



## SECTION 08 32 13

### SLIDING ALUMINUM-FRAMED GLASS DOORS

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#### PART 1 GENERAL

##### 1.1 SECTION INCLUDES

- A. Multi-Slide Aluminum Glass Doors:
  - 1. Series 7600: Thermally broken.
  - 2. Series 600: Thermally broken.
  - 3. Series 600: Non-thermally broken.
  
- B. Sliding Aluminum-Framed Patio Glass Doors:
  - 1. Series 7650: Thermally broken.
  - 2. Series 600: Thermally broken including sill.
  - 3. Series 600: Thermally broken except sill.
  - 4. Series 600: Non-thermally broken.

##### 1.2 RELATED SECTIONS

- A. Section 06 10 00 - Rough Carpentry.
- B. Section 06 20 00 - Finish Carpentry.
- C. Section 07 90 00 - Joint Protection.
- D. Section 08 70 00 - Hardware.

##### 1.3 REFERENCES

- A. Aluminum Anodizers Council (AAC):
  - 1. AAC Class 1 -Anodized Architectural Aluminum Coatings.
  
- B. American Architectural Manufacturers Association (AAMA):
  - 1. AAMA 2604 - Voluntary Specifications, Performance Requirements and Test Procedures for Pigmented Organic Coatings on Aluminum Extrusions and Panels.
  - 2. AAMA 2605 - Voluntary Specifications, Performance Requirements and Test Procedures for Pigmented for High Performance Organic Coatings on Aluminum Extrusions and Panels.
  
- C. American National Standards Institute (ANSI):
  - 1. ANSI Z97.1 - Safety Performance Specifications and Methods of Test for Safety Glazing Material Used In Buildings.

- D. ASTM International (ASTM):
  - 1. ASTM E 283 - Test Method for Rate of Air Leakage through Exterior Windows, Curtain Walls, and Doors by Uniform Static Air Pressure Difference.
  - 2. ASTM E 330 - Test Method for Structural Performance of Exterior Windows, Curtain Walls, and Doors by Uniform Static Air Pressure Difference.
  - 3. ASTM E 547 - Test Method for Water Penetration of Exterior Windows, Curtain Walls, and Doors by Cyclic Static Air Pressure Differential.
- E. Consumer Product Safety Commission (CPSC):
  - 1. CPSC 16CFR-1201 - Safety Standard for Architectural Glazing Materials.
- F. National Fenestration Rating Council (NFRC):

#### 1.4 SUBMITTALS

- A. Submit under provisions of Section 01 30 00 - Administrative Requirements.
- B. 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.
- C. Shop Drawings: Include outside net frame dimensioning, number of panels, sliding configuration of panels left or right, typical head, side jamb, sill and panel details and type of glazing material per vertical plan and elevations view drawings.
- D. Verification Samples: For each finish product specified, two samples, minimum size 6 inches (152 mm) square, representing actual product and color.

#### 1.5 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Provide complete, sliding door system by a single source manufacturer with at least 5 years documented experience manufacturing sliding door systems in the U.S.
- B. Installer Qualifications: Installer with documented experienced in the installation of manufacturer's sliding door systems or similar and screen system to the products specified.
- C. 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. Remodel mock-up area as required to produce acceptable work.
- D. Pre-Installation Meetings: Conduct pre-installation meetings to verify project requirements, substrate conditions, construction documents, details and manufacturer's warranty requirements.

#### 1.6 DELIVERY, STORAGE, AND HANDLING

- A. Delivery: Deliver materials in manufacturer's original, unopened, undamaged packaging with identification labels intact.
- B. Storage and Protection: Protect stored product from damage. Store products in dry, well ventilated area out of direct sunlight, under cover, protected from weather, moisture and excessive dryness and construction activities.

## 1.7 SEQUENCING

- A. 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.

## 1.8 PROJECT CONDITIONS

- A. 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.

## 1.9 WARRANTY

- A. Manufacturer's Warranty: Provide manufacturer's standard limited warranty.

