

TOWN OF BARRINGTON

ATHLETIC FIELDS CONDITION AND NEEDS ANALYSIS

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Submitted to:

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CHAPTER A:

INTRODUCTION/EXECUTIVE SUMMARY



The fields condition and needs analysis process began in May of 2023 in recognition of the necessity to review and complete previous completed work and provide a existing analysis and review of the fields that can than be translated into recommendations for maintenance practices, field usage and field programming to meet the needs of the community.

Traverse reviewed town-owned outdoor athletic fields and other state owned-owned parcels to review the quality and use of those fields. The purpose of the fields condition and analysis process is to develop a strategy for investment in athletics fields, maintenance programs and to provide the greatest improvement to athletic programs as funds become available. The analysis provides an assessment of the current athletic fields and projected recreational needs to guide future programmatic decisions and capital improvement planning. The planning process included an inventory and evaluation of the existing conditions as well as concepts and recommendations for potential improvements. The sites reviewed during the fields analysis are mapped out on the following page:

KEY FINDINGS

Information was provided to Traverse Landscape Architects and Tom Irwin Associates by the town officials and stakeholders as well as multiple site walks that provided insight into the current status of the fields and the use of the recreation fields as well as the condition and maintenance of the fields. Our overall findings of this report have found some consistencies with previous reports as well as providing more in depth information regarding the overall status of field usage in the community.

- 1. Field Usage:** The athletic fields in the Town of Barrington are intensely overused. This can be seen by both the hours the town recreation uses and the hours that Barrington High School uses the athletic spaces. This has lead to a decrease in the playability on fields throughout the town, limited time for resting fields and an increased demand for maintenance on fields. This is most clear on rectangular spaces. Most of the fields in town are in need of major renovation or replacement. This needs to be rectified through an increase in spaces that can sustain more use, allowing for the resting and repair of fields and long-term planning of maintenance of fields.
 - Clear understanding of the demand on field usage and developing a plan for the much needed resting of fields.
- 2. Land Limitations:** There is limited land in the Town of Barrington for any expansion of field space. The majority of land is either developed or environmentally protected. This creates a demand for assessing the fields that the town currently has and developing strategies that can meet the demand of the town.
- 3. Increased Participation by Town Youth:** An assessment of the current demographics of the town versus the current enrollment in the athletic programs in the town would indicate that close to 30% of the youth residents age 5-18 recreation participate in youth athletics. This group makes up 22% of Barrington's population. Note that this only includes in town leagues, data was not collected on the number of residents that play in other leagues outside of the town.
- 4. Inadequate registration system:** The current system for registering for field use is inadequate and creates frustration among the various participants. The fields are registered on a seasonal basis and granted priority for leagues that fall within those seasons. While most leagues attempt to work together, this has lead to frustration and animosity amongst the various leagues. The challenge with the system is that leagues rightfully are registering for more fields than their current needs as the unknown such as weather and emergency maintenance can impact their needs. During our analysis we heard multiple times that this has lead to the following:
 - Fields that are registered for use but are in actuality available for use.
 - A lack of availability for the maintenance of the fields and direction to the needs required by Department of Public Works (DPW).
- 5. Equity Field Development:** The town fields are focused heavily on baseball and little league. While usage statistics supports these types of spaces, the town does not have a balance of fields to equally support boys and girls sports, specifically softball. Spaces need to develop to create equity throughout the community. There are currently 11 Baseball/Little League fields with 5 of those fields being full-sized 90' base path fields and 6 softball fields with 3 of those being full-sized 60' base path fields.
- 6. Long-term regular maintenance program:** A regular maintenance program including resting periods as outlined should be implemented to enhance the playability of existing natural turf surfaces in the short term. Additionally, this will increase the safety of play on these spaces and make the use of the fields enjoyable for all users. Lastly, a regular maintenance plan allows for more reasonable funding requests as opposed to larger requests in long-term intervals.
- 7. Maintenance Funding:** Financially funded maintenance programs. The DPW is providing a wide range of services internally that has reduced overall costs the community for the maintenance and has adapted maintenance programs that benefit the town. The current challenge is that there are no line items related to maintenance for any of the athletic fields. This ends up creating challenges to appropriately maintain fields within the town. DPW is then forced to utilize what is left in their budgets to provide what services they can. Due to the unknown of snow plowing and emergency services, regular continued maintenance falls into a reactionary category which may include field set up, irrigation repairs, emergency repairs and limit the ability to provide appropriate maintenance.

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CHAPTER B:

PRELIMINARY INVESTIGATIONS



OVERVIEW

The Preliminary Investigations started in June of 2023. Traverse Landscape Architects and Tom Irwin Advisors conducted interviews with the Barrington DPW, Barrington Parks and Rec, Town Officials, and Stakeholders. These interviews were utilized to develop an understanding of the perceived conditions of the field, the process of gaining access to fields, develop a use model and dive deep into the challenges that may be present with the fields. Additionally, Traverse Landscape Architects investigated GIS and demographic information to gain an overview of overall land use and how the land in Barrington impacts athletic use and the impact of athletic use on the overall town.

This section also includes the methodology and process of the site investigations and scientific studies that were completed on the existing fields.

These interviews, sitewalk and methodology are outlined on the following pages:



USER GROUP INTERVIEWS

The Traverse Design Team interviewed with the various town officials and stakeholder/user groups to gain insight into the users groups perceptions of the fields/usage/management and define the pros and cons of the current status of athletics in the town. These interviews were conducted on July 12-July 13, 2023.

This information was collected and then synthesized into some overarching themes that were apparent and will help to guide the master plan.

Organization	Interviewees	Use
Little League Baseball and Softball	Aaron Aguiar	Baseball/Softball
50+ Men's League Softball	Donald Ardito	Softball
Rhode Island Christian Athletic Association	Tyler Fiske	Softball
Pop Warner/Flag Football/Cheer	Josh Bickford	Tackle Football Flag Football Cheer
East Bay Lacrosse	Seth Fisher	Lacrosse
Tyler Fiske	Men's Softball	Softball
Barrington High and Middle School	George Fisk	Football, Lacrosse, Field Hockey, Soccer, Baseball, Softball, PE
Barrington Youth Soccer Association	Stephanie Caliri Chris Lower	Soccer
Special Olympics	Chris Coleman	

COMMON THEMES:

Pros:

- Generally the organizations and town do find a way to work together to fill the needs of their organization.
- All agree that DPW does put an effort in to maintaining the field and they are easy to work with.
- Generally fields have nice amenities
- Certain groups (mostly the adult softball leagues) are very pleased to have space and feel the space meets their needs.

- More clarity on the organizational process and who is responsible.
- Fields overall do not drain well and shut down due to weather.
- ADA Access to fields
- Restroom access at fields
- Maintenance of fields does not meet inseason needs
- Storage
- Parking
- Access to restrooms

Cons:

- The field conditions are not in optimal conditions. There are a lot of rocks/divots/holes within the fields.
- Access to space does not meet the current needs of the larger recreation groups.
- There is the need to rest fields but, the demand on fields does not allow for the resting of fields.

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USER GROUP INTERVIEWS

The Traverse Design Team conducted interviews with the Department of Public Works and the Barrington Recreation Department. These interviews were conducted on June 28, 2023 and July 13, 2023.

Additionally, there was a site walk of all fields with the Town Administrator, the Department of Public Works and the Recreation Department. This site walk review was on June 28th, 2023. On August 12, 2023, there was a site walk of fields with Town Council Members, Department of Public Works, and a few stakeholder members to tour the fields as well as a tour of the East Providence High School Synthetic Turf Fields.

Organization	Interviewees	Use
Little League Baseball and Softball	Aaron Aguiar	Baseball/Softball
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Barrington Youth Soccer Association	Stephanie Caliri Chris Lower	Soccer
Special Olympics	Chris Coleman	

COMMON THEMES:

Pros:

- The Department of Public Works does most of their work in-house with approximately 60% In-House and 40% Outsourced.
- The Department of Public Works has the equipment required to complete the required work in-house.
- The Department of Public Works has continually looked at horticultural practices to improve fields.
- The Department of Public Works has developed specific materials for the town that are budget conscious and performing for the Town of Barrington.
- The Barrington Recreation Department has added a new member to its staff.
- The Barrington Recreation Department and the Department of public works work well with stakeholders and User Groups.

Cons:

- The Department of Public Works does not have a dedicated staff to just field maintenance which impacts the ability to provide consistent maintenance practices.
- The Department of Public Works has a general fund which impacts the ability to provide consistent maintenance practices.
- The current scheduling/usage system makes understanding field use difficult which includes the maintenance of fields.
- The scheduling system creates competition and some level of animosity among organizations.
- Because of the current scheduling system, organizations are self managing field usage and maintenance. This puts stress on the Department of Public Works to complete maintenance.
- Usage has had a big impact on the ability to rest engineerered grass fields and when attempted field resting is bypassed.

ATHLETIC LAND USE



2%

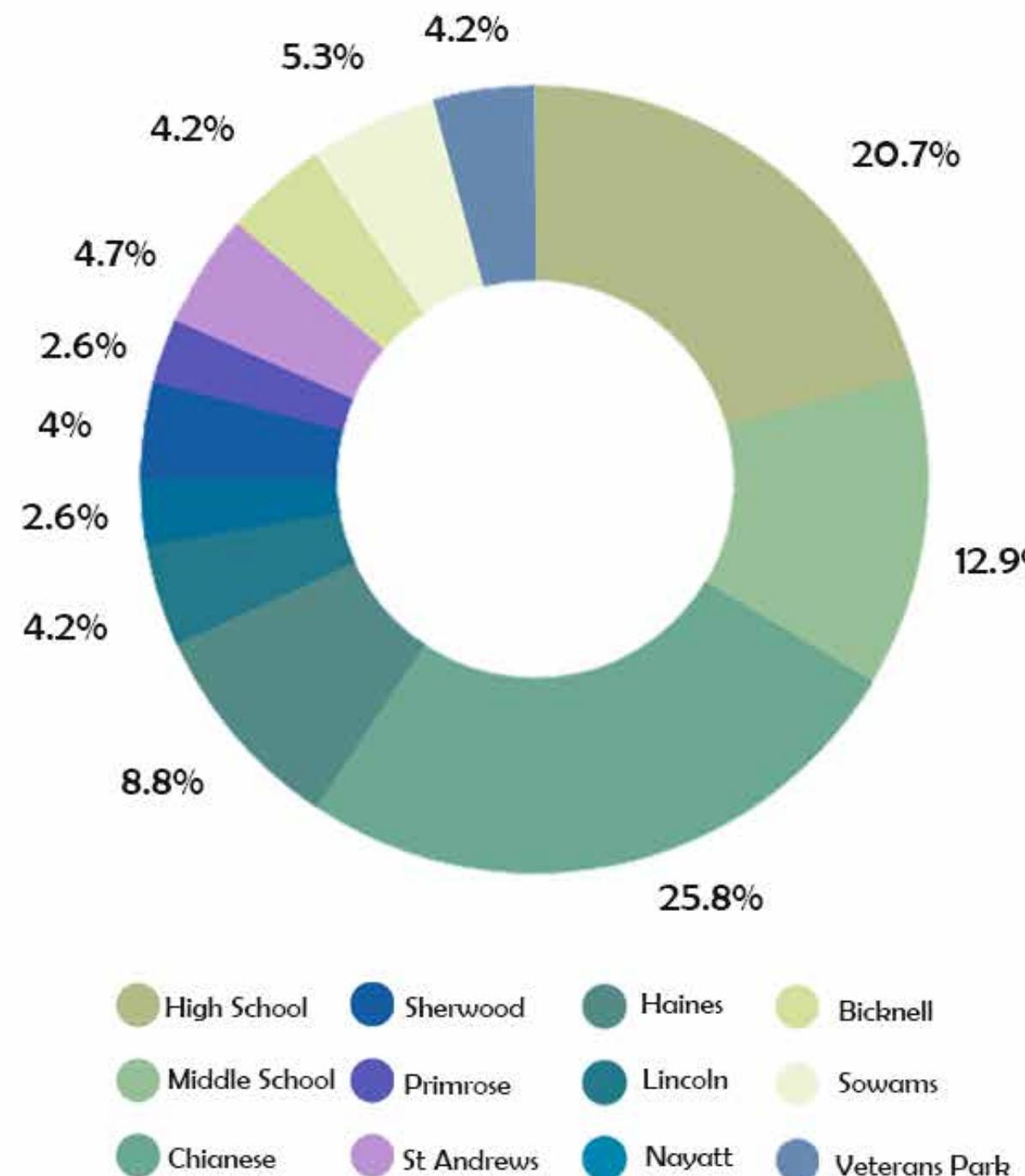
of the total land mass of Rhode Island is the Town of Barrington

4.6%

of the Town of Barrington is water

0.015%

of the land mass in Barrington are athletic fields. 20.7% of the total fields reside at the high school



A
The Town of Barrington is located in Bristol County, Rhode Island on the eastern side of the Narragansett Bay. The town consists of two peninsulas that are divided by the Barrington and Warren Rivers.

B
The town is approximately 15.4 square miles. With 4.6% of the town being occupied by water.

C
As it relates to athletic fields in the Town of Barrington, Barrington High School and Barrington Middle School make up the most useable athletic land at a total of 33.6 percent of the entire athletic space in the community. The largest town operated athletic space is Chianese Field which makes up 25.8% of the total athletic space.

D
The total athletic space reviewed in this report equates to a total of 0.015% of the total land mass. Comparatively looking at surrounding communities:

Bristol/Warren: 0.044% 2x the Population

East Providence: 0.066%, 3x the population

A

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TOWN OF BARRINGTON FLOOD ZONE



The Town of Barrington is a Rhode Island coastal community and with many coastal communities comes with the potential for flooding. As part of this master plan, consideration for flooding needs to be considered as part of the assessment. Flooding can present potential risk to athletic assesssts.

As an example the entire high school site falls into an AE Zone with 1% of annual flooding. An AE Flood Zone demarcates an area susceptible to moderate to high flood risk, as classified by FEMA. These zones indicate the likelihood of inundation during specific weather events or due to nearby water bodies, such as rivers or heavy precipitation. Properties situated within AE Flood Zones typically necessitate adherence to stringent building codes and the procurement of flood insurance to mitigate potential damages stemming from flooding occurrences.

Additionally, based on the flood map, the Town of Barrington also has limited area which is not located in a flood zone limitin the area for recreational space impacting available land to provide services for active recreation.

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The Town of Barrington is a Rhode Island coastal community and with many coastal communities comes the potential for upland streams and wetlands. These areas are both federally and state protected areas for the betterment of the community at large. As part of this master plan, consideration for wetlands and their setbacks to be considered as part of the assessment. Wetlands and Environmental conditions can have an impact on landuse and athletic fields can impact those environmental bodies so, planning should be carefully considered for potential risk.

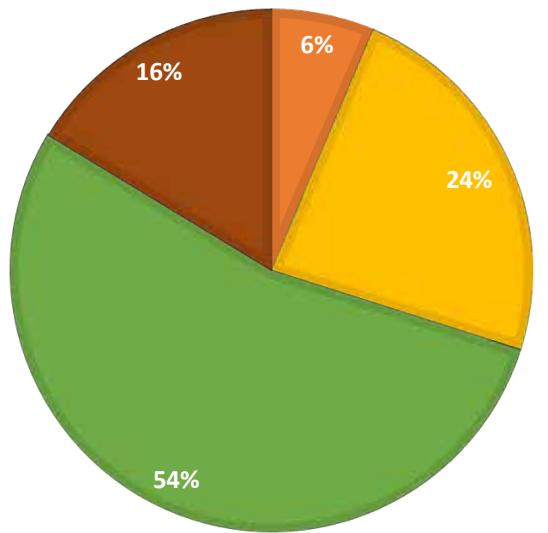
As an example, both the Nyatt School Fields and the Chianese Middle and Lower Field fall in a well head protection area. A wellhead protection area (WHPA) refers to the designated area surrounding a drinking water well or water supply source that requires safeguarding from potential sources of contamination. It delineates the zone where activities and land use could significantly impact the quality and integrity of the groundwater feeding into the well. The primary goal of establishing a WHPA is to prevent, manage, and mitigate any potential risks posed by pollutants, chemicals, or other contaminants that could infiltrate the groundwater and compromise its suitability for human consumption. Consideration of maintenance and surfaces choices should be carefully planned.

POPULATION AND ATHLETICS

FIELD USAGE

BARRINGTON POPULATION

■ Age 0-5 ■ Age 6-18 ■ Age 19-65 ■ Age 65 and Over



A large portion of Barrington's population is made up of 5-18 year olds. This equates to approximately 22% of the entire population.

Based on a review of the current Town registrants for local athletic programs, divided by both spring and fall, a good portion of the 5-18 year old population is participating in athletic activities.

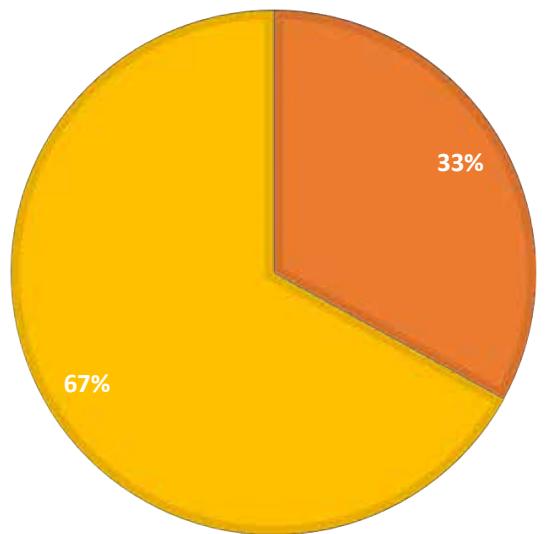
It should also be noted that this does not include outside athletic groups which could include private clubs or groups in other communities.

It should also be noted that there are a few registrants that are from other communities but, based on discussion with stakeholders these numbers are fairly low.

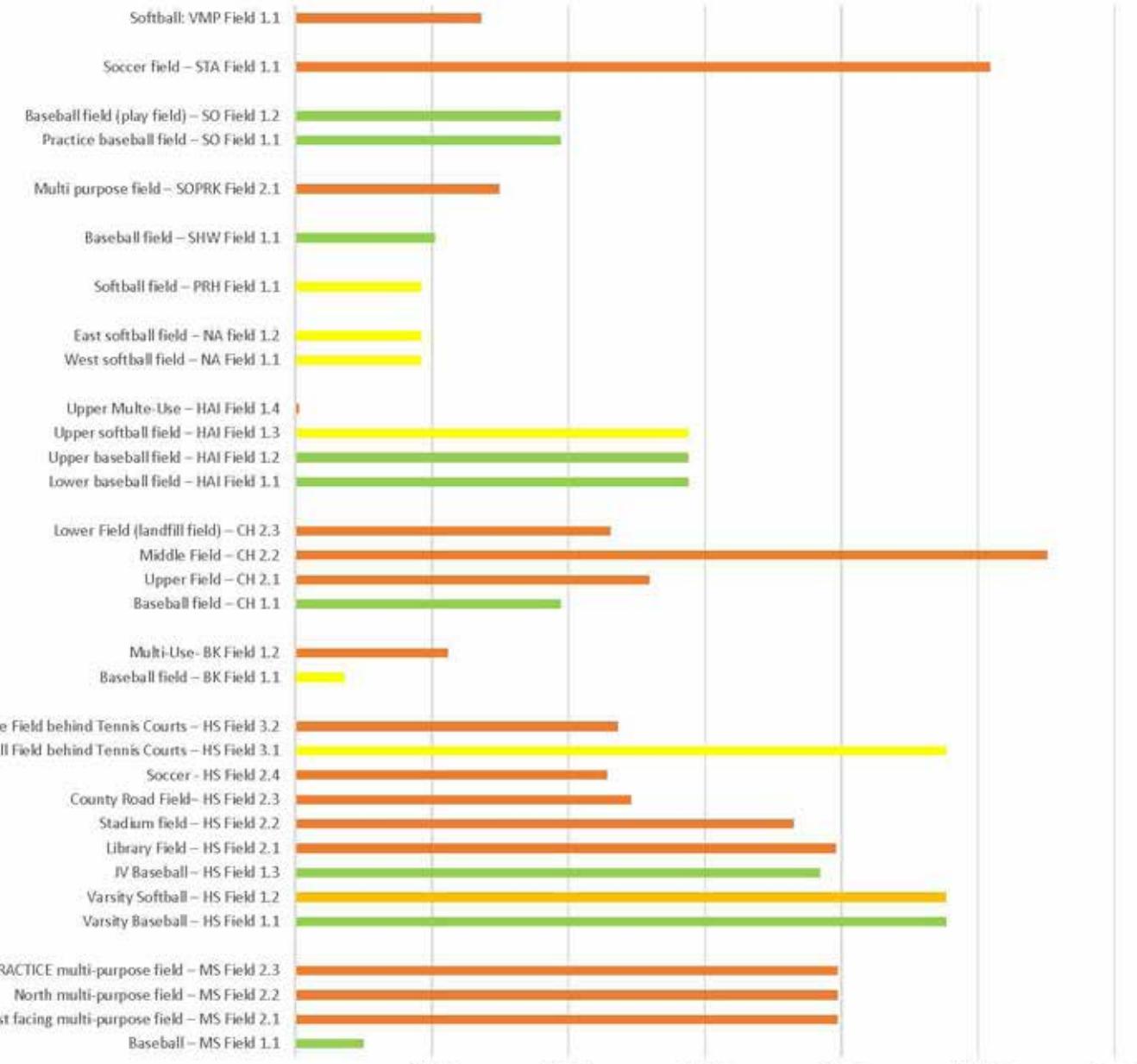
During stakeholder interviews there are also a lot of outside groups from around the state that are using Barrington's athletics fields. The largest user groups are adult softball and church league softball. The groups are somewhat limited but, in congregation they create a large user group.

YOUTH PARTICIPATION IN SPORTS

■ Participate ■ Don't Participate



Veterans Memorial



St. Andrews Farm

Sowams ES

Sowams Road Park

Sherwood Park

Primrose Hill

Nyatt ES

Haines Park

Chainerese Park

Bicknell Park

High School

Middle School

■ Rectangular

■ Baseball

■ Softball

Barrington Middle School (School)

- Baseball - MS Field 1.1
- West facing multi-purpose field - MS Field 2.1
- North multi-purpose field - MS Field 2.2
- South PRACTICE multi-purpose field - MS Field 2.3

Barrington High School (School)

- Varsity Baseball - HS Field 1.1
- Varsity Softball - HS Field 1.2
- JV Baseball - HS Field 1.3
- MP Field adjacent to parking lot - HS Field 2.1
- Stadium field - HS Field 2.2
- MP Field behind JVBB - HS Field 2.3
- MP Field behind softball - HS Field 2.4
- Softball Field behind Tennis Courts - HS Field 3.1
- Multi-Use Field behind Tennis Courts - HS Field 3.2

Bicknell Park (Town Property)

- Baseball field - BK Field 1.1
- Multi-Use- BK Field 1.2

Chianese Fields (Town Property)

- Baseball field - CH 1.1
- North multi-purpose fields - CH 2.1
- Lowerfield 1 - CH 2.2
- Lowerfield 2 (landfill field) - CH 2.3

Haines Park (State Property)

- Lower baseball field - HAI Field 1.1
- Upper baseball field - HAI Field 1.2
- Uppersoftball field - HAI Field 1.3
- Upper Multi-Use - HAI Field 1.4

Nayatt Ave Field (School)

- West softball field - NA Field 1.1
- East softball field - NA field 1.2

Primrose Hill School (School)

- Softball field - PRH Field 1.1

Sherwood Park (Town Property)

- Baseball field - SHW Field 1.1

Sowams Rd Park (Town Property)

- Multi purpose field - SOPRK Field 2.1

Sowams School (School)

- Practice baseball field - SO Field 1.1
- Baseball field (play field) - SO Field 1.2

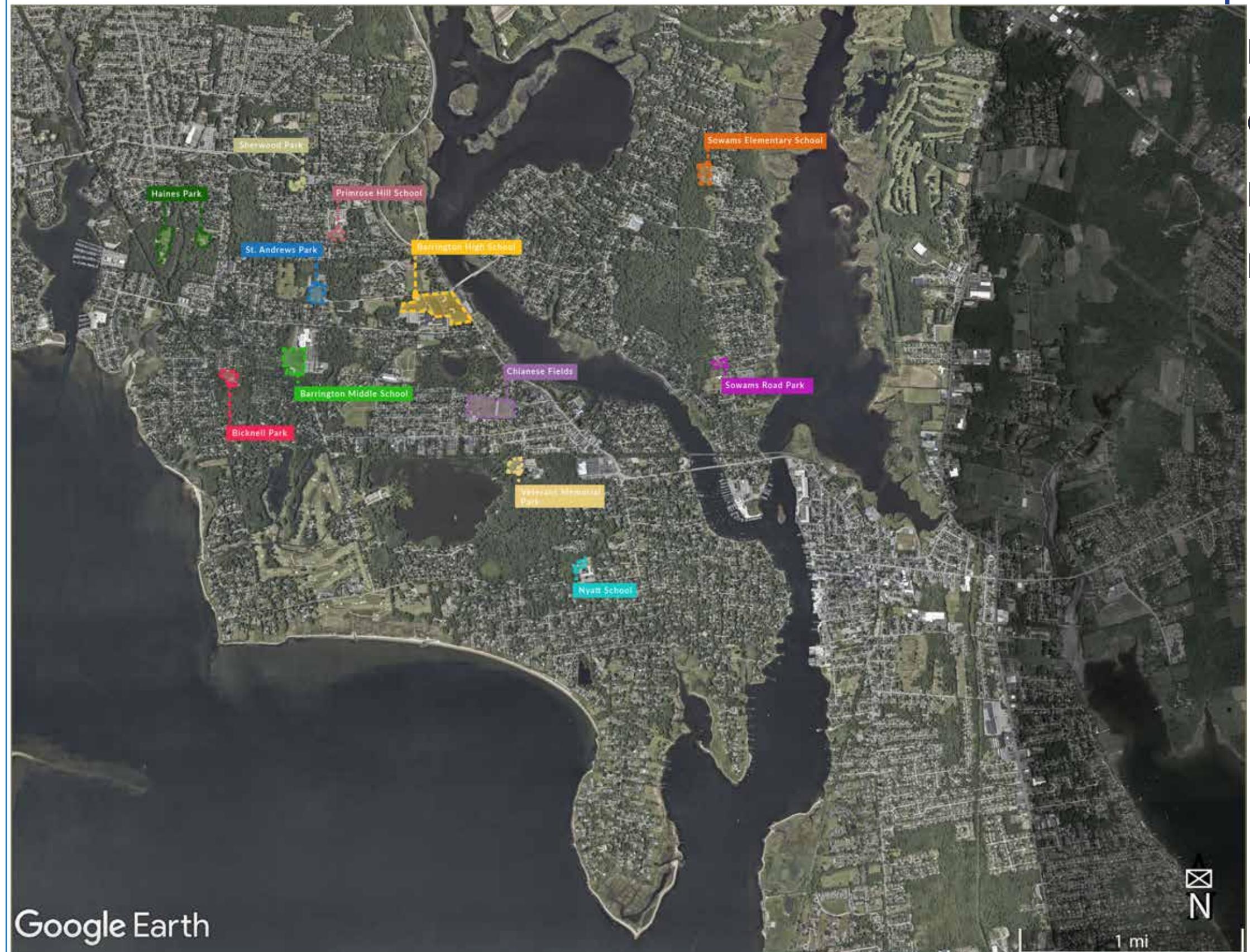
St. Andrews (Town Property)

- Soccerfield - STA Field 1.1

Veterans Memorial Park

- Softball/VMP Field 1.1

SITE MAPPING



A
B
C
D
E

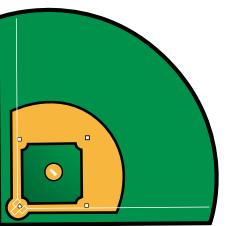
The basis of this report included reviewing many of the Town and School owned properties. As a basis of the study we reviewed the following:

4 90' Baseball Fields
6 50'-70' Little League Fields
4 60' Softball Fields
3 60' Softball Little League Fields
13 Multi-Use Rectangular Fields

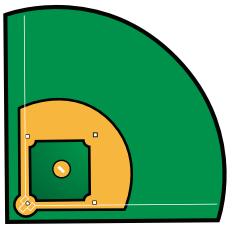
Based on the review of all of the fields, there is a significant amount of baseball/softball fields in comparison to the number of multi-use rectangular fields located town wide.

There is a large demand for rectangular play space in comparison to the demand for baseball/softball. This is also overlapped by the higher level and costs of maintaining baseball and softball fields.

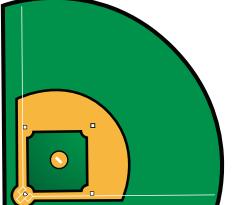
90' BASEBALL



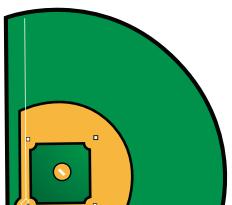
MS1.1



HS1.1

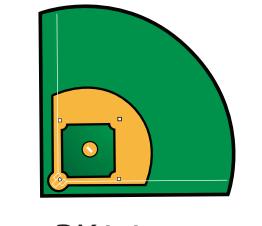


HS1.3

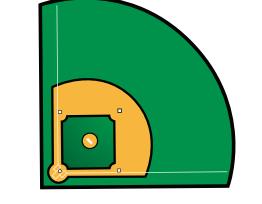


HAI1.2

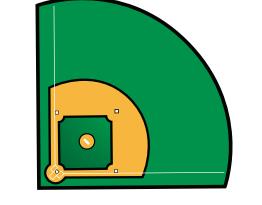
LITTLE LEAGUE



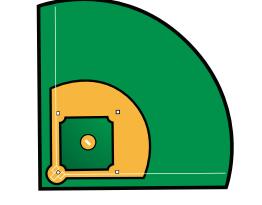
BK1.1



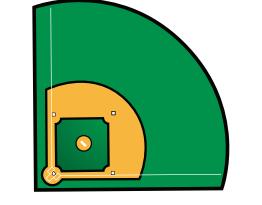
CH1.1



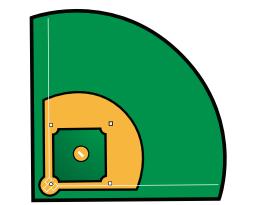
HAI1.1



SHWI1.1

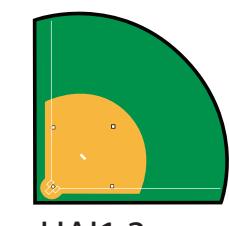


SO1.1

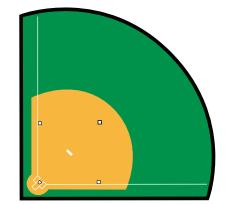


SO1.2

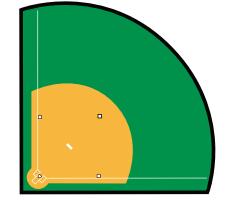
SOFTBALL FULL



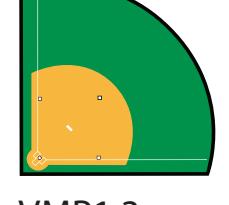
HAI1.3



HS1.2

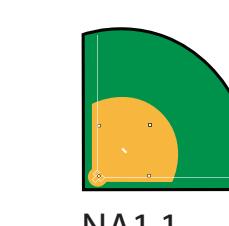


HS1.3

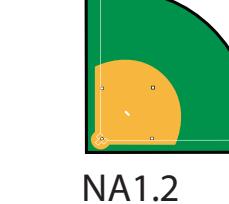


VMP1.3

SOFTBALL LITTLE
LEAGUE



NA1.1

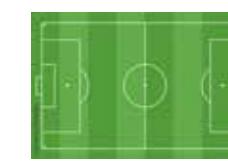


NA1.2

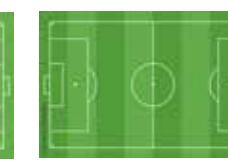


PRH1.1

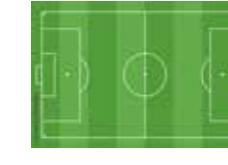
RECTANGULAR
MULTI-USE FEILDS



MS2.1



MS2.2



MS2.3



HS2.1



HS2.2



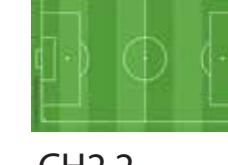
HS3.2



BK1.2



CH2.1



CH2.2



CH2.3



HAI1.4



SOPRK 2.1



STA1.1

ASSESSMENT METHODOLOGY

The field was assessed using the common set of criteria detailed below for the following fields: Victory Field, St. Andrews Farm, Sowams Park, Chianese, Shrewood Park, Veterans Memorial Park, and Sowams School. The fields were tested for Performance Characteristics. Additionally, each field had a test pit to evaluate the soil profile beneath the surface. General observations were made throughout the process. Finally, soil samplers were obtained and were analyzed at Logan Laboratories for nutritional composition and a saturated paste exact to determine plant available nutrients and minerals. A second sample was sent to Turf Soil and Diagnostics for a complete physical analysis.

