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## THERMAL ENTRANCE DOOR SERIES D500XT WIDE STILE

Air Infiltration: (ASTM E283-04)	Single 0.41 cfm/ft at 1.57 psf PAIR 0.88 cfm/ft at 1.57 psf
Water Resistance: (ASTM 331) SINGLE	No Leakage @ limited Water
Uniform Load: (ASTM E330-10)	30.08 psf
Thermal Break:	6/6 Nylon W/Glass reinforcing
Stile wide X deep:	5.00" X 2" (w/GLZ = 5.875" x 2")
Glazing Thickness:	1" Glazing
Thermal performance	Single U-Value @ .49
1" IGU .25 SB60#2, Argon, .25 Clear	Pair U-Value @ .47

Boyd Manufacturing Company has prepared this guide specification in printed and electronic media, as an aid to specifiers in preparing written construction documents for commercial aluminum windows. For specification assistance on specific product applications, please contact our offices. Boyd Aluminum Manufacturing Company reserves the right to modify these specifications and details at any time. Updates to these guide specifications and details will be posted to our web site and/or in printed materials as they occur. Boyd Aluminum Manufacturing Company makes no expressed or implied warranties regarding content, errors, or omissions in the information presented.

## SECTION 08 41 13 ALUMINUM – FRAMED ENTRANCES and STOREFRONTS

### System 500XT WIDE STILE THERMAL ENTRANCE

#### PART 1 GENERAL

##### 1.01 Work Included

- A. Furnish and install aluminum architectural entrance system complete with hardware and related components as shown on approved drawings and specified in this section.
- B. All entrance systems shall be Boyd System D500XT wide stile. Other manufacturers requesting approval to bid their product as an equal must submit the following information fifteen days prior to close of bidding:
  1. A sample entrance system (size and configuration) as per requirements of architect.
  2. Test reports documenting compliance with requirements of Section 1.02.
- C. Glass
  1. Reference Section 08 81 00 for Glass and Glazing.

##### 1.02 Laboratory Testing and Performance Requirements

- A. Test Units
  1. Air, water, and structural test.
- B. Test Procedures and Performance
  1. Air Infiltration Test
    - a. Test unit in accordance with ASTM E 283 at a static air pressure difference of 1.57 psf.
    - b. Air infiltration shall not exceed Single @ .50 cfm/SF<sup>2</sup> of unit @ 1.57 psf.
    - c. Air infiltration shall not exceed Pair @ 1.50 cfm/SF<sup>2</sup> of unit @ 1.57 psf.
  2. Water Resistance Test
    - a. Test unit in accordance with ASTM E 331.
    - b. There shall be no uncontrolled water leakage at a static test pressure of 0.0 psf (0 Pa) Limited Water.
  3. Uniform Load Structural Test
    - a. Test in accordance with ASTM E 330.
    - b. At conclusion of the test, there shall be no glass breakage, permanent damage to fasteners, storefront parts, or any other damage that would cause the storefront to be defective.

##### 1.03 Quality Assurance

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- A. Provide test reports from AAMA accredited laboratories certifying the performance as specified in 1.02.

#### 1.04 Submittals

- A. Contractor shall submit shop drawings; finish samples, test reports, and warranties.
  - 1. Reasonable samples of materials, as may be requested without cost to owner.

#### 1.05 Warranties

- A. Complete Entrance Installation
  - 1. This is the responsibility of the contractor to assume full responsibility and warrant for one year the performance of the total storefront installation. This is not limited to but includes the glass, glazing, anchorage and setting system, sealing, flashing, etc., as it relates to air, water and structural adequacy as called for in the specifications and approved shop drawings.
  - 2. Any deficiencies due to such elements not meeting the specifications shall be corrected by the responsible contractor at their expense during the warranty period.
- B. Entrance Material and Workmanship
  - 1. Provide written guarantee against defects in material and workmanship for \_\_\_ years from the date shipment is complete.
- C. Glass
  - 1. Provide written warranty for glazing units.
- D. Finish
  - 1. Warranty period shall be for \_\_\_ years from the date shipment.
  - 2. Provide organic finish warranty based on AAMA standard 2604 <or>2605.

### PART 2 PRODUCTS

#### 2.01 Materials

- A. Aluminum
  - 1. Extruded aluminum shall be 6063-T6 alloy and temper.
  - 2. Thermal Break: Thermally broken material 6/6 Nylon W/Glass reinforcing.
- B. Glass
  - 1. Ship open for 1/4" <or> 1" Glazing. (Please supply full glazing make up regardless of open option for performance evaluation).  
<OR>
  - 2. Supply 1/4" <or> 1" Glazing. (Define all layers and surfaces).

#### 2.02 Fabrication

- A. General
  - 1. All aluminum frame extrusions shall have a nominal wall thickness of .125" (2.54 mm) in critical areas.
- B. Frame
  - 1. Depth of Stile shall not be less than 2".
  - 2. Face dimension shall not be less than 5.000".

3. Corners shall be heavy reinforced corner blocks mechanically fastened then Fillet Welded.
  4. All doors to provide an adjusting device in the top rail to provide for minor clearance adjustments.
- C. Glazing
1. All units shall be "dry glazed" with gaskets on both exterior and interior of the glass.
- D. Finish
1. Anodic
    - a. Finish all exposed areas of aluminum windows and components with electrolytically deposited color in accordance with Aluminum Association Designation AA-M10-C22-\_\_\_ Color shall be \_\_\_.

AA Description	Description	Arch. Class	AAMA Guide Spec.
AA-M10-C22-A41 (215-R1)	Clear Anodized	1	611-98
AA-M10-C22-A44	Color Anodized	1	611-98

2. Organic
  - a. Finish all exposed areas of aluminum windows and components with \_\_\_\_. Color shall be \_\_\_ in accordance to AAMA 2604 <or> AAMA 2605.

## PART 3 EXECUTION

### 3.01 Inspection

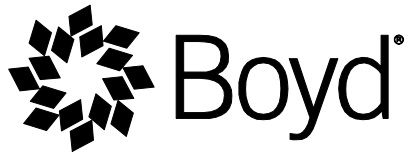
- A. Job Conditions
1. All openings to be prepared by others to the proper size and be plumb, level and the proper location as shown on the architect's drawings.

### 3.02 Installation

- A. Use Qualified and Skilled installers in accordance with approved shop drawings and specifications.
- B. Entrance Framing should be erected plumb and true, as established bench marks, lines and grades per the Shop Drawings.
- C. Entrance doors shall be securely anchored in place, plumb and level. Check components and make adjustments for proper operation and performance of units.
- D. Furnish and apply sealants to provide a weather tight installation at all joints and intersections and at opening perimeters per sealant manufacturers instructions.
- E. Sealing materials specified shall be used in strict accordance with the manufacturer instructions. All surfaces must be clean and free of foreign matter before application. Sealing compounds shall be tooled to fill the joints and provide an aesthetically acceptable finish.

### 3.03 Protection and Cleaning

- A. The general contractor shall protect the aluminum materials and finish against damage from adjacent construction and harmful chemicals and substances. The general contractor shall remove any protective coatings, and shall clean the component and aluminum surfaces as recommended.



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