SECTION 08350

FOLDING ALUMINUM/WOOD GLASS DOORS

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\*\* NOTE TO SPECIFIER \*\* LaCantina Doors; Folding, Sliding and Swing aluminum and wood products.  
.  
This section is based on the products of LaCantina Doors, which is located at:  
1875 Ord Way  
Oceanside, CA 92056  
Toll Free Tel: 866-981-8485  
Tel: 760-734-1590  
Fax: 760-734- 1591  
Email: [request info (sales@lacantinadoors.com)](http://admin.arcat.com/users.pl?action=UserEmail&company=LaCantina+Doors&coid=43805&rep=&fax=760-734-)  
Web: [www.lacantinadoors.com](http://www.lacantinadoors.com)   
 [ [Click Here](http://www.arcat.com/arcatcos/cos43/arc43805.html) ] for additional information.  
Now is the time to OPEN SPACES and remove the hard line that once divided indoors from outdoors. Bring the two worlds together.and never more effectively or elegantly than with LaCantina wood bi-fold doors and sliding doors.  
Architects and designers will not only be impressed by the contemporary styling and ability to transform a space, but by their outstanding quality and trouble-free operation.  
Our innovative frame system and appealing European narrow stile and rail door panels maximize your view. Combined with the highest quality hardware our bi-fold doors are as functional as they are fashionable!  
Manufactured in the USA and distributed worldwide our superior quality folding door systems are built to perform. LaCantina Doors is America's leading brand of folding door systems.

1. GENERAL
   1. SECTION INCLUDES

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

* + 1. Aluminum Folding Glass Doors.
    2. Aluminum Thermally Controlled Folding Glass Doors.
    3. Aluminum Thermally Controlled Impact Series glass folding doors.
    4. Aluminum Wood Folding Glass Doors.
    5. Contemporary Clad Folding Glass Doors.
    6. Wood Folding Glass Doors.
    7. Vinyl Folding Glass Doors.
  1. RELATED SECTIONS

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

* + 1. Section 06100 - Rough Carpentry: Installation and requirements for rough door opening.
    2. Section 06200 - Finish Carpentry: Installation and requirements for door frame and casing and trim.
    3. Section 07900 - Joint Sealers.
    4. Section 08700 - Door Hardware.
  1. REFERENCES

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

* + 1. AAMA 611.98 - Voluntary Specification for Anodized Architectural Aluminum.
    2. AAMA 2603.02 - Voluntary Specifications, Performance Requirements and Test Procedures for Pigmented Organic Coatings on Aluminum Extrusions and Panels.
    3. AAMA 2604 - Voluntary Specifications, Performance Requirements and Test Procedures for Pigmented for High Performance Organic Coatings on Aluminum Extrusions and Panels.
    4. AAMA 1304 - Voluntary Specification for Forced Entry Resistance of Side-Hinged Door Systems.
    5. ANSI Z97.1 - Safety Performance Specifications and Methods of Test for Safety Glazing Material Used In Buildings.
    6. ASTM E 283 - Test Method for Rate of Air Leakage through Exterior Windows, Curtain Walls, and Doors by Uniform Static Air Pressure Difference.
    7. ASTM E 330 - Test Method for Structural Performance of Exterior Windows, Curtain Walls, and Doors by Uniform Static Air Pressure Difference.
    8. ASTM E 547 - Test Method for Water Penetration of Exterior Windows, Curtain Walls, and Doors by Cyclic Static Air Pressure Differential.
    9. ASTM E 331 - Standard Test Method for Water Penetration of Exterior Windows, Skylights, Doors, and Curtain Walls by Uniform Static Air Pressure Difference.
    10. ASTM F 842 - Standard Test Methods for Measuring the Forced Entry Resistance of Sliding Door Assemblies, Excluding Glazing Impact.
    11. CPSC 16CFR-1201 - Safety Standard for Architectural Glazing Materials.
    12. TAS 201, Florida Building Code, Testing Application Standard - Impact Test Procedures.
    13. TAS 202, Florida Building Code, Testing Application Standard - Criteria for Testing Impact and Non-Impact Resistant Building Envelope Components Using Uniform Static Air Pressure Loading.
    14. TAS 203, Florida Building Code, Testing Application Standard - Criteria for Testing Products Subject to Cyclic Wind Pressure Loading.
  1. DESIGN / PERFORMANCE REQUIREMENTS
     1. Folding Door Systems to comply with the performance requirements specified with independently certified testing results.

\*\* NOTE TO SPECIFIER \*\* Select the Performance paragraphs for the door(s) specified and delete those not required.

* + 1. Aluminum Folding Doors:
       1. Weather Resistant Sill Test Results:
          1. Air Infiltration: ASTM-E 283 when tested at 1.6 psf (25 mph), 0.10 CFM/FT2.
          2. Water Infiltration: ASTM-E 547 when tested at 5.25 PSF, No Leakage
          3. Uniform Load Deflection at Design Pressure: ASTM-E 330 when tested at plus or minus 55.0 PSF, DP 55, 0.46 inches Positive and 0.49 inches Negative with no damage.
          4. Uniform Load Overload at plus or minus 82.5 PSF, 0.02 positive, 0.01 negative permanent set with no damage.

\*\* NOTE TO SPECIFIER \*\* Contact the manufacturers for the U-Factor of the door system based on the glass type and thickness specified.

* + - 1. Thermal Performance:
         1. U-Factor of \_\_\_\_\_.
    1. Aluminum Thermally Controlled Folding Doors:
       1. Weather Resistant Sill Test Results:
          1. Air Infiltration: ASTM-E 283 when tested at 1.6 psf (25 mph), 0.3 CFM/FT2.
          2. Water Infiltration: ASTM-E 547 when tested at 8.25 PSF, No Leakage
          3. Uniform Load Deflection at Design Pressure: ASTM-E 330 when tested at plus or minus 35.0 PSF, DP 35, 1.44 inches Positive and 1.50 inches Negative with no damage.
          4. Uniform Load Overload at plus or minus 52.5 PSF, 0.05 positive, 0.02 negative permanent set with no damage.

\*\* NOTE TO SPECIFIER \*\* Contact the manufacturers for the U-Factor of the door system based on the glass type and thickness specified.

* + - 1. Thermal Performance:
         1. U-Factor of \_\_\_\_\_.

\*\* NOTE TO SPECIFIER \*\* Outswing system is recommended for weather exposed areas and best weather performance. Air infiltration and water penetration testing results can only be applicable if the door system matches the test door system in the direction of opening and the type of sill. Structural load testing results are only applicable for the test door system panel size with top and bottom locking points and type of mounting. (Comparative analysis by an engineer can determine which panel sizes (if any) would meet structural loading design pressures specifically required for the project. Check for limitations on the use of comparative analysis in the jurisdiction of the project). See manufacturer's latest published data.

* + 1. Impact Rated Aluminum Thermally Controlled Folding Doors:
       1. Performance Requirements: Folding Door system to comply with applicable manufacturer's independently certified testing results. Testing results include air infiltration in accordance with ASTM E 283, water penetration in accordance with ASTM E 547 and E 331 and structural loading in accordance with ASTM E 330
       2. Weather Resistant Raised Sill Test Results:
          1. TAS 202 Static Air Pressure Tests:

Design Pressure: Plus or minus 70 psf.

Air Infiltration: ASTM-E 283 when tested at 1.57 psf (25 mph), 0.16 CFM/FT2.

Water Infiltration: ASTM-E 547 when tested at 15 PSF positive pressure, No Leakage

Forced Entry: ASTM F 842 and 300 lb Pull Test, Pass

* + - * 1. TAS 201 Impact Tests: Missile results.

Missile Weight: 9.0 lbs, Missile Length 8 feet.

Distance from Test Specimen: 17 feet.

Impact Area: 7 Panel Locations.

Missile hit all target area and Passed.

* + - * 1. TAS 203 Cyclic Wind Pressure Loading:

Design Pressure: Plus or minus 70 psf. Pass with no additional damage or deglazing observed.

* + - 1. Weather Resistant Sill Test Results:
         1. TAS 202 Static Air Pressure Tests:

Design Pressure: Plus or minus 70 psf.

Air Infiltration: ASTM-E 283 when tested at 1.57 psf (25 mph), 0.16 CFM/FT2.

* + - * 1. TAS 201 Impact Tests: Missile results.

Missile Weight: 9.0 lbs, Missile Length 8 feet.

Distance from Test Specimen: 17 feet.

Impact Area: 6 Panel Locations.

Missile hit all target area and Passed.

* + - * 1. TAS 203 Cyclic Wind Pressure Loading:

Design Pressure: Plus or minus 70 psf. Pass with no additional damage or deglazing observed.

\*\* NOTE TO SPECIFIER \*\* Contact the manufacturers for the U-Factor of the door system based on the glass type and thickness specified.

* + - 1. Thermal Performance:
         1. U-Factor of \_\_\_\_\_.
    1. Aluminum Wood Folding Doors:
       1. Weather Resistant Sill Test Results:
          1. Air Infiltration: ASTM-E 283 when tested at 1.6 psf (25 mph), 0.10 CFM/FT2.
          2. Water Infiltration: ASTM-E 547 when tested at 7.50 PSF, No Leakage
          3. Uniform Load Deflection at Design Pressure: ASTM-E 330 when tested at plus or minus 60 PSF, DP 60, 0.76 inches Positive and 0.73 inches Negative with no damage.
          4. Uniform Load Overload at plus or minus 90.0 PSF, 0.04 positive, 0.03 negative permanent set with no damage.

\*\* NOTE TO SPECIFIER \*\* Contact the manufacturers for the U-Factor of the door system based on the glass type and thickness specified.

* + - 1. Thermal Performance:
         1. U-Factor of \_\_\_\_\_.
    1. Contemporary Clad Folding Folding Doors:
       1. Weather Resistant Sill Test Results:
          1. Air Infiltration: ASTM-E 283 when tested at 1.6 psf (25 mph), 0.17 CFM/FT2 Infiltration, 0.05 CFM/FT2 Exfiltration.
          2. Water Infiltration: ASTM-E 547 when tested at 3.76 PSF DP 25, No Leakage
          3. Uniform Load Deflection at Design Pressure: ASTM-E 330 when tested at plus or minus 25.0 DP, 1.57 inches Positive and 1.69 inches Negative with no damage.
          4. Uniform Load Overlaod at plus or minus 37.59 PSF, 0.25 inch positive, 0.33 inch negative permanent set with no damage.
          5. Forced Entry: AAMA 1304-02, Grade 10, Pass.