Each field was assessed for the following performance criteria related to Playability, Presentation and Structure. Additional tests and observations were taken via test pits:

General Observations	1" Soil Compaction	Surface Hardness
% Desirable Vegetation	Soil Profile Test Pit	Root Zone Depth
% Weed	Soil Texture	Root Depth
3" Soil Compaction	Rotational Traction	Volumetric Water Content
Planarity	Rootzone Medium Depth	Infiltration Rate (1 Location/Field)
Complete Nutrition Tests	Saturated Paste Extract	Complete Physical Tests

In addition to the turf field criteria, photographs and drone imagery were captured to document field observations and take note on the surrounding field infrastructure. Composite samples were collected from each field and sent for laboratory analysis.

- % Vegetative Cover – Measures the percentage of the surface that is covered with any form of vegetation. While weed cover is not optimal, it does prevent erosion, add some player traction, and impact aesthetics.
- % Desirable Grass Species – The current presence of desired grass species for your Athletic Field.
- % Weed Cover – The presence of weed pressure which can decrease field durability and traction.
- Planarity – Is a measurement of the localized undulations in a field measured beneath a 3 Meter straight edge. Undulations are likely to hold water, become worn, are impact athlete gait.
- % Bare Area – The percentage of the field that has lost its vegetative cover, which impacts athlete safety.
- Compaction 1" & 3" Depth – The density of the topsoil material which impacts drainage and root penetration.
- Rotational Traction – This is a measurement of the ability of the grass to withstand torque without tear out. It measures the strength of the roots and is a important for player safety.
- Surface Hardness – The ability of the field to absorb impact (G-Max) and mitigate injury/ concussion.

- Rootzone Medium Depth – The depth and consistency of the topsoil which impacts water holding capacity and root mass development.
- Root Depth – The extent of root development which impacts plant health and turf stability.
- Infiltration – The rate at which water penetrates the surface of the Athletic Field.
- Soil Moisture – The field's Volumetric Water Content which illustrates moisture distribution and uniformity.
- Soil Texture - A field observation of the soils physical composition and tilth.
- Soil Horizon Depth - A field observation of the Test Pit walls to note the depth of color or textural changes denoting changes in materials.
- General Observations - Field observations of the condition of the site noting the surface, the amenities, site conditions, safety concerns, and disease or pest pressure.
- Laboratory Analysis - The three standard tests Tom Irwin Advisors uses include a complete nutritional test which determines the ability of the soil to support vigorous plant growth, a saturated paste extract which uses a water extract to determine the amount of nutrients and minerals that are readily available to the plant, and the physical properties of the soil itself to determine its ability to transmit water, resist compaction, and provide stability.

The tools used to assist with the assessment were:

- Grass Quadrant - Used to measure percentages of weed, desirable grass, disease, bare area.
- Penetrometer – Used for measuring soil compaction which is equipped with a pressure transducer to measure the force necessary to penetrate the soil at varying depths.
- Double Ring Infiltrometer – A device which forces a column of water vertically through the soil profile such that the permeation can be measured.
- Pogo Pro Plus Moisture Probe and GPS- Used to GPS Map and measure moisture levels in soils.
- Clegg Hammer – Impact tester for generating Gmax or Surface Hardness ratings.
- Mascaro Profiler – 12" soil profile extraction tool.
- Torque Meter with Rotational Traction Vanes – A specially calibrated meter and contact foot which can measure root strength.
- Planarity Straight Edge and Measurement Wedge- A box beam and measurement wedge which captures localized undulations across the field in multiple directions.

A

B

C

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E

CRITICAL ANALYSIS

- Planarity
- Vegetation present
- Surface hardness
- Rotational traction
- Volumetric Water Content
- Soil compaction at a 1" and 3" depth
- Infiltration rate (lab based)
- Rootzone depth
- Root depth
- Thatch depth

The temperature at the time of testing was between 66 - 75F with a mix of sun and clouds, there had been 0.19" of precipitation on the previous 24 hours and no appreciable precipitation previous to that.

Barrington Rhode Island Fields

- All classified as Sandy Loam (25-30% Silt/Clay) except for Sowams School which is a Loamy Sand (Silt and Clay about 21%).
- Victory Field and Sowams School Saturated Paste Testing identified a higher concentration of Sodium compared to Potassium, which can create a difficult growing environment for sustainable turfgrass growth.
- All fields has a high percentage of silt and clay, averaging 31.5% with a range between 21.1% and 37.6% The silt average is 23.2% and ranges between 13.9% and 28.7%
- The clay content averages 8.36% and ranges between 6.8% and 9.9%.
- The fine sands fraction was also high across the fields. The average of fine and very fine sands combined is 27%.
- The fields air very soft, with an average surface hardness or clegg reading of 63.9. This is most likely influenced by the high moisture content.
- The infiltration rate was very low on every field, averaging only 0.22 inches/hour. No field scored 1" of infiltration or greater.
- The weed content on the field is very high with an average of 40% of each field being comprised of weed. Only veterans field rated only 5.8% weed and 94% desirable grasses.
- The 1" compaction was 189 PSI and the 3" compaction was 233 PSI. The 1" is higher than preferred but within acceptable ranges for a standard field.
- The root depth was low at Veterans field and Sherwood park with 3.3 and 2.3 inches of root depth. The elevated water table may contribute to these shallow root depths.
- The thatch depth was quite high at over and inch at Sherwood Park.
- The organic matter content was high at all fields except St. Andrews.
- The rootzone medium has good depth at all fields.

- The exchangeable hydrogen was high at St. Andrews and Chianese park, this results in lower Ph at these sites.

Test Pit Observations

- The topsoil extended to approximately 6" in depth.
- Very few large stones found in the top 3.5", below that the color and texture of fine material was similar but there was much more stone present.
- Beneath the topsoil the base material had a high clay percentage with the exception of the football field which had a deep sand base.



CHAPTER C:

EXISTING CONDITIONS



OVERVIEW

The fields condition and needs analysis process began in May of 2023 in recognition of the necessity to review and complete previous completed work and provide a existing analysis and review of the fields that can than be translated into recommendations for maintenance practices, field usage and field programming to meet the needs of the community.

Traverse reviewed town-owned outdoor athletic fields and other state owned-owned parcels to review the quality and use of those fields. The purpose of the fields condition and analysis process is to develop a strategy for investment in athletics fields, maintenance programs and to provide the greatest improvement to athletic programs as funds become available. The analysis provides an assessment of the current athletic fields and projected recreational needs to guide future programmatic decisions and capital improvement planning. The planning process included an inventory and evaluation of the existing conditions as well as concepts and recommendations for potential improvements. The sites reviewed during the fields analysis are mapped out on the following page:

Barrington Middle School (School)

- Baseball - MS Field 1.1
- West facing multi-purpose field - MS Field 2.1
- North multi-purpose field - MS Field 2.2
- South PRACTICE multi-purpose field - MS Field 2.3

Barrington High School (School)

- Varsity Baseball - HS Field 1.1
- Varsity Softball - HS Field 1.2
- JV Baseball - HS Field 1.3
- MP Field adjacent to parking lot - HS Field 2.1
- Stadium field - HS Field 2.2
- MP Field behind JVBB - HS Field 2.3
- MP Field behind softball - HS Field 2.4
- Softball Field behind Tennis Courts - HS Field 3.1
- Multi-Use Field behind Tennis Courts - HS Field 3.2

Bicknell Park (Town Property)

- Baseball field - BK Field 1.1
- Multi-Use- BK Field 1.2

Chianese Fields (Town Property)

- Baseball field - CH 1.1
- North multi-purpose fields - CH 2.1
- Lower field 1 - CH 2.2
- Lower field 2 (landfill field) - CH 2.3

Haines Park (State Property)

- Lower baseball field - HAI Field 1.1
- Upper baseball field - HAI Field 1.2
- Upper softball field - HAI Field 1.3
- Upper Multi-Use - HAI Field 1.4

Nayatt Ave Field (School)

- West softball field - NA Field 1.1
- East softball field - NA Field 1.2

Primrose Hill School (School)

- Softball field - PRH Field 1.1

Sherwood Park (Town Property)

- Baseball field - SHW Field 1.1

Sowams Rd Park (Town Property)

- Multi purpose field - SOPRK Field 2.1

Sowams School (School)

- Practice baseball field - SO Field 1.1
- Baseball field (play field) - SO Field 1.2

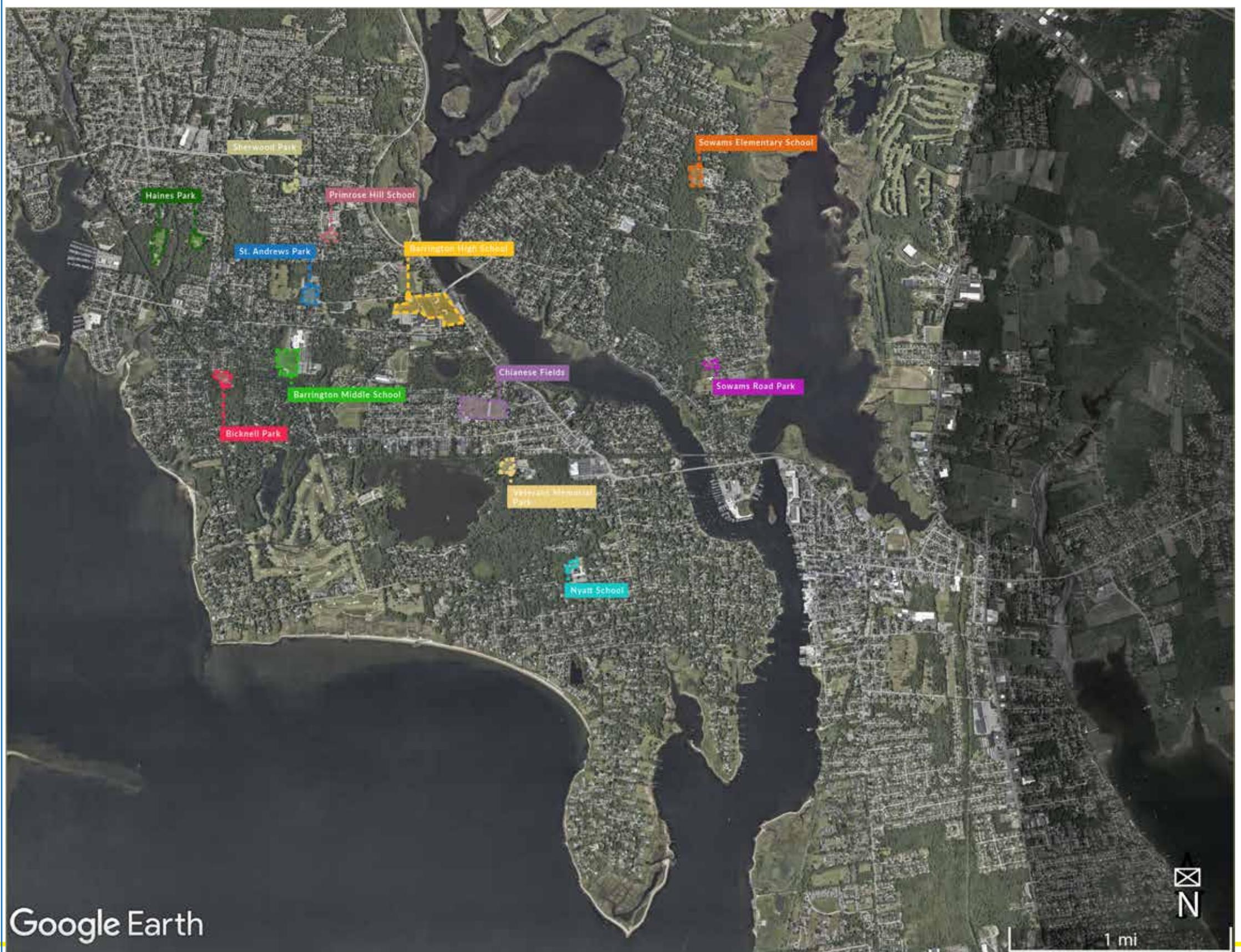
St. Andrews (Town Property)

- Soccerfield - STA Field 1.1

Veterans Memorial Park

- Softball: VMP Field 1.1

SITE MAPPING



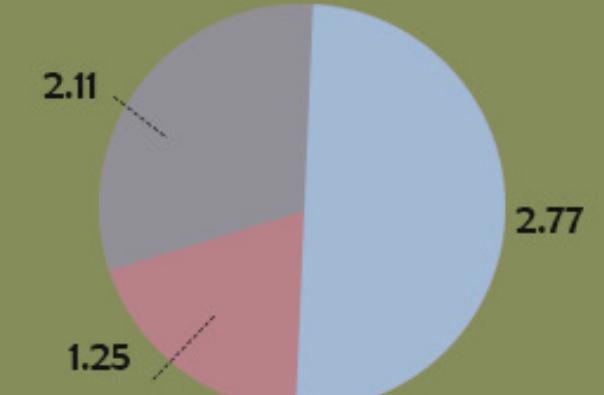
BARRINGTON MIDDLE SCHOOL



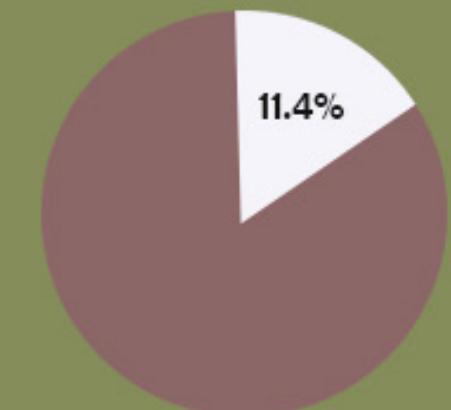
BARRINGTON MIDDLE SCHOOL

261 MIDDLE HIGHWAY

6.36 ACRES



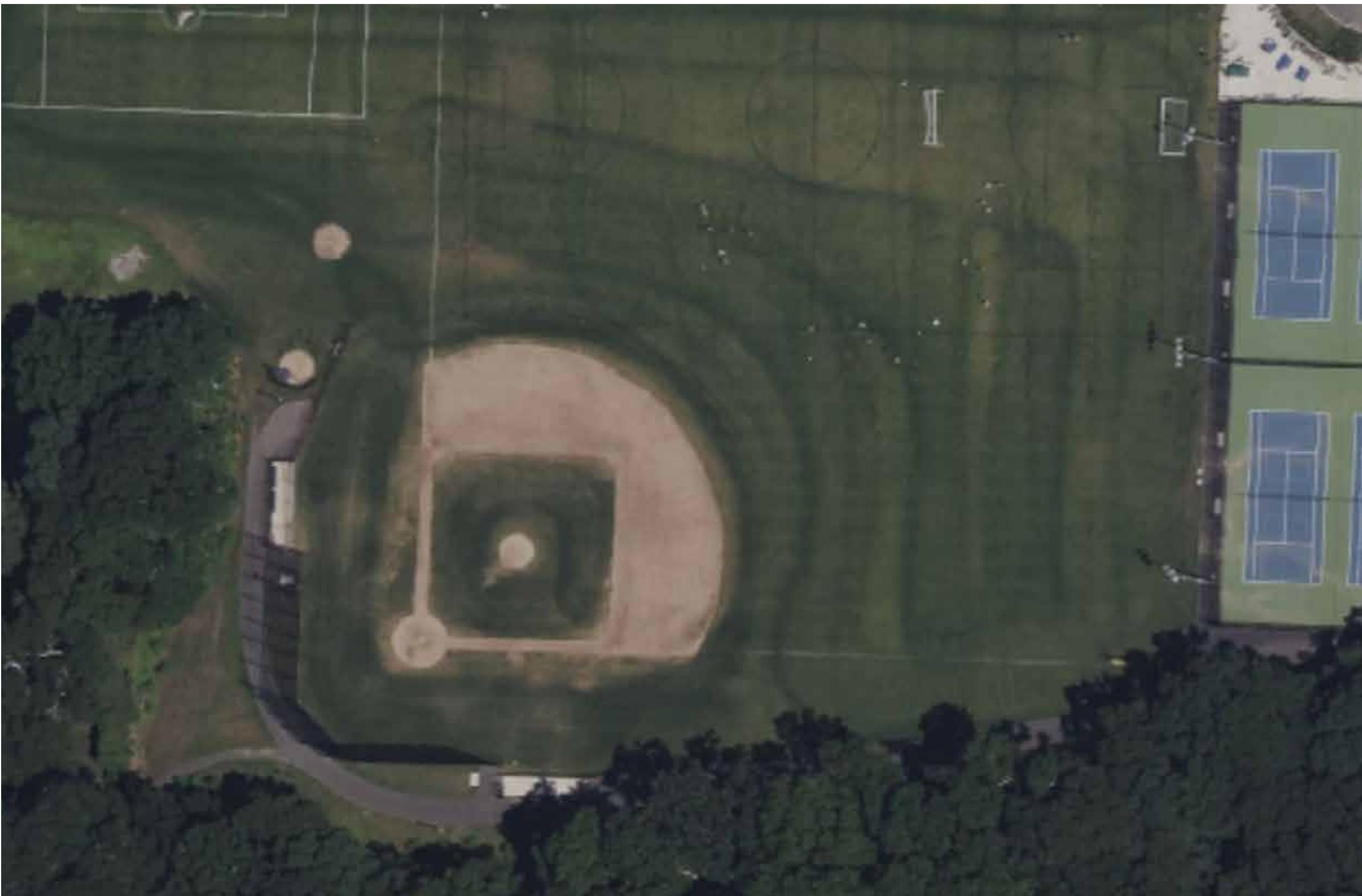
Middle School Fields (acres)



Middle School vs Town

BARRINGTON MIDDLE SCHOOL

MS1.1: BASEBALL



PROS:

- 90' BASEBALL DIAMOND
- CENTRALLY LOCATED
- ACCESS TO PARKING
- IRRIGATED
- ACCESS TO RESTROOMS
- MULTI-SPORT COMPLEX
- INCLUDES HARD COURT SPORTS FOR FAMILIES WITH MULTI-SPORT CHILDREN

CONS

- OVERLAPPING MULTI-USE FIELD
- DRAINAGE CONDITION ALONG 1ST BASE LINE
- GENERAL IMPROVEMENT TO GRASS FIELD MAINTENANCE
- CURRENT DEMAND FOR BASEBALL FOR THIS FIELD IS LOW
- IN A FLOOD ZONE

Field Assessment Data Sheet: Planning



A

B

C

D

E

Site Info

Date and Time

08/03/2023 - 09:45AM

Site Name

MS Field 1.1: Middle School: Baseball

Address

261 Middle Highway 261 Middle Highway Barrington Rhode Island 02806

Facility Manager Director

Site Contact: Phone

Site Contact: Mobile

Is there a formalized maintenance plan in place for the facility?

Yes
 No

Are there maintenance records available?

Yes
 No

Describe the proximity and type of field abutters.

Abutters include wetlands on south side of field (within 20 feet from backstop), residential units, large grouped vegetation (within 30 feet of both 1st and 3rd base sides) as well as overlapped multipurpose field in center/right field.

Abutters Photos



Provide narrative of view-sheds, noise buffers, condition of planting, etc.

View shed is similar to that of north and south multipurpose fields. Little to no noise as baseball field is furthest from road. Only minimal noise from adjacent residential neighborhood. Condition of planting is relatively healthy with majority of planting being large scale vegetation and surrounding vegetation closest to field are small woody trees/shrubs.

Available Record Information

Subsection

Available Record Information

- Design Plans and Specifications
- As-Builts
- Site Plan Sketches
- Assessors Maps/Plot Plans
- Aerial Photography
- Flood Insurance Maps/USGS Maps
- Town Utility Maps
- Utility Plans

Photos Buffers/Plantings



Additional Available Information

Provide narrative of any additional special environmental or natural features which could impact field operations.

Potential concern for wetland. Refer to cad.

Environmental

Photos Environmental/Natural Features

No images

Subsection

Geometry Evaluation

Describe the proximity of any wetlands, surface waters or other environmental features which impact field redevelopment, maintenance or improvement projects.

Significant wetland behind dugout abutting residential properties. This may impact maintenance.

Sports

Football

Baseball

Baseball

- Tee-Ball (4-7)
- Minor League (5-11)
- Major Division (9-12)
- Intermediate (11-13)
- Junior League (12-14)
- Senior League (13-16)
- High School (15-18)
- Adult (18+)

Baseball Amenities

- Enclosed Dugouts
- Canopy Dugouts
- Fenced Dugouts
- Netted Backstop
- Chainlink Backstop
- Foul Poles
- Scoreboard
- Flag Pole
- Trash Bins
- Press box
- Single Batting Cage
- Double Batting Cage
- Bull Pen(s)

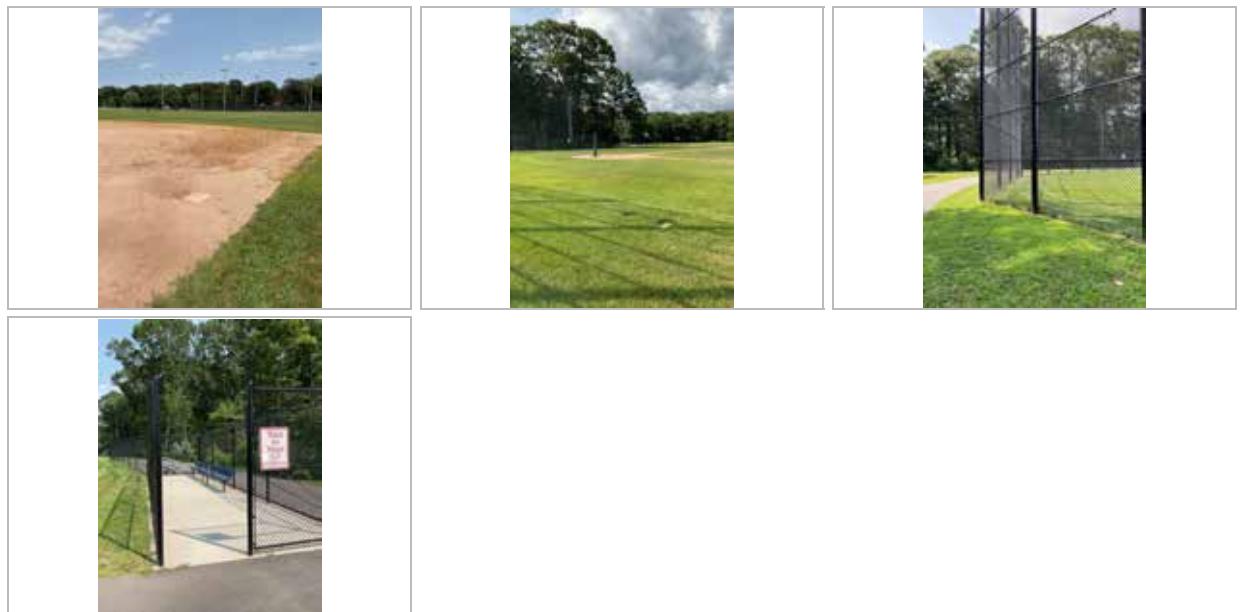
Deficiencies

Field runs into overlap with multipurpose field. No shade over dugouts. Early night games are provided with shade from surrounding vegetation. No easy access to bathroom. No Ada access

Recommendations

Ada access. Bathroom access. Trash cans. Storage Lights?

Baseball Photos



BARRINGTON MIDDLE SCHOOL

MS2.1-2.3: Multi-Use



A
B
C
D
E

BARRINGTON MIDDLE SCHOOL

MS2.1-2.3: Multi-Use



BARRINGTON MIDDLE SCHOOL

MS2.1-2.3: Multi-Use



A
B
C
D
E

Field Assessment Data Sheet: Planning



Site Info

Date and Time

08/03/2023 - 09:40AM

Site Name

MS Field 2.3: Multi-Use Field South

Address

MS Field 2.3: Multi-Use Field South 261 Middle Highway Barrington Rhode Island 02806

Facility Manager Director

[Redacted]

Site Contact: Phone

[Redacted]

Site Contact: Mobile

[Redacted]

Available Record Information

Subsection

Available Record Information

- Design Plans and Specifications
- As-Builts
- Site Plan Sketches
- Assessors Maps/Plot Plans
- Aerial Photography
- Flood Insurance Maps/USGS Maps
- Town Utility Maps
- Utility Plans

Additional Available Information

[Redacted]

Environmental

Subsection

Describe the proximity of any wetlands, surface waters or other environmental features which impact field redevelopment, maintenance or improvement projects.

No seeable proximity to water. Refer to cad

Is there a formalized maintenance plan in place for the facility?

- Yes
- No

Are there maintenance records available?

- Yes
- No

Describe the proximity and type of field abutters.

Similar to MS Field North. However MS Field South abutters include tennis/basketball courts as well as overlapping w/5 baseball center and left right field.

Abutters Photos



Provide narrative of view-sheds, noise buffers, condition of planting, etc.

All are similar to field north however field south is closer to road so noise level is slightly louder than field north. There is not buffer plantings or plantings in general since field south is between the outfield of baseball and the parking lot on the west side of the middle school.

Photos Buffers/Plantings

No images

Provide narrative of any additional special environmental or natural features which could impact field operations.

N/a

Photos Environmental/Natural Features

No images

Geometry Evaluation

Sports

Football

- Youth: Tiny Mite (5-7)
- Youth: Mitey Mite (7-9)
- Youth: Jr. Pee Wee (8-10)
- Youth: Pee Wee (9-11)
- Youth: Jr. Varsity (10-12)
- Youth: Varsity (12-14)
- High School
- Adult

Football Size

- 40,000 Sq.ft.

PROS:

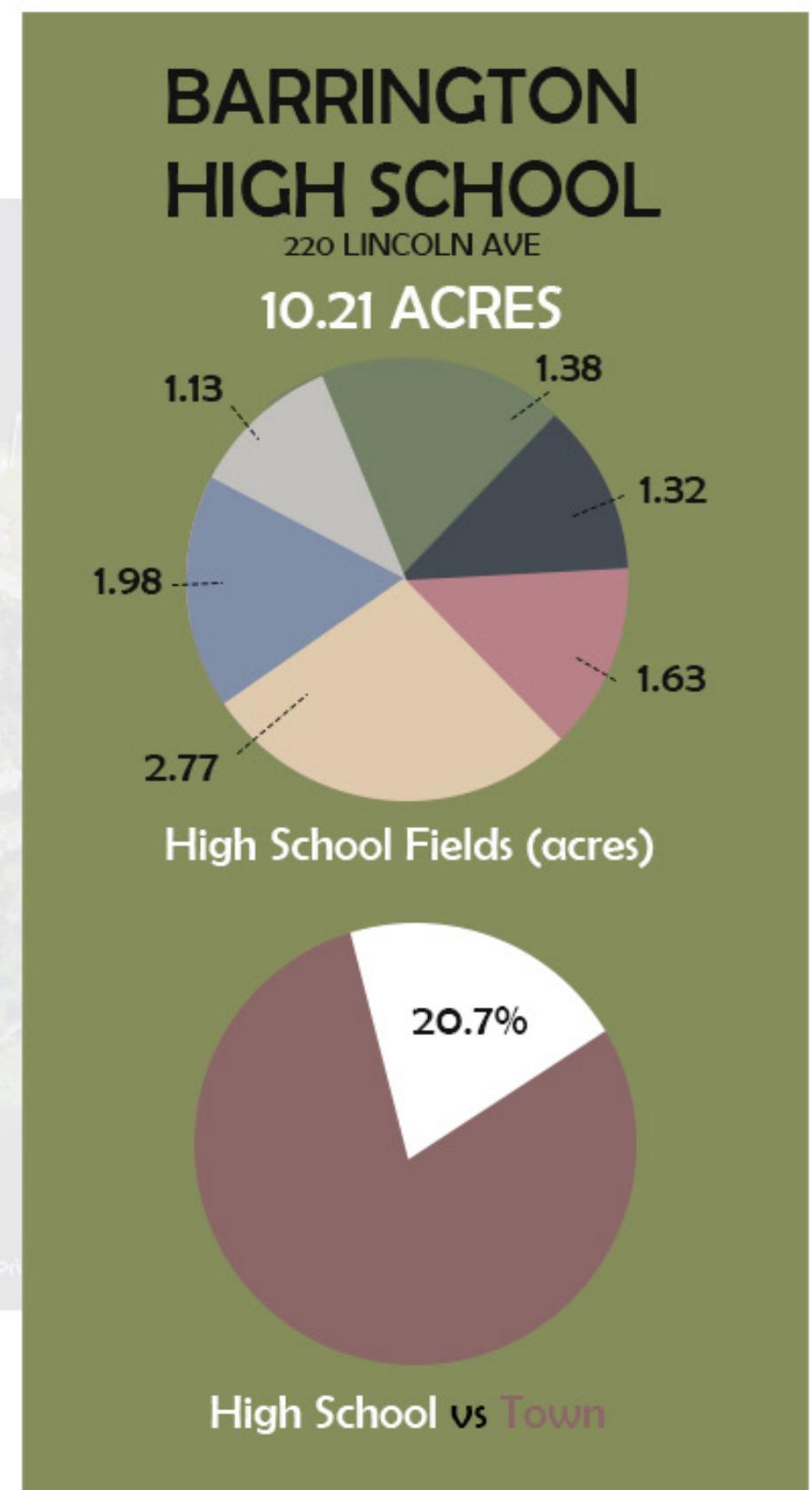
- MULTIPLE CONFIGURATIONS OF SPORTS TYPES AND SIZES
- CENTRALLY LOCATED
- ACCESS TO PARKING
- IRRIGATED
- ACCESS TO RESTROOMS
- MULTI-SPORT COMPLEX INCLUDES HARD COURT SPORTS FOR FAMILIES WITH MULTI-SPORT CHILDREN

CONS

- OVERLAPPING BASEBALL
- HEAVY USE
- GENERAL IMPROVEMENT TO GRASS FIELD MAINTENANCE
- IN A FLOOD ZONE



BARRINGTON HIGH SCHOOL HS 1.1: VARSITY BASEBALL



A
B
C
D
E

BARRINGTON HIGH SCHOOL

HS 1.1: VARSITY BASEBALL



PROS:

- DUGOUTS
- ACCESS TO PARKING
- ACCESS TO RESTROOMS
- CORRECT ORIENTATION

CONS

- OVERLAPPING FIELD USAGE
- INFIELD NEEDS TO BE REBUILT
- HEAVY USE
- SPECTATOR SEATING
- ADA ACCESS
- GENERAL MAINTENANCE PRACTICES
- SHORT CENTER FIELD
- RIGHT HANDED BATTER FOUL BALL INTO LACROSSE FIELD
- IN AN AER FLOOD ZONE

Field Assessment Data Sheet: Planning



Site Info

Date and Time

08/03/2023 - 08:15AM

Site Name

HS Field 1.1: High School: Varsity Baseball

Address

HS Field 1.1: High School: Varsity Baseball 220 Lincoln Avenue Barrington Rhode Island 02806

Facility Manager Director

Site Contact: Phone

Site Contact: Mobile

Available Record Information

Subsection

Available Record Information

- Design Plans and Specifications
- As-Builts
- Site Plan Sketches
- Accessors Maps/Plot Plans
- Aerial Photography
- Flood Insurance Maps/USGS Maps
- Town Utility Maps
- Utility Plans

Additional Available Information

Environmental

Subsection

Describe the proximity of any wetlands, surface waters or other environmental features which impact field redevelopment, maintenance or improvement projects.

