

**SECTION 11 65 00**  
**ATHLETIC and RECREATIONAL EQUIPMENT**

**PART 1 GENERAL**

1.1 SECTION INCLUDES

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division-1 specification section, apply to work of this section.
- B. Each type of equipment under this section will include all accessories, installation hardware, and necessary mounting required for a completely installed functioning system.
  - 1. Basketball Backstops and Accessories
    - a. Ceiling suspended, forward fold, rear braced backstop.
  - 2. Basketball Backboards and Accessories
    - a. Rectangular glass backboard (3' 6" X 6') aluminum frame
    - b. Fan-Shaped fiberglass backboard (3' 6" X 6')
    - c. Backboard safety padding (adhesive for glass)
    - d. Basketball Goals and Nets
    - e. Backstop Winches - Electrical
  - 3. Volleyball Equipment
  - 4. Gym Floor Covering – Shelter Schools Only
  - 5. Outdoor Basketball Backboard & Accessories
  - 6. Outdoor Tennis Systems
  - 7. Outdoor Volleyball Systems
  - 8. Electronic Scoreboard

1.2 REFERENCES

- A. Facilities Planning for Physical Activity and Sports
- B. National Federation "Court & Field Diagrams Guide"

1.3 QUALITY ASSURANCE

- A. Fabricator/Installer Qualifications: Manufacturer shall have no less than 5-years of successful experience in fabricating and installing the specified equipment of this section.

1.4 SUBMITTALS

- A. Provide manufacturer's specifications, installation instructions, maintenance instructions, and general recommendations, including certification for each type of equipment specified.
- B. Submit shop drawings, including plans, elevations, and detail sections of typical rigging elements.
  - 1. Show anchors, hardware, operating equipment, and other components not included in manufacturer's standard product data.

1.5 WARRANTY

- A. Provide minimum 1-year warranty against defects of material and workmanship under provisions of section 01 78 00.

**PART 2 PRODUCTS**

2.1 MANUFACTURERS

- A. Unless otherwise specified, products of the Jaypro Sports, Inc. are basis of quality for the equipment specified in this section.
- B. Other manufacturers capable of providing equal to or products exceeding the ones specified herein will be acceptable.
  - 1. American Athletic, Inc.
  - 2. Porter Athletic Equipment Company

3. Jaypro Sports Equipment

- C. Provide all accessories, adaptors, or special tools required for a complete installation of each item specified.

2.2 INDOOR BASKETBALL BACKSTOPS AND ACCESSORIES

A. Basketball Backstops

1. Ceiling suspended, forward fold, rear braced backstop.
  - a. The vertical drop frame assembly shall consist of a main center mast of 6 $\frac{5}{8}$ "-o.d., 10-ga, structural steel tube with diagonal side sway braces of 2 $\frac{3}{8}$ "-o.d. structural pipe.
  - b. Backstop to operate with a 2 $\frac{3}{8}$ "-o.d. side-brace assembly and an adjustable folding knee joint assembly for ease of operation.
    - i) The knee joint locks backboard in playing position with a torsion spring that easily disengages by tension of cable operating through a special three-pulley set up.
  - c. Support backstop from 3 $\frac{1}{2}$ "-o d pipe anchored to roof framing members by means of heavy precision die formed steel support fittings.
    - i) Reinforce roof structure members with special bridging or bracing when roof framing exceeds spans of 14'.
  - d. Backstop is standard with heavy-duty electric winch.
    - i) Hoist cable shall be  $\frac{1}{4}$ " diameter galvanized aircraft cable with 7,000-lb. ultimate breaking strength.
    - ii) Furnish swivel pulleys with 4" diameter cast ductile iron pulley sheave with a maintenance free, oil-impregnated bearing for proper hoist cable routing to winch.
    - iii) Provide pulley assembly and attachment to 3 $\frac{1}{2}$ "-o d support structure rated at a minimum 9,000-lb.
    - iv) The winch specified elsewhere in this section.
  - e. All metal parts shall be painted one coat of flat black enamel.
  - f. Product shall be Jaypro Sports Model No. 817-FFRB or approved equal.

