This section includes Bullet Resistant, Wood Doors and Bullet Resistant Steel Frames which meet the UL752 "Standard for Bullet-Resisting Equipment." This section relies on both the Canadian Steel Door Manufacturers Association (CSDMA.org) industry standard, the Hollow Metal Manufacturers Association (NAAMM.org) industry standard for steel frames, and Window & Door Manufacturer's Association (WDMA.com) standard for wood doors. This section includes proprietary, descriptive and performance type specifications. Edit to avoid conflicting requirements.

Part 1 General

1.1 SECTION INCLUDES

This article includes a summary of the content of this section which will not be included in other sections. This article is NOT intended to be used as a trade or other form of jurisdictional content.

.1 Bullet resistant pressed steel frames.

.2 Bullet resistant pressed wood doors [and panels].

Bullet resistant glazing can not be supplied on a fire rated bullet resistant assembly.

.3 [Bullet resistant glazing in bullet-resistant steel frame and door assemblies.]

.4 Catalyzed lacquer, premium grade finish to WDMA I.S. 1A, [clearcoat only] [stain and clear coat] [paint] [as selected].

1.2 RELATED SECTIONS

This article references other specification sections that inter-rely on this section. This listing should include those sections that describe subjects or products that affect this section directly.

.1 Section [_____-_____]: Masonry mortar fill of metal frames.

.2 Section 07 92 00 - Joint Sealing: Caulking between doors and adjacent construction.

.3 Section 08 71 10 - Door Hardware - General.

.4 Section 09 91 00- Painting: Field painting of [doors] [frames] [doors and frames].

1.3 REFERENCES

List reference standards below that are included within the text of this section. Delete references that do not apply to this project.

.1 ASTM A653/A653M-15el - Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process.

.2 Canadian Steel Door Manufacturers Association (CSDMA), Selection and Usage Guide for Steel Doors and Frames, 2009.

.3 HMMA 802-07 - Manufacturing of Hollow Metal Doors and Frames.

.4 HMMA 840-16 - Installation and Storage of Hollow Metal Doors and Frames.

.5 ULC 752-05 - Standard for Bullet-Resisting Equipment.

.6 ANSI/WDMA I.S. 1A-2013 - Industry Standard for Architectural Wood Flush Doors.

.7 FSC – Forest Stewardship Council Standard for Chain of Custody Certification.

.8 USGBC LEEDv4.

1.4 PERFORMANCE REQUIREMENTS

Include this article if all doors should meet the same ballistic requirement; otherwise, specify individual performance for door types in Part 2 or in a schedule. AMBICO wood bullet resistant doors and frames can be manufactured to meet the bullet resistant requirement of handguns as well as high powered rifles.

.1 Ballistic Resistance: Conform to UL 752, Level [1] [8] [__].

.2 Conform to ICC/ANSI A117.1.

1.5 SUBMITTALS

.1 Section [01 33 00]: Submission procedures.

.2 Product Data: Provide product data on door construction and [_____].

.3 Shop Drawings: Indicate door and frame elevations, internal reinforcement, anchor types, closure methods, [finishes] location of cut-outs for hardware, and cut outs for [glazing] [louvres].

.4 Samples: Submit manufacturer's door finish samples, as well as manufacturer’s frame corner sample.

.5 Test Data: Submit independent test data indicating compliance with bullet resistant requirements from a recognized licensed laboratory.

.6 Installation Instructions: Submit manufacturer's installation instructions.

.7 Sustainable Design:

.1 Section 01 35 18: LEED documentation procedures.

.2 Provide required LEED documentation for product [recycled content] [regional materials] [low-emitting materials] [urea-formaldehyde content].

.3 Submit Type 3 Environmental Product Declaration (EPD) for products of this Section.

.4 Submit Chain-of-Custody Certificates certifying that doors [and frames] comply with FSC certification requirements.

.5 Manufacturer's Certificate: Certify that products meet or exceed [specified requirements].

1.6 QUALITY ASSURANCE

.1 Perform Work to requirements of [CSDMA (Canadian Steel Door Manufacturers Association)] [HMMA (Hollow Metal Manufacturers Association)] [Window & Door Manufacturers Association (WDMA)] standards.

.2 Provide products of this section from a single manufacturer unless components are referenced specifically in other sections.

.3 Manufacturer: Minimum Five (5) years documented experience manufacturing security door assemblies.

1.7 DELIVERY, STORAGE AND PROTECTION

.1 Section [01 61 00]: Transport, handle, store, and protect products.

.2 Comply with WDMA I.S. 1A for doors and

.3 Comply with HMMA 840 for steel frames and manufacturer's written instructions.

.4 Weld minimum two temporary jamb spreaders per frame prior to shipment.

.5 Remove frames from wrappings or coverings upon receipt on site and inspect for damage, leave doors covered for protection until hung.

.6 Store doors in horizontal position, frames in vertical position, spaced with blocking to permit air circulation between components.

.7 Store materials out of water and covered to protect from damage. Use covering that allows air circulation and does not permit light to penetrate.

.8 Store doors between 50 to 90 degrees F (10 to 32 degrees C) and 25 to 55 percent relative humidity.

.9 Clean and touch up scratches or disfigurement to metal and wood surfaces.

1.8 WARRANTY

.1 Manufacturer's Limited Warranty: Five (5) years from date of supply, covering material and workmanship.