## PART 2 PRODUCTS

### 2.1 MANUFACTURERS

- A. Acceptable Manufacturer: Western Window Systems, which is located at: 2200 E. Riverview Dr.; Phoenix, AZ 85034; Toll Free Tel: 877-268-1300; Fax: 602-243-3119 ; Email: [request info \(bleizerowicz@westernws.com\)](mailto:request info (bleizerowicz@westernws.com)); Web: <https://www.wwscommercial.com>
- B. Substitutions: Not permitted.
- C. Requests for substitutions will be considered in accordance with provisions of Section 01 60 00 - Product Requirements.

### 2.2 MULTI-SLIDE ALUMINUM DOORS

- A. Basis of Design: Series 7600: Thermally broken aluminum multi-slide doors as manufactured by Western Window Systems.
  - 1. Multiple sliding door system including head, side jambs, thresholds and aluminum sliding panels to sizes indicated on the Drawings.
  - 2. Performance Requirements:
    - a. Air Infiltration Per ASTM E 283: \_\_\_\_\_.
    - b. Water Infiltration Per ASTM E 547: \_\_\_\_\_.
    - c. Uniform Load Structural Per ASTM E 330: \_\_\_\_\_.
    - d. Uniform Load Design Pressure: \_\_\_\_\_.
    - e. Overall Design Pressure Rating: As standard with manufacturer for size and configuration; typically DP 50.
    - f. Certifications: AAMA and NFRC.
  - 3. Stacking Configuration: Sliding door system including head, side jambs, thresholds and aluminum sliding panels.
  - 4. Pocket Configuration: Sliding door system including head, side jambs, thresholds and aluminum sliding panels.
  - 5. Frame and Panels: Sizes indicated on the Drawings.
    - a. Panel: Thermally broken, extruded aluminum stile and rail panels with standard one lite.
      - 1) Stile and Rail: 2.9 inches (74 mm) interlock design.
    - b. Frame and Sill: Thermally broken extruded aluminum.
    - c. Weatherstripping: Weather seal inserted in frame and sill to provide perimeter seal, as well as between door panels.
  - 6. Glass: All glass to comply with safety glazing requirements of ANSI Z97.1 and CPSC 16CFR 1201.

- a. Glazing: Argon Filled with LowE coating on No. 2 surface, from Cardinal Glass Industries.
  - 1) Glazing Type: LoE-270 all-climate coated glass.
  - 2) Glazing Type: LoE-366 high performance glass.
  - 3) Glazing Type: LoE-340 laminated, solar, and glare control glass.
  - 4) Glazing Type: As determined by the Architect.
  - 5) Glazing Type: \_\_\_\_\_.
  - 6) Enhanced Low-E Coating Used with Glazing Type Above: LoE-i89 enhanced winter performance glass.
  - 7) Overall Thickness: 1 inch (25.4 mm) nominal.
  - 8) Overall Thickness: 1.3 inch (33 mm) nominal.
  - 9) Overall Thickness: 1.6 inch (40.6 mm) nominal.
  - 10) Overall Thickness: As determined by the Architect.
  - 11) U-Factor: 0.30
  - 12) U-Factor: As determined by the Architect.
  - 13) U-Factor: \_\_\_\_\_.
- b. Glazing: Silicone bedding on exterior surfaces and glazing seal on the interior of the panel.
- 7. Spread two-point lock concealed locking system securing large sliding panels with locking hardware located on the primary sliding panel.
- 8. Locking Hardware and Handles: Manufacturer's standard flush-mounted handle. Handle Height (inches / mm): \_\_\_\_\_ from bottom of panel.
  - a. Keyed cylinder.
  - b. Finish: brushed nickel.
  - c. Finish: black finish.
- 9. Locking Hardware and Handles: Manufacturer's premium one-piece handle. Handle Height: (inches / mm): \_\_\_\_\_ from bottom of panel.
  - a. Keyed cylinder.
  - b. Finish: brushed nickel.
  - c. Finish: black finish.
- 10. Rolling Hardware: Sealed stainless steel ball bearing rollers integrated with head track, side jambs and threshold framing.
  - a. Standard: Tandem 1.81 inches (46 mm).
  - b. Option: Quad 1.81 inches (46 mm)
  - c. Water Barrier Sills: Standard, with weep holes.
  - d. Flush Sills: Interior and exterior sill height of 0.75 inch (19 mm).
  - e. Sills: Thinline sills.
- 11. Aluminum Finish:
  - a. Provide same finish on inside and outside.
    - 1) Anodized Finish AAC - Class 1 Color: Satin.
    - 2) Anodized Finish AAC - Class 1 Color: Dark bronze.
    - 3) Paint Finish per AAMA - 2605 minimum.
      - a) Color: Hillside bronze.
      - b) Color: Bison beige.
      - c) Color: Navajo white.
      - d) Color: Briar.
      - e) Color: Stonish beige.
      - f) Color: Autumn night.
      - g) Color: Warmtone.
      - h) Color: Cinnamon toast.
      - i) Color: Western white.
      - j) Color: As determined by the Architect.
      - k) Color: \_\_\_\_\_.
  - b. Split Finish Colors: As determined by the Architect.
  - c. Split Finish Colors:
    - 1) Interior Color: \_\_\_\_\_.

