SECTION 12610

FIXED AUDIENCE SEATING

PART 1 - GENERAL

1.1 SUMMARY

- A. This Section includes fixed audience seating with the following:
 - 1. Fixed upholstered chairs with self-rising seat mechanisms, aisle and intermediate standards.
- B. Related Sections include the following:
 - 1. Division 1 Section "Alternates" for Work associated with alternates.
 - 2. Division 16 Sections for electrical connections to aisle lighting fixtures.

1.2 SUBMITTALS

- A. Product Data: Include construction details, material descriptions, dimensions of individual components and profiles, and finishes for fixed audience seating.
 - 1. Provide information documenting the aisle light fixtures with meet Life Safety egress lighting requirements.
- B. Shop Drawings: Plans, elevations, and sections through rows showing seating layout; row-lettering and chair-numbering scheme; chair widths; accessories, including locations of left and right tablet arms; accessibility provisions; aisle widths; and attachments to other Work.
- C. Samples for Selection: Manufacturer's color charts consisting of units or sections of units showing the full range of finishes, colors, textures, and patterns available for each exposed material.
- D. Maintenance Data: For fixed audience seating to include in maintenance manuals specified in Division 1. Include the following:
 - 1. Methods for maintaining upholstery fabric.
 - 2. Precautions for cleaning materials and methods that could be detrimental to seating finishes and performance.

1.3 QUALITY ASSURANCE

- A. Installer Qualifications: An experienced installer who has specialized in installing work similar in material, design, and extent to that indicated for this Project and who is acceptable to manufacturer.
- B. Fire-Test-Response Characteristics of Upholstered Chairs: As follows:
 - 1. Padding: Comply with California Technical Bulletin 117.
- C. Source Limitations: Obtain each type of seating required, including accessories and mounting components, through one source from a single manufacturer.

- 1. Upholstery Fabric: Obtain fabric of a single dye lot for each color and pattern of fabric required.
- D. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, Article 100, by a testing agency acceptable to authorities having jurisdiction, and marked for intended use.
- E. Preinstallation Conference: Conduct conference at Project site to comply with requirements in Division 1 Section "Project Meetings."

1.4 PROJECT CONDITIONS

- A. Environmental Limitations: Do not install seating until space is enclosed and weatherproof; wet work in space is complete and dry; finishes, including painting, are complete; and work above ceilings is complete. Do not install seating until ambient temperature and humidity conditions are continuously maintained at the levels anticipated for final occupancy.
- B. Field Measurements: Verify seating layout by field measurements before seating fabrication and indicate measurements on Shop Drawings. Coordinate fabrication schedule with construction progress to avoid delaying the Work.
 - 1. Established Dimensions: Where field measurements cannot be made without delaying the Work, establish dimensions and proceed with fabricating seating without field measurements. Coordinate construction to ensure that actual dimensions correspond to established dimensions.

1.5 COORDINATION

A. Coordination of Electrical Work: Coordinate electrical wiring with seating layout to ensure that floor junction boxes for electrical components are accurately located to allow connection without exposed conduit.

1.6 EXTRA MATERIALS

- A. Furnish extra materials described below, before installation begins, that are from the same production run and match products installed. Package extra materials with protective covering for storage and identify with labels describing contents. Deliver extra materials to Owner.
 - 1. Chair Seats and Backs: Furnish a quantity of full-size units equal to 5 percent of the amount installed for each type and size of chair seat and back.
 - 2. Armrests: Furnish a quantity of full-size units equal to 5 percent of the amount installed for each type of armrest.

PART 2 - PRODUCTS

2.1 MATERIALS AND FINISHES

A. Steel: ASTM A 36/A 36M plates, shapes, and bars; ASTM A 570/A 570M hot-rolled sheet and strip; or ASTM A 620/A 620M cold-rolled sheet, finished with manufacturer's standard baked-on coating.