\*\* NOTE TO SPECIFIER \*\* Contact the manufacturers for the U-Factor of the door system based on the glass type and thickness specified.

* + - 1. Thermal Performance:
         1. U-Factor of \_\_\_\_\_.
    1. Wood Folding Doors:
       1. Weather Resistant Sill Test Results:
          1. Air Infiltration: ASTM-E 283 when tested at 1.57 psf (25 mph), 0.11 CFM/FT2.
          2. Water Infiltration: ASTM-E 547 when tested at 4.50 PSF, No Leakage
          3. Uniform Load Deflection at Design Pressure: ASTM-E 330 when tested at plus or minus 25.0 DP, 0.851 inches Positive and 0.963 inches Negative with no damage.
          4. Uniform Load Overload at plus or minus 37.5 PSF, 0.03 inch positive, 0.05 negative permanent set with no damage.

\*\* NOTE TO SPECIFIER \*\* Contact the manufacturers for the U-Factor of the door system based on the glass type and thickness specified.

* + - 1. Thermal Performance:
         1. U-Factor of \_\_\_\_\_.
    1. Vinyl Folding Door (Thermally Broken):
       1. Performance Grade: PG 35 NAFS - AAMA/WDMA/CSA 101.I.S.2/A440-08.
       2. Weather Resistant Sill Test Results:
          1. Air Infiltration: ASTM-E 283 when tested at 1.57 psf (25 mph), 0.01 CFM/FT2.
          2. Water Infiltration: ASTM-E 547 when tested at 5.43 PSF, No Leakage
          3. Uniform Load Deflection at Design Pressure: ASTM-E 330 when tested at plus or minus 35.0 PSF, DP 35, 1.82 inches Positive and 1.97 inches Negative with no damage.
          4. Uniform Load Structural at plus or minus 52.6 DP, 0.029 inch positive and 0.018 inch negative permanent Set with no damage.

\*\* NOTE TO SPECIFIER \*\* Contact the manufacturers for the U-Factor of the door system based on the glass type and thickness specified.

* + - 1. Thermal Performance:
         1. U-Factor of \_\_\_\_\_.
  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: Include outside net frame dimensioning, direction of swing (outswing or inswing), number of panels, folding configuration of panels left or right, identify main entry swing panel, typical head, side jamb, sill and panel details and type of glazing material per vertical plan and elevations view drawings.

\*\* NOTE TO SPECIFIER \*\* Delete the following paragraphs if LEED is not applicable.

* + 1. LEED Submittals: Provide documentation of how the requirements of Credit will be met:
       1. List of proposed materials with recycled content. Indicate post-consumer recycled content and pre-consumer recycled content for each product having recycled content.
       2. Product data and certification letter indicating percentages by weight of post-consumer and pre-consumer recycled content for products having recycled content.

\*\* 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.
    4. Closeout Submittals: Provide manufacturer's maintenance instructions that include recommendations for periodic checking and adjustment of cable tension and periodic cleaning and maintenance of all railing and infill components.
  1. QUALITY ASSURANCE
     1. Manufacturer Qualifications: Provide complete, engineered and high quality folding door system by a single source manufacturer with at least 7 years documented experience manufacturing folding door systems in the U.S.
     2. Installer Qualifications: Installer with documented experienced in the installation of manufacturer's folding door systems or similar and screen system to the products specified.

\*\* 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. Protect stored product from damage. Store products flat in dry, well ventilated area out of direct sunlight, under cover, protected from weather, moisture and excessive dryness and construction activities.
  2. SEQUENCING
     1. Ensure that locating templates and other information required for installation of products of this section are furnished to affected trades in time to prevent interruption of construction progress.
     2. Ensure that products of this section are supplied to affected trades in time to prevent interruption of construction progress.
  3. 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.
  4. WARRANTY
     1. Manufacture's limited warranty including; 10 years for panel and frame aluminum components, product finishes, folding system hardware, and weather stripping; 5 years for locking hardware and screens; 10 years for insulated glass against failure of the air seal and that each unit will be free from material obstruction of vision as a result of fogging or film formation on the internal surfaces.

1. PRODUCTS
   1. MANUFACTURERS
      1. Acceptable Manufacturer: LaCantina Doors, which is located at: 1875 Ord Way; Oceanside, CA 92056; Toll Free Tel: 866-981-8485; Tel: 760-734-1590; Fax: 760-734- 1591; Email: [request info (sales@lacantinadoors.com)](http://admin.arcat.com/users.pl?action=UserEmail&company=LaCantina+Doors&coid=43805&rep=&fax=760-734-); Web: [www.lacantinadoors.com](http://www.lacantinadoors.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.

\*\* NOTE TO SPECIFIER \*\* Edit the following General paragraphs as required. Outswing systems are recommended for weather exposed areas and best weather performance. Air infiltration and water penetration testing results can only be applicable if the door system matches the test door system in the direction of opening and the type of sill. Structural load testing results are only applicable for the test door system panel size, with top and bottom locking points and type of mounting. Comparative analysis by an engineer can determine which panel sizes (if any) would meet structural loading design pressures specifically required for the project. Check for limitations on the use of comparative analysis in the jurisdiction of the project.

* 1. FOLDING GLASS DOORS

\*\* NOTE TO SPECIFIER \*\* Aluminum Series doors are available for openings up to 16 panels and 52 feet wide and 10 feet 4 inches tall. Coordinate the size with the performance requirements of the project. Contact the manufacturer for additional information.

* + 1. Aluminum Folding Doors.
       1. Frame and Panels: Complete folding door system including head, side jambs, thresholds and aluminum panels to sizes indicated on the Drawings.

\*\* NOTE TO SPECIFIER \*\* Panels are available in sizes up to 39 inches wide and 120 inches high. Horizontal mullion is not required. Coordinate sizes indicated with performance requirements.

* + - * 1. Panel: Extruded aluminum stile and rail panels with standard one lite.

Thickness 1-3/4 inches (44.5 mm).

Stile and Rail 2-3/4 inches (70 mm).

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

Bottom Rail 2-3/4 inches (70 mm).

Bottom rail 10 inch (254 mm) ADA rail.

* + - * 1. Frame and Sill: Extruded aluminum.

Jamb thickness: 1-1/4 inches (32 mm).

Frame width: 5-5/8 inches (143 mm).

* + - * 1. Weatherstripping: Weather seal inserted in frame and sill to provide perimeter seal, as well as between door panels. Color is dark bronze.
      1. Glass: All glass to comply with safety glazing requirements of ANSI Z97.1 and CPSC 16CFR 1201.
         1. Type:

\*\* NOTE TO SPECIFIER \*\* Select glass paragraph required and delete those not required.

Single glazed.

Insulated glass with a 3/4 inch (19 mm) overall thickness.

Insulated glass with a 1 inch (25.5 mm) overall thickness.

* + - * 1. Glass:

\*\* NOTE TO SPECIFIER \*\* Select glass paragraph required and delete those not required. Note that custom Low-E options include 240, 270, 272, 366, and 181.

Low-E 272 (for standard sizes, argon filled).

Custom Low-E option \_\_\_\_\_\_\_.

Clear insulated.

Tinted.

Tempered.

Laminated.

* + - * 1. Glazing: Silicone bedding on exterior surfaces and glazing seal on the interior of the panel.

\*\* NOTE TO SPECIFIER \*\* Select optional paragraph id required and delete if not required.

* + - * 1. Simulated Divided Lites: Sculpted profile as selected.
      1. Locking Hardware and Handles: Manufacturer's standard handle and concealed two point locking hardware operated by 90 degree turn of handle between each pair of folding panels and on any secondary swing panel.

\*\* NOTE TO SPECIFIER \*\* Select one of the following two paragraphs and delete the one not required. Note that key operation from the inside only may not meet egress requirements.

* + - * 1. On the main entry panel for configurations with a swing panel, provide manufacturer's standard trimset and lever handles on the inside and outside, a Schlage compatible lockset multi-point locking with dead bolt and concealed locking rods at the top and bottom of the door panel. Locking rods and mechanism shall not be edge or surface mounted. Depressing the handles withdraws the latch. Lifting the handles employs the rods and a turn of key or thumb turn employs the deadbolt and operates lock.
        2. Locking/handle operation from inside only (for even/even panel configurations or window applications where manufacturer's standard lever handle and lockset is not provided), on all swing panels or pair of folding panels to be opened first, provide manufacturer's standard handle and concealed two point locking hardware operated by 90 degree turn of handle.
        3. Cap concealed aluminum locking rods with solid stainless steel tips that lock into the frame's top and bottom locking channels.
        4. Handle Finish:

\*\* NOTE TO SPECIFIER \*\* Select finish paragraph required and delete the one not required.

Brushed Satin Aluminum color.

Brushed Satin Bronze color.

* + - * 1. Provide main entry panel handle height centered at 36 inches (914 mm) from bottom of panel.
      1. Folding Hardware: Manufacturer's standard folding hardware integrated with engineered head track, side jambs and threshold frame system. Systems where weight of panels is borne by the bottom of the track will not be allowed. Hardware systems carrying capacity is a minimum of 220 lbs (99.79 Kg) per panel.
         1. System operates with an upper wheel carrier that rolls on the aluminum head track. Lower track is incorporated into the threshold to guide door panels. Upper carrier and lower guide attached to door panel hinges. Jamb panels attached with top and bottom pivots. Panels connected with hinges including top and bottom hinges attached to top carrier and lower guide. Handles to open and close door is included. Carrier pins at top pivots, and intermediate and end carriers support the full door weight and provides panel adjustment. A pin locking system is used to lock vertical adjustment once heights are set. Pivots at jamb allow screwdriver adjustment of the system horizontally up to 3/8 inch (10 mm). All screws fully concealed for external security. Architectural grade stainless steel used for hinge pins, carrier pins and carrier bogeys.
         2. Hardware Sets:

Hinges: Provide 3 hinges on panels 96 inches (2438 mm) or less and 4 hinges on panels taller than 96 inches (2438 mm).

\*\* NOTE TO SPECIFIER \*\* Select optional wall pivot paragraph if required and delete if not required.

Wall Pivots: Provide wall pivots for jamb side pivot panels for taller doors or high-wind environments.

* + - * 1. Hardware finish:

\*\* NOTE TO SPECIFIER \*\* Select finish paragraph required and delete the one not required.

Brushed Satin Aluminum color.

Brushed Satin Bronze color.

