March 29, 2021

Please find the following addendum to the below mentioned BID.

Addendum No.: 1

Bid#: 21-8-2

Project Name: Fairground Phase 3 - Bleacher

Bid Due Date: Thursday, April 1, 2021

GENERAL INFORMATION:

1. The below products are **approved** for this Project:

a. **Manufacturer:** Sturdisteel Company; **Specification Title**: Elevated Aluminum Angle Frame Bleachers

b. **Manufacturer:** Bleachers International; **Specification Title:** Aluminum Angle Frame Bleachers

QUESTIONS & ANSWERS:

Question 1: Section 02 – Instructions 1. State that no bid security is required, however, the bid form states to attach the bid security to my bid. can you please clarify if a bid bond is required or not?

Answer 1: No, a Bid Bond is not required for this project.

Question 2: Section 08 General Conditions – 2.24 states that 4' x 8' job signs are required. Could you confirm if they are?

Answer 2: No, a job sign is not required because we already have a project sign on site.

Question 3: SECTION 13125.1.05.A – states that engineering certifications and calculations by a Registered Professional Engineer will be provided upon request at an additional fee. Do you want these included in the bid price?

Answer 3: Do not include in price in Bid.

ATTACHMENTS:

- Sturdisteel Company Specifications.pdf
 Bleachers International Specifications.pdf

End of Addendum # 1



New Lebanon High School - Lebanon, OH

CONTINUOUS ANGLE FRAME Bleachers



Wild Horse Pass Arena - Chandler, AZ



Schertz-Cibolo ISD - Cibolo, TX



McLennan Community College - Waco, TX

Standard or Custom Solutions

Designed for installation on flat and level surfaces, standard Angle Frame Bleachers are offered in 5, 8, 10, 15 and 20 rows. Our standard designs can be custom engineered for your specific site and seating needs.

Accommodates Expansion

As your facility and seating requirements increase, this type of bleacher system provides the flexibility of adding additional seats to continually meet the demand.

Versatility

Can be customized to accommodate various seating options including benches with straight backs, individual VIP chairs and armrest to designate exact seating for reserved areas.

An Economical Standard

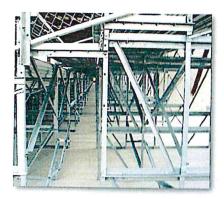
For the ultimate in cost effective spectator seating, standard Angle Frame Bleachers provide the top quality features you expect, at a cost that will fit any budget for indoor and outdoor venues.

Recommended for:

| illinellaea i | OI. | |
|---------------|-------------|----------|
| Football | Baseball | Softball |
| Soccer | Lacrosse | Tennis |
| Track | Motorsports | Aquatic |
| Rodeo | Exposition | Ice Rink |



Economical & versatile seating for all indoor and outdoor venues.











Structure

Our standard Angle Frame bleachers are built using a galvanized steel box frame construction that includes cross bracing and stringers spaced at 6 feet on center. Offered in both elevated or non-elevated applications and optional aluminum frame understructure.

Finish Applications

Standard features include anodized aluminum seating and risers, semi-closed or closed mill finished decks. Options include bench seating with straight backs or VIP chairs, press boxes, ramps, stairs or walkways.

Warranty

All Sturdisteel Products are warrantied for five years beginning at date of substantial completion of project - free from defect in materials and workmanship in the course of manufacture. This warranty excludes any other defects resulting from abnormal use, accidental or intentional damage or any occurrences beyond manufacturer's control.

