

SPECIFICATIONS FOR FRAME TYPE BLEACHER – ELEVATED

PART I: GENERAL

1.01 SYSTEM DESCRIPTION

- A. Design and fabrication of Frame Type Bleacher

1.02 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Manufacturer must have ten years of experience in the manufacture of bleachers and grandstands; welders must be AWS certified.
- B. Source Quality Control: Mill Test Certification.

1.03 BUILDING CODES

- A. Owner to confirm the national code and the version which applies to project for inclusion in specifications.

1.04 WARRANTY

- 2 Steel Stadiums warrants its Frame Type Bleacher to be free from defect in material and workmanship in the course of manufacturing for a period of one year beginning at Date of Substantial Completion for Projects installed by Steel Stadiums beginning at Date of Initial Delivery of Product for Projects installed by others. This warranty excludes defects resulting from abnormal use, accidental or intentional damage, or any occurrences beyond Steel Stadiums' control. Any exposed mill finish aluminum surface will become discolored due to oxidation which is a natural phenomenon. Bleacher manufacturer will not be responsible for discoloration of oxidized mill finish aluminum.

PART 2 – PRODUCTS

2.01 ACCEPTABLE MANUFACTURER

- A. Steel Stadiums, P.O. Box 2048, Graham, Texas 76450 U.S.A., (940)549-5700 Fax: (940) 549-5723
- B. Other manufacturers seeking to be approved must submit product literature on frame-type design to the Owner for review and receive approval from Owner via addendum ten days prior to bid date.

2.02 ANGLE FRAME BLEACHERS

- A. Product Descriptions
 - 1. Elevated Bleachers:
 - a. Rise and Depth Dimensions: Vertical rise and horizontal depth per row: 8 inches x 24 inches. Seat is 17 inches above its respective tread.

- b. Framework: Prefabricated angle frames are space at 6-foot (max.) intervals and connected by crossbraces.
 - c. Seats: Nominal 2 x 10 anodized aluminum plank with 2 x 10 anodized end caps.
 - d. Treads: Two nominal 2 x 11 mill aluminum planks with 2 x 11 anodized end caps.
 - e. Risers: Nominal 1 x 6-1/2 anodized aluminum riser planks beginning at Row 1; two 1 x 6-1/2 aluminum riser plank on top row.
 - f. Guardrailing: Two lines of aluminum rail with chain link 42 inches above seat on both sides of bleacher and across back of bleacher. Front rail, 3 line with chain link 42 inches above front walk.
 - g. Entry Steps: Frames with 2 x 12 mill aluminum plank with step riser, contrasting aluminum stair nose and 2 line rail 36 inches above nose of step. Handrails shall extend in the direction of the exit steps 12 inches beyond the end of the steps. Ends shall terminate in newel posts.
 - h. Front Walkway: 30-inch elevation and 68-inch clear width.
 - i. Aisle (if required): Aisle to be provided with 34" high handrail and intermediate rail at approximately 22" above tread. Handrails with rounded ends are discontinuous to allow access to seating through a 24" wide space. Aluminum tread nosing of contrasting color on aisle steps.
2. Wheelchair Area:
- a. Wheelchair are to be 5'6" wide for two wheelchairs (33" each) and 36" for single.
 - b. Ramp:
 - (1) Slope: 1 in 12.
 - (2) Guardrailing: Two line aluminum rail 36 inches above ramp tread with intermediate rail at approximately 20 inches. Railing shall be continuous the full length of the ramp, and shall extend in the direction of the ramp 12 inches beyond the end of the ramp, returning to end at a newel post.
3. Landing: Optional: 74" Return Landing: 74" Landing to have 3-line 36" chain link with rail at 42" above front walk plank.

- B. Materials/Finishes
1. Framework:
 - a. Galvanized Steel: Structural fabrication with ASTM-A529 steel. Shop connections are seal welded. After fabrication, all steel is hot-dipped galvanized to ASTM-A123 specification.
 - b. Aluminum: Extruded aluminum angle alloy 6061-T6, mill finish.
 2. Extruded Aluminum:
 - a. Seat Planks, Riser Planks, Step Risers: Extruded aluminum alloy 6063-T6, clear anodized 204R1, AA-M10C22A31, Class II, and a wall thickness of .094".
 - b. Tread Planks: Extruded aluminum alloy 6063-T6, mill finish and wall thickness of .094".
 3. Accessories:
 - a. Channel End Caps: Aluminum alloy 6063-T6, clear anodized 204R1, AA-M10C22A31, Class II.
 - b. Hardware:
 - (1) Bolts, Nuts: Galvanized or plated.
 - (2) Hold Clip Assembly: Aluminum alloy 6061-T6.
 - c. Guardrailing: Front, sides and back anodized aluminum rail 1-5/8" O.D. with galvanized chain link.
 - d. Handrails: Anodized aluminum rail 1-5/8" O.D.
 - e. Crossbraces: Extruded aluminum angle alloy 6061-T6, mill finish.
 - f. Aisle Nose and Stair Nose: Aluminum alloy, 6063-T6, black powder coat finish.

- C. Manufactured Units:
- 2 Line Chain link from Row 1 to Top
 - (2) 2 x 11 Tread Planks on All Rows
 - 1 x 6-1/2 Riser Beginning @ Row 1, (2) 1 x 6-1/2 Riser on Top Row
 - Aisle (s) as Required
 - 74" Width Front Walkway
 - One Ramp and One Stair
 - Wheelchair Seating Area(s) as Noted

- D. Fabrication
1. Design Load:
 - a. Live Load: 100 psf 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 Plank: 120 plf
 - e. Guardrail: 100 plf vertical and 50 plf horizontal
 2. All connections made in shop to be shop welded.
 - a. Manufactured by certified welders conforming to AWS Standards.

PART 3 – EXECUTION

3.01 INSTALLATION

- A. Install bleacher unit in accordance with manufacturer's installation procedures.
- B. **IT IS HIGHLY RECOMMENDED** that the frame type bleacher unit be securely anchored to a flat, level concrete slab.

(All specifications are subject to change without notice to allow for product improvement.) [7/18/05]