

**OSKALOOSA CSD, OSKALOOSA, IA  
CUSTOM PERMANENT GRANDSTANDS**

**PART 1 - GENERAL**

**1.01 SYSTEM DESCRIPTION**

- A. Provide labor, material, equipment, and supervision necessary to complete installation of permanent steel grandstand per drawings, including the following:
  - 1. Steel Substructure
  - 2. Decking System
  - 3. Concrete Foundation Design

**1.02 QUALITY ASSURANCE**

- A. Manufacturer Qualifications: Manufacturers must have ten years of experience in the manufacture of bleachers and grandstands.
- B. Installer Qualifications: Experienced in the proper installation of grandstands.
- C. Source Quality Control: Mill Test Certification.

**1.03 SUBMITTALS**

- A. Manufacturer's Product Data: Submit manufacturer's descriptive product data for.
- B. Projects and References: Submit a list of last three projects in the state and references.
- C. Shop Drawings: Manufacturer to submit shop drawings to show in detail that it will conform to the applicable code and relevant laws.
- D. Certificates: Insurance Certificate
- E. Product Sample: Submit one 18-inch seat sample.
- F. Color Sample: If applicable, submit sample.

**1.04 SITE CONDITIONS**

- A. Field Site:
  - 1. Owner to make site accessible.
  - 2. Owner to verify site locations, benchmarks.
- B. Underground Utility Line: Owner to clearly mark all underground utilities and obstructions and Owner to relocate all that conflict with grandstand.
- C. Soil Test: Furnished by Owner.

**1.05 BUILDING CODES**

- A. Must meet or exceed all State and Local applicable codes and in compliance with the International Building Code adopted by the jurisdiction and CABO/ANSI A117.1 Barrier Free Sub code.

## **1.06 WARRANTY**

- A. Permanent Grandstand shall be under warranty for a period of five (5) years beginning at Date of Substantial Completion for Projects installed by Manufacturer. The warranty will provide for repair or replacement of failed components due to defect in materials and workmanship of installation for the specified period. This warranty excludes any other defects resulting from abnormal use in service, vandalism, weathering, oxidation, accidental or intentional damage or any occurrences beyond Manufacturer's control.

## **1.07 MAINTENANCE**

- A. Owner is to conduct annual inspection and required maintenance of grandstand to assure safe conditions.

## PART 2 - PRODUCTS

### 2.01 ACCEPTABLE MANUFACTURERS

- A. Southern Bleacher Company Horizontal Beam Design.
- B. Other manufacturers that are substantially similar may be approved, but bidder must submit product literature on horizontal beam design to the Owner for review and receive approval. It shall be the responsibility of the bidder to provide a complete list of deviations from the SBC approved specifications.

### 2.02 PERMANENT STEEL GRANDSTAND

- A. Product Description
  - 1. Custom Mitered Hillside Design: Per drawings  

Base Bid - Net seating capacity of 329.
  - 2. Stringers to attach to back retaining wall
  - 3. Stringers are wide flange with steel angle seat post, rise and depth fabrication and are placed 6 feet on center.
  - 4. Aisles:
    - a. Aisles with seating on both sides to have discontinuous mid-aisle handrails. The handrails shall be discontinuous with breaks at intervals not to exceed five rows. These breaks shall have a clear width of at least 22 inches and not greater than 36 inches horizontally.
    - b. Anodized aluminum handrails with rounded ends to be provided with an intermediate handrail below the main handrail.
    - c. Aluminum tread nosing of contrasting color on aisle steps.
    - d. Halfsteps shall be provided for riser heights above 8 inches.
    - e. Halfsteps shall provide equal rise and run throughout aisle. Each shall have aisle nosing with non-skid black powder coated finish or other paint system meeting AAMA 603.8-92 specifications with a hardness rating of 2H and riser closure with clear anodized finish.
    - f. Aisles with a riser height of non-uniformity shall be indicated with distinctive markings as required by code.
  - 5. Decking:
    - a. Rise per row 12 inches, depth per row 26 inches.
    - b. Each seat 17 inches above its respective tread.
    - c. Mill Aluminum Decking Arrangement
      - (1) Interlocking Deck-Plank Arrangement
        - a. The tread system shall be comprised of aluminum extrusions which interlock together lengthwise and form a .922" x .60" V-shaped gutter running the length of the planks. The interlocking mechanism will minimize deflection and not separate due to loads being applied to individual planks. The locking mechanism by design shall allow for expansion and contraction of individual planks without affecting performance of the system.
        - b. The system shall cause the deck planks to react together at all treads and crosswalks to liveload and form the appearance of a single tread system. By design, this system forms a solid, overlapping tread and riser installation.
        - c. The nose extrusion shall allow for a 1" extruded aluminum contrasting nose piece to be flush mounted on the leading edge and shall capture the vertical riser plank in an

extruded pocket. The heel extrusion shall have a .70" vertical lip at the rear of the plank to allow for placement of vertical riser plank and inhibit fluids from escaping at the rear of the tread.