| | LENGTH | 3 ROWS | 4 ROWS | 5 ROWS | 8 ROWS | 10 ROWS | 15 ROWS | |
|--|------------|--------|--------|--------|--------|------------|---------|---|
| j. | 15' 21' | 30 | 40 | 50 | 80 | 100 | 150 | |
| Gross | 27' | 42 | 56 | 70 | 112 | 140 | 210 | |
| | | 54 | 72 | 90 | 144 | 180 | 270 | |
| Seating Capacities | 33' | 66 | 88 | 110 | 176 | 220 | 330 | |
| | 39' | 78 | 104 | 130 | 208 | 260 | 390 | |
| | 45' | 90 | 120 | 150 | 240 | 300 | 450 | |
| Gross soating is based | 51' | 102 | 136 | 170 | 272 | 340 | 510 | |
| on 18" per seat and Is | 57' | 114 | 152 | 190 | 304 | 380 | 570 | |
| he total seating area total rows multiplied by | 63' | 126 | 168 | 210 | 336 | 420 | 630 | |
| soaling area length. | 69' | 138 | 184 | 230 | 368 | 460 | 690 | |
| livided by 1.5"). Not | 75' | 150 | 200 | 250 | 400 | 500 | 750 | |
| seating is the gross seating, less the seating lost due to alsies and handicap spaces requirements, and will vary based on local building code requirements. Not Seating is approximately 85% of Gross Seating and is the actual seating capacity. | 81' | 162 | 216 | 270 | 432 | 540 | 810 | |
| | 87' | 174 | 232 | 290 | 464 | 580 | 870 | |
| | 93' | 186 | 248 | 310 | 496 | 620 | 930 | - |
| | 99' | 198 | 264 | 330 | 528 | 660 | 990 | |
| | 105' | 210 | 280 | 350 | 560 | 700 | 990 | - |
| | 111' | 222 | 296 | 370 | 592 | 740 | 1110 | ١ |
| | 117' | 234 | 312 | 390 | 624 | 780 | 1170 | 1 |
| | 123' | 246 | 328 | 410 | 656 | 820 | 1230 | 1 |
| | 129' | 258 | 344 | 430 | 688 | 860 | 1290 | 1 |
| | 135' | 270 | 360 | 450 | 720 | 900 | 1350 | 1 |
| | 153' | 306 | 408 | 510 | 816 | 1020 | 1350 | |
| | 177' | 354 | 472 | 590 | 944 | 1180 | 1770 | 1 |
| | 195' | 390 | 520 | 650 | 1040 | 1300 | 1950 | 1 |
| | 213' | 426 | 568 | 710 | 1136 | 1420 | 2130 | 1 |
| | 231' | 462 | 616 | 770 | 1232 | 1540 | 2310 | |



P.O. Box 2655, Waco, TX 76702-2655

TEL: 254.666.5155
FAX: 254.666.4472

TOLL FREEE: 800,433,3116





Sturdisteel May 2017 PO Box 2655

Waco, Texas 76702

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Product Guide Specification

Specifier Notes: This product guide specification is written according to the Construction Specifications Institute (CSI) 3-Part Format, including MasterFormat, SectionFormat, and PageFormat, as described in The CSI Construction Specifications Practice Guide.

This section must be carefully reviewed and edited by the Architect to meet the requirements of the project and local building code. Coordinate this section with other specification sections and the Drawings. Delete all "Specifier Notes" after editing this section.

Section numbers and titles are from MasterFormat 2016 update.

SECTION 13 34 16.53

CONTINUOUS ELEVATED ANGLE-FRAME BLEACHERS

Specifier Notes: This section covers Sturdisteel continuous, elevated, angle-frame bleachers. Consult Sturdisteel for assistance in editing this section for the specific application.

PART 1 **GENERAL**

1.1 **SECTION INCLUDES**

A. Continuous, elevated, angle-frame bleachers.

1.2 RELATED REQUIREMENTS

Specifier Notes: Edit the following list of related sections as necessary. Limit the list to sections with specific information that the reader might expect to find in this section, but is specified elsewhere.

- A. Section 03 30 00 – Cast-in-Place Concrete: Concrete foundations.
- В. Section 13 34 16.63 – Metal Press Boxes.

1.3 REFERENCE STANDARDS

Specifier Notes: List reference standards used elsewhere in this section, complete with designations and titles.

- A. AAMA 2603 Voluntary Specification, Performance Requirements and Test Procedures for Pigmented Organic Coatings on Aluminum Extrusions and Panels.
- B. AISC Steel Construction Manual.
- C. Aluminum Association (AA) Aluminum Design Manual.
- D. ASTM A 36 / A 36M Standard Specification for Carbon Structural Steel.
- E. ASTM A 123 / A 123M Standard Specification for Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products.
- F. ASTM A 307 Standard Specification for Carbon Steel Bolts, Studs, and Threaded Rod 60 000 PSI Tensile Strength.
- G. ASTM A 572 / A 572M Standard Specification for High-Strength Low-Alloy Columbium-Vanadium Structural Steel.
- H. ASTM A 992 / A 992M Standard Specification for Structural Steel Shapes.
- I. AWS D1.1 / D1.1M Structural Welding Code Steel.

