

# Specifications

## Grandstands

### PART 1 GENERAL

#### 1.1 SYSTEM DESCRIPTION

A. Provide labor, material, equipment and supervision necessary to design, fabricate and install permanent steel grandstands including the following:

1. Steel Substructure
2. Decking System
3. Concrete Foundations
4. Press Box Support Structure
5. Press Box

#### 1.2 QUALITY ASSURANCE

- A. Manufacturer: All Star Bleachers, Inc. 6550 New Tampa Highway Lakeland, FL 33815, (800) 875-3141 or (863) 687-3141 Fax: (813) 628-4254
- B. Manufacturer Qualifications: Manufacturer must have ten years experience in the manufacture of bleachers and grandstands; welders must be AWS certified.
- C. Installer Qualifications: Factory trained and experienced in the proper installation of grandstands.
- D. Source Quality Control: Mill Test Certification

#### 1.3 SUBMITTALS

- A. Manufacturer's product data: Submit manufacturer's descriptive product data for project.
- B. Shop Drawings: Manufacturer to submit shop drawings sealed by registered professional engineer and schedules for type, location, quality, and details of steel and aluminum components required for the project.
- C. Certificates:
1. Insurance Certificate
  2. Bid Bond
- D. Product Sample: Submit one 18-inch seat sample.
- E. Color Sample: If applicable, submit sample.

#### 1.4 SITE CONDITIONS

- A. Field Sites:
1. Owner to make site accessible
  2. Owner to verify locations and bench marks
- B. Underground utility Line: Owner to clearly mark all underground utilities and obstructions.
- C. Soil Report: Furnished by Owner

#### 1.5 WARRANTY

All Star Bleachers, Inc. warrants its permanent grandstand to be free from defect in materials and workmanship in the course of manufacturing for a period of one year beginning at Date of Substantial Completion of projects installed by All

Star Bleachers, Inc. or beginning at Date of Initial Delivery of product for projects installed by others. Installation of said products by All Star Bleachers, Inc. personnel or proper installation by others is covered by the one-year warranty. This warranty excludes any other defects resulting from abnormal use in service, accidental or intentional damage or any occurrences beyond All Star Bleachers, Inc. control.

### PART 2 PRODUCTS

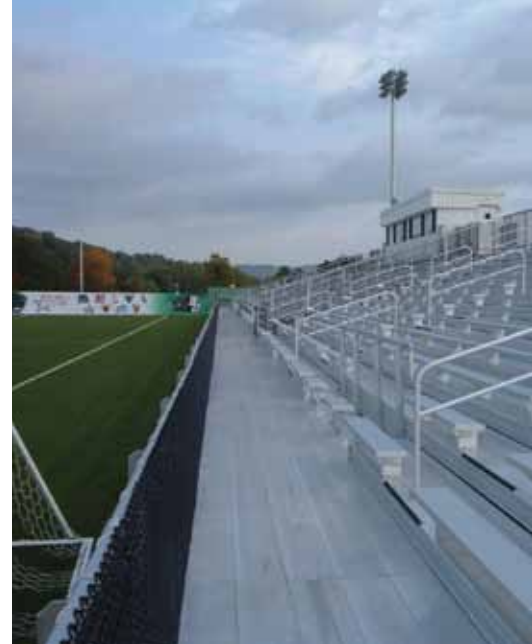
#### 2.1 ACCEPTABLE MANUFACTURER

- A. All Star Bleachers, Inc.

#### 2.2 PERMANENT STEEL GRANDSTAND

##### A. Product Description:

1. Clear Span, I-beam: Vertical columns are placed 18' on center laterally and "as required" on center front to back. All horizontal beams are wide flange. Traverse bays are free of cross-bracing the total length of the grandstand.
2. Stringers: Stringers are wide flange with angle rise and depth fabrication and are placed at 6' on center.
3. Front walkway: 54" in clear depth, elevated 4' above grade. Each seat is 17" above it's respective tread.
4. Entry Stairs: Provide entry stairs to conform to local codes.
5. Aisles: Width of aisles is 48" or conforms to local codes.
6. Decking: Standard Rises: 8", 9 3/4", 11 1/4" or 13 1/4". Recommended tread depths: Chairs, 33", Bench Seating with backrest, 30", Bench Seating, 26".
  - a. Semi-Closed Deck
  - b. Closed Deck
  - c. Non-Penetrating Interlocking Deck
  - d. Interlocking Deck
  - e. Welded Deck
7. Guardrailing: To be at all sides of bleacher, entry stairs and ramps, portals and landings. Railing shall be 1 5/8" O.D. anodized aluminum pipe with end caps at ends of straight runs and elbows at corners. All guardrails shall be secured to angle risers by galvanized fasteners. Railing shall be 42" above walkways and entrances. Railing shall be 42" above the center of any adjacent seat. Guardrailing shall include 9 gauge galvanized chain link fencing fastened in place with aluminum ties.



