verify the requirements for turtle glass with local authorities in coastal environments. Laminated glass uses a vinyl interlayer to provide added security against impact, comfort with higher STC ratings and energy savings by blocking UV energy. Hurricane glass differs from laminated by a thicker vinyl interlayer. Specify hurricane glass over laminated when windborne debris impact resistance is required.

* + 1. Glazing for Patio Doors:

\*\* NOTE TO SPECIFIER \*\* Delete options for strength not required.

* + - 1. Strength: Standard, tempered glass.
      2. Strength: Optional Hurricane Glass.
      3. Strength: Optional laminated glass.

\*\* NOTE TO SPECIFIER \*\* Delete options for glazing type and associated subparagraphs not required.

* + - 1. Glazing Type: Tempered Glass.
         1. Description: Two panes of glass utilizing continuous roll formed stainless steel spacer and dual seal sealants.
         2. Overall Nominal Thickness: 3/4 inch (19 mm).

\*\* NOTE TO SPECIFIER \*\* Delete type not required.

* + - * 1. Glass Coating: Standard, Low-E 366
        2. Glass Coating: Optional, Low-E
        3. Glass Coating: Optional, Low-E 180
        4. Glass Coating: Optional, Low-E EC
        5. Glass Coating: Optional, Low E EC 366

\*\* NOTE TO SPECIFIER \*\* Argon option is only available with Low E coating and cannot be used with capillary tubes. Delete air space gas not required. Installations at elevations above 4,000 feet Mean Sea Level require glazing known as High Altitude glazing with capillary tubes to equalize environmental stress.

* + - * 1. Glass Protection: Plastic preserve film on interior and exterior of glass.
        2. Air Space: Standard, Argon-filled airspace.
        3. Air Space: Optional air-filled airspace with capillary tubes.

\*\* NOTE TO SPECIFIER \*\* SDL and PDL Grilles are not available for textured glass. Grilles between the glass are not available on monolithic glass. Select grilles, profiles and widths based on the desired aesthetic appearance of the window. Delete if not required.

* + 1. Grilles:

\*\* NOTE TO SPECIFIER \*\* Delete types not required.

* + - 1. Type: Simulated Divided Lites (SDL).
         1. Exterior Muntins:

Material: Extruded aluminum permanently applied to exterior of insulating glass unit.

\*\* NOTE TO SPECIFIER \*\* Select profile based on desired aesthetics. Utilize bead stop for a flattened curve aesthetic and a putty profile for a deeper angular aesthetic. Delete profiles not required.

Profiles: Bead stop profiles.

\*\* NOTE TO SPECIFIER \*\* Delete widths not required.

Profile Width: 7/8 inch (22 mm).

Profile Width: 1-1/8 inches (28.5 mm).

Profile Width: 1-3/8 inches (34.9 mm).

Profiles: Putty profiles.

\*\* NOTE TO SPECIFIER \*\* Delete width not required.

Profile Width: 7/8 inch (22 mm).

Profile Width: 1-1/8 inches (28.5 mm).

Profile Width: 1-3/8 inches (34.9 mm).

Profile Width: 2-5/16 inches (58.7 mm).

Pattern: As scheduled and indicated on Drawings.

Color: Match exterior finish.

\*\* NOTE TO SPECIFIER \*\* Internal shadow bar will give the appearance of a true divided lite and is standard on all SDL units. Internal shadow bar may be deleted at the design professional's option. Delete internal shadow bar if not required.

* + - * 1. Internal Shadow Bar:

Color: Standard, Light Bronze finish.

Color: Optional Silver finish.

* + - * 1. Internal Spacer Bar:

Standard: Stainless Steel

Optional: Black

Optional: Grey

* + - * 1. Interior Muntins:

Material: Clear pine permanently bonded to interior of insulating glass unit.

Profile: Match exterior muntin.

* + - 1. Type: Full Surround Wood Grilles.
         1. Material: Unfinished clear pine.
         2. Profile: Rectangular.
         3. Pattern: As scheduled and indicated on Drawings.

\*\* NOTE TO SPECIFIER \*\* Delete size not required.

* + - * 1. Size: 7/8 inch (22 mm).
        2. Size: 1-1/8 inches (28.5 mm).
        3. Size: 1-3/8 inches (34.9 mm).
      1. Type: Grilles Between the Glass (GBG).
         1. Material: Made of roll formed aluminum suspended within the air cavity.

\*\* NOTE TO SPECIFIER \*\* Utilize flat for a narrow aesthetic and a contour profile for a wider aesthetic. Delete profile not required.

* + - * 1. Profile: Flat.

Flat Profile Width: Flat profile 5/8 inch (15.9 mm).

* + - * 1. Profile: Contour.

\*\* NOTE TO SPECIFIER \*\* Delete width not required.

Contour Profile Width: Contour profile, 23/32 inch (18.25 mm).

Contour Profile Width: Contour profile, 1 inch (25.4 mm).

* + - * 1. Pattern: As scheduled and indicated on Drawings.