* + - * 1. Threshold:

\*\* NOTE TO SPECIFIER \*\* Standard outswing engineered threshold can be recessed to level out from the top of the threshold's weather stop with the interior finish flooring to minimize transition from interior to exterior floor levels while maintaining best weather performance. Outside patiolevel shall be lower than the bottom of the threshold to allow water to weep into the exterior. Draftguard Seal requires manual operation. See manufacturer's drawings. ADA Ramp Sill complies with the ADA code #1142B and all horizontal channels in threshold or floor must be no more than 1/2 inch.

Standard engineered weeping thermally-broken threshold.

ADA Compliant ramp sill.

Guide track only for interior applications.

* + - * 1. Adjustment: System to be capable of adjustments without removing panels from tracks, up to 3/8 inch (7 mm) both vertically and horizontally with flathead and Phillip's head screwdriver.
        2. Gaps between folding panels that accommodate weather stripping and hinges to be 3/16 inch (5 mm) or less when panels are closed.
      1. Aluminum Finish: Provide same finishes on inside and outside.

\*\* NOTE TO SPECIFIER \*\* Select finish paragraph required and delete those not required.

* + - * 1. Clear anodized
        2. Bronze anodized.
        3. White paint.
        4. Two coat 70 percent Kynar finish with color as selected from manufacturer range of finishes.
        5. Two coat 70 percent Kynar finish with custom color.
        6. Decoral wood grain finish with color as selected.
      1. Threshold Finish:

\*\* NOTE TO SPECIFIER \*\* Select finish paragraph required and delete those not required.

* + - * 1. Clear anodized.
        2. Bronze anodized.

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

* + - 1. Screen and Blind: Provide horizontal, retractable non-pleated insect and solar control screen and blind system with fingertip operation, load balancing and tensioning adjustment.
         1. Screen Mechanism:

\*\* NOTE TO SPECIFIER \*\* Select paragraph required and delete the one not required.

Stand alone type.

Concealed within frame and integrated with door system.

* + - * 1. Operation:

\*\* NOTE TO SPECIFIER \*\* Select paragraph required and delete the one not required.

Single function for blinds up to 12 feet (3.65 m).wide and 10 feet (3.04 m) tall.

Double function for blinds up to 24 feet (7.31 m) wide and 10 feet (3.04 m) tall.

Multi-function screen and blind system up to 24 feet (7.31 m) wide and 7 feet 6 inches (2.29 m) tall.

* + - * 1. Screen Mesh: Fiberglass/PVC mesh as selected from manufacturer's available selection for:

\*\* NOTE TO SPECIFIER \*\* Select paragraph required and delete the one not required.

Insect protection.

Control heat gain or loss.

UV protection.

Projector screen.

* + - * 1. Finish:

\*\* NOTE TO SPECIFIER \*\* Select paragraph required and delete the one not required.

Anodized finish in manufacturer's standard color

Anodized finish in custom color.

Wood veneer from manufacturer's standard selections.

* + - 1. Retractable Pleated Insect Screens: Provide with aluminum frame that integrates with installation folding door frame. Pleated mesh expands when screen is closed and compacts against the jamb when fully open
         1. Provide head jamb, side jambs and threshold with dimensions and screen function direction required.
         2. Operation:

\*\* NOTE TO SPECIFIER \*\* Select paragraph required and delete the one not required.

Single function for blinds up to 14 feet 10 inches wide and 10 feet (3.04 m) tall.

Double function for blinds up to 29 feet 6 inches wide and 10 feet (3.04 m) tall.

* + - * 1. Screen mesh: European polyester mesh for insect protection.

\*\* NOTE TO SPECIFIER \*\* Select paragraph required and delete the one not required.

Provide in manufacturer's standard color as selected by the Architect.

Provide in custom color as selected by the Architect.

\*\* NOTE TO SPECIFIER \*\* Select optional components required from the following paragraph and delete the ones not required.

* + - 1. Provide system with 90 degree zero post corners where indicated.
      2. Door Stops: Provide magnetic door stops for main entry swing panels and for stacking of folding panels.

\*\* NOTE TO SPECIFIER \*\* Aluminum Thermally Controlled Series doors are available for openings up to 52 feet wide and 10 feet (3.04 m) tall. Coordinate the size with the performance requirements of the project. Contact the manufacturer for additional information.

* + 1. Aluminum Thermally Controlled Folding Doors: Aluminum Thermally Controlled Outswing Bi-Fold Doors.
       1. Frame and Panels: Complete folding door system including head, side jambs, threshold and aluminum thermally controlled panels to sizes indicated on the Drawings. Provided with thermal struts that create a non-conductive bridge between the outside and the inside of the door.

\*\* NOTE TO SPECIFIER \*\* Panels are available in sizes up to 39 inches wide and 120 inches high. Horizontal mullion is not required. Coordinate sizes indicated with performance requirements.

* + - * 1. Panel: Thermally broken, extruded aluminum stile and rail panels with standard one lite.

Thickness 2-1/4 inches (57 mm).

Stile and Rail 2-15/16 inches (75 mm).

Bottom Rail 2-15/16 inches (75 mm).

* + - * 1. Frame and Sill: Thermally broken, extruded aluminum.

Jamb thickness: 1-1/4 inches (32 mm).

Frame width: 5-5/8 inches (143 mm).

* + - * 1. Weatherstripping: Weather seal inserted in frame and sill to provide perimeter seal, as well as between door panels. Color is dark bronze.
      1. Glass: All glass to comply with safety glazing requirements of ANSI Z97.1 and CPSC 16CFR 1201.
         1. Type: Triple glazed insulated glass with a 1-1/4 inch (32 mm) overall thickness.
         2. Glass:

\*\* NOTE TO SPECIFIER \*\* Select glass paragraph required and delete those not required. Note that custom California Title 24 Low-E options include E366, E180, and 189.

Low-E 272 (for standard sizes, argon filled).

Custom Low-E \_\_\_\_\_\_\_.

Clear insulated.

Tinted.

Laminated.

* + - * 1. Glazing: Silicone bedding on exterior surfaces and glazing seal on the interior of the panel.

\*\* NOTE TO SPECIFIER \*\* Select optional paragraph id required and delete if not required.

* + - * 1. Simulated Divided Lites: Sculpted profile as selected.
      1. Locking Hardware and Handles: Manufacturer's standard handle and concealed two point locking hardware operated by 90 degree turn of handle between each pair of folding panels and on any secondary swing panel.

\*\* NOTE TO SPECIFIER \*\* Select one of the following two paragraphs and delete the one not required. Note that key operation from the inside only may not meet egress requirements.

* + - * 1. On the main entry panel for configurations with a swing panel, provide manufacturer's standard trimset and lever handles on the inside and outside, a Schlage compatible lockset multi-point locking with dead bolt and concealed locking rods at the top and bottom of the door panel. Locking rods and mechanism shall not be edge or surface mounted. Depressing the handles withdraws the latch. Lifting the handles employs the rods and a turn of key or thumb turn employs the deadbolt and operates lock.
        2. Locking/handle operation from inside only (for even/even panel configurations or window applications where manufacturer's standard lever handle and lockset is not provided), on all swing panels or pair of folding panels to be opened first, provide manufacturer's standard handle and concealed two point locking hardware operated by 90 degree turn of handle.
        3. Cap concealed aluminum locking rods with solid stainless steel tips that lock into the frame's top and bottom locking channels.
        4. Handle Finish:

\*\* NOTE TO SPECIFIER \*\* Select finish paragraph required and delete the one not required.

Brushed Satin Aluminum color.

Brushed Satin Bronze color.

* + - * 1. Provide main entry panel handle height centered at 36 inches (914 mm) (914 mm) from bottom of panel.
      1. Folding Hardware: Manufacturer's standard folding hardware integrated with engineered head track, side jambs and threshold frame system. Systems where weight of panels is borne by the bottom of the track will not be allowed. Hardware systems carrying capacity is a minimum of 220 lbs (99.79 Kg) per panel.
         1. System operates with an upper wheel carrier that rolls on the aluminum head track. Lower track is incorporated into the threshold to guide door panels. Upper carrier and lower guide attached to door panel hinges. Jamb panels attached with top and bottom pivots. Panels connected with hinges including top and bottom hinges attached to top carrier and lower guide. Handles to open and close door is included. Carrier pins at top pivots, and intermediate and end carriers support the full door weight and provides panel adjustment. A pin locking system is used to lock vertical adjustment once heights are set. Pivots at jamb allow screwdriver adjustment of the system horizontally up to 3/8 inch (10 mm). All screws fully concealed for external security. Architectural grade stainless steel used for hinge pins, carrier pins and carrier bogeys.
         2. Hardware Sets:

Hinges: Provide 3 hinges on panels 96 inches (2438 mm) or less and 4 hinges on panels taller than 96 inches (2438 mm).

\*\* NOTE TO SPECIFIER \*\* Select optional wall pivot paragraph if required and delete if not required.

Wall Pivots: Provide wall pivots for jamb side pivot panels for taller doors or high-wind environments.

* + - * 1. Hardware finish:

\*\* NOTE TO SPECIFIER \*\* Select finish paragraph required and delete the one not required.

Brushed Satin Aluminum color.

Brushed Satin Bronze color.

* + - * 1. Threshold:

\*\* NOTE TO SPECIFIER \*\* Standard outswing engineered threshold can be recessed to level out from the top of the threshold's weather stop with the interior finish flooring to minimize transition from interior to exterior floor levels while maintaining best weather performance. Outside patiolevel shall be lower than the bottom of the threshold to allow water to weep into the exterior. Draftguard Seal requires manual operation. See manufacturer's drawings. ADA Ramp Sill complies with the ADA code #1142B and all horizontal channels in threshold or floor must be no more than 1/2 inch.

Standard engineered weeping thermally-broken threshold.

ADA Compliant ramp sill.

Guide track only for interior applications.

* + - * 1. Adjustment: System to be capable of adjustments without removing panels from tracks, up to 3/8 inch (7 mm) both vertically and horizontally with flathead and Phillip's head screwdriver.
        2. Gaps between folding panels that accommodate weather stripping and hinges to be 3/16 inch (5 mm) or less when panels are closed.

\*\* NOTE TO SPECIFIER \*\* Select same finish or split finish from the following paragraphs as required and delete the one not required.

* + - 1. Aluminum Finish:
         1. Provide same finishes on inside and outside.

\*\* NOTE TO SPECIFIER \*\* Select finish paragraph required and delete those not required. Split finish for interior and exterior is available.