Specifier Notes: Include CWB CSA W47.1 for projects in Canada.

- J. CWB CSA W47.1 Certification of Companies for Fusion Welding of Steel.
- K. Research Council on Structural Connections (RCSC) Specification for Structural Joints Using High-Strength Bolts.

1.4 PREINSTALLATION MEETINGS

Specifier Notes: Edit preinstallation meetings as necessary. Delete if not required.

- A. Convene preinstallation meeting [1 week] [2 weeks] before start of installation of continuous, elevated, angle-frame bleachers.
- B. Require attendance of parties directly affecting work of this section, including Contractor, Architect, installer, and manufacturer's representative.
- C. Review materials, preparation, installation, adjusting, protection, and coordination with other work.

1.5 SUBMITTALS

Specifier Notes: Edit submittal requirements as necessary. Delete submittals not required.

- A. Comply with Section 01 33 00 Submittal Procedures.
- B. Product Data: Submit manufacturer's product data, including installation instructions.
- C. Shop Drawings:
 - Submit manufacturer's shop drawings, including plans, elevations, sections, and details, indicating location, size, details, and quantity of steel and aluminum components and accessories.
 - 2. Indicate locations of exit stairs, ramps, seat locations, decking configurations, and overall general materials to be supplied.
 - 3. Shop drawings shall be signed and sealed by a qualified, registered professional engineer, registered in state of the installation.
- D. Samples: Submit manufacturer's color samples for selection.
- E. Manufacturer's Certification: Submit manufacturer's certification that materials comply with specified requirements and are suitable for intended application.
- F. Design Data:
 - 1. Submit manufacturer's design data, including an analysis to indicate that the structural members shall have sufficient strength to support required loads and ability to resist loads subjected, without exceeding allowable stresses of the materials.
 - 2. Design data shall be signed and sealed by a qualified, registered professional engineer, registered in state of the installation.
- G. Manufacturer's Project References: Submit manufacturer's list of successfully completed continuous, elevated, angle-frame bleacher projects, including project name and location, name of architect, and type and quantity of bleachers furnished.
- H. Installer's Project References: Submit installer's list of successfully completed continuous, elevated, angle-frame bleacher projects, including project name and location, name of architect, and type and quantity of bleachers installed.
- I. Warranty Documentation: Submit manufacturer's standard warranty.

1.6 QUALITY ASSURANCE

- A. Manufacturer's Qualifications:
 - 1. Manufacturer regularly engaged, for past 10 years, in design and manufacture of continuous, elevated, angle-frame bleachers of similar type to that specified.
 - 2. Fabricate structural steel in an AISC-certified plant; certified "STD" at time of the bid.
 - 3. Manufacturer listed by AISC as a certified fabricator.
 - 4. Certification and inspections in accordance with IBC Chapter 17.
- B. Installer's Qualifications:

- 1. Installer regularly engaged, for past 5 years, in installation of continuous, elevated, angle-frame bleachers of similar type to that specified.
- Employ persons trained and experienced for installation of continuous, elevated, angleframe bleachers.

Specifier Notes: Specify AWS for projects in USA. Specify CWB for projects in Canada.

C. Welder's Qualifications: [AWS] [CWB] certified within past 12 months for each type of weld required.

1.7 DELIVERY, STORAGE, AND HANDLING

- A. Delivery Requirements: Deliver materials to site in manufacturer's original, unopened containers and packaging, with labels clearly identifying product name and manufacturer.
- B. Storage and Handling Requirements:
 - 1. Store and handle materials in accordance with manufacturer's instructions.
 - 2. Keep materials in manufacturer's original, unopened containers and packaging until installation.
 - 3. Do not store materials directly on ground.
 - 4. Protect materials and finish during storage, handling, and installation to prevent damage.

PART 2 PRODUCTS

2.1 MANUFACTURER

- A. Manufacturer: Sturdisteel, PO Box 2655, Waco, Texas 76702. Toll Free 800-433-3116. Phone 254-666-5155. Fax 254-666-4472. Website www.sturdisteel.com. E-mail info@sturdisteel.com.
- B. Substitutions: Not permitted.

