



Milton High School  
*Lower Field Improvements*

**HUNTRESS** Sports





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Milton High School Lower Field Milton, Massachusetts



Figure 2  
MassDEP Wetlands Map







Photo 1 TP-1



Photo 3 TP-2









95% CONSTRUCTION DOCUMENTS

# Milton High School - Lower Field Improvements

Milton, Massachusetts

*December 15, 2021*

OWNER:  
Town of Milton  
525 Canton Avenue  
Milton, Massachusetts 02186



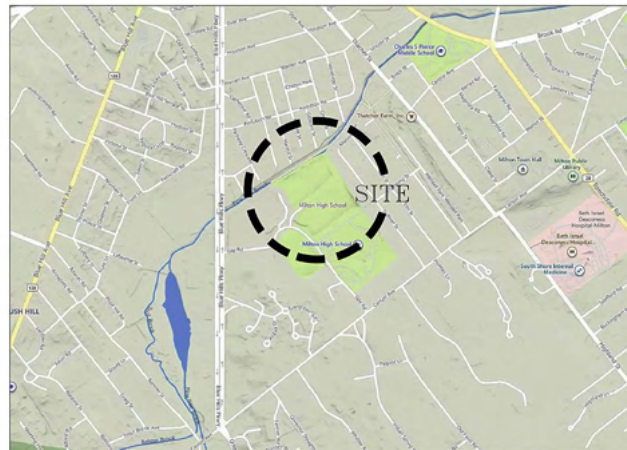
LANDSCAPE ARCHITECT:  
Huntress Associates, Inc.  
17 Tewksbury Street  
Andover, Massachusetts 01810  
978.470.8882



## LIST OF DRAWINGS:

- S-1 EXISTING CONDITIONS PLAN
- SP-1 SITE PREPARATION PLAN
- L-1 LAYOUT & MATERIALS PLAN
- L-2 GRADING & DRAINAGE PLAN
- L-3 LANDSCAPE & PLANTING PLAN
- L-4 ATHLETIC FIELD DETAILS
- L-5 CONSTRUCTION DETAILS
- L-6 CONSTRUCTION DETAILS
- L-7 BLEACHER & PRESSBOX DETAILS

## LOCUS PLAN







**GRADING & UTILITY NOTES**

1. TOPOGRAPHIC PLAN OF LAND IN MILTON, MASSACHUSETTS, PREPARED BY HANCOCK/DA ASSOCIATES LP OF STORINGHAM, MASS. DATED AUGUST 8, 2009.
2. PRIOR TO THE START OF ANY EXCAVATION FOR THE PROJECT BOTH ON AND OFF THE SITE, THE CONTRACTOR SHALL NOTIFY DISSAFE AND BE PROVIDED WITH A DISSAFE NUMBER INDICATING THAT ALL EXISTING UTILITIES HAVE BEEN LOCATED AND MARKED.
3. WHERE PROPOSED GRADES MEET EXISTING GRADES, CONTRACTOR SHALL BLEND GRADES TO PROVIDE A SMOOTH TRANSITION BETWEEN EXISTING AND NEW WORK. PONDING AT TRANSITION AREAS SHALL NOT BE ALLOWED.
4. CONTRACTOR SHALL MAINTAIN POSITIVE DRAINAGE AWAY FROM ALL ATHLETIC FIELDS.
5. MAXIMUM SLOPE IN DISTURBED AREAS SHALL NOT EXCEED 5:1, UNLESS OTHERWISE NOTED.
6. EXHUME ALL EXISTING (TO REMAIN) AND PROPOSED MANHOLE COVERS PROPERLY IDENTIFY UTILITY SERVICES.
7. CONTRACTOR SHALL VERIFY EXISTING GRADES AND NOTIFY LANDSCAPE ARCHITECT OF ANY DISCREPANCIES.
8. STRUCTURAL CONCRETE ELEVATIONS AT CATCH BASINS TO BE 1/4 INCH ABOVE RIM ELEVATION SHOWN FOR CATCH.
9. CONTRACTOR TO ADJUST UTILITY ELEMENT HEANT TO BE FLUSH WITH GRADE (CLEANOUTS, UTILITY MANHOLES, CATCH BASINS, INLETS, ETC) THAT IS AFFECTED BY SITE WORK OR GRADE CHANGES, WHETHER SPECIFICALLY NOTED ON PLANS OR NOT.
10. SCREENED IMAGES SHOW EXISTING CONDITIONS, WHERE EXISTING CONDITIONS LE 3/8" OR ARE IMPAIRED UPON BY PROPOSED BUILDING AND/OR SITE ELEMENTS, THE EXISTING CONDITION SHALL BE REMOVED, ABANDONED AND/OR CAPPED OR DEMOLISHED AS REQUIRED.

