

RFP 23-008 – Addendum 003



welcome neighbors.

TO: All Prospective Bidders

FROM: Daymon K. Johnson – Director of Capital Projects

DATE: 9/5/2023

ADDENDUM 003

- RFP 23-008 – Questions & Answers

Per Addendum 002, The Question & Answer period for this project was as follows:

Questions Due from Prospective Bidders:	8/31/2023
Answers From The Town Due:	9/5/2023

Through this process, we received one clarifying question. Thank you all for examining the plans to ensure a proper and complete bid.

QUESTION(S):

1. Upon initial review, clarification is needed for finishes. Dark Bronze Anodized seems to be the prevailing finish for the aluminum storefront, but there is this note on A8.0: **“Storefront to be Black Anodized Finish”**

There is no spec section for storefront for me to see what finish is specified there.

Also, for the frameless glass door type #3, the hardware is called out as dark bronze, but at the top, they are calling out the U channels at top and bottom to be brushed stainless for the adjacent sidelite. I don't believe that would be the design intent, all metal finishes should be either dark bronze OR brushed stainless.

ARCHITECT RESPONSE:

The intent of the design is to use Dark Bronze. We had a storefront section listed in the specification index, however, we mistakenly left the section out. Thank You for the “good-eye” catch. We have included the specification section below.

SECTION 08411 - ALUMINUM-FRAMED ENTRANCES AND STOREFRONTS

PART 1- GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.02 SUMMARY

- A. This Section includes the following:
 - 1. Exterior and interior aluminum-framed storefronts.
 - a. Glazing is retained mechanically with gaskets on four sides.

1.03 PERFORMANCE REQUIREMENTS

- A. General: Provide aluminum-framed systems, including anchorage, capable of withstanding, without failure, the effects of the following:
 - 1. Structural loads.
 - 2. Thermal movements.
 - 3. Movements of supporting structure indicated on Drawings including, but not limited to, story drift and deflection from uniformly distributed and concentrated live loads.
 - 4. Dimensional tolerances of building frame and other adjacent construction.
 - 5. Failure includes the following:
 - a. Deflection exceeding specified limits.
 - b. Thermal stresses transferred to building structure.
 - c. Framing members transferring stresses, including those caused by thermal and structural movements, to glazing.
 - d. Glazing-to-glazing contact.
 - e. Noise or vibration created by wind and thermal and structural movements.
 - f. Loosening or weakening of fasteners, attachments, and other components.
 - g. Sealant failure.
 - h. Failure of operating units to function properly.
- B. Structural Loads:
 - 1. Wind Loads: As indicated on Drawings.
- C. Deflection of Framing Members Normal to Wall Plane: Limited to 1/175 of clear span for spans up to 13 feet 6 inches (4.1 m) and to 1/240 of clear span plus 1/4 inch (6.35 mm) for spans greater than 13 feet 6 inches (4.1 m) or an amount that restricts edge deflection of individual glazing lites to 3/4 inch (19 mm), whichever is less.
- D. Structural-Test Performance: Systems tested according to ASTM E 330 as follows:
 - 1. When tested at positive and negative wind-load design pressures, systems do not evidence deflection exceeding specified limits.
 - 2. When tested at 150 percent of positive and negative wind-load design pressures, systems, including anchorage, do not evidence material failures, structural distress, and permanent deformation of main framing members exceeding 0.2 percent of span.