2.2 DESIGN REQUIREMENTS

- A. Design: Conform to AISC Steel Construction Manual and AA Aluminum Design Manual.
- B. Applicable Codes: Design and workmanship shall be in accordance with IBC 2012 and ICC 300 Bleachers, Folding and Telescopic Seating, and Grandstands.
- C. Design Loads:
 - 1. Live Loads:
 - a. Uniform Loading, Structure: 100 psf.
 - b. Uniform Loading, Seats: 120 plf.
 - 2. Sway Loads:
 - a. Perpendicular to Seats: 10 plf.
 - b. Parallel to Seats: 24 plf.
 - 3. Wind Loads: Local building code.
 - 4. Snow Loads: Local building code.

- 5. Seismic Loads: Local building code.
- 6. Handrail and Guardrail: 200 lbs. concentrated in any direction.
- D. Shop Connections: Welded and capable of carrying stress put upon them.

Specifier Notes: Specify AWS D1.1 for projects in USA. Specify CWB W47.1 for projects in Canada.

- E. Welding: [AWS D1.1] [CWB W47.1].
- F. Concrete Foundations: Manufacturer shall design and install concrete foundations as specified in Section 03 30 00.

2.3 CONTINUOUS ELEVATED ANGLE-FRAME BLEACHERS

| Specifier Notes: Specify size of continuous, elevated, angle-frame bleachers. Standard sizes are 3, 5, 8, 10, or 15 rows. Consult Sturdisteel for availability of custom designs. | | | | |
|--|--|--|--|--|
| Α. | Size: feet long by rows. | | | |
| Specifier Notes: Refer to Continuous, Elevated, Angle-Frame Bleacher Seating Capacity Chart for gross seating capacity. To obtain the approximate number of net seats, multiply the gross seats by 0.85. | | | | |
| В. | Net Seating Capacity: | | | |
| C. | C. Press Box: | | | |
| Speci | fier Notes: Specify size and support length of the press box. | | | |
| | Size: by Support Length: by Independently supported and connected to rear of bleachers with aisle access. Specified in Section 13 34 16.63. | | | |
| D. | Framework: Space prefabricated angle bleacher frames at 6-foot intervals and connect by crossbraces. | | | |
| E. | Rise and Depth Dimensions: 1. Vertical Rise per Row: 8 inches. 2. Horizontal Depth per Row: 24 inches. 3. Seat Above its Respective Tread: 17 inches. | | | |
| F. | Risers: 1. 1/2-inch by 6-1/4-inch anodized aluminum board. 2. At Top Row: 1/2-inch by 11-1/2-inch anodized aluminum board. | | | |
| G. | Seats: 1-1/2-inch by 9-1/2-inch anodized aluminum board with end caps. | | | |

- H. Treads: Two 1-1/2-inch by 9-1/2-inch mill finish aluminum boards with end caps.
- I. Guardrail:
 - 1. Sides and back of bleachers, entry stairs, walkways, ramps, portals, and landings where 30 inches or more above adjacent area or grade.
 - 2. Material: Anodized aluminum pipe with end plugs at ends of straight runs or elbows at corners.
 - 3. Secure to angle posts with galvanized fasteners.
 - 4. Top Rail: 42 inches minimum above walkways, entrances, and any adjacent seat.
 - 5. Chain Link Fencing: 9-gauge galvanized steel, fastened in place with galvanized fittings and aluminum ties.
- J. Front Walkway:
 - 1. Width: 60 inches.
 - 2. Elevated:

Specifier Notes: Specify elevated height.

- a. On Mudsills: [30 inches] [40 inches] high.
- b. On Slabs: [28-1/2 inches] [38-1/2 inches] high.
- 3. Deck: 1-1/2-inch by 9-1/2-inch mill finish aluminum boards.
- K. Steps:
 - 1. Frames: Galvanized steel.
 - 2. 1-3/4-inch by 11-1/2-inch mill finish aluminum boards with 2-inch by 2-inch dark bronze contrasting nosing.
- L. Entry Stairs:
 - I. Entry Stairs, Guardrails, and Handrails: In accordance with local code requirements.
 - 2. Rise: 7 inches maximum.
 - 3. Tread: 11 inches minimum.

Specifier Notes: Provide greater aisle width as needed to meet local building code egress requirements.

