

SECTION 111510 - BULLETPROOF MODULAR COUNTERS

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. Bulletproof modular counter with Security Glazing in following levels:

Keep one of the 3 options below.

- a. Level 1 bullet resistant system minimum.
- b. Level 2 bullet resistant system minimum.
- c. Level 3 bullet resistant system minimum.

- B. Related Sections:
 - 1. Division 8 Section "Door Hardware" for door hardware sets.

1.3 SUBMITTALS

- A. Product Data: For each type of product.

Keep below for LEED

- B. LEED Submittals:

Keep below for regional material.

- 1. Credit MR 5: Product data for regional materials indicating location and distance from Project of material manufacturer and point of extraction, harvest, or recovery for each raw material. Include statement indicating cost for each regional material and the fraction by weight that is considered regional.

"Certificates for Credit MR 7" Subparagraph below applies to LEED-NC, LEED-CI, and LEED for Schools.

- 2. Certificates for Credit MR 7: Chain-of-custody certificates indicating that wood-based products used in demountable partitions comply with forest certification requirements. Include statement indicating cost for each certified wood product.

"Product Data for Credit EQ 4.1" Subparagraph below applies to LEED-NC and LEED-CI; coordinate with requirements for adhesives.

- 3. Product Data for Credit EQ 4.1: For installation adhesives, documentation including printed statement of VOC content.

Basis of Design: MaxGuard Modular System
MaxGuaard LLC.

"Product Data for Credit EQ 4.4" Subparagraph below applies to LEED-NC and LEED-CI.

4. Product Data for Credit EQ 4.4: For composite wood products, documentation indicating that product contains no urea formaldehyde.
- C. Shop Drawings:
1. Include plans, elevations, and sections; attachment details at floors, permanent partitions, and ceilings; and method of erection and disassembly.
- D. Samples:
1. Include Samples of hardware and accessories involving color or finish selection.
 2. Glazing: Manufacturer's standard-size unit, but not less than 3 inches square.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Bulletproof Modular Counters:
1. Basis of Design: MaxGuard Modular System by MaxGuard LLC. which is located at: 220 Newport Coast Dr #11-591Newport Beach Ca. 92660 Tel: (800) 432-3079. Website: <http://maxguardllc.com>
 2. Or equal (No known equal).

2.2 MATERIALS

Always keep below for all levels of Bullet Resistant protection (Level 1, 2, and 3 Vision Partitions B. through F.). The furniture components are all Level-3 BR.

- A. Solid Partition Core Material:
1. Product: MaxGuard Gold, bullet resistant panels
 2. Description: Antiballistic high performance thermoset sheets configured on Maxguard patent pending system core.
 3. Level 3 protection per UL-752.
 4. Meets following Standards:
 - a. Federal Aviation Regulation 25.853.
 - b. Class 1-A Fire and Smoke Rated Building Material (ASTM E84).

Keep one of the 5 Security Glazing options below.

Keep below for Security Glazing Option 1 – Acrylic Level 1, un-coated.

- B. Acrylic, Uncoated Vision Partitions:
1. Product: MG 1.25 L-1, UL 752 rated, level 1 bullet resistant glazing.
 2. Coating: None.
 3. Code Ratings and Standards:
 - a. Meets the test requirements of Building Code class CC2,
 - b. ANS, Z97.1-Safety Glazing Material,
 - c. ANS, Z26.1-Motor Vehicle Safety Glazing Material,
 - d. Dade County Approval, Federal Specification L-P-391D+

Basis of Design: MaxGuard Modular System
MaxGuard LLC.

- e. ASTM D 4802.
- 4. Optical Properties:
 - a. Light Transmission: Greater than 90% per ASTM D1003.
 - b. Haze: Less than 1.0% per ASTM D1003.
 - c. Yellowness Index: Less than 0.70% per ASTM D1925.
- 5. Thickness: 1.250 inch.
- 6. Smoke Density: Per ASTM D2843.
 - a. Max: 8%.
 - b. Rating: 5%.