The closest water body is located east of the site (Barrington River). No other water bodies pose a threat to the site.

Is there a formalized maintenance plan in place for the facility?

- Yes
- No

Are there maintenance records available?

- Yes
- No

Describe the proximity and type of field abutters.

Field abutters include parking lot east of school as well as field hockey field (located in central outfield closest to County Rd and multipurpose field to south east of baseball diamond).

Abutters Photos

No images

Provide narrative of view-sheds, noise buffers, condition of planting, etc.

View sheds: clear view shed of field into outfield and County Rd. JV field and multipurpose fields are visible from baseball diamond. Noise buffers: little to minimal noise buffers. Field is open and clear of any significant vegetation Condition of planting: turf seems to be in relatively decent condition. Some patching in high traffic areas, build up of dead grass. Field including adjacent field hockey and soccer field are covered in goose poop. From entrance of dugout to field, there is a change in material (stone dust to dirt). Lots of weeds and scattered grass tufts infect the infield dirt areas.

Photos Buffers/Plantings



Provide narrative of any additional special environmental or natural features which could impact field operations.

N/a

Photos Environmental/Natural Features

A

B

C

D

E



Geometry Evaluation

Sports

Football

Football

- Youth: Tiny Mite (5-7)
- Youth: Mitey Mite (7-9)
- Youth: Jr. Pee Wee (8-10)
- Youth: Pee Wee (9-11)
- Youth: Jr. Varsity (10-12)
- Youth: Varsity (12-14)
- High School
- Adult

Football Size

- 40,000 Sq.ft.
- 50,000 Sq.ft.
- 60,000 Sq.ft.
- 70,000 Sq.ft.
- 80,000 Sq.ft.
- 90,000 Sq.ft.

Football Amenities

- Uprights
- Benches

Deficiencies

Recommendations

Photos: Football

No images

Baseball

Baseball

- Tee-Ball (4-7)
- Minor League (5-11)
- Major Division (9-12)
- Intermediate (11-13)
- Junior League (12-14)
- Senior League (13-16)
- High School (15-18)
- Adult (18+)

Baseball Amenities

- Enclosed Dugouts
- Canopy Dugouts
- Fenced Dugouts
- Netted Backstop
- Chainlink Backstop
- Foul Poles
- Scoreboard
- Flag Pole
- Trash Bins
- Press box
- Single Batting Cage
- Double Batting Cage
- Bull Pen(s)

Deficiencies

Overlapping use in the outfield JV and Varsity fields are too close to be used at the same time. Short center field No garbage cans- trash all over the ground Old amenities including benches, batting cage nettings, and storage container

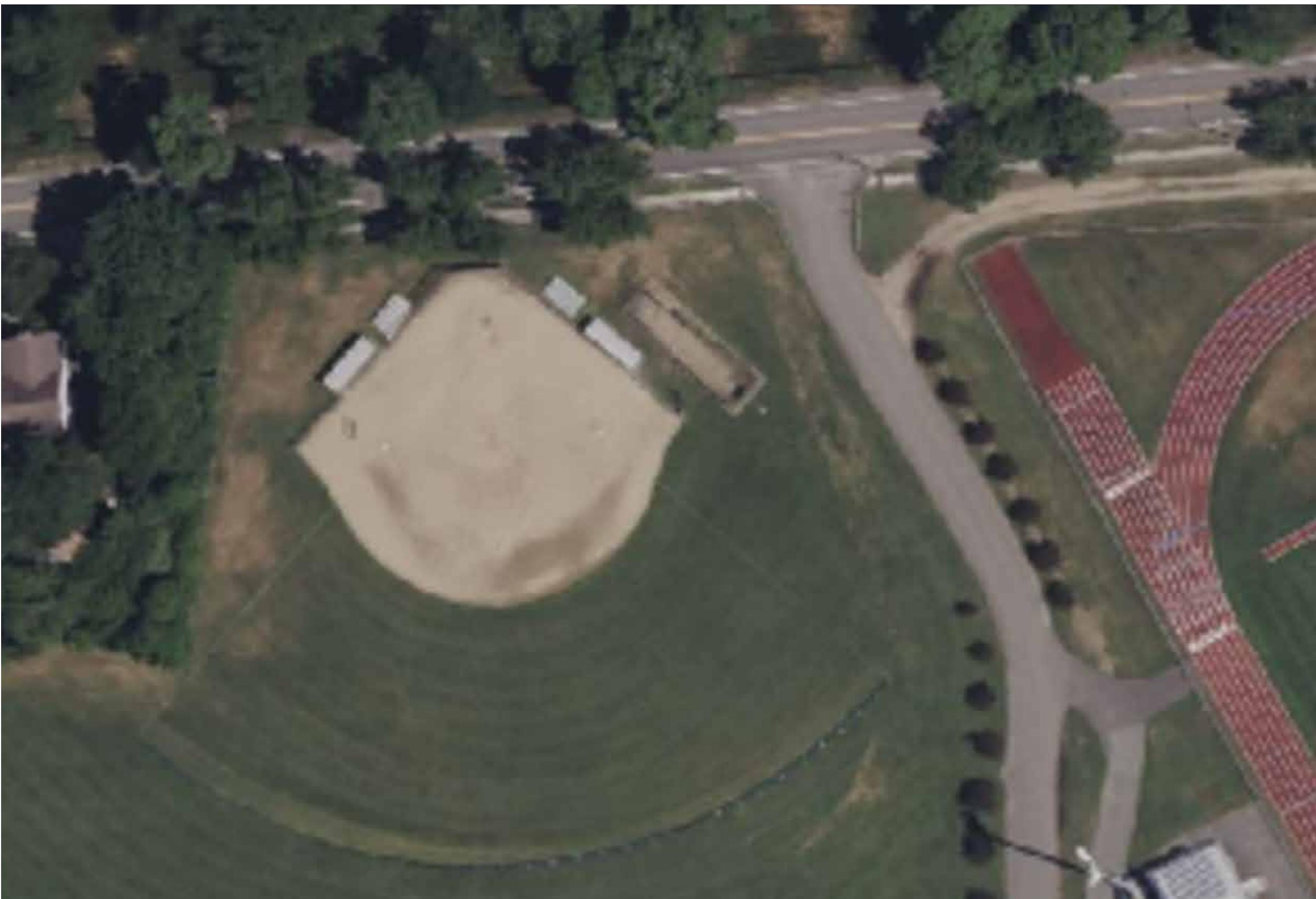
Recommendations

Update amenities Goose issue Create a combined bullpen/batting cage ADA Access Additional netting in outfield/batters eye Rebuild infield

Baseball Photos



BARRINGTON HIGH SCHOOL HS 1.2: VARSITY SOFTBALL



A
B
C
D
E

PROS:

- SOFTBALL FIELD ONLY. LIMITED CROSSING OF OUTFIELD
- DUGOUTS
- ACCESS TO PARKING
- IRRIGATED
- ACCESS TO RESTROOMS

CONS

- BACKSTOP CLOSE TO THE ROAD
- SOUTH ORIENTATION
- NOT TRUE OUTFIELD
- LIMITED SPECTATOR ACCESS
- ADA ACCESS
- AWAY BULLPEN

Field Assessment Data Sheet: Planning



Site Info

Date and Time

08/03/2023 - 07:00AM

Site Name

HS Field 1.2: High School: Varsity Softball

Address

220 Lincoln Avenue Barrington Rhode Island 02806

Facility Manager Director

Site Contact: Phone

Site Contact: Mobile

Available Record Information

Subsection

Available Record Information

- Design Plans and Specifications
- As-Builts
- Site Plan Sketches
- Assessors Maps/Plot Plans
- Aerial Photography
- Flood Insurance Maps/USGS Maps
- Town Utility Maps
- Utility Plans

Additional Available Information

Environmental

Subsection

Describe the proximity of any wetlands, surface waters or other environmental features which impact field redevelopment, maintenance or improvement projects.

No viewable wetlands on site. The closest proximity to water is directly east of the site (Barrington River). Collection of trees and other woody plants adjacent to the field (singular street trees and tree groupings located behind the backstop and along the first base line)

Is there a formalized maintenance plan in place for the facility?

- Yes
- No

Are there maintenance records available?

- Yes
- No

Describe the proximity and type of field abutters.

Significant vegetation along County road and along first base side. Closest tree is within 10 feet of backstop with little to no branching overhang onto field. Other significant vegetation groups are within 20 feet of the back of dugout on first base side

Abutters Photos



Provide narrative of view-sheds, noise buffers, condition of planting, etc.

View Sheds: Large view shed from home plate to outfield. Able to see into high school parking lot (west side of school). View is open from both sets of bleachers onto field. Noise buffers: limited planting along County Rd is not significant enough to form a noise buffer. The large vegetation grouping along first base line may act as a noise barrier for oncoming traffic down Count Rd towards the water. Condition of planting:

Photos Buffers/Plantings



Provide narrative of any additional special environmental or natural features which could impact field operations.

Large vegetation buffer along first base line may impact field operations.

Photos Environmental/Natural Features



Geometry Evaluation

Softball

- Tee-Ball (4-5)
- Minor League (5-11)
- Major Division (9-12)
- Intermediate (11-13)
- Junior League (12-14)
- Senior League (13-16)
- High School (15-18)
- Adult (18+)

Softball Amenities

- Enclosed Dugouts
- Canopy Dugouts
- Fenced Dugouts
- Netted Backstop
- Chainlink Backstop
- Foul Poles
- Scoreboard
- Flag Pole
- Trash Bins
- Press box
- Single Batting Cages
- Double Batting Cages
- Bull Pen(s)

Deficiencies

Minimal ADA access including bleachers Open field (no foul pole lines/ outfield fencing) South orientation is not the most optimal.

Recommendations

Provide shade for spectators... street trees are too small to provide any significant shade Add a fence to the outfield so that the back side of the fence (beyond the center field grass area) can function as a play space for other sports/families with young children can play at the same time as a game is taking place. Replace scoreboard

Softball Photos



A
B
C
D
E

BARRINGTON HIGH SCHOOL

HS 1.3: JV BASEBALL



PROS:

- JV FIELD FOR INFIELD PRACTICE

CONS

- PROXIMITY TO THE ROAD
- NOT TRUE OUTFIELD
- SHORT OUTFIELD
- HEAVY MULTI-USE OVERLAY
- LIMITED SPECTATOR ACCESS
- ADA ACCESS
- SOUTHEAST ORIENTATION
- IN A FLOOD ZONE
- RIGHT HANDED FOUL BALLS INTO VICTORY FIELD

Field Assessment Data Sheet: Planning



Site Info

Date and Time

08/03/2023 - 08:35AM

Site Name

HS Field 1.3: High School: JV Baseball

Address

220 Lincoln Avenue Barrington Rhode Island 02806

Facility Manager Director

Site Contact: Phone

Site Contact: Mobile

Available Record Information

Subsection

Available Record Information

- Design Plans and Specifications
- As-Builts
- Site Plan Sketches
- Assessors Maps/Plot Plans
- Aerial Photography
- Flood Insurance Maps/USGS Maps
- Town Utility Maps
- Utility Plans

Additional Available Information

Environmental

Subsection

Describe the proximity of any wetlands, surface waters or other environmental features which impact field redevelopment, maintenance or improvement projects.

Is there a formalized maintenance plan in place for the facility?

- Yes
- No

Are there maintenance records available?

- Yes
- No

Describe the proximity and type of field abutters.

Closest abutters include stadium field and track, Federal Rd and County Rd.

Abutters Photos



Provide narrative of view-sheds, noise buffers, condition of planting, etc.

View sheds remain open and noise buffers remain limited. Condition of planting along street seems relatively healthy. Turf includes weeds and thatch build up. JV field has less random weed pockets in infield than varsity field does.

Photos Buffers/Plantings



Provide narrative of any additional special environmental or natural features which could impact field operations.

N/A

Photos Environmental/Natural Features



Geometry Evaluation

Baseball Amenities

- Enclosed Dugouts
- Canopy Dugouts
- Fenced Dugouts
- Netted Backstop
- Chainlink Backstop
- Foul Poles
- Scoreboard
- Flag Pole
- Trash Bins
- Press box
- Single Batting Cage
- Double Batting Cage
- Bull Pen(s)

Deficiencies

Discrepancies among JV and varsity field JV does not include a batting cage, covered dugouts or bullpen ADA access to field Spectator access to field

Recommendations

Include covered dugouts Improve shade for spectators along County Rd Improve utility path on the outside of first base side dugout Netting protection to Victory Field

Baseball Photos



BARRINGTON HIGH SCHOOL

HS 2.1: LIBRARY FIELD



A

B

C

D

E

PROS:

- DEDCATED RECTANGULAR FIELD SPACE
- ACCESS TO PARKING
- MATINENANCE PRACTICES HAS IMPROVED FIELD
- PROTECTIVE FENCING FOR LACROSSE/SOCCER

CONS

- TOPOGRAPHY ON EAST END
- HEAVY USE WITH SPORTS THAT IMPACT FIELD CONDITIONS
- GRASS CONDITIONS
- SOIL CONDITIONS
- SOLAR ORIENTATION
- ADA ACCESS
- IN A NAE FLOOD ZONE

Field Assessment Data Sheet: Planning



Site Info

Date and Time

08/03/2023 - 07:55AM

Site Name

Address

Facility Manager Director

Site Contact: Phone

Site Contact: Mobile

Is there a formalized maintenance plan in place for the facility?

Yes
 No

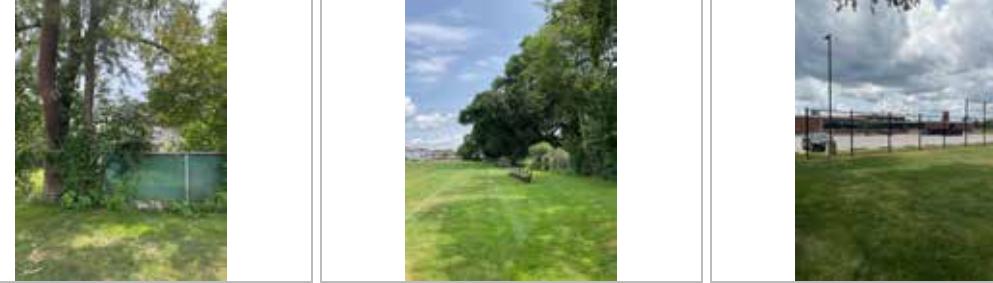
Are there maintenance records available?

Yes
 No

Describe the proximity and type of field abutters.

Field abutters include a parking lot (within 10 feet of field), residential homes (within 20 feet of field) and large vegetative buffers (within 20 feet of field)

Abutters Photos



Provide narrative of view-sheds, noise buffers, condition of planting, etc.

View sheds: view shed into field and onto County Rd is clear. There is also a clear view shed of the parking lot from field as well as clear views of the varsity and JV baseball fields, County Rd and the built environment on this road. There IS NOT a clear view however of the water (Barrington River) as the majority of the vegetation and built environment on County Rd blocks this view.

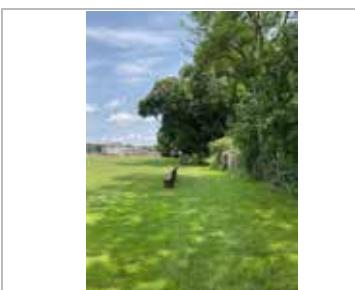
Available Record Information

Subsection

Available Record Information

Design Plans and Specifications
 As-Builts
 Site Plan Sketches
 Assessors Maps/Plot Plans
 Aerial Photography
 Flood Insurance Maps/USGS Maps
 Town Utility Maps
 Utility Plans

Photos Buffers/Plantings



Additional Available Information

Provide narrative of any additional special environmental or natural features which could impact field operations.

Close proximity to water can limit the option for synthetic turf

Environmental

Photos Environmental/Natural Features

Subsection

Describe the proximity of any wetlands, surface waters or other environmental features which impact field redevelopment, maintenance or improvement projects.

Closest proximity to water is just east of the site (Barrington River). No other significant water/wetland poses threat to site.

Boy's/Men's Lacrosse

- Pee Wee (11-12)
- Bantam (13-14)
- Midget (15-16)
- High School
- Adult

Deficiencies

Patching of dead grass/uneven surfacing The field drops off beyond the east end of the field ADA Access

**Recommendations**

Extending the field to accommodate rotation of goal mouths. Maintenance Improvements

Boy's/Men's Lacrosse Photos**Girl's/Women's Lacrosse****Girl's/Woman's Lacrosse**

- Pee Wee (11-12)
- Bantam (13-14)
- Midget (15-16)
- High School
- Adult

Deficiencies

Patching of dead grass/uneven surfacing The field drops off beyond the east end of the field ADA Access

Recommendations

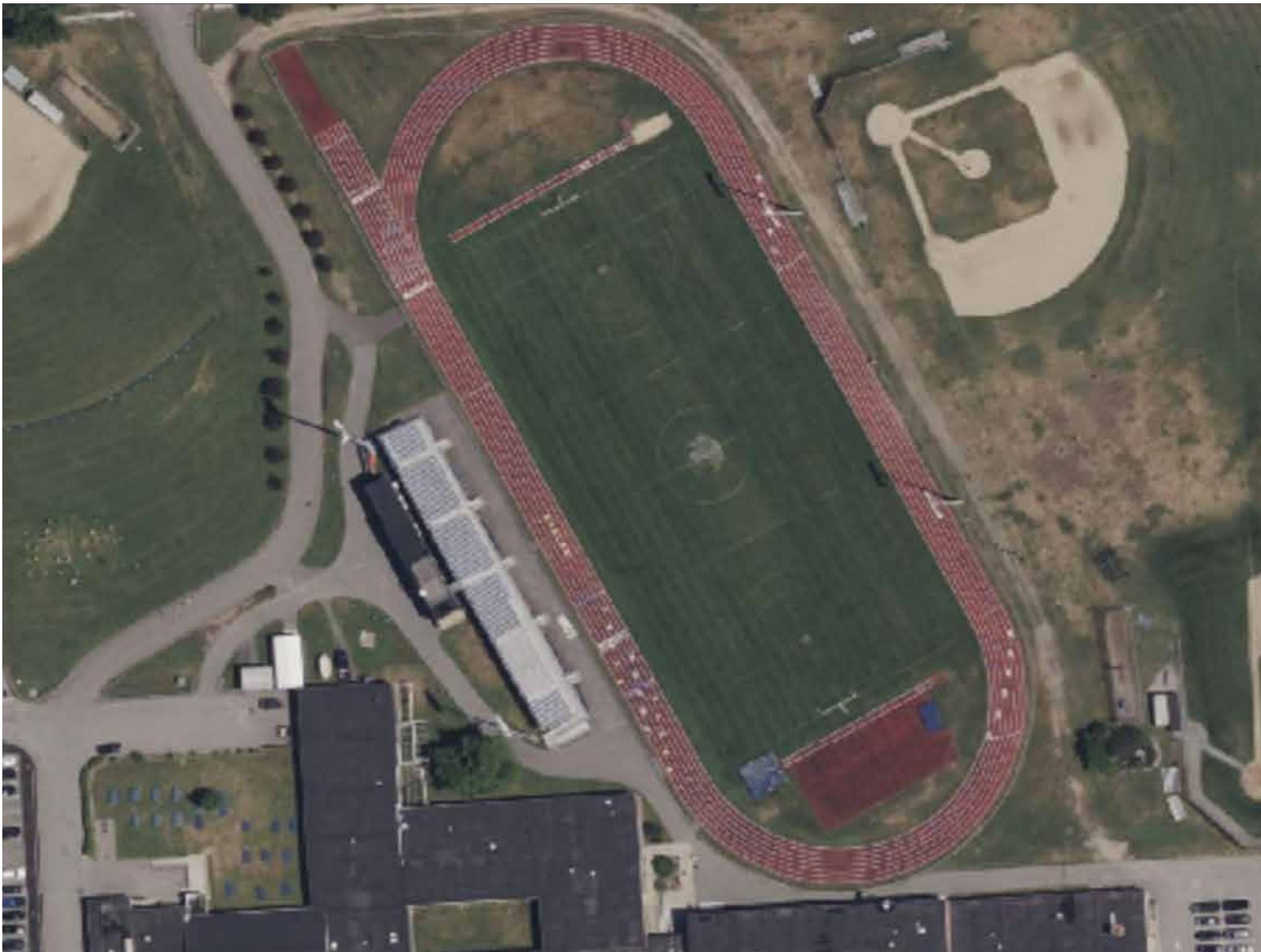
Extending the field to accommodate rotation of goal mouths. Maintenance Improvements

Girl's/Woman's Lacrosse Photos

No images

A**B****C****D****E**

BARRINGTON HIGH SCHOOL HS 2.2: VICTORY FIELD



PROS:

- STADIUM COMPLEX
- ADA ACCESS
- ACCESS TO PARKING
- MULTI-USE SPACE
- FENCING CONTROL/ACCESS

CONS

- HEAVY USE
- TURF CONDITIONS
- SOIL CONDITIONS
- IN A NAE FLOOD ZONE

Core PQS Field Test for Natural Turf

Organization: Barrington, RI

Field Name: HS Victory Field

Date Of Test: 07-12-2023

OVERALL GRADE	
GRADE	
D	

CORE PLAYABILITY		Tool	Average Results	Points	E
Planarity	3 Meter Straight Edge & Wedge	0.78 mm	5	A	
% Desirable Turfgrass Cover	Grass Quadrant	51.0 %	0	F	
Rotational Traction	Traction Meter	14.40 Nm	1	E	
Surface Hardness	Clegg/Gmax	68 GMax	1	E	
% Volumetric Water Content	POGO +	34.3 %	2	D	
CORE PRESENTATION		Tool	Average Results	Points	D
% Weed Cover	Grass Quadrant	37.0 %	0	F	
% Surface Debris	Grass Quadrant	0.0 %	5	A	
CORE STRUCTURE		Tool	Average Results	Points	D
Infiltration Rate	Double Ring Infiltrometer	0.23 "/hr.	0	F	
Compaction 1"	Penetrometer	170 PSI	2	D	
Compaction 3"	Penetrometer	223 PSI	3	C	
Root Depth	12" Profiler	2.30 "	2	D	
Thatch Depth	12" Profiler	0.20 "	5	A	
Rootzone Medium Depth	12" Profiler	7.30 "	4	B	
SCORING KEY			PQS Soccer	Total	Total points available for
A =	65-53 total	13		5 points per criteria	
B = High Standard	52-40 total	13		4 points per criteria	
C = Standard	39-27 total	13		3 points per criteria	
D = Low Standard	26-14 total	13		2 points per criteria	
F =	13 and below total	13		1 points per criteria	
	If any critical criteria score far Below Standard and present a potential safety issue the overall rating of the field must also score an F or				

CORE PQS SUMMARY:

Organization: Barrington, RI

Field Name: HS Victory Field

You have set your vision of producing and providing an Athletic Field that is consistent, durable and of the highest quality possible. You also wish to critically examine the fields condition and, through this knowledge, be proactive in maintenance planning for the future.

To realize this goal Tom Irwin Advisors (TIA) carried out a Core Performance Quality Standards (PQS) assessment on the Athletic Field on 07-12-2023

- The Overall Grade was a D
- The Playability Grade was a E or Below Standard
- The Presentation Grade was a D or Low Standard
- The Structural Grade was a D or Low Standard

General Observations:

Very lumpy feeling underfoot like walking on half golf balls add planarity across the field. It's almost kind of a W shape where the edges of the fields along the track are a little bit higher than inside the field 10 to 15 feet there's a little bit of a ridge Lotta bear area down the center lines that they had growing out very high high to cut 4 1/2 to 5 inches clippings on the surface disease, pressure dollar spider pythium some chopped up debris from mowing clover. Nutsedge crabgrass back grass plantain different compaction levels down the center of the field compared to the edges of the field.

A

B

C

D

E

High School Victory Football Field Photos



Grass grid test point 2 showing good cover but long height of cut.



Grass grid at test point 3. Note large percentage of established weed.

High School Victory Football Field Photos



Grass grid test point 2 showing good cover but long height of cut.



Grass grid at test point 3. Note large percentage of established weed.



High school field showing dead material and clippings on surface.



Deep gully near center of field.



High school field showing dead material and clippings on surface.



Deep gully near center of field.

Field Assessment Data Sheet: Planning



Site Info

Date and Time

08/03/2023 - 07:30AM

Site Name

HS 2.2: Stadium Field

Address

HS 2.2: Stadium Field 220 Lincoln Avenue Barrington Rhode Island 02806

Facility Manager Director

Site Contact: Phone

Site Contact: Mobile

Available Record Information

Subsection

Available Record Information

- Design Plans and Specifications
- As-Builts
- Site Plan Sketches
- Assessors Maps/Plot Plans
- Aerial Photography
- Flood Insurance Maps/USGS Maps
- Town Utility Maps
- Utility Plans

Additional Available Information

Environmental

Subsection

Describe the proximity of any wetlands, surface waters or other environmental features which impact field redevelopment, maintenance or improvement projects.

Closest proximity to water is just east of the site (Barrington River). No other potential wetland threats seem to impact site.

Is there a formalized maintenance plan in place for the facility?

- Yes
- No

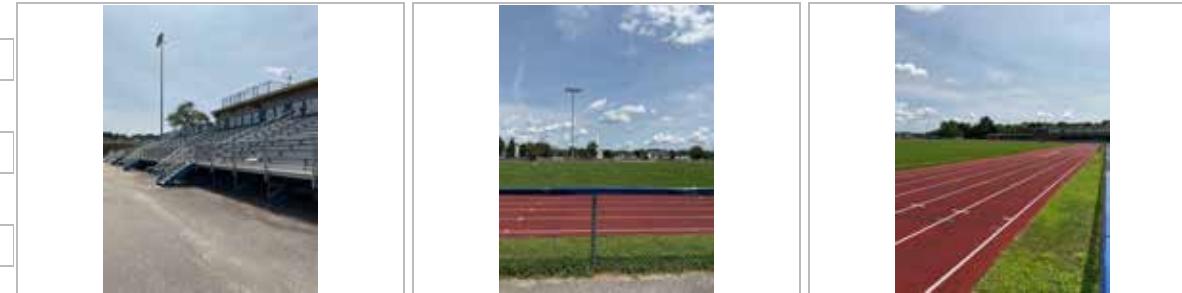
Are there maintenance records available?

- Yes
- No

Describe the proximity and type of field abutters.

Field abutters include County Rd, JV baseball field and Stadium field bleachers. Grass field used for lacrosse and football is also surrounded by a track that surrounds the outside ring of the field.

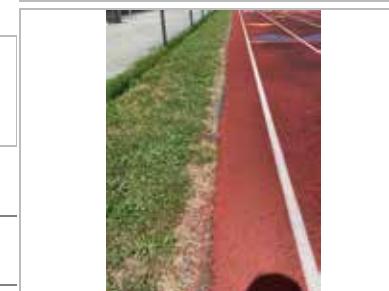
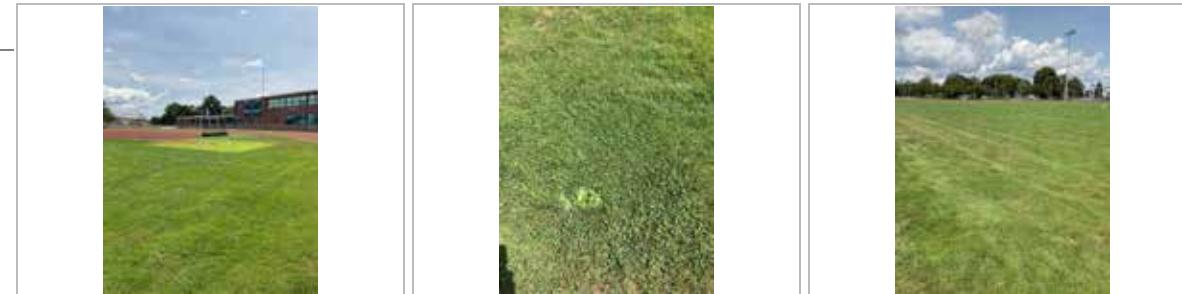
Abutters Photos



Provide narrative of view-sheds, noise buffers, condition of planting, etc.

View sheds: significant view sheds include unblocked views of the entire field including the track, JV and V baseball, V. softball, the school and traffic on County and Federal Rd. Noise buffers: Large stadium bleachers help create a noise buffer. However, minimal planting allows for noise from County and Federal Rd to enter the site. Condition of planting: Turf field seems to be in pretty good condition. Minimal tufting of turf has occurred. Patching of dead grass seen closest to outside of field boundaries as well as in high trafficked areas on field.

Photos Buffers/Plantings



Provide narrative of any additional special environmental or natural features which could impact field operations.

N/A

A

B

C

D

E

BARRINGTON HIGH SCHOOL

HS 2.3: MULTI-USE OUTSIDE BASEBALL



PROS:

- MULTI-USE SPACE

CONS

- HEAVY USE
- TURF CONDITIONS
- SOIL CONDITIONS
- IN A 100-FLOOD ZONE
- ADA ACCESS
- SPECTATOR ACCESS
- PLANARITY

Field Assessment Data Sheet: Planning



Site Info

Date and Time

08/03/2023 - 08:25AM

Site Name

HS Field 2.3: Multi-Use behind BB

Address

HS Field 2.3: Multi-Use behind BB County Road Barrington Rhode Island

Facility Manager Director

[Redacted]

Site Contact: Phone

[Redacted]

Site Contact: Mobile

[Redacted]

Available Record Information

Subsection

Available Record Information

- Design Plans and Specifications
- As-Builts
- Site Plan Sketches
- Accessors Maps/Plot Plans
- Aerial Photography
- Flood Insurance Maps/USGS Maps
- Town Utility Maps
- Utility Plans

Additional Available Information

[Redacted]

Environmental

Subsection

Describe the proximity of any wetlands, surface waters or other environmental features which impact field redevelopment, maintenance or improvement projects.

[Redacted]

Is there a formalized maintenance plan in place for the facility?

- Yes
- No

Are there maintenance records available?

- Yes
- No

Describe the proximity and type of field abutters.

Largest abutters to this field include County Rd and the Varsity BB field. Both are within 20-30 feet of the field.

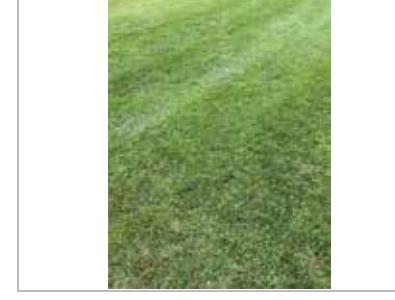
Abutters Photos



Provide narrative of view-sheds, noise buffers, condition of planting, etc.

Like most other fields on site, view sheds remain open and noise buffers are minimal. Condition of planting is relatively in decent condition with minimal street trees along outside of fenced field.

Photos Buffers/Plantings



Provide narrative of any additional special environmental or natural features which could impact field operations.

Proximity to significant waterway limits the ability to do a turf field. This field as well as both baseball fields and adjacent multipurpose field show signs of goose activity. Possible interference here.

