

### **PART 1: GENERAL**

#### **1.01 Summary**

##### **A. Section includes:**

Engineered sliding/folding aluminum and glass door system, including insulated aluminum frame, threshold, panels, sliding/folding and locking hardware, weather stripping, glass and glazing; designed to provide an opening glass wall, with sizes and configurations as shown on drawings and specified herein, SUNFLEX SF 55e, Insulated Aluminum Framed Folding Door System as supplied by SUNFLEX WALL SYSTEMS LP.

#### **1.02 References**

##### **A. American Architectural Manufacturers Association (AAMA):**

1. AAMA 611, Voluntary Specification for Anodized Architectural Aluminum.
2. AAMA 2603, Voluntary Specifications, Performance Requirements and Test Procedures for Pigmented Organic Coatings on Aluminum Extrusions and Panels.
3. AAMA 1304, Voluntary Specifications for Forced Entry Resistance of Side-Hinged Door Systems.

##### **B. American National Standards Institute (ANSI):**

1. ANSI Z97.1, Safety Performance Specifications and Methods of Test for Safety Glazing Material Used In Buildings.

##### **C. American Society for Testing and Materials (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.
4. ASTM E 331, Standard Test Method for Water Penetration of Exterior Windows, Skylights, Doors, and Curtain Walls by Uniform Static Air Pressure Difference.

##### **D. Consumer Product Safety Commission (CPSC):**

1. CPSC 16CFR-1201, Safety Standard for Architectural Glazing Materials.

##### **E. National Fenestration Rating Council (NFRC):**

1. NFRC 100, Procedure for Determining Fenestration Product U-Factor.
2. NFRC 200, Procedure for Determining Solar Heat Gain Coefficient.
3. NFRC 500, Procedure for Determining Product Condensation Resistance Values.

#### **1.03 Submittals**

##### **A. Detail Drawings:**

Indicate dimensioning, direction of swing, configuration, swing panels, typical head jamb, side jambs and sill details, type of glazing material, and handle height.

##### **B. Product Data:**

Manufacturer's literature including independently tested data listing performance criteria and Owner's Manual with installation instructions.

##### **C. Contract Closeout Submittal:**

Submit Owner's Manual from manufacturer. Identify with project name, location and completion date, type and size of unit installed.

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### 1.04 Quality Assurance

- A. Manufacturer:** Provide complete, precision built, engineered, pre-fitted unit by a single source manufacturer with at least 30 years' experience in providing folding/sliding door systems for large openings worldwide.
- B. Performance Requirements:** Provide from manufacturer that has independently tested typical units. Testing results to include air infiltration in accordance with ASTM E 283, water penetration in accordance with ASTM E 547 and E 331, structural loading in accordance with ASTM E 330, and forced entry in accordance with AAMA 1304. (Comparative analysis may be required to comply to meet jurisdiction of the project)
- C. Thermal Performance U value:** Unit to be rated in accordance with NFRC 100, shown in manufacturer's latest published data for the glazing, sill, and direction of opening specified.
- D. Solar Heat Gain Coefficient:** Unit to be rated in accordance with NFRC 200, shown in manufacturer's latest published data for the glazing, sill, and direction of opening specified.
- E. Condensation Resistance:** Unit to be rated in accordance with NFRC 500, shown in manufacturer's latest published data for the glazing, sill, and direction of opening specified.
- F. Installer Qualifications:** Installer experienced in the installation of manufacturer's products or other similar products for large openings. Installer to provide reference list of at least 3 projects of similar scale and complexity successfully completed in the last 3 years.

### 1.05 DELIVERY, STORAGE, AND HANDLING

- A. Packing, Shipping**  
Materials will be packed, loaded, shipped in accordance with AAMA CW-10.
- B. Storage, Handling**  
Deliver materials to job site unopened cartons or crates. Protect units from damage. Store material dry under cover, protected from weather and construction activities.

### 1.06 Warranty

- A. Manufactures Warranty**  
Provide manufacturer's standard limited warranty against defects in materials and workmanship.

## PART 2: PRODUCTS

### 2.01 Manufacturers/Suppliers

- A. SUNFLEX Wall Systems LP**  
4120 Enterprise Ave., #120  
Naples, FL 34104  
Toll Free: (800) 606-0756  
Fax: (239) 384-9061  
Email: [info@sunflexwall.com](mailto:info@sunflexwall.com)  
Website: [www.sunflexwall.com](http://www.sunflexwall.com)

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### 2.02 Materials

#### 1. Frame and Panels:

From manufacturer's standard profiles, provide head track, side jambs, and panels with dimensions shown on drawings.

##### A. Provide panels with:

Standard one lite

[OR with horizontal mullion(s) at specified height(s) from the bottom of the panel]

[OR with simulated divided lites in pattern as shown on drawings].

##### B. Sill: Provide standard bottom rail.

##### C. Aluminum Extrusion:

Extrusions with nominal thickness of .078" (1.8 mm). Alloy specified as AlMgSi0.5 with strength rated as 6063-T5 or F-22 (European standard). Anodized conforming to AAMA 611 or powder coated conforming to AAMA 2603.

##### D. Aluminum Finish: Manufacturers Standard color RAL 9016

[or RAL9006] [or RAL9007] [or RAL8077]

[or select from manufacturers range of RAL/NCS high or semi gloss or flat powder coat finishes available from manufacturer]

[or custom finish to match sample].

[or bi color (different finishes on inside and outside).]