Keep below for Security Glazing Option 2 – Acrylic Level 1, Coated.

- C. Acrylic, AR coated Vision Partitions:
 - 1. Product: MG 1.25 L-1, UL 752 rated, level 1 bullet resistant glazing.
 - 2. Coating: Super Abrasion-Resistant (SAR).
 - 3. Code Ratings and Standards:
 - a. Meets the test requirements of Building Code class CC2,
 - b. ANS, Z97.1-Safety Glazing Material,
 - c. ANS, Z26.1-Motor Vehicle Safety Glazing Material,
 - d. Dade County Approval, Federal Specification L-P-391D+
 - e. ASTM D 4802.
 - 4. Optical Properties:
 - a. Light Transmission: Greater than 90% per ASTM D1003.
 - b. Haze: Less than 1.0% per ASTM D1003.
 - c. Yellowness Index: Less than 0.70% per ASTM D1925.
 - 5. Thickness: 1.250 inch.
 - 6. Smoke Density: Per ASTM D2843.
 - a. Max: 8%.
 - b. Rating: 5%.

Keep below for Security Glazing Option 3 – Acrylic Level 2, Coated.

- D. Acrylic, AR coated Vision Partitions:
 - 1. Product: MG 1.25 L-2, UL 752 rated, level 2 bullet resistant glazing.
 - 2. Coating: Super Abrasion-Resistant (SAR).
 - 3. Code Ratings and Standards:
 - a. Meets the test requirements of Building Code class CC2,
 - b. ANS, Z97.1-Safety Glazing Material,
 - c. ANS, Z26.1-Motor Vehicle Safety Glazing Material,
 - d. Dade County Approval, Federal Specification L-P-391D+
 - e. ASTM D 4802.
 - 4. Optical Properties:
 - a. Light Transmission: Greater than 90% per ASTM D1003.
 - b. Haze: Less than 1.0% per ASTM D1003.
 - c. Yellowness Index: Less than 0.70% per ASTM D1925.
 - 5. Thickness: 1.378 inch.
 - 6. Smoke Density: Per ASTM D2843.
 - a. Max: 8%.
 - b. Rating: 5%.

Keep below for Security Glazing Option 4 -Polycarbonate Level 3, Coated. Highest level of toughness, continues to offer protection for many more bullet strikes than most competitive products on the market. It does not break up or powder internally thus maintains a high level of barrier protection from bullets and forced entry even after dozens of bullet impacts (still keeps people out). Not recommended for exterior applications.

E. Polycarbonate Vision Partitions:

1. Product: MG L-3, UL 752 rated, level 3 bullet resistant glazing.
2. Type: Laminated Polycarbonate.
3. Composition: 4 layers.
 - a. Two layers of 1/2 inch uncoated polycarbonate laminated together with an additional external layer on both faces of 1/8 inch abrasion resistant coated polycarbonate.
 - b. Inner layer or adhesive layer used in lamination with polycarbonates is polyurethane based product.
4. Reduced light transmission.
5. Thickness: 1.250 inch.

Keep below for Security Glazing Option 5 - Acrylic Level 3, Coated. Less expensive than 100% Polycarbonate option above. This product passes UL testing for level-3 BR, however performs differently in that a few additional shots in a clustered area will pulverize the Acrylic core sheet and then bullets may penetrate that area of the glazing. The advantage with this product is better visibility and reduced cost.