B. Basketball Backboards and Accessories

1. Rectangular Glass Backboard (aluminum frame)
  - a. Backboard shall be 3' 6" by 6'
  - b. Backboard frame shall be of a heavy, brushed aluminum extrusion for optimum durability.
    - i) Extruded frame section shall be of high tensile aluminum 6063-T5 with a unique one-piece design providing a perimeter cavity to allow the two bottom goal mount bolts to pass beneath the glass and through the structure frame.
    - ii) Ends of the frame extrusions mitered and fitted with a flush plated steel gusset type-mounting bracket on all 4-corners, incorporating keyhole slots for mounting the backboard to support structures at standard mounting centers.
  - c. Goal mounting structure shall be of a heavy, formed steel assembly secured to the lower horizontal member to minimize stress on the glass section.
    - i) Provide special threaded steel sleeves at the goal mounting-hole locations to secure rear structure to front mounting plate to form a unitized assembly to minimize shock to glass section.
    - ii) Provide backside of goal mount structure with two tapped holes and independently secure an optional direct mount goal feature that relieves all stress and shock on the glass and conforms to the latest High School Rules for the State of Florida.

- d. Provide glass in a ½" thick, fully tempered (heat-treated) glass section with uniform load and impact strength.
    - i) Official white border and target area is "fired in" permanently on front side of glass section so that it cannot wear away.
  - e. Provide a standard lifetime limited warranty for the backboard.
  - f. Product shall be Jaypro Sports Model # GBRUB-42 or approved equal.
2. Fan Shaped Backboard
- a. Backboard shall be 39" by 54" by 1½" thick.
  - b. Color shall be white with official international orange markings into face of bank during molding process.
  - c. Product shall be Jaypro Sports Model # FGBB-1 or approved equal.
3. Backboard Safety Padding (For rectangular glass backboards)
- a. Provide padding to protect the bottom and 15" up on each side of the backboard to meet all Florida High School Rules.
  - b. The pad shall be made of durable neutral gray, open cell foam material providing a full 2" in thickness from the bottom and sides of the backboard frame.
  - c. Flammability and surface burning characteristics must meet NFPA 101: Chapter 10, and NFPA 701.
  - d. Product shall be Jaypro Sports Model # GBB-2 or approved equal.
4. Basketball Goals and Nets
- a. Design the goal to absorb shock loads due to slam dunking or hanging on the rim.
    - i) Goal shall incorporate a positive lock, pressure release mechanism that is pre-set to provide rebound characteristics identical to those of a non-removable ring.
    - ii) Pressure release mechanism shall be field adjustable without removing the housing cover to comply with the latest Florida High School Rules.
  - b. Fabricate rim from ⅝" diameter cold drawn alloy steel round formed to an 18" diameter ring.
    - i) Position inside diameter of ring 6" from the face of the backboard by a heavy formed steel, hinged type housing with a formed steel cover.
    - ii) Rigidly brace rim by means of a 3/16" thick steel formed and die cut steel brace welded in position on the underside of the rim for maximum support.
    - iii) Provide rim with a unique "tube tie" net attachment system to eliminate the conventional wire-formed type net locks for additional player safety.
  - c. Mounting hole pattern shall be 5" by 4" and 5" by 4½".
  - d. Goal will have a durable oven cured epoxy finish.
  - e. Durable, anti-whip type net and attachment hardware included.
    - i) Goal may be easily mounted to a backboard/direct mount system with a special slotted mounting system without removing the housing cover.
  - f. Product shall be Jaypro Sports Model # GBA-342A or approved equal.
5. Electric Backstop Winches
- a. Winch shall be worm gear type, designed to hold backstop at any position when raising or lowering.
    - i) Machine the winch housing, base, cable drum, and bracket from high strength aluminum alloy.
    - ii) Machine the worm from high strain tempered steel bar.
    - iii) Grind all surfaces of the worm shaft and the worm teeth and polish seal surfaces after grinding for the utmost in efficiency and sealing capabilities.

