SECTION 126600 - TELESCOPING STANDS

Revise this Section by deleting and inserting text to meet Project-specific requirements.

Verify that Section titles referenced in this Section are correct for this Project's Specifications; Section titles may have changed.

Verify appropriate measurement units for specified products and delete unused units.

1. GENERAL
	* + 1. SUMMARY
				1. Section Includes:

Manually operated telescoping stands.

Electrically operated telescoping stands.

* + - 1. DEFINITIONS

Retain terms that remain after this Section has been edited for a project. The terms "forward folding" and "reverse folding" are used inconsistently by manufacturers.

* + - * 1. 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.
				2. Reverse Folding: Floor-attached bleachers that open in the backward direction by moving the last row away from the stack to the fully extended position.
				3. Freestanding: Being free or away from a permanent wall.
				4. Company Field Advisor: An employee of the bleachers manufacturer certified in writing by the manufacturer to be technically qualified in the installation and servicing of the required products.
			1. PREINSTALLATION MEETINGS

Retain "Preinstallation Conference" Paragraph below if Work of this Section is extensive or complex enough to justify a conference.

* + - * 1. Preinstallation Conference: Conduct conference at Project site.
			1. SUBMITTALS
				1. Submittals for this section are subject to the re-evaluation fee identified in Article 4 of the General Conditions.
				2. Manufacturer’s installation instructions shall be provided along with product data.
				3. Submittals shall be provided in the order in which they are specified and tabbed (for combined submittals).
				4. Product Data: For each type of product.

Include construction details, material descriptions, dimensions of individual components and profiles, and finishes for telescoping stands.

Include load capacities, assembly characteristics, and furnished accessories.

Include manufacturer’s installation instructions.

Retain subparagraph below if applicable; revise to suit Project.

Include electrical characteristics of electrical components, devices, and accessories.

* + - * 1. Sustainable Design Submittals:
				2. Shop Drawings: For telescoping stands in both stacked and extended positions.

Include plans, elevations, sections, and attachment details.

Include load capacities.

Show seating layout, aisle widths, row-lettering and seat-numbering scheme, and wheelchair accessibility provisions.

Retain subparagraphs below if equipment includes wiring.

Show locations and details for installing operator components, switches, and controls. Indicate motor size, electrical characteristics, drive arrangement, mounting, and grounding provisions.

Include diagrams for power, signal, and control wiring.

Retain "Samples for Initial Selection" and "Samples for Verification" paragraphs for two-stage Samples.

* + - * 1. Samples for Initial Selection: For each type of exposed product and for each color and texture required.

Include Samples of accessories involving color and finish selection.

* + - * 1. Samples for Verification: For the following products prepared on Samples of size indicated below:

Decking: 6-inch square Samples of finished material.

Metal Components: 6-inch square Sample of each color and finish indicated.

Seating Material: 6-inch square Sample of each seating material, color, and finish indicated.

Retain "Seat Unit" Subparagraph below for modular seats or individual chairs.

Seat Unit: Full-size unit of each type.

Retain "Upholstery Fabric" Subparagraph below for upholstered seating.

Upholstery Fabric: 12-inch square Sample of fabric from dye lot to be used for the Work, with specified treatments applied.[**Show complete pattern repeat. Mark top and face of fabric.**]

Signage: Full-size units for [**row letters**] [**seat numbers**] [**each type of accessibility sign**] [**and**] [**custom graphics**].

* + - * 1. Quality Control Submittals:

Company Field Advisor Data:

Name, business address, and telephone number of Company Field Advisor secured for the required services.

Certified statement from the Company listing the qualifications of the Company Field Advisor.

Services and each product for which authorization is given by the Company, listed specifically for this project.

Certificate: Affidavit required under Quality Assurance Article.

Retain "Welding certificates" Paragraph below if retaining "Welding Qualifications" Paragraph in "Quality Assurance" Article.

Welding certificates.

Retain "Product Certificates" and "Material Certificates" paragraphs below to require submittal of certificates from manufacturers.

Product Certificates: For each type of telescoping stand assembly.

Retain "Material Certificates" Paragraph below for upholstered seating.

Material Certificates: For each type of flame-retardant treatment of upholstery fabric.

Field quality-control reports.