Photos Environmental/Natural Features

A

B

C

D

E

BARRINGTON HIGH SCHOOL

HS 2.4: MULTI-USE OUTSIDE SOFTBALL



PROS:

- MULTI-USE SPACE
- ACCESS TO PARKING
- ADDITIONAL SPACE TO EXPAND ROTATING AND PRACTICE SPACE

CONS

- HEAVY USE
- TURF CONDITIONS
- SOIL CONDITIONS
- IN A 100-YEAR FLOOD ZONE
- SPECTATOR ACCESS
- PLANARITY

Field Assessment Data Sheet: Planning



Site Info

Date and Time

Site Name

HS Field 2.4: Multi-Use Behind SB

Address

HS Field 2.4: Multi-Use Behind SB Upland Way Barrington Rhode Island 02806

Facility Manager Director

Site Contact: Phone

Site Contact: Mobile

Available Record Information

Subsection

Available Record Information

- Design Plans and Specifications
- As-Builts
- Site Plan Sketches
- Assessors Maps/Plot Plans
- Aerial Photography
- Flood Insurance Maps/USGS Maps
- Town Utility Maps
- Utility Plans

Additional Available Information

Environmental

Subsection

Describe the proximity of any wetlands, surface waters or other environmental features which impact field redevelopment, maintenance or improvement projects.

Small wetland just south of field (if facing north). Other significant wetlands/waterways include Barrington River east of site.

Is there a formalized maintenance plan in place for the facility?

- Yes
- No

Are there maintenance records available?

- Yes
- No

Describe the proximity and type of field abutters.

Abutters include St. Andrews School, Federal Road, St Andrews tennis courts and adjacent residential properties

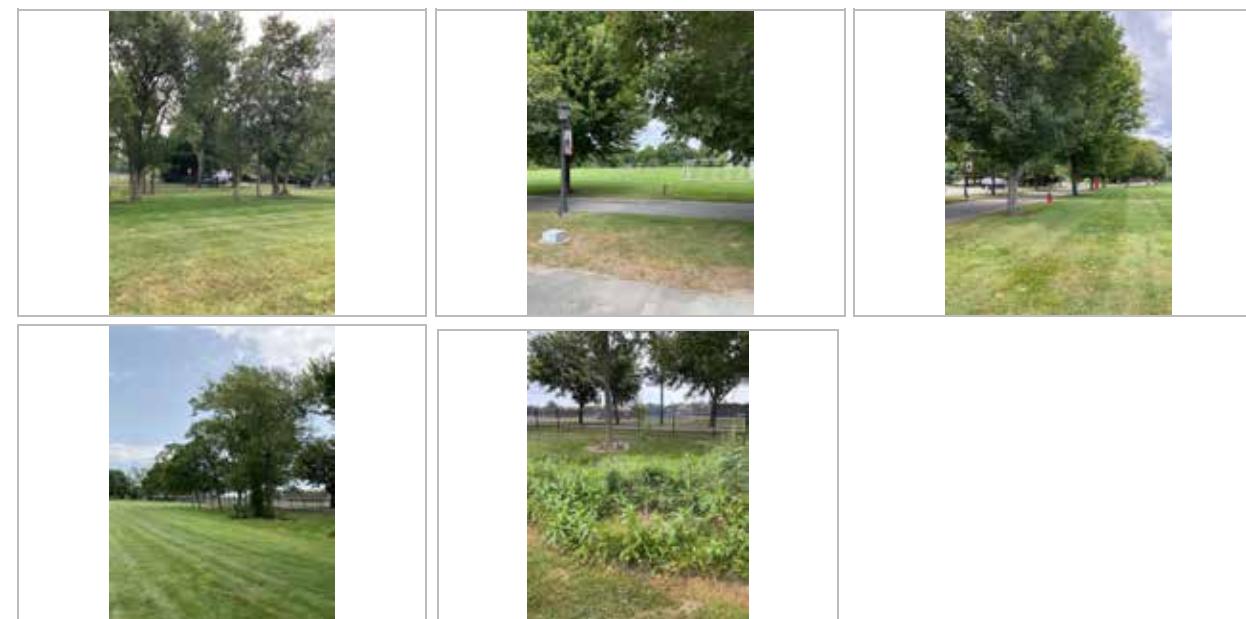
Abutters Photos



Provide narrative of view-sheds, noise buffers, condition of planting, etc.

View sheds: fields surrounded by large vegetation. Clear view shed on St Andrews tennis. Other adjacent properties such as residential units and street are blocked by vegetation. Noise buffer: trees along street provide some noise barrier yet does not block out noise completely. When on field, you can hear traffic on Federal and County Rd although it is not particularly loud.

Photos Buffers/Plantings



Provide narrative of any additional special environmental or natural features which could impact field operations.

Small wetland located south of field (if facing north) may include some wildlife yet no signs of any significant wildlife on site.

A

B

C

D

E

LINCOLN AVE FIELDS

HS 3.1-3.2: SOFTBALL AND PRACTICE BEHIND TENNIS



PROS:

- MULTI-USE PRACTICE SPACE
- SOFTBALL PRACTICE/JV SPACE

CONS

- HEAVY USE
- TURF CONDITIONS
- SOIL CONDITIONS
- IN AN AE FLOOD ZONE
- SPECTATOR ACCESS
- PLANARITY
- PROXIMITY TO NEIGHBORS

Field Assessment Data Sheet: Planning



Site Info

Date and Time

08/10/2023 - 09:40AM

Site Name

HS Field 3.1: Softball Behind Tennis

Address

HS Field 3.1: Softball Behind Tennis 220 Lincoln Avenue Barrington Rhode Island 02806

Facility Manager Director

Site Contact: Phone

Site Contact: Mobile

Available Record Information

Subsection

Available Record Information

- Design Plans and Specifications
- As-Builts
- Site Plan Sketches
- Accessory Maps/Plot Plans
- Aerial Photography
- Flood Insurance Maps/USGS Maps
- Town Utility Maps
- Utility Plans

Additional Available Information

Environmental

Subsection

Describe the proximity of any wetlands, surface waters or other environmental features which impact field redevelopment, maintenance or improvement projects.

There seems to be a wetland behind the third base dugout (approx 20 feet from dugout). Wetland seems to be man made with what looks like a large concrete structure (unsure purpose)

Is there a formalized maintenance plan in place for the facility?

- Yes
- No

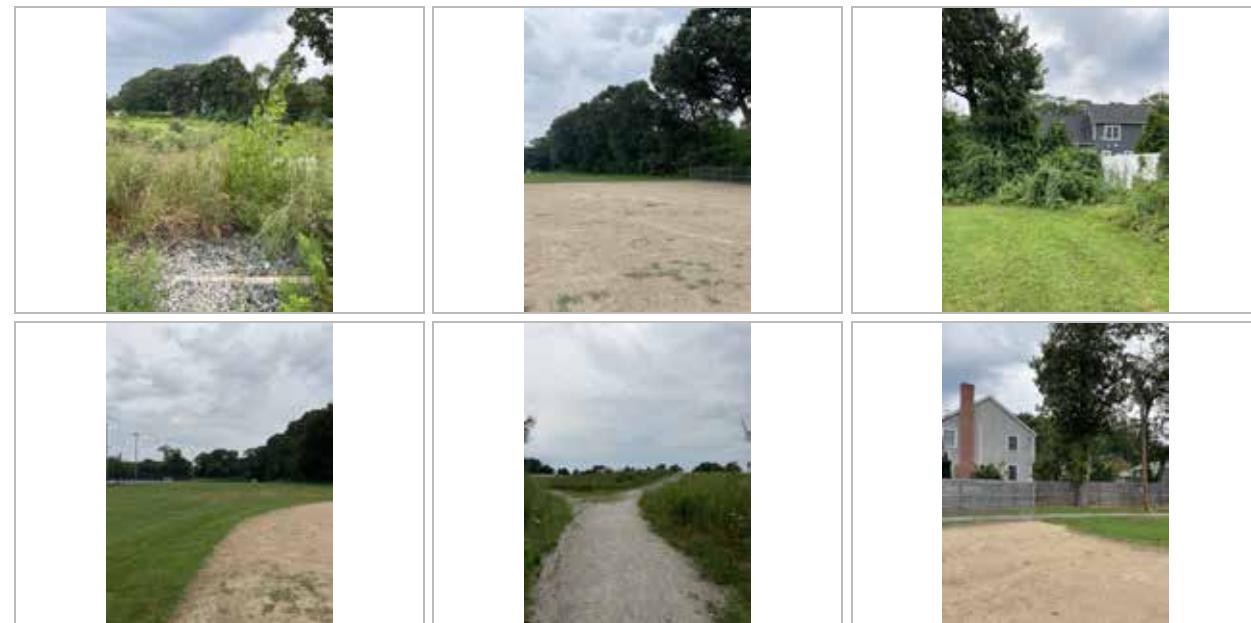
Are there maintenance records available?

- Yes
- No

Describe the proximity and type of field abutters.

This field is pretty compact when it comes to field abutters. Abutters include residential units (within 50 feet of field), an adjacent multipurpose field and tennis courts, a perceived wetland (within 30 feet of home plate), medium to large scale vegetation (along first base and third base lines and in right field, cuts into field slightly) as well as a walking trail behind home plate.

Abutters Photos



Provide narrative of view-sheds, noise buffers, condition of planting, etc.

View sheds include multipurpose field, tennis courts and front of high school (Lincoln Ave). Large vegetation allows for noise buffer from residential properties and location of field allows for noise from Lincoln to be mitigated (still present but not as loud as it would be closer to road). Condition of planting is fair with some dead grass along fence lines. However for the most part, vegetation is in good condition.

Photos Buffers/Plantings



Provide narrative of any additional special environmental or natural features which could impact field operations.

Possibly the man made wetland adjacent to field. Possible environment features may also include what is behind the field (south east of home plate)

A

B

C

D

E

Is there a formalized maintenance plan in place for the facility?

Yes
 No

Are there maintenance records available?

Yes
 No

Describe the proximity and type of field abutters.

Field abutters include residential units (adjacent to south edge of field), tennis courts (adjacent to north edge of field), the softball field (adjacent southwest edge of field) and what looks like wetland type vegetation along north east corner of field.

Softball

Softball

- Tee-Ball (4-5)
- Minor League (5-11)
- Major Division (9-12)
- Intermediate (11-13)
- Junior League (12-14)
- Senior League (13-16)
- High School (15-18)
- Adult (18+)

Softball Amenities

- Enclosed Dugouts
- Canopy Dugouts
- Fenced Dugouts
- Netted Backstop
- Chainlink Backstop
- Foul Poles
- Scoreboard
- Flag Pole
- Trash Bins
- Press box
- Single Batting Cages
- Double Batting Cages
- Bull Pen(s)

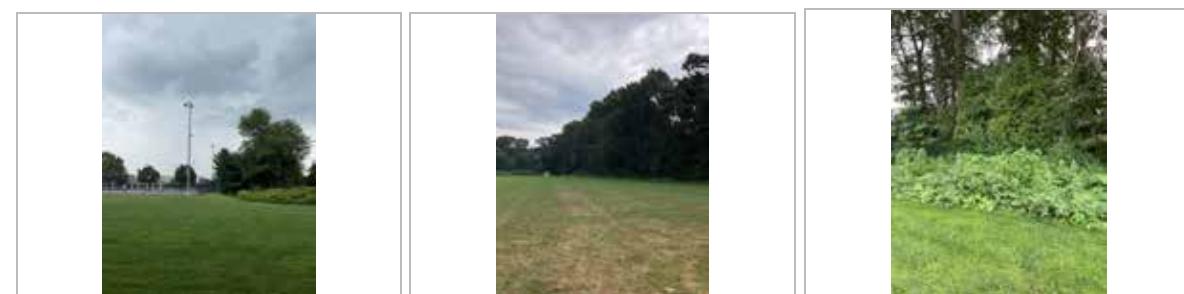
Abutters Photos



Provide narrative of view-sheds, noise buffers, condition of planting, etc.

View sheds are similar to adjacent softball field having full view of tennis courts and partial view of high school across the street. Noise buffers are also similar. Low noise from tennis courts and Lincoln Ave. Possible noise from adjacent residencies. Condition of planting, specifically turf, is lacking. Most of field is dead patched grass as field is assumed to be used year round.

Photos Buffers/Plantings



Provide narrative of any additional special environmental or natural features which could impact field operations.

Possible wetland on western part of field adjacent to residential properties. Vegetation indicated high water table.

Softball

Softball

- Tee-Ball (4-5)
- Minor League (5-11)
- Major Division (9-12)
- Intermediate (11-13)
- Junior League (12-14)
- Senior League (13-16)
- High School (15-18)
- Adult (18+)

Softball Amenities

- Enclosed Dugouts
- Canopy Dugouts
- Fenced Dugouts
- Netted Backstop
- Chainlink Backstop
- Foul Poles
- Scoreboard
- Flag Pole
- Trash Bins
- Press box
- Single Batting Cages
- Double Batting Cages
- Bull Pen(s)

Deficiencies

Benches are very worn out and splintering. No ADA access to field. Lighting is insufficient (one small lamppost along third base line). Several patches of weeds growing in infield and much of center/right field is all dead patched grass.

Recommendations

Update benches and provide a more accessible route to field. Provide some maintenance to grass or outfield since space is shared with soccer/ lacrosse

Softball Photos



BICKNELL PARK



BICKNELL PARK
135 WALNUT ROAD

A
B
C
D
E

BICKNELL PARK BK FIELD 1.1 BASEBALL



PROS:

- NEIGHBORHOOD PARK
- BIKE/PED ACCESS
- INFIELD
- NOT IN A FLOOD ZONE

CONS

- ACCESS TO PARKING
- IN AN AE FLOOD ZONE
- PROXIMITY TO NEIGHBORS
- CONFIGURATION OF LAND DOESN'T ALLOW FOR MUCH OTHER ATHLETIC USE

Field Assessment Data Sheet: Planning



Site Info

Date and Time

08/10/2023 - 10:20AM

Site Name

BP Field 1.1: Little League

Address

135 Walnut Hill Road Barrington Rhode Island 02806

Facility Manager Director

Site Contact: Phone

Site Contact: Mobile

Available Record Information

Subsection

Available Record Information

- Design Plans and Specifications
- As-Builts
- Site Plan Sketches
- Assessors Maps/Pilot Plans
- Aerial Photography
- Flood Insurance Maps/USGS Maps
- Town Utility Maps
- Utility Plans

Additional Available Information

Environmental

Subsection

Describe the proximity of any wetlands, surface waters or other environmental features which impact field redevelopment, maintenance or improvement projects.

Possible wetlands southwest of baseball field. Other than that, there seems to be no other potential significant wetlands/water sources.

Is there a formalized maintenance plan in place for the facility?

- Yes
- No

Are there maintenance records available?

- Yes
- No

Describe the proximity and type of field abutters.

Field abutters include large scale vegetation (within 30 feet of third base), residential units along Alden road, a multipurpose field that shares space with center field, and an odd utility building south of home plate.

Abutters Photos



Provide narrative of view-sheds, noise buffers, condition of planting, etc.

View sheds include the multipurpose field adjacent to field as well as from properties of houses on Alden Street. Little to no noise in area since all streets are side streets with only residential units. Condition of planting is in great condition. Small patches of dead grass along fence line and under large oaks lining Alden street.

Photos Buffers/Plantings



Provide narrative of any additional special environmental or natural features which could impact field operations.

Potential bat population in the area due to bat box found on large oak behind backstop

Photos Environmental/Natural Features

A

B

C

D

E



Geometry Evaluation

Sports

Baseball

Baseball

- Tee-Ball (4-7)
- Minor League (5-11)
- Major Division (9-12)
- Intermediate (11-13)
- Junior League (12-14)
- Senior League (13-16)
- High School (15-18)
- Adult (18+)

Baseball Amenities

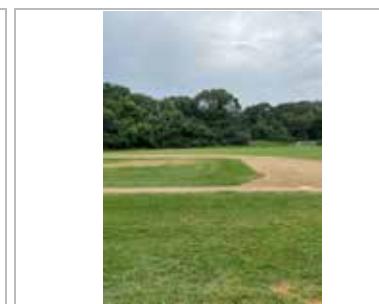
- Enclosed Dugouts
- Canopy Dugouts
- Fenced Dugouts
- Netted Backstop
- Chainlink Backstop
- Foul Poles
- Scoreboard
- Flag Pole
- Trash Bins
- Press box
- Single Batting Cage
- Double Batting Cage
- Bull Pen(s)

Deficiencies

Not much deficiency here. Field is in really good condition with little to know weed patching in infield or dead grass.

Recommendations

Baseball Photos



BICKNELL PARK BK FIELD 2.1 MULTI-USE SPACE



A
B
C
D
E

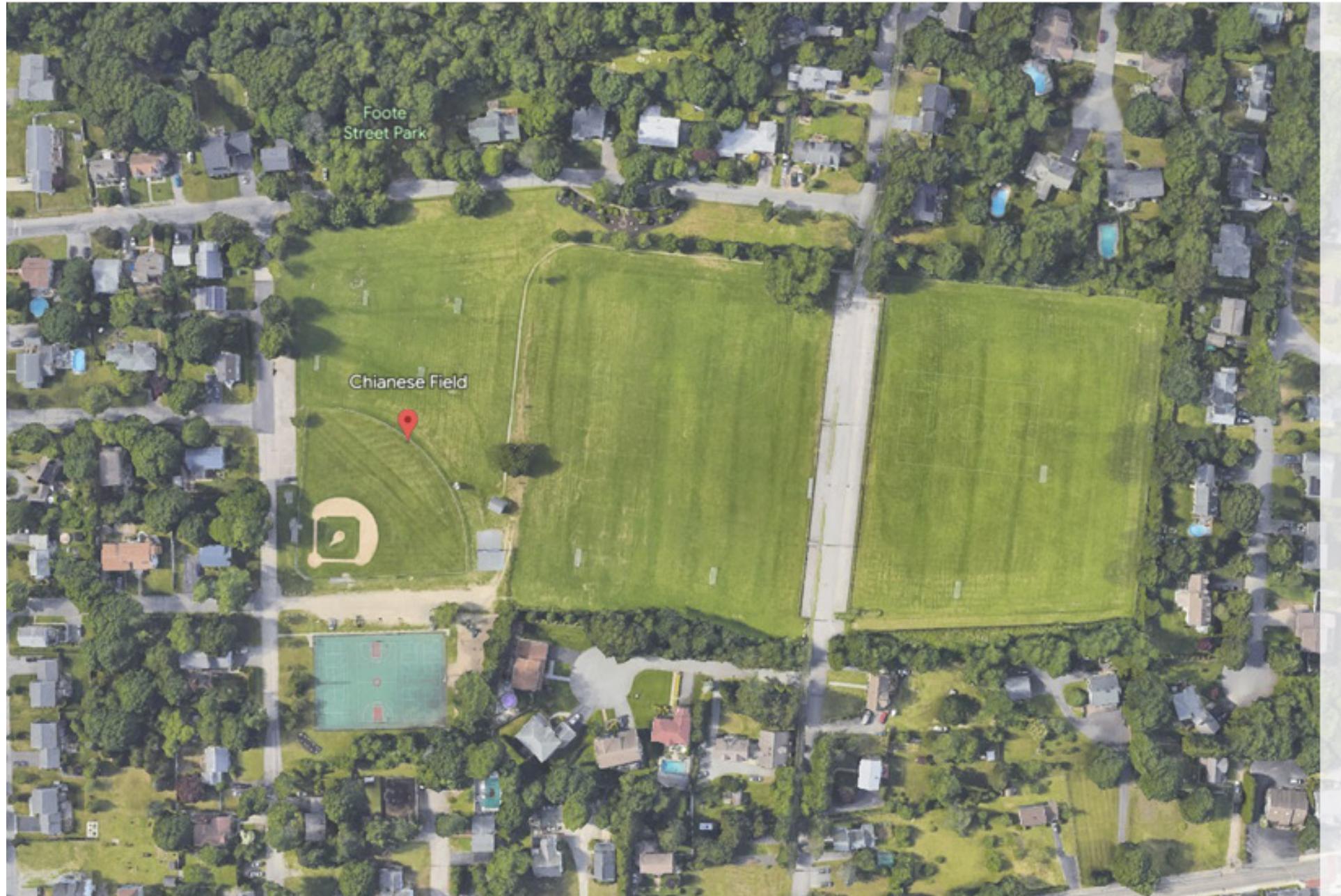
PROS:

- NEIGHBORHOOD PARK
- GREAT FLEX FIELD
- BIKE/PED ACCESS
- NOT IN A FLOOD ZONE

CONS

- TURF CONDITIONS
- SOIL CONDITIONS
- GRASS CONDITIONS
- ACCESS TO PARKING
- IN A FLOOD ZONE
- PROXIMITY TO NEIGHBORS
- CONFIGURATION OF LAND DOESN'T ALLOW FOR MUCH OTHER ATHLETIC USE

CHIANESE FIELD



**CHIANESE FIELD
PARK**
41 CENTENNIAL AVE

CHIANESE FIELD

CH1.1: BASEBALL



PROS:

- OUTFIELD FENCE
- DEDICATED BASEBALL SPACE
- ACCESS TO PARKING
- ACCESS TO RESTROOMS
- NOT IN A FLOOD ZONE

CONS

- COVERED DUGOUTS
- SPECTATOR AREA
- ADA ACCESS
- IRRIGATION PRESSURE
- PROXIMITY TO ROAD
- NEIGHBORHOOD ADJACENCY

A

B

C

D

E

CHIANESE FIELD

CH2.1: UPPER FIELD MULTI-USE



PROS:

- MULTI-USE SPACE WITH MULTIPLE CONFIGURATIONS
- ACCESS TO PARKING
- ACCESS TO RESTROOMS
- NOT IN A FLOOD ZONE

CONS

- HEAVY USE
- IRRIGATION
- NEIGHBORHOOD ADJACENCY

Core PQS Field Test for Natural Turf

Organization: Barrington, RI

Field Name: Chianese Park Upper

Date Of Test: 07-12-2023

OVERALL GRADE

D

G R A D E

CORE PLAYABILITY		Tool	Average Results	Points	D
Planarity	3 Meter Straight Edge & Wedge	0.61 mm	5	A	
% Desirable Turfgrass Cover	Grass Quadrant	55.0 %	0	F	
Rotational Traction	Traction Meter	17.00 Nm	2	D	
Surface Hardness	Clegg/Gmax	67 GMax	1	E	
% Volumetric Water Content	POGO +	20.7 %	3	C	
CORE PRESENTATION		Tool	Average Results	Points	D
% Weed Cover	Grass Quadrant	45.0 %	0	F	
% Surface Debris	Grass Quadrant	0.0 %	5	A	
CORE STRUCTURE		Tool	Average Results	Points	D
Infiltration Rate	Double Ring Infiltrometer	0.36 "/hr.	0	F	
Compaction 1"	Penetrometer	197 PSI	1	E	
Compaction 3"	Penetrometer	216 PSI	3	C	
Root Depth	12" Profiler	4.40 "	4	B	
Thatch Depth	12" Profiler	0.64 "	4	B	
Rootzone Medium Depth	12" Profiler	8.10 "	5	A	
SCORING KEY		PQS Soccer	Total	Total points available for	
A =	65-53 total	13		5 points per criteria	
B = High Standard	52-40 total	13		4 points per criteria	
C = Standard	39-27 total	13		3 points per criteria	
D = Low Standard	26-14 total	13		2 points per criteria	
E =	13 and below total	13		1 points per criteria	
F = If any critical criteria score far Below Standard and present a potential safety issue the overall rating of the field must also score an F or					

CORE PQS SUMMARY:

Organization: Barrington, RI

Field Name: Chianese Park Upper

You have set your vision of producing and providing an Athletic Field that is consistent, durable and of the highest quality possible. You also wish to critically examine the fields condition and, through this knowledge, be proactive in maintenance planning for the future.

To realize this goal Tom Irwin Advisors (TIA) carried out a Core Performance Quality Standards (PQS) assessment on the Athletic Field on 07-12-2023

- The Overall Grade was a D or Low Standard
- The Playability Grade was a D or Low Standard
- The Presentation Grade was a D or Low Standard
- The Structural Grade was a D or Low Standard

General Observations:

Lots of clippings in the rectangular part of the field. Also debris that I got run over and chopped up my mowers cones bottles papers lots of weed pressure in the rectangular section, not weed yellow Nutsedge crabgrass clover Paula plantain, smooth in Buckhorn, some burnt out spots, very inconsistent moisture distribution on the pogo survey, several bare areas, likely gold miles or central for lacrosse, Planarity location to location was not bad however, there are depressions felt under foot and half golf ball feel under your heels baseball field better coverage on top but anyway, he looked in the canopy. It was pretty thin, infield, elevated from surrounding turf, decent fencing, scoreboard.

A

B

C

D

E

Chianese Park Upper Photos



6.5 inch lip from the infield.



Bare area with planarity challenges.



Test point 1. Weed pressure, bare areas, and planarity issues.



Lip along first base path. Also note lip from base path to foul area and around home plate. This was measured at 6"+

CHIANESE FIELD CH22 MIDDLE FIELD MULTI-USE



A
B
C
D
E

PROS:

- MULTI-USE SPACE WITH MULTIPLE CONFIGURATIONS
- ACCESS TO PARKING
- ACCESS TO RESTROOMS
- NOT IN A FLOOD ZONE

CONS

- HEAVY USE
- IRRIGATION PRESSURE
- OVERALANDFILL
- RESTRICTED TREATMENT
- NEIGHBORHOOD ADJACENCY
- DRAINAGE IN SOUTHEAST CORNER OF FIELD

CHIANESE FIELD CH23: LOWER FIELD MULTI-USE



PROS:

- MULTI-USE SPACE WITH MULTIPLE CONFIGURATIONS
- ACCESS TO PARKING
- NOT IN A FLOOD ZONE

CONS

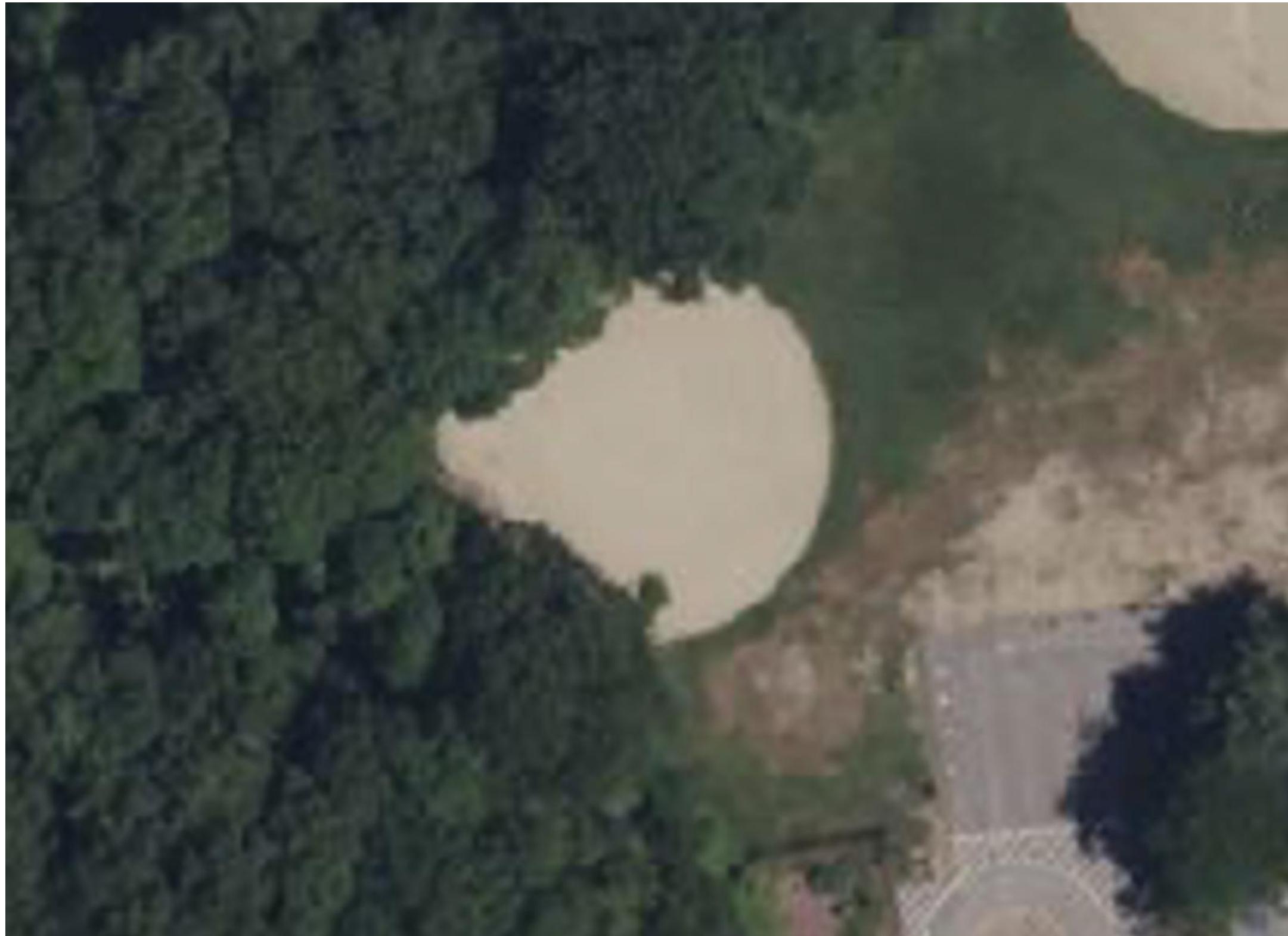
- OVERALANDFILL
- RESTRICTED TREATMENT
- NEIGHBORHOOD ADJACENCY
- DRAINAGE ON THE FIELD



NYATT
ELEMENTARY
SCHOOL
400 NAYATT ROAD

A
B
C
D
E

NYAT ELEMENTARY SCHOOL NA1.1: WEST SOFTBALL FIELD



PROS:

- SOFTBALL/LITTLE LEAGUE FIELD
- ACCESS TO PARKING

CONS

- LOW LEVEL OF MAINTENANCE
- IRRIGATION
- RESTRICTED TREATMENT
- NEIGHBORHOOD ADJACENCY
- ADA ACCESS
- LIMITED SIZE

NYATTELEMENTARYSCHOOL NA1.1:WESTSOFTBALLFIELD



A
B
C
D
E

PROS:

- SOFTBALL/LITTLE LEAGUE FIELD
- ACCESS TO PARKING

CONS

- LOW LEVEL OF MAINTENANCE
- IRRIGATION
- RESTRICTED TREATMENT
- NEIGHBORHOOD ADJACENCY
- ADA ACCESS
- LIMITED SIZE

PRIMROSE HILL ELEMENTARY SCHOOL



PRIMROSE
HILL SCHOOL
60 Middle Highway

PRIMROSE HILL ELEMENTARY SCHOOL PRH 1.1: SOFTBALL FIELD



A
B
C
D
E

PROS:

- SOFTBALL/LITTLE LEAGUE FIELD
- ACCESS TO PARKING

CONS

- LOW LEVEL OF MAINTENANCE
- IRRIGATION
- RESTRICTED TREATMENT
- NEIGHBORHOOD ADJACENCY
- ADA ACCESS
- LIMITED SIZE

SHERWOOD PARK



SHERWOOD PARK
14 CONGRESS ROAD

SHERWOOD PARK SHW 1.1: BASEBALL



PROS:

- LITTLE LEAGUE FIELD
- RESTROOMS
- ADA ACCESS
- OUTFIELD FENCE
- DUGOUTS
- ACCESS TO PARKING

CONS

- LEFT FIELD DRAINAGE
- STOREAGE

A
B
C
D
E

Core PQS Field Test for Natural Turf

Organization: Barrington, RI

Field Name: Sherwood Park

Date Of Test: 07-12-2023

OVERALL GRADE	
E	

GRADE

CORE PLAYABILITY		Tool	Average Results	Points	GRADE
Planarity	3 Meter Straight Edge & Wedge	6.98 mm	4	B	
% Desirable Turfgrass Cover	Grass Quadrant	65.0 %	0	F	
Rotational Traction	Traction Meter	18.80 Nm	2	D	
Surface Hardness	Clegg/Gmax	49 GMax	0	F	
% Volumetric Water Content	POGO +	44.9 %	0	F	
CORE PRESENTATION		Tool	Average Results	Points	GRADE
% Weed Cover	Grass Quadrant	35.0 %	0	F	
% Surface Debris	Grass Quadrant	0.0 %	5	A	
CORE STRUCTURE		Tool	Average Results	Points	GRADE
Infiltration Rate	Double Ring Infiltrometer	0.14 "/hr.	0	F	
Compaction 1"	Penetrometer	154 PSI	2	D	
Compaction 3"	Penetrometer	286 PSI	2	D	
Root Depth	12" Profiler	3.30 "	3	C	
Thatch Depth	12" Profiler	1.20 "	2	D	
Rootzone Medium Depth	12" Profiler	7.50 "	4	B	
SCORING KEY		PQS Soccer	Total	Total points available for	
A =	65-53 total	13	5 points per criteria		
B = High Standard	52-40 total	13	4 points per criteria		
C = Standard	39-27 total	13	3 points per criteria		
D = Low Standard	26-14 total	13	2 points per criteria		
F =	13 and below total	13	1 points per criteria		
	If any critical criteria score far Below Standard and present a potential safety issue the overall rating of the field must also score an F or				

CORE PQS SUMMARY:

Organization: Barrington, RI

Field Name: Sherwood Park

You have set your vision of producing and providing an Athletic Field that is consistent, durable and of the highest quality possible. You also wish to critically examine the fields condition and, through this knowledge, be proactive in maintenance planning for the future.

