SECTION 08800

GLAZING

PART 1 - GENERAL

1.01 SUMMARY

A. Provide glazing and glazing accessories where shown on the Drawings, as specified herein, and as needed for a complete and proper installation.

B. Related work:
1. Documents affecting work of this Section include, but are not necessarily limited to, General Conditions, Supplementary Conditions, and Sections in Division 1 of these Specifications.

C. Codes: Materials and work shall conform to the governing Building Code. In case of conflict between these specifications, the standard specifications, and the Building Code, the more stringent shall govern.

1.02 SUBMITTALS

A. Comply with pertinent provisions of Section 01300.

B. Product data: Within 30 calendar days after the Contractor has received the Owner's Notice to Proceed, submit:
1. Materials list of items proposed to be provided under this Section;
2. Manufacturers' specifications and other data needed to prove compliance with the specified requirements, including performance values for the glazing assembly;
3. Manufacturers' recommended installation procedures which, when approved by the Architect, will become the basis for accepting or rejecting actual installation procedures used on the Work.

C. Samples: Accompanying the above product data, submit:
1. Samples shall indicate the color and quality of the products to be provided under this Section. For 1" insulating glass, samples shall consist of assembled glass lites which show the workmanship and quality of the full assembly, including the following components:
a. A Sample of the type(s) of glass, both interior and exterior panes, at least 12" square, and gasket proposed to be used;
b. A Sample of the type of sealant proposed to be used, installed between a sample of the material to be glazed, fully cured.

1.03 QUALITY ASSURANCE

A. Use adequate numbers of skilled workmen who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and the methods needed for proper performance of the work of this Section.

B. In addition to complying with pertinent codes and regulations of governmental agencies having jurisdiction, comply with pertinent recommendations contained in:
1. Flat Glass Marketing Association:
a. "Glazing Sealing Systems Manual";

b. "Glazing Manual".

1.04 DELIVERY, STORAGE, AND HANDLING

A. Comply with pertinent provisions of Section 01600.

B. During storage and handling of glass, provide cushions at edges to prevent impact damage.

PART 2 - PRODUCTS

2.01 GLASS

A. General:
1. For all glass and mirrors, provide the type and thickness shown on the Drawings or specified herein.
2. Where type or thickness, or both, are not shown on the Drawings or specified herein, provide type and thickness directed by the Architect.
2. Glass for tempering:
a. Comply with ASTM C1048-85, type I, class I, quality q5.
3. Sizes and cutting:
a. Prior to tempering or heat treating, cut glass to required sizes as determined by accurate measurements of the openings to be glazed, making allowances for required edge clearances.
b. Cut and process edges in accordance with the glass manufacturer's recommendations.
c. Strengthen by the manufacturer's standard heat-treating process, increasing flexural strength to not less than twice the strength before treatment.
d. Do not permit warpage in excess of industry standard.

B. Specific glass type:
1. Exterior Aluminum Curtain Wall, and Aluminum-Framed Exterior Windows: 1" thick, dual glazed, reflective tinted Low-E insulating tempered glass – Solarban 70 XL (3) Bronze, by PPG Industries, Pittsburg, PA, (412) 820-4962, or equal.
Performance Values:

Visible Light Transmission	38%
U-Value Winter	0.29
U-Value Summer	0.27
SHGC	0.26
Shading Coefficient	0.30
Outdoor Visible Light Reflectance	8%

2. Interior Window Assemblies: 1/4" clear tempered glass as manufactured by PPG Industries.
3. Provide tempered glass of the types listed above throughout project.

2.02 OTHER MATERIALS

A. Provide other materials, not specifically described but required for a complete and proper installation, as selected by the Contractor subject to the approval of the Architect.

PART 3 - EXECUTION

3.01 SURFACE CONDITIONS

A. Examine the areas and conditions under which work of this Section will be performed. Correct conditions detrimental to timely and proper completion of the Work. Do not proceed until unsatisfactory conditions are corrected.

B. Clean glazing channels, stops, and rabbets to receive the glazing materials, making free from obstructions and deleterious substances which might impair the work.
   1. Remove protective coatings which might fail in adhesion or interfere with bond of sealants.
   2. Comply with manufacturers' instructions for final wiping of surfaces immediately prior to application of primer and glazing compounds or tapes.
   3. Prime surfaces to receive glazing compounds in accordance with manufacturers' recommendations.

3.02 INSTALLATION

A. Inspect each piece of glass immediately prior to start of installation.
   1. Do not install items which are improperly sized, have damaged edges, or are scratched, abraded, or damaged in any other manner.
   2. Do not remove labels from glass until so directed by the Architect.
   3. Install glass so distortion waves, if present, run in the horizontal direction.

B. Locate setting blocks at sills one quarter of the width of the glass in from each end of the glass, unless otherwise recommended by the glass manufacturer.
   1. Use blocks of proper size to support the glass in accordance with the manufacturer's recommendations.
   2. Provide spacers for all glass sizes larger than 50 united inches, to separate glass from stops; except where continuous glazing gaskets or felts are provided.
      a. Locate spacers no more than 24" apart, and no closer than 12" to a corner.
      b. Place spacers opposite one another.
      c. Make bite of spacer on glass 1/4" or more.

C. Set glass in a manner which produces the greatest possible degree of uniformity in appearance.

D. Do not use two different glazing materials in the same joint system unless the joint use is approved in advance by the Architect.

E. Mask, or otherwise protect, surfaces adjacent to installation of sealants.

F. Miter-cut and seal the joints of glazing gaskets in accordance with the manufacturer's recommendations, to provide watertight and airtight seal at corners and other locations where joints are required.

3.03 PROTECTION

A. Protect glass from breakage after installation by promptly installing streamers or ribbons, suitably attached to the framing and held free from glass. Do not apply warning markings, streamers, ribbons, or other items directly to the glass except as specifically directed by the Architect.

END OF SECTION - 08800