**DRAIN STRUCTURE SCHEDULE**

NAME	RIM	INV. 'A'	INV. 'B'	INV. 'C'	NOTES
DHH #1	31.25	33.00	-	-	
DHH #2	31.00	34.50	34.50	33.50	
DHH #3	40.10	36.00	36.00	35.75	

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 978 470 8882 FAX 978 470 8890

Project:  
**Milton High School  
 Lower Field**

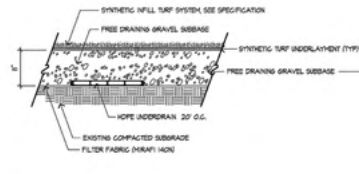
Milton, Massachusetts

Drawing Title:  
**Multi-Purpose Field  
 Grading & Drainage**

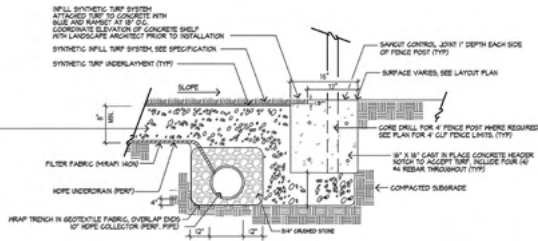
Revision	Date

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 Job: 00-107  
 File: PR-081  
 Drawn: CGH of  
 Checked: -- of  
 Drawing No. **L-2**  
 7

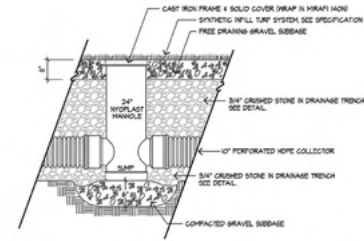




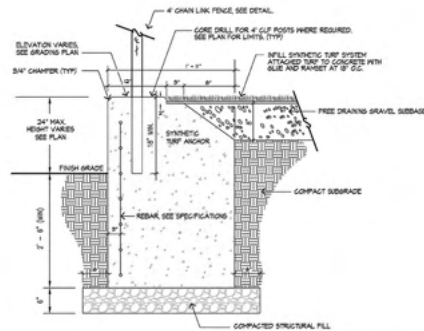
1 TYPICAL INFILLED SYNTHETIC TURF SYSTEM  
SCALE: 1" = 1'



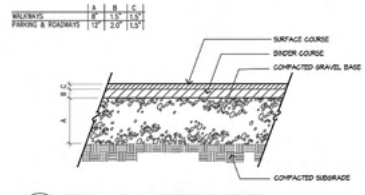
2 EDGE OF SYNTHETIC TURF  
SCALE: 1" = 1'



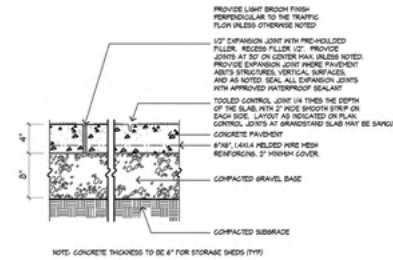
3 NYOPLAST TURF MANHOLE  
SCALE: NTS



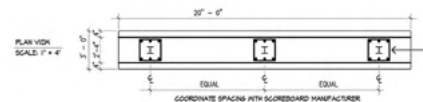
4 RETAINING WALL / TURF ANCHOR DETAIL - 4\"/>