To realize this goal Tom Irwin Advisors (TIA) carried out a Core Performance Quality Standards (PQS) assessment on the Athletic Field on 07-12-2023

- The Overall Grade was a E
- The Playability Grade was a E or Below Standard
- The Presentation Grade was a D or Low Standard
- The Structural Grade was a D or Low Standard

General Observations:

Sherwood Park Photos

A
B
C
D
E



Grass grid 1. Note tall Height of Cut and weed gone to flower.



Grass Grid 3. Note less weed pressure.



Grass grid 2 heavy weed pressure.

SOWAMS ROAD PARK



**SOWAMS
ROAD PARK**
122 SOWAMS ROAD

SOWAMS ROAD PARK SOPRK 1.1: MULTI-USE FIELD



PROS:

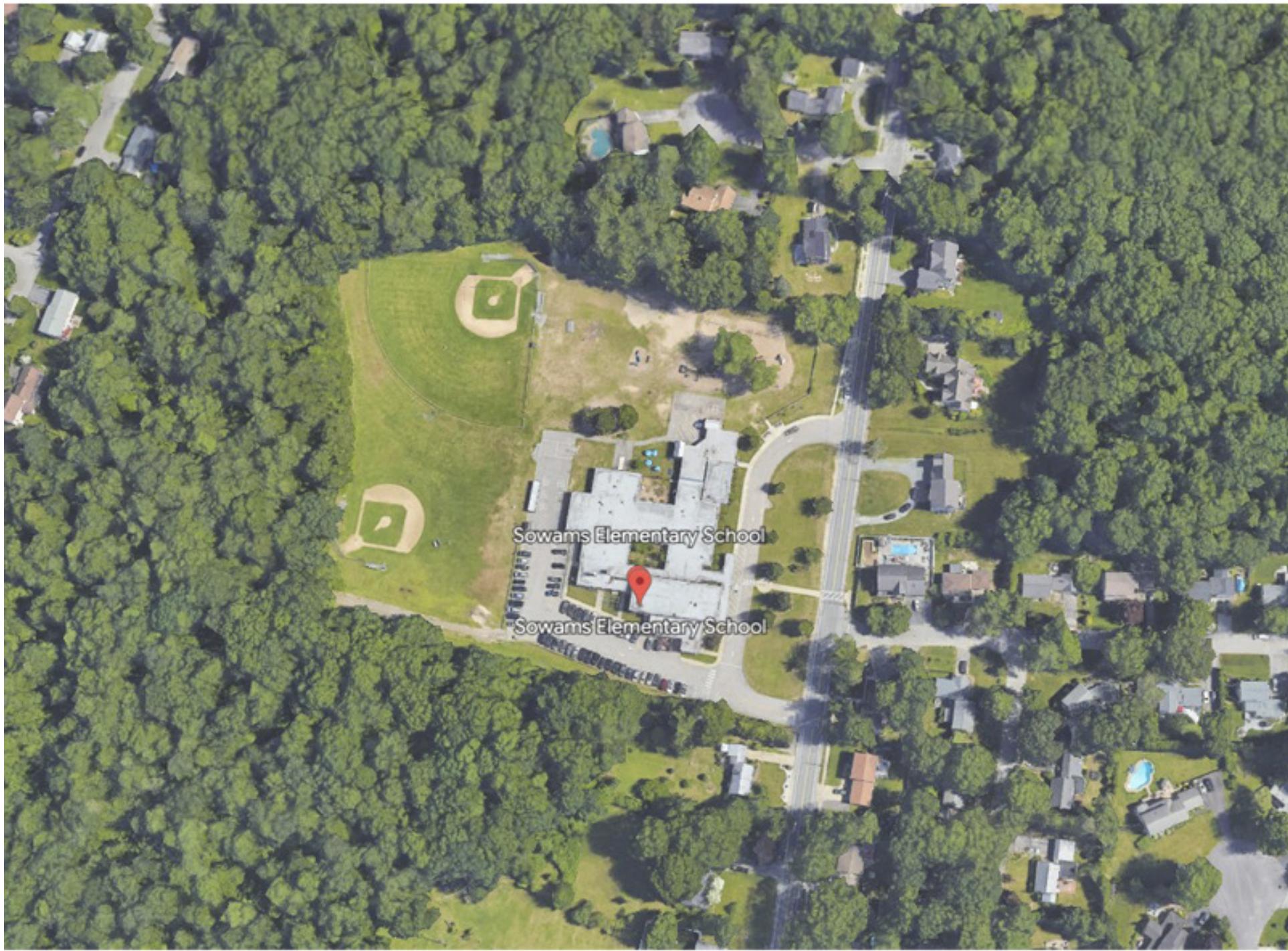
- RECENTLY RENOVATED
- MULTI-USE FIELD
- ONE OF ONLY A FEW FIELDS ON THE EASTERN SIDE OF TOWN
- ACCESS TO PARKING

CONS

- STORAGE
- SMALLER IN SIZE
- ACCESS TO RESTROOMS
- ADA ACCESS

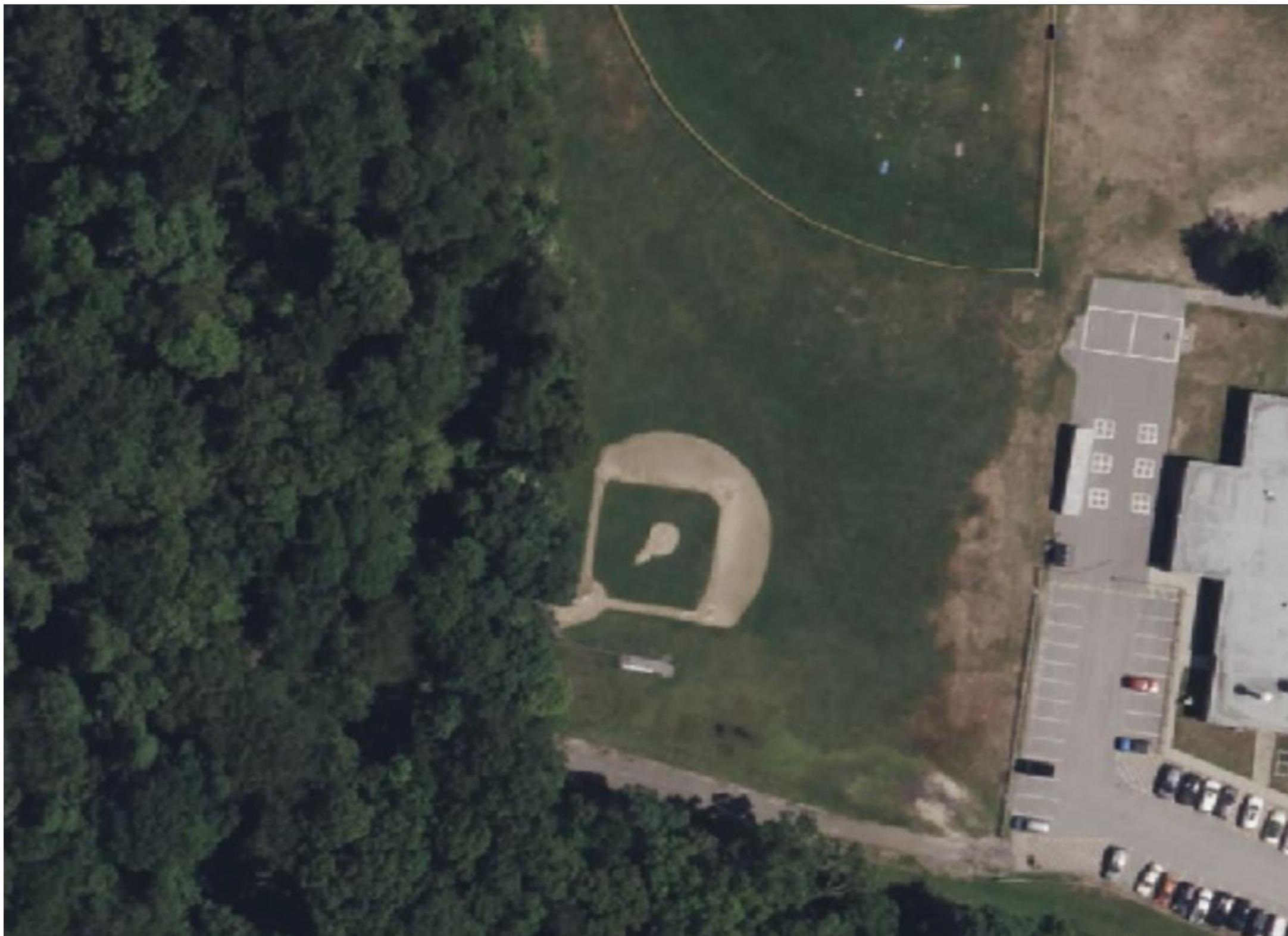
A
B
C
D
E

SOWAMS ELEMENTARY SCHOOL



**SOWAMS
ELEMENTARY
SCHOOL**
364 SOWAMS ROAD

SOWAMS ELEMENTARY SCHOOL SO 1.1: LITTLE LEAGUE BASEBALL



A
B
C
D
E

PROS:

- LITTLE LEAGUE FIELD
- POTENTIAL ACCESS TO RESTROOMS
- ACCESS TO PARKING

CONS

- LOW LEVEL OF MAINTENANCE
- ADA ACCESS
- AMENITIES: DUGOUTS, BACKSTOP
- SHORT DISTANCE
- STORAGE

SOWAMS ELEMENTARY SCHOOL SO 1.2 LITTLE LEAGUE BASEBALL



PROS:

- LITTLE LEAGUE FIELD
- POTENTIAL ACCESS TO RESTROOMS
- OUTFIELD FENCE
- ACCESS TO PARKING

CONS

- ADA ACCESS
- AMENITIES: DUGOUTS
- HIGH USED FIELD
- STORAGE

Core PQS Field Test for Natural Turf

Organization: Barrington, RI

Field Name: Sowams School

Date Of Test: 07-12-2023

OVERALL GRADE	
GRADE	
D	

CORE PLAYABILITY	Tool	Average Results	Points	E
Planarity	3 Meter Straight Edge & Wedge	1.15 mm	5	A
% Desirable Turfgrass Cover	Grass Quadrant	59.0 %	0	F
Rotational Traction	Traction Meter	18.60 Nm	2	D
Surface Hardness	Clegg/Gmax	63 GMax	0	F
% Volumetric Water Content	POGO +	32.7 %	2	D
CORE PRESENTATION	Tool	Average Results	Points	D
% Weed Cover	Grass Quadrant	41.0 %	0	F
% Surface Debris	Grass Quadrant	0.0 %	5	A
CORE STRUCTURE	Tool	Average Results	Points	D
Infiltration Rate	Double Ring Infiltrometer	0.24 "/hr.	0	F
Compaction 1"	Penetrometer	177 PSI	1	E
Compaction 3"	Penetrometer	250 PSI	3	C
Root Depth	12" Profiler	4.40 "	4	B
Thatch Depth	12" Profiler	0.84 "	3	C
Rootzone Medium Depth	12" Profiler	7.55 "	4	B

SCORING KEY	PQS Soccer	Total	Total points available for
A =	65-53 total	13	5 points per criteria
B = High Standard	52-40 total	13	4 points per criteria
C = Standard	39-27 total	13	3 points per criteria
D = Low Standard	26-14 total	13	2 points per criteria
	13 and below total	13	1 points per criteria
F =	If any critical criteria score far Below Standard and present a potential safety issue the overall rating of the field must also score an F or		

CORE PQS SUMMARY:

Organization: Barrington, RI

Field Name: Sowams School

You have set your vision of producing and providing an Athletic Field that is consistent, durable and of the highest quality possible. You also wish to critically examine the fields condition and, through this knowledge, be proactive in maintenance planning for the future.

To realize this goal Tom Irwin Advisors (TIA) carried out a Core Performance Quality Standards (PQS) assessment on the Athletic Field on 07-12-2023

- The Overall Grade was a D
- The Playability Grade was a E or Below Standard
- The Presentation Grade was a D or Low Standard
- The Structural Grade was a D or Low Standard

General Observations:

Elementary school field, infields on opposite ends one ball field is fenced in, non fenced field is very undulating. Clover, plantain, speedwell, poa, bentgrass, crabgrass, disease pressure. Very high HOC, decent fencing, dugouts w aluminum benches uncovered.

Puddle near walking path, unfenced field likely receives less maintenance, better coverage in the fenced in field, much less weeds much worse planarity in the unfenced field and a lot of weeds in the infield clay

A

B

C

D

E

Sowams School Photos



5" deep hole in deep left center field.



Lip to the outfield at 3.75".

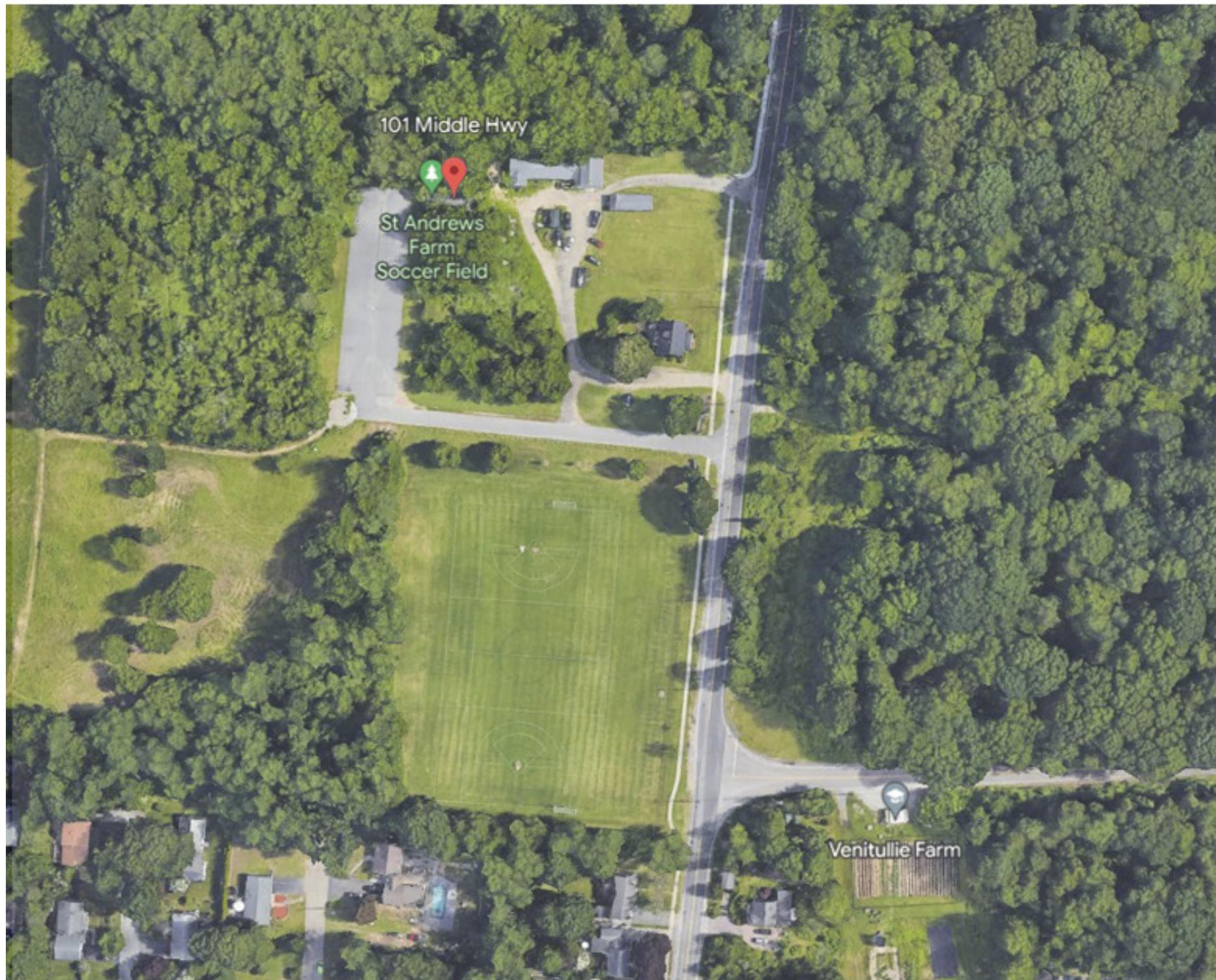


Infield depressed 1.25" from surrounding turf.



Planarity issues across field. 3.5" deep depression.

STANDREWS FARM



ST ANDREWS FARM PARK 101 MIDDLE HIGHWAY

A
B
C
D
E

STANDREWS FARM STA 1.1: MULTI-USE



PROS:

- LARGE MULTI-USE FIELD THAT CAN BE DIVIDED UP INTO A WIDE RANGE OF USER LEVELS
- ACCESS TO PARKING
- NOT IN A FLOOD ZONE
- ADDITIONAL ACCESS TO GREENSPACE

CONS

- ADA ACCESS
- ACCESS TO RESTROOMS
- ADJACENCY TO A MAJOR ROAD

Core PQS Field Test for Natural Turf

Organization: Barrington, RI

Field Name: St. Andrews Farm

Date Of Test: 07-12-2023

OVERALL GRADE	
GRADE	
D	

CORE PLAYABILITY		Tool	Average Results	Points	GRADE
Planarity	3 Meter Straight Edge & Wedge	0.32 mm	5	A	
% Desirable Turfgrass Cover	Grass Quadrant	44.0 %	0	F	
Rotational Traction	Traction Meter	16.40 Nm	2	D	
Surface Hardness	Clegg/Gmax	78 GMax	3	C	
% Volumetric Water Content	POGO +	22.7 %	4	B	
CORE PRESENTATION		Tool	Average Results	Points	GRADE
% Weed Cover	Grass Quadrant	42.0 %	0	F	
% Surface Debris	Grass Quadrant	0.0 %	5	A	
CORE STRUCTURE		Tool	Average Results	Points	GRADE
Infiltration Rate	Double Ring Infiltrometer	0.14 "/hr.	0	F	
Compaction 1"	Penetrometer	300 PSI	0	F	
Compaction 3"	Penetrometer	299 PSI	2	D	
Root Depth	12" Profiler	4.10 "	4	B	
Thatch Depth	12" Profiler	0.88 "	3	C	
Rootzone Medium Depth	12" Profiler	8.40 "	5	A	
SCORING KEY		PQS Soccer	Total	Total points available for	
A =	65-53 total	13	5 points per criteria		
B = High Standard	52-40 total	13	4 points per criteria		
C = Standard	39-27 total	13	3 points per criteria		
D = Low Standard	26-14 total	13	2 points per criteria		
F =	13 and below total	13	1 points per criteria		
If any critical criteria score far Below Standard and present a potential safety issue the overall rating of the field must also score an F or					

CORE PQS SUMMARY:

Organization: Barrington, RI

Field Name: St. Andrews Farm

You have set your vision of producing and providing an Athletic Field that is consistent, durable and of the highest quality possible. You also wish to critically examine the fields condition and, through this knowledge, be proactive in maintenance planning for the future.

To realize this goal Tom Irwin Advisors (TIA) carried out a Core Performance Quality Standards (PQS) assessment on the Athletic Field on 07-12-2023

- The Overall Grade was a D
- The Playability Grade was a D or Low Standard
- The Presentation Grade was a D or Low Standard
- The Structural Grade was a D or Low Standard

General Observations:

Most compact of all the sites tested interesting dark layer in the soil profiles, and four of the five extracted, possibly sided in the past on the center of the field more planarity challenges closer to the woods line, pretty inconsistent, moisture distribution on the pogo map. Lots of clippings on the surface, even after mowing to directions at 3 1/2 inches to areas roped off on either end of the fields trying to grow in beaten up, call mouth areas not much seed coming in the best areas but they are leveled off

A
B
C
D
E

St. Andrews Farm Photos



Planarity Challenges at test point 2.



Nearly 3 inch height of cut.

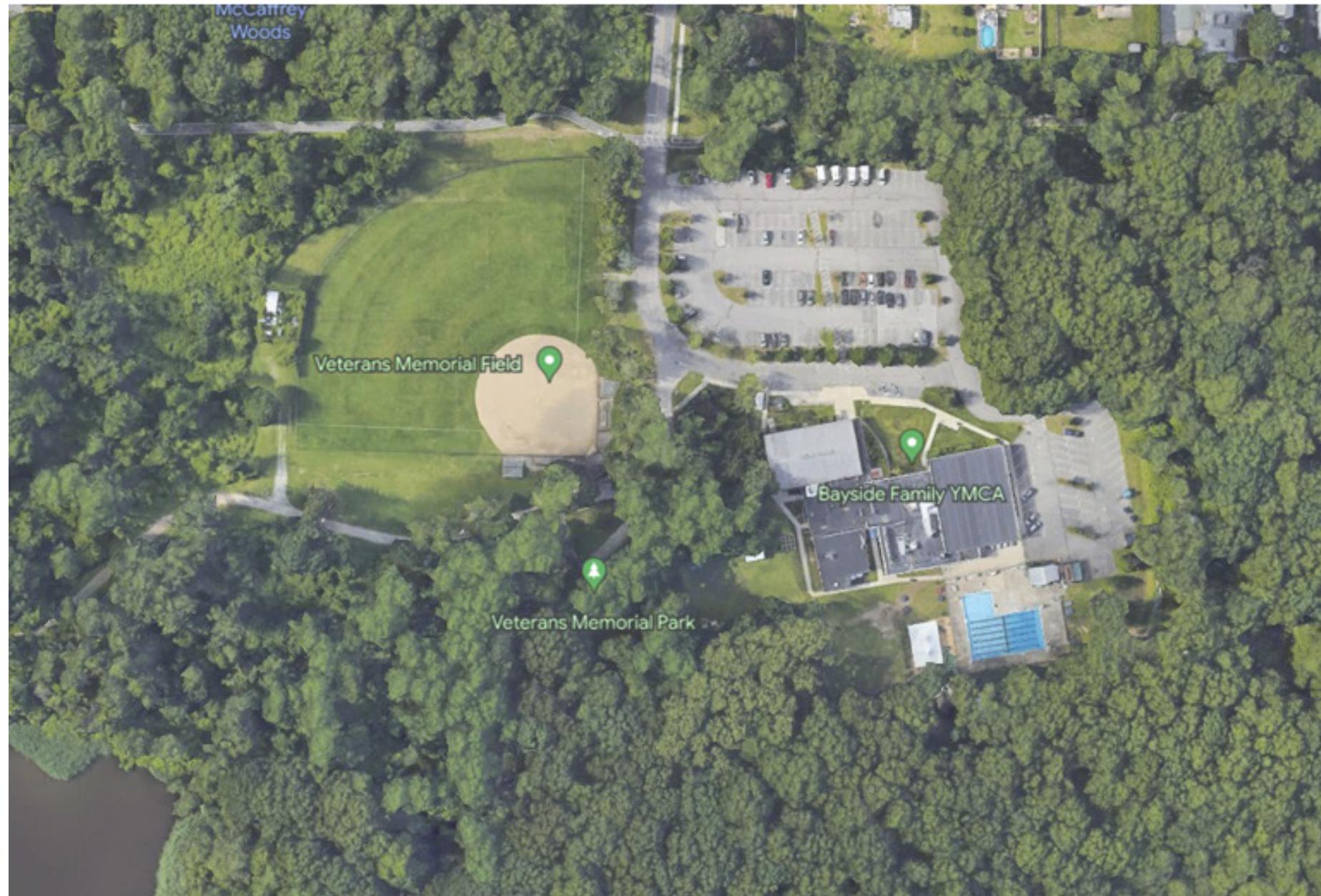


Test point 2 soil profile showing depth of rootzone medium and root depth



Test point 2 thatch depth.

VETERANS MEMORIAL PARK



VETERANS MEMORIAL PARK

80 WEST STREET

A
B
C
D
E

VETERANS MEMORIAL PARK VMP1.1: SOFTBALL FIELD



PROS:

- OUTFIELD FENCE
- ACCESS TO PARKING
- POTENTIAL ACCESS TO RESTROOMS
- ATHLETIC FIELD LIGHTING
- SPECTATOR SEATING
- ADA ACCESS
- DUGOUTS
- ANNOUNCER BOOTH

CONS

- INFIELD CONDITION
- HIGH USE

Core PQS Field Test for Natural Turf

Organization: Barrington, RI

Field Name: Veterans Field

Date Of Test: 07-12-2023

OVERALL GRADE	
C	
GRADE	

CORE PLAYABILITY		Tool	Average Results	Points	D
Planarity	3 Meter Straight Edge & Wedge	0.79 mm	5	A	
% Desirable Turfgrass Cover	Grass Quadrant	94.2 %	4	B	
Rotational Traction	Traction Meter	14.60 Nm	1	E	
Surface Hardness	Clegg/Gmax	59 GMax	0	F	
% Volumetric Water Content	POGO +	33.8 %	2	D	
CORE PRESENTATION		Tool	Average Results	Points	A
% Weed Cover	Grass Quadrant	5.8 %	5	A	
% Surface Debris	Grass Quadrant	0.0 %	5	A	
CORE STRUCTURE		Tool	Average Results	Points	C
Infiltration Rate	Double Ring Infiltrometer	0.19 "/hr.	0	F	
Compaction 1"	Penetrometer	136 PSI	3	C	
Compaction 3"	Penetrometer	126 PSI	5	A	
Root Depth	12" Profiler	5.80 "	5	A	
Thatch Depth	12" Profiler	0.60 "	4	B	
Rootzone Medium Depth	12" Profiler	8.00 "	5	A	
SCORING KEY		PQS Soccer	Total	Total points available for	
A =	65-53 total	13	5	points per criteria	
B = High Standard	52-40 total	13	4	points per criteria	
C = Standard	39-27 total	13	3	points per criteria	
D = Low Standard	26-14 total	13	2	points per criteria	
E =	13 and below total	13	1	points per criteria	
F =	If any critical criteria score far Below Standard and present a potential safety issue the overall rating of the field must also score an F or				

CORE PQS SUMMARY:

Organization: Barrington, RI

Field Name: Veterans Field

You have set your vision of producing and providing an Athletic Field that is consistent, durable and of the highest quality possible. You also wish to critically examine the fields condition and, through this knowledge, be proactive in maintenance planning for the future.

To realize this goal Tom Irwin Advisors (TIA) carried out a Core Performance Quality Standards (PQS) assessment on the Athletic Field on 07-12-2023

- The Overall Grade was a C
- The Playability Grade was a D or Low Standard
- The Presentation Grade was a A or Superior
- The Structural Grade was a C or Standard

General Observations:

Nice fencing, good dugouts and bleacher area announcers booth behind home plate big drop off from infield to outfield over the first 30 to 40 feet several depressions 2 1/2 inches throughout the outfield with some clover pressure less consistent coverage near the entrance gate in the right field file area some invasive's growing on the fence around the cell tower. Scoreboard in centerfield and I think if you wanna do the entry point Lysol, that's why you had some crabgrass because of the weed pressure I had. Surface debris included lots of grass clippings due to the high high to cut at 3 1/2 inches in a chopped up arrow from mowing also some rappers and bottles from summer camp use.

A
B
C
D
E

Veterans Field Photos



Clay material near base of profile at test point 4



Lip off of 2nd base.



Test point 5 profile showing good root depth and root zone medium depth.



Test point 5 had brick like material near base.

CHAPTER D: RECOMMENDATIONS



OVERVIEW

Athletic field maintenance stands as the cornerstone of optimal sports performance and safety. This chapter is an overview of recommendations for changes, categorization, and improvements to the meticulous processes, strategies, and technical expertise essential for cultivating and sustaining athletic fields in the Town of Barrington at all levels. From the intricacies of soil management and irrigation systems to the choreography of mowings, each element plays a pivotal role in shaping a field that the community relies on for active recreation.

This section divides the recommendations into a road map of long and short term goals that can provide the community of Barrington with various levels of play to meet all the users and stakeholders. Additionally, this section provides a maintenance plan and schedule based on the use and demand of the fields.

RECOMMENDATIONS OVERVIEW

The purpose of this section is to provide a road map for the community to improve the quality and availability of fields in the Town of Barrington. For that purpose the recommendation section of this report has been broken down into three components:

- 1. PROCESS:** The early investigation of the master plan discovered that there are flaws in the scheduling process which has led to self management of fields by the associate organizations. This has also led to a lack of understanding of field use and has created complications with the maintenance of the fields. Addressing this issue has become an integral part of improving use and maintenance across all fields. This also addresses a need for dedicated maintenance staff for athletic fields and creating a dedicated budget for the town wide maintenance of fields.
- 2. IMPROVEMENTS:** There are a wide range of improvements that can occur across the town to help spread out hours of use, rest fields and create better and safer playing surfaces across the community.
- 3. MAINTENANCE:** Part of creating great athletic facilities is the routine maintenance that goes into them. Athletic fields are considered living things that change with age, use and weather. Creating continuous maintenance programs is critical for the long-term success of the facilities. This section covers a hierarchy of maintenance practices along with potential costs. The intention is to start to develop a long-term budget and practice for these facilities.

PROCESS

SCHEDULING/MANAGEMENT: The current scheduling system is handled through the Recreation Department. The current system is not intuitive and creates ambiguity amongst all users and stakeholders. By no means is this any indication of a lack of effort or trying by any organization town or stakeholder. Below is a list of the current challenges posed by the current scheduling systems:

- There is not clarity in usage which is creating stress amongst the organizations and has forced the User Groups to self manage Town own fields.
- There is no maintenance scheduled into any of the fields so, it creates a lack of awareness by the DPW and their maintenance crews become reactive not proactive.
- There current system does not account for actual usage and demand. It accounts for in season use which rightfully creates a time grab by organizations. If they don't grab the time someone else will creating a false indicator of demand.
- There is not process for scheduling maintenance or support for maintenance practices so, user groups are bypassing the system to get prep done.

RECOMMENDATION:

1. Implement a scheduling/management system within the community. Recommended systems include RecDec, or EZFacility. The cost of the software ranges between \$4000-\$6000 annually.
2. There needs to be staff to implement this software as early on management of the software will take increased upfront time as systems and information is built into the system but, the system is meant to reduce staff hours of time by creating efficiency in the system so long-term there should be a shift in personnel time.
3. While these systems provide extensive information and clarity in scheduling, there also needs to be support from all organizations to use the system and not bypass the system because of existing relationships. The town needs to appoint a leader to move the system forward who can enforce the process.
4. The system needs to implement a communication process which allows the three groups (Recreation, DPW, and User Groups) to communicate needs. This will allow DPW to proactive in scheduling there responsibilities.

Note: The system does not only support athletic programs but, has the capability to manage rental and event management. These can support Parks and Recreation activities as well.

