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Guide Specification

SECTION 13125

PORTABLE BLEACHERS AND CONTINUOUS ANGLE FRAME BLEACHERS

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Design, fabrication, and installation of portable bleachers and continuous angle frame bleachers.
 - 1. Understructure: galvanized steel (standard) or aluminum (optional).

1.02 SUBMITTALS

- A. Shop Drawings: Submit shop drawings sealed by a registered professional engineer indicating location, size, details, and quantity of all concrete, steel, aluminum components and accessories.
- B. Color Chart: Submit for selection if applicable.
- C. Product Sample: Submit if applicable
- D. Manufacturers product data. Submit if applicable.
- E. Certificates: Submit if applicable.

1.03 QUALITY ASSURANCE

- A. Codes and Standards: Design, fabrication, and installation shall be in accordance with applicable codes, regulations, and accessibility requirements (ADA). Owner will furnish local code requirements.

- B. Manufacturer Qualifications: Minimum 10 years experience in the design and manufacture of bleachers.
- C. Installer Qualifications: Employ persons trained and experienced in the installation of bleachers.
- D. Welders: AWS certified.

1.04 PROJECT CONDITIONS

- A. Owner will verify site location.
- B. Owner will locate all underground utilities and obstructions.
- C. Owner will furnish geotechnical report indicating soil conditions and allowable soil bearing pressure.
- D. Owner will verify bleacher location and benchmark dimensions and elevation.

1.05 WARRANTY

- A. Warranty bleachers to be satisfactory as to design, workmanship, and materials for 1 year beginning after completion of project. Warranty also covers bleachers erected by the Owner and inspected by Sturdisteel personnel. This warranty excludes any results of abnormal use in service, intentional damage, or accidental damage or other occurrence beyond the control of Sturdisteel.

1.05 MAINTENANCE

- A. Annual inspection and evaluation to be conducted by a qualified person retained by the owner. Required maintenance of bleacher to insure safe conditions by owner.

PART 2 PRODUCTS

2.01 MANUFACTURER

- A. Sturdisteel Company
PO Box 2655
Waco, Texas 76702-2655
Tel (800) 433-3116
Fax (254) 666-4472.

2.02 PORTABLE BLEACHERS AND CONTINUOUS ANGLE FRAME BLEACHERS

- A. Size: _____ feet long by _____ rows. (3,5,8,10,15 row standard sizes are available, other custom designs available at additional cost). (Refer to Seating Capacity Chart for portable bleachers or continuous angle frame bleachers.) To obtain the approximate number of net seats, multiply the gross seats by 0.85. Press box size ___x___. Press box support length___x___.

- B. Design: Design shall be in accordance with American Institute of Steel Construction , AA-94 – Aluminum Design Manual, and ACI.
- C. Design Loads:
1. Live Load: 100 pounds per square foot (psf) gross horizontal projection.
 2. Perpendicular Sway Load: 10 per linear foot (plf) of seat plank.
 3. Lateral Sway Load: 24 plf of seat plank.
 4. Wind Load: Per local building code requirements.
 5. Live Load for Seat and Tread Planks: 120 plf.
 6. Guardrail and Handrail Loads: A single 200 pounds concentrated or 50 plf distributed load applied in any direction, at any location.
 7. Note: Seismic loads never control the design of these systems.
- D. Shop Connections: Welded and capable of carrying stress put upon them.
- E. Welding: AWS standards.
- F. Framework: Space prefabricated angle bleacher frames at 6 foot intervals and connect by crossbraces.
- G. Rise and Depth Dimensions:
1. Vertical Rise and Horizontal Depth per Row: 8 inches by 24 inches.
 2. Seat Above its Respective Tread: 17 inches.
- H. Riser: 1/2" x 7 1/2" anodized aluminum board. At top row 1/2" x 9 3/8" anodized aluminum board.
- I. Seats: 1 1/2" x 9 1/2" anodized aluminum board, with end caps.
- J. Treads: 2 – 1 1/2" x 9 1/2" mill finish aluminum boards with end caps.
1 – 1 1/2" x 9 1/2" mill finish board for 3 row non-elevated units.
- K. Guardrail: Furnish at all sides of bleacher, entry stairs, walkways, ramps, portals, and landings where 30" or more above adjacent area or grade. Material shall be anodized aluminum pipe with end plugs at ends of straight runs or elbows at corners. Secure to angle posts by galvanized fasteners. Top rail shall be 42 inches (min.) above walkways and entrances and 42 inches (min.) above any adjacent seat. Include 9 gauge galvanized chain link fencing fastened in place with galvanized fittings and aluminum ties.
- L. Front Walkway on Continuous Angle Frame Bleachers: 60 inches wide , elevated 30 or 40 inches high on mudsills, 28 1/2" or 38 1/2" on slabs. Walkway deck with 1 1/2" by 9 1/2" mill finish aluminum boards.
- M. Steps: Galvanized steel frames with 1 3/4" x 11 1/2" mill finish aluminum boards with 1" x 1" dark bronze contrasting nosing.

- N. Transport Kit for Portable Bleachers: Painted steel tube tow bar with tongue. Wheel sets with 5.30 x 12 tires.
- O. Entry Stairs: Provide entry stairs for elevated bleachers in accordance with local code requirements, 7 " maximum rise, 11" minimum tread, and guardrails and handrails per local building code.
- P. Aisle Width: 48 inch minimum middle aisle width and 36" minimum end aisle width. Greater width as needed to meet code egress requirements.
- Q. Mudsills: 1 ½ inch by 5 1/2 inch (optional 1 1/2 inch by 7 1/2 inch) treated lumber, drilled for field bolting.
- R. Press Box: Independently supported and connected to rear of bleacher with aisle access provided. Press box specifications are separate.
- S. Accessibility Provision: Incorporate ramps and wheelchair spaces within bleacher system in accordance with local code requirements and ADA.

2.03 MATERIALS

- A. Framework:
 1. Galvanized Steel: ASTM A36, A572 Gr 50, A992 Hot-dipped galvanized after fabrication in accordance with ASTM A123.
 2. Aluminum: Aluminum alloy 6061-T6, mill finish.
- B. Extruded Aluminum:
 1. Seat Boards: Extruded aluminum alloy 6063-T6, clear anodized 204R1, AA-M10C22A31, Class II.
 2. Tread Boards and Riser Boards: Extruded aluminum alloy 6063-T6, mill finish.
- C. Guardrail: Aluminum anodized pipe, 1 5/8 inches O.D.
- D. Accessories:
 1. Steel Bolts and Nuts: Equal to or greater than ASTM A307, galvanized. All structural connections are snug tight per RCSC 2000 specification.
 2. Hold-Down Clip Assembly: Aluminum alloy 6063-T6.
 3. Form Fitted End Caps: Aluminum alloy 2024, clear anodized 204R1, AA-M10C22A31, Class II.
 4. Channel End Caps: Aluminum alloy 6063-T6, clear anodized 204R1, AA-M10C22A31, Class II.

PART 3 EXECUTION

3.01 INSTALLATION

- A. Install portable bleachers and continuous angle frame bleachers complete in accordance with manufacturer's written instructions and approved shop drawings.

3.02 ADJUSTING

A. Inspect completed bleachers and make necessary adjustments to ensure properly installed conditions.

END OF SECTION