- 1. Color: As selected by Architect.
- B. Cast Aluminum: ASTM B 85 aluminum-alloy die castings.
- C. Concealed Plywood: HPVA HP-1 hardwood plywood or DOC PS 1 softwood plywood, as standard with manufacturer.
- D. Plastic Laminate: NEMA LD 3, HGS (General Purpose type, 0.048-inch (1.2-mm) nominal thickness).
 - 1. Color and Pattern: As selected by Architect.
- E. Fabric: Marquesa Lana continuous filament Olefin.
 - 1. Weight: 16 oz./linear yd. (0.05 kg/linear m).
 - 2. Color and Pattern: As selected by Architect.
- F. Upholstery Padding: Flexible, cellular, molded or slab polyurethane foam.
- G. Molded Plastic: High-density polyethylene, blow or injection molded.
 - 1. Color: As selected by Architect.

2.2 FIXED AUDIENCE SEATING

- A. Available Products: Subject to compliance with requirements, products that may be incorporated into the Work include, but are not limited to, the following:
 - 1. Hussey Quattro Chair System.
 - a. Model: Classic.
 - b. Series: S3, high back H.
 - c. Back Foam: Plush cut, S3.
 - d. Horizontal Pleat Back Tailoring: B.
 - e. Seat Type: Standard.
 - f. Armrest Type: Plastic with donor plate.
 - g. Standards: Aluminum.
 - h. Chair Mount: Floor mount.
 - i. End Panels: Quattro style.
- B. Aisle Lighting Fixtures: Manufacturer's high mount L2 fixtures. Provide line voltage fixtures, one on each aisle-end seat, except at barrier-free locations. At lower sloped seating, provide one fixture on every other aisle. Alternate fixtures from side to side at center aisles, and every other seat at walls.
 - 1. Fixture shall meet Life Safety requirements for egress lighting.
- C. Row-Letter and Chair-Number Plates: Manufacturer's standard.

2.3 FABRICATION

- A. Floor Attachments: Fabricate to conform to floor slope, if any, while maintaining chairs at same angular relationship to vertical throughout Project.
- B. Chair Mounting Standards: Floor attached of the following material:
 - 1. Cast Aluminum: One-piece castings with integral mounting points and attachment anchoring points for seat pivots, backs, and armrests.

- C. Upholstery: Fabricate fabric-covered items with molded padding beneath fabric and with removable upholstered cushion free of welts, creases, stretch lines, and wrinkles. For each upholstered component, install pile and pattern run in a consistent direction.
- D. Upholstered Chairs: As follows:
 - 1. Two-Part Upholstered Back: In length required to protect seat in raised position, with padded cushion glued to a curved molded-plastic support panel covered with easily replaceable fabric, and with curved rear panel that fully encloses upholstery edges.
 - 2. Two-Part Seats: Upper upholstered cushion with molded padding over not less than five serpentine springs attached to reinforced steel frame; with weight-distributing and abrasion-resistant sheeting separating padding from springs; and removable for reupholstering without removing seat from chair. Lower steel pan reinforced at stress points and completely enclosing hinges and self-rising mechanism.
- E. Chair Seat Hinges: Self-lubricating, compensating type with noiseless self-rising seat mechanism passing ASTM F 851 and with positive internal stops cushioned with rubber or neoprene.
- F. Armrests: Fabricated for concealed mounting and with rounded edges.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine substrates, areas, and conditions, with Installer present, for compliance with requirements, accurate locations of electrical connections, and other conditions affecting fixed audience seating. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 INSTALLATION

- A. Install seating in locations indicated and fastened securely to substrates according to manufacturer's written installation instructions.
 - 1. Use installation methods and fasteners that produce fixed audience seating assemblies with individual chairs capable of supporting an evenly distributed 600-lb (272-kg) static load without failure or other conditions that might impair the chair's usefulness.
- B. Install seating with chair ends aligned from first to last row and with backs and seats varied in width to optimize sightlines.
- C. Install chairs in curved rows at a smooth radius.
- D. Install seating so moving components operate smoothly and quietly.

3.3 ADJUSTING

A. Adjust self-rising seat mechanisms so seats in each row are aligned when in upright position.

B.	Repair minor abrasions and imperfections in finishes with coating that matches factory-applied finish.
C.	Replace upholstery fabric damaged during installation.

END OF SECTION