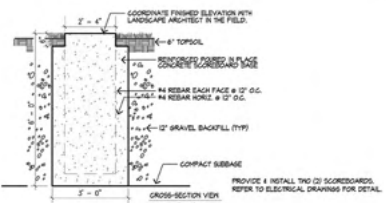
5 BITUMINOUS CONCRETE PAVEMENT  
SCALE: NTS



6 CONCRETE WALKWAY  
SCALE: NTS



7 HANDHOLE BOX DETAIL  
SCALE: NTS



8 SCOREBOARD DETAILS  
SCALE: NTS



9 CONCRETE WALKWAY DETAIL  
SCALE: NTS



10 SCOREBOARD  
SCALE: NTS

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Project:  
**Milton High School  
Lower Field**  
Milton, Massachusetts

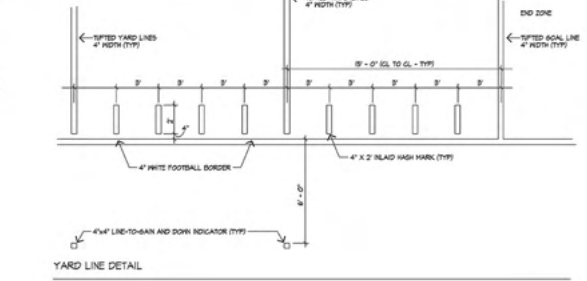
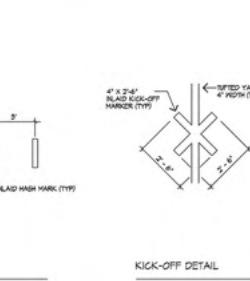
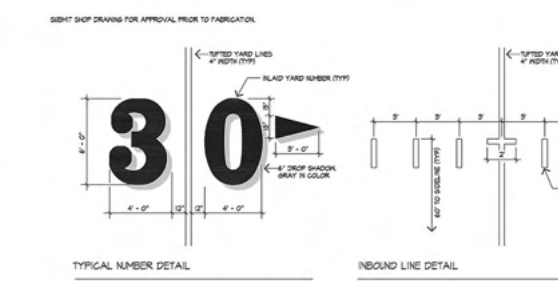
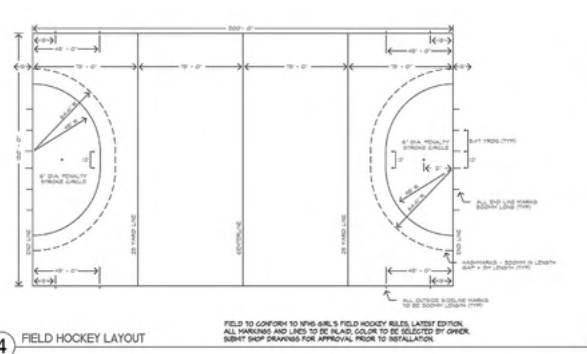
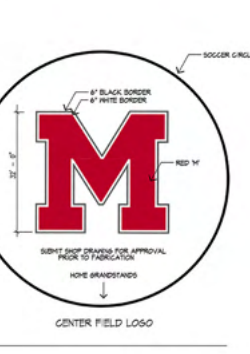
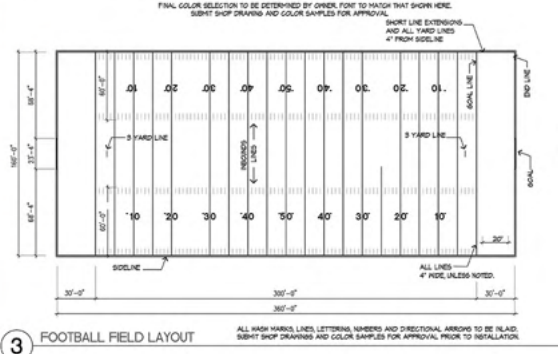
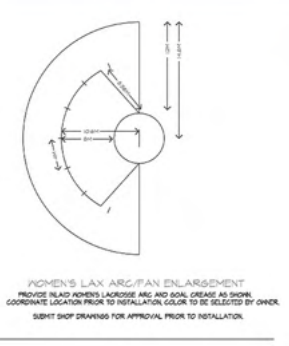
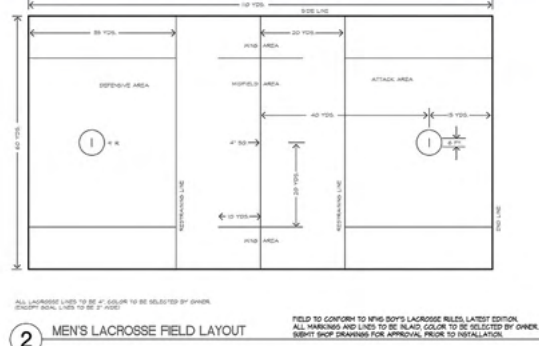
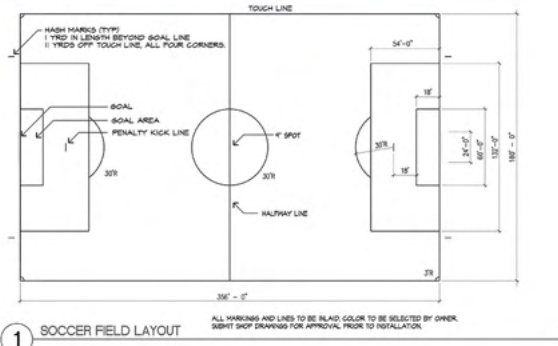
Drawing Title:  
**Multi-Purpose Field  
Construction Details**