- 2) Exterior Color: \_\_\_\_\_.
  12. Screen: Aluminum frame panel screen integrating seamlessly sliding glass door system, with manufacturer's standard rollers.
    - a. Finish and Color: Match exterior color.
    - b. Finish and Color: As selected from manufacturer's standard products.
- B. Basis of Design: Series 600: Thermally broken or non-thermally broken aluminum multi-slide glass doors as manufactured by Western Window Systems.
1. Multiple sliding door system with thermally efficient core including head, side jambs, thresholds and aluminum sliding panels to sizes indicated on the Drawings. Designed to go around curves, bypass obstacles, and bi-part in the center, and open corners.
  2. Performance Requirements:
    - a. Frame and Panel: Thermally broken.
    - b. Frame and Panel: Non-thermally broken.
    - c. Air Infiltration Per ASTM E 283: \_\_\_\_\_.
    - d. Water Infiltration Per ASTM E 547: \_\_\_\_\_.
    - e. Uniform Load Structural Per ASTM E 330: \_\_\_\_\_.
    - f. Uniform Load Design Pressure: \_\_\_\_\_.
    - g. Overall Design Pressure Rating: \_\_\_\_\_.
    - h. Certifications: AAMA and NFRC.
  3. Stacking Configuration: Sliding door system including head, side jambs, thresholds and aluminum sliding panels.
  4. Pocket Configuration: Sliding door system including head, side jambs, thresholds and aluminum sliding panels.
  5. Frame and Panels: Sizes indicated on the Drawings.
    - a. Panel: Thermally broken or non-thermally broken, extruded aluminum stile and rail panels with standard one lite.
      - 1) Stile and Rail: 2.55 inches (65 mm) interlock design.
      - 2) Thickness: 2.25 inches (57 mm).
      - 3) Overall Size: 60 sq ft (5.574 sq m) maximum IG size.
        - a) Height Maximum: 144 inch (3658 mm). Width must be no more than 60 in (1524 mm).
        - b) Width Maximum: 96 inch (2134 mm) maximum. Height must be no more than 90 in (2286 mmm)
    - b. Frame and Sill: Thermally broken or non-thermally broken extruded aluminum.
    - c. Weatherstripping: Weather seal inserted in frame and sill to provide perimeter seal, as well as between door panels.
  6. Glass: All glass to comply with safety glazing requirements of ANSI Z97.1 and CPSC 16CFR 1201.
    - a. Glazing: Argon Filled with LowE coating on No. 2 surface, from Cardinal Glass Industries.
      - 1) Glazing Type: LoE-270 all-climate coated glass.
      - 2) Glazing Type: LoE-366 high performance glass.
      - 3) Glazing Type: LoE-340 laminated, solar, and glare control glass.
      - 4) Glazing Type: As determined by the Architect.
      - 5) Glazing Type: \_\_\_\_\_.
      - 6) Enhanced Low-E Coating Used with Glazing Type Above: LoE-i89 enhanced winter performance glass.
      - 7) Overall Thickness: 7/8 inch (22 mm).
      - 8) Overall Thickness: Nominal 1 inch (24.5 mm).
      - 9) Overall Thickness: As determined by the Architect.
      - 10) U-Factor: 0.38.
      - 11) U-Factor: As determined by the Architect.
      - 12) U-Factor: \_\_\_\_\_.