Clear anodized

Bronze anodized.

White paint.

Two coat 70 percent Kynar finish with color as selected from manufacturer range of finishes.

Two coat 70 percent Kynar finish with custom color.

Decoral wood grain finish with color as selected.

\*\* NOTE TO SPECIFIER \*\* Insert interior and exterior finishes required.

* + - * 1. Provide Split Finish: Interior \_\_\_\_\_\_\_\_\_; Exterior \_\_\_\_\_\_\_\_\_.
      1. Threshold Finish:

\*\* NOTE TO SPECIFIER \*\* Select finish paragraph required and delete those not required.

* + - * 1. Clear anodized.
        2. Bronze anodized.
      1. Screen and Blind: Provide horizontal, retractable non-pleated insect and solar control screen and blind system with fingertip operation, load balancing and tensioning adjustment.
         1. Screen Mechanism:

\*\* NOTE TO SPECIFIER \*\* Select paragraph required and delete the one not required.

Stand alone type.

Concealed within frame and integrated with door system.

* + - * 1. Operation:

\*\* NOTE TO SPECIFIER \*\* Select paragraph required and delete the one not required.

Single function for blinds up to 12 feet (3.65 m).wide and 10 feet (3.04 m) tall.

Double function for blinds up to 24 feet (7.31 m) wide and 10 feet (3.04 m) tall.

Multi-function screen and blind system up to 24 feet (7.31 m) wide and 7 feet 6 inches (2.29 m) tall.

* + - * 1. Screen Mesh: Fiberglass/PVC mesh as selected from manufacturer's available selection for:

\*\* NOTE TO SPECIFIER \*\* Select paragraph required and delete the one not required.

Insect protection.

Control heat gain or loss.

UV protection.

Projector screen.

* + - * 1. Finish:

\*\* NOTE TO SPECIFIER \*\* Select paragraph required and delete the one not required.

Anodized finish in manufacturer's standard color

Anodized finish in custom color.

Wood veneer from manufacturer's standard selections.

* + - 1. Retractable Pleated Insect Screens: Provide with aluminum frame that integrates with installation folding door frame. Pleated mesh expands when screen is closed and compacts against the jamb when fully open
         1. Provide head jamb, side jambs and threshold with dimensions and screen function direction required.
         2. Operation:

\*\* NOTE TO SPECIFIER \*\* Select paragraph required and delete the one not required.

Single function for blinds up to 14 feet 10 inches wide and 10 feet (3.04 m) tall.

Double function for blinds up to 29 feet 6 inches wide and 10 feet (3.04 m) tall.

* + - * 1. Screen mesh: European polyester mesh for insect protection.

\*\* NOTE TO SPECIFIER \*\* Select paragraph required and delete the one not required.

Provide in manufacturer's standard color as selected by the Architect.

Provide in custom color as selected by the Architect.

\*\* NOTE TO SPECIFIER \*\* Select optional components required from the following paragraph and delete the ones not required.

* + - 1. Provide system with 90 degree zero post corners where indicated.
      2. Door Stops: Provide magnetic door stops for main entry swing panels and for stacking of folding panels.

\*\* NOTE TO SPECIFIER \*\* Impact Rated Aluminum Thermally Controlled Series doors are available for openings up to 16 panels or 52 feet wide and 10 feet 4 inches tall. Coordinate the size with the performance requirements of the project. Contact the manufacturer for additional information.

* + 1. Aluminum Thermally Controlled Impact Series: Aluminum Thermally Controlled Hurricane/Impact Outswing Bi-Fold Doors suitable for High Velocity Wind Zone and Hurricane (HVWZ) conditions and areas with up an DP70 rating.
       1. Frame and Panels: Complete folding door system including head, side jambs, threshold and aluminum thermally controlled impact panels to sizes indicated on the Drawings. Provided with thermal struts that create a non-conductive bridge between the outside and the inside of the door.

\*\* NOTE TO SPECIFIER \*\* Panels are available in sizes up to 36 inches (914 mm) wide and 92 inches high. Horizontal mullion is not required. Coordinate sizes indicated with performance requirements.

* + - * 1. Panel: Thermally broken, extruded aluminum stile and rail panels with standard one lite.

Thickness 2-1/4 inches (57 mm).

Stile and Rail 2-15/16 inches (75 mm).

Bottom Rail 2-15/16 inches (75 mm).

* + - * 1. Frame and Sill: Thermally broken, extruded aluminum.

Jamb thickness: 1-1/4 inches (32 mm).

Frame width: 5-5/8 inches (143 mm).

* + - * 1. Weatherstripping: Weather seal inserted in frame and sill to provide perimeter seal, as well as between door panels. Color is dark bronze.
      1. Glass: All glass to comply with safety glazing requirements of ANSI Z97.1 and CPSC 16CFR 1201.
         1. Type: Triple glazed insulated glass with a 1-1/4 inch (32 mm) overall thickness.
         2. Glass:

\*\* NOTE TO SPECIFIER \*\* Select glass paragraph required and delete those not required. Note that custom Low-E options include 240, 270, 272, 366 and 181.

Low-E 272 (for standard sizes, argon filled).

Custom Low-E option \_\_\_\_\_\_\_.

Clear insulated.

Tinted.

Laminated/Impact.

* + - * 1. Glazing: Silicone bedding on exterior surfaces and glazing seal on the interior of the panel.

\*\* NOTE TO SPECIFIER \*\* Select optional paragraph id required and delete if not required.

* + - * 1. Simulated Divided Lites: Sculpted profile as selected.
      1. Locking Hardware and Handles: Manufacturer's standard handle and concealed two point locking hardware operated by 90 degree turn of handle between each pair of folding panels and on any secondary swing panel.

\*\* NOTE TO SPECIFIER \*\* Select one of the following two paragraphs and delete the one not required. Note that key operation from the inside only may not meet egress requirements.

* + - * 1. On the main entry panel for configurations with a swing panel, provide manufacturer's standard trimset and lever handles on the inside and outside, a Schlage compatible lockset multi-point locking with dead bolt and concealed locking rods at the top and bottom of the door panel. Locking rods and mechanism shall not be edge or surface mounted. Depressing the handles withdraws the latch. Lifting the handles employs the rods and a turn of key or thumb turn employs the deadbolt and operates lock.
        2. Locking/handle operation from inside only (for even/even panel configurations or window applications where manufacturer's standard lever handle and lockset is not provided), on all swing panels or pair of folding panels to be opened first, provide manufacturer's standard handle and concealed two point locking hardware operated by 90 degree turn of handle.
        3. Cap concealed aluminum locking rods with solid stainless steel tips that lock into the frame's top and bottom locking channels.
        4. Handle Finish:

\*\* NOTE TO SPECIFIER \*\* Select finish paragraph required and delete the one not required.

Brushed Satin Aluminum color.

Brushed Satin Bronze color.

* + - * 1. Provide main entry panel handle height centered at 36 inches (914 mm) from bottom of panel.
      1. Folding Hardware: Manufacturer's standard folding hardware integrated with engineered head track, side jambs and threshold frame system. Systems where weight of panels is borne by the bottom of the track will not be allowed. Hardware systems carrying capacity is a minimum of 220 lbs (99.79 Kg) per panel.
         1. System operates with an upper wheel carrier that rolls on the aluminum head track. Lower track is incorporated into the threshold to guide door panels. Upper carrier and lower guide attached to door panel hinges. Jamb panels attached with top and bottom pivots. Panels connected with hinges including top and bottom hinges attached to top carrier and lower guide. Handles to open and close door is included. Carrier pins at top pivots, and intermediate and end carriers support the full door weight and provides panel adjustment. A pin locking system is used to lock vertical adjustment once heights are set. Pivots at jamb allow screwdriver adjustment of the system horizontally up to 3/8 inch (10 mm). All screws fully concealed for external security. Architectural grade stainless steel used for hinge pins, carrier pins and carrier bogeys.
         2. Hardware Sets:

Hinges: Provide 3 hinges on panels 96 inches (2438 mm) or less and 4 hinges on panels taller than 96 inches (2438 mm).

\*\* NOTE TO SPECIFIER \*\* Select optional wall pivot paragraph if required and delete if not required.

Wall Pivots: Provide wall pivots for jamb side pivot panels for taller doors or high-wind environments.

* + - * 1. Hardware finish:

\*\* NOTE TO SPECIFIER \*\* Select finish paragraph required and delete the one not required.

Brushed Satin Aluminum color.

Brushed Satin Bronze color.

* + - * 1. Threshold:

\*\* NOTE TO SPECIFIER \*\* Standard outswing engineered threshold can be recessed to level out from the top of the threshold's weather stop with the interior finish flooring to minimize transition from interior to exterior floor levels while maintaining best weather performance. Outside patiolevel shall be lower than the bottom of the threshold to allow water to weep into the exterior. Draftguard Seal requires manual operation. See manufacturer's drawings. ADA Ramp Sill complies with the ADA code #1142B and all horizontal channels in threshold or floor must be no more than 1/2 inch.

Standard engineered weeping thermally-broken threshold.

ADA Compliant ramp sill.

Guide track only for interior applications.

* + - * 1. Adjustment: System to be capable of adjustments without removing panels from tracks, up to 3/8 inch (7 mm) both vertically and horizontally with flathead and Phillip's head screwdriver.
        2. Gaps between folding panels that accommodate weather stripping and hinges to be 3/16 inch (5 mm) or less when panels are closed.

\*\* NOTE TO SPECIFIER \*\* Select same finish or split finish from the following paragraphs as required and delete the one not required.

* + - 1. Aluminum Finish:
         1. Provide same finishes on inside and outside.

\*\* NOTE TO SPECIFIER \*\* Select finish paragraph required and delete those not required. Split finish for interior and exterior is available.

Clear anodized

Bronze anodized.

White paint.

Two coat 70 percent Kynar finish with color as selected from manufacturer range of finishes.

Two coat 70 percent Kynar finish with custom color.

Decoral wood grain finish with color as selected.

\*\* NOTE TO SPECIFIER \*\* Insert interior and exterior finishes required.

* + - * 1. Provide Split Finish: Interior \_\_\_\_\_\_\_\_\_; Exterior \_\_\_\_\_\_\_\_\_.
      1. Threshold Finish:

\*\* NOTE TO SPECIFIER \*\* Select finish paragraph required and delete those not required.

* + - * 1. Clear anodized.
        2. Bronze anodized.