Revision	Date
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Job: 00-01	
File: PR-dss	
Drawn: CGH	of
Checked: ---	<b>7</b>



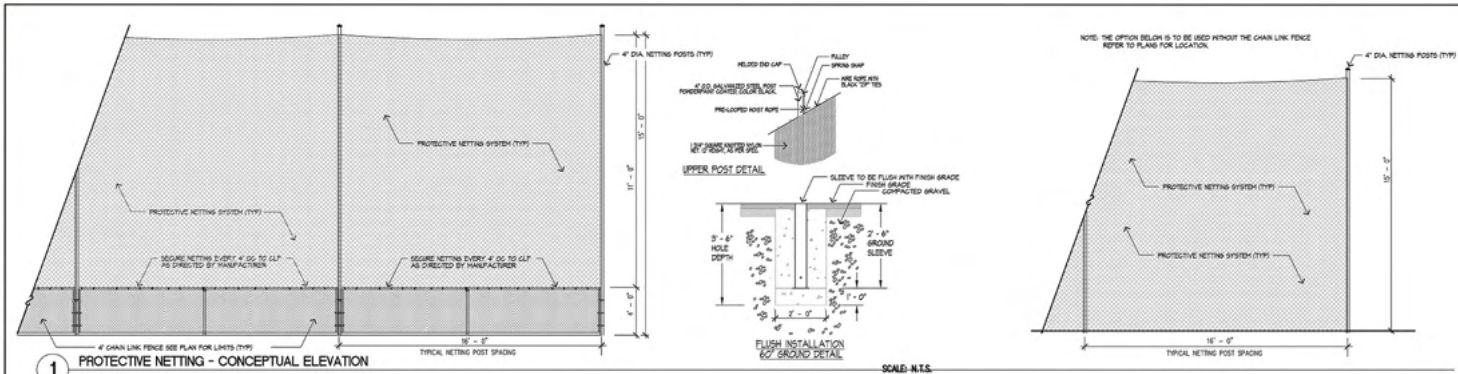
Project:  
**Milton High School  
 Lower Field**  
 Milton, Massachusetts  
 Drawing Title:  
**Multi-Purpose Field  
 Construction Details**

Revision	Date
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Job: 00-07	File: FR-das
Drawn: GCH	of 7
Checked: ---	

