SECTION 12 6610

TELESCOPING STANDS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section Includes:
1. Electrically operated telescoping stands.

1.3 DEFINITIONS

A. Forward Folding: Wall- or floor-attached bleachers that open in the forward direction by moving the front row away from the stack to the fully extended position.

1.4 PREINSTALLATION MEETINGS

A. Preinstallation Conference: Conduct conference at Project site.

1.5 ACTION SUBMITTALS

A. Product Data: For each type of product.
1. Include construction details, material descriptions, dimensions of individual components and profiles, and finishes for telescoping stands.
2. Include load capacities, assembly characteristics, and furnished accessories.
3. Include electrical characteristics of electrical components, devices, and accessories.

B. Sustainable Design Submittals:
1. Product Data: For recycled content, indicating postconsumer and preconsumer recycled content and cost.
2. Product Certificates: For regional materials, indicating location of material manufacturer and point of extraction, harvest, or recovery for each raw material. Include distance to Project and cost for each regional material.
3. Chain-of-Custody Certificates: For certified wood products. Include statement of costs.
4. Chain-of-Custody Qualification Data: For manufacturer and vendor.
5. Product Data: For composite wood products indicating compliance with Composite Wood Evaluation
6. Building Product Disclosure Requirements: To encourage the use of building products that are working to minimize their environmental and health impacts, preference will be given to products with publicly available information:
a. Environmental product Declarations:
b. Material Ingredients –Documentation demonstrating the chemical inventory of the product to at least 0.1% (1000ppm).

C. Shop Drawings: For bleachers in both stacked and extended positions.
1. Include plans, elevations, sections, and attachment details.
2. Include load capacities.

3. Show seating layout, aisle widths, row-lettering and seat-numbering scheme, and wheelchair accessibility provisions.
4. Show locations and details for installing operator components, switches, and controls. Indicate motor size, electrical characteristics, drive arrangement, mounting, and grounding provisions.
5. Include diagrams for power, signal, and control wiring.

D. Samples for Initial Selection: For each type of exposed product and for each color and texture required.
1. Include Samples of accessories involving color and finish selection.

E. Samples for Verification: For the following products prepared on Samples of size indicated below:
1. Decking: 6-inch-square Samples of finished material.
2. Metal Components: 6-inch-square Sample of each color and finish indicated.
3. Seating Material: 6-inch-square Sample of each seating material, color, and finish indicated.
4. Signage: Full-size units for row letters each type of accessibility sign and custom graphics.

1.6 INFORMATIONAL SUBMITTALS

A. Qualification Data: For Installer.

B. Welding certificates.

C. Product Certificates: For each type of telescoping stand assembly.

D. Field quality-control reports.

1.7 QUALITY ASSURANCE

A. Manufacturer Qualifications: A qualified manufacturer that is certified for chain of custody by an FSC-accredited certification body.

B. Vendor Qualifications: A vendor that is certified for chain of custody by an FSC-accredited certification body.

C. Installer Qualifications: An entity that employs installers and supervisors who are trained and approved by manufacturer.

D. Welding Qualifications: Qualify procedures and personnel according to the following:
1. AWS D1.1/D1.1M, "Structural Welding Code - Steel."
2. AWS D1.3/D1.3M, "Structural Welding Code - Sheet Steel."

E. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.

F. Seating Layout: Provide telescoping stands to comply with ICC 300 Standard for Bleachers, Folding and Telescopic Seating, and Grandstands, except where additional requirements are indicated or imposed by authorities having jurisdiction.

1.8 FIELD CONDITIONS

A. Finished Spaces: Do not deliver or install bleachers until finishes in spaces to receive them are complete, including suspended ceilings, floors, and painting.

B. Field Measurements: Coordinate actual dimensions of construction affecting telescoping stands installation by accurate field measurements before fabrication. Show recorded measurements on final shop drawings. Coordinate field measurements and fabrication schedule with construction progress to avoid delay of Work.

1.9 WARRANTY

A. Manufacturer's Warranty: Includes the repair or replacement of the defective product; or defective component thereof, with a comparable product; or component thereof, or a refund of the purchase price prorated over the warranty period.
   1. Includes: Labor, materials, and freight for replacement or repairs.
   2. Structural Component parts of Understructure Warranty Period: 10 years from Date of Acceptance
   3. Decking systems, seating collections, electrical, portable and integral dolly systems, end closure curtains, surface material finishes Warranty Period 5 years from Date of Acceptance.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

A. Structural Performance: Bleachers shall withstand the effects of gravity loads, operational loads, and other loads and stresses according to ICC 300.