- d. These extrusions shall be such that the attachment of the seat brackets, step brackets, mid-aisle rails and all other components is accomplished without deck penetrations. No through bolting or drilling of the aluminum tread/riser system shall be permitted.

d. Seating Selection

(1) Anodized Aluminum Bench Seat

- (a) 2 x 10 (standard), Die #7758 with height of 1 1/2"

- 6. Guardrailing: To be at all sides of bleacher, entry stairs and ramps, portals, and landings. Railing to be anodized aluminum with end plugs at ends of straight runs and/or elbows at corner. All guardrails shall be secured to angle rail risers by galvanized fasteners. Railing shall be at heights as required by code for its location on the grandstand. Guardrailing shall include intermediate railing, or galvanized chain link fencing fastened in place with galvanized fasteners and aluminum ties.

- 7. Cross Aisles: As required per design.

8. Handicap provision:

- a. Quantity of wheelchair spaces: See drawings

B. Materials/Finishes

1. Substructures:

- a. Structural shapes meet one of the following ASTM specifications: A36, A36/A572 grade 50, A572 grade 50, A529-50, or A500 grade B.
- b. Shop connections are seal welds.
- c. After fabrication, all steel is hot-dipped galvanized to ASTM-A-123 specifications.
- d. Painted steel finish is unacceptable.

2. Extruded Aluminum:

- a. Seat Planks, Backrests, Stanchions, Riser Planks, and Railing are extruded aluminum alloy, 6063-T6.
  - (1) Clear anodized 204R1, AA-M10C22A31, Class II finish
  - (2) Coating (Optional with additional cost):
    - (a) Factory applied, baked-on Kynar or Hylar/acrylic resin based paint coating, Dur-Kyn, as manufactured by the Valspar Corporation. Dur-Kyn meets or exceeds the physical and performance properties of AAMA 2603. (Specify color).
    - (b) Powder Coated or other paint system meeting AAMA 603.8-92 specifications with a hardness rating of 2H. (Specify Color).
- b. Tread planks are extruded aluminum alloy 6063-T6 mill finish.
- c. Railing: Extruded aluminum alloy, 6063-T6 clear anodized 204R1, AA-M10C22A31, Class II.

3. Accessories:

- a. Channel End Caps: Aluminum alloy 6063-T6, clear anodized 204R1, AA-M10C22A31, Class II.
- b. Cast End Caps: Aluminum 319 alloy, cast finish. (Required for backrest and RS plank only)
- c. Hardware:
  - (1) Bolts, Nuts: Hot-dipped galvanized or mechanically galvanized.
  - (2) Hold-down Clip Assembly: Aluminum alloy 6005A-T6, mill finish.

- (3) Structural Hardware: Equal to or greater than hot-dipped galvanized ASTM-A307. No connections utilizing high strength bolts are classed as slip critical.
    - d. Aisle Nose and Stair Nose: Aluminum alloy, 6063-T6, non-skid black powder coated finish or other paint system meeting AAMA 603.8-92 specifications with a hardness rating of 2H.
- C. Fabrication:
  - 1. Design Load:
    - a. Tread and Seat Area: 100 psf uniform live load.
    - b. Seat (Vertical): 120 lbs/lf.
    - c. Seat (Horizontal Sway): 24 lbs/lf parallel and 10 lbs/lf perpendicular to seat.
    - d. Handrail and Guardrail: 50 lbs/lf in any direction.
    - e. Handrail and Guardrail: 200 lbs concentrated in any direction.
    - f. Snow Loads: As per State adopted code.
    - g. Wind Loads: As per State adopted code.
    - h. Seismic Loads: As per State adopted code.
  - 2. All manufactured connections to be shop welded.
- D. Bidders must specifically cite any variances from these design specifications and be prepared to prove that the variances will provide a substantially equivalent product.

## **PART 3 - EXECUTION**

### **3.01 INSTALLATION**

- A. All work performed by technicians experienced in bleacher seating installation.
- B. Project as per approved shop drawings.

### **3.02 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 Owner supplied soil test. Hot-dipped galvanized anchor bolts shall be secured in the concrete footings. Concrete shall attain working strength of 3,000 psi.

### **3.03 CLEAN-UP**

- A. Clean up all debris caused by work of this section.
- B. The Owner, Architect, and Contractor acknowledge and accept that mill finish aluminum as specified will have water stains present from transportation and storage during installation. Removal of these stains is not part of this contract.
- C. Stand to be broom cleaned at completion.