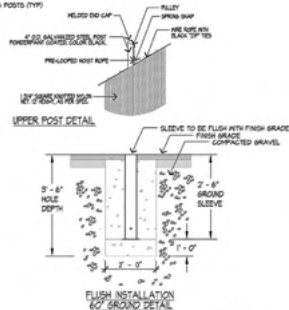


**5 FOOTBALL FIELD - INLAID MARKING DETAIL**  
 SCALE: N.T.S.

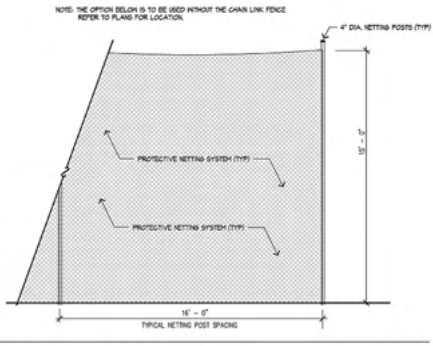




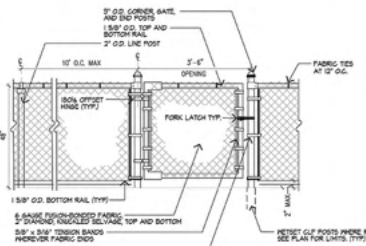
**1** PROTECTIVE NETTING - CONCEPTUAL ELEVATION  
SCALE: N.T.S.



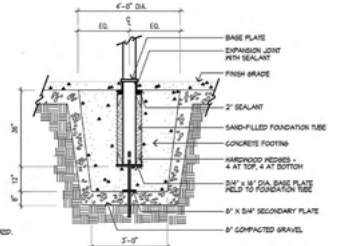
SCALE: N.T.S.



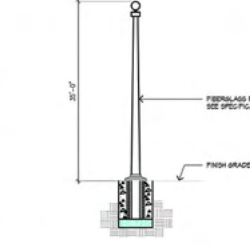
NOTE: THE OPTION BELOW IS TO BE USED WITHOUT THE CHAIN LINK FENCE REFER TO PLANS FOR LOCATION.



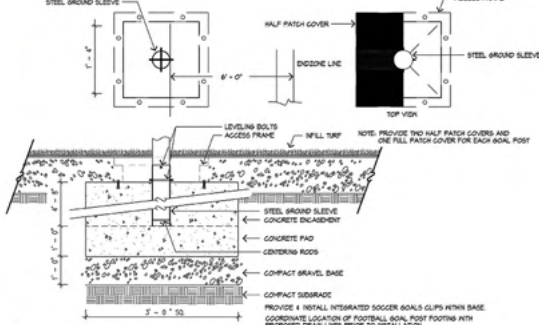
**2** 4' FIBERGLASS BOND CHAIN LINK FENCE AND GATE  
SCALE: N.T.S.



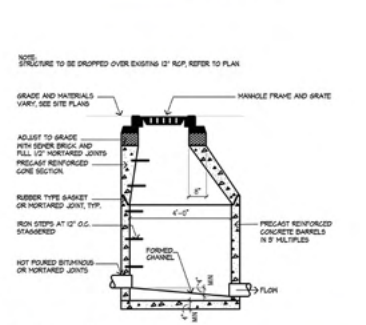
**3** FLAGPOLE FOOTING  
SCALE: 1/2" = 1'-0"



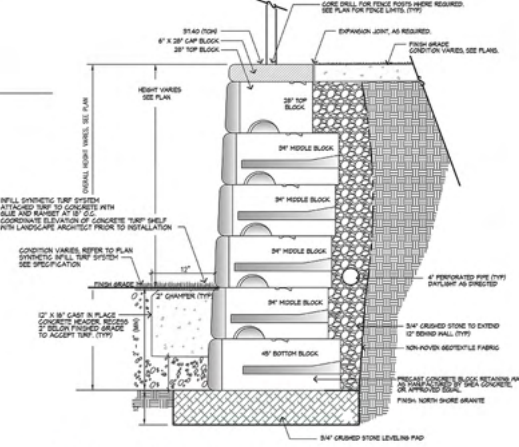
**4** FLAGPOLE  
SCALE: N.T.S.