- iv) Worm shaft shall turn in sealed, precision thrust bearings.
      - v) An additional seal on the outside of the sealed bearings shall also seal the shaft.
    - b. Machine the worm gear from high strength forged bronze alloy for exceptional wearability and long life characteristics.
    - c. Winch to be operated mechanically by means of a ¾-hp. (13-amp) capacitor type 60 cycle, 115-volt, single-phase electric motor with automatic thermal overload protection manufactured to NEMA specifications.
      - i) Control the motor with special dual keyed, flush wall mounted momentary key switch, which cannot be instantly reversed, providing a safety provision to prevent damage to the motor or winch.
      - ii) The electrical contractor shall furnish switch assembly with a 4½" square stainless steel cover plate for mounting in a masonry wall box.
      - iii) Key switch shall have additional terminals for operating two backstops in pairs when desired.
      - iv) Provide ganged key switch assemblies to accommodate all assemblies.
    - d. Mechanically interconnect the drum to a special rotary counting Up-Down limit switch assembly that is mounted and pre-wired to motor as an integral part of the winch.
      - i) Furnish a limit switch in a special, extruded aluminum housing with continuous slots for adjusting 20-amp micro switches to precisely limit the up and down operation of the winch.
      - ii) Pre-wire the winch with a 6'-0" long neoprene covered cable with twist lock grounded type plug attached.
      - iii) Mount matching flange type receptacle in a 4" square box cover.
    - e. Under no-load conditions, RPM of drum as 11.5, RPM of motor is 1725.
  - 6. Backstop Auto Lock, Safety Strap
    - a. Model # PL1000 PosiLok safety strap by Jaypro Sports
    - b. Provide one for each backstop.
    - c. Lock shall be directly speed sensitive to automatically lock a basketball backstop in position at any time in storage or during the raising or lowering cycle due to a sudden surge of speed created by a possible malfunction of the hoisting apparatus, such as the winch, cable, pulleys, support fittings, etc.
      - i) Any increase in cycle speed or tension, whether sudden or gradual, immediately activates the locking device.
    - d. Safety strap shall incorporate a 2" wide nylon belt rated at a 6,000-lbs breaking strength.
      - i) Test the entire unit to withstand a 1,500-lbs free fall load and rated at 1000-lbs.
      - ii) Strap shall extend a maximum of 38' and shall have a safety alert patch stitched to the strap to indicate the maximum safe extension.
      - iii) Operation and locking action of strap is by means of integral cast components activated by centrifugal force to lock a basketball backstop before the unit travels 12" of free fall.
      - iv) Unit shall incorporate a fully automatic reset requiring no poles, ropes, levers, or buttons.
      - v) Incorporate a breakaway loop stitched into the strap's lower end to indicate if the unit experienced a heavy load.
      - vi) Provide a bright colored warning label that exposes itself if the loop stitching is broken.

- e. Locking mechanism must be self-checking; meaning during normal use the mechanism is in constant motion to prevent long term binding or seizing caused by dirt or corrosion.
  - i) The mechanism shall actively and positively confirm six times per revolution, that the reel is traveling at a safe speed, below 1.5 feet per second.
- f. Furnish the unit with a universal mounting bracket to fit on any size pipe mounted either parallel or at right angles to unit.
  - i) Belt shall be supplied with a special be connection bracket for ease of securing directly to the basketball backstop.
- g. Any safety straps that do not incorporate safety alert patches or warning labels are not equal.

### 2.3 INDOOR VOLLEYBALL EQUIPMENT

#### A. Floor Sleeves

- 1. Provide cast in place floor sleeves as shown on the drawings.
  - a. Sleeve shall be of proper diameter to accept post, extending 9" into footing or as recommended by the manufacturer.
  - b. Brass plated cover plate shall consist of a 5" o.d. by ½" thick recessed aluminum collar, cork gasket and brass plated cover.
  - c. A special swivel retainer pin in the collar shall prevent theft. A special removal key is to be included.
- 2. Product shall be Jaypro Sports Model # PVB-5PKG or approved equal.