MAINTENANCE: Currently the Department of Public Works handles maintenance for athletic fields throughout the Town. The current way that athletic field is budgeted for and staff is allotted for creates gaps in the ability for DPW to provide the overall demands that athletic fields require. Below is a list of the current challenges posed by the current maintenance programs:

- The current budget is a general fund with no dedicated line items for the care and maintenance of athletic fields. This creates situations where the lack of funding for athletics fields can be influx based on the demands of other DPW responsibilities. A simple example is snow removal as this is an unpredictable cost that fluctuates over the years.
- There is not dedicated staff to athletic fields so, practices are bypassed for more demanding requirements. A mowing, fertilization, or aeration can be easily skipped because a tree fell down on a main road or waterline has broken.
- There is no clarity in usage of fields which refers back to the scheduling management which creates reactionary maintenance/responsibilities and distracts from scheduled responsibilities.
- The documentation and inventory of your existing fields including amenities, drainage, irrigation, and maintenance logs.

RECOMMENDATION:

1. There should be a line item in the budget for maintenance practices of athletic fields.
2. There should be dedicated staff for the maintenance of athletic fields within the community to support the various demands of each field. Based on the size and scale of the athletic facilities, the town would require a full crew of 5 staff members. With the current and continued support through the DPW, the town would need 2 full time staff members dedicated to the maintenance of athletic fields.
3. Continued support to the DPW for the maintenance practices that it currently utilizes in-house which create savings within the community.
4. A digital documentation of existing conditions, maintenance practices including logs of all fields.

A

B

C

D

E

IMPROVEMENTS

SHORT-TERM GOALS (1-5 Years)

1. NEW SYNTHETIC TURF FIELD: Due to the current field usage study of current user groups, the limited amount of space available for field expansion, and the growing demands of organizations the community should build a synthetic turf field. Modern synthetic turf fields can be built with recyclable materials similar to the field built in the East Providence High School Stadium as well as taking precautions, similar to those taking in Europe, to eliminate material leaving the field. A synthetic turf provides an increase in hours of usage to relieve the stresses put on the engineered grass fields. Based on the current conditions in the community, there are two locations that are recommended for the placement of a synthetic turf field: St. Andrews Farm and/or Victory Field. This recommendation is based off the following:

- The athletic use of both these facilities are high and would allow for the resting of other engineered grass fields. Converting these fields would allow for the resting and needed maintenance of other fields throughout the community.
- The current status of the high school project, it appears that there is the potential for disruption at the high school to some of the athletic fields on site, this is going to put more stress on other fields, similar to the middle school project, and the conversion to a synthetic surface will help to alleviate during the construction process.
- The middle field at Chianese was a consideration as a potential option as it would give a larger area for use but, the current field resides over a landfill and in a Well Head Protection area. These conditions would make this site cost prohibitive but, consideration should be given if the current study for a field house is decided on moving forward with a plan on the upper field, the amenities come with that building would support the need for synthetic at that location.

Budget/Costs: Victory Field Synthetic Turf: See Page 105-109 for costs and alternative options

St. Andrews Farm Synthetic Turf: See Page 122-124 for costs and alternative options

1a. ALTERNATIVE OPTION: One alternative option for Victory Field is to utilize a hybrid system. This system stitches an existing grass field

to provide more coverage in the grass system which increases the hours of use while providing a high performing system. These systems are what is used in the majority of FIFA engineered grass systems. This system does not fully preclude the demand for a synthetic field surface in the community.

Note: Stitching fields should only be associated with your highest level competition fields. The demand for maintenance increase to a Level 1 field (see the maintenance section of this report). Additionally, hybrid stitched fields only have a slight increase on the hours of use as opposed to synthetic turf. Lastly, it should also be noted that not every field can be stitched. In our investigation the only fields that could be stitched based on their existing conditions would be Victory Field, St Andrews Farm and the Middle School Fields. All other stitched conditions would require a complete rebuild.

Budget/Costs: Hybrid Rebuild of Victory Field: See Page XX for costs

2. REBUILD CHIANESE LOWER FIELD: Chianese Lower Field should be rebuilt to be graded appropriately, improve drainage and quality of the field to add it as a full size rectangular multi-use field to increase the hours on the field.

Budget/Costs: Rebuild Chianese Lower Field: See page xx for costs and alternative options

3. ADA Improvements Based under the requirements of the American Disabilities Act (ADA) there are several areas that require access to the fields. Whether it is coaches, players or fans improvements should be done at the following locations:

- Barrington High School:
 - Varsity Baseball
 - Softball
 - Library Field
- Chianese Field:
 - Little League Baseball
- Andrews Farm Field
- Sowams Elementary School
- Bicknell Park
- Haines Park as part of the new improvements

Budget/Costs: Town Wide ADA Improvements: \$10,000-\$15,000

4. STORAGE UNITS: Storage at various locations should be addressed. Simple structures such as 10'x20' Miller Storage Units, should be considered at the Heavily/active used sites:

- High School
- Middle School
- Chianese
- St Andrews Farm

Budget/Costs: Town Wide Storage: \$30,000/year (2 Units per year)

5. SHERWOOD PARK DRAINAGE IMPROVEMENTS: Sand channeling use a sandkat to improve the overall drainage and increase playability of the field:

- Given the tight site, as well as the proximity of wetlands, a full reconstruction may not be feasible.
- A full size Sandmaster may have difficulty with access, but the smaller SandCat would be operate effectively.
- The SandCat is a less intensive process than full scale Sandmastering.
- The SandCat would require more labor costs due to its smaller capacity. The sand channeling cuts trenches approximately 1" wide and up to 6" in depth and it injects sand to a 5" depth. Approximately 4 pounds of sand per linear foot.
- This will improve drainage and soil composition but it is not a permanent as a full reconstruction.

Budget/Costs: Sherwood Drainage: See XX for costs

6. PARKING IMPROVEMENTS: As part of the improvements to both St Andrews Farm and Lower Chianese Field parking for events that expand the use of these facilites, improvements to parking in these areas should be addressed.

Budget/Costs: Parking Improvements: \$15,000-\$20,000/per field

7. IRRIGATION AUDITS AT SOWAMS AND CHIANESE: Testing indicates that these three fields have poor distribution uniformity and volumetric water content. This negatively impacts the sustainability of the fields. We

recommend that the irrigation systems of the fields be audited, including testing for distribution uniformity and volume of water applied. Any adjustments or repairs to heads, valves, or controllers should be done at that time.

Budget/Costs: Irrigation Audit: \$10,000-\$12,000/per field

LONG-TERM GOALS (5-10 Years)

8. ANNUAL ROTATION OF REHABILITATION OF FIELDS: There should be an annual rotation of fields that come off line for maintenance improvements. These improvements should include helping to improve playing and safety conditions of the fields are our primary goals. Improved surface and sub surface drainage, and the promotion of deeper and denser root development will help us achieve these goals. This approach can help improve the playing conditions by utilizing the targeted approach of fraise mowing, and increased cultural actions implemented each year. The initial action of fraise mowing (utilizing the KORO Field Top Maker) will remove undesirable weed vegetation, while leaving the deep-rooted desirable grass crowns and roots. This can help improve the existing desirable grass health, while preparing the surface for additional cultural work, including the introduction of innovative seed cultivars. The introduction of drainage as using the Sand Master (Slits 8" deep by 1." Wide at 8" centers filled with sand) can help improve the current poor infiltration and percolation rates over time, is a more sustainable option year to year, requiring less of an initial upfront investment. This is due to the incremental nature of the cultural activities. Each action such as aeration, fraise mowing, and topdressing can improve the soil structure considerably. Localized undulations can be remedied over time through fraise mowing, topdressing, and concentrated cultural actions. The introduction of drought and disease resistant cultivars through overseeding can help increase the health and sustainability of the turf surface.

This also includes the rebuild of infields, mounds and batters boxes using laser grading and the removal of access material as needed.

Budget/Costs: Rectangular Field: \$35,000-\$45,000/per field

Softball Field: \$45,000-\$55,000/per field

Baseball Field: \$65,000-\$75,000/ per field

9. CONVERTING THE HAINES FULL SIZE BASEBALL FIELD TO A RECTANGULAR FIELD: The full size baseball field at Haines does not seem to meet the users needs. With the construction of a new little league field at Haines, the removal of the baseball field will not only provide the need

ACTION ITEMS

for more rectangular field space but, will ultimately help reduce in overall maintenance costs.

Budget/Costs: Convert Haines to Multi-use Field: \$450,000-\$550,000

10. CONVERT NYATT SCHOOL FIELDS TO GRASS FIELDS: The fields at Nyatt School have higher costs of maintenance and could be converted to green play area. With the addition of other improvements, little league baseball can be added to those areas. This could include improvements at the Middle School for improvements at Chianese Fields.

Budget/Costs: Convert Sowams field to skinned softball field: \$15,000-\$20,000

11. CONVERT THE SOWAMS SCHOOL FIELD TO A SKINNED SOFTBALL FIELD: The current field serves little league and could do the same as a softball field. This would help with multi-aged and gender different children to provide a place for practice and games. An outfield fence should be added to the field as well.

Budget/Costs: Convert Sowams field to skinned softball field: \$25,000-\$35,000

12. IMPROVED/ADDED RESTROOM FACILITIES: Based on the increase use of these facilities as more sport centric facilities, restrooms should be either upgraded or added to the following facilities:

- Chianese Field
- Haines State Park
- St. Andrews Field

Budget/Costs: Restroom Facilities: \$100,000-\$200,000

13. PARKING IMPROVEMENTS: Based on increased usage at the various facilities the following areas should undergo studies to improve parking at the following facilities:

- Chianese Field
- Haines State Park

YEAR ONE-TWO

- Implement a new registration, scheduling and tracking system to improve communication between the town and user organizations.
- Create protocols for weather delays and cancellations that are enforceable.
- Create the framework for developing a budget for the maintenance of athletic fields in the town.
- Hire two new Department of Public Works with horticulture/grounds keeping backgrounds to be dedicated to the care and maintenance of fields only.
- Develop a system of record keeping for all maintenance practices and improvements to athletic fields.
- Create a committee or utilize an existing committee to review ADA access to existing athletic fields and create an implementation program to improve access at all fields.
- Create a committee or utilize an existing committee to select and prioritize the recommended improvements and/or alternative options.
- Complete irrigation audits at Sowams Elementary School and Chianese School
- Implement drainage improvements at Sherwood Park Field.
- Implement design plans to improve the lower field at Chianese Fields.

YEAR THREE-FIVE

- Implement the improvements to create more athletic space through a new synthetic turf field.
- Start rotating fields for rest. Annually there should be a softball field, baseball field and a rectangular field off line each year. This will allow for all fields to get rest and rehabilitation at least once every ten years.
- Develop improvements for parking at St Andrews Farm and Chianese Fields.
- Create a Plan for adding storage at the High School Middle School, Chianese, and St Andrews Farm

IMPROVEMENTS: MS FIELDS 1.1 and 2.1-2.3

FIELD SIZE: MULTI-USE 320,000/SQ.FT.

MAINTENANCE CLASSIFICATION: LEVEL 3

FIELD

PRIORITY LEVEL: 2

1. RECOMMENDATION: Recommendation to provide some natural grass maintenance improvements including sand slits, deepsite aerating and fraise mowing

2. OPTION 1: Rebuilding the two existing larger grass fields and baseball field as a synthetic turf field with a total area of 220,000/sq.ft. This would include lighting for all the fields. Turf should be environmentally sensitive to the area with an alternative infill and recyclable.

3. OPTION 2: Rebuilding the existing larger grass field and the baseball as synthetic turf with a total area of 140,000/sq.ft. This would include lighting for all the fields. Turf should be environmentally sensitive to the area with an alternative infill and recyclable.

4. OPTION 3: Rebuild the grass field to the north to be a multi-use synthetic turf field with a total area of 89,000/sq.ft. This would include lighting for all the fields. Turf should be environmentally sensitive to the area with an alternative infill and recyclable. This is not an ideal solar layout for the field.

5. OPTION 4: Maintenance practices to the field to the north and create a full hybrid field with a total area of 89,000/sq.ft. This does not include athletic field lighting.

Note: TLA does not recommend hybrid stitching these fields. There are too many different orientations and different uses that is not conducive to stitching.

POTENTIAL SPORTS:



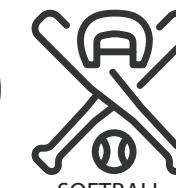
BASEBALL



LACROSSE



SOCCER



SOFTBALL

Item	Quantity	Unit	Unit Price	Total
Site Preparation/Demolition				
Mobilization	1.00	LS	\$ 1,000.00	\$ 1,000.00
Clearing and Grubbing	1.00	LS	-	-
Erosion Control and Termporary Facilities	1.00	LS	-	-
Subtotal				\$ 1,000.00
Athletic Improvements				
Natural Grass field ~ 230,000 sf				
Sand Channeling using a SandKat	26,000.00	SY	\$ 1.10	\$ 28,600.00
Deeptine Aerate	26,000.00	SY	\$ 0.50	\$ 13,000.00
Fraise Mowing	26,000.00	SY	\$ 0.75	\$ 19,500.00
Irrigation	1.00	LS	\$ 17,500.00	\$ 17,500.00
Overseed	230,000.00	SF	\$ 0.10	\$ 23,000.00
Subtotal				\$ 101,600.00
SUBTOTAL OF SITE CONSTRUCTION ITEMS				TOTAL
				\$ 102,600.00

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OPTION 1: SYNTHETIC TURF FIELD WITH TWO MULTI-USE FIELDS AND BASEBALL

Item	Quantity	Unit	Unit Price	Total
Site Preparation/Demolition				
Mobilization	1.00	LS	\$ 20,000.00	\$ 20,000.00
Erosion Control and Termperary Facilities	1.00	LS	\$ 15,000.00	\$ 15,000.00
Subtotal				\$ 35,000.00
Track & Field Improvements				
Mass Grading	8,200.00	CY	\$ 16.00	\$ 131,200.00
Fine Grading of Synthetic Turf Field	1.00	LS	\$ 75,000.00	\$ 75,000.00
Rough Grading of Field	1.00	LS	\$ 70,000.00	\$ 70,000.00
Synthetic Turf	220,000.00	SF	\$ 6.25	\$ 1,375,000.00
Shock Pad	220,000.00	SF	\$ 1.35	\$ 297,000.00
Base and Finishing Stone Subbase	1.00	LS	\$ 275,000.00	\$ 275,000.00
Synthetic Turf Drainage System	1.00	LS	\$ 175,000.00	\$ 175,000.00
PCC Field Curb	1,950.00	LF	\$ 25.00	\$ 48,800.00
Water	6.00	LS	\$ 6,500.00	\$ 39,000.00
Electric	6.00	LS	\$ 5,500.00	\$ 33,000.00
Communications	6.00	LS	\$ 7,500.00	\$ 45,000.00
Subtotal				\$ 2,564,000.00
Athletic Field Lighting				
Site Electrical	1.00	LS	\$ 65,000.00	\$ 65,000.00
Ahtletic Field Lighting	8.00	EA	\$ 107,500.00	\$ 860,000.00
Subtotal				\$ 925,000.00
Athletic Equipment				
Portable Mound	1.00	LS	\$ 15,000.00	\$ 15,000.00
Bullpen	2.00	EA	\$ 12,500.00	\$ 25,000.00
10x15' storage units	4.00	EA	\$ 15,000.00	\$ 60,000.00
Flagpole	1.00	EA	\$ 9,000.00	\$ 9,000.00
Portable Outfield Fence	1.00	EA	\$ 35,000.00	\$ 35,000.00
Scoreboard	2.00	EA	\$ 20,000.00	\$ 40,000.00
Fences and Gates	1.00	LS	\$ 115,000.00	\$ 115,000.00
Subtotal				\$ 299,000.00
Subtotal				\$ 3,823,000.00
Total Costs				
SUBTOTAL OF SITE CONSTRUCTION ITEMS				\$ 3,823,000.00
DESIGN/ENGINEERING SERVICES 6.5%				\$ 248,500.00
GENERAL CONDITIONS, BOND, CONTRACTOR OH&P 10%				\$ 382,300.00
CONTINGENCY 10%				\$ 382,300.00
TOTAL				\$ 4,840,000.00



OPTION 2: SYNTHETIC TURF FIELD WITH SINGLE MULTI-USE FIELD AND BASEBALL

Item	Quantity	Unit	Unit Price	Total
Site Preparation/Demolition				
Mobilization	1.00	LS	\$ 15,000.00	\$ 15,000.00
Erosion Control and Termporary Facilities	1.00	LS	\$ 10,000.00	\$ 10,000.00
Subtotal				\$ 25,000.00
Track & Field Improvements				
Mass Grading	5,200.00	CY	\$ 16.00	\$ 83,200.00
Fine Grading of Synthetic Turf Field	1.00	LS	\$ 45,000.00	\$ 45,000.00
Rough Grading of Field	1.00	LS	\$ 65,000.00	\$ 65,000.00
Synthetic Turf	140,000.00	SF	\$ 6.25	\$ 875,000.00
Shock Pad	140,000.00	SF	\$ 1.35	\$ 189,000.00
Base and Finishing Stone Subbase	1.00	LS	\$ 200,000.00	\$ 200,000.00
Synthetic Turf Drainage System	1.00	LS	\$ 120,000.00	\$ 120,000.00
PCC Field Curb	1,480.00	LF	\$ 25.00	\$ 37,000.00
Water	6.00	LS	\$ 6,500.00	\$ 39,000.00
Electric	6.00	LS	\$ 5,500.00	\$ 33,000.00
Communications	6.00	LS	\$ 7,500.00	\$ 45,000.00
Subtotal				\$ 1,731,200.00
Athletic Field Lighting				
Site Electrical	1.00	LS	\$ 45,000.00	\$ 45,000.00
Ahtletic Field Lighting	6.00	EA	\$ 107,500.00	\$ 645,000.00
Subtotal				\$ 690,000.00
Athletic Equipment				
Portable Mound	1.00	LS	\$ 15,000.00	\$ 15,000.00
Bullpen	2.00	EA	\$ 12,500.00	\$ 25,000.00
10x15' storage units	2.00	EA	\$ 15,000.00	\$ 30,000.00
Flagpole	1.00	EA	\$ 9,000.00	\$ 9,000.00
Portable Outfield Fence	1.00	EA	\$ 35,000.00	\$ 35,000.00
Scoreboard	1.00	EA	\$ 20,000.00	\$ 20,000.00
Fences and Gates	1.00	LS	\$ 85,000.00	\$ 85,000.00
Subtotal				\$ 219,000.00
Subtotal				\$ 2,665,200.00
Total Costs				
SUBTOTAL OF SITE CONSTRUCTION ITEMS				\$ 2,665,200.00
DESIGN/ENGINEERING SERVICES 6.5%				\$ 173,300.00
GENERAL CONDITIONS, BOND, CONTRACTOR OH&P 10%				\$ 266,600.00
CONTINGENCY 10%				\$ 266,600.00
TOTAL				\$ 3,380,000.00

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OPTION 3: SINGLE MULTI-USE SYNTHETIC TURF FIELD

Item	Quantity	Unit	Unit Price	Total
Site Preparation/Demolition				
Mobilization	1.00	LS	\$ 15,000.00	\$ 15,000.00
Erosion Control and Termporary Facilities	1.00	LS	\$ 10,000.00	\$ 10,000.00
Subtotal				\$ 25,000.00
Track & Field Improvements				
Mass Grading	3,300.00	CY	\$ 16.00	\$ 52,800.00
Fine Grading of Synthetic Turf Field	1.00	LS	\$ 25,000.00	\$ 25,000.00
Rough Grading of Field	1.00	LS	\$ 35,000.00	\$ 35,000.00
Synthetic Turf	89,000.00	SF	\$ 6.25	\$ 556,300.00
Shock Pad	89,000.00	SF	\$ 1.35	\$ 120,200.00
Base and Finishing Stone Subbase	1.00	LS	\$ 150,000.00	\$ 150,000.00
Synthetic Turf Drainage System	1.00	LS	\$ 125,000.00	\$ 125,000.00
PCC Field Curb	1,480.00	LF	\$ 25.00	\$ 37,000.00
Water	6.00	LS	\$ 6,500.00	\$ 39,000.00
Electric	6.00	LS	\$ 5,500.00	\$ 33,000.00
Communications	6.00	LS	\$ 7,500.00	\$ 45,000.00
Subtotal				\$ 1,218,300.00
Athletic Field Lighting				
Site Electrical	1.00	LS	\$ 45,000.00	\$ 45,000.00
Ahtletic Field Lighting	4.00	EA	\$ 107,500.00	\$ 430,000.00
Subtotal				\$ 475,000.00
Athletic Equipment				
10x15' storage units	2.00	EA	\$ 15,000.00	\$ 30,000.00
Flagpole	1.00	EA	\$ 9,000.00	\$ 9,000.00
Scoreboard	1.00	EA	\$ 20,000.00	\$ 20,000.00
Fences and Gates	1.00	LS	\$ 85,000.00	\$ 85,000.00
Subtotal				\$ 144,000.00
Subtotal				\$ 1,862,300.00
Total Costs				
SUBTOTAL OF SITE CONSTRUCTION ITEMS				\$ 1,862,300.00
DESIGN/ENGINEERING SERVICES 6.5%				\$ 121,100.00
GENERAL CONDITIONS, BOND, CONTRACTOR OH&P 10%				\$ 186,300.00
CONTINGENCY 10%				\$ 186,300.00
TOTAL				\$2,360,000.00

OPTION 4: SINGLE MULTI-USE FIELD HYBRID STITCHED

Item	Quantity	Unit	Unit Price	Total
Site Preparation/Demolition				
Mobilization	1.00	LS	\$ 1,000.00	\$ 1,000.00
Clearing and Grubbing	1.00	LS	\$ -	\$ -
Erosion Control and Termporary Facilities	1.00	LS	\$ -	\$ -
Subtotal			\$ 1,000.00	
Athletic Improvements				
Natural Grass field ~ 89,000 sf				
Sand Channeling using a SandKat	9,900.00	SY	\$ 1.10	\$ 10,900.00
Hybrid Stitching	89,000.00	SF	\$ 5.25	\$ 467,300.00
Deeptine Aerate	9,900.00	SY	\$ 0.50	\$ 5,000.00
Fraise Mowing	9,900.00	SY	\$ 0.75	\$ 7,425.00
Irrigation	1.00	LS	\$ 17,500.00	\$ 17,500.00
Overseed	9,900.00	SF	\$ 0.10	\$ 1,000.00
Subtotal			\$ 509,125.00	
SUBTOTAL OF SITE CONSTRUCTION ITEMS		TOTAL	\$ 510,125.00	
SOFT COSTS 6.5%			\$ 33,200.00	
GENERAL CONDITIONS, BOND, CONTRACTOR OH&P 10%			\$ 51,100.00	
CONTINGENCY 5%			\$ 255,100.00	
TOTAL			\$ 850,000.00	

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IMPROVEMENTS: HS FIELD 1.1, 1.3, AND 2.3

FIELD SIZE: JV AND VARSITY BASEBALL FIELD

MULTI-USE 80,000/SQ.FT.

MAINTENANCE CLASSIFICATION: LEVEL 3 FIELD AND

BASEBALL

PRIORITY LEVEL: 3

- 1. RECOMMENDATION:** TLA's recommendation is to rebuild the infields and provide some advanced maintenance treatments. Some of the additional improvements at the High School will allow for reduction in use of the multi-use fields in the outfields will reduce hours of use and allow maintenance to catch-up with the primary use of baseball.



- 2. OPTION 1:** Both the JV and Varsity Baseball field infields could be rebuilt to remove low spots and lips at the edge of the field. The multi-use field has varying conditions of grass due to high-use and overlay of sports. The multi-use sports areas should be rebuilt.

Note: It is TLA's opinion that while Option 1 would be a great improvement to the site to create a better playing surface but, this improvement should be more of a long-term goal as other alternatives on the site will create more maintenance opportunities by freeing up space to rest these fields.

- 3. OPTION 2:** Convert the entire area (Field 1.1, 1.3, and 2.3 to a synthetic surface that includes a full-size multi-use field, varsity/jv baseball, and varsity softball field.

Note: It is TLA's opinion that while Option 2 would create useable space for the high school and community, this option comes with the fields being in the lowest point on the site increases the potential risk for flooding in an AE Flood Zone and the requirement to meet Title IX is not inline with the rest of the study.



POTENTIAL SPORTS:



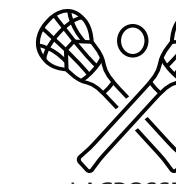
BASEBALL



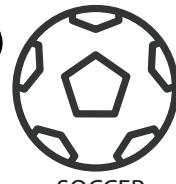
FIELD HOCKEY



FOOTBALL



LACROSSE



SOCCER



SOFTBALL

**RECOMMENDATION FIELD 1.1 OPINION OF COST
VARSITY BASEBALL INFIELD**

Item	Quantity	Unit	Unit Price	Total
Site Preparation/Demolition				
Mobilization	1.00	LS	\$ 1,000.00	\$ 1,000.00
Clearing and Grubbing	1.00	LS	\$ 3,500.00	\$ 3,500.00
Erosion Control and Termporary Facilities	1.00	LS	\$ -	\$ -
Subtotal			\$ 4,500.00	
Athletic Improvements				
Varsity Baseball Infield ~ 25,000 sf to 10"				
Mass Grading	770.00	CY	\$ 12.00	\$ 9,300.00
Drainage Sand	470.00	CY	\$ 22.00	\$ 10,400.00
Irrigation	1.00	LS	\$ 5,000.00	\$ 5,000.00
Laser Grade	25,000.00	SF	\$ 0.26	\$ 6,500.00
4" Native Premim Infield Mix	150.00	CY	\$ 85.00	\$ 12,800.00
Turface	1.00	LS	\$ 3,500.00	\$ 3,500.00
Sod	7,500.00	SF	\$ 1.50	\$ 11,300.00
Subtotal			\$ 58,800.00	
SUBTOTAL OF SITE CONSTRUCTION ITEMS		TOTAL	\$ 63,300.00	

**RECOMMENDATION FIELD 2.3 OPINION OF COST
COUNTY ROAD MULTI-USE FIELD**

Item	Quantity	Unit	Unit Price	Total
Site Preparation/Demolition				
Mobilization	1.00	LS	\$ 1,000.00	\$ 1,000.00
Clearing and Grubbing	1.00	LS	\$ -	\$ -
Erosion Control and Termporary Facilities	1.00	LS	\$ -	\$ -
Subtotal			\$ 1,000.00	
Athletic Improvements				
Natural Grass field ~ 163,000 sf @ 10"				
Sand Channeling using a SandKat	18,200.00	SY	\$ 1.10	\$ 20,100.00
Irrigation	1.00	LS	\$ 5,000.00	\$ 5,000.00
2" Field Sub Drainage	2,800.00	LF	\$ 8.00	\$ 22,400.00
10" Collector Drain	1,200.00	LF	\$ 22.00	\$ 26,400.00
Overseed	163,000.00	SF	\$ 0.10	\$ 16,300.00
Subtotal			\$ 90,200.00	
SUBTOTAL OF SITE CONSTRUCTION ITEMS		TOTAL	\$ 91,200.00	
SOFT COSTS 6.5%			\$ 6,000.00	
GENERAL CONDITIONS, BOND, CONTRACTOR OH&P 10%			\$ 9,200.00	
CONTINGENCY 5%			\$ 45,600.00	
TOTAL			\$ 152,000.00	

**RECOMMENDATION FIELD 1.3 OPINION OF COST
JV BASEBALL INFIELD**

Item	Quantity	Unit	Unit Price	Total
Site Preparation/Demolition				
Mobilization	1.00	LS	\$ 1,000.00	\$ 1,000.00
Clearing and Grubbing	1.00	LS	\$ 3,500.00	\$ 3,500.00
Erosion Control and Termporary Facilities	1.00	LS	\$ -	\$ -
Subtotal			\$ 4,500.00	
Athletic Improvements				
Varsity Baseball Infield ~ 25,000 sf to 10"				
Mass Grading	770.00	CY	\$ 12.00	\$ 9,300.00
Drainage Sand	470.00	CY	\$ 22.00	\$ 10,400.00
Irrigation	1.00	LS	\$ 5,000.00	\$ 5,000.00
Laser Grade	25,000.00	SF	\$ 0.26	\$ 6,500.00
4" Native Premim Infield Mix	150.00	CY	\$ 85.00	\$ 12,800.00
Turface	1.00	LS	\$ 3,500.00	\$ 3,500.00
Sod	7,500.00	SF	\$ 1.50	\$ 11,300.00
Subtotal			\$ 58,800.00	
SUBTOTAL OF SITE CONSTRUCTION ITEMS		TOTAL	\$ 63,300.00	
RECOMMENDATION FIELD 2.3 OPTION 1 OPINION OF COST COUNTY ROAD MULTI-USE FIELD				
Item	Quantity	Unit	Unit Price	Total
Site Preparation/Demolition				
Mobilization	1.00	LS	\$ 5,000.00	\$ 5,000.00
Clearing and Grubbing	1.00	LS	\$ 5,000.00	\$ 5,000.00
Erosion Control and Termporary Facilities	1.00	LS	\$ 2,500.00	\$ 2,500.00
Subtotal			\$ 12,500.00	
Athletic Improvements				
Natural Grass field ~ 163,000 sf @ 10"				
Mass Grading	5,010.00	CY	\$ 12.00	\$ 60,200.00
Fine Grading Field	1.00	LS	\$ 25,000.00	\$ 25,000.00
Irrigation	1.00	LS	\$ 35,000.00	\$ 35,000.00
2" Field Sub Drainage	2,800.00	LF	\$ 8.00	\$ 22,400.00
10" Collector Drain	1,200.00	LF	\$ 22.00	\$ 26,400.00
Nyloplast Intakes	12.00	EA	\$ 800.00	\$ 9,600.00
Amend and Replace Top Soil	3,020.00	CY	\$ 8.00	\$ 24,200.00
Import Sand/Gravel Fill	2,000.00	CY	\$ 22.00	\$ 44,000.00
Sod	163,000.00	SF	\$ 1.50	\$ 244,500.00
Subtotal			\$ 491,300.00	
SUBTOTAL OF SITE CONSTRUCTION ITEMS		TOTAL	\$ 503,800.00	
SOFT COSTS 6.5%			\$ 32,800.00	
GENERAL CONDITIONS, BOND, CONTRACTOR OH&P 10%			\$ 50,400.00	
CONTINGENCY 15%			\$ 75,600.00	
TOTAL			\$ 663,000.00	

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RECOMMENDATION FIELD 1.1, 1.3 AND 2.3 OPTION 2
OPINION OF COST
COUNTY ROAD MULTI-USE FIELD, VARSITY BASEBALL AND JV BASEBALL

Item	Quantity	Unit	Unit Price	Total
Site Preparation/Demolition				
Mobilization	1.00	LS	\$ 15,000.00	\$ 15,000.00
Erosion Control and Termporary Facilities	1.00	LS	\$ 8,000.00	\$ 8,000.00
Subtotal				\$ 23,000.00
Field Improvements				
Mass Grading	5,740.00	CY	\$ 16.00	\$ 91,900.00
Fine Grading of Synthetic Turf Field	1.00	LS	\$ 50,000.00	\$ 50,000.00
Rough Grading of Field	1.00	LS	\$ 70,000.00	\$ 70,000.00
Synthetic Turf	155,000.00	SF	\$ 6.25	\$ 968,800.00
Shock Pad	155,000.00	SF	\$ 1.35	\$ 209,300.00
Base and Finishing Stone Subbase	1.00	LS	\$ 300,000.00	\$ 300,000.00
Synthetic Turf Drainage System	1.00	LS	\$ 175,000.00	\$ 175,000.00
Concrete Curb	1,300.00	LF	\$ 65.00	\$ 84,500.00
Subtotal				\$ 1,949,500.00
Athletic Field Lighting				
Site Electrical	1.00	LS	\$ 75,000.00	\$ 75,000.00
Ahtletic Field Lighting	10.00	EA	\$ 107,500.00	\$ 1,075,000.00
Subtotal				\$ 1,150,000.00
Athletic Equipment				
Backstop	2.00	EA	\$ 25,000.00	\$ 50,000.00
Foul Poles	4.00	EA	\$ 5,000.00	\$ 20,000.00
Dugouts	4.00	EA	\$ 45,000.00	\$ 180,000.00
Batting Cage	4.00	EA	\$ 12,500.00	\$ 50,000.00
Mound	2.00	EA	\$ 5,000.00	\$ 10,000.00
Bullpen	4.00	EA	\$ 12,500.00	\$ 50,000.00
27' ADA Bleachers	4.00	EA	\$ 8,000.00	\$ 32,000.00
Press box shelter	2.00	LS	\$ 15,000.00	\$ 30,000.00
10x15' storage units	6.00	EA	\$ 15,000.00	\$ 90,000.00
Flagpole	1.00	EA	\$ 9,000.00	\$ 9,000.00
Scoreboard	1.00	EA	\$ 35,000.00	\$ 35,000.00
Subtotal				\$ 556,000.00
Total Costs				
SUBTOTAL OF SITE CONSTRUCTION ITEMS				\$ 3,678,500.00
DESIGN/ENGINEERING SERVICES				\$ 239,200.00
GENERAL CONDITIONS, BOND, CONTRACTOR OH&P 10%				\$ 367,900.00
CONTINGENCY 15%				\$ 551,800.00
TOTAL				\$4,840,000.00



IMPROVEMENTS: HS FIELD 1.2

FIELD SIZE: SOFTBALL 38,000/SQ.FT.