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

* + - 1. Screen and Blind: Provide horizontal, retractable non-pleated insect and solar control screen and blind system with fingertip operation, load balancing and tensioning adjustment.
         1. Screen Mechanism:

\*\* NOTE TO SPECIFIER \*\* Select paragraph required and delete the one not required.

Stand alone type.

Concealed within frame and integrated with door system.

* + - * 1. Operation:

\*\* NOTE TO SPECIFIER \*\* Select paragraph required and delete the one not required.

Single function for blinds up to 12 feet (3.65 m).wide and 10 feet (3.04 m) tall.

Double function for blinds up to 24 feet (7.31 m) wide and 10 feet (3.04 m) tall.

Multi-function screen and blind system up to 24 feet (7.31 m) wide and 7 feet 6 inches (2.29 m) tall.

* + - * 1. Screen Mesh: Fiberglass/PVC mesh as selected from manufacturer's available selection for:

\*\* NOTE TO SPECIFIER \*\* Select paragraph required and delete the one not required.

Insect protection.

Control heat gain or loss.

UV protection.

Projector screen.

* + - * 1. Finish:

\*\* NOTE TO SPECIFIER \*\* Select paragraph required and delete the one not required.

Anodized finish in manufacturer's standard color

Anodized finish in custom color.

Wood veneer from manufacturer's standard selections.

* + - 1. Retractable Pleated Insect Screens: Provide with aluminum frame that integrates with installation folding door frame. Pleated mesh expands when screen is closed and compacts against the jamb when fully open
         1. Provide head jamb, side jambs and threshold with dimensions and screen function direction required.
         2. Operation:

\*\* NOTE TO SPECIFIER \*\* Select paragraph required and delete the one not required.

Single function for blinds up to 14 feet 10 inches wide and 10 feet (3.04 m) tall.

Double function for blinds up to 29 feet 6 inches wide and 10 feet (3.04 m) tall.

* + - * 1. Screen mesh: European polyester mesh for insect protection.

\*\* NOTE TO SPECIFIER \*\* Select paragraph required and delete the one not required.

Provide in manufacturer's standard color as selected by the Architect.

Provide in custom color as selected by the Architect.

\*\* NOTE TO SPECIFIER \*\* Select optional components required from the following paragraph and delete the ones not required.

* + - 1. Door Stops: Provide magnetic door stops for main entry swing panels and for stacking of folding panels.

\*\* NOTE TO SPECIFIER \*\* Aluminum Wood folding glass doors are available for openings up to 16 panels and 52 feet wide and 10 feet 4 inches tall. Coordinate the size with the performance requirements of the project. Contact the manufacturer for additional information.

* + 1. Aluminum Wood Folding Doors: Aluminum Wood Outswing Bi-Fold Doors.
       1. Frame and Panels: Complete folding door system including aluminum and wood frame, aluminum threshold, aluminum exterior and wood interior panels to sizes indicated on the Drawings. Head, jamb, and sill to be thermally broken.

\*\* NOTE TO SPECIFIER \*\* Panels are available in sizes up to 39 inches wide and 120 inches high. Horizontal mullion is not required. Coordinate sizes indicated with performance requirements.

* + - * 1. Panel: Extruded aluminum with wood interior stile and rail panels with standard one lite.

Thickness 2-1/4 inches (57 mm).

Stile and Rail 3-5/8 inches (92 mm).

Bottom Rail 3 -5/8 inches (92 mm).

* + - * 1. Frame and Sill: Extruded aluminum with wood interior.

Jamb thickness: 1-1/4 inches (32 mm).

Frame width: 5-5/8 inches (143 mm).

* + - * 1. Weatherstripping: Weather seal inserted in frame and sill to provide perimeter seal, as well as between door panels. Color is dark bronze.
        2. Interior Wood Species: Provide with matching solid wood glazing stops.

\*\* NOTE TO SPECIFIER \*\* Select species paragraph as required and delete the ones not required.

Vertical grain Douglas Fir.

Sapele mahogany.

Custom species from manufacturer standard species.

* + - * 1. Interior Wood Finish: Unfinished, ready for paint or stain.
        2. Aluminum Finish:

\*\* NOTE TO SPECIFIER \*\* Select finish paragraph required and delete those not required.

White Paint

Bronze Paint

Two coat 70 percent Kynar finish with color as selected from manufacturer range of finishes.

Two coat 70 percent Kynar finish with custom color.

Decoral wood grain finish with color as selected.

* + - * 1. Threshold Finish:

\*\* NOTE TO SPECIFIER \*\* Select finish paragraph required and delete those not required.

Clear anodized.

Bronze anodized.

* + - 1. Glass: All glass to comply with safety glazing requirements of ANSI Z97.1 and CPSC 16CFR 1201.
         1. Type:

\*\* NOTE TO SPECIFIER \*\* Select glass paragraph required and delete those not required.

Single glazed.

Insulated glass with a 3/4 inch (19 mm) overall thickness.

Insulated glass with a 1-1/4 inch overall thickness.

* + - * 1. Glass:

\*\* NOTE TO SPECIFIER \*\* Select glass paragraph required and delete those not required. Note that custom California Title 24 Low-E options include 180, 366 and 189.

Low-E 272 (for standard sizes, argon filled).

Custom Low-E option \_\_\_\_\_\_\_.

Clear insulated.

Tinted.

Tempered.

Laminated.

* + - * 1. Glazing: Silicone bedding on exterior surfaces and glazing seal on the interior of the panel.

\*\* NOTE TO SPECIFIER \*\* Select optional paragraph id required and delete if not required.

* + - * 1. Simulated Divided Lites: Sculpted profile as selected.
      1. Locking Hardware and Handles: Manufacturer's standard handle and concealed two point locking hardware operated by 90 degree turn of handle between each pair of folding panels and on any secondary swing panel.

\*\* NOTE TO SPECIFIER \*\* Select one of the following two paragraphs and delete the one not required. Note that key operation from the inside only may not meet egress requirements.

* + - * 1. On the main entry panel for configurations with a swing panel, provide manufacturer's standard trimset and lever handles on the inside and outside, a Schlage compatible lockset multi-point locking with dead bolt and concealed locking rods at the top and bottom of the door panel. Locking rods and mechanism shall not be edge or surface mounted. Depressing the handles withdraws the latch. Lifting the handles employs the rods and a turn of key or thumb turn employs the deadbolt and operates lock.
        2. Locking/handle operation from inside only (for even/even panel configurations or window applications where manufacturer's standard lever handle and lockset is not provided), on all swing panels or pair of folding panels to be opened first, provide manufacturer's standard handle and concealed two point locking hardware operated by 90 degree turn of handle.
        3. Cap concealed aluminum locking rods with solid stainless steel tips that lock into the frame's top and bottom locking channels.
        4. Handle Finish:

\*\* NOTE TO SPECIFIER \*\* Select finish paragraph required and delete the one not required.

Brushed Satin Aluminum color.

Brushed Satin Bronze color.

* + - * 1. Provide main entry panel handle height centered at 36 inches (914 mm) from bottom of panel.
      1. Folding Hardware: Manufacturer's standard folding hardware integrated with engineered head track, side jambs and threshold frame system. Systems where weight of panels is borne by the bottom of the track will not be allowed. Hardware systems carrying capacity is a minimum of 220 lbs (99.79 Kg) per panel.
         1. System operates with an upper wheel carrier that rolls on the aluminum head track. Lower track is incorporated into the threshold to guide door panels. Upper carrier and lower guide attached to door panel hinges. Jamb panels attached with top and bottom pivots. Panels connected with hinges including top and bottom hinges attached to top carrier and lower guide. Handles to open and close door is included. Carrier pins at top pivots, and intermediate and end carriers support the full door weight and provides panel adjustment. A pin locking system is used to lock vertical adjustment once heights are set. Pivots at jamb allow screwdriver adjustment of the system horizontally up to 3/8 inch (10 mm). All screws fully concealed for external security. Architectural grade stainless steel used for hinge pins, carrier pins and carrier bogeys.
         2. Hardware Sets:

Hinges: Provide 3 hinges on panels 96 inches (2438 mm) or less and 4 hinges on panels taller than 96 inches (2438 mm).

\*\* NOTE TO SPECIFIER \*\* Select optional wall pivot paragraph if required and delete if not required.

Wall Pivots: Provide wall pivots for jamb side pivot panels for taller doors or high-wind environments.

* + - * 1. Hardware finish:

\*\* NOTE TO SPECIFIER \*\* Select finish paragraph required and delete the one not required.

Brushed Satin Aluminum color.

Brushed Satin Bronze color.

* + - * 1. Threshold:

\*\* NOTE TO SPECIFIER \*\* Standard outswing engineered threshold can be recessed to level out from the top of the threshold's weather stop with the interior finish flooring to minimize transition from interior to exterior floor levels while maintaining best weather performance. Outside patiolevel shall be lower than the bottom of the threshold to allow water to weep into the exterior. Draftguard Seal requires manual operation. See manufacturer's drawings. ADA Ramp Sill complies with the ADA code #1142B and all horizontal channels in threshold or floor must be no more than 1/2 inch.

Standard engineered weeping thermally-broken threshold.

ADA Compliant ramp sill.

Guide track only for interior applications.

* + - * 1. Adjustment: System to be capable of adjustments without removing panels from tracks, up to 3/8 inch (7 mm) both vertically and horizontally with flathead and Phillip's head screwdriver.
        2. Gaps between folding panels that accommodate weather stripping and hinges to be 3/16 inch (5 mm) or less when panels are closed.

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

* + - 1. Screen and Blind: Provide horizontal, retractable non-pleated insect and solar control screen and blind system with fingertip operation, load balancing and tensioning adjustment.
         1. Screen Mechanism:

\*\* NOTE TO SPECIFIER \*\* Select paragraph required and delete the one not required.

Stand alone type.

Concealed within frame and integrated with door system.

* + - * 1. Operation:

\*\* NOTE TO SPECIFIER \*\* Select paragraph required and delete the one not required.

Single function for blinds up to 12 feet (3.65 m).wide and 10 feet (3.04 m) tall.

Double function for blinds up to 24 feet (7.31 m) wide and 10 feet (3.04 m) tall.

Multi-function screen and blind system up to 24 feet (7.31 m) wide and 7 feet 6 inches (2.29 m) tall.

* + - * 1. Screen Mesh: Fiberglass/PVC mesh as selected from manufacturer's available selection for:

\*\* NOTE TO SPECIFIER \*\* Select paragraph required and delete the one not required.

