

# Bliss Nor-Am Windows & Doors

## "Millennium" Series steel doors

### PART 1 - GENERAL

#### 1.01 Description

- A. Work Included: Furnish all labor and materials to complete the fabrication of doors as shown on the architect's drawings and as specified herein. All doors covered by this specification shall be fabricated by Bliss Nor-Am Steel Windows & Doors. Other bidders must be approved by the architect at least ten days prior to the bid date, through submission of samples and evidence showing that the bidder has been fabricating door products of this type and quality for at least five years. All work shall include, but not be limited to, the following:
1. Steel doors single or double leaf, inward or outward swinging.
  2. All door anchors, mullions, covers and trim.
  3. Factory applied finishes.
- B. Related work specified elsewhere:
1. Glass, glazing and glazing materials, Section \_\_\_\_\_
  2. Perimeter caulking, Section \_\_\_\_\_
  3. Miscellaneous structural items, Section \_\_\_\_\_

#### 1.02 Quality Assurance

- A. Manufacturer shall have not less than five years experience in fabrication of heavy hollow metal steel doors.
- B. Doors shall be installed by experienced installers.
- C. Allowable tolerance: Size dimensions  $\pm 1/16$ th inch.

#### 1.03 Submittals

- A. Samples (as requested by architect):
1. Typical muntin section.
  2. Color sample of finish.
  3. Hardware.
- B. Shop drawings and manufacturer's literature:
1. Submit for approval shop drawings showing door and installation details, including anchorage, fastening and sealing methods.
  2. The manufacturer shall not commence any work until shop drawings have been approved.
  3. Color charts of standard finishes.

#### 1.04 Product Storage and Handling

- A. The General Contractor shall be responsible for the protection and storage of the doors after delivery to the site.
- B. Store in designated areas as close as possible to point of installation.

#### 1.05 Guarantee

- A. Guarantee all materials and workmanship furnished and installed to be free from defects for a period of 12 months from the date of final acceptance or from date of substantial completion, whichever may be earlier. Repair or replace, at manufacturers option and expense, any materials or workmanship found defective under conditions of normal use during this period.

### PART 2 - PRODUCT

#### 2.01 Materials

- A. Steel sections manufactured from 12ga satin coat steel shapes.
1. Door sections shall have glazing rebates providing an unobstructed glazing surface of at least 1/2" in height.
- B. Door panels to be 1 3/4" thick and manufactured from 12ga satin coat steel as follows:
1. Exterior and interior skins shall be coped to provide square butt joints and face welded and ground smooth.
  2. Weld both exterior and interior skins together at intervals of 6". All exposed welds shall be ground smooth.
- C. Door frame to have a minimum depth of 4 1/2". Door panels to have a minimum face dimension of 4 1/2".
- D. Hardware shall be as follows (standard US26D finish or optional US10B finish if available):
1. Single leaf doors
    - a. Interior doors
      - i. Hinges
      - ii. Lever Latchset
    - b. Exterior doors
      - i. Hinges
      - ii. Deadbolt
      - iii. Lever Latchset
      - iv. Sweep
      - v. Threshold
  2. Double leaf doors
    - a. Interior doors
      - i. Hinges
      - ii. Flushbolts
      - iii. Lever Latchset
      - iv. Lever Dummyset
    - b. Exterior doors
      - i. Hinges
      - ii. Flushbolts
      - iii. Deadbolt
      - iv. Lever Latchset
      - v. Lever Dummyset
      - vi. Astragal
      - vii. Sweep
      - viii. Threshold

#### 2.02 Fabrication

- A. Fabricate steel doors in accordance with approved shop drawings.
- B. Corners of frame shall be mitred then solidly welded. Exposed and contact surfaces shall be finished smooth flush with adjacent surfaces.
- C. Glazing
1. Doors shall be designed for interior (or optional exterior) glazing.
  2. Optional; provide continuous steel snap-on, screw-on, aluminum sloped snap-on or clip-on glazing bead to suit 1/8" to 1" glass as specified.
- D. Operable Hardware: (specify)
1. Doors
    - a. Doors shall be hung on not less than three heavy duty ball bearing hinges.
    - b. Provide four ball bearing hinges when door frame height exceeds 84".
    - c. Provide extension flushbolts on double doors when door frame height exceeds 90".
    - d. All hardware to be shipped loose for field installation

## 2.03 Factory Finishing

- A. After fabrication, steel frames and doors shall receive an E-Coat primer coating that shall comply with the following requirements:
  - 1. All process steps shall be immersion process. Spray processes are not allowed.
  - 2. Doors, windows, and accessories shall be processed through a minimum of three-alkali soak cleaner to remove any oils or stamping compounds on the part.
  - 3. There shall be a minimum of two rinses after the soak cleaners.
  - 4. Parts shall be processed through a titanium based rinse conditioner, then processed through a zinc phosphate (iron phosphate is not acceptable).
  - 5. A minimum of two D.I. rinses, with the final having a conductivity of less than 50 µmhos shall be completed.
  - 6. PPG Powercron 6000CX (or equivalent) lead-free cathodic E-Coat is to be applied. Minimum coating thickness shall be 15 µm (0.00060”).
  - 7. Parts shall be processed through a minimum of three counter flowing permeate rinses to remove residue of paint followed by curing at 375-425 F for a minimum of 20 minutes.
- B. (Optional) After priming, steel frames, doors, mullions, covers and trim shall receive the following finishes:
  - 1. Duracron or Duranar (Kynar) baked on enamel. Color shall be as selected by the architect from manufacturers standard colors. (Custom colors are also available, consult Bliss Nor-Am).

## 2.04 Accessories

- A. Mortise Lock
- B. Overhead Closers
- C. Panic Device: Surface mounted models with rim latch or vertical rod (surface mount or concealed). Make and model to be determined by architect and reviewed by Bliss Nor-Am before final approval.

# PART 3 - EXECUTION

## 3.01 Inspection

- A. Door openings shall conform with details, dimensions and tolerance shown on the door manufacturers approved shop drawings.
- B. Conditions that may adversely affect the door installation must be corrected before installation commences.

## 3.02 Installation

- A. Doors specified under this section shall be installed by experienced personnel.
- B. Install doors in openings in strict accordance with approved shop drawings.
  - 1. Set units plumb, level and true to line, without warp or rack of frames.
  - 2. Anchor units securely to surrounding construction with approved fasteners.
  - 3. The exterior joints between the door, trim and mullions shall be properly sealed watertight with an approved sealant and neatly pointed.
- C. Attach door hardware, as required, and adjust doors to operate smoothly free from twist and to be weather tight when closed.
- D. Repair any abraded areas of the factory finish with supplied touch-up paint.

## 3.03 Cleaning

- A. Door installer shall leave door surfaces clean after installation and ready to receive glass and glazing. The installer will not be responsible for final cleaning.