- b. Glazing: Silicone bedding on exterior surfaces and glazing seal on the interior of the panel.
- 7. Multi-point concealed locking system securing large sliding panels with locking hardware located on the primary sliding panel.
- 8. Locking Hardware and Handles: Manufacturer's standard flush-mounted handle. Handle height: 36 inches (914 mm) from bottom of panel.
  - a. Keyed cylinder.
  - b. Finish: brushed nickel.
  - c. Finish: black finish.
- 9. Locking Hardware and Handles: Manufacturer's premium one-piece handle. Handle height: 36 inches (914 mm) from bottom of panel.
  - a. Keyed cylinder.
  - b. Finish: brushed nickel.
  - c. Finish: black finish.
- 10. Rolling Hardware: Rollers integrated with head track, side jambs and threshold framing.
  - a. Roller Size: 1.81 inch (46 mm) standard.
  - b. Roller Size: 3.00 inch (76 mm).
  - c. Water Barrier Sills: Standard, with weep holes.
  - d. Flush Sills: Interior and exterior sill height of just 0.75 inch.
  - e. Sills: Thinline sills.
- 11. Aluminum Finish:
  - a. Anodized Finish AAC - Class 1 Color: Satin.
  - b. Anodized Finish AAC - Class 1 Color: Dark bronze.
  - c. Paint Finish per AAMA - 2605 minimum.
    - 1) Color: Hillside bronze.
    - 2) Color: Bison beige.
    - 3) Color: Navajo white.
    - 4) Color: Briar.
    - 5) Color: Stonish beige.
    - 6) Color: Autumn night.
    - 7) Color: Warmtone.
    - 8) Color: Cinnamon toast.
    - 9) Color: Western white.
    - 10) Color: As determined by the Architect.
    - 11) Color: \_\_\_\_\_.
- 12. Screen: Aluminum frame panel screen integrating seamlessly sliding glass door system.

### 2.3 SLIDING ALUMINUM-FRAMED PATIO GLASS DOORS

- A. Basis of Design: Series 7650: Thermally broken sliding aluminum-framed patio glass doors as manufactured by Western Window Systems.
  - 1. Multiple sliding door system including head, side jambs, thresholds and aluminum sliding panels to sizes indicated on the Drawings.
  - 2. Performance Requirements:
    - a. Air Infiltration Per ASTM E 283: \_\_\_\_\_.
    - b. Water Infiltration Per ASTM E 547: \_\_\_\_\_.
    - c. Uniform Load Structural Per ASTM E 330: \_\_\_\_\_.
    - d. Uniform Load Design Pressure: \_\_\_\_\_.
    - e. Overall Design Pressure Rating: DP 50.
    - f. Certifications: AAMA and NFRC.
  - 3. Stacking Configuration: Sliding door system including head, side jambs, thresholds and aluminum sliding panels.
  - 4. Frame and Panels: Sizes indicated on the Drawings.
    - a. Panel: Thermally broken, extruded aluminum stile and rail panels with