B. Manufacturer's System Design Criteria:
   1. Gymnasium seat assembly: Design to support and resist, in addition to its own weight, the following forces:
      a. Live load of 120 lbs. per linear foot (1.75 kN/m) on seats and decking
      b. Uniformly distributed live load of not less than 100 psf (4.79 kN/m2) of gross horizontal projection.
      c. Parallel sway load of 24 lbs. per linear foot (0.35 kN/m) of row combined with (b.) above
      d. Perpendicular sway load of 10 lbs. per linear foot (0.15 kN/m) of row combined with uniformly distributed live load above.
      e. Parallel and Perpendicular sway loads are not applied concurrently.
   2. Hand Railings, Posts and Supports: Engineered to withstand the following forces applied separately:
      a. Concentrated load of 200 lbs. (0.89 kN) applied at any point and in any direction.
      b. Uniform load of 50 lbs. per foot (0.73 kN/m) applied in any direction.
   3. Guard Railings, Post and Supports: Engineered to withstand the following forces applied separately:
      a. Concentrated load of 200 lbs. (0.89 kN) applied at any point and in any direction along top rail.
      b. Uniform load of 50 lbs. per foot (0.73 kN/m) applied in any direction at top rail
      c. Uniform load of 50 lbs. (0.22 kN) applied on an area equal to 1 ft2 (0.09 m2) applied on all guardrail infill panels.

C. Accessibility Standard: Comply with applicable provisions in the DOJ's 2010 ADA Standards for Accessible Design the ABA Standards of the Federal agency having jurisdiction and ICC A117.1.

D. Sustainability Performance Requirements: For all permanently installed products and materials related to the work of this Section, provide products and materials that meet the Project's performance criteria as outlined in the following Section
   1. 01 8113 “Sustainable Design Requirements”.
   2. 01 8116 “Low Emitting Materials Restrictions”.

E. Sustainability Requirements:
   1. Provide products with the maximum amount possible of post-consumer and pre-consumer recycled content.
   2. Provide products manufactured and extracted within 100 miles of the project site whenever possible.

F. Building Product Disclosure Requirements: Provide Building Product Disclosure documentation for products used in this section when available.
   1. Product-Specific Type III Environmental Product Declaration (EPD),
   2. Material Ingredients –Documentation demonstrating the chemical inventory of the product to at least 0.1% (1000ppm).

2.2 MANUFACTURERS

A. Basis-of-Design Product: Subject to compliance with requirements, provide MAXAM Telescopic Gym Seat System by Hussey Seating Company, or comparable product by one of the following:
   1. Manufacturers not listed but who do offer products that comply with the requirements of this Section will be considered as substitute manufacturers, subject to the conditions specified in Division 1 Section Product Substitution Procedures.

2.3 TELESCOPING STANDS

A. System Description: Operable system of multiple-tiered seating on interconnected folding platforms that close for storage, without being dismantled, into a nested stack. Telescoping-stand units permit opening and closing of adjacent, individual and multiple rows, and close with vertical faces of platforms in the same vertical plane.
   1. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.
   2. Telescoping-Stands Standard: ICC 300.

B. Wall-Attached Telescoping Stands: Forward-folding system with the rear of the understructure permanently attached to the floor and to the rear wall. Rear wall provides structural support and must support loads imposed by the bleacher.
   1. Basis of Design: Hussey Maxam 7 Telescopic Bleacher
   2. Row Spacing and Rise: as indicated on drawings.
   3. Seat Type: Benches.
   4. Elevated Front Row: Height indicated on Drawings.
   5. Operation: Integral Power
      a. Integral Power: Pendant Control Unit.
         1) Limit Switches: Automatically stop integral power system when telescoping stands reach fully opened or closed positions.
         2) Motion Monitor: Flashing light with self-contained warning horn, rated at 85 dB, activates when stands are in motion.
   6. Portable power-assist: User operates system by opening/closing each section using a portable power-assist tractor: 115 volt, 20amps.

2.4 COMPONENTS

A. Classic Wood Benches: Seats and front risers.
1. Material: Lumber with clear finish.
2. Bench Depth: 10 inches.
3. Top Seat Flush Filler: Flush filler board mounted between top seat and rear wall.