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3. Test Durations: As required by design wind velocity but not less than 10 seconds.
 - E. Temperature Change (Range): Systems accommodate 120 deg F (67 deg C), ambient; 180 deg F (100 deg C), material surfaces.
 - F. Air Infiltration: Maximum air leakage through fixed glazing and framing areas of systems of 0.06 cfm/sq. ft. (0.03 L/s per sq. m) of fixed wall area when tested according to ASTM E 283 at a minimum static-air-pressure difference of 6.24 lbf/sq. ft. (300 Pa).
 - G. Water Penetration Under Static Pressure: Systems do not evidence water penetration through fixed glazing and framing areas 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. (300 Pa).
 - H. Condensation Resistance: Fixed glazing and framing areas of systems have condensation-resistance factor (CRF) of not less than 45 when tested according to AAMA 1503.
 - I. Average Thermal Conductance: Fixed glazing and framing areas of systems have average U-factor of not more than 0.69 Btu/sq. ft. x h x deg F (3.92 W/sq. m x K) when tested according to AAMA 1503.
 - J. Heavy-wall verticals as required to meet windload criteria.
 - K. System to be an engineered system stamped by an engineer.
- 1.04 SUBMITTALS
- A. Product Data: For each type of product indicated.
 - B. Shop Drawings: Include plans, elevations, sections, details, and attachments to other work.
 1. Include structural analysis data signed and sealed by the qualified professional engineer responsible for their preparation.
 - C. Samples: For each exposed finish.
 - D. Product test reports.
 - E. Field quality-control test and inspection reports.
- 1.05 QUALITY ASSURANCE
- A. Installer Qualifications: Acceptable to manufacturer and capable of preparation of data for aluminum-framed systems including Shop Drawings based on testing and engineering analysis of manufacturer's standard units in assemblies similar to those indicated for this Project.
 - B. Testing Agency Qualifications: An independent agency qualified according to ASTM E 699 for testing indicated.
- 1.06 WARRANTY
- A. Special Assembly Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace components of aluminum-framed systems that do not comply with requirements or that deteriorate as defined in this Section within specified warranty period.
 1. Failures include, but are not limited to, the following:
 - a. Structural failures including, but not limited to, excessive deflection.
 - b. Noise or vibration caused by thermal movements.
 - c. Deterioration of metals, metal finishes, and other materials beyond normal weathering.
 - d. Adhesive or cohesive sealant failures.

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- e. Water leakage through fixed glazing and framing areas.
- f. Failure of operating components to function properly.
- 2. Warranty Period: 10 years from date of Substantial Completion.
- B. Special Finish Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace components on which finishes fail within specified warranty period. Warranty does not include normal weathering.
 - 1. Warranty Period: 20 years from date of Substantial Completion.

PART 2- PRODUCTS

2.01 MANUFACTURERS

- A. Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
 - 1. Kawneer – Trifab 451 T
 - 2. Manko
 - 3. Tubelite Inc. T14000

2.02 MATERIALS

- A. Aluminum: Alloy and temper recommended by manufacturer for type of use and finish indicated.
 - 1. Sheet and Plate: ASTM B 209 (ASTM B 209M).
 - 2. Extruded Bars, Rods, Profiles, and Tubes: ASTM B 221 (ASTM B 221M).
 - 3. Extruded Structural Pipe and Tubes: ASTM B 429.
 - 4. Structural Profiles: ASTM B 308/B 308M.
- B. Steel Reinforcement: With manufacturer's standard corrosion-resistant primer.
 - 1. Structural Shapes, Plates, and Bars: ASTM A 36/A 36M.
 - 2. Cold-Rolled Sheet and Strip: ASTM A 1008/A 1008M.
 - 3. Hot-Rolled Sheet and Strip: ASTM A 1011/A 1011M.

2.03 FRAMING SYSTEMS

- A. Framing Members: Centered glazed. Manufacturer's standard extruded-aluminum framing members of thickness required and reinforced as required to support imposed loads.
 - 1. Construction: Framing members are composite assemblies of two separate extruded-aluminum components permanently bonded by an elastomeric material of low thermal conductance.
- B. Brackets and Reinforcements: Manufacturer's standard high-strength aluminum with nonstaining, nonferrous shims for aligning system components.
- C. Fasteners and Accessories: Manufacturer's standard corrosion-resistant, nonstaining, nonbleeding fasteners and accessories compatible with adjacent materials.
 - 1. Where fasteners are subject to loosening or turning out from thermal and structural movements, wind loads, or vibration, use self-locking devices.
 - 2. Reinforce members as required to receive fastener threads.
 - 3. Use exposed fasteners with countersunk Phillips screw heads, finished to match framing system.

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- D. Concrete and Masonry Inserts: Hot-dip galvanized cast-iron, malleable-iron, or steel inserts complying with ASTM A 123/A 123M or ASTM A 153/A 153M requirements.
- E. Flashing: Manufacturer's standard corrosion-resistant, nonstaining, nonbleeding flashing compatible with adjacent materials. Form exposed flashing from sheet aluminum finished to match framing and of sufficient thickness to maintain a flat appearance without visible deflection.
- F. Framing System Gaskets and Sealants: Manufacturer's standard recommended by manufacturer for joint type.