* + - * 1. Contract Closeout Submittals:

Operation and Maintenance Data: For telescoping stands to include in operation and maintenance manuals.

Procedures for conducting periodic inspections.

Precautions for cleaning materials and methods that could be detrimental to telescoping-stand finishes and performance.

Retain subparagraph below if applicable.

Methods for maintaining upholstery fabric.

* + - 1. QUALITY ASSURANCE
				1. Qualifications For Products Other Than Those Specified:

At the time of submission provide written notice to the Director of the intent to propose an “or equal” for products other than those specified. Make the “or equal” submission in a timely manner to allow the Director sufficient time to review the proposed product, perform inspections and witness test demonstrations.

If products other than those specified are proposed for use furnish the name, address, and telephone numbers of at least 5 comparable installations that can prove the proposed products have performed satisfactorily for 3 years. Certify in writing that the owners of the 5 comparable installations will allow inspection of their installation by the Director's Representative and the Company Field Advisor.

Make arrangements with the owners of 2 installations (selected by the Director) for inspection of the installations by the Director's Representative. Also obtain the services of the Company Field Advisor for the proposed products to be present. Notify the Director a minimum of 3 weeks prior to the availability of the installations for the inspection and provide at least one alternative date for each inspection.

Only references from the actual owner or owner’s representative (Security Supervisor, Maintenance Supervisor, etc.) will be accepted. References from dealers, system installers or others, who are not the actual owners of the proposed products, are not acceptable.

Verify the accuracy of all references submitted prior to submission and certify in writing that the accuracy of the information has been confirmed.

The product manufacturer shall have test facilities available that can demonstrate that the proposed products meet the contract requirements.

Make arrangements with the test facility for the Director's Representative to witness test demonstrations. Also obtain the services of the Company Field Advisor for the proposed product to be present at the test facility. Notify the Director a minimum of 3 weeks prior to the availability of the test facility, and provide at least one alternative date for the testing.

Provide written certification from the manufacturer that the proposed products are compatible for use with all other equipment proposed for use for this system and meet all contract requirements.

* + - * 1. Company Field Advisor: Secure the services of a Company Field Advisor for a minimum of 8 working hours for the following:

Render advice regarding installation and final adjustment of the equipment.

Witness final equipment tests and then certify with an affidavit that the equipment is installed in accordance with the contract documents and is operating properly.

Train facility personnel on the operation and maintenance of the system (minimum of one 2 hour session).

* + - * 1. Installer Qualifications: An entity that employs installers and supervisors who are trained and approved by manufacturer.

Retain "Welding Qualifications" Paragraph below if shop or field welding is required. If retaining, also retain "Welding certificates" Paragraph in "Informational Submittals" Article.

* + - * 1. Welding Qualifications: Qualify procedures and personnel according to the following:

AWS D1.1, "Structural Welding Code - Steel."

AWS D1.3, "Structural Welding Code - Sheet Steel."

* + - * 1. Mockups: Build mockups to demonstrate aesthetic effects and to set quality standards for fabrication and installation.

Indicate portion of telescoping stands represented by mockup on Drawings or draw mockup as separate element.

Build mockup of typical telescoping stand as shown on Drawings.

* + - 1. FIELD CONDITIONS

Generally, retain "Finished Spaces" Paragraph below; revise to suit Project.

* + - * 1. Finished Spaces: Do not deliver or install telescoping stands until finishes in spaces to receive them are complete, including suspended ceilings, floors, and painting.
				2. Field Measurements: Indicate measurements on Shop Drawings.
1. PRODUCTS

Manufacturers and products listed in SpecAgent and Masterworks Paragraph Builder are neither recommended nor endorsed by the AIA or Deltek. Before inserting names, verify that manufacturers and products listed there comply with requirements retained or revised in descriptions and are both available and suitable for the intended applications.

* + - 1. PERFORMANCE REQUIREMENTS

ICC 300 cited in "Structural Performance" Paragraph below includes uniform live loads and design loads for seats, treads, handrails, and guards.

* + - * 1. Structural Performance: Telescoping stands shall withstand the effects of gravity loads, operational loads, and other loads and stresses according to ICC 300.

Compliance with California Technical Bulletin 133 may be required for unsprinklered assembly spaces. Verify requirements of authorities having jurisdiction.

