

SECTION 13 1250
PERMANENT GRANDSTANDS

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Provide labor, equipment and supervision to complete installation of permanent grandstands, including the steel substructure, decking system, and concrete foundation.

1.02 RELATED REQUIREMENTS

- A. Section 01 1000 - Summary: Contract descriptions, description of alterations work, work by others, future work, occupancy conditions, use of site and premises, work sequence.
- B. Section 01 3000 - Administrative Requirements: Submittal procedures, project meetings, progress schedules and documentation, reports, coordination.
- C. Section 01 4100 - Regulatory Requirements.

1.03 SUBMITTALS

- A. See Section 01 3000 - Administrative Requirements, for submittal procedures.
- B. Product Data: Provide three sets.
- C. Shop Drawings: Indicate and include dimensional drawings. Include structural drawings and calculations signed and sealed by a Structural Engineer licensed in the State of Oklahoma.
- D. Samples: Submit two samples, 12" long x width inch in size, illustrating material used.
- E. Certificate: Certify that products of this section meet or exceed specified requirements.
- F. Erection Drawings: as per design and shop drawings.
- G. Manufacturer's Qualification Statement.
- H. Warranty Documentation: Submit manufacturer warranty and ensure that forms have been completed in Owner's name and registered with manufacturer.

1.04 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Company specializing in manufacturing products specified in this section, with not less than three years of documented experience.
- B. Copies of Documents at Project Site: Maintain at the project site a copy of each referenced document that prescribes execution requirements.

1.05 WARRANTY

- A. See Section 01 7800 - Closeout Submittals, for additional warranty requirements.
- B. Correct defective Work within a five year period after Date of Substantial Completion.
- C. Provide five year manufacturer warranty for defective materials and work.

PART 2 PRODUCTS

2.01 MANUFACTURERS

- A. SOUTHERN BLEACHER COMPANY INC. Graham, Texas
- B. STURDISTEEL, Waco, Texas
- C. DANT CLAYTON, Louisville, Kentucky
- D. Substitutions: See Section 01 6000 - Product Requirements.

2.02 PERMANENT STEEL BLEACHER SYSTEM

- A. Product Description:
 - 1. Horizontal Beam Design, 800 seat capacity.
 - 2. Vertical columns to be placed max. 18 feet on center.
 - 3. Horizontal beams to be wide flange beams.
 - 4. Traverse bays are to be free of crossbracing the total length of the grandstand.

5. Stringers are to be wide flange with steel angle rise and depth fabrication and placed maximum 6 feet on center.
6. Walkway to be as shown on drawings.
7. Entry stairs to be firmly anchored to uniformly poured concrete bases.
 - a. Stair to have aluminum closure and contrasting aluminum stair nose.
 - b. Stair tread depth to be 11 inches minimum.
 - c. Guardrails as required by code.
 - d. Stairs to have handrail extension. The grip position of handrails shall not be less than 1 1/2 inches or more than 2 inches in cross-sectional dimension or the shape shall provide an equivalent gripping surface. The handgrip position portion of handrails shall have a smooth surface with no sharp corners. The top of handrails and handrail extensions shall be placed not less than 34 inches or more than 38 inches above the nosing of treads and landings. Where handrails are not continuous between flights, the handrails shall extend horizontally at least 12 inches beyond the top riser and continue to slope for the depth of one tread beyond the bottom riser. Ends shall be returned or shall terminate in newel posts or safety terminals.
8. Aisles:
 - a. Aisles with seats on both sides to have discontinuous mid-aisle handrails. The handrails shall be discontinuous with breaks 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. Half steps shall be provided for riser heights above 8 inches.
 - e. Halfsteps shall provide equal rise and run throughout aisle. Each shall have 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.
9. Decking:
 - a. Each seat 17 inches above its respective tread.
 - b. Mill Aluminum Decking ,Tongue and Groove System.
10. Seating:
 - a. Anodized Aluminum Bench Seat, 2 x 12 (standard) with height of 1 1/2 inches.
 - b. Stadium Chair to match existing stadium chairs.
11. Guardrailing:
 - a. 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 secure to angle rail risers be galvanized fasteners. Railing shall be at heights as required by code for its location on the grandstand. Guardrails shall include intermediate railing, or galvanized chain link fencing fastened in place with galvanized fasteners and aluminum ties.
12. Ramps:
 - a. Gaurdrails: As required by code plus toeboard.
 - b. Handrails:
 - 1) Ramps to have handrail extension. The handgrip position of handrails shall not be less than 1 1/2 inches or more than 2 inches in cross-sectional dimension or the shape shall provide an equivalent gripping surface. The handgrip position of handrails shall have a smooth surface with no sharp corners. The top of handrails and handrail extensions shall be placed not less than 34 inches or more than 38 inches above the ramp surface. Where handrails are not continuous between runs, the handrail shall extend horizontally above the landing 12 inches minimum beyond the top and bottom ramps. Ends shall be returned or shall terminate in newel or safety terminals.
13. Accessible Wheelchair Positions:
 - a. Quantity of wheelchair spaces shall be as shown on the drawings.

- b. Riser area adjacent to wheelchair spaces to have intermediate construction so 4 inch sphere cannot pass through opening.
- 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 to be hot-dipped galvanized per ASTM-A-123 specifications.
 - d. Painted steel finish is unacceptable.
 - 2. Extruded Aluminum:
 - a. Seat Planks and Riser Planks are extruded aluminum alloy, 6063-T6
 - 1) Clear anodized 204R1, AA-M10C22A31, Class II Finish.
 - 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. Hardware:
 - 1) Bolts, Nuts: Hot-dipped galvanized, 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.
 - c. Aisle Nose and Stair Nose: Aluminum alloy, 6063-T3, non-skid black powder coated or other paint meeting AAMA603.8-92 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 guardrails: 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 are to be shop welded.

2.03 PRESS BOX

- A. Coordinate top of bleachers with mezzanine landing as shown in Civil and Architectural drawings

PART 3 EXECUTION

3.01 INSTALLATION

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

3.02 FIELD QUALITY CONTROL

- A. See Section 01 4000 - Quality Requirements, for additional requirements.

3.03 CLEAN UP

- A. Clean up all debris caused by work of this section.
- B. Stand to be broom cleaned at completion.

END OF SECTION