SECTION 13070 - BULLET RESISTANT FIBERGLASS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

A. This Section includes the following:
   1. Bullet resistant fiberglass material.
   2. Through the design, manufacturing technique and material application the Bullet Resistant Fiberglass shall be of the "non ricochet type". This design is intended to permit the encapture and retention of an attacking projectile lessening the potential of a random injury or lateral penetration.

1.3 REFERENCE

A. Underwriters Laboratory UL 752 10th Edition, Standard for Bullet Resisting Equipment dated March 10, 2000.

B. ASTM E119-98 Standard Test for One-Hour Fire-Rating of Building Construction and Materials.

1.4 SUBMITTALS

A. Product Data: Include construction details, material descriptions, dimensions of individual components and profiles.
   1. UL Listing verification and UL752 Current Test Results as provided by Underwriters Laboratories, and printed data in sufficient detail to indicate compliance with the contract documents. ASTM E119-98 One-Hour Fire Rating of Building Construction and Materials. Manufacturer's Instructions for installation of Bullet Resistant Fiberglass Panels.

B. Manufacturer Certificates: Signed by manufacturers certifying that they comply with requirements.

1.5 DELIVERY, STORAGE AND HANDLING

A. Deliver the materials to the project with the manufacturer's UL Listed Labels intact and legible. Handle the material with care to prevent damage. Store the materials inside under cover, stack flat and off the floor.

1.6 WARRANTY

A. All materials and workmanship shall be warranted against defects for a period of two (2) years from the date of receipt at the project site.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Product/Manufacturer: Basis-of-Design.
   1. ArmorCore Level 3 by Waco Composites I. Ltd.
   2. Web Site: www.armorcore.com.

2.2 BULLET RESISTANT FIBERGLASS MATERIAL

A. The panels shall be made of multiple layers of woven roving ballistic grade fiberglass cloth impregnated with a thermoset polyester resin and compressed into flat rigid sheets. The production technique and materials used shall provide the controlled internal delamination to permit the encapture of a penetrating projectile. Bullet Resistant Fiberglass panels: 7/16" maximum thickness, and 4.7 pounds per square foot maximum weight.

2.3 SECURITY LEVEL

A. The Bullet Resistant Fiberglass will be rated and tested for UL752 Level 3.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine substrates and conditions, with Installer present, for compliance with requirements for installation tolerances, and other conditions affecting performance.
   1. For the record, prepare written report, endorsed by Installer, listing conditions detrimental to performance of work.

B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 SUPPORTING MEMBERS

A. Prior to installing the bullet resistive material the contractor shall verify that all supports have been installed as required by the contract documents and the architectural drawings.

3.3 JOINTS

A. All joints shall be reinforced by a back-up layer of bullet resistive material. The bullet resistance of the joint, as reinforced, shall be at least equal to that of the panel. Minimum width of reinforcing layer at joint shall be 4-inches (2" on each panel or a 2" minimum overlap).

3.4 APPLICATION

A. Panels shall be installed in accordance with the manufacturer's printed recommendations. Panels shall be adhered using an industrial adhesive, mastic, screws or bolts. Method of application shall maintain the bullet resistive rating at junctures with the concrete floor slab, the roof slab, the bullet resistive door frames, the bullet resistive window frames, and all required penetrations.

END OF SECTION 13070