* + - * 1. Fire-Test-Response Characteristics of Upholstered Chairs: Comply with California Technical [**Bulletin 117**] [**and**] [**Bulletin 133**].

Verify accessibility requirements of authorities having jurisdiction. Generally, retain only one of first two options below. Retain the first option for facilities covered under the Americans with Disabilities Act of 1990 (ADA). Retain the second option for facilities covered under the Architectural Barriers Act (ABA). See the Evaluations.

* + - * 1. Accessibility Standard: Comply with applicable provisions in the DOJ's 2010 ADA Standards for Accessible Design and ICC A117.1.
			1. TELESCOPING STANDS
				1. 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.

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.

Telescoping-Stands Standard: ICC 300.

Copy paragraphs below and re-edit for each product.

Insert drawing designation for each product required. Use these designations on Drawings to identify each product.

* + - * 1. Wall-Attached Telescoping Stands <**Insert drawing designation**>: Forward-folding system, in which the bleachers open in the forward direction by moving the front row away from the stack to the fully extended position and the rear of bleacher understructure permanently attaches to wall construction.

[Products:](http://www.specagent.com/Lookup?ulid=5447) Subject to compliance with requirements, available products that may be incorporated into the Work include, but are not limited to the following:

[Hussey Seating Company](http://www.specagent.com/Lookup?uid=123457014638); Maxam Telescoping Gym Bleacher Seating.

[Interkal LLC](http://www.specagent.com/Lookup?uid=123457014639); Classic Wood Bench Seating.

Approved equivalent.

Coordinate "Row Spacing," "Row Rise," and "Seat Type" subparagraphs below with manufacturers. Dimensional options in first two subparagraphs are examples only; dimensions vary with manufacturer and product.

Row Spacing: 22 inches <**Insert dimension**>.

Consult manufacturers for recommendations on row-rise dimensions that produce optimal sight lines.

Row Rise: manufacturer’s standard rise <**Insert dimension**>.

Coordinate "Seat Type" with requirements in "Components" Article below.

Seat Type: Benches.

Retain "Elevated Front Row" Subparagraph below if required.

Elevated Front Row: [**Height indicated on Drawings**] <**Insert dimension**>.

Operation: [**Manually operated**] [**Electrically operated, with friction-type, integral power unit**] [**Electrically operated, with non-friction-type, integral power unit**].

Retain "Electrical Characteristics for Each Seating Section" and "Electrical Controls" subparagraphs below if retaining an electrically operated option in "Operation" Subparagraph above. Coordinate requirements with Project's electrical engineer and verify, with manufacturers, the availability of options. Delete those electrical characteristics that are indicated on Drawings.

Electrical Characteristics for Each Seating Section:

Horsepower: [**1/2**] [**1-1/2**] [**2**] <**Insert horsepower**>.

Voltage: [**115 V ac**] [**208 V ac**] [**230 V ac**], single phase, 60 hertz.

Voltage: [**208 V ac**] [**230 V ac**] [**460 V ac**], three phase, 60 hertz.

Electrical Controls:

Control Devices: [**Wall-attached**] [**Walk-along pendant**] [**Wireless**] control system.

Limit Switches: Automatically stop power system when telescoping stands reach fully opened or closed positions.

Motion Monitor: Flashing light with self-contained warning horn, rated at 85 dB at 10 feet, mounted under telescoping seating for audio and visual warning during operation.

Transformer: As required to coordinate current characteristics of motor and control station with building electrical system.

* + - 1. COMPONENTS

Retain "Benches" Paragraph below if required.

* + - * 1. Benches: Seats and skirts.

Material: Lumber with transparent finish.

Color: As selected by Director’s Representative from manufacturer's standard.

Bench Height: Not less than 16 inches or more than 18 inches.

Coordinate dimension in "Bench Depth" Subparagraph below with seat material specified, row spacing, and requirements of authorities having jurisdiction.

Bench Depth: [**10 inches**] [**12 inches**].

Folding backrests typically require greater row spacing because most fold backward. Verify requirements with manufacturers.

Backs: Folding backrests permanently attached to bench units.

Material: [**Lumber with transparent finish**] [**Molded plastic with contour support surface in color matching seat**] <**Insert material**>.

Operation: [**Manual**] [**Automatic**].