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8. Press Box:
  - a. Press Box can be independently supported, but support structure is connected to grandstand.
  - b. Press Box: Specifications available upon request.
9. Handicap Provision: Design to incorporate ramps and wheelchair spaces within the grandstand system in accordance with applicable building codes and ADA.
- B. Materials/Finishes:
  1. Substructure: ASTM steel only
    - a. Galvanized Steel: Structural fabrication with ASTM-A36/A992 steel. Shop connections are seal welds. After fabrication all steel is hot dipped galvanized to ASTM-A123 specifications.
  2. Seating/Planking:
    - a. All Star Bleachers' Champion Stadium and Arena Seating and Stanchions: Solid injection molded polypropylene.
    - b. Seat Planks, Riser Planks, Backrest: Extruded aluminum alloy, 6063-T6 clear anodized 204R1 finish. Optional Finish: Powder coated colors.
    - c. Tread Planks: Extruded aluminum alloy, 6063-T6 mill finish.
    - d. Joint Sleeve Assembly: Extruded aluminum alloy 6063-T6, mill finish.
  3. Accessories:
    - a. Channel Fit Caps: Aluminum alloys, 6063-T6, clear anodized 204R1, AA-M10C22S31, Class II.
    - b. Hardware:
      - 1) Bolts, Nuts: Hot-dipped galvanized.
      - 2) Tie down clip assembly: Aluminum alloy 6061-T6.
      - 3) Structural Hardware: Hot-dipped galvanized ASTM-A325. No connections are classed as slip critical.
- C. Fabrication:
  1. Design Load:
    - a. Live Load: 100 p.s.f. gross horizontal projection.
    - b. Lateral Sway Load: 24 plf seat plank.
    - c. Perpendicular Sway Load: 10 plf seat plank
    - d. Live Load of Seat and Tread Planks: 120 plf.
    - e. Guardrail: Per Local code
    - f. Wind Load: Per Local code
  2. All connections made in shop to be shop welded.
    - a. Manufactured by certified welders conforming to AWS standards.

## 2.3 ANGLE FRAME BLEACHERS

- A. Product Description
  1. Frames are spaced 6'-0" on center and are laterally joined by cross-bracing as required to satisfy design loading.
  2. Units are offered in standard 3, 4, 5, 10, and 15 row elevated and non-elevated units. Standard widths are 15', 21', and 27'. Custom units are available in other widths.
  3. Transportability: 3 and 4 row units can be equipped with 4" non-marring castors to allow the bleacher to be tipped and rolled away. 3, 5, 10, and 15 row units can be equipped with a wheel set (4.80 x 12 tires) and galvanized steel tongue which will allow the units to be towed. 2" x 6" pressure treated mudsills are required for site conditions with poor soil bearing capacity.
  4. For elevated units: Front walkway is 54" in clear width, elevated 30", 36", 42" or 48" above grade.
- B. Materials/Finishes
  1. Substructure:
    - a. Galvanized Steel Angle: Structural fabrication with ASTM-A36 steel. Shop connections are seal welds. After fabrication all steel is hot dipped galvanized to ASTM-A123 specifications.
  2. Aluminum Angle: Structural fabrication with mill finish, aluminum angle (6061-T6 alloy) Shop connections are welded to AWS D1.2 certifications.

## PART 3 EXECUTION

- 3.1 INSTALLATION
  - A. All works performed by factory-trained technicians experienced in bleacher seating installation.
  - B. Project as per approved shop drawings.
- 3.2 FIELD QUALITY CONTROL
  - A. Foundation: Footings for the grandstand shall provide sufficient bearing area at bottom to support all loads of the grandstand. Depth and design of footings shall be determined by local soil conditions. Hot-dipped galvanized anchor bolts shall be secured in the concrete footings. Concrete shall attain working strength of 3,000 psi.
- 3.3 CLEAN-UP
  - A. Clean up all debris caused by work of this section.