

**SECTION 11 68 33  
ATHLETIC FIELD EQUIPMENT**

**PART 1 GENERAL**

1.1 SUMMARY

- A. Provide all equipment and materials, and do all work necessary to furnish and install the Backstop Netting System, as indicated on the drawings and as specified herein.

1.2 RELATED WORK

- A. Examine Contract Documents for requirements that affect work of this section. Other specification sections that directly relate to work of this Section include, but are not limited to:
1. Section 02200 - Earthwork; Excavation and Backfill and establishment of subgrade elevations.
  2. Section 02511 - Asphalt Concrete Pavement
  3. Section 02535 - Synthetic Track Surfacing
  4. Section 02542 - Synthetic Field Surfacing
  5. Section 03300 - Cast-in-Place Concrete; Concrete foundations

1.3 REFERENCES

- A. Comply with applicable requirements of the following standards. Where these standards conflict with other specified requirements, the most restrictive requirements shall govern.
- 1.i.1. Manufacturers Data and Recommended Installation Requirements.

1.4 SUBMITTALS

- A. Shop Drawings & Regulatory Requirements
1. Provide drawings of manufacturers recommended installation and foundation requirements prior to actual field installation work for Architect or Owner's Representative review and approval
  2. Backstop netting system shall meet the requirements of the jurisdictional code authorities. Furnish all calculations, engineer's stamps (per State registration), drawings, and other items required by code authorities to obtain approval of installation

1.5 QUALITY ASSURANCE

- A. The contractor shall only accept bids from those vendors or manufacturers that have been pre-approved or identified as approved equal.

## 1.6 WARRANTY

- A. The netting manufacturer shall provide a warranty to the owner that covers defects in materials and workmanship of the netting for a period of 1 year from the date of substantial completion

## 1.7 DELIVERY, STORAGE AND HANDLING

- A. Materials delivered to the site shall be examined for concealed damage or defects in shipping. Any defects shall be noted and reported to the Owner's Representative.
- B. Replacements, if necessary, shall be immediately re-ordered, so as to minimize any conflict with the construction schedule.
- C. Sound materials shall be stored above the ground under protective cover or indoors so as to provide proper protection.

## PART 2 PRODUCTS

### 2.1 MANUFACTURERS

- A. Manufacturers and product selections named are provided to establish the minimum standard.

1. Outboard Tie-Back Lifting & Tensioning Backstop Netting System (Model #BSTB-XP) – As manufactured by:

Beacon Athletics (Attn: Elliot Hansen – Project Manager, Project Services Group)  
8233 Forsythia Street, Ste. 120  
Middleton, WI 53562  
Toll Free: (800) 747-5985  
Fax: (608) 836-0724  
Email: [bids@beaconathletics.com](mailto:bids@beaconathletics.com)  
[www.beaconathletics.com](http://www.beaconathletics.com)

### 2.2 BACKSTOP NETTING SYSTEM EQUIPMENT

- A. Model #BSPB-XP Outboard Tie-Back Lifting & Tensioning Backstop Netting System for athletic activities:

1. Description/Size: Backstop Netting Footprint = TBD'-TBD" x TBD'-TBD" x TBD'-TBD". Top of Netting = TBD'-TBD" above field grade, Bottom of Netting = TBD'-TBD" above field grade, Netting system to be raised/lowered and tensioned by means of lifting halyards per manufacturers recommendation.

2. Poles: Round steel sections (ASTM A500B or C) with welded cap plate, straight poles, direct embedment into foundation (optional base plate mounted installation available), black painted finish (other standard colors available), provide vertical cable attached to poles where netting has vertical edge or vertical seam, all connection points for netting system to be welded on the poles prior to painting.
3. Netting: Netting shall be #36 twisted knotted black mesh (340 lb break strength), UV stabilized, min. ¼” sewn rope binding along perimeter, fence cap recommended at top of any fence located near netting line to avoid netting snag/wear.
4. Hardware: Size all hardware to meet design loads imposed on netting system. Snap hook clips to be zinc plated steel, quick links to be stainless steel. Turnbuckles, thimbles, wire rope clamps to be hot-dip galvanized. Lifting line anchors to be determined per manufacturer design requirements and welded to poles prior to painting. Halyard ropes at poles to be braided Dyneema with composite blocks and adjustment winches per manufacturer design requirements. Minimum 1/4” diameter 7x19 galvanized uncoated steel wire cable along top and bottom edges of netting system for net attachment and to maintain net shape and reduce sag. 1/4” diameter 7x19 galvanized uncoated steel wire rope for vertical attachment of netting – cable diameter to be determined by manufacturer design requirements.
5. Design Loads: Netting system, steel poles, and foundations to be designed for wind speeds of 90 mph (ASCE 7-05) or 105 mph (ASCE 7-10), Exposure C, Building/Occupancy Category I, 1 3/4” mesh (9% solid area). When no geotechnical soil design recommendations are provided assume a minimum allowable passive soil pressure value of 100 psf/ft (to be verified in field prior to foundation installation).

## 2.3 BACKSTOP WALL SYSTEM

### A. Model #145-100-510 Integral Beacon Backstop Wall

1. Quantity and configuration as required by net system layout / configuration, net system support pole spans and project specific requirements
2. 2-7/8” OD Sch. 40 A53 galvanized steel fence posts
3. Powder-coated mounting brackets for direct connection to backstop support poles
4. 18 o.z. UV treated vinyl spectator-side banners (various colors available)
5. Digitally printed graphics for spectator side banner available but not included
6. Integrated attachments for backstop system support cables
7. Includes all mounting hardware
8. 2” x 12” #2 prime or better ground-contact pressure-treated lumber planks

## 2.4 WOODLESS BACKSTOP PAD KITS

### A. Model #140-100-100 Beacon Woodless Backstop Pads

1. Quantity and configuration as required by Beacon Backstop Wall dimensions
2. 35" tall x 48" long standard pad dimensions (custom sizes available as required)
3. 2" Thick High Density Foam (custom thicknesses available as required)
4. 18 o.z. UV treated vinyl (various colors available)
5. Digitally printed graphics for pads available but not included
6. Includes all mounting hardware

## **PART 3 EXECUTION**

### 3.1 INSPECTION

- A. Examine the areas and conditions where equipment and systems are to be installed and notify the contractor of conditions detrimental to the proper and timely installation and completion of the work.
- B. Do not proceed with the work until unsatisfactory conditions have been corrected by the contractor in a manner acceptable and to the satisfaction of the Architect/Engineer or Owner's Representative.

### 3.2 INSTALLATION

- A. All backstop netting equipment shall be installed as indicated on approved submittals as recommended and in strict accordance with manufacturer's written directions and as indicated on the drawings and specified herein.
- B. All concrete footings for backstop netting system shall be installed as indicated on the drawings and in accordance with Section 03300, Cast-in-Place Concrete.
- C. All poles and/or sleeves required for backstop netting system installation shall be set plumb and true to line and grade in concrete as indicated on the drawings and per manufacturer's recommendation.
- D. Provide operating and maintenance instructions to Owner's Representative for the proper operation and care of equipment.

### 3.3 CLEANING

- A. Upon completion of work in any given area, remove all trash and debris from the work area and leave in clean condition. All pipe, concrete, fabric and miscellaneous parts shall be removed from site.

- B. Dispose of excessive material to certified landfill.
- C. Grade to within 1" of finish grade after work is completed.

**END OF SECTION**