Insect protection.

Control heat gain or loss.

UV protection.

Projector screen.

* + - * 1. Finish:

\*\* NOTE TO SPECIFIER \*\* Select paragraph required and delete the one not required.

Anodized finish in manufacturer's standard color

Anodized finish in custom color.

Wood veneer from manufacturer's standard selections.

* + - 1. Retractable Pleated Insect Screens: Provide with aluminum frame that integrates with installation folding door frame. Pleated mesh expands when screen is closed and compacts against the jamb when fully open
         1. Provide head jamb, side jambs and threshold with dimensions and screen function direction required.
         2. Operation:

\*\* NOTE TO SPECIFIER \*\* Select paragraph required and delete the one not required.

Single function for blinds up to 14 feet 10 inches wide and 10 feet (3.04 m) tall.

Double function for blinds up to 29 feet 6 inches wide and 10 feet (3.04 m) tall.

* + - * 1. Screen mesh: European polyester mesh for insect protection.

\*\* NOTE TO SPECIFIER \*\* Select paragraph required and delete the one not required.

Provide in manufacturer's standard color as selected by the Architect.

Provide in custom color as selected by the Architect.

\*\* NOTE TO SPECIFIER \*\* Select optional components required from the following paragraph and delete the ones not required.

* + - 1. Provide system with 90 degree zero post corners where indicated.
      2. Door Stops: Provide magnetic door stops for main entry swing panels and for stacking of folding panels.
      3. Provide manufacturer's standard 2 inch interior wood frame jamb extensions.

\*\* NOTE TO SPECIFIER \*\* Contemporary Clad Series Folding doors are available for openings up to 20 panels and 65 feet wide and 9 feet 4 inches tall. Coordinate the size with the performance requirements of the project. Contact the manufacturer for additional information.

* + 1. Contemporary Clad Folding Glass Doors: Hybrid panel construction 2-1/4 inches thick with exterior facing of extruded aluminum and solid wood on the interior.
       1. Frame and Panels: Complete folding door system including aluminum exterior and solid core LVL wood core construction and exposed wood interior frame, aluminum threshold, aluminum exterior and wood interior panels to sizes indicated on the Drawings. Head, jamb, and sill to be thermally broken.

\*\* NOTE TO SPECIFIER \*\* Panels are available in sizes up to 39 inches wide and 112 inches high. Standard heights are 7 feet and 8 feet. Horizontal mullion is not required. Coordinate sizes indicated with performance requirements.

* + - * 1. Panel: Extruded aluminum exterior solid wood core panels with standard one lite.

Thickness 2-1/4 inches (57 mm).

Stile and Rail 2-15/16 inches (75 mm).

\*\* NOTE TO SPECIFIER \*\* Select bottom rail paragraph as required and delete if not required. Bottom rail of 7-1/2 inches is required for doors over 96 inches high.

Bottom rail 2-15/16 inches (75 mm).

Bottom rail 7-1/2 inch (190.5 mm).

10 inch (254 mm) ADA bottom rail.

* + - * 1. Frame and Sill: Extruded aluminum.

Jamb width: 1-1/4 inches (32 mm).

Frame depth: 5-5/8 inches (143 mm) overall.

* + - * 1. Interior Wood Species: Provide with matching solid wood glazing stops.

\*\* NOTE TO SPECIFIER \*\* Select species paragraph as required and delete the ones not required.

Vertical grain Douglas Fir.

Sapele mahogany.

* + - * 1. Interior Wood Finish: Unfinished, ready for paint or stain.
        2. Aluminum Finish: Provide same finishes on inside and outside.

\*\* NOTE TO SPECIFIER \*\* Select finish paragraph required and delete those not required.

Bronze paint.

Clear anodized

Bronze anodized.

White paint.

Two coat 70 percent Kynar finish with color as selected from manufacturer range of finishes.

Two coat 70 percent Kynar finish with custom color.

Decoral wood grain finish with color as selected.

* + - * 1. Threshold Finish:

\*\* NOTE TO SPECIFIER \*\* Select finish paragraph required and delete those not required.

Clear anodized.

Bronze anodized.

* + - 1. Glass: All glass to comply with safety glazing requirements of ANSI Z97.1 and CPSC 16CFR 1201.
         1. Type:

\*\* NOTE TO SPECIFIER \*\* Select glass paragraph required and delete those not required.

Single glazed.

Insulated glass with a 3/4 inch (19 mm) overall thickness.

* + - * 1. Glass:

\*\* NOTE TO SPECIFIER \*\* Select glass paragraph required and delete those not required. Note that custom Low-E options include 240, 270, 272, 366 and 181.

Low-E 272 (for standard sizes, argon filled).

Custom Low-E option \_\_\_\_\_\_\_.

Clear insulated.

Tinted.

Tempered.

Laminated.

* + - * 1. Glazing: Silicone bedding on exterior surfaces and wood glazing beads on the interior of the panel.

\*\* NOTE TO SPECIFIER \*\* Select optional paragraph id required and delete if not required.

* + - * 1. Simulated Divided Lites: Sculpted profile as selected.
      1. Locking Hardware and Handles: Manufacturer's standard rebated flush bolts at top and bottom of panel between each pair of folding panels and on any secondary swing panel.

\*\* NOTE TO SPECIFIER \*\* Select one of the following two paragraphs and delete the one not required. Note that key operation from the inside only may not meet egress requirements.

* + - * 1. On the main entry panel for configurations with a swing panel, provide manufacturer's standard trimset and lever handles on the inside and outside, and Schlage compatible lock set with lockable latch. Depressing the handles withdraws latch.
        2. Locking/handle operation from inside only (for even/even panel configurations or window applications where manufacturer's standard lever handle and lockset is not provided), on all swing panels or pair of folding panels to be opened first, provide manufacturer's standard rebated flush bolts at top and bottom of panel.
        3. Rebated flush bolts to lock into the frame's top and bottom locking channels.
        4. Handle Finish:

\*\* NOTE TO SPECIFIER \*\* Select finish paragraph required and delete the one not required.

Brushed Satin Aluminum color.

Brushed Satin Bronze color.

* + - * 1. Provide main entry panel handle height centered at 36 inches (914 mm) from bottom of panel.
      1. Folding Hardware: Manufacturer's standard folding hardware integrated with engineered thermally-broken head track, side jambs and threshold frame system. Systems where weight of panels is borne by the bottom of the track will not be allowed. Hardware systems carrying capacity is a minimum of 220 lbs (99.79 Kg) per panel.
         1. System operates with an upper wheel carrier that rolls on the aluminum head track. Lower track is incorporated into the threshold to guide door panels. Upper carrier and lower guide attached to door panel hinges. Jamb panels attached with top and bottom pivots. Panels connected with hinges including top and bottom hinges attached to top carrier and lower guide. Handles to open and close door is included. Carrier pins at top pivots, and intermediate and end carriers support the full door weight and provides panel adjustment. A pin locking system is used to lock vertical adjustment once heights are set. Pivots at jamb allow screwdriver adjustment of the system horizontally up to 3/8 inch (10 mm). All screws fully concealed for external security. Architectural grade stainless steel used for hinge pins, carrier pins and carrier bogeys.
         2. Hardware Sets:

Hinges: Provide 3 hinges on panels 96 inches (2438 mm) or less and 4 hinges on panels taller than 96 inches (2438 mm).

\*\* NOTE TO SPECIFIER \*\* Select optional wall pivot paragraph if required and delete if not required.

Wall Pivots: Provide wall pivots for jamb side pivot panels for taller doors or high-wind environments.

* + - * 1. Hardware finish:

\*\* NOTE TO SPECIFIER \*\* Select finish paragraph required and delete the one not required.

Brushed Satin Aluminum color.

Brushed Satin Bronze color.

* + - * 1. Threshold:

\*\* NOTE TO SPECIFIER \*\* Standard outswing engineered threshold can be recessed to level out from the top of the threshold's weather stop with the interior finish flooring to minimize transition from interior to exterior floor levels while maintaining best weather performance. Outside patiolevel shall be lower than the bottom of the threshold to allow water to weep into the exterior. Draftguard Seal requires manual operation. See manufacturer's drawings. ADA Ramp Sill complies with the ADA code #1142B and all horizontal channels in threshold or floor must be no more than 1/2 inch.

Standard engineered weeping thermally-broken threshold.

ADA Compliant ramp sill.

Guide track only for interior applications.

* + - * 1. Adjustment: System to be capable of adjustments without removing panels from tracks, up to 3/8 inch (7 mm) both vertically and horizontally with flathead and Phillip's head screwdriver.
        2. Gaps between folding panels that accommodate weather stripping and hinges to be 3/16 inch (5 mm) or less when panels are closed.

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

* + - 1. Screen and Blind: Provide horizontal, retractable non-pleated insect and solar control screen and blind system with fingertip operation, load balancing and tensioning adjustment.
         1. Screen Mechanism:

\*\* NOTE TO SPECIFIER \*\* Select paragraph required and delete the one not required.

Stand alone type.

Concealed within frame and integrated with door system.

* + - * 1. Operation:

\*\* NOTE TO SPECIFIER \*\* Select paragraph required and delete the one not required.

Single function for blinds up to 12 feet (3.65 m).wide and 10 feet (3.04 m) tall.

Double function for blinds up to 24 feet (7.31 m) wide and 10 feet (3.04 m) tall.

Multi-function screen and blind system up to 24 feet (7.31 m) wide and 7 feet 6 inches (2.29 m) tall.

* + - * 1. Screen Mesh: Fiberglass/PVC mesh as selected from manufacturer's available selection for:

\*\* NOTE TO SPECIFIER \*\* Select paragraph required and delete the one not required.

Insect protection.

Control heat gain or loss.

UV protection.

Projector screen.

* + - * 1. Finish:

\*\* NOTE TO SPECIFIER \*\* Select paragraph required and delete the one not required.

Anodized finish in manufacturer's standard color

Anodized finish in custom color.

Wood veneer from manufacturer's standard selections.

* + - 1. Retractable Pleated Insect Screens: Provide with aluminum frame that integrates with installation folding door frame. Pleated mesh expands when screen is closed and compacts against the jamb when fully open
         1. Provide head jamb, side jambs and threshold with dimensions and screen function direction required.
         2. Operation:

\*\* NOTE TO SPECIFIER \*\* Select paragraph required and delete the one not required.

Single function for blinds up to 14 feet 10 inches wide and 10 feet (3.04 m) tall.