Part 2 Products

2.1 MANUFACTURERS

In this article, list the manufacturers acceptable for this project. Edit the subsequent descriptive specifications of Part 2, to identify project requirements and to eliminate any conflict with specified manufacturer's products.

.1 AMBICO Limited
1120 Cummings Avenue
Ottawa, Ontario, Canada K1J 7R8
Toll Free Phone 888-423-2224

Phone	613-746-4663
Toll Free Fax	800-465-8561
Fax	613-746-4721

.2 Other Acceptable Manufacturers:

.1 [_____].

.2 [_____].

.3 Substitutions: [Refer to Section 01 60 00.] [Not permitted.]

2.2 MATERIALS

.1 Sheet Steel: Galvanized steel to ASTM A653/A653M, Z275.

.2 Reinforcement [Channel]: To CSA G40.20/G40.21, coating designation to ASTM A653/A653M, [ZF75] ([A25]).

.3 Wood door panel: Ballistic resistant core [with FSC Certified,] [Urea-formaldehyde free] [wood veneer] [plastic laminate] facing.

.1 Door Facing:

.1 Wood Face Veneer: [_____] species, [_____] cut; minimum thickness before sanding 0.6 mm (1/4 inch).

[OR]

.2 Plastic Laminate: to be selected from manufactures standard colors and patterns

.2 Door Edging:

.1 Where door face is wood face veneer, door edges shall be supplied with matching stiles and rails

[OR]

.2 Where door face is plastic laminate, door edges shall be supplied with hardwood stiles and rails.

2.3 ACCESSORIES

AMBICO wood bullet resistant doors and steel frames are prepared for heavy weight builders hardware to be supplied by Section # 08 71 10. All other accessories specified in this section shall be supplied by the door and frame manufacturer.

.1 Hinges: Heavy weight butt type [by section # 08 71 10] [by this section].

.2 Glazing Stops: Formed galvanized steel channel, [butted] [mitred] corners; prepared for countersink style [tamperproof] screws.

.3 Glass: Type as tested to achieve ballistic ratings. [Glazing to be factory supplied and pre-installed.]

.4 Primer: Rust inhibitive zinc phosphate.

.5 Astragal: To be supplied loose as an integral part of the door and frame assembly and ready for field assembly by others.

.6 [Removable] Mullion: To be provided at [paired] [multiple leaf] openings, where occasional access is required. Mullion to comply with the bullet resistant rating of the entire assembly.

2.4 FABRICATION

.1 Manufacture doors and frames to Level [1] [8] [__] bullet resistance rating in accordance with UL 752.

.2 Wood Doors:

.1 Wood veneer faces, door thickness, design and core suitable to achieve specified ballistic performance.

.2 Reinforce doors where surface-mounted hardware is required.

.3 Drill and tap for mortised, templated hardware.

.4 Astragals: Metal [Z] [T] shaped astragals for double doors.

.5 [Factory install glazing.]

.3 Steel Frames:

.1 Sheet steel, metal thickness and appropriate to maintain ballistic door ratings, mitred corners.

.2 Factory assemble and weld frames.

.3 Mullions for Double Doors: [Fixed] [Removable] type.

.4 Reinforce frames wider than 1200 mm (48 inches) with roll formed steel channels welded tightly into frame head, flush with top.

.5 Provide three single silencers for single doors [and mullions of double doors] on strike side, and two single silencers on frame head at double doors without mullions.

.6 Affix permanent metal nameplates to door and frame, indicating manufacturer's name, door tag, model number, and ballistic rating.

.7 Glazing: shall be in conformance with bullet resistant rating of door and frame assembly. Supply glazing loose, ready for ready for field assembly by others.

2.5 FINISHES

This article may require a more elaborate identification of expected finishes. Edit the following paragraphs for special finishes other than those for galvanized steel frames. Wood doors may be factory finished, or shall be supplied unfinished by the factory and finished in the field by others.

.1 Metal Frame: Factory applied zinc phosphate primer [to be applied to all exposed surfaces] [touch-up only, where product had been welded and ground smooth] [as scheduled].

.2 Factory Door Finish: Catalyzed lacquer, premium grade finish to WDMA I.S. 1A, [clearcoat only] [stain and clear coat] [paint] [as selected].

.3 Top and Bottom Rails: Factory sealed with wood sealer.

Part 3 Execution

3.1 INSTALLATION

.1 Install components to manufacturer’s written instructions.

.2 Install doors and frames to [CSDMA] [HMMA 840] [ANSI/WDMA IS 1A] standards.

.3 Coordinate with [masonry] [gypsum board] [concrete] [_____] wall construction for anchor placement.

.4 Set frames plumb, square, level and at correct elevation.

.5 Allow for deflection to ensure that structural loads are not transmitted to frame.

.6 Adjust operable parts for correct clearances and function.

.7 [Finish paint in accordance with Section 09 91 00.]

.8 Touch up finishes where damaged.

3.2 ERECTION TOLERANCES

.1 Section 01 73 00: Tolerances.

.2 Installation tolerances of installed frame for squareness, alignment, twist and plumbness are to be no more then ± 1/16in (1.5mm) in compliance with HMMA 841.

3.3 FIELD QUALITY CONTROL

.1 Provide qualified manufacturer's representative to instruct installers on the proper installation and adjustment of door assemblies.

.2 Provide manufacturer's representative to inspect door installation, and test minimum five (5) cycles of operation. Correct any deficient doors and frames.

END OF SECTION