### 2.4 GYM FLOOR COVER – SHELTER SCHOOLS ONLY

#### A. Provide [Insert #] rolls [Insert #] ft wide x [Insert #] ft long 3-ply fabric, with reinforcing polyester mesh yarn center and layer of PVC coating on each side.

- 1. Product to have the following as minimum:
  - a. 8 year warranty
  - b. 110 x 75 Tear strength, ASTM 02261
  - c. 295 x 985 Tensile strength, ASTM05034
  - d. Adhesion, ASTM 0751
  - e. Flame Resistance
- 2. Color as selected by Architect

#### B. Accessories

- 1. Storage racks to accommodate number of rolls in A. above.
- 2. 1 electric power winder
- 3. 1 walk behind tape dispenser
- 4. 1 handheld tape dispenser
- 5. 1 case (16 rolls) @ 36 yards each tape from the floor cover manufacturer
- 6. 1 cleaning brush assembly

### 2.5 OUTDOOR BASKETBALL BACKSTOP AND ACCESSORIES

#### A. Permanent Basketball System for 10-foot high rims mounted at the ends of the basketball court.

- 1. System shall consist of one 5-9/16" O.D. galvanized steel tubular upright with a formed (not welded) 6' extension, one cast aluminum fan shaped backboard, powder coated white, one ¾" double ring steel painted orange official size goal, one nylon net, and all required attaching hardware zinc plated.
- 2. Install the unit in a concrete base as recommended by the manufacturer, with all hardware being zinc plated for weather resistance.
- 3. System shall be Jaypro Sports Model # 656-FA DR or approved equal.

- B. Permanent Basketball System for 8-foot high rims mounted at the sides of the basketball court (elementary school play courts)
  - 1. System shall consist of one 4-1/2"-O.D. galvanized steel tubular upright with a formed (not welded) 6' extension, one cast aluminum fan shaped backboard, powder coated white, Model # 996-FA-DR, one 3/8" double ring steel painted orange official size goal, one nylon net, and all required attaching hardware zinc plated.
  - 2. Install the unit in a concrete base as recommended by the manufacturer, with all hardware being zinc plated for weather resistance.
  - 3. System shall be Jaypro Sports Model # 996-FA-DR or approved equal.

## 2.6 OUTDOOR TENNIS SYSTEM

- A. Semi-Permanent Tennis Post
  - 1. Construct posts of 3 1/2"-o.d. heavy wall pipe, and provide each set with a tie off post and a winch post.
  - 2. Each post has a cast aluminum top pulley cap with a 1 3/4" diameter aluminum pulley.
  - 3. Tensioning ratchet shall be a cold rolled steel assembly with a removable handle for safety and a spring-loaded safety latch.
  - 4. Installation shall include two 24" long aluminum sleeves with cast aluminum top caps for semi-permanent installation.
    - a. Install sleeves shall as recommended by the manufacturer.
  - 5. Finish shall be two coats of dark green lacquer paint.
  - 6. Include all hardware required for a complete assembly.
  - 7. System shall be Jaypro Sports Model # TP-150 or approved equal.
- B. Tennis Net
  - 1. Provide tennis net constructed of durable 2.5 mm twisted black polyethylene netting.
    - a. Quadruple stitched heavy-duty double thickness headband with a 1/2" diameter vinyl coated steel cable.
    - b. Top 5 rows are double mesh, and bottom and side edges taped with black synthetic tape.
  - 2. System shall be Jaypro Sports Model # TPL-5 or approved equal.