#### 2. Glass:

A. All glass to comply with safety glazing requirements of ANSI Z97.1 and CPSC 16CFR 1201. Provide manufacturer's standard glass with dry glazing:

B. 1 1/8" (28 mm) insulating clear tempered

[OR 1 1/8" (28 mm) insulating Low-E tempered]

[OR other glass available from manufacturer, including glass with other total thickness]

C. Provide manufacturer's standard XL-stainless steel spacers.

D. Provide without capillary tubes [OR with capillary tubes].

#### 3. Locking Hardware and Handles:

##### 1. Main entry panel:

On the main entry panel for models with a pair of swing panels, provide manufacturer's standard lever handles on the inside and outside, a lock set with lockable latch, multi-point locking with a mushroom type center locking point and rods at the top and bottom on primary panel. Rods to be concealed and not edge mounted. Depression of handles withdraws latch. Lifting of handles engages rods and turn of key or thumb turn engages the lock. On the secondary swing panel, provide matching dummy lever handles on both sides and concealed flush bolts that operate the rods at the top and the bottom for the secondary swing panel.

Hoppe Verona lever handles in a brushed chrome finish

[OR Hoppe Verona lever handles in a matte black finish]

[OR Hoppe Verona lever handles in a pure white finish]

[OR other color options provided by Hoppe]

[OR on the main entry panel for models with a swing panel, provide manufacturer's standard lever handles on the inside and outside, a lock set with lockable latch, multi point locking with a mushroom type center locking point and rods at the top and bottom on primary panel only. Rods to be concealed and not edge mounted. Depression of handles withdraws latch. Lifting of handles

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engages rods and turn of key or thumb turn engages the lock. If there is a secondary swing panel, provide two point locking with flat handles on inside only for the secondary swing panel.]

Hoppe Verona lever handles in a brushed chrome finish

[OR Hoppe Verona lever handles in a matte black finish]

[OR Hoppe Verona lever handles in a pure white finish]

[OR other color options provided by Hoppe]

[OR on main entry pair of panels on outswing models without a swing panel, provide manufacturer's standard flat handle on the inside and on the outside and a lock set with a profile cylinder. Operation of lock set is by turn of key from the outside and from the inside with a two point locking hardware operated by 180° turn of the handle.]

**Specifier's Note:** Please check for egress requirements.

[OR on main entry panel, provide manufacturer's standard flat handle on inside only with concealed two point locking hardware operated by 180 degree turn of handle.]

**Specifier's Note:** This option is operable from inside only and not equipped with a latch

### 2. On all other secondary swing panels and pairs of folding panels:

Provide manufacturer's standard flat handles and concealed two point locking hardware operated by 180 degree turn of handle between each pair. Face applied flush bolt locking will not be allowed.

### 3. Flat Handle and Hinge Finish: Manufacturers Standard color Anodized Silver (E6-EV1 powder coat)

[or RAL9011] [or RAL9016]

[or select from manufacturers range of RAL

powder coat finishes available from manufacturer]

[or custom finish to match sample].

### 4. Handle height:

Provide handle height centered at 41 3/8" [OR as specified] from bottom of panel.

### 5. Keyed Alike:

If there are more than one unit, keyed alike [OR keyed differently].

## 4. Folding Door Hardware:

1. Provide manufacturers standard hardware with top, bottom tracks and sill. All running carriages to be with sealed, self-lubrication, ball bearings. Surface mounted hinges and running carriages as well as hinge connected running carriages will not be allowed.
2. For each pair of folding panels:
3. Provide independently suspended, non hinge connected four wheeled lower running carriage and upper guide carriage. Running carriage to be adjustable in height by +/- 5/16".
4. Sill: Insulated raised sill with min. 1" reinforced polyamide spacer in the same finish as panel finish [OR clear anodized flush sill].
5. Panels to be miter joint. Butt joints or visible corner blocks are not allowed.

## 5. Other Components:

### 1. Weather stripping:

Provide manufacturer's standard UV resistant EPDM or brush seals with a two layer polyamide fin at both the inner and outer edge of door panels or on frame for sealing between panels and between

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panel and frame. Corner connections ore gasket interruptions without EPDM connectors are not allowed.

### 2.03 FABRICATION

- A. Panels to be miter joint
- B. Sizes and Configurations: See drawings for selected custom dimensions within maximum frame sizes possible as indicated in manufacturer's literature. See drawings for selected number of panels and configuration. Inward [OR outward] opening unit. On configurations with a pair of swing panels, looking from inside, primary swing panel on the left [OR right]
- C. Provide other side lites, transoms, corner posts, or single or double doors as per drawings provided.

## PART 3 - EXECUTION

### 3.01 ERECTION

- A. Because of the large dimensions involved and the weight and movement of the panels, verify the structural integrity of the header such that the deflection with live load and dead loads is limited to the lesser of  $L/720$  of the span and  $1/4"$ . Structural support for lateral loads (both wind load and eccentric load when the panels are stacked open) must be provided.
- B. Examine surfaces of openings and verify dimensions; verify rough openings are level, plumb, and square with no unevenness, bowing, or bumps on the floor.
- C. Installation of units constitutes acceptance of existing conditions.

### 3.02 INSTALLATION

- A. Install frame in accordance with manufacturer's recommendations and installation instructions. Properly flash and waterproof around the perimeter of the opening.
- B. Installer to provide appropriate anchorage devices and to securely and rigidly fit frame in place, absolutely level, straight, plumb and square. Install frame in proper elevation, plane and location, and in proper alignment with other work.
- C. If necessary, provide drain connections from lower track.
- D. Install panels, handles and lock set in accordance with manufacturer's recommendations and installation instructions.
- E. If necessary, adjust hardware for proper operation.

## END OF SECTION

**DISCLAIMER:** SUNFLEX-Wall-Systems LP takes no responsibility for product selection or application, including, but not limited to, compliance with building codes, safety codes, laws, or fitness for a particular purpose. The guide specifications is not intended to be verbatim as a project specification without appropriate modifications for the specific use intended and the particular requirements of a specific construction project.