

## **PART 1 GENERAL**

### **1.1 SUMMARY**

- .1 Work Included: Furnish all labour, materials, equipment and services for the complete fabrication of six (6) ALUMICOR Limited Canadiana HD Series 440A swing doors, as specified herein, and that has been manufactured, fabricated and installed as per manufacturer's criteria.

### **1.2 REFERENCES**

- .1 Aluminum Association (AA): DAF 45 2003, Designation system for aluminum finishes.
- .2 American Architectural Manufacturers Association (AAMA).
- .3 ASTM International (ASTM):  
  
ASTM B221-2013 - Specifications for aluminum-alloy extruded bars, rods, wire, profiles and tubes.  
ASTM E283-2012 - Test Method for determining the rate of air leakage through exterior windows, curtain walls and doors.  
ASTM E1105-2008 – Standard test method for field determination of water penetration of installed exterior windows, skylights, doors and curtain walls, by uniform or cyclic static air pressure difference.  
ASTM D2240-2010 – Standard test method for rubber property – durometer hardness.
- .4 Canadian General Standards Board (CGSB) - CAN/CGSB-12.8-97, Insulating Glass Units.
- .5 CSA International (CSA) - CAN/CSA-S157-2005, Strength design in aluminum.
- .6 Environmental Choice Program (ECP) - CCD-45-1995, sealants & caulking compounds.

### **1.3 SUBMITTALS**

- .1 Shop Drawings & Product Data: Submit drawings and product data showing layout, profiles, product components including anchorage, accessories, finish and glazing details.
- .2 Closeout Submittals: Owner's Manual & Warranty document as specified herein.

### **1.4 QUALITY ASSURANCE**

- .1 Manufacturers Qualifications: Manufacturer to have minimum (5) five years successful experience in the fabrication of automatic swing doors of the type required for this project.
- .2 Certifications: Swing doors and options shall be factory certified to meet performance design criteria in accordance with Clause 1.2 References.

### **1.5 WARRANTIES**

- .1 Manufacturer's Warranty: Units to be warranted against defect in material and workmanship for a period of (1) one year from date of Substantial Performance Completion.
- .2 Distributor's Warranty: (1) one year warranty: Labour/transportation charges for defective parts replacement.

### **1.6 FIELD MEASUREMENTS**

- .1 Contractor shall verify actual dimensions and openings by field measurements before fabrication and record on Shop Drawings.

**1.7 DELIVERY, STORAGE AND HANDLING**

- .1 Delivery shall be in factory's original, unopened, undamaged containers with identification labels.
- .2 Provide protection from exposure to harmful weather conditions and vandalism.

**PART 2 PRODUCTS**

**2.1 MANUFACTURER**

- .1 Acceptable Product: ALUMICOR Limited, 290 Humberline Drive, Toronto, Ontario, CANADIANA HD Series 400A, aluminum framed swing doors with glass inserts or approved equal in accordance with B7.
- .2 Shall include continuous hinges, electric strike, electric exit devices, exit devices, closers, pulls, door sweeps and accessories required for complete installation.

**2.2 EQUIPMENT**

- .1 **Stiles** shall be 4" (100.6mm); top rail 3 7/8" (98.4mm); Bottom rail 7" (177.8mm); thickness 1 3/4" (44.5mm) .
- .2 **Glass Calculations:** Opening Width -17 5/16"/2; Opening Height -12 3/16"
- .3 **Actual Glass Sizes:** 27 5/16" (697mm) Width; 71 13/126" (1824mm) Height.
- .4 **Hinges:** Pemko, Model No. CFM83HD1.
- .5 **Closers:** LCN 4040 complete with 18G drop plates.
- .6 **Pulls:** Alumicor Model No. 1180 Series, 12" (304.8mm) centre, 1" (25.4mm) diameter.
- .7 **Exit Devices:** Adams Rite 8600 Series Narrow Stile Mortise Exit Devices complete with pair of cylinders (keyed alike).
- .8 **Electric Exit Devices:** Adams Rite 7000 Series.
- .9 **Thresholds:** Alumicor 2425 Series thermally broken.
- .10 **Sweeps:** RW-36 Surface applied 2-part adjustable with nylon brush inserts.

**2.3 ALUMINUM FINISHES**

- .1 **Extruded Aluminum:** ASTM B221, 6063-T6 alloy and temper, anodized.
- .2 **Finishes:** Acceptable Material: PPG Industries Inc., Duranar XL. Colour selection for all exposed aluminum surfaces shall be to AA DAF-45-M10C21, Architectural Class 1, Anodic Finish. Colour to be selected by Contract Administrator.

**2.4 CLEANING**

- .1 Upon completion, remove surplus materials, debris, tools, and equipment.
- .2 Upon completion, Contractor shall clean product surfaces and lubricate operating equipment for optimum condition and safety.

**END OF SECTION**

## **PART 1 GENERAL**

### **1.1 SUMMARY**

- .1 Work Included: Furnish all labour, materials, equipment and services for the complete fabrication and installation of (1) one pair of automatic exterior bi-parting sliding doors complete with 1" glazing inserts, as specified herein, and that has been manufactured, fabricated and installed as per manufacturer's criteria.