2.04 GLAZING SYSTEMS

- A. Glazing: As specified in Division 8 Section "Glazing."
- B. Glazing Gaskets: Manufacturer's standard compression types, replaceable, molded or extruded, that maintain uniform pressure and watertight seal.
- C. Spacers and Setting Blocks: Manufacturer's standard elastomeric types including "anti-walk blocks".
- E. Bond-Breaker Tape: Manufacturer's standard TFE-fluorocarbon or polyethylene material to which sealants will not develop adhesion.
- F. Glazing Sealants: For structural-sealant-glazed systems, as recommended by manufacturer for joint type and as follows:
 - 1. Weatherseal Sealant: ASTM C 920 for Type S, Grade NS, Class 25, Uses NT, G, A, and O; neutral-curing silicone formulation compatible with structural sealant and other system components with which it comes in contact.
 - a. Color: As selected from manufacturer's full range.

2.05 Entrances – Wide Stile

- A. Furnish all necessary materials, labor and equipment for the complete installation of aluminum entrance doors, door frames and hardware as shown on the drawings and specified herein.
- B. Medium (5") Stile doors and frames
- C. Whenever substitute products are to be considered, supporting technical literature, samples, drawings and performance data must be submitted ten (10) days prior to bid in order to make a valid comparison of the products involved.
- D. Test reports certified by an independent laboratory must be made available upon request.
- E. Product Materials
 - 1. Extrusions shall be of aluminum alloy 6063-T5 extruded within commercial tolerance and free from defects impairing strength and/or durability. Door stile and rail sections to be a minimum of .125 inch wall thickness. Door frame sections to be of .080 inch minimum wall thickness, increased to .125 inch at hardware attachment locations. Glazing and door moldings are a minimum of .050 inch thickness.
 - 2. Doors shall be assembled using corner welds or steel tension rods of .375 inch diameter that run the full width of the top and bottom rails and shall be fixed with steel plates and lock nuts.
 - 3. Door glazing shall be by means of an interior and exterior fixed gasket of high quality extruded elastomeric material. Door frame members shall have a continuous wool pile/vinyl fin weatherstripping at the head and jamb members. Bottom rail weatherstrip at threshold optional (architect specify). Door stops shall be of snap-in design on butt hinge and offset pivot applications, eliminating use of exposed screws.
 - 4. All door and frame members shall be accurately fitted to flush hairline joints.
 - 5. The architect shall specify special hardware for doors and entrances. Hardware furnished

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by others shall be sent to the door manufacturer for application or templates for specific hardware shall be provided to the door manufacturer for preparation and installation done by glazing contractor according to hardware manufacturer's specifications.

2.06 ACCESSORY MATERIALS

- A. Insulating Materials: As specified in Division 7 Section "Building Insulation."
- B. Joint Sealants: For installation at perimeter of aluminum-framed systems, as specified in Division 7 Section "Joint Sealants."
- C. Bituminous Paint: Cold-applied asphalt-mastic paint complying with SSPC-Paint 12 requirements except containing no asbestos, formulated for 30-mil (0.762-mm) thickness per coat.

2.07 FABRICATION

- A. Form aluminum shapes before finishing.
- B. Weld in concealed locations to greatest extent possible to minimize distortion or discoloration of finish. Remove weld spatter and welding oxides from exposed surfaces by descaling or grinding.
- C. Framing Members, General: Fabricate components that, when assembled, have the following characteristics:
 - 1. Profiles that are sharp, straight, and free of defects or deformations.
 - 2. Accurately fitted joints with ends coped or mitered.
 - 3. Means to drain water passing joints, condensation occurring within framing members, and moisture migrating within the system to exterior.
 - 4. Physical and thermal isolation of glazing from framing members.
 - 5. Accommodations for thermal and mechanical movements of glazing and framing to maintain required glazing edge clearances.
 - 6. Provisions for field replacement of glazing from interior.
 - 7. Fasteners, anchors, and connection devices that are concealed from view to greatest extent possible.
- D. Mechanically Glazed Framing Members: Fabricate for flush glazing (without projecting stops).
- E. After fabrication, clearly mark components to identify their locations in Project according to Shop Drawings.

