SECTION 08 5653

BULLET-RESISTANT ALUMINUM TRANSACTION WINDOWS

PART 1GENERAL

1.1 SUMMARY

A. Section Includes:
1. Bullet-resistant [fixed] [horizontally sliding] aluminum transaction window assemblies.
2. Bullet-resistant baffle type aluminum transaction window assemblies.

B. Related Sections:
1. Division 01: Administrative, procedural, and temporary work requirements.

1.2 REFERENCES

A. American Welding Society (AWS) D1.2/D1.2M - Structural Welding Code - Aluminum.

B. American Architectural Manufacturers Association (AAMA) 611 - Voluntary Specification for Anodized Architectural Aluminum.

C. ASTM International (ASTM) B221 - Standard Specification for Aluminum and Aluminum-Alloy Extruded Bars, Rods, Wire, Profiles, and Tubes.

D. Underwriters Laboratories (UL) 752 - Bullet Resisting Equipment.

1.3 SYSTEM DESCRIPTION

A. Design Requirements:
1. Provide window frames of “non-ricochet type" intended to permit capture and retention of attacking projectile, lessening potential of random injury or lateral penetration.
2. Two way "natural voice" communication permitted by design of vertical side frames and glazing technique.

**** OR ****

3. Provide single or multiple transaction positions utilizing “natural voice” baffle configuration, employing offset vertical standing vision panels and 5 inch baffles to complete “natural voice” design and to protect against angled ballistic penetrations.

1.4 SUBMITTALS

A. Submittals for Review:
1. Shop Drawings: Include window profiles and sizes, type and spacing of frame anchors, reinforcement size and locations, details of joints and connections, and welding details.
2. Product Data: Include product description for window assemblies including bullet-resistant ratings.
3. Samples: [2 x 2] [__ x __] inch coating samples [showing available colors.] [in specified color.]

B. Closeout Submittals:
1. Maintenance Data: Include instructions for cleaning of glazed panels.

1.5 QUALITY ASSURANCE

A. Transaction Window Assemblies: Ballistic Level [1,] [2,] [3,] [4,] [5,] [6,] [7,] [8,] tested to UL 752.

1.6 DELIVERY, STORAGE AND HANDLING

A. Store window assemblies upright in protected, dry area, off ground or floor, with at least 1/4 inch space between individual units.

B. Do not cover with non-vented coverings that create excessive humidity.

C. Remove wet coverings immediately.

PART 2 PRODUCTS

2.1 MANUFACTURERS

A. Contract Documents are based on products by ARMORTEX, 5926 Corridor Parkway, Schertz, Texas, 800-880-8306, www.armortex.com.

B. Substitutions: [Under provisions of Division 01.] [Not permitted.]

2.2 MATERIALS

A. Aluminum Extrusions:
1. ASTM B221, 6061-T6 alloy and temper; minimum 38.0 KSI ultimate tensile strength and minimum 35.0 KSI yield strength.

B. Bullet-Resistant Composite: UL Listed Bullet Resistant Composite by ARMORTEX.

C. Glazing:
1. UL Listed [laminated glass.] [glass/polycarbonate composite.] [Glass-clad polycarbonate.] [Multi-ply polycarbonate.] [Acrylic polycarbonate composite.] [_____.]
2. Bottom edge of glazing panel provided with 18 gage stainless steel cap.

D. Track and Hangers:
1. Stainless steel 12 gage track guard and guide.
2. Aluminum 1500 series sliding roller track and wheeled hangers.

2.3 FABRICATION

A. Frames:
1. Fabricate from aluminum extrusions lined with bullet-resistant composite.
2. Weld frame corners; knock-down and mechanical joints not acceptable.
3. Frame modules capable of being joined with other frame modules to form continuous line.
4. Replacement of glazing from secure side of window, not requiring removal of frame from opening.

B. Shelf: Minimum 2 inches thick with recessed dip tray, full width of window x minimum 12 inches deep, centered under glazing, covered with [[black] [____] high pressure laminate.] [18 gage stainless steel.]

C. Dip Tray: Model RMDT1016, 16 gage stainless steel, 10 x 16 inches to outside edge of flanges, clear 1-5/8 inch open depth under glazing.

D. Provide 1 inch acrylic spacers and stainless steel security screws at baffles.

E. Welding: In accordance with AWS D1.2/D1.2M. Grind exposed welds flush and smooth.

F. Finish work neat and free from defects.

G. Allowable Tolerances: Plus or minus 1/16 inch for frame opening width, height, diagonal dimensions, and overall width and height (outside to outside).

2.4 FINISHES

A. Aluminum: AAMA 611, Architectural Class I anodized, [clear.] [dark bronze.]

**** OR ****

B. Aluminum: Apply manufacturer's standard polyester powder coat, sprayed and baked, [____] [custom] color [to be selected from manufacturer's full color range].

PART 3 EXECUTION

3.1 INSTALLATION

A. Install window assemblies in accordance with manufacturer's instructions and approved Shop Drawings.

B. Set plumb, square, and level.

C. Secure to adjacent construction using fastener type best suited to application.

D. Field alterations to window assemblies not permitted unless approved in advance by manufacturer and Architect.

3.2 ADJUSTING

A. Touch up minor scratches and abrasions in [primer paint] [finish coat] to match factory finish.

END OF SECTION