### **1.2 REFERENCES**

- .1 Aluminum Association (AA): DAF 45 2003, Designation system for aluminum finishes.
- .2 American Architectural Manufacturers Association (AAMA).
- .3 ASTM International (ASTM):  
  
ASTM B221-2013 - Specifications for aluminum-alloy extruded bars, rods, wire, profiles and tubes.  
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### **1.3 SUBMITTALS**

- .1 Shop Drawings & Product Data: Submit drawings and product data showing layout, profiles, product components including anchorage, accessories, finish and glazing details.
- .2 Closeout Submittals: Owner's Manual & Warranty document as specified herein.

### **1.4 QUALITY ASSURANCE**

- .1 Manufacturers Qualifications: Manufacturer to have minimum (5) five years successful experience in the fabrication of automatic doors of the type required for this project.
- .2 Certifications: Automatic sliding door systems and options shall be factory certified to meet performance design criteria in accordance with Clause 1.2 References.
- .3 Opening Force Requirements: Slide-swing panels shall require no more than 222N of force to swing open. Slide-swing panels shall be capable of swinging out 90° from any position of slide movement. If power fails, slide panels can be manually slid open with no more than 222N of force. Units are compliant with NFPA 101.
- .4 Closing Force Requirements: Maximum force required to prevent sliding panel from closing is equal to 124.5N.

### **1.5 WARRANTIES**

- .1 Manufacturer's Warranty: Units to be warranted against defect in material and workmanship for a period of (1) one year from date of Substantial Performance Completion.

- .2 Distributor's Warranty: (1) one year warranty: Labour/transportation charges for defective parts replacement.

## 1.6 FIELD MEASUREMENTS

- .1 Contractor shall verify actual dimensions and openings by field measurements before fabrication and record on shop drawings.

## 1.7 DELIVERY, STORAGE AND HANDLING

- .1 Deliver shall be in factory's original, unopened, undamaged containers with identification labels.
- .2 Provide protection from exposure to harmful weather conditions and vandalism.

## PART 2 PRODUCTS

### 2.1 MANUFACTURER

- .1 Acceptable Product: HORTON AUTOMATICS, Series 2001 – Heavy Duty 310 automatic sliding door system with electric belt drive operator or an approved equal in accordance with Clause B7.
- .2 Shall include bi-part sliding door panels, aluminum framing jambs, operator, header with roller track, carrier assemblies, activation, safety devices and accessories required for complete installation.

### 2.2 EQUIPMENT

- .1 **Configuration:** Biparting sliding door with an SO-SX-SX-SO configuration.
- .2 **Mounting Type:** To suit existing rough openings.
- .3 **Operator:** The electric operating mechanism shall be HD-Slide Series 2001 Belt Drive (1" wide steel reinforced nylon). Maximum current draw shall not exceed 3.15 amps.
- .4 **Master Control:** The master control shall be 16 bit microprocessor with minimum of 28 programmable parameters including the following functions as required by ANSI A156.10-2011:
- adjustable opening and closing speeds
  - adjustable back-check and latching
  - adjustable braking
  - adjustable hold open time between 1 to 30 seconds
  - adjustable reversing circuit will reopen door unit if closing path is obstructed
  - separate day and night modes of operation with security over-ride.
- .5 **On/Off Switch.**
- .6 **Automatic Lock:** Automatically locks slide function of door when in closed position. Monitored power fail option (battery back-up).
- .7 **Slide Header:** shall be 6" (152mm) deep by 8" (200mm) high, heavy duty aluminum construction with removable face plate and extruded support brackets for dead load and lateral strength.
- .8 **Carrier Assemblies & Header Roller Track:** Rollers shall be non-metallic high quality ball bearing wheels 2" (50mm) diameter. Overhead header roller track shall be continuous aluminum and replaceable.
- .9 **Sliding Panels:** Shall be aluminum, 1 3/4" (44mm) deep with narrow stile rails. Muntin bar, 2 1/4" (57mm) wide, shall be furnished for safety and division of glass. Standard bottom rail shall be 4" (102mm) tall. Sliding panels shall have concealed bottom guides to stabilize slide travel.

- .10 **Weather-stripping:** Surface applied self-adhesive weather-stripping to be along perimeter of sliding panels. Provide adjustable spring-loaded double astragal weather-stripping at lead edge.
- .11 **Glazing:** Standard glazing shall be prepared for 1" (25 mm) glass.
- .12 **Jams and Frame:** Shall be aluminum with 1 ¾" (102mm) deep by 4" (102mm) wide for Type 310.
- .13 **Threshold:** Shall be aluminum, ½" (25mm) tall by 4" (102mm) wide.
- .14 **Hardware:** Automatic lock complete with MS lock with thumb turn mounted on interior side.
- .15 **Activation Sensors:** Microwave or infra-red sensor shall be header mounted each side of door unit for detection of traffic from each direction.
- .16 **Threshold Presence Sensors:** Header mounted sensors shall provide active infrared presence detection on each side of the door unit and shall remain active throughout the entire door opening and closing cycle.

### 2.3 ELECTRICAL REQUIREMENTS

- .1 Electrical: 120 VAC, 50/60 cycle, single phase, dedicated 20 amp circuit per operator.

### 2.4 ALUMINUM FINISHES

- .1 Extruded Aluminum: ASTM B221, 6063-T5 alloy and temper, anodized.
- .2 Finishes: Acceptable Material: PPG Industries Inc., Duranar XL. Colour selection for all exposed aluminum surfaces shall be to AA DAF-45-M10C21, Architectural Class 1, Anodic Finish. Colour to be selected by Contract Administrator.

### 2.5 CLEANING

- .1 After installation, Contractor shall clean product surfaces and lubricate operating equipment for optimum condition and safety

**END OF SECTION**