



SECTION 04818

GLASS FLOOR SYSTEMS

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PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Structural glass floor system, consisting of structural extruded aluminum grid and laminated structural glass units, and all other items necessary for a complete assembly.

1.2 RELATED SECTIONS

- A. Section 03300 - Cast-in-Place Concrete: Concrete structure and slabs.
- B. Section _____ - Support Structure and Containment Rings.
- C. Section 07900 - Joint Sealers: Sealant installation requirements.

1.3 REFERENCES

- A. ASTM B 221 - Standard Specification for Aluminum and Aluminum-Alloy Extruded Bars, Rods, Wire, Shapes, and Tubes.
- B. ASTM D 2000 - Standard Classification System for Rubber Products in Automotive Applications

1.4 SUBMITTALS

- A. Submit under provisions of Section 01300.
- B. [[Product Data](#)]: Manufacturer's data sheets on each product to be used, including:
 - 1. Preparation instructions and recommendations.
 - 2. Storage and handling requirements and recommendations.
 - 3. Installation methods.
- C. Shop Drawings: Show methods of installation, location and spacing of anchors, and relationship to adjoining work.
- D. Selection Samples: For each finish product specified, two complete sets of color chips representing manufacturer's full range of available colors and patterns.
- E. Verification Samples: For each finish product specified, two samples, minimum size 6 inches (150 mm) square, representing actual product, color, and patterns.

1.5 DELIVERY, STORAGE, AND HANDLING

- A. Store products in manufacturer's unopened packaging until ready for installation.
- B. Store materials in dry place, off the ground, where temperature will not exceed 90 degrees F (32 degrees C).
- C. Handle material in manner that will prevent damage to finished surfaces. Do not install scratched or damaged components.

1.6 PROJECT CONDITIONS

- A. Maintain environmental conditions (temperature, humidity, and ventilation) within limits recommended by manufacturer for optimum results. Do not install products under environmental conditions outside manufacturer's absolute limits.

1.7 WARRANTY

- A. Provide manufacturer's standard 5-year warranty.
- B. Provide 5-year installer's warranty against faulty workmanship.

PART 2 PRODUCTS

2.1 MANUFACTURERS

- A. Acceptable Manufacturer: P. O. Box 425; Ft. Worth, TX 76101; Toll Free Tel: 800-932-2263; Tel: 817-332-9124; Fax: 817-332-1406; Email: swedde@ibpglassblock.com; Web: www.ibpglassblock.com
- B. Requests for substitutions will be considered in accordance with provisions of Section 01600.

2.2 MATERIALS - STRUCTURAL GLASS FLOOR SYSTEM

- A. Glass Floor Support Grid: Field assembled, extruded aluminum two-way hollow structural grid, sized to fit glass floor unit with one unit to a module, and perimeter frame.
 - 1. Finish: Clear anodized, matt finish.
- B. Laminated Glass Floor Units: Laminated glass units, nominally 1 inch thick with a top layer tempered for impact resistance and a heat strengthened bottom layer bonded with a clear resin interlayer. Size, color and pattern as follows:
 - 1. Size:
 - a. Nominal size as indicated on the Drawings.
- C. Cushions: Extruded silicone.
- D. Sealant: Dow Corning Corp. "TradeMate" glass block sealant.
- E. Accessories: Provide all sealants, flashings, anchors, fasteners, and other items necessary for complete installation.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Do not begin installation until supporting structure has been properly prepared.

- B. If structure is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.

3.2 PREPARATION

- A. Clean surfaces thoroughly prior to installation.
- B. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result under the project conditions.

3.3 INSTALLATION

- A. Install in accordance with manufacturer's instructions.
- B. Assemble glass block grid floor system according to instructions furnished by manufacturer into prepared supporting structure containment ring.
- C. Set grid frame so that top surface of grid and pavers is flush with adjoining floor surfaces, unless otherwise indicated.
- D. Insert paver units into paver boots and set in grid modules.
- E. Install sealant in accordance with the sealant manufacturers printed instructions.
- F. Apply sealant around exterior face of glass pavers completely filling channel. Tool sealant flush with surface.
- G. Seal joints between grid members.
- H. Apply sealant between perimeter frame and adjoining construction.
- I. Assemble floor system according to instructions furnished by manufacturer into prepared supporting structure containment ring.
- J. Set grid frame so that top surface of grid and glass units is flush with adjoining floor surfaces, unless otherwise indicated.
- K. Insert structural glass units on silicone cushions and set in grid members.
- L. Install sealant in accordance with the sealant manufacturers printed instructions.
- M. Apply sealant to completely fill channel around each glass unit and joints between aluminum grid members and wipe flush with top surface.
- N. Apply sealant between perimeter frame and adjoining construction.

3.4 CLEANING

- A. Clean exposed surfaces of aluminum grid with clean, soft cloth and mild hand soap using gentle rubbing action. Do not use abrasive or solvent type cleaners, detergents, or paint removers.
- B. Remove labels from glass pavers and clean with soft cloth and water.

3.5 PROTECTION

- A. Protect installed products until completion of project.
- B. Touch-up, repair or replace damaged products before Substantial Completion.

END OF SECTION