Retain "Chairs" Paragraph below if required. Expand descriptions below to suit Project; revise for removable chairs. Products vary in materials and construction among manufacturers.

* + - * 1. Wheelchair-Accessible Seating: Locate [**seating cutouts**] [**retractable truncated benches**] [**removable modular chairs**] [**aisle seats without armrests, with folding armrests, or with removable armrests**] to provide wheelchair-accessible seating at locations indicated on Drawings.

Equip tiers adjacent to wheelchair-accessible seating with front rails as required by ICC 300.

Retain subparagraph below for cutouts for wheelchair-accessible seating.

Equip cutouts with full-width front closure panels that match decking construction and finish and that extend from underside of tiers adjacent to cutouts to 1-1/2 inches from finished floor.

* + - * 1. Deck: [**Aluminum**] [**Plywood, 5/8 inch thick**] [**Plywood, 3/4 inch thick**] [**Manufacturer's standard laminated panel**] <**Insert requirement**>.

In "Finish" Subparagraph below, retain one of first three options for aluminum and one of next four for plywood or laminated-panel option. Consult manufacturers on availability.

Finish: [**Mill**] [**Clear anodized**] [**Color anodized**] [**Polyethylene textured overlay bonded to substrate with exterior glue**] [**Transparent**] [**Paint**] [**Manufacturer's standard carpet bonded to substrate**] [**Manufacturer's standard**] <**Insert requirements**>.

Delete "Color" Subparagraph below for clear-anodized finish.

Color: [**As indicated by manufacturer's designations**] [**Match Director’s Representative's sample**] [**Manufacturer's standard**] [**As selected by Director’s Representative from manufacturer's standard colors**] <**Insert color**>.

* + - * 1. Risers: Steel sheet with manufacturer's standard, rust-inhibiting coating or hot-dip galvanized finish.

Revise "Safety Rails" Paragraph below if aluminum rails are required.

* + - * 1. Safety Rails: Steel, finished with manufacturer's standard powder coat system.

[**Removable**] [**Folding**] [**Self-storing**] mid-aisle handrails located at centerline of each aisle with seating on both sides.

End rails (guards) that are telescoping and self-storing.

Back rails (guards) along rear of units where required by ICC 300.

[**Removable**] [**Fixed**] front rails (guards) along front of units where required by ICC 300.

[**Removable**] [**Fixed**] rails around accessible seating cutouts and truncations.

Removable, programming-support front rails to allow seating in upper rows while lower rows remain in the stored position.

Color: [**Black**] [**Match Director’s Representative's sample**] [**Manufacturer's standard neutral color**] <**Insert color**>.

* + - * 1. Understructure: Structural steel.

First option in "Finish" Subparagraph below varies with manufacturer; consult manufacturers if retaining another option. For high-humidity locations, insert finish to suit Project; consult manufacturers.

Finish: Manufacturer's standard rust-inhibiting finish.

Color: Manufacturer's standard.

* + - * 1. Support Column Wheels: Nonmarring, soft, rubber-face wheel assembly under each support column.

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.

Retain "Control Devices" Paragraph below for electrically operated telescoping stands.

* + - * 1. Control Devices:

Retain one or more of "Wall Attached," "Walk-Along Pendant," and "Wireless" subparagraphs below as applicable. If retaining "Wall Attached" Subparagraph, indicate locations and concealed wiring, if any, on Drawings.

Wall Attached: [**Manufacturer's standard**] [**Keyed-switch**] control station, located within full view of each stand and its movement area.[**Provide two keys per station.**]

Walk-Along Pendant: Manufacturer's standard unit, which plugs into first row of each operating section. Provide [**one unit**] [**two units**] [**three units**] [**one unit for each operating section**] <**Insert requirement**>.

Wireless: Hand-held, wireless transmission unit that operates wireless receivers in each operating section, with a transmission range to keep handheld control unit within close proximity and with full view of stand and its movement area. Provide [**one unit**] [**two units**] [**three units**] [**one unit for each operating section**] <**Insert requirement**>.

* + - * 1. Fasteners: Vibration proof, in manufacturer's standard size and material.
			1. ACCESSORIES
				1. Steps:

Slip-resistant, abrasive tread [**nosings**] [**surfaces**] at aisles.

Intermediate steps provide an equal depth and height foot surface between rows. They are designed to comply with code requirements.