- standard one lite.
    - 1) Stile and Rail: 2.9 inches (74 mm) interlock design.
  - b. Frame and Sill: Thermally broken extruded aluminum.
    - 1) Frame Width (inches / mm): 5 -7/8 inches (149 mm).
  - c. Weatherstripping: Weather seal inserted in frame and sill to provide perimeter seal, as well as between door panels.
- 5. Glass: All glass to comply with safety glazing requirements of ANSI Z97.1 and CPSC 16CFR 1201.
  - a. Glazing: Argon Filled with LowE coating on No. 2 surface, from Cardinal Glass Industries.
    - 1) Glazing Type: LoE-270 all-climate coated glass.
    - 2) Glazing Type: LoE-366 high performance glass.
    - 3) Glazing Type: LoE-340 laminated, solar, and glare control glass.
    - 4) Glazing Type: As determined by the Architect.
    - 5) Glazing Type: \_\_\_\_\_.
    - 6) Enhanced Low-E Coating Used with Glazing Type Above: LoE-i89 enhanced winter performance glass.
    - 7) Overall Thickness: Nominal 1 inch (24.5 mm).
    - 8) Overall Thickness: 1.3 inch (33 mm) nominal.
    - 9) Overall Thickness: 1.6 inch (40.6 mm) nominal.
    - 10) Overall Thickness: As determined by the Architect.
    - 11) U-Factor: 0.30.
    - 12) U-Factor: As determined by the Architect.
    - 13) U-Factor: \_\_\_\_\_.
  - b. Glazing: Silicone bedding on exterior surfaces and glazing seal on the interior of the panel.
- 6. Spread two-point concealed locking system securing large sliding panels with locking hardware located on the primary sliding panel.
- 7. Locking Hardware and Handles: Manufacturer's standard flush-mounted handle. Handle Height (inches / mm): \_\_\_\_\_ from bottom of panel.
  - a. Keyed cylinder.
  - b. Finish: brushed nickel.
  - c. Finish: black finish.
- 8. Rolling Hardware: Sealed stainless steel ball bearing rollers integrated with head track, side jambs and threshold framing.
  - a. Standard: 1.81 inches (46 mm).
  - b. Water Barrier Sills: Standard, with weep holes.
  - c. Flush Sills: Interior and exterior sill height of 0.75 inch (19 mm).
- 9. Aluminum Finish:
  - a. Provide same finish on inside and outside.
    - 1) Anodized Finish AAC - Class 1 Color: Satin.
    - 2) Anodized Finish AAC - Class 1 Color: Dark bronze.
    - 3) Paint Finish per AAMA - 2605 minimum.
      - a) Color: Hillside bronze.
      - b) Color: Bison beige.
      - c) Color: Navajo white.
      - d) Color: Briar.
      - e) Color: Stonish beige.
      - f) Color: Autumn night.
      - g) Color: Warmtone.
      - h) Color: Cinnamon toast.
      - i) Color: Western white.
      - j) Color: As determined by the Architect.
      - k) Color: \_\_\_\_\_.
  - b. Split Finish Colors: As determined by the Architect.
  - c. Split Finish Colors:

- 1) Interior Color: \_\_\_\_\_.
  - 2) Exterior Color: \_\_\_\_\_.
10. Screen: Aluminum frame panel screen integrating seamlessly sliding glass door system.