Double function for blinds up to 29 feet 6 inches wide and 10 feet (3.04 m) tall.

* + - * 1. Screen mesh: European polyester mesh for insect protection.

\*\* NOTE TO SPECIFIER \*\* Select paragraph required and delete the one not required.

Provide in manufacturer's standard color as selected by the Architect.

Provide in custom color as selected by the Architect.

\*\* NOTE TO SPECIFIER \*\* Select optional components required from the following paragraph and delete the ones not required.

* + - 1. Provide system with 90 degree zero post corners where indicated.
      2. Door Stops: Provide magnetic door stops for main entry swing panels and for stacking of folding panels.
      3. Provide manufacturer's standard 2 inch interior wood frame jamb extensions.

\*\* NOTE TO SPECIFIER \*\* Wood Series doors are available for openings up to 16 panels and 52 feet wide and 10 feet 4 inches tall. Coordinate the size with the performance requirements of the project. Contact the manufacturer for additional information.

* + 1. Wood Folding Doors: Wood Outswing Bi-Fold Doors.
       1. Frame and Panels: Complete folding door system including aluminum and wood frame, aluminum threshold, wood exterior and interior panels to sizes indicated on the Drawings. Head, jamb, and sill to be thermally broken.

\*\* NOTE TO SPECIFIER \*\* Panels are available in sizes up to 39 inches wide and 120 inches high. Horizontal mullion is not required. Coordinate sizes indicated with performance requirements.

* + - * 1. Panel: Extruded aluminum stile and rail panels with standard one lite.

Thickness 1-3/4 inches (44.5 mm).

Stile and Rail 3-5/8 inches (92 mm).

\*\* NOTE TO SPECIFIER \*\* Select bottom rail paragraph as required and delete if not required.

Bottom Rail 3-5/8 inches (92 mm).

Bottom rail 7-1/2 inch (190.5 mm) wide bottom rail when panel height exceeds 96 inches (2438 mm).

10 inch (254 mm) ADA bottom rail.

* + - * 1. Frame: Extruded aluminum exterior with interior wood components. Head, jamb, and sill to be thermally broken.

Side jambs 1-1/4 inches (32 mm) thick.

Frame width:

\*\* NOTE TO SPECIFIER \*\* Select frame width paragraph required and delete the one not required.

5-5/8 inches (143 mm) overall.

7-5/8 inches (193.6 mm) overall.

* + - * 1. Weatherstripping: Weather seal inserted in frame and sill to provide perimeter seal, as well as between door panels. Color is dark bronze.
        2. Exterior and Interior Wood Species: Provide with matching solid wood glazing stops.

\*\* NOTE TO SPECIFIER \*\* Select species paragraph as required and delete the ones not required.

Vertical grain Douglas Fir.

Sapele mahogany.

Custom species from manufacturer standard species.

* + - * 1. Exterior and Interior Wood Finish: Unfinished, ready for paint or stain.
        2. Threshold Finish:

\*\* NOTE TO SPECIFIER \*\* Select finish paragraph required and delete those not required.

Clear anodized.

Bronze anodized.

* + - 1. Glass: All glass to comply with safety glazing requirements of ANSI Z97.1 and CPSC 16CFR 1201.
         1. Type:

\*\* NOTE TO SPECIFIER \*\* Select glazing paragraph required and delete the one not required.

Single glazed.

Insulated glass with a 3/4 inch (19 mm) overall thickness.

* + - * 1. Glass:

\*\* NOTE TO SPECIFIER \*\* Select glass paragraph required and delete those not required. Note that custom Low-E options include 240, 270, 272, 366 and 181.

Low-E 272 (for standard sizes, argon filled).

Custom Low-E option \_\_\_\_\_\_\_.

Clear insulated.

Tinted.

Tempered.

Laminated.

* + - * 1. Glazing: Silicone bedding on exterior surfaces and glazing seal on the interior of the panel.

\*\* NOTE TO SPECIFIER \*\* Select optional paragraph id required and delete if not required.

* + - * 1. Simulated Divided Lites: Sculpted profile as selected.
      1. Locking Hardware and Handles: Manufacturer's standard handle and concealed two point locking hardware operated by 90 degree turn of handle between each pair of folding panels and on any secondary swing panel.

\*\* NOTE TO SPECIFIER \*\* Select one of the following two paragraphs and delete the one not required. Note that key operation from the inside only may not meet egress requirements.

* + - * 1. On the main entry panel for configurations with a swing panel, provide manufacturer's standard trimset and lever handles on the inside and outside, a Schlage compatible lockset multi-point locking with dead bolt and concealed locking rods at the top and bottom of the door panel. Locking rods and mechanism shall not be edge or surface mounted. Depressing the handles withdraws the latch. Lifting the handles employs the rods and a turn of key or thumb turn employs the deadbolt and operates lock.
        2. Locking/handle operation from inside only (for even/even panel configurations or window applications where manufacturer's standard lever handle and lockset is not provided), on all swing panels or pair of folding panels to be opened first, provide manufacturer's standard handle and concealed two point locking hardware operated by 90 degree turn of handle.
        3. Cap concealed aluminum locking rods with solid stainless steel tips that lock into the frame's top and bottom locking channels.
        4. Handle Finish:

\*\* NOTE TO SPECIFIER \*\* Select finish paragraph required and delete the one not required.

Brushed Satin Aluminum color.

Brushed Satin Bronze color.

* + - * 1. Provide main entry panel handle height centered at 36 inches (914 mm) from bottom of panel.
      1. Folding Hardware: Manufacturer's standard folding hardware integrated with engineered head track, side jambs and threshold frame system. Systems where weight of panels is borne by the bottom of the track will not be allowed. Hardware systems carrying capacity is a minimum of 220 lbs (99.79 Kg) per panel.
         1. System operates with an upper wheel carrier that rolls on the aluminum head track. Lower track is incorporated into the threshold to guide door panels. Upper carrier and lower guide attached to door panel hinges. Jamb panels attached with top and bottom pivots. Panels connected with hinges including top and bottom hinges attached to top carrier and lower guide. Handles to open and close door is included. Carrier pins at top pivots, and intermediate and end carriers support the full door weight and provides panel adjustment. A pin locking system is used to lock vertical adjustment once heights are set. Pivots at jamb allow screwdriver adjustment of the system horizontally up to 3/8 inch (10 mm). All screws fully concealed for external security. Architectural grade stainless steel used for hinge pins, carrier pins and carrier bogeys.
         2. Hardware Sets:

Hinges: Provide 3 hinges on panels 96 inches (2438 mm) or less and 4 hinges on panels taller than 96 inches (2438 mm).

\*\* NOTE TO SPECIFIER \*\* Select optional wall pivot paragraph if required and delete if not required.

Wall Pivots: Provide wall pivots for jamb side pivot panels for taller doors or high-wind environments.

* + - * 1. Hardware finish:

\*\* NOTE TO SPECIFIER \*\* Select finish paragraph required and delete the one not required.

Brushed Satin Aluminum color.

Brushed Satin Bronze color.

* + - * 1. Threshold:

\*\* NOTE TO SPECIFIER \*\* Standard outswing engineered threshold can be recessed to level out from the top of the threshold's weather stop with the interior finish flooring to minimize transition from interior to exterior floor levels while maintaining best weather performance. Outside patiolevel shall be lower than the bottom of the threshold to allow water to weep into the exterior. Draftguard Seal requires manual operation. See manufacturer's drawings. ADA Ramp Sill complies with the ADA code #1142B and all horizontal channels in threshold or floor must be no more than 1/2 inch.

Standard engineered weeping thermally-broken threshold.

ADA Compliant ramp sill.

Guide track only for interior applications.

* + - * 1. Adjustment: System to be capable of adjustments without removing panels from tracks, up to 3/8 inch (7 mm) both vertically and horizontally with flathead and Phillip's head screwdriver.
        2. Gaps between folding panels that accommodate weather stripping and hinges to be 3/16 inch (5 mm) or less when panels are closed.

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

* + - 1. Screen and Blind: Provide horizontal, retractable non-pleated insect and solar control screen and blind system with fingertip operation, load balancing and tensioning adjustment.
         1. Screen Mechanism:

\*\* NOTE TO SPECIFIER \*\* Select paragraph required and delete the one not required.

Stand alone type.

Concealed within frame and integrated with door system.

* + - * 1. Operation:

\*\* NOTE TO SPECIFIER \*\* Select paragraph required and delete the one not required.

Single function for blinds up to 12 feet (3.65 m).wide and 10 feet (3.04 m) tall.

Double function for blinds up to 24 feet (7.31 m) wide and 10 feet (3.04 m) tall.

Multi-function screen and blind system up to 24 feet (7.31 m) wide and 7 feet 6 inches (2.29 m) tall.

* + - * 1. Screen Mesh: Fiberglass/PVC mesh as selected from manufacturer's available selection for:

\*\* NOTE TO SPECIFIER \*\* Select paragraph required and delete the one not required.

Insect protection.

Control heat gain or loss.

UV protection.

Projector screen.

* + - * 1. Finish:

\*\* NOTE TO SPECIFIER \*\* Select paragraph required and delete the one not required.

Anodized finish in manufacturer's standard color

Anodized finish in custom color.

Wood veneer from manufacturer's standard selections.

* + - 1. Retractable Pleated Insect Screens: Provide with aluminum frame that integrates with installation folding door frame. Pleated mesh expands when screen is closed and compacts against the jamb when fully open
         1. Provide head jamb, side jambs and threshold with dimensions and screen function direction required.
         2. Operation:

\*\* NOTE TO SPECIFIER \*\* Select paragraph required and delete the one not required.

Single function for blinds up to 14 feet 10 inches wide and 10 feet (3.04 m) tall.

Double function for blinds up to 29 feet 6 inches wide and 10 feet (3.04 m) tall.

* + - * 1. Screen mesh: European polyester mesh for insect protection.

\*\* NOTE TO SPECIFIER \*\* Select paragraph required and delete the one not required.

Provide in manufacturer's standard color as selected by the Architect.

Provide in custom color as selected by the Architect.

\*\* NOTE TO SPECIFIER \*\* Select optional components required from the following paragraph and delete the ones not required.

* + - 1. Provide system with 90 degree zero post corners where indicated.
      2. Door Stops: Provide magnetic door stops for main entry swing panels and for stacking of folding panels.
      3. Provide manufacturer's standard 2 inch interior wood frame jamb extensions.