MAINTENANCE CLASSIFICATION: SOFTBALL

PRIORITY LEVEL: 4

1. RECOMMENDATION: TLA's recommendation is that the varsity softball field is in fairly good condition. Some advanced maintenance in the outfield would help to improve the surface. More long-term would be to remove material from the infield and laser grade the surface on a regular rotation of every 8-10 years.

POTENTIAL SPORTS:



Item	Quantity	Unit	Unit Price	Total
Site Preparation/Demolition				
Mobilization	1.00	LS	\$ 1,000.00	\$ 1,000.00
Clearing and Grubbing	1.00	LS	\$ -	\$ -
Erosion Control and Temporary Facilities	1.00	LS	\$ -	\$ -
Subtotal				\$ 1,000.00
Athletic Improvements				
Natural Grass field ~ 30,000 sf"				
Sand Channeling using a SandKat	3,400.00	SY	\$ 1.10	\$ 3,800.00
Fraise Mowing	3,400.00	SY	\$ 0.75	\$ 2,550.00
Deeptine Aerate	3,400.00	SY	\$ 0.50	\$ 6,200.00
Irrigation	1.00	LS	\$ 2,500.00	\$ 2,500.00
Overseed	30,000.00	SF	\$ 0.10	\$ 3,000.00
Subtotal				\$ 18,050.00

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IMPROVEMENTS: HS FIELD 2.1

FIELD SIZE: 80,000/SQ.FT.

MAINTENANCE CLASSIFICATION: LEVEL 3 FIELD

PRIORITY LEVEL: 2

- 1. RECOMMENDATION:** The current field is heavily used for both men's and women's lacrosse as well as soccer. The field is adequate size but, expansion of the field does not currently allow of the high-use goal mouths of lacrosse. Expanding this field will allow for the rotation of the high use areas. Additionally this field soil profile has high levels of stones in the surface. This field should be rebuilt.
- 2. OPTION 1:** Convert this field to a synthetic surface. The field would be reduced to 210'x380'. Includes athletic field lighting.

Note: It is TLA's opinion that while Option 1 would be a great improvement to the site to create a better playing surface

and increase in the hours of use but, the current high school building improvements will potentially impact improvements in this area. This areas should be reviewed as part of the school improvements.

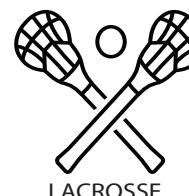
- 3. OPTION 2:** This includes a hybrid system which includes stitching the high use areas (goal mouths) and center of the field.

Note: It is TLA's opinion that while Option 2 would be a great improvement to the site to create a better playing surface and increase in the hours of use but, the current high school building improvements will potentially impact improvements in this area. This areas should be reviewed as part of the school improvements.

POTENTIAL SPORTS:



SOCER



LACROSSE



RECOMMENDED: REBUILD AND EXPAND NATURAL GRASS FIELD
OPTION 1: REBUILD FIELD AS SYNTHETIC TURF

OPTION 2: REBUIDL HYBRID STITCH THE ENTREFIELD AREA

RECOMMENDATION OPINION OF COST

Item	Quantity	Unit	Unit Price	Total
Site Preparation/Demolition				
Mobilization	1.00	LS	\$ 5,000.00	\$ 5,000.00
Clearing and Grubbing	1.00	LS	\$ 5,000.00	\$ 5,000.00
Erosion Control and Termporary Facilities	1.00	LS	\$ 2,500.00	\$ 2,500.00
Subtotal				\$ 12,500.00
Athletic Improvements				
Natural Grass field ~ 86,100 sf @ 8"				
Mass Grading	2,136.00	CY	\$ 12.00	\$ 25,700.00
Fine Grading Field	1.00	LS	\$ 25,000.00	\$ 25,000.00
Irrigation	1.00	LS	\$ 35,000.00	\$ 35,000.00
2" Field Sub Drainage	4,250.00	LF	\$ 8.00	\$ 34,000.00
10" Collector Drain	950.00	LF	\$ 22.00	\$ 20,900.00
Nyloplast Intakes	4.00	EA	\$ 800.00	\$ 3,200.00
Amend and Replace Top Soil	2,136.00	CY	\$ 8.00	\$ 17,100.00
Import Sand/Gravel Fill	531.00	CY	\$ 22.00	\$ 11,700.00
Sod	86,100.00	SF	\$ 1.50	\$ 129,200.00
Subtotal				\$ 301,800.00
SUBTOTAL OF SITE CONSTRUCTION ITEMS				\$ 314,300.00
SOFT COSTS 6.5%				\$ 20,500.00
GENERAL CONDITIONS, BOND, CONTRACTOR OH&P 10%				\$ 31,500.00
CONTINGENCY 15%				\$ 47,200.00
TOTAL				\$ 414,000.00


OPTION 1: OPINION OF COST

Item	Quantity	Unit	Unit Price	Total
Site Preparation/Demolition				
Mobilization	1.00	LS	\$ 15,000.00	\$ 15,000.00
Erosion Control and Termporary Facilities	1.00	LS	\$ 8,000.00	\$ 8,000.00
Subtotal				\$ 23,000.00
Track & Field Improvements				
Mass Grading	2,136.00	CY	\$ 16.00	\$ 34,200.00
Fine Grading of Synthetic Turf Field	1.00	LS	\$ 25,000.00	\$ 25,000.00
Rough Grading of Field	1.00	LS	\$ 35,000.00	\$ 35,000.00
Synthetic Turf	79,838.00	SF	\$ 6.25	\$ 499,000.00
Shock Pad	79,838.00	SF	\$ 1.35	\$ 107,800.00
Base and Finishing Stone Subbase	1.00	LS	\$ 150,000.00	\$ 150,000.00
Synthetic Turf Drainage System	1.00	LS	\$ 125,000.00	\$ 125,000.00
Slot Drain/Trench Drain with Curb	150.00	LF	\$ 90.00	\$ 13,500.00
Flagpole	1.00	EA	\$ 9,000.00	\$ 9,000.00
Scoreboard	1.00	EA	\$ 20,000.00	\$ 20,000.00
Subtotal				\$ 1,018,500.00
Athletic Field Lighting				
Site Electrical	1.00	LS	\$ 55,000.00	\$ 55,000.00
Athletic Field Lighting	4.00	EA	\$ 107,500.00	\$ 430,000.00
Subtotal				\$ 485,000.00
Total Costs				\$ 1,526,500.00
SUBTOTAL OF SITE CONSTRUCTION ITEMS				\$ 1,526,500.00
DESIGN/ENGINEERING SERVICES				\$ 99,300.00
GENERAL CONDITIONS, BOND, CONTRACTOR OH&P 10%				\$ 152,700.00
CONTINGENCY 15%				\$ 229,000.00
TOTAL				\$ 2,010,000.00

OPTION 1: REBUILD FIELD WITH HYBRID STITCH THE HIGH USE AREAS

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OPTION 2: OPINION OF COST

Item	Quantity	Unit	Unit Price	Total		
Site Preparation/Demolition						
Mobilization	1.00	LS	\$ 5,000.00	\$ 5,000.00		
Clearing and Grubbing	1.00	LS	\$ 5,000.00	\$ 5,000.00		
Erosion Control and Termperary Facilities	1.00	LS	\$ 2,500.00	\$ 2,500.00		
Subtotal			\$ 12,500.00			
Athletic Improvements						
Natural Grass field ~ 86,100 sf @ 8"						
Mass Grading	2,136.00	CY	\$ 12.00	\$ 25,700.00		
Fine Grading Field	1.00	LS	\$ 25,000.00	\$ 25,000.00		
Irrigation	1.00	LS	\$ 35,000.00	\$ 35,000.00		
Hybrid Stitch High-Use Areas	12,000.00	SF	\$ 7.25	\$ 87,000.00		
2" Field Sub Drainage	4,250.00	LF	\$ 8.00	\$ 34,000.00		
10" Collector Drain	950.00	LF	\$ 22.00	\$ 20,900.00		
Nyloplast Intakes	4.00	EA	\$ 800.00	\$ 3,200.00		
Amend and Replace Top Soil	2,136.00	CY	\$ 8.00	\$ 17,100.00		
Import Sand/Gravel Fill	531.00	CY	\$ 22.00	\$ 11,700.00		
Sod	86,100.00	SF	\$ 1.50	\$ 129,200.00		
Subtotal			\$ 388,800.00			
SUBTOTAL OF SITE CONSTRUCTION ITEMS						
SOFT COSTS 6.5%						
GENERAL CONDITIONS, BOND, CONTRACTOR OH&P 10%						
CONTINGENCY 15%						
TOTAL			\$ 528,000.00			

IMPROVEMENTS: HS FIELD 2.2

FIELD SIZE: MULTI-USE 80,000/SQ.FT.

MAINTENANCE CLASSIFICATION: LEVEL 3 FIELD

PRIORITY LEVEL: 1

- 1. RECOMMENDATION:** TLA's recommendation rebuilding Victory field as a synthetic turf field with a new equal quadrant track with an eight lane straightaway and a six lane turn. This will allow for a 190'x330' soccer field. Retrofitting the lights on the west side of the field and new light poles on the east side. Turf should be environmentally sensitive to the area with an alternative infill and recyclable.
- 2. OPTION 1:** Rebuild the field the same as above with a full hybrid grass stitched field.
- 3. OPTION 2:** Rebuild the grass field in place as a natural grass field.
- 4. OPTION 3:** Rebuild the grass field in place as a full hybrid grass stitched field.
- 5. OPTION 4:** An equal quadrant 8-lane track does not fit in this area with major reconfiguration and loss of other fields. (No Estimate)
- 6. OPTION 5:** An IAAF track which allows for a 210' width soccer field does not fit in this area without significant impacts to the rest of the site. (No Estimate)
- 7. OPTION 6:** An IAAF track which allows for a 210' width soccer field does not fit in this area without significant impact to the rest of the site. (No Estimate)

POTENTIAL SPORTS:



RECOMMENDATION: OPINION OF COST FIELD HS2.2 VICTORY FIELD

Item	Quantity	Unit	Unit Price	Total
Site Preparation/Demolition				
Mobilization	1.00	LS	\$ 15,000.00	\$ 15,000.00
Erosion Control and Termporary Facilities	1.00	LS	\$ 8,000.00	\$ 8,000.00
Subtotal				\$ 23,000.00
Track & Field Improvements				
Mass Grading	5,200.00	CY	\$ 16.00	\$ 83,200.00
Fine Grading of Synthetic Turf Field	1.00	LS	\$ 25,000.00	\$ 25,000.00
Rough Grading of Field	1.00	LS	\$ 35,000.00	\$ 35,000.00
Synthetic Turf	79,838.00	SF	\$ 6.25	\$ 499,000.00
Shock Pad	79,838.00	SF	\$ 1.35	\$ 107,800.00
New Asphalt for Track including D-Areas	6,900.00	SY	\$ 38.00	\$ 262,200.00
Track Surface	6,900.00	SY	\$ 50.00	\$ 345,000.00
Base Stone for Track	220.00	CY	\$ 32.00	\$ 7,100.00
Base and Finishing Stone Subbase	1.00	LS	\$ 150,000.00	\$ 150,000.00
Synthetic Turf Drainage System	1.00	LS	\$ 125,000.00	\$ 125,000.00
Slot Drain/Trench Drain	1,305.00	LF	\$ 65.00	\$ 84,900.00
Synthetic Turf Drainage System	1.00	LS	\$ 60,000.00	\$ 60,000.00
PCC Field Curb	440.00	LF	\$ 25.00	\$ 11,000.00
Water	2.00	LS	\$ 6,000.00	\$ 12,000.00
Communications	2.00	LS	\$ 7,500.00	\$ 15,000.00
Subtotal				\$ 1,822,200.00
Athletic Field Lighting				
Site Electrical	1.00	LS	\$ 65,000.00	\$ 65,000.00
Athletic Field Lighting	2.00	EA	\$ 107,500.00	\$ 215,000.00
Athletic Field Lighting Relamping	2.00	EA	\$ 45,000.00	\$ 90,000.00
Subtotal				\$ 370,000.00
Athletic Equipment				
Pole Vault Equipment	1.00	EA	\$ 20,000.00	\$ 20,000.00
Safety Netting	360.00	LF	\$ 180.00	\$ 64,800.00
Long Jump runways and Pits	1.00	EA	\$ 25,000.00	\$ 25,000.00
Football Soccer Goal Pak Uprights	1.00	LS	\$ 35,000.00	\$ 35,000.00
ADA Bleacher Upgrades	1.00	LS	\$ 15,000.00	\$ 15,000.00
10x15' storage units	6.00	EA	\$ 15,000.00	\$ 90,000.00
Flagpole	1.00	EA	\$ 9,000.00	\$ 9,000.00
Scoreboard	1.00	EA	\$ 65,000.00	\$ 65,000.00
Fences and Gates	1.00	LS	\$ 90,000.00	\$ 90,000.00
Subtotal				\$ 413,800.00
Subtotal				\$ 2,629,000.00
Total Costs				
SUBTOTAL OF SITE CONSTRUCTION ITEMS				\$ 2,629,000.00
DESIGN/ENGINEERING SERVICES 6.5%				\$ 170,900.00
GENERAL CONDITIONS, BOND, CONTRACTOR OH&P 10%				\$ 262,900.00
CONTINGENCY 15%				\$ 394,400.00
TOTAL				\$ 3,460,000.00

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OPTION 1: OPINION OF COST FIELD HS2.2
VICTORY FIELD

Item	Quantity	Unit	Unit Price	Total
Site Preparation/Demolition				
Mobilization	1.00	LS	\$ 15,000.00	\$ 15,000.00
Erosion Control and Termporary Facilities	1.00	LS	\$ 8,000.00	\$ 8,000.00
Subtotal				\$ 23,000.00
Track & Field Improvements				
Mass Grading	5,200.00	CY	\$ 16.00	\$ 83,200.00
Fine Grading of Synthetic Turf Field	1.00	LS	\$ 25,000.00	\$ 25,000.00
Rough Grading of Field	1.00	LS	\$ 35,000.00	\$ 35,000.00
Sod	79,838.00	SF	\$ 1.50	\$ 119,800.00
Hybrid Stitching	79,838.00	SF	\$ 5.25	\$ 419,200.00
4" Native Premim Infield Mix	985.00	CY	\$ 85.00	\$ 83,800.00
New Asphalt for Track including D-Areas	6,900.00	SY	\$ 38.00	\$ 262,200.00
Track Surface	6,900.00	SY	\$ 50.00	\$ 345,000.00
2" Field Sub Drainage	2,800.00	LF	\$ 8.00	\$ 22,400.00
10" Collector Drain	1,200.00	LF	\$ 22.00	\$ 26,400.00
Base Stone for Track	220.00	CY	\$ 32.00	\$ 7,100.00
Slot Drain/Trench Drain	1,305.00	LF	\$ 65.00	\$ 84,900.00
PCC Field Curb	440.00	LF	\$ 25.00	\$ 11,000.00
Water	2.00	LS	\$ 6,000.00	\$ 12,000.00
Communications	2.00	LS	\$ 7,500.00	\$ 15,000.00
Subtotal				\$ 1,552,000.00
Athletic Field Lighting				
Site Electrical	1.00	LS	\$ 65,000.00	\$ 65,000.00
Ahtletic Field Lighting	2.00	EA	\$ 107,500.00	\$ 215,000.00
Athletic Field Lighting Relamping	2.00	EA	\$ 45,000.00	\$ 90,000.00
Subtotal				\$ 370,000.00
Athletic Equipment				
Pole Vault Equipment	1.00	EA	\$ 20,000.00	\$ 20,000.00
Safety Netting	360.00	LF	\$ 180.00	\$ 64,800.00
Long Jump runways and Pits	1.00	EA	\$ 25,000.00	\$ 25,000.00
Football Soccer Goal Pak Uprights	1.00	LS	\$ 35,000.00	\$ 35,000.00
ADA Bleacher Upgrades	1.00	LS	\$ 15,000.00	\$ 15,000.00
10x15' storage units	6.00	EA	\$ 15,000.00	\$ 90,000.00
Flagpole	1.00	EA	\$ 9,000.00	\$ 9,000.00
Scoreboard	1.00	EA	\$ 65,000.00	\$ 65,000.00
Fences and Gates	1.00	LS	\$ 90,000.00	\$ 90,000.00
Subtotal				\$ 413,800.00
Subtotal				\$ 2,358,800.00
Total Costs				
SUBTOTAL OF SITE CONSTRUCTION ITEMS				\$ 2,358,800.00
DESIGN/ENGINEERING SERVICES 6.5%				\$ 153,400.00
GENERAL CONDITIONS, BOND, CONTRACTOR OH&P 10%				\$ 235,900.00
CONTINGENCY 15%				\$ 353,900.00
TOTAL				\$3,110,000.00

OPTION 2: OPINION OF COST FIELD HS2.2

Item	Quantity	Unit	Unit Price	Total
Site Preparation/Demolition				
Mobilization	1.00	LS	\$ 5,000.00	\$ 5,000.00
Clearing and Grubbing	1.00	LS	\$ 5,000.00	\$ 5,000.00
Erosion Control and Termporary Facilities	1.00	LS	\$ 2,500.00	\$ 2,500.00
Subtotal				\$ 12,500.00
Athletic Improvements				
Natural Grass field ~ 79,838 sf @ 8"				
Mass Grading	1,970.00	CY	\$ 12.00	\$ 23,700.00
Fine Grading Field	1.00	LS	\$ 25,000.00	\$ 25,000.00
Irrigation	1.00	LS	\$ 10,000.00	\$ 10,000.00
2" Field Sub Drainage	3,900.00	LF	\$ 8.00	\$ 31,200.00
10" Collector Drain	950.00	LF	\$ 22.00	\$ 20,900.00
Nyloplast Intakes	4.00	EA	\$ 800.00	\$ 3,200.00
Amend and Replace Top Soil	1,480.00	CY	\$ 8.00	\$ 11,900.00
Import Sand/Gravel Fill	492.00	CY	\$ 22.00	\$ 10,900.00
Sod	79,838.00	SF	\$ 1.50	\$ 119,800.00
Subtotal				\$ 256,600.00
SUBTOTAL OF SITE CONSTRUCTION ITEMS				
			TOTAL	\$ 269,100.00
SOFT COSTS 6.5%				\$ 17,500.00
GENERAL CONDITIONS, BOND, CONTRACTOR OH&P 10%				\$ 27,000.00
CONTINGENCY 15%				\$ 40,400.00
TOTAL				\$ 354,000.00

OPTION 3: OPINION OF COST FIELD HS2.2**VICTORY FIELD**

Item	Quantity	Unit	Unit Price	Total
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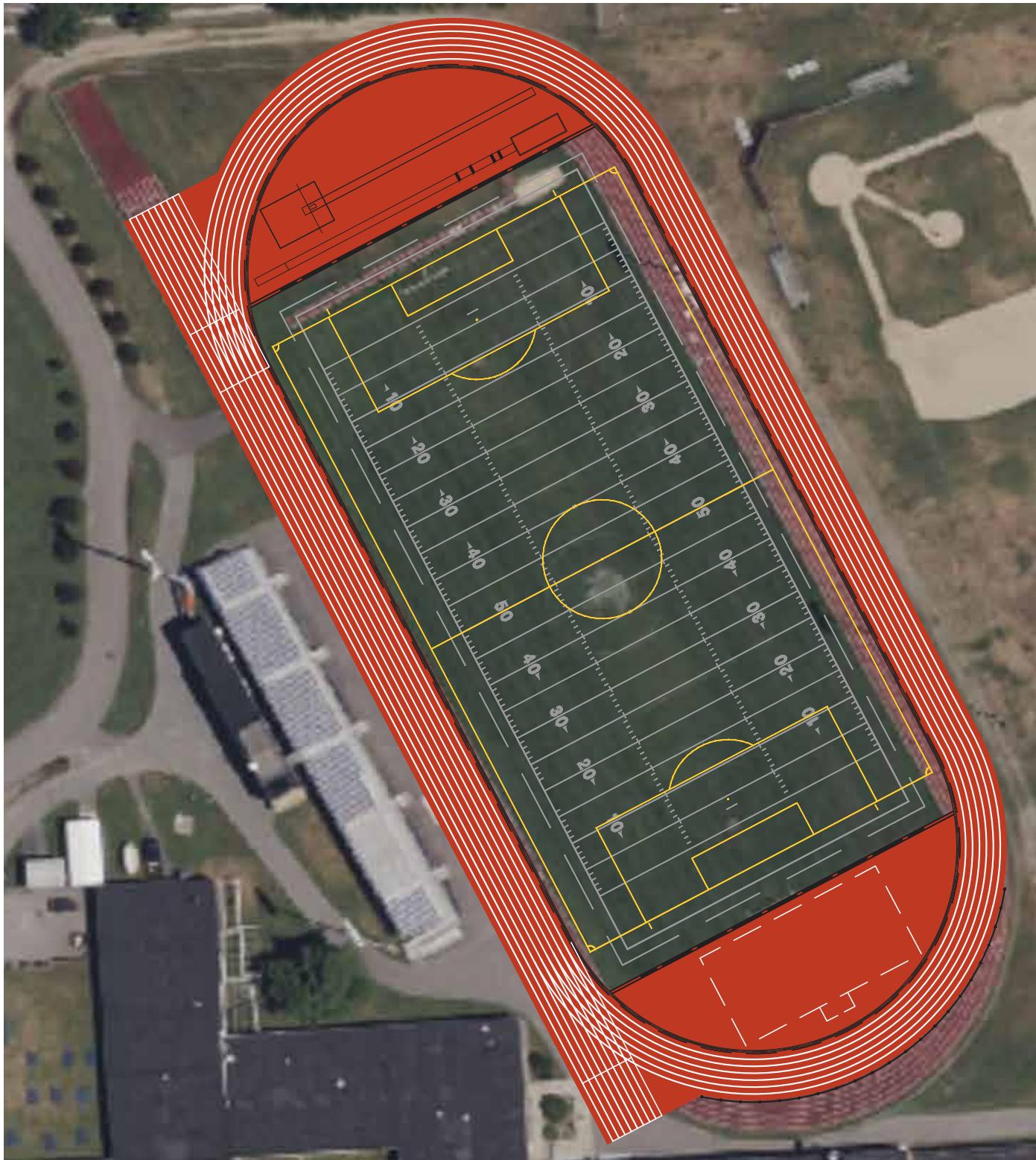
Site Preparation/Demolition

Mobilization	1.00	LS	\$ 5,000.00	\$ 5,000.00
Clearing and Grubbing	1.00	LS	\$ 5,000.00	\$ 5,000.00
Erosion Control and Termporary Facilities	1.00	LS	\$ 2,500.00	\$ 2,500.00

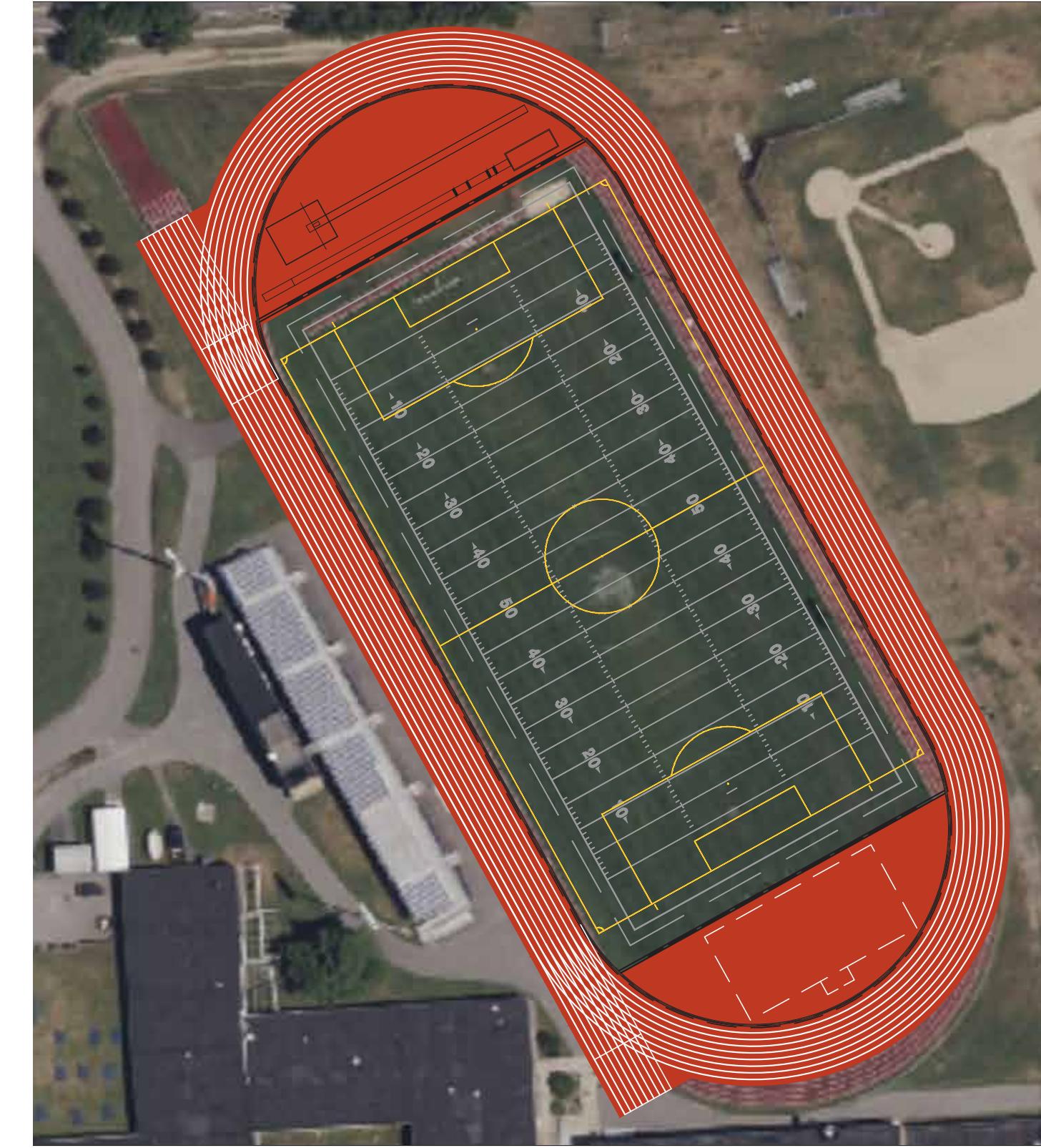
Subtotal**\$ 12,500.00****Athletic Improvements**

Natural Grass field ~ 79,838 sf @ 8"					
Irrigation	1.00	LS	\$ 10,000.00	\$ 10,000.00	
2" Field Sub Drainage	3,900.00	LF	\$ 8.00	\$ 31,200.00	
Nyloplast Intakes	4.00	EA	\$ 800.00	\$ 3,200.00	
Amend Top Soil	1,480.00	CY	\$ 2.25	\$ 3,400.00	
Sod	79,838.00	SF	\$ 1.50	\$ 119,800.00	
Hybrid Stitching	79,838.00	SF	\$ 5.25	\$ 419,200.00	
Subtotal				\$ 586,800.00	

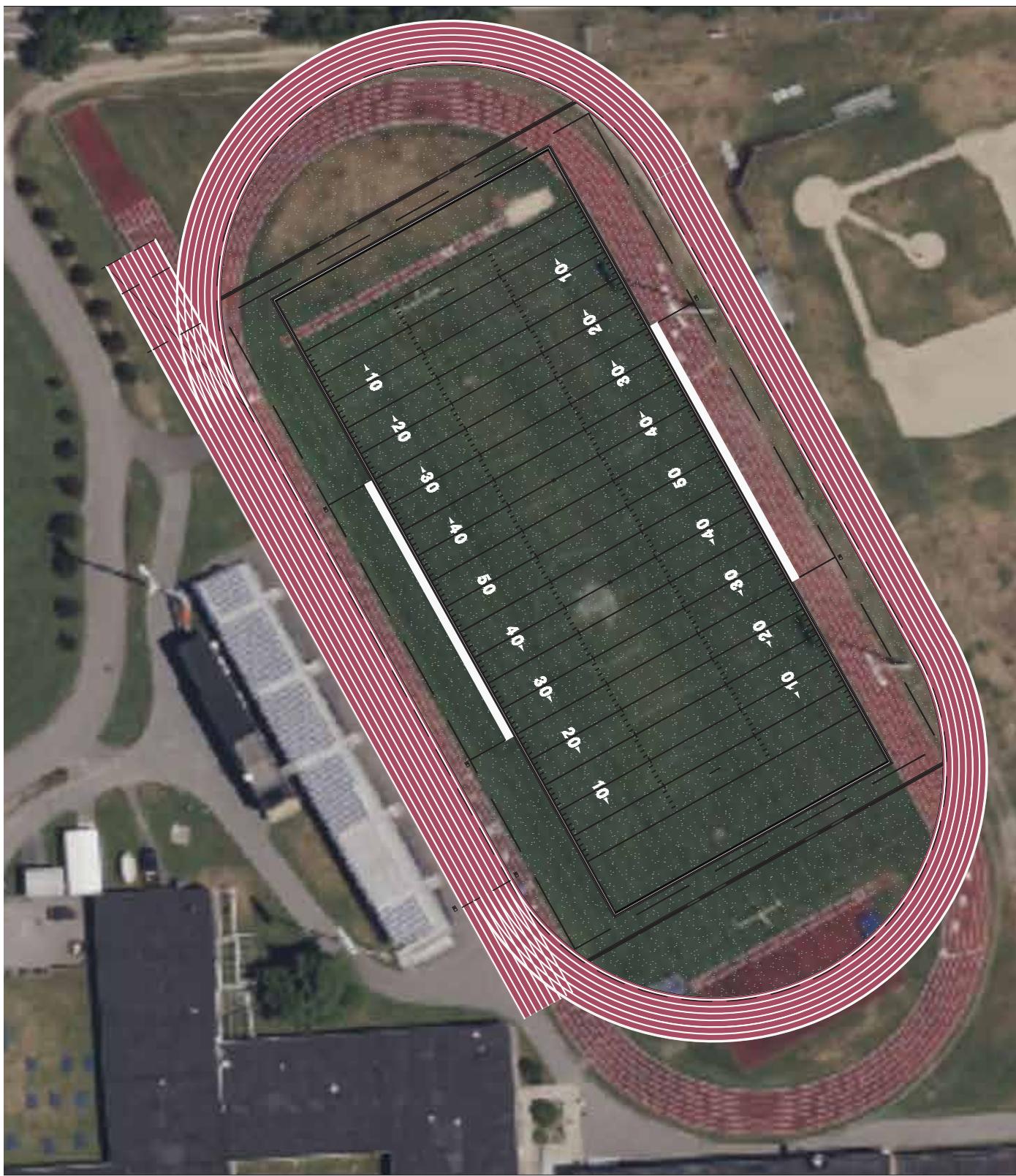
SUBTOTAL OF SITE CONSTRUCTION ITEMS**TOTAL****\$ 599,300.00****SOFT COSTS 6.5%****\$ 39,000.00****GENERAL CONDITIONS, BOND, CONTRACTOR OH&P 10%****\$ 60,000.00****CONTINGENCY 10%****\$ 60,000.00****TOTAL****\$ 759,000.00****A****B****C****D****E**



RECOMMENDED: SYNTHETIC TURF FIELD WITH EQUAL QUADRANT TRACK WITH 8-LANE STRAIGHT AWAY WITH 6 LANE TURN



OPTION 4: SYNTHETIC TURF FIELD WITH EQUAL QUADRANT TRACK WITH 8-LANE STRAIGHT AWAY and TURN



OPTION 5: SYNTHETIC TURF FIELD WITH IAAF TRACK WITH 8-LANE STRAIGHT AWAY WITH 6 LANE TURN



OPTION 6: SYNTHETIC TURF FIELD WITH AN IAAF TRACK WITH 8-LANE STRAIGHT AND TURN

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IMPROVEMENTS: HS FIELD 2.4

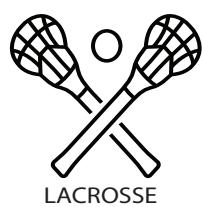
FIELD SIZE: MULTI-USE 98,000/SQ.FT.

