

SECTION 08 44 00 - CURTAIN WALL AND GLAZED ASSEMBLIES

PART 1 - GENERAL

1.1 SYSTEM REQUIREMENTS

- A. Design Requirements:
 - 1. Provide conventionally glazed and/or structural-sealant-glazed aluminum curtain wall assemblies installed as stick or unitized assemblies. Unitized preferred; stick acceptable.
 - 2. All curtain wall members shall be thermally-broken.
 - 3. Narrow and medium stile doors are not permitted.
 - 4. Sliding entrance doors are not permitted.
- B. Performance Requirements:
 - 1. Delegated Design: Contractor to design aluminum curtain wall systems.
 - 2. Structural Performance:
 - a. Wind Loads: Project specific.
 - 3. Deflection of Framing Members:
 - a. Deflection Normal to Wall Plane: Limited to $L/175$.
 - b. Deflection Parallel to Glazing Plane: Limited to $L/360$ or $1/8$ inch, whichever is smaller.
 - 4. Air Infiltration: 0.06 cfm/sq. ft. when tested according to ASTM E 283 at a minimum static-air-pressure difference of 6.24 lbf/sq. ft.
 - 5. Water Penetration under Static Pressure: No water penetration when tested according to ASTM E 331 at a minimum static-air-pressure difference of 20 percent of positive wind-load design pressure, but not less than 6.24 lbf/sq. ft.
 - 6. Water Penetration under Dynamic Pressure: No water penetration when tested according to AAMA 501.1 under dynamic pressure equal to 20 percent of positive wind-load design pressure, but not less than 6.24 lbf/sq. ft.
 - 7. Energy Performance: Glazed aluminum curtain walls shall have minimum energy performance ratings per NFRC as follows:
 - a. Thermal Transmittance (U-factor): 0.45 Btu/sq. ft. x h x deg F.
 - b. Solar Heat Gain Coefficient: 0.40 .
 - 8. Condensation Resistance: No condensation shall form on interior surfaces of aluminum glazing at exterior and interior winter design temperature and relative humidity.

PART 2 - PRODUCTS

2.1 FRAMING

- A. Framing Members: Extruded or formed aluminum.
 - 1. Construction: Thermally broken.
 - 2. Glazing System: One or more of the following:
 - a. Retained mechanically with gaskets on four sides.
 - b. Two-sided structural-sealant-glazed and mechanically retained with gaskets on two sides.
 - c. Factory-glazed, four-sided structural-sealant-glazed.
 - 3. Glazing Plane: Front.

2.2 ALUMINUM FINISHES

- A. Aluminum Finishes: High-performance organic (three coats).

2.3 FABRICATION

- A. Provisions for field replacement of glazing.

PART 3 - EXECUTION

3.1 FIELD QUALITY CONTROL

- A. Testing: By The University-engaged agency.
- B. Testing Services:
 - 1. Structural Sealant Adhesion: ASTM C 1401.
 - 2. Air Infiltration: ASTM E 783.
 - 3. Water Penetration: ASTM E 1105.
 - 4. Water Spray Test: AAMA 501.2.
 - 5. Frequency of Testing: To be determined by Design Professional.

END OF SECTION 08 44 13