**5** REMOVABLE FOOTBALL GOAL POST AND FOOTING DETAIL  
SCALE: N.T.S.



**6** MANHOLE  
SCALE: 1/2" = 1'-0"



**7** CONCRETE BLOCK WALL DETAIL (TYP)  
SCALE: 1" = 1'-0"

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Lower Field**

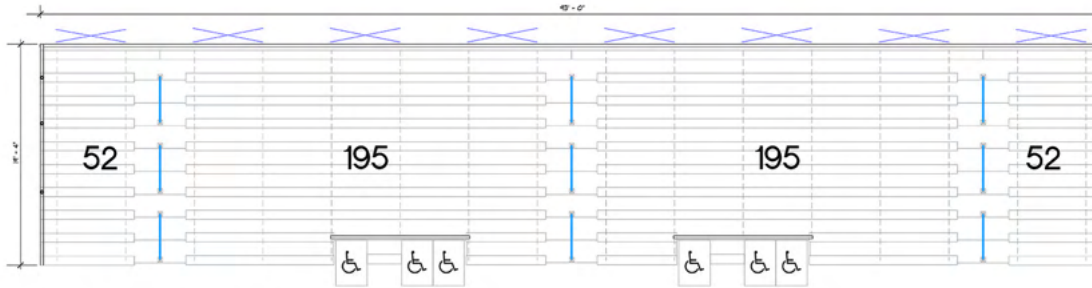
Milton, Massachusetts

Drawing Title:  
**Multi-Purpose Field  
Construction Details**

Revision	Date

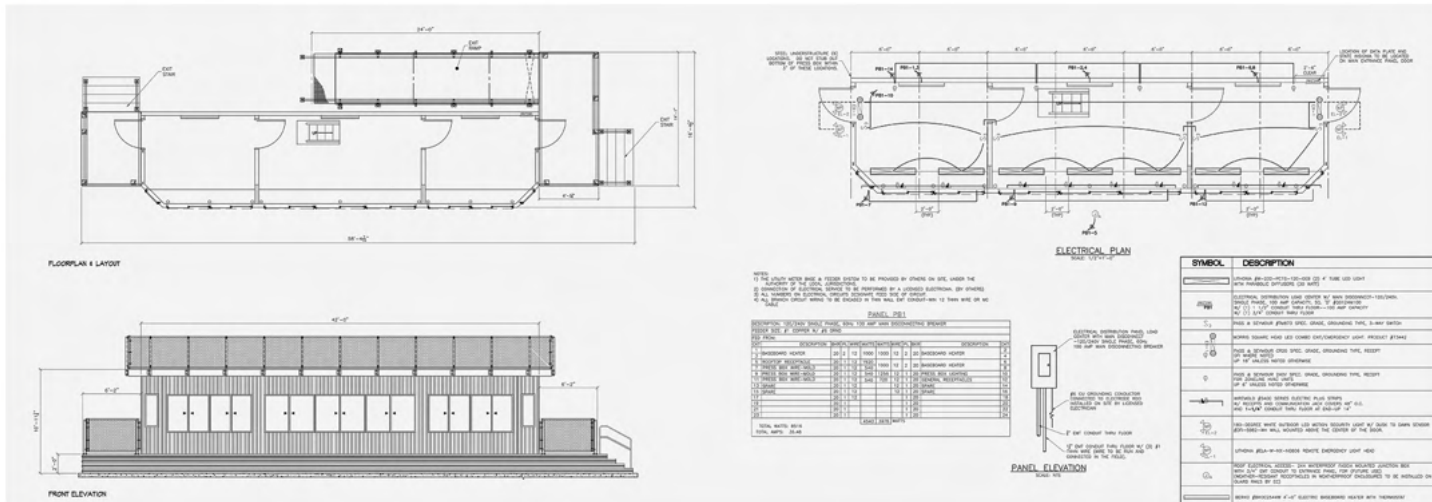
Scale: AS NOTED  
Date: 10.22.21  
Job: 00-07  
File: FR-dss  
Drawn: GCH  
Checked: ---  
Drawing No.: **L-6**  
of 7