- M. Aisle Width:
 - 1. Middle Aisle Width: 48 inches minimum.
 - 2. End Aisle Width: 36 inches minimum.
- N. Mudsills: 1-1/2-inch by 7-1/2-inch treated lumber, drilled for field bolting.
- O. Accessibility: Incorporate wheelchair spaces within bleachers to conform to applicable code and ADA.

2.4 MATERIALS

A. Framework:

Specifier Notes: Specify the framework as galvanized steel (standard) or aluminum (optional).

- Galvanized Steel:
 - ASTM A 36, ASTM A 572 Grade 50, and ASTM A 992.
 - b. Hot-dipped galvanized after fabrication in accordance with ASTM A 123.
- 2. Aluminum: Aluminum alloy 6061-T6, mill finish.

Bleacher manufacturer will not be responsible for the discoloration, staining and fading of exposed mill finish aluminum surfaces due to oxidation; prior to, during or after installation. Oxidation of mill finish aluminum surfaces is a natural phenomenon and is caused by condensation or moisture during packaging, transportation and/or storage.

B. Seat Boards: Extruded aluminum alloy 6063-T6, clear anodized 204R1, AA-M10C22A31, Class II.

Specifier Notes: Specify clear anodized or powder coat finish for riser boards.

- C. Riser Boards: Extruded aluminum alloy 6063-T6; [clear anodized 204R1, AA-M10C22A31, Class II] [powder coat, AAMA 2603, color selected by Architect from manufacturer's standard colors].
- D. Tread Boards: Extruded aluminum alloy 6063-T6, mill finish.
- E. Guardrail: Aluminum anodized pipe, 1-5/8-inch OD.
- F. Accessories:
 - 1. Steel Bolts and Nuts: ASTM A 307, galvanized.
 - 2. Structural Connections: Snug tight to conform to RCSC Specification for Structural Joints Using High-Strength Bolts.
 - 3. Hold-Down Clip Assembly: Aluminum alloy 6063-T6.
 - Form-Fitted End Caps: Aluminum alloy 2024, clear anodized 204R1, AA-M10C22A31, Class II.
 - 5. Channel End Caps: Aluminum alloy 6063-T6, clear anodized 204R1, AA-M10C22A31, Class II.
- G. Concrete Foundations: Specified in Section 03 30 00.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Examine areas to receive continuous, elevated, angle-frame bleachers.
- B. Notify Architect of conditions that would adversely affect installation or subsequent use.
- C. Do not begin surface preparation or installation until unacceptable conditions are corrected.

3.2 PREPARATION

A. Install concrete foundations for continuous, elevated, angle-frame bleachers as specified in Section 03 30 00 and indicated on the Drawings.

3.3 INSTALLATION

- A. Install continuous, elevated, angle-frame bleachers in accordance with manufacturer's instructions at locations indicated on the Drawings.
- B. Install bleachers plumb, level, square, straight, and secure.
- C. Anchor bleachers securely in place to concrete foundations.

3.4 ADJUSTING

- A. Inspect completed continuous, elevated, angle-frame bleachers and make necessary adjustments to ensure proper installation.
- B. Repair minor damages to finish in accordance with manufacturer's instructions and as approved by Architect.
- C. Remove and replace with new material, damaged components that cannot be successfully repaired, as determined by Architect.

3.5 PROTECTION

A. Protect completed continuous, elevated, angle-frame bleachers to ensure that, except for normal weathering, bleachers will be without damage or deterioration at time of Substantial Completion.

END OF SECTION



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 manufacturer 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 the project for inclusion in specifications.

1.04 WARRANTY

Bleachers International warrants its frame type bleacher to be free from defects in material and workmanship in the course of manufacturing and installation for a period of (1) one year beginning at day of substantial completion for projects installed by Bleachers International and beginning at Date of Initial Delivery of Product for projects installed by others. In addition, all seat and foot plank extrusions shall be covered by a one (5) year warranty against loss of structural strength of finish deterioration due specifically to exposure to varying weather conditions or ultra-violet rays. This warranty excludes any other defects resulting from abnormal use in service, accidental or intentional damage or any occurrences beyond Bleachers International's control and renders above warranties null and void. Discoloration of mill finish aluminum due to galvanic reaction is not covered by warranty.

