



Cherry Creek School District Technical Guidelines - 2020

DIVISION 13 – SPECIAL CONSTRUCTION

13 11 00 – SWIMMING POOLS AND EQUIPMENT

PART 1 - GENERAL

- A. Summary - Section includes:
 - 1. Swimming pools.
 - 2. Pool deck construction including finishes, caulking, drains, etc., installation of anchors or deck equipment and anchors.
 - 3. Pool piping and pool fittings: Fresh water connection to pools and wastewater connection from filter.

- B. Referenced Standards/Minimum Criteria:
 - 1. Comply with the following standards:
 - 2. National Spa and Pool Institute (NSPI):
 - 3. Minimum Standard for Public Swimming Pools.
 - 4. Minimum Standard for Public Spas.
 - 5. All local building and health codes.
 - 6. National Electrical Code (NEC), Article 680.
 - 7. National Sanitation Foundation (NSF): Seal of approval program.
 - 8. American Society for Testing and Materials (ASTM): Specifications referenced herein.
 - 9. Department of Public Health
 - 10. County and City Building Codes.
 - 11. Gunite Contractors Association (CGA): Technical Publication.

- C. Submittals Required:
 - 1. Shop drawings.
 - 2. Product data.
 - 3. Color options/samples.
 - 4. Valve charts.
 - 5. Concrete design mix.
 - 6. Pool interior finish materials.
 - 7. Design data.

- D. Restrictions/Critical Criteria:
 - 1. Architect shall employ a swimming pool consultant who shall work with representatives of the School District to design the swimming pools and determine appropriate materials, equipment, and operational requirements.
 - 2. Pool Contractor Qualifications: Must have at least five (5) years experience in the construction of the type of swimming pool herein specified and must have successfully completed a minimum of six (6) pools of this type, each with a water surface area not less than is to be constructed in this project. If necessary, investigator will determine if pools have been successfully completed and operational for a minimum of two (2) years. Pool contractor shall furnish complete evidence that they have facilities, equipment, personnel and schedule abilities to complete all phases of this project.



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PART 2 - PRODUCTS

- A. Acceptable Pool Contractors:
 - 1. High Country Pools, Fort Collins, Colorado: www.highcountrypools.com.
 - 2. Associated Pool Builders, Bismark, North Dakota: www.associatedpool.com.
 - 3. Monarch Pools, Denver, Colorado: www.monarchpools.com.
 - 4. Front Range Pools, Colorado Springs, Colorado: www.frontrangeaquatech.com.
 - 5. Approved substitute
- B. Acceptable Materials and Equipment:
 - 1. To be determined.

13 34 16 - EXTERIOR BLEACHERS

PART 1 - GENERAL

- A. Summary - Section includes:
 - 1. Exterior bleachers at running track/football field.
- B. Referenced Standards/Minimum Criteria:
 - 1. None.
- C. Submittals Required:
 - 1. Shop drawings.
 - 2. Product data.
 - 3. Color options.
- D. Restrictions/Critical Criteria:
 - 1. Design Requirements: Bleacher shall be designed by the manufacturer to support, in addition to its own weight, a uniformly distributed live load of not less than 120 pounds per square foot of gross horizontal projection of the bleachers. Seat and foot board members shall be designed to support no less than 120 pounds per square foot. The bleachers shall be designed to resist, with or without live load, a horizontal wind load of 30 pounds per square foot of gross vertical projection. They shall also be designed to resist, in addition to the live load, sway forces applied to the seats; in a direction parallel to the direction of the seat planks, 24 pounds per lineal foot of seat plank; and separately; in a direction perpendicular to the direction of the seats, 10 pounds per lineal foot of seat plank.

PART 2 - PRODUCTS

- A. Acceptable Manufacturers:
 - 1. Dant Clayton: www.stadiumbleachers.com.
 - 2. Outdoor Aluminum: www.outdooraluminum.com.
 - 3. Sturdisteel: www.sturdisteel.com.
 - 4. Bleachers International: www.getseating.com.
 - 5. Approved substitute.



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- B. Description:
1. Manufacturer and Type: Dant Clayton, non-elevated, ZA-155 Standard Series, five (5) rows, or equal of other acceptable manufacturer. Total of five (5) sections required for total length of 75'-0".
 2. Component Construction Materials: Extruded aluminum components shall be 6063-T6 alloy and temper with minimum wall thickness of 0.078-inches. Aluminum shall have clear anodized finish.
 3. Aisles: None
 4. Guard Rail System: At rear and side to meet IBC requirements.
 5. Riser per Row: 8-inches
 6. Depth per Row: 24-inches
 7. Seatboards: 2" x 10" nominal aluminum, no backrest.
 8. Footboards: 2" x 10" nominal aluminum.
 9. Support Structure: Dant Clayton "Standard Series Aluminum Frame".
 10. Hardware: Tamper resistant.
 11. Base: Ground sill skids for attachment to concrete mounting bases.
 12. Capacity: 250 seating (18-inches per seat).