B. ADA Accessible Seating:
1. Locate first tier modular units to provide wheelchair-accessible seating at locations indicated on Drawings.
a. Flex-RowTM: Provide first row modular recoverable seating units that can be closed to accommodate persons requiring ADA spaces (or any other temporary space needs) or opened for standard usage. Each Flex-Row unit shall have a handle for easy operation.
1) Provide a black full-surround steel skirting with no more than ¾" floor clearance for safety and improved aesthetics.
2) Provide a black injection molded end cap for the nose beam for safety and improved aesthetics.
3) Provide a mechanical positive lock when the Flex-Row system is in both the open and closed position. Handle shall unlock the modular recoverable seating unit for operation.
4) Flex-Row can be utilized with the full system in the open or closed position.
5) Flex-Row modular units are designed to achieve multi-use front row seating to accommodate team seating, ADA requirements and facility specific requirements. Flex-Row units are available in modular units from 2 to 7 seats wide as well as full section widths.

C. Deck: Plywood, 5/8 inch thick.
1. Finish: Manufacturer's standard.

D. Risers: Steel sheet with manufacturer's standard, rust-inhibiting coating or hot-dip galvanized finish.

E. Safety Rails: Steel, finished with manufacturer's standard powder coat system.
1. Self-storing mid-aisle handrails located at centerline of each aisle with seating on both sides.
2. End rails (guards) that are telescoping and self-storing.
3. Back rails (guards) along rear of units where required by ICC 300.
4. Fixed front rails (guards) along front of units where required by ICC 300.
5. Fixed rails around accessible seating cutouts and truncations.
6. Removable, programming-support front rails to allow seating in upper rows while lower rows remain in the stored position.
7. Color: As selected by Architect from manufacturer's full line.

F. Understructure: Structural steel.
1. Finish: Manufacturer's standard rust-inhibiting finish.
2. Color: Manufacturer's standard.

G. Support Column Wheels: Nonmarring, soft, rubber-face wheel assembly under each support column.
1. Include wheels of size, number, and design required to support stands and operate smoothly without damaging the flooring surface, but no fewer than four per column or less than 4 inches in diameter and 1-1/2 inch wide.

H. Control Devices:

1. Walk-Along Pendant: Manufacturer's standard unit, which plugs into first row of each operating section. Provide one unit for each operating section.

I. Fasteners: Vibration proof, in manufacturer's standard size and material.

2.5 ELECTRICAL OPERATION SYSTEMS

A. Integral Power
1. Each unit for PF(1/2/3/4) is driven by a 1/2 horsepower, 1725 RPM motor.
2. 208V 3 Phase:
   a. This 1.25 Service Factor motor runs on 208V at 60 Hz and draws a full load current of 1.8 amperes. The required power supply shall be 3 asynchronous phases of 120 Volts each, plus neutral plus ground, each with 20 Amp capacity.
   b. This system shall be UL Listed in its entirety (motors, circuit protection, motor controls, user interface, enclosures, conductors and connectors all evaluated and approved for correct sizing and compatibility under maximum rated load on the motors) under UL Product Category FHJU, titled Electrical Drive and Controls for Folding and Telescopic Seating.
3. Each pair of Powered Frames shall consist of output shaft gear reducer with 6 inch (152mm) diameter x 4 inch (102mm) wide wheels covered with non-marring 1/2 inch (13mm) thick composite rubber, and operate the bleacher as follows:
   a. PF1 – Pulls at 46 feet / min with ½ Hp through 60:1 speed reduction to 2 drive wheels. Max pull approx 261 lbs;
   b. PF2 – Pulls at 46 feet / min with ½ Hp through 60:1 speed reduction to 4 drive wheels. Max pull approx 261 lbs;
   c. PF3 – Pulls at 25 feet / min with ½ Hp through 111:1 speed reduction to 4 drive wheels. Max pull approx 478 lbs;
   d. PF4 – Pulls at 25 feet / min with 1 Hp through 111:1 speed reduction to 4 drive wheels. Max pull approx 956 lbs;

2.6 ACCESSORIES

A. Steps:
1. Slip-resistant, abrasive tread surfaces at aisles.
2. Intermediate aisle steps, fully enclosed, at each aisle.
3. Transitional top step, fully enclosed, at each aisle where last row of telescoping stands is adjacent to a cross aisle.
4. Removable front steps, fully enclosed, at each aisle, that engage with front row to prevent accidental separation or movement and are equipped with a minimum of four skid-resistant feet.

