

PART I – GENERAL**WORK SPECIFIED HEREIN**

- All labor, materials, equipment and services necessary to furnish and install interior glass entrances and storefronts and other related materials as indicated or specified.

SUBSTITUTIONS

- In accordance with Section 01600.

SUBMITTALS

- Unless otherwise noted, the contractor shall prepare all shop drawings, product literature, etc. only as required to properly coordinate and construct the project.
- Review of submittals by the Professional of Record is limited to specific shop drawings as called for in the Project Manual.
- Shop drawings for review by the Professional of Record are not required for this section.

QUALITY ASSURANCE*Standards:*

- Except as otherwise indicated, the requirements for glass storefronts and the terminology used in this Section, are those of NAAMM, AAMA and AA and in particular, those of the "Entrance Manual" by NAAMM.

Manufacturer:

- Refer to Materials and Product Schedule on Drawings.

Sizes and Profiles:

- The required size for the interior glass storefront units, and profile requirements are as shown.

JOB CONDITIONS*Coordination of Fabrication:*

- Check the actual openings in the construction work by accurate field measurement before fabrication, and show recorded measurements on final shop drawings. However, coordinate fabrication schedule with construction progress as directed and avoid delays of the work.

WARRANTY

- Contractor guarantees that the manufacturer, installer and contractor will replace glass storefront units which fail in materials or workmanship within 2 years of the date of acceptance. Failure of materials or workmanship shall include (but not be limited to) excessive leakage or air infiltration, excessive deflections, deterioration of finish or metal in excess of normal weathering and

defects in accessories, weatherstripping, and other components of the work.

SYSTEM PERFORMANCE

Provide manufacturer's stock system, adapted to application indicated, which has been tested in accordance with ASTM E 330.

- Maximum deflection normal to glazing plane is limited to 1/175 of clear span or 3/4", whichever is smaller.

PART II – PRODUCTS**MATERIALS AND ACCESSORIES**

- Glass entrance system: Provide anodized Aluminum Head member as indicated on drawings.
- Glass: ASTM C 1048, Kind FT (fully tempered), Condition A (uncoated surfaces), Type I (transparent), tested for surface and edge compression per ASTM C 1048 and for impact strength per 16 CFR 1201 for Category II materials.
 - Class I: Clear.
 - Thickness: 1/2 inch (13mm), min. or as required by design.
- Materials: Frames - Extruded 6063-T5 Aluminum alloy not less than 0.80" thick.
- Aluminum Members: Alloy and temper recommended by manufacturer for strength, corrosion resistance, and application of required finish; ASTM B 221 for extrusions, ASTM B209 for sheet/plate.
- Finish for aluminum: Cleaned caustic-etched anodized finish –clear, unless noted otherwise.
- Fasteners: Aluminum, non-magnetic stainless steel, or other materials warranted by manufacturer to be non-corrosive and compatible with aluminum components.
- Use concealed fasteners except where unavoidable, for application of hardware. Match finish of adjoining metal.
- Provide Phillips flat-head machine screws for exposed fasteners.
- Brackets and Reinforcements: Manufacturer's high-strength aluminum units where feasible; otherwise, non-magnetic stainless steel or hot-dip galvanized steel complying with ASTM A 386.
- Clear Protective Coatings: AAMA 602.2, compounded specifically for protection of aluminum finish during construction.
- Glass and glazing materials: Provide "Structural – sealant glazed curtain walls" for curtain wall systems that incorporate all glass entrances.

FABRICATION

General

- **Sizes and Profiles:** Required sizes for glass storefront units, including profile requirements, are shown on drawings. Any variable dimensions are indicated together with maximum and minimum dimensions required to achieve design requirements and coordination with other work.
- **Prefabrication:** To the greatest extent possible, complete fabrication, assembly, finishing hardware application, and other work before shipment to project site. Disassemble components only as necessary for shipment and installation.
- **Provide holes and cutouts in glass to receive hardware, fittings, rails, and accessories before tempering glass.** Do not cut, drill, or make other alterations to glass after tempering.
 - Full temper glass using horizontal (roller-hearth) process and fabricate so, when installed, roll-wave distortion is parallel with bottom edge of door or lite.
 - Factory assemble components and factory install hardware to greatest extent possible.
- **Sequence:** Complete cutting, fitting, forming, drilling and grinding of metal work prior to cleaning, finishing, surface treatment, and application of finishes. Remove arises from cut edges and ease edges and corners to radius of approximately 1/64".
- **Welding:** Comply with AWS recommendations to avoid discoloration; grind exposed welds smooth and restore mechanical finish.
- **Reinforcing:** Install reinforcing as necessary for performance requirements; separate dissimilar metals with bituminous paint or other separator which will prevent corrosion.
- **Continuity:** Maintain accurate relation of planes and angles, with hairline fit of contacting members.
- **Fasteners:** Concealed wherever possible.

Professional of Record reserves the right to require samples of typical fabricated sections, showing joints, exposed fastening (if any) quality of workmanship, hardware and accessory items, before fabrication of the work proceeds.

COMPONENTS

- **Patch fittings:** Clear Anodized Aluminum.
- **Ceiling and floor channels:** Steel, clad in metal matching fittings and in size recommended by manufacturer for application indicated.
- **Accessory Fittings:** Match patch fitting metal and finish for the following:

- Overhead recessed closer
- Center-housing lock.

FINISHES

Class I, Clear Anodic Finish: AA-M12C22A41 (Mechanical Finish: nonspecular as fabricated; Chemical Finish: etched, medium matte; Anodic Coating: Architectural Class I, clear coating 0.018 mm or thicker) complying with AAMA 611 (see drawings)

PART III – EXECUTION

INSPECTION

The storefront contractor must examine the supporting structure and for the conditions under which the work is to be erected, and notify the contractor in writing of conditions detrimental to proper and timely completion of the work. Do not proceed with erection until unsatisfactory conditions have been corrected in a manner acceptable to the glass entrance/storefront contractor.

INSTALLATION

Do not install component parts which are observed to be defective in any way, including warped, bowed, dented, abraded and broken members and including glass with glass damage. Remove and replace members which have been damaged during installation or thereafter before the time of final acceptance.

Do not cut, trim, weld or braze component parts during erection, in any manner which would damage the finish, decrease the strength, or result in a visual imperfection or a failure in performance of the storefront. Return component parts which require alteration to the shop for refabrication, if possible, or for replacement by new parts.

Install component parts level, plumb, true to line and with uniform joints and reveals. Secure to structure with non-staining and non-corrosive shims, anchors, fasteners, spacers and fillers. Use erection equipment which will not mar or stain finished surfaces and will not damage the component parts in any way.

- Install all-glass systems and associated components according to manufacturer's written instructions.
- Maintain uniform clearances between adjacent components.
- Lubricate hardware and other moving parts according to manufacturer's written instructions.

SECTION 08450: ALL GLASS STOREFRONTS

CLEANING AND PROTECTION

The storefront contractor shall advise the general contractor of proper and adequate means for protection of portions of the work which are exposed to likely sources of damage during the remainder of the construction period, including the probable areas of glass breakage or deterioration.

Immediately before the time of final acceptance the storefront contractor shall clean all aluminum framing, glass, etc., thoroughly, inside and out, demonstrate proper cleaning methods to the Owner's maintenance personnel during this final cleaning. Prepare a "Cleaning and Maintenance Manual" listing the types of cleaning compounds, cleaning methods, and types of sealants and glazing materials to be used for cleaning, repair and maintenance of the work.

END OF SECTION

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