ROWS	10	ELEVATION	0"
RISE	8	RUN	24
DECK SYSTEM	- CLOSED		
DECK FINISH	- SLIP AND STAIN RESISTANT		
BENCH SEATING CAPACITY	494		
CHAIR SEATING CAPACITY	0		
WHEELCHAIR SEATING CAPACITY	6		
COMPANION SEATING CAPACITY	4		
TOTAL SEATING CAPACITY	504		

1 NON-ELEVATED BLEACHER - SEATING LAYOUT  
SCALE: 1/8"



2 PRESSBOX DETAILS  
SCALE: 1/8"

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Project:  
**Milton High School  
Lower Field**

Milton, Massachusetts

Drawing Title:  
**Multi-Purpose Field  
Bleacher & Pressbox**

Revision \_\_\_\_\_ Date \_\_\_\_\_

Scale: AS NOTED Drawing No.  
Date: 10-22-21  
Job: 00-07 **L-7**  
File: PR-065  
Drawn: GCH of  
Checked: --- 7



# ESTIMATE OF PROBABLE CONSTRUCTION COSTS

Project: Milton High School - Lower Gile Field  
 Project Manager: CCH  
 Client: Milton Public Schools  
 Plan Title: Milton High School - Lower Field Improvements

Date: November 22, 2021

By: Huntress Associates, Inc.  
 17 Tewksbury Street  
 Andover, MA 01810

ITEM	QUANTITY	UNIT	UNIT COST	TOTAL
<b>ATHLETIC FIELD CONSTRUCTION</b>				
<b>GENERAL CONDITIONS</b>				
Construction Bonds & Insurance	1	ls	\$50,000.00	\$ 50,000.00
General Conditions	1	ls	\$20,000.00	\$ 20,000.00
Mobilization & De-mobilization	1	ls	\$20,000.00	\$ 20,000.00
Materials Testing & Lab Expenses	1	ls	\$5,000.00	\$ 5,000.00
Replace unsuitable materials (Allowance)	1	alw	\$5,000.00	\$ 5,000.00
<b>Subtotal</b>				<b>\$ 100,000.00</b>
<b>EARTHWORK &amp; SITE PREPARATION</b>				
Demolition & Site Preparation	1	ls	\$ 60,000.00	\$ 60,000.00
Erosion Control	1	ls	\$ 15,000.00	\$ 15,000.00
Earthwork (Allowance)	1	allow	\$ 125,000.00	\$ 125,000.00
Drainage / Storm water	1	ls	\$ 25,000.00	\$ 25,000.00
<b>Subtotal</b>				<b>\$ 225,000.00</b>
<b>MULTI-PURPOSE SYNTHETIC TURF FIELD</b>				
Athletic Field Gravel Subbase & Drainage	72,000	sf	\$ 4.50	\$ 324,000.00
Artificial Turf - Dual Fiber Infill Turf System	72,000	sf	\$ 5.00	\$ 360,000.00
Artificial Turf - Resilient Underlayment	72,000	sf	\$ 1.65	\$ 118,800.00
Football Goal posts & pads	2	ea	\$ 4,500.00	\$ 9,000.00
Soccer Goals	2	ea	\$ 3,500.00	\$ 7,000.00
4' Chain Link Fence, PVC Coated, Black	1,450	lf	\$ 60.00	\$ 87,000.00
4' Chain Link Fence, Gates (pedestrian)	4	ea	\$ 600.00	\$ 2,400.00
4' Chain Link Fence, Gates (vehicular)	2	ea	\$ 2,500.00	\$ 5,000.00
Sports Lighting (Allowance)	1	alw	\$ 400,000.00	\$ 400,000.00
Sound System, installed	1	ls	\$ 30,000.00	\$ 30,000.00
Flag Pole, installed	1	ls	\$ 7,500.00	\$ 7,500.00
<b>Subtotal</b>				<b>\$ 1,350,700.00</b>
<b>GRANDSTAND &amp; PRESSBOX</b>				
Grandstand - 500 seats, non-elevated	500	seats	\$ 300.00	\$ 150,000.00
Pressbox (8' x 32')	1	ls	\$ 75,000.00	\$ 75,000.00
Pressbox ramps and stairs	1	ls	\$ 25,000.00	\$ 25,000.00
<b>Subtotal</b>				<b>\$ 250,000.00</b>
<b>MISC. SITE CONSTRUCTION</b>				
Retaining Walls	2,500	sf	\$ 65.00	\$ 162,500.00
Concrete walkways	5,500	sf	\$ 12.00	\$ 66,000.00
Planting Plan & Landscape	1	ls	\$ 20,000.00	\$ 20,000.00
<b>Subtotal</b>				<b>\$ 248,500.00</b>
<b>Subtotal</b>				<b>\$ 2,174,200.00</b>
10% Construction Contingency				<b>\$ 217,420.00</b>
<b>TOTAL</b>				<b>\$ 2,391,620.00</b>