13 34 23 – GAZEBOS, PAVILLIONS, TRELLISES, AND OTHER OPEN-AIR COVERED STRUCTURES

PART 1 - GENERAL

- A. Summary - Section includes:
1. Labor, materials, and equipment necessary for the installation of metal shelter(s).
 - a. Work shall include, but not be limited to the following: excavation; engineering calculations and design for the footings and shelter; layout; and the furnishing and installing of shelters and related equipment, including all appurtenances and accessories as required for a full and complete installation.
- B. Referenced Standards/Minimum Criteria:
1. Shade structures must comply with the latest revision of applicable codes and regulations including the International Building Code IBC 2015; American Society of Testing Materials (ASTM); American Welding Society: Structural Welding Code AWS D1.1: Symbols for Welding and Nondestructive Testing AWS2.3; American Institute of Steel Construction (AISC): Specifications for design, fabrication and erection of structural steel.
- C. Submittals Required:
1. Product data.
 2. Shop drawings.
 3. Samples for color selection.
 4. Installer qualifications.
- D. Restrictions/Critical Criteria:
1. Shelters must be engineered to withstand snow and wind loads.



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- E. Acceptable Manufacturers/Products:
1. Superior Recreation Products- Shelters by All Around Recreation LLC:
www.allaroundrec.com.
 2. Icon Shelter Systems by Recreation Plus, Ltd. www.recreationplus.com.
 3. Approved equal.
- F. Design and Fabrication:
1. Shelter unit submitted for consideration shall be equivalent in design, size, height, appearance, color, and construction detail of the specified structure.
 2. Fabricate using open "I" beams. Design using open "Cees" or open channels shall not be accepted. All open members shall be covered or boxed to present a tubular appearance. Tapered columns shall not be accepted.
 3. Seamed metal roof systems shall have the ribs or seams running with the slope of the roof.
 4. Field fabrication and labor shall be kept to a minimum by the use of premanufactured parts. Suppliers shall list all materials and parts that must be field cut, custom fit and field fabricated. Roof deck and/or panel work shall be detailed as to fieldwork required.
 5. Foundation and anchor bolt configurations shall be of the same "footprint" as that of the shelter unit, specified. Method of column anchoring shall be equivalent to that of the shelter unit specified, in most cases, a single precast anchor bolt inside each column will be the only acceptable method.
- G. Warranty:
1. Provide a five-year warranty on all labor and materials shall be provided by the Contractor.
 2. Provide a supplemental warranty from the manufacturer shall be provided for a period of 10 years on all structural integrity of the steel from date of substantial completion.
- H. Design Loads – Shelters:
1. Shelters shall be designed in strict accordance with the International Building Code IBC (current edition) using a minimum Snow Load of 20 psf, a minimum Wind Load based on a 115 mph wind speed. The shelter shall be designed as a Space Frame using three dimensional (3-D) structural analysis to determine member loads and forces. The structure shall be surface mounted over internal anchor bolts.
- I. Structural:
1. All structural framing (except the compression ring) shall be structural ASTM A500- GRADE B cold formed, electric resistance welded tubing with cover plates to form a clean, neat appearance and no place for bird nesting. Welded "Cee" sections will not be acceptable. The compression ring shall be structural steel plate. Since all connections will bolt together, field welding shall not be required. Bolts shall be concealed within the tubing where possible. All steel members shall be designed in strict accordance with the requirements of the "American Institute of Steel Construction" (AISC) Specifications and the "American Iron and Steel Institute" (AISI) Specifications for Cold Formed Members. All structural field connections shall be designed and made with High Strength bolted connections using ASTM A325 structural bolts.



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2. All shop-welded connections shall be designed and made in strict accordance with the requirements of the "American Welding Society" (AWS) Specifications. Structural welds shall be made, tested, and certified in accordance with AWS requirements.
- J. Finish Coating:
1. The steel frame shall be powder coated according to the following procedure:
 - a. The steel shall be shot blasted to near white condition, removing all oil, grease, scale, and rust.
 - b. Zinc-rich gray powder coating primer shall be applied over the bare metal.
 - c. The finish coat shall be TGIC-polyester powder coating with 3-6 mil thickness.
 - d. Color shall be selected from the manufacturer's powder coating color chart.
 2. Structure and Size: The structure and dimensions shall be as shown on drawings.
- K. Structure Frame:
1. Square, hipped-roof shelter with 6:12 roof pitch.
 - a. Structural steel columns.
 - b. Purlins, tension, and truss members shall be structural steel.
- L. Roofing System:
1. Metal roofing panels shall be 24-gauge painted, galvanized standing seam roof decking 12-inches wide with 1-inch high battens. Ribs shall run with the pitch of the roof for proper drainage. At the eave, the panels shall be field cut and turned down to form a fascia edge.
 2. Panels and matching trim shall be pre-painted with a Kynar 500 paint system. Color as selected by Architect. A complete matching trim package shall be supplied.
 3. Roofing underlayment, fasteners, and technical manual shall be supplied by the manufacturer.

END OF SECTION