08 50 00 – Aluminum Windows

DIVISION 8 - Openings

STATEMENT OF PURPOSE & BACKGROUND

- Scope:
  - Furnishing and installing aluminum factory-glazed, thermally-broken windows with hardware and related components.

- Statement of goals:
  - Windows shall be thermally-broken, and be glazed with insulated glass with low-emissivity coating to meet district standards for energy efficiency.
  - Operable windows shall be lockable to provide safety and security.
  - Operable windows shall be capable of being locked, unlocked, and operated by one person with a minimum of effort.
  - Match character and style of existing building and community.

- Revision history of section:
  - 04/10/13
  - 11/24/15
  - 12/10/18
  - 12/28/20

SELECTION AND APPLICATION CRITERIA

Application	Selection
Fixed Windows	AW-70
Casement Windows	AW-65
Projected Windows	AW-PG50-AP
Hung Windows	AW-PG50H

All units: Comply with AAMA/WDMA/CSA 101/I.S.2/A440 - 2011

OUTLINE SPECIFICATION

- Part 1 General
  - Performance criteria
    - Operable windows can be casement, sliding, awning, hopper or single-hung operation, depending on existing building design and conditions, ease of operation, size of openings, and Owner preference.
  - Provide a ten year warranty against defects in product, material, glass, finish, installation and workmanship.
  - Provide window units, field tested in accordance with AAMA 502 Test Method A, Air Infiltration and Water Penetration.
  - Design criteria:
    - Older buildings with single- or double-hung window units shall be evaluated for new window units that match the original style in appearance, but their operation may differ from the originals with Owner approval.
    - Buildings in designated historic preservation districts must comply with local requirements. Consultants must communicate with local district councils and the St. Paul Historic Preservation Commission and other applicable bodies as required when renovation and remodeling work will affect the exterior appearance of the building.

- Part 2 Products
    - Acceptable Manufacturers:
        - EFCO
            - Slider: 3503
            - Fixed: 3903
            - Projected: 2700 or 2900
            - Single Hung: 660
            - Fixed: 6600
            - 810-I series, 3-1/2” framing profile
        - TRACO/Kawneer
            - Hung: TR-9100
            - Projected/Casement: NX-3000 Series
        - Peerless
            - Projected: G200 Series
        - Wausau
            - Projected: Invent 3250i
            - Single Hung Thermal: 310i-SH
        - Equivalent manufacturers, **approved, in writing, in advance, by the Architect**, may be substituted in accordance with the provisions of the Contract.
    - Glass shall be factory glazed with 1” insulating glass unless otherwise noted. See Section 08 80 00 Glazing for specific glass types and locations.
    - Finish: Clear anodized or dark bronze aluminum preferred. Replacement windows in older buildings may have a colored finish to match existing building finishes or original window colors to conform to local or historical requirements.
    - Provide limit stops as specified or as directed by Owner.
    - Provide insect screens at windows within 25 feet, both vertical and horizontal of food waste, trash receptacles and other sources of insect attraction, of 18x16 charcoal aluminum mesh in aluminum frames to match window frame finish.

- Part 3 Execution
    - Per Consultant and / or manufacturer specification.
    - Testing Requirements:
        - SPPS will engage an independent testing agency to perform field testing and inspections, and prepare test and inspection reports.
        - Test installed windows for compliance with performance requirements for water penetration and air infiltration, in accordance with ASTM E1105 and AAMA 502, using Test Method A.
        - Testing extent: A minimum of three (3) windows of each type, or another quantity or percentage as selected by Owner, Architect and testing agency, depending on extent of window installation. Test windows after perimeter sealants have cured. Windows will be considered defective if they do not pass tests and inspections.
        - If any window fails, test additional windows at Contractor’s expense until all tested windows pass. Replace windows that have failed field testing and retest until performance is satisfactory.

End of Section