2.08 ALUMINUM FINISHES

- A. High-Performance Organic Finish: Three-coat thermocured system with fluoropolymer topcoats containing not less than 70 percent polyvinylidene fluoride resin by weight; complying with AAMA 2604.
 - 1. Color and Gloss: Custom color and gloss as selected by architect.

Or

Kawneer Permanodic® AA-M10C21A41, AAMA 611, Architectural Class I

Black Anodic Coating (Color #29).

PART 3- EXECUTION

3.01 EXAMINATION

A. Verification of Conditions:

Examine areas and conditions under which the work is to be installed, and notify the Contractor in writing, with a copy to the Owner and the Architect, of any conditions detrimental to the proper and timely completion of the work. Do not proceed with the work until unsatisfactory conditions have been corrected.

1. Beginning of the work shall indicate acceptance of the areas and conditions as satisfactory by the Installer.

3.02 PREPARATION

- A. Coordinate and furnish anchors, concrete inserts, sleeves, anchor bolts, etc., that are to be embedded in concrete or masonry construction. Coordinate delivery of such items to the Project site.

3.03 INSTALLATION

Shall be in accordance with the manufacturer's installation instruction and the approved shop drawings.

A. General:

Installation shall be in accordance with the manufacturer's specifications and recommendations and coordinated with the contract drawings.

1. Erections Tolerances: Comply with the manufacturer's published instructions.
2. Fit joints to produce hairline joints free of burrs and distortion.
3. Rigidly secure nonmovement joints.
4. Install anchors with separators and isolators to prevent metal corrosion and electrolytic deterioration.
5. Seal joints watertight, unless otherwise indicated.

B. Metal Protection:

1. Where aluminum will contact dissimilar metals, protect against galvanic action by painting contact surfaces with primer or by applying sealant or tape or installing nonconductive spacers as recommended by manufacturer for this purpose.
2. Where aluminum will contact concrete or masonry, protect against corrosion by painting contact surfaces with bituminous paint.

C. Install components to drain water passing joints, condensation occurring within framing members, and moisture migrating within the system to exterior.

D. Set continuous sill members and flashing in full sealant bed as specified in Division 7 Section "Joint Sealants" and to produce weathertight installation.

E. Install components plumb and true in alignment with established lines and grades, without warp or rack.

F. Install glazing as specified in Division 8 Section "Glazing."

G. Install insulation materials as specified in Division 7 Section "Building Insulation."

H. Install perimeter joint sealants as specified in Division 7 Section "Joint Sealants" and to produce weathertight installation.

I. Erection Tolerances: Install aluminum-framed systems to comply with the following maximum tolerances:

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1. Location and Plane: Limit variation from true location and plane to 1/8 inch in 12 feet (3 mm in 3.7 m); 1/4 inch (6 mm) over total length.
 2. Alignment:
 - a. Where surfaces abut in line, limit offset from true alignment to 1/16 inch (1.5 mm).
 - b. Where surfaces meet at corners, limit offset from true alignment to 1/32 inch (0.8 mm).
 3. Diagonal Measurements: Limit difference between diagonal measurement to 1/8 inch (3 mm).
- 3.04 FIELD QUALITY CONTROL
1. Water leakage test: after completion of the installation and nominal curing of sealants, test for water leaks in accordance with AAMA 501.2
 2. Connections: Inspecting and testing agency shall inspect all connections and welds.
- A. Single Source Responsibility:
1. To ensure quality of appearance and performance, obtain materials for systems from either a single manufacturer or from manufacturer approved by systems manufacturer.
- B. Installer Qualifications: Certified in writing by system manufacturer as qualified for installation of specified systems.
1. Engineering Responsibility: Installer shall assume engineering responsibility and shall prepare data for entrance and storefront systems, including shop drawings, based on testing and engineering analysis of manufacturer's standard units in assemblies similar to those indicated for this project.
- C. Perform work in accordance with AAMA SFM-1 and manufacturer's written instructions.
- D. Manufacturer's representatives shall perform an on-site inspection of installation and provide a written report of acceptance to be included with storefront installer's closeout documents. Scheduling of the inspection shall be the responsibility of the installer and coordinated with both the Architect and General Contractor.**

END OF SECTION 08411