# SYNTHETIC TURF PRODUCTS

## Proposed Synthetic Turf Products & Manufacturers.

1. Woven Synthetic Turf System - IronTurf Ultra Green By Greenfields USA.
2. Organic Infill - BrockFILL by Brock USA
3. Shock Pad - YSR Resilient Underlayment by Brock USA.

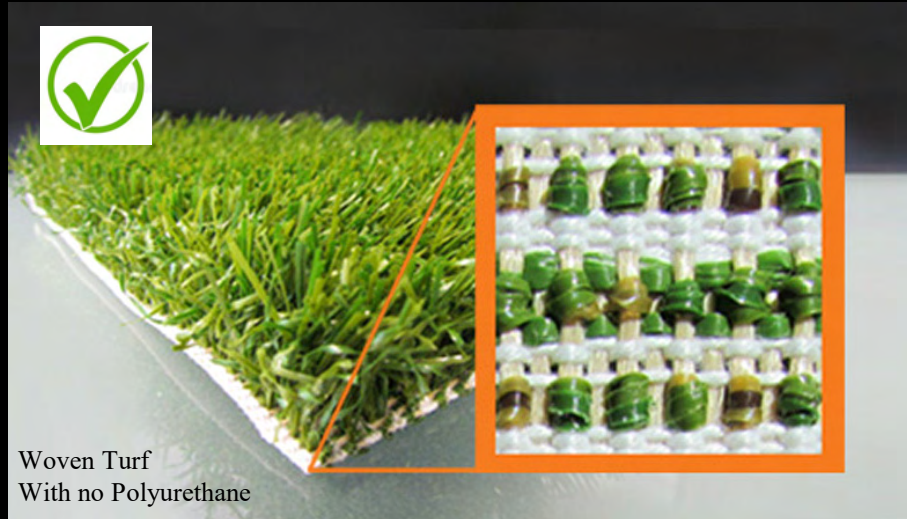


**BR****CKFILL**  
THE ENGINEERED INFILL FOR ATHLETES

# Discussion Topics – Questions we have had to date

## Synthetic Turf Field Recycling

### 1. How is this product different from typical synthetic turf products?



The best way to install a sustainable synthetic turf field is to **think about recycling before the project is built.**

**Greenfields USA IronTurf Ultra Green:**

**Woven turf eliminates heavy backing materials.**

**Cradle-to-cradle certification.**

**Committed to recycling the turf installed at Milton High School at end-of-life.**



# Discussion Topics – Questions we have had to date

## Synthetic Turf Field Recycling

### 1. How is this product different from typical synthetic turf products?



1. *Sustainably grown and harvested in the USA*
2. *100% recyclable at the end of the life.*
3. *Eliminates crumb rubber from your field.*
4. *Reduces heat from a typical synthetic turf field by 33 degrees.*



# Discussion Topics – Questions we have had to date

## Synthetic Turf Field Recycling

### 1. How is this product different from typical synthetic turf products?

Objective #3: Identify a resilient shock pad which meets the above criteria, reduces the reliance on infill, and improves player safety and shock attenuation.

#### Brock Powerbase YSR Resilient Pad

*Cradle-to-Cradle Certified*

*25 Year Warranty*



*1 in 5 concussions in the USA are a result of head to field impact.*

*A synthetic field with a shock pad can expect up to a 50% reduction in common head injuries associated with head to field impact.*

POWERBASE YSR PANEL | TOP VIEW



Thank You