B. Portable Stairs: Portable access-stair units equipped with handrails, with no fewer than four full-swiveling, nonmarring wheels and a locking mechanism to prevent movement during use.

C. Ramps: Portable access-ramp units, slope to comply with requirements of accessibility standard, equipped with handrails, with no fewer than four full-swiveling, nonmarring wheels and a locking mechanism to prevent movement during use.

D. Closure Panels and Void Fillers:
1. Aisle closures at foot level that produce flush vertical face at aisles when system is stored.
2. End panels covering exposed ends of stands in the stored position.
3. Back panels covering rear of freestanding units. Panels extend full height and width of unit.
4. Panels at cutouts and truncations for accessible seating.

5. Rear fillers including supports for closing openings between top row and rear wall of adjoining construction.
6. Gap fillers for closing openings between stand units or between stand units and adjoining construction.

E. Signage:
1. Row letters at each row end.
2. Seat numbers at 18 inches o.c. on benches.
3. Accessibility signs at each accessible space and accessible aisle seat.
4. Custom graphics as indicated on Drawings on whole seating array.

F. Scorer's Table: Removable unit that attaches to mounting sockets installed in telescoping stand unit.

2.7 MATERIALS

A. Certified Wood: Wood products shall be certified as "FSC Pure" or "FSC Mixed Credit" according to FSC STD-01-001 and FSC STD-40-004.

B. Wood:
1. Lumber: NIST PS 20, southern pine complying with SPIB's "Standard Grading Rules for Southern Pine Lumber" for B&B Finish (B and better) grade-of-finish requirements.
2. Plywood: NIST PS 1, APA-grade trademarked, A-C grade.

C. Steel:
1. Structural-Steel Shapes, Plates, and Bars: ASTM A36.
2. Galvanized-Steel Sheet: ASTM A653, coating designation G60.
3. Uncoated Steel Strip; Non-Structural Components: ASTM A1011, Commercial Quality, Type B, Hot-Rolled Strip.
4. Uncoated Steel Strip; Structural Components: ASTM A1011 Grade 33 (228 MPa), Grade 36 (249 MPa), Grade 40 (276 MPa), Grade 45 (311 MPa), or Grade 50 (345 MPa), Structural Quality, Hot-Rolled.
5. Galvanized Steel Strip: ASTM A653 Grade 40 (276 MPa), structural quality, coating designation G60.
6. Tubing: ASTM A500, cold formed; Grade B.

D. Polyethylene Plastic: High-density polyethylene; injection molded, color-pigmented, textured, impact-resistant, and dimensionally stable.

2.8 FABRICATION

A. Fabricate telescoping stands to operate easily without special tools or separate fasteners unless otherwise indicated.

B. Round corners and edges of components and exposed fasteners to reduce snagging and pinching hazards.

C. Form exposed work with flat, flush surfaces, level and true in line.

D. Supports: Fabricate supports to withstand, without damage to components, the forces imposed by use of stands without failure or other conditions that might impair their usefulness.
1. Cantilever bench seat supports to produce toe space uninterrupted by vertical bracing.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine substrates, areas, and conditions, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance of the Work.

B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 INSTALLATION

A. Install bleachers according to ICC 300 and manufacturer's written instructions.

3.3 ADJUSTING

A. Adjust hardware and moving parts to function smoothly, and lubricate, test, and adjust each telescoping stand unit to operate according to manufacturer's written instructions.

B. Clean installed bleachers on exposed and semi-exposed surfaces. Touch up factory-applied finishes or replace components as required to restore damaged or soiled areas.

3.4 MAINTENANCE SERVICE

A. Service Capability: Show proof of full time service capability by factory certified technicians directly employed by the installer.
   1. A four to eight-hour maximum on-site repair response is required during normal working hours, 8 a.m. to 5 p.m. weekdays (excluding holidays).
   2. All Full Time Service Personnel shall be Factory Authorized and Trained.
   3. Provide proof of Service Capability and a list of service parts regularly maintained in inventory.

3.5 DEMONSTRATION

A. Engage a factory-authorized service representative to train Owner's maintenance personnel to adjust, operate, and maintain telescoping stands.

END OF SECTION