Intermediate aisle steps, fully enclosed, at each aisle.

Transitional top step, fully enclosed, at each aisle where last row of telescoping stands is adjacent to a cross aisle.

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.

Portable stairs may be required for access to upper rows if aisles occur in truncation locations.

* + - * 1. 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.
				2. Ramps: Portable access-ramp units, slope [**as indicated on Drawings**] [**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.
				3. Closure Panels and Void Fillers:

Retain first subparagraph below for safety and appearance.

Aisle closures at foot level that produce flush vertical face at aisles when system is stored.

End panels are designed to deter access behind units in the stored position.

End panels covering exposed ends of stands in the stored position.

Back panels are designed to deter access behind back exposed units.

Back panels covering rear of freestanding units. Panels extend full height and width of unit.

Panels at cutouts and truncations for accessible seating.

Rear fillers including supports for closing openings between top row and rear wall of adjoining construction.

Gap fillers for closing openings between stand units or between stand units and adjoining construction.

Verify, with manufacturers, requirements and availability of spanner seats.

* + - * 1. Spanner Seats: Removable, designed to span area between adjacent stand units[**, in locations indicated on Drawings**] <**Insert requirements**>.
				2. Signage:

Row letters at each row end.

Seat numbers [**at 18 inches o.c. on benches**] [**and**] [**on each chair**].

Accessibility signs at each accessible space[**and accessible aisle seat**].

Custom graphics as indicated on Drawings [**on benches**] [**on end panels**] [**on rear panels**] [**on whole seating array**] <**Insert requirements**>.

* + - * 1. Scorer's Table: Removable unit that attaches to mounting sockets installed in telescoping stand unit.

Insert other accessories to suit Project.

* + - 1. MATERIALS

Retain "Lumber" Paragraph below for solid wood benches or backrests; revise to suit Project.

* + - * 1. Lumber: Kiln dried, surfaced four sides; southern pine complying with SPIB's "Standard Grading Rules for Southern Pine Lumber" for [**B & B finish (B and better)**] [**C & Btr finish (C and better)**] grade-of-finish requirements.
				2. Plywood: PS 1 as standard with manufacturer.

Retain "Molded Plastic" Paragraph below for plastic seats.

* + - 1. FABRICATION
				1. Fabricate telescoping stands to operate easily without special tools or separate fasteners unless otherwise indicated.
				2. Round corners and edges of components and exposed fasteners to reduce snagging and pinching hazards.
				3. Form exposed work with flat, flush surfaces, level and true in line.
				4. 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.

Retain subparagraph below for benches.

Cantilever bench seat supports to produce toe space uninterrupted by vertical bracing.

1. EXECUTION
	* + 1. EXAMINATION
				1. Examine substrates, areas, and conditions, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance of the Work.
				2. Proceed with installation only after unsatisfactory conditions have been corrected.
			2. INSTALLATION
				1. Install telescoping stands according to ICC 300 and manufacturer's written instructions.
			3. FIELD QUALITY CONTROL
				1. Testing Agency: Engage a qualified testing agency to perform tests and inspections.

Retain "Perform the following tests and inspections" Paragraph below to require Contractor to perform tests and inspections.

* + - * 1. Perform the following tests and inspections:

ICC 300 Inspection: Inspect installed telescoping stands to verify that construction, installation, and operation are according to ICC 300 requirements.

Test and adjust controls and safeties. Replace damaged and malfunctioning controls and equipment.

* + - * 1. Telescoping stands will be considered defective if they do not pass tests and inspections.
				2. Prepare test and inspection reports.
			1. ADJUSTING
				1. Adjust backrests so that they are at proper angles and aligned with each other in uniform rows.
				2. 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.
				3. Clean installed telescoping stands on exposed and semiexposed surfaces. Touch up factory-applied finishes or replace components as required to restore damaged or soiled areas.

Retain paragraph below for upholstered seating.

* + - * 1. Replace upholstery fabric damaged during installation or work of other trades.
			1. DEMONSTRATION

Revise paragraph below to suit Project. ICC 300 requires the Facility to maintain telescoping stands and have annual inspections performed by a qualified person.

* + - * 1. Engage a Company Service Advisor to train Facility maintenance personnel to inspect, adjust, operate, and maintain telescoping stands.

END OF SECTION 126600