F. Acrylic Vision Partitions:

1. Product: MG-C (composite) 1.25 L-3, UL 752 rated, level 3 bullet resistant glazing.
2. Coating: Abrasion-Resistant (AR).
3. Type: Laminated Acrylic and Polycarbonate.
4. Composition: 3 layers.
 - a. Core layer of 1 inch thick clear uncoated acrylic laminated to two external layers of 1/8 inch coated polycarbonate using polyurethane inner layer or adhesive.
5. Code Ratings and Standards:
 - a. Meets the test requirements of Building Code class CC2,
 - b. ANS, Z97.1-Safety Glazing Material,
 - c. ANS, Z26.1-Motor Vehicle Safety Glazing Material,
 - d. Dade County Approval, Federal Specification L-P-391D+
 - e. ASTM D 4802.
6. [MM1]Optical Properties:
 - a. Light Transmission: Greater than 85% per ASTM D1003.
 - b. Haze: Less than 1.5% per ASTM D1003.
7. Thickness: 1.250 inch.
8. Smoke Density: Per ASTM D2843.
 - a. Max: 65%.
 - b. Rating: 49%.

Keep below for wood veneer finish.

G. Wood Veneer Finish:

1. FSC compliant wood veneers.
2. Sustainable Materials Attributes:
 - a. Certificate Type: Single Chain of Custody.
 - b. Standard(s): FSC-STD-40-004 V2-1.

Basis of Design: MaxGuard Modular System
MaxGuard LLC.

- c. Product group(s): Wood Panels, Plywood, Veneer.
 - d. Certificate Registration Code: RA-COC-000139.
 - e. FSC License Code: FSC-C009393.
 - f. Certificate Issue Number: IN-2012-1.
3. Color: As selected by Architect from manufacturer's full range.

Keep below for P-lam finish.

- H. Plastic Laminate Partition Finish:
1. Product: HPDL - High Pressure Decorative Laminate.
 - a. Decorative surface papers, impregnated with melamine resins, bonded under heat and pressure to Kraft papers impregnated with phenolic resins.
 - b. Type: Having the following physical characteristics:
 - 1) Sheet thickness: 0.028 inch nominal (.71mm).
 - 2) Exceeding performance requirements of NEMA LD 3 current revision, Grade HGS.
 - 3) Surface burning characteristics in accordance with ASTM E 84; unbonded.
 - c. Color: As selected by Architect from manufacturer's full range.
- I. Aluminum: Glazing channels and trim pieces (Clear OR Dark Bronze Anodized finish).
- J. Deal Tray: Stainless steel (Brushed Finish).

2.3 BULLETPROOF MODULAR COUNTERS

- A. Solid Partitions:
1. Core: Antiballistic high performance thermoset sheets integrated with system core.
 2. Height: As indicated Drawings.
 3. The system shall provide a 1/2" vertical adjustment (+/-1/2") in overall height to accommodate floor and ceiling irregularities.
 4. Panel units shall be manufactured in widths as indicated on Drawings.
 5. Finish: [Wood Veneer] [Plastic Laminate].

Select one of 3 Security Glazing styles below.

- B. Vision Partitions Styles: Drawing available
1. "Arch" (for arch cut opening),
 2. "SB" Square Backer (Square hole & corresponding backer plate)
 3. "B" or Baffle system (Vertical pieces run through and overlap along the vertical edges).
- C. Transparent Doors:
1. Material: Same material as Security Glazing partitions.
 2. Configuration and Size: As indicated on Drawings.
- D. Plastic Laminate Doors: See Division 8 Section Bulletproof Doors and Frames.
- E. Steel Doors: See Division 8 Section Bulletproof Doors and Frames.
- F. Steel Frames: See Division 8 Section Bulletproof Doors and Frames.

PART 3 - EXECUTION

3.1 INSTALLATION

- A. General: Install bulletproof modular counters per manufacturer's written instruction.
 - 1. Install partitions rigid, level, plumb, and aligned. Install seals at connections with floors, ceilings, fixed walls, and abutting surfaces to prevent light and sound transmission.
 - 2. Broken, cracked, chipped, deformed, or unmatched panels and components are not acceptable.
 - 3. Except for filler panels scribed to fixed walls or columns, do not modify manufacturer's standard components.

- B. Doors and Frames: Install door-and-frame and glazing-and-glazing-frame assemblies securely anchored to partitions and with doors aligned and fitted. Install and adjust door hardware for proper operation.

END OF SECTION 111510