

Bliss Nor-Am Windows & Doors

"W20" 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 weatherstripped frame and panel, single or double leaf, inward or outward swinging.
 2. 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 intermediate steel doors.
- B. Installation of doors shall be done by experienced installers.
- C. Allowable tolerance: Size dimensions $\pm 1/16$ th inch.

1.03 Submittals

- A. Samples (as requested by architect):
1. Typical door corner.
 2. Typical muntin section
 3. Color sample of finish.
 4. Hardware.
- B. Shop drawings and manufacturers 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 and sizes guaranteed
 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. Heavy intermediate weatherstripped steel sections manufactured from solid hot rolled carbon steel shapes.
1. Sections made from new billet steel with flanges rolled integrally at the mill.
 2. Door sections shall have glazing rebates providing an unobstructed glazing surface of at least 1/2" in height.
 3. Combined weight of frame and door sections shall be a minimum of 3.65 pounds per linear foot.
 4. The door sections shall have an integral groove for the reception of weatherstripping.
 5. Door frame section shall have an applied weatherstrip.
 6. Standard 4" kick plate and hardware panel.
- B. Muntins
1. Steel Tee Muntins
 - a. Muntins shall be solid hot rolled from new billet steel with flanges rolled integrally at the mill.
 - b. 1 1/8" tee shall weigh .957 pounds per lineal foot.
- C. Weatherstripping shall be extruded PVC.
- D. Thermal break for 1" o/a glazing to be extruded PVC.
- E. 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. Pushbolts
 - iii. Lever Latchset
 - iv. Lever Dummyset
 - b. Exterior doors
 - i. Hinges
 - ii. Pushbolts
 - iii. Deadbolt
 - iv. Lever Latchset
 - v. Lever Dummyset
 - vi. Sweep
 - vii. Threshold

2.02 Fabrication

- A. Fabricate steel doors in accordance with approved shop drawings.
- B. Corners of frame and doors shall be mitred then flash welded. Exposed and contact surfaces shall be finished smooth flush with adjacent surfaces.
- C. Steel tee muntins shall be tenoned and welded to the perimeter frame. Muntin intersections shall be slotted and cross-notched. All joints shall be welded and exposed surfaces shall be finished and ground smooth flush with adjacent surfaces.
- D. Glazing
1. Doors shall be designed for interior (or optional exterior) glazing.
 2. Provide continuous snap-on (optional screw-on or sloped aluminum snap-on) glazing beads to suit 1/8" to 5/8" glass as specified.
 3. Provide 1 1/2" x 1/8" steel screw-on glazing bar with 1/8" PVC thermal break for 1" o/a glass.

- E. Double continuous PVC weatherstripping shall be applied to the frame and integral weatherstrip groove of the door sections, and shall be on the same plane around the perimeter of the door area. Weatherstripping that is surface applied or requires an additional retainer or requires screws for application shall not be acceptable.
- F. Operable Hardware: (specify)
 - 1. Doors
 - a. Doors shall be hung on three ball bearing hinges.
 - b. Provide four ball bearing hinges when door height exceeds 84".
 - c. Provide extension integral (hidden) pushbolt on double doors when door frame height exceeds 90".
 - d. Surface (visible) interior mount extension pushbolt at head for all doors that exceeds 96" in height.
 - e. All hardware to be shipped loose for field installation

2.03 Factory Finishing

- A. After fabrication, steel doors, mullions, covers and trim shall receive a Grey Oxide primer finish.
- B. (Optional) After fabrication, steel doors, mullions, covers and trim shall receive one or both of the following finishes:
 - 1. Hot-Dipped Galvanizing
 - 2. 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: Some restrictions apply. Consult with Bliss Nor-Am.
- B. Advance Hinge
- C. Thresholds: For residential applications. Consult with Bliss Nor-Am.
- D. Overhead Closers
- E. Panic Device: Surface mounted models with rim latch or surface vertical rod only. Make and model to be determined by architect. Some restrictions may apply. Consult with Bliss Nor-Am.

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.