\*\* NOTE TO SPECIFIER \*\* Delete finish not required.

* + - * 1. Color: As selected by Architect.
        2. Color: Brilliant White.
        3. Color: Chestnut Brown.
        4. Color: Desert Sand.
        5. Color: French Vanilla.
        6. Color: Hartford Green.
        7. Color: Mesa Red.
      1. Type: Precise Divided Lites (PDL)

\*\* NOTE TO SPECIFIER \*\* Delete material not required.

* + - * 1. Material: Wood permanently applied to exterior of insulating glass units.
        2. Material: Extruded aluminum permanently applied to exterior of insulating glass units.

\*\* NOTE TO SPECIFIER \*\* Delete width not required.

* + - * 1. Width: 3/4 inch (19.1 mm).
        2. Width: 1-1/2 inch (38.1 mm).
        3. Internal Shadow Bar:

Standard: Light Bronze finish.

1. EXECUTION
   1. EXAMINATION AND PREPARATION
      1. Inspect and prepare openings and substrates using the methods recommended by the manufacturer for achieving best result for the substrates under project conditions.
         1. Inspect assembly components prior to installation.
         2. Verify rough opening conditions are within recommended tolerances.
         3. Form sheet metal sill pan in accordance with manufacturer's recommendations.
         4. Prepare assembly components for installation in accordance with manufacturer's recommendations.
      2. Do not proceed with installation until openings and substrates have been prepared using the methods recommended by the manufacturer and deviations from manufacturer's recommended tolerances are corrected. Commencement of installation constitutes acceptance of conditions.
      3. If preparation is the responsibility of another installer, notify Architect in writing of deviations from manufacturer's recommended installation tolerances and conditions.
   2. INSTALLATION
      1. Install assemblies in accordance with manufacturer's installation guidelines and recommendations including the following.

\*\* NOTE TO SPECIFIER \*\* The following paragraph is for use with window units with exterior trim. Delete if not required.

* + 1. Installation of Windows with Exterior Trim: Insert windows into rough opening.
       1. Shim side jambs straight.
       2. Inspect window for square, level and plumb.
       3. Fasten window through exterior trim around entire window.
       4. Test and adjust for smooth operation of window.
       5. Set all nails below wood surface.

\*\* NOTE TO SPECIFIER \*\* The following paragraph is for use without window units with exterior trim. Delete if not required.

* + 1. Installation of Windows Without Exterior Trim: Insert windows into rough opening.
       1. Inspect window for square, level and plumb.
       2. Fasten window through jamb, shim and into rough opening jamb.
       3. Test and adjust for smooth operation of window.
       4. Set all nails below wood surface.
       5. Ensure seal between sill pan and inside face of windowsill.
       6. Install backer rod and sealant at exterior jambs and head.
       7. Apply backer rod and sealant on exterior below sill. Leave gaps for drainage.
       8. Seal interior joints between rough opening and jambs with backer rod and sealant.

\*\* NOTE TO SPECIFIER \*\* The following paragraph is for use with patio door units with exterior trim Delete if not required.

* + 1. Installation of Patio Doors with Exterior Trim: Insert patio doors into rough opening.
       1. Shim side jambs straight.
       2. Inspect patio door for square, level and plumb.
       3. Fasten patio door through exterior trim around entire patio door.
       4. Test and adjust for smooth operation of patio door.
       5. Set all nails below wood surface.
       6. Structurally secure head and side jambs through shims with mechanical fasteners.
       7. Structurally secure sill with mechanical fasteners.
       8. Apply flashing to sill, jambs and header.
       9. Apply sealant to upper corners and at sill.
       10. Install backer rod and sealant at rough opening and door jamb gap.
       11. Ensure seal between sill pan and inside face of patio door sill.
       12. Install lock set hardware per manufacturer's instructions.

\*\* NOTE TO SPECIFIER \*\* The following paragraph is for use with patio door units without exterior trim Delete if not required.

* + 1. Installation of Patio Doors without Exterior Trim: Insert patio doors into rough opening.
       1. Shim side jambs straight.
       2. Inspect patio door for square, level and plumb.
       3. Fasten patio door through jamb, shim and into rough opening jamb.
       4. Test and adjust for smooth operation of patio door.
       5. Structurally secure head and side jambs through shims with mechanical fasteners.
       6. Structurally secure sill with mechanical fasteners.
       7. Install backer rod and sealant at exterior jambs and head.
       8. Seal interior joints between rough opening and jambs with backer rod and sealant.
       9. Ensure seal between sill pan and inside face of patio door sill.
       10. Install lock set hardware per manufacturer's instructions.
  1. FIELD QUALITY CONTROL
     1. Manufacturers' Field Services: Field inspections.
  2. CLEANING AND PROTECTION
     1. Clean the exterior surface and glass with mild soap and water.
     2. Protect installed windows from damage.
     3. Remove and dispose of protective film from glass; touch-up, repair or replace damaged components and assemblies before Substantial Completion.

END OF SECTION