\*\* NOTE TO SPECIFIER \*\* Vinyl Series doors are available for openings up to 6 door panels wide opening in each direction and 17 feet 7 inches wide and 7 feet 11 inches tall. Coordinate the size with the performance requirements of the project. Contact the manufacturer for additional information.

* + 1. Vinyl Folding Doors: Vinyl Outswing Bi-Fold Doors.
       1. Frame and Panels: Complete folding door system including head, side jambs, thresholds and vinyl panels to sizes indicated on the Drawings.

\*\* NOTE TO SPECIFIER \*\* Panels are available in sizes up to 34-5/8 inches wide and 91-1/2 inches high. Horizontal mullion is not required. Coordinate sizes indicated with performance requirements.

* + - * 1. Panel: Extruded vinyl with aluminum interior panels with standard one lite.

Thickness 1-3/4 inches (44.5 mm).

Stile and Top Rail 2-15/16 inches (75 mm).

Bottom Rail 2-15/16 inches (75 mm).

* + - * 1. Frame and Sill: Extruded vinyl.

Jamb thickness: 1-1/4 inches (32 mm).

Frame width: 5-5/8 inches (143 mm).

* + - * 1. Head, jamb and sill sections incorporate a thermal break.
        2. Weatherstripping: Weather seal inserted in frame and sill to provide perimeter seal, as well as between door panels.
      1. Glass: All glass to comply with safety glazing requirements of ANSI Z97.1 and CPSC 16CFR 1201.
         1. Type:

\*\* NOTE TO SPECIFIER \*\* Select glass paragraph required and delete those not required.

Single glazed.

Insulated glass with a 3/4 inch (19 mm) overall thickness.

Insulated glass with a 1 inch (25.5 mm) overall thickness.

* + - * 1. Glass:

\*\* NOTE TO SPECIFIER \*\* Select glass paragraph required and delete those not required. Note that custom Low-E options include 240, 270, 272, 366, and 181.

Low-E 272 (for standard sizes, argon filled).

Custom Low-E option \_\_\_\_\_\_\_.

Clear insulated.

Tinted.

Tempered.

Laminated.

* + - * 1. Glazing: Silicone bedding on exterior surfaces and glazing seal on the interior of the panel.
      1. Locking Hardware and Handles: Manufacturer's standard handle and concealed two point locking hardware operated by 90 degree turn of handle between each pair of folding panels and on any secondary swing panel.

\*\* NOTE TO SPECIFIER \*\* Select one of the following two paragraphs and delete the one not required. Note that key operation from the inside only may not meet egress requirements.

* + - * 1. On the main entry panel for configurations with a swing panel, provide manufacturer's standard trimset and lever handles on the inside and outside, a Schlage compatible lockset multi-point locking with dead bolt and concealed locking rods at the top and bottom of the door panel. Locking rods and mechanism shall not be edge or surface mounted. Depressing the handles withdraws the latch. Lifting the handles employs the rods and a turn of key or thumb turn employs the deadbolt and operates lock.
        2. Locking/handle operation from inside only (for even/even panel configurations or window applications where manufacturer's standard lever handle and lockset is not provided), on all swing panels or pair of folding panels to be opened first, provide manufacturer's standard handle and concealed two point locking hardware operated by 90 degree turn of handle.
        3. Cap concealed aluminum locking rods with solid stainless steel tips that lock into the frame's top and bottom locking channels.
        4. Handle Finish:

\*\* NOTE TO SPECIFIER \*\* Select finish paragraph required and delete the one not required.

Brushed Satin Stainless.

Brushed Satin Bronze.

White.

* + - * 1. Provide main entry panel handle height centered at 36 inches (914 mm) from bottom of panel.
      1. Folding Hardware: Manufacturer's standard folding hardware integrated with engineered head track, side jambs and threshold frame system. Systems where weight of panels is borne by the bottom of the track will not be allowed. Hardware systems carrying capacity is a minimum of 220 lbs (99.79 Kg) per panel.
         1. System operates with an upper wheel carrier that rolls on the aluminum head track. Lower track is incorporated into the threshold to guide door panels. Upper carrier and lower guide attached to door panel hinges. Jamb panels attached with top and bottom pivots. Panels connected with hinges including top and bottom hinges attached to top carrier and lower guide. Handles to open and close door is included. Carrier pins at top pivots, and intermediate and end carriers support the full door weight and provides panel adjustment. A pin locking system is used to lock vertical adjustment once heights are set. Pivots at jamb allow screwdriver adjustment of the system horizontally up to 3/8 inch (10 mm). All screws fully concealed for external security. Architectural grade stainless steel used for hinge pins, carrier pins and carrier bogeys.
         2. Hardware Sets:

Hinges: Provide 3 hinges on panels 96 inches (2438 mm) or less and 4 hinges on panels taller than 96 inches (2438 mm).

\*\* NOTE TO SPECIFIER \*\* Select optional wall pivot paragraph if required and delete if not required.

Wall Pivots: Provide wall pivots for jamb side pivot panels for taller doors or high-wind environments.

* + - * 1. Hardware finish:

\*\* NOTE TO SPECIFIER \*\* Select finish paragraph required and delete the one not required.

Brushed Stainless.

Brushed Satin Bronze.

* + - * 1. Threshold:

\* NOTE TO SPECIFIER \*\* Standard outswing engineered threshold can be recessed to level out from the top of the threshold's weather stop with the interior finish flooring to minimize transition from interior to exterior floor levels while maintaining best weather performance. Outside patiolevel shall be lower than the bottom of the threshold to allow water to weep into the exterior.

Standard engineered weeping thermally-broken threshold.

Guide track only for interior applications.

* + - * 1. Adjustment: System to be capable of adjustments without removing panels from tracks, up to 3/8 inch (7 mm) both vertically and horizontally with flathead and Phillip's head screwdriver.
        2. Gaps between folding panels that accommodate weather stripping and hinges to be 3/16 inch (5 mm) or less when panels are closed.
      1. Vinyl Finish:
         1. Exterior vinyl surface colors are finished to meet AAMA 2604.
         2. Sill and Head Tracks.

\*\* NOTE TO SPECIFIER \*\* Select finish paragraph required and delete those not required.

White vinyl

Tan vinyl

* + - 1. Threshold Finish: Clear anodized.

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

* + - 1. Screen and Blind: Provide horizontal, retractable non-pleated insect and solar control screen and blind system with fingertip operation, load balancing and tensioning adjustment.
         1. Screen Mechanism:

\*\* NOTE TO SPECIFIER \*\* Select paragraph required and delete the one not required.

Stand alone type.

Concealed within frame and integrated with door system.

* + - * 1. Operation:

\*\* NOTE TO SPECIFIER \*\* Select paragraph required and delete the one not required.

Single function for blinds up to 12 feet (3.65 m).wide and 10 feet (3.04 m) tall.

Double function for blinds up to 24 feet (7.31 m) wide and 10 feet (3.04 m) tall.

Multi-function screen and blind system up to 24 feet (7.31 m) wide and 7 feet 6 inches (2.29 m) tall.

* + - * 1. Screen Mesh: Fiberglass/PVC mesh as selected from manufacturer's available selection for:

\*\* NOTE TO SPECIFIER \*\* Select paragraph required and delete the one not required.

Insect protection.

Control heat gain or loss.

UV protection.

Projector screen.

* + - * 1. Finish:

\*\* NOTE TO SPECIFIER \*\* Select paragraph required and delete the one not required.

Anodized finish in manufacturer's standard color

Anodized finish in custom color.

Wood veneer from manufacturer's standard selections.

* + - 1. Retractable Pleated Insect Screens: Provide with aluminum frame that integrates with installation folding door frame. Pleated mesh expands when screen is closed and compacts against the jamb when fully open
         1. Provide head jamb, side jambs and threshold with dimensions and screen function direction required.
         2. Operation:

\*\* NOTE TO SPECIFIER \*\* Select paragraph required and delete the one not required.

Single function for blinds up to 14 feet 10 inches wide and 10 feet (3.04 m) tall.

Double function for blinds up to 29 feet 6 inches wide and 10 feet (3.04 m) tall.

* + - * 1. Screen mesh: European polyester mesh for insect protection.

\*\* NOTE TO SPECIFIER \*\* Select paragraph required and delete the one not required.

Provide in manufacturer's standard color as selected by the Architect.

Provide in custom color as selected by the Architect.

\*\* NOTE TO SPECIFIER \*\* Select optional components required from the following paragraph and delete the ones not required.

* + - 1. Door Stops: Provide magnetic door stops for main entry swing panels and for stacking of folding panels.
  1. FABRICATI0N
     1. Sizes and Configurations: Fabricate to sizes and configurations indicated on the Drawings. Verify opening sizes by field measurement prior to completing fabrication.
     2. Verify swing/stacking direction for outswing or inswing opening units.
     3. Provide 90 degree zero post corner configurations as indicated on the Drawings.
     4. Define as window system for net frame heights 72 inches or less.
     5. Fabricate with manufacturer's non-integral nail fin for use in conjunction with standard flashing, weather resistant barriers and compatible sealants.

1. EXECUTION
   1. EXAMINATION
      1. Do not begin installation until substrates have been properly prepared.
      2. Verify that the maximum deflection of the header with the live load does not exceed the lesser of L/720 of the span and 1/4 inch. Structural support for lateral loads including both wind load and when the panels are stacked open) must be provided.
      3. Verify that dimensions of rough opening will fit the net frame dimensions of door system; verify that rough openings are level, plumb, and square, with no unevenness in the floor.
      4. 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. Properly flash and waterproof around the perimeter of the opening and frame. Adequate overhangs to prevent the effects of sheeting water from above are recommended.
      3. Provide adequate anchorage devices. Securely fit frame in place, level, straight, plumb and square. Install frame in proper elevation, plane and location, and in proper alignment with other work. Head section of frame must be installed with a 1/8 inch upward crown at the center of the opening.
      4. If necessary for tracks recessed into finish floors, drill weep holes in the floor track and provide drain connectors to ensure water can escape from the tracks.
      5. Ensure doors are adjusted for proper operation.
      6. For products requiring field finishing, field as specified in Section 09900; seal and finish promptly after installation and no more than seven days and prior to exposure to weather.
      7. Install the screen system following the manufacturer's recommendations and installation instructions.
   4. PROTECTION
      1. Protect installed products until completion of project.
      2. Protect installed product from construction activities, particularly thresholds and floor channels.
      3. Touch-up, repair or replace damaged products before Substantial Completion.
   5. 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. :
    2. :

END OF SECTION