B. Basis of Design: Series 600: Aluminum sliding glass doors as manufactured by Western Window Systems.

1. Sliding door system including head, side jambs, thresholds and aluminum sliding panels to sizes indicated on the Drawings. Designed to go around curves, bypass obstacles, and bi-part in the center, and open corners.
2. Performance Requirements:
  - a. Frame and Panel: Thermally broken.
  - b. Frame and Panel: Non-thermally broken.
  - c. Frame: Non-thermally broken. Panel: Thermally broken.
  - d. Air Infiltration Per ASTM E 283: \_\_\_\_\_.
  - e. Water Infiltration Per ASTM E 547: \_\_\_\_\_.
  - f. Uniform Load Structural Per ASTM E 330: \_\_\_\_\_.
  - g. Uniform Load Design Pressure: \_\_\_\_\_.
  - h. Overall Design Pressure Rating: \_\_\_\_\_.
  - i. Certifications: AAMA and NFRC.
3. Stacking Configuration: Sliding door system including head, side jambs, thresholds and aluminum sliding panels.
4. Frame and Panels: Sizes indicated on the Drawings.
  - a. Panel: Thermally broken, extruded aluminum stile and rail panels with standard one lite.
    - 1) Stile and Rail: 2.55 inches (65 mm) interlock design.
    - 2) Thickness: 2.25 inches (57 mm).
    - 3) Overall Size: 60 sq ft (5.574 sq m) maximum IG size.
      - a) Height Maximum: 144 inch (3658 mm). Width must be no more than 60 in (1524 mm).
      - b) Width Maximum: 72 inch (1829 mm) maximum. Height must be no more than 120 in (3048 mm)
  - b. Frame and Sill: Thermally broken extruded aluminum.
  - c. Weatherstripping: Weather seal inserted in frame and sill to provide perimeter seal, as well as between door panels.
5. Glass: All glass to comply with safety glazing requirements of ANSI Z97.1 and CPSC 16CFR 1201.
  - a. Glazing: Argon Filled with LowE coating on No. 2 surface, from Cardinal Glass Industries.
    - 1) Glazing Type: LoE-270 all-climate coated glass.
    - 2) Glazing Type: LoE-366 high performance glass.
    - 3) Glazing Type: LoE-340 laminated, solar, and glare control glass.
    - 4) Glazing Type: As determined by the Architect.
    - 5) Glazing Type: \_\_\_\_\_.
    - 6) Enhanced Low-E Coating Used with Glazing Type Above: LoE-i89 enhanced winter performance glass.
    - 7) Overall Thickness: 7/8 inch (22 mm).
    - 8) Overall Thickness: As determined by the Architect.
    - 9) U-Factor: 0.38.
    - 10) U-Factor: As determined by the Architect.
    - 11) U-Factor: \_\_\_\_\_.
  - b. Glazing: Silicone bedding on exterior surfaces and glazing seal on the interior of the panel.
6. Multi-point concealed locking system securing large sliding panels with locking hardware located on the primary sliding panel.
7. Locking Hardware and Handles: Manufacturer's standard flush-mounted



- handle. Handle height: 36 inches (914 mm) from bottom of panel.
  - a. Keyed cylinder.
  - b. Finish: brushed nickel.
  - c. Finish: black finish.
- 8. Locking Hardware and Handles: Manufacturer's premium one-piece handle. Handle height: 36 inches (914 mm) from bottom of panel.
  - a. Keyed cylinder.
  - b. Finish: brushed nickel.
  - c. Finish: black finish.
- 9. Rolling Hardware: Rollers integrated with head track, side jambs and threshold framing.
  - a. Roller Size: 1.81 inch (46 mm) standard.
  - b. Roller Size: 3.00 inch (76 mm).
  - c. Sills: 1.5 inch (38 mm).
  - d. Sills: 1.75 inch (44.5 mm).
  - e. Sills: 0.75 inch (19 mm) flush sill.
- 10. Aluminum Finish:
  - a. Anodized Finish AAC - Class 1 Color: Satin.
  - b. Anodized Finish AAC - Class 1 Color: Dark bronze.
  - c. Paint Finish per AAMA - 2605 minimum.
    - 1) Color: Hillside bronze.
    - 2) Color: Bison beige.
    - 3) Color: Navajo white.
    - 4) Color: Briar.
    - 5) Color: Stonish beige.
    - 6) Color: Autumn night.
    - 7) Color: Warmtone.
    - 8) Color: Cinnamon toast.
    - 9) Color: Western white.
    - 10) Color: As determined by the Architect.
    - 11) Color: \_\_\_\_\_.
- 11. Screen: Aluminum frame panel screen integrating seamlessly sliding glass door system.

## PART 3 EXECUTION

### 3.1 EXAMINATION AND PREPARATION

- A. Examine substrates and existing construction prior to installation. Do not proceed with installation until substrates have been properly prepared and deviations from manufacturer's recommended tolerances are corrected. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.
- B. Commencement of installation constitutes acceptance of conditions.

### 3.2 INSTALLATION

- A. Install products in strict accordance with manufacturer's instructions, approved submittals and in proper relationship with adjacent construction.

### 3.3 PROTECTION

- A. Protect installed products until completion of project.
- B. Touch-up, repair or replace damaged products before Substantial Completion.

END OF SECTION