PART 2 - PRODUCTS

2.01 ACCEPTABLE MANUFACTURER

- A. Bleachers International, 1550 W Evans Ave, Unit A, Denver Co 80223 U.S.A., (303) 646-1038 Fax: (303) 646-0599
- B. Other manufacturers seeking to be approved must submit samples and 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: Standard Vertical rise and Standard horizontal depth per row: 8 inches x 24 inches.
 - b. Seat is 17 inches above its respective tread.
 - c. Framework: Prefabricated frames are spaced at maximum of 6' spacing and connected by cross braces.
 - d. Seats: Nominal 2 x 10" anodized aluminum plank with 2 x 10" anodized end caps. **Optional:** Nominal 2" x 12" anodized aluminum plank
 - e. Footboards:
 - Semi-closed decking arrangement: Two nominal 2" x 10" mill aluminum planks with 2" x 10" mill finish end caps.
 - Optional: Nominal 2" x 12" mill finish aluminum plank
 - OPTION: Closed interlock decking arrangement



f. Risers:

- Semi-closed decking arrangement: One Nominal 1" x 6-1/2" mill finished riser planks at all rows. Two 1" x 6-1/2" mill finish riser planks on last row. Optional: powder coated finish riser planks
- OPTION: Closed interlock decking arrangement
- Vertical rise: 8" is standard. Optional rise (for improved sightlines) can be 10", 12", 14", or 15", which require mid-steps at aisles.
- g. Backrests (OPTIONAL): 1" x 7" anodized aluminum plank
- h. Guardrails: Three lines of aluminum pipe with chain link fence 42 inches above seat across the back and on both sides of the bleacher. The front guardrail is 42" high above the walkway with a 2 line aluminum pipe and toe board without fencing when the walkway is 30" or less above the ground. The front guardrail is 42 inches above the walkway with a 3 line aluminum pipe and chain link fence when the walkway is greater than 30" above the ground. Optional:

 Vertical Picket Fencing in lieu of chain link
- i. Entry Steps: Frames with 2" x 12" mill finish 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.
- j. Front Walkway: 30-40-inch elevation and 57-inch clear width (or as required by a project).
- k. Aisle (if required): Aisle to be provided with 34" high handrail and intermediate rail at approximately 22" above the tread. Handrails with rounded ends are discontinuous to allow access to sitting through a 24" wide space. Aluminum tread nosing of contrasting color on aisle steps.
- 2. Wheelchair Area (if required)
 - a. Wheelchair area to be 5'-6" wide for two wheelchairs (33" each) and 36" wide for one wheelchair.
 - b. Ramp:
 - Slope 1 in 12.
 - Guardrails: Three 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.

B. Materials/Finishes

1. Framework -

Aluminum, Structural fabrication with aluminum alloy 6061-T6, mill finish

- 2. Extruded Aluminum
 - a. Seat Planks, Step Risers, and Backrests: Extruded aluminum alloy 6063-T6, clear anodized 204R1, AA-M10C22A31, Class II, and a wall thickness of .078".
 - b. Tread Planks, Riser Planks: Extruded Aluminum alloy 6063-T6, mill finish and a wall thickness of .078".

Optional: Powder Coated riser planks

- Accessories
- a. Channel End Caps: Aluminum alloy 6063-T6, clear anodized 204R1, AA-M10C22A31, Class II.



- b. Hardware:
 - (1) Bolts, Nuts: Hot-dipped Galvanized
 - (2) Hold-Down Clip Assembly: Aluminum alloy 6063 T6
 - (3) Structural Hardware: Hot-dipped galvanized, ASTM-A305.
- c. Guard railing: Aluminum Pipe: 1.66" O.D. 9 gauge chain link fencing or vertical bars guard rails.
- d. Handrails: Anodized aluminum rail 1 .66" O.D.
- e. Cross braces: Extruded aluminum angle alloy 6061-T6, mill finish.
- f. Aisle Nose and Stair Nose: Aluminum alloy, 6063-T6. Optional: black powder coat finish.
- C. Design Specifications
 - 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.
 - f. Wind load: As required by local jurisdiction
 - g. Snow load: As required by local jurisdiction
 - 2) All connections made in shop to be welded.
 - a. Manufactured by certified welders conforming to AWS Standards.

PART 3 - EXECTUTION

3.01 INSTALLATION

- A. Install bleacher unit in accordance with manufacturer's installation procedures.
- B. It is recommended that the bleacher unit be securely anchored.