## 2.7 OUTDOOR VOLLEYBALL SYSTEM

- A. Volleyball Posts/Sleeves
- B. System shall consist of one winch upright and one anchor upright and supplied with a tensioning winch and strap.
  - 1. Uprights shall fit snugly into 3.57"-I.D. rigid aluminum, 36" deep floor sleeves.
  - 2. Sleeves shall be Model # OCV-900G.
- C. Uprights shall provide men's and women's net height settings by means of twin welded roller tabs on the winch upright and twin welded "D"-rings on the anchor end.
  - 1. Construct uprights of 3 1/2"-O.D. by .187" steel tubing.
- D. Tensioning system shall consist of a ratchet type winch and include an attached 2" high strength nylon web-tensioning strap.
  - 1. Uprights shall have attached rubber feet to protect finished floors during transport.
- E. All hardware shall be zinc plated.
- F. System shall be Jaypro Sports Model # OCV-900 or approved equal.

## 2.8 ELECTRONIC SCOREBOARD SYSTEM

- A. Scoreboard
  - 1. Provide scoreboard as manufactured by Fair-Play, Model # BB-1600-4 or approved equal.
  - 2. The overall cabinet size shall be 3' H by 9' L by 4" D including mounting brackets and

constructed of aluminum.

- a. Cabinet and trim colors shall be as selected by the Architect from the manufacturer's standard colors.
  3. Display digits shall be surface mounted LED, seven-segment bar type protected by a polycarbonate numeral front.
    - a. Data display digits shall be colored amber for game clock, and red and green for other information.
    - b. Digit sizes to be 12" high for the game clock and 10" high for other display information.
    - c. Game clock shall have a display capacity up to "99.59", team scores to "199", period to "9" and bonus with two arrows for each team.
  4. Data captions shall be adhesive backed white vinyl permanently attached to the cabinet as follows: Home and Visitor 6" high, Bonus and Period 4" high, and Possession 3" high.
  5. Provide a horn in the scoreboard that sounds automatically at "00:00" for a min. of 2 seconds.
    - a. The operator shall have the ability to select omission of the automatic horn and sound the horn manually.
- B. Control
1. Provide control unit as manufactured by Fair-Play, Model # MP-70 with padded carrying case.
  2. Construction shall be an aluminum case 12¾" L by 2¼" H by 8" D with 4 rubber slide-resistant feet.
  3. Operating features include:
    - a. A two-line LCD readout showing information as sent to the scoreboard display as well as constant play of time remaining or time remaining or elapsed.
    - b. A changeable color-coded keypad allowing key identification change by sport
    - c. A numeric keypad with plus and minus keys for quick sequential data entry
    - d. A push type horn-button and a positive-action rocker switch for the "Time In" and "Time Out" function.
  4. Electronic features shall include a program mode allowing change in sport controlled or accommodation of a sports rule change, a memory circuit to retain information due to power interruption, electronic foul memory, and Time of Day capability.
  5. Provide an 8' power and a 10' data cable to connect to power source and control receptacle junction box.
  6. Furnish one length of two wire-shielded cables to connect from the control receptacle junction box to the top center of the scoreboard cabinet.
- C. Shot Timers
1. Provide one set of shot timers as manufactured by Fair-Play, Model # ST-1410-4, with two displays, each display 1'-8" W by 1'-5" H operating from HS-70 Hand-switch connecting to MP-70 control.
  2. Data display digits 12" H to "99" and digit color red.
  3. Each display complete with an electronic horn 100 dB @ 10'-0".
- D. Accessories
1. Provide an electronic winch as required to lift the clock to the ceiling when not in use.

### **PART 3 EXECUTION**

#### **3.1 PREPARATION**

- A. Make necessary arrangements to provide scaffolding to perform work under this section.

The School District of Palm Beach County

Project Name

SDPBC Project No.

Correct any/all damage at no additional expense to the Owner.

3.2 INSTALLATION

- A. Install in accordance with manufacturer's printed instructions, drawings, specifications, and final approved shop drawings.
- B. Remove loose equipment from packaging or crating, cleaned and tested for proper operation before turning over to the Owner.
  - 1. Set removable items in the various required positions and check for proper fit for floor inserts.
  - 2. Store loose equipment in spaces/areas provided in the facility.

3.3 DEMONSTRATION

- A. Work under this section shall include demonstrating the proper use and operation of equipment to the Owner as required.

END OF SECTION