MAINTENANCE CLASSIFICATION: FIELD LEVEL 3

PRIORITY LEVEL: 4

1. RECOMMENDATION: TLA's recommendation is that the field is in playable condition that horticultural improvements to the field would make a dramatic improvement. This would include sand channeling and overseeing.

POTENTIAL SPORTS:



Item	Quantity	Unit	Unit Price	Total
Site Preparation/Demolition				
Mobilization	1.00	LS	\$ 1,000.00	\$ 1,000.00
Clearing and Grubbing	1.00	LS	-	-
Erosion Control and Termporary Facilities	1.00	LS	-	-
Subtotal				\$ 1,000.00
Athletic Improvements				
Natural Grass field ~ 30,000 sf"				
Sand Channeling using a SandKat	10,900.00	SY	\$ 1.10	\$ 12,000.00
Irrigation	1.00	LS	\$ 3,500.00	\$ 3,500.00
Overseed	98,000.00	SF	\$ 0.10	\$ 9,800.00
Subtotal				\$ 25,300.00
SUBTOTAL OF SITE CONSTRUCTION ITEMS			TOTAL	\$ 26,300.00

IMPROVEMENTS: HS 3.1 and 3.2

FIELD SIZE: MULTI-USE 98,000/SQ.FT.

MAINTENANCE CLASSIFICATION: FIELD LEVEL 4 AND

SOFTBALL

PRIORITY LEVEL: 4

1. RECOMMENDATION: TLA's recommendation is that the JV Softball field behind the tennis courts and the multi-use field are generally used for practice. Some basic horticultural practices would improve the surface to the level appropriate for practice. This includes sand channeling and overseeding.

POTENTIAL SPORTS:



Item	Quantity	Unit	Unit Price	Total
Site Preparation/Demolition				
Mobilization	1.00	LS	\$ 1,000.00	\$ 1,000.00
Clearing and Grubbing	1.00	LS	\$ -	\$ -
Erosion Control and Termporary Facilities	1.00	LS	\$ -	\$ -
Subtotal				\$ 1,000.00
Athletic Improvements				
Natural Grass field ~ 30,000 sf"				
Sand Channeling using a SandKat	10,900.00	SY	\$ 1.10	\$ 12,000.00
Irrigation	1.00	LS	\$ 3,500.00	\$ 3,500.00
Overseed	98,000.00	SF	\$ 0.10	\$ 9,800.00
Subtotal				\$ 25,300.00

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IMPROVEMENTS: BASEBALL FIELD CH 1.1 AND MULTI-USE FIELD CH2.1

UPPER CHIANESE

FIELD SIZE: MULTI-USE: 70,000/SQ.FT.

BASEBALL: 40,000/SQ.FT.

MAINTENANCE CLASSIFICATION: LEVEL

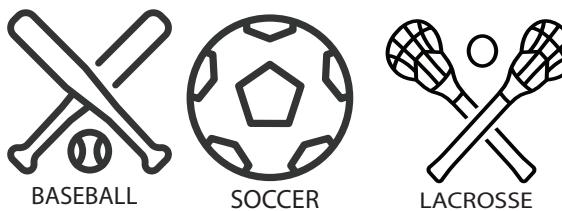
3 FIELD

PRIORITY LEVEL: 4

1. RECOMMENDATION:

Recommendation is to provide some natural grass maintenance improvements that go beyond the routine maintenance including sand slits, deeptine aerating and fraise mowing

POTENTIAL SPORTS:



Note: This site has been identified as a potential site for a new field house. Therefore we recommended limited investment into this site until a decision is made regarding the field house.



MAINTENANCE OF EXISTING NATURAL GRASS FIELDS

Item	Quantity	Unit	Unit Price	Total
Site Preparation/Demolition				
Mobilization	1.00	LS	\$ 2,500.00	\$ 2,500.00
Clearing and Grubbing	1.00	LS	-	-
Erosion Control and Termporary Facilities	1.00	LS	-	-
Subtotal				\$ 2,500.00
Athletic Improvements				
Natural Grass field ~ 104,000 sf				
Sand Channeling using a SandKat	11,600.00	SY	\$ 1.10	\$ 12,800.00
Deeptine Aerate	11,600.00	SY	\$ 0.50	\$ 5,800.00
Fraise Mowing	11,600.00	SY	\$ 0.75	\$ 8,700.00
Irrigation	1.00	LS	\$ 9,500.00	\$ 9,500.00
Overseed	104,000.00	SF	\$ 0.10	\$ 10,400.00
Laser Grade and Rebuild Skinned Areas	1.00	LS	\$ 20,000.00	\$ 20,000.00
Subtotal				\$ 67,200.00

IMPROVEMENTS: MULTI-USE FIELD CH2.1 MIDDLE CHIANESE

FIELD SIZE: MULTI-USE: 160,000/SQ.FT.
MAINTENANCE CLASSIFICATION: LEVEL 3 FIELD
PRIORITY LEVEL: 1

1. RECOMMENDATION: Recommendation is to provide some natural grass maintenance improvements that go beyond the routine maintenance including sand slits, deeptine aerating and fraise mowing. This includes limited shallow drainage improvements.

2. OPTION 1: Recommendation is to provide some natural grass maintenance improvements that go beyond the routine maintenance including sand slits, deeptine aerating and fraise mowing.

3. OPTION 2: Replace the existing surface with synthetic turf with a raised drainage system. Add athletic field lighting.

4. OPTION 3: Replace the existing surface with synthetic turf with a raised drainage system. Add athletic field lighting. Collect water under synthetic turf and reuse for irrigation at the other fields.

Note: This site is currently sited in a well head protection area. It has been indicated that Bristol County Water is potentially removing the well in this area and the protection area will be lifted. The timeline would have to be investigated further to understand potential permitting implications.

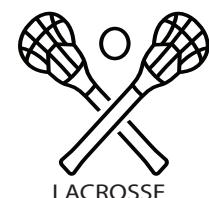
This site is also a capped landfill. This creates limitations on the design and construction methods to build systems on the surface.

It is not viable to hybrid-stitch this field as the entire surface would have to be rebuilt to be able to stitch the field and the return for stitching does not support the use required at this facility.

POTENTIAL SPORTS:



SOCER



LACROSSE



FOOTBALL

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**RECOMMENDATION OPINION OF COST
CHIANESE MIDDLE FIELD**

Item	Quantity	Unit	Unit Price	Total
Site Preparation/Demolition				
Mobilization	1.00	LS	\$ 5,000.00	\$ 5,000.00
Clearing and Grubbing	1.00	LS	\$ 6,500.00	\$ 6,500.00
Erosion Control and Termporary Facilities	1.00	LS	\$ 2,500.00	\$ 2,500.00
Subtotal				\$ 14,000.00
Athletic Improvements				
Natural Grass field ~ 160,000 sf				
Sand Channeling using a SandKat	17,800.00	SY	\$ 1.10	\$ 19,600.00
Deepine Aerate	17,800.00	SY	\$ 0.50	\$ 8,900.00
Fraise Mowing	17,800.00	SY	\$ 0.75	\$ 13,400.00
2" Field Sub Drainage	7,000.00	LF	\$ 8.00	\$ 56,000.00
6" Collector Drain	900.00	LF	\$ 22.00	\$ 19,800.00
Nyloplast Intakes	8.00	EA	\$ 800.00	\$ 6,400.00
Irrigation	1.00	LS	\$ 15,000.00	\$ 15,000.00
Overseed	160,000.00	SF	\$ 0.10	\$ 16,000.00
Subtotal				\$ 155,100.00
SUBTOTAL OF SITE CONSTRUCTION ITEMS				TOTAL
SOFT COSTS 6.5%				\$ 169,100.00
GENERAL CONDITIONS, BOND, CONTRACTOR OH&P 10%				\$ 11,000.00
CONTINGENCY 20%				\$ 17,000.00
TOTAL				\$ 33,900.00
				\$ 231,000.00

RECOMMENDED: ADVANCED GRASS IMPROVEMENTS WITH DRAINAGE IMPROVEMENTS

OPTION 1: ADVANCED GRASS IMPROVEMENTS NO DRAINAGE IMPROVEMENTS

**OPTION 1:OPINION OF COST
CHIANESE MIDDLE FIELD**

Item	Quantity	Unit	Unit Price	Total
Site Preparation/Demolition				
Mobilization	1.00	LS	\$ 5,000.00	\$ 5,000.00
Clearing and Grubbing	1.00	LS	\$ 6,500.00	\$ 6,500.00
Erosion Control and Termporary Facilities	1.00	LS	\$ 2,500.00	\$ 2,500.00
Subtotal				\$ 14,000.00
Athletic Improvements				
Natural Grass field ~ 160,000 sf				
Sand Channeling using a SandKat	17,800.00	SY	\$ 1.10	\$ 19,600.00
Deepine Aerate	17,800.00	SY	\$ 0.50	\$ 8,900.00
Fraise Mowing	17,800.00	SY	\$ 0.75	\$ 13,400.00
Irrigation	1.00	LS	\$ 15,000.00	\$ 15,000.00
Overseed	160,000.00	SF	\$ 0.10	\$ 16,000.00
Subtotal				\$ 72,900.00



OPTION 2: OPINION OF COST
CHIANESE MIDDLE FIELD

Item	Quantity	Unit	Unit Price	Total
Site Preparation/Demolition				
Mobilization	1.00	LS	\$ 20,000.00	\$ 20,000.00
Erosion Control and Termporary Facilities	1.00	LS	\$ 10,000.00	\$ 10,000.00
Subtotal				\$ 30,000.00
Mass Grading	6,000.00	CY	\$ 16.00	\$ 96,000.00
R&D Existing Material	6,000.00	CY	\$ 3.25	\$ 19,500.00
Final Grading of Subgrade	1.00	LS	\$ 65,000.00	\$ 65,000.00
Synthetic Turf	160,000.00	SF	\$ 6.25	\$ 1,000,000.00
Shock Pad	160,000.00	SF	\$ 1.35	\$ 216,000.00
Synthetic Turf Shallow Drainage System	1.00	LS	\$ 300,000.00	\$ 300,000.00
Impervious Liner	160,000.00	SF	\$ 1.30	\$ 208,000.00
PCC Field Curb	1,600.00	LF	\$ 95.00	\$ 152,000.00
Water	6.00	LS	\$ 6,500.00	\$ 39,000.00
Electric	6.00	LS	\$ 5,500.00	\$ 33,000.00
Communications	6.00	LS	\$ 7,500.00	\$ 45,000.00
Subtotal				\$ 2,173,500.00
Athletic Field Lighting				
Site Electrical	1.00	LS	\$ 85,000.00	\$ 85,000.00
Ahtletic Field Lighting	6.00	EA	\$ 170,000.00	\$ 1,020,000.00
Subtotal				\$ 1,105,000.00
Athletic Equipment				
10x15' storage units	4.00	EA	\$ 15,000.00	\$ 60,000.00
Flagpole	1.00	EA	\$ 9,000.00	\$ 9,000.00
Scoreboard	2.00	EA	\$ 20,000.00	\$ 40,000.00
Fences and Gates	1.00	LS	\$ 145,000.00	\$ 145,000.00
Subtotal				\$ 254,000.00
SUBTOTAL OF SITE CONSTRUCTION ITEMS				
SOFT COSTS 6.5%				\$ 3,562,500.00
GENERAL CONDITIONS, BOND, CONTRACTOR OH&P 10%				\$ 231,600.00
CONTINGENCY 20%				\$ 356,300.00
TOTAL				\$ 712,500.00
TOTAL				\$4,863,000.00

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OPTION 3: OPINION OF COST
CHIANESE MIDDLE FIELD

Item	Quantity	Unit	Unit Price	Total
Site Preparation/Demolition				
Mobilization	1.00	LS	\$ 20,000.00	\$ 20,000.00
Erosion Control and Termporary Facilities	1.00	LS	\$ 10,000.00	\$ 10,000.00
Subtotal				\$ 30,000.00
Mass Grading	6,000.00	CY	\$ 16.00	\$ 96,000.00
R&D Existing Material	6,000.00	CY	\$ 3.25	\$ 19,500.00
Final Grading of Subgrade	1.00	LS	\$ 65,000.00	\$ 65,000.00
Synthetic Turf	160,000.00	SF	\$ 6.25	\$ 1,000,000.00
Shock Pad	160,000.00	SF	\$ 1.35	\$ 216,000.00
Synthetic Turf Shallow Drainage System	1.00	LS	\$ 300,000.00	\$ 300,000.00
Impervious Liner	160,000.00	SF	\$ 1.30	\$ 208,000.00
PCC Field Curb	1,600.00	LF	\$ 95.00	\$ 152,000.00
Water	6.00	LS	\$ 6,500.00	\$ 39,000.00
Electric	6.00	LS	\$ 5,500.00	\$ 33,000.00
Communications	6.00	LS	\$ 7,500.00	\$ 45,000.00
Subtotal				\$ 2,173,500.00
Athletic Field Lighting				
Site Electrical	1.00	LS	\$ 85,000.00	\$ 85,000.00
Ahtletic Field Lighting	6.00	EA	\$ 170,000.00	\$ 1,020,000.00
Subtotal				\$ 1,105,000.00
Athletic Equipment				
10x15' storage units	4.00	EA	\$ 15,000.00	\$ 60,000.00
Flagpole	1.00	EA	\$ 9,000.00	\$ 9,000.00
Scoreboard	2.00	EA	\$ 20,000.00	\$ 40,000.00
Fences and Gates	1.00	LS	\$ 145,000.00	\$ 145,000.00
Subtotal				\$ 254,000.00
SUBTOTAL OF SITE CONSTRUCTION ITEMS		TOTAL		\$ 3,562,500.00
SOFT COSTS 6.5%				\$ 231,600.00
GENERAL CONDITIONS, BOND, CONTRACTOR OH&P 10%				\$ 356,300.00
CONTINGENCY 20%				\$ 712,500.00
TOTAL				\$ 4,863,000.00

IMPROVEMENTS: MULTI-USE FIELD CH2.2 LOWER CHIANESE

FIELD SIZE: MULTI-USE: 160,000/SQ.FT.
MAINTENANCE CLASSIFICATION: LEVEL 3 FIELD
PRIORITY LEVEL: 1

1. RECOMMENDATION: Recommendation is to provide some natural grass maintenance improvements that go beyond the routine maintenance including sand slits, deeptine aerating and fraise mowing. This includes limited shallow drainage improvements.

2. OPTION 1: Recommendation is to provide some natural grass maintenance improvements that go beyond the routine maintenance including sand slits, deeptine aerating and fraise mowing.

3. OPTION 2: Replace the existing surface with synthetic turf with a raised drainage system.
Add athletic field lighting.

4. OPTION 3: Replace the existing surface with synthetic turf with a raised drainage system.
Add athletic field lighting. Collect water under synthetic turf and reuse for irrigation at the other fields.

Note: This site is currently sited in a well head protection area. It has been indicated that Bristol County Water is potentially removing the well in this area and the protection area will be lifted. The timeline would have to be investigated further to understand potential permitting implications.

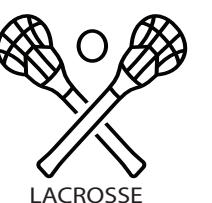
This site is also a capped landfill. This creates limitations on the design and construction methods to build systems on the surface.

It is not viable to hybrid-stitch this field as the entire surface would have to be rebuilt to be able to stitch the field and the return for stitching does not support the use required at this facility.

POTENTIAL SPORTS:



SOCER



LACROSSE



FOOTBALL

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**RECOMMENDATION OPINION OF COST
CHIANESE LOWER FIELD**

Item	Quantity	Unit	Unit Price	Total
Site Preparation/Demolition				
Mobilization	1.00	LS	\$ 5,000.00	\$ 5,000.00
Clearing and Grubbing	1.00	LS	\$ 6,500.00	\$ 6,500.00
Erosion Control and Termporary Facilities	1.00	LS	\$ 2,500.00	\$ 2,500.00
Subtotal				\$ 14,000.00
Athletic Improvements				
Natural Grass field ~ 160,000 sf				
Sand Channeling using a SandKat	17,800.00	SY	\$ 1.10	\$ 19,600.00
Deeptine Aerate	17,800.00	SY	\$ 0.50	\$ 8,900.00
Fraise Mowing	17,800.00	SY	\$ 0.75	\$ 13,400.00
2" Field Sub Drainage	7,000.00	LF	\$ 8.00	\$ 56,000.00
6" Collector Drain	900.00	LF	\$ 22.00	\$ 19,800.00
Nyloplast Intakes	8.00	EA	\$ 800.00	\$ 6,400.00
Irrigation	1.00	LS	\$ 15,000.00	\$ 15,000.00
Overseed	160,000.00	SF	\$ 0.10	\$ 16,000.00
Subtotal				\$ 155,100.00
SUBTOTAL OF SITE CONSTRUCTION ITEMS				TOTAL
SOFT COSTS 6.5%				\$ 169,100.00
GENERAL CONDITIONS, BOND, CONTRACTOR OH&P 10%				\$ 11,000.00
CONTINGENCY 20%				\$ 17,000.00
TOTAL				\$ 33,900.00
				\$ 231,000.00

RECOMMENDED: ADVANCED GRASS IMPROVEMENTS WITH DRAINAGE IMPROVEMENTS

OPTION 1: ADVANCED GRASS IMPROVEMENTS NO DRAINAGE IMPROVEMENTS

**OPTION 1:OPINION OF COST
CHIANESE LOWER FIELD**

Item	Quantity	Unit	Unit Price	Total
Site Preparation/Demolition				
Mobilization	1.00	LS	\$ 5,000.00	\$ 5,000.00
Clearing and Grubbing	1.00	LS	\$ 6,500.00	\$ 6,500.00
Erosion Control and Termporary Facilities	1.00	LS	\$ 2,500.00	\$ 2,500.00
Subtotal				\$ 14,000.00
Athletic Improvements				
Natural Grass field ~ 160,000 sf				
Sand Channeling using a SandKat	17,800.00	SY	\$ 1.10	\$ 19,600.00
Deeptine Aerate	17,800.00	SY	\$ 0.50	\$ 8,900.00
Fraise Mowing	17,800.00	SY	\$ 0.75	\$ 13,400.00
Irrigation	1.00	LS	\$ 15,000.00	\$ 15,000.00
Overseed	160,000.00	SF	\$ 0.10	\$ 16,000.00
Subtotal				\$ 72,900.00



OPTION 2: OPINION OF COST
CHIANESE LOWER FIELD

Item	Quantity	Unit	Unit Price	Total
Site Preparation/Demolition				
Mobilization	1.00	LS	\$ 20,000.00	\$ 20,000.00
Erosion Control and Termerperary Facilities	1.00	LS	\$ 10,000.00	\$ 10,000.00
Subtotal				\$ 30,000.00
Mass Grading	6,000.00	CY	\$ 16.00	\$ 96,000.00
R&D Existing Material	6,000.00	CY	\$ 3.25	\$ 19,500.00
Final Grading of Subgrade	1.00	LS	\$ 65,000.00	\$ 65,000.00
Synthetic Turf	160,000.00	SF	\$ 6.25	\$ 1,000,000.00
Shock Pad	160,000.00	SF	\$ 1.35	\$ 216,000.00
Synthetic Turf Shallow Drainage System	1.00	LS	\$ 300,000.00	\$ 300,000.00
Impervious Liner	160,000.00	SF	\$ 1.30	\$ 208,000.00
PCC Field Curb	1,600.00	LF	\$ 95.00	\$ 152,000.00
Water	6.00	LS	\$ 6,500.00	\$ 39,000.00
Electric	6.00	LS	\$ 5,500.00	\$ 33,000.00
Communications	6.00	LS	\$ 7,500.00	\$ 45,000.00
Subtotal				\$ 2,173,500.00
Athletic Field Lighting				
Site Electrical	1.00	LS	\$ 85,000.00	\$ 85,000.00
Ahtletic Field Lighting	6.00	EA	\$ 170,000.00	\$ 1,020,000.00
Subtotal				\$ 1,105,000.00
Athletic Equipment				
10x15' storage units	4.00	EA	\$ 15,000.00	\$ 60,000.00
Flagpole	1.00	EA	\$ 9,000.00	\$ 9,000.00
Scoreboard	2.00	EA	\$ 20,000.00	\$ 40,000.00
Fences and Gates	1.00	LS	\$ 145,000.00	\$ 145,000.00
Subtotal				\$ 254,000.00
SUBTOTAL OF SITE CONSTRUCTION ITEMS				\$ 3,562,500.00
SOFT COSTS 6.5%				\$ 231,600.00
GENERAL CONDITIONS, BOND, CONTRACTOR OH&P 10%				\$ 356,300.00
CONTINGENCY 20%				\$ 712,500.00
TOTAL				\$4,863,000.00

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OPTION 3: OPINION OF COST
CHIANESE LOWER FIELD

Item	Quantity	Unit	Unit Price	Total
Site Preparation/Demolition				
Mobilization	1.00	LS	\$ 20,000.00	\$ 20,000.00
Erosion Control and Termporary Facilities	1.00	LS	\$ 10,000.00	\$ 10,000.00
Subtotal				\$ 30,000.00
Mass Grading	6,000.00	CY	\$ 16.00	\$ 96,000.00
R&D Existing Material	6,000.00	CY	\$ 3.25	\$ 19,500.00
Final Grading of Subgrade	1.00	LS	\$ 65,000.00	\$ 65,000.00
Synthetic Turf	160,000.00	SF	\$ 6.25	\$ 1,000,000.00
Shock Pad	160,000.00	SF	\$ 1.35	\$ 216,000.00
Synthetic Turf Shallow Drainage System	1.00	LS	\$ 300,000.00	\$ 300,000.00
Impervious Liner	160,000.00	SF	\$ 1.30	\$ 208,000.00
PCC Field Curb	1,600.00	LF	\$ 95.00	\$ 152,000.00
Water	6.00	LS	\$ 6,500.00	\$ 39,000.00
Electric	6.00	LS	\$ 5,500.00	\$ 33,000.00
Communications	6.00	LS	\$ 7,500.00	\$ 45,000.00
Subtotal				\$ 2,173,500.00
Athletic Field Lighting				
Site Electrical	1.00	LS	\$ 85,000.00	\$ 85,000.00
Ahtletic Field Lighting	6.00	EA	\$ 170,000.00	\$ 1,020,000.00
Subtotal				\$ 1,105,000.00
Athletic Equipment				
10x15' storage units	4.00	EA	\$ 15,000.00	\$ 60,000.00
Flagpole	1.00	EA	\$ 9,000.00	\$ 9,000.00
Scoreboard	2.00	EA	\$ 20,000.00	\$ 40,000.00
Fences and Gates	1.00	LS	\$ 145,000.00	\$ 145,000.00
Subtotal				\$ 254,000.00
SUBTOTAL OF SITE CONSTRUCTION ITEMS				
SOFT COSTS 6.5%				\$ 231,600.00
GENERAL CONDITIONS, BOND, CONTRACTOR OH&P 10%				\$ 356,300.00
CONTINGENCY 20%				\$ 712,500.00
TOTAL				\$4,863,000.00

IMPROVEMENTS: SOPRK FIELD 1.1

SHERWOOD PARK BASEBALL FIELD

FIELD SIZE: BASEBALL 42,000/SQ.FT.

MAINTENANCE CLASSIFICATION: BASEBALL

PRIORITY LEVEL: 2

1. RECOMMENDATION: There are currently drainage issues that occur in the left field. The recommendation is to add 2" sand lateral drains with a perimeter manifold into the outfield. Then modify the existing loam with a more porous rootzone mix and resod the outfield.

POTENTIAL SPORTS:



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Item	Quantity	Unit	Unit Price	Total
Site Preparation/Demolition				
Mobilization	1.00	LS	\$1,000.00	\$ 1,000.00
Clearing and Grubbing	1.00	LS	\$-	\$ -
Erosion Control and Termporary Facilities	1.00	LS	\$-	\$ -
Subtotal				\$ 1,000.00
Athletic Improvements				
Natural Grass field ~31,000				
Irrigation	1.00	LS	\$5,000.00	\$ 5,000.00
Sand Channeling using a SandKat	3,400.00	SY	\$ 1.10	\$ 3,740.00
Deeptine Aerate	3,400.00	SY	\$ 0.50	\$ 1,700.00
Fraise Mowing	3,400.00	SY	\$ 0.75	\$ 2,550.00
Subtotal				\$ 12,990.00
SUBTOTAL OF SITE CONSTRUCTION ITEMS				\$ 14,000.00

IMPROVEMENTS: STA FIELD 1.1

ST ANDREWS FARM

FIELD SIZE: MULTI-USE 110,000/SQ.FT.

MAINTENANCE CLASSIFICATION: FIELD LEVEL 3

PRIORITY LEVEL: 1

1. RECOMMENDATION: TLA's recommends that this field is converted to a synthetic turf field due to the multi-use nature of the field which will allow for a wide range of uses and sizes. This includes a full size soccer of 360'x210'. This would require additional parking and ADA access.

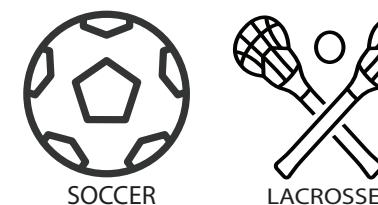
2. OPTION 1: Rebuild the entire field as outlined above as hybrid stitched field

3. OPTION 2: Natural grass maintenance improvements including sand slits, deepsite aerating and fraise mowing.

4. OPTION 3: Natural grass maintenance improvements as outlined in Option 2 with hybrid stitching of high-use areas.



POTENTIAL SPORTS:

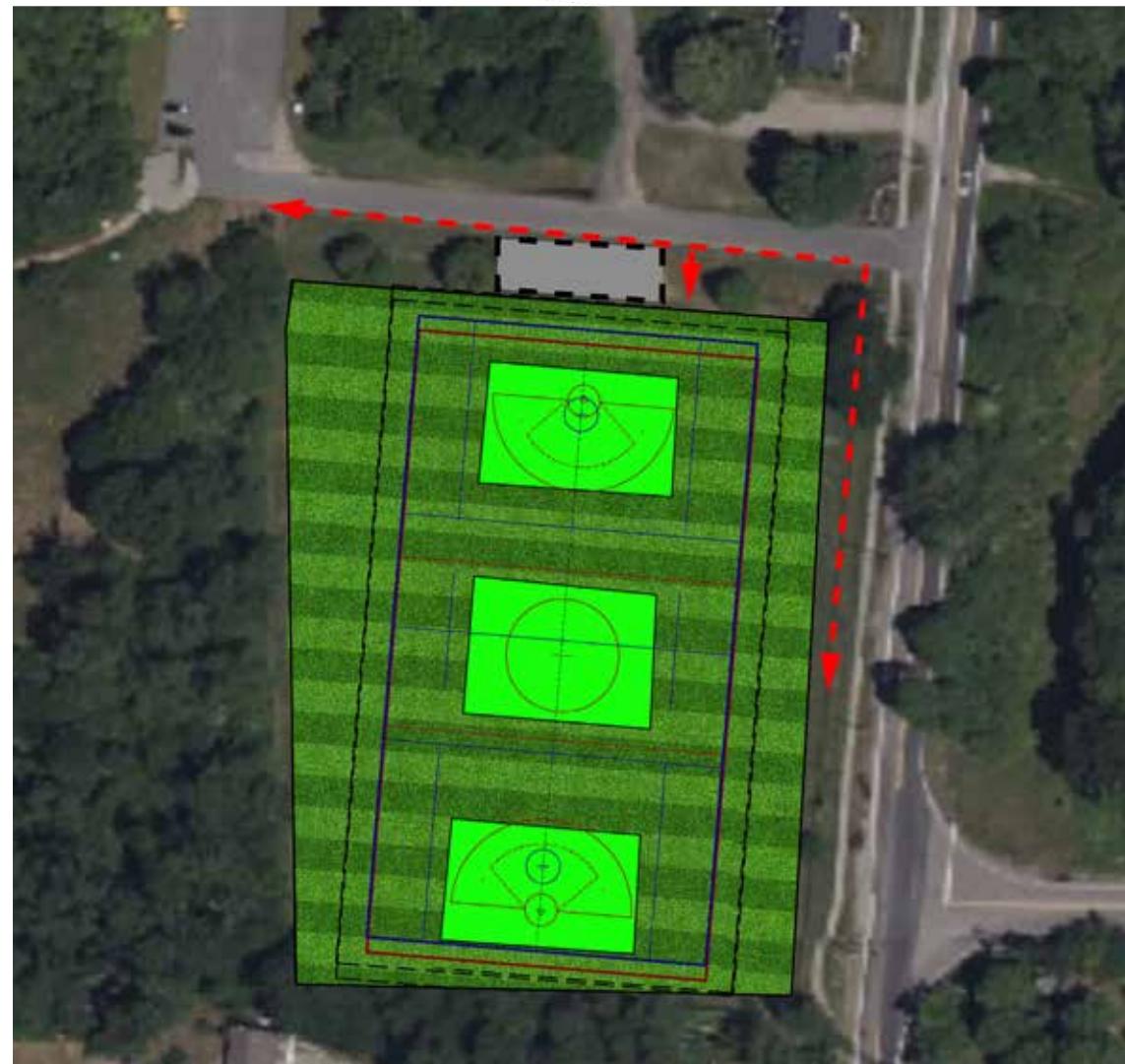


RECOMMENDATION STA FIELD 1.1

OPINION OF COST ST. ANDREWS FARM FIELD

Item	Quantity	Unit	Unit Price	Total
Site Preparation/Demolition				
Mobilization	1.00	LS	\$ 15,000.00	\$ 15,000.00
Erosion Control and Termporary	1.00	LS	\$ 8,000.00	\$ 8,000.00
Subtotal				\$ 23,000.00
Track & Field Improvements				
Mass Grading	2,700.00	CY	\$ 16.00	\$ 43,200.00
Fine Grading of Synthetic Turf Field	1.00	LS	\$ 25,000.00	\$ 25,000.00
Rough Grading of Field	1.00	LS	\$ 35,000.00	\$ 35,000.00
Synthetic Turf	110,000.00	SF	\$ 6.25	\$ 687,500.00
Shock Pad	110,000.00	SF	\$ 1.35	\$ 148,500.00
Base and Finishing Stone Subbase	1.00	LS	\$ 150,000.00	\$ 150,000.00
Slot Drain/Trench Drain	200.00	LF	\$ 65.00	\$ 13,000.00
Synthetic Turf Drainage System	1.00	LS	\$ 75,000.00	\$ 75,000.00
PCC Field Curb	1,200.00	LF	\$ 25.00	\$ 30,000.00
Water	2.00	LS	\$ 6,500.00	\$ 13,000.00
Electric	2.00	LS	\$ 5,500.00	\$ 11,000.00
Communications	2.00	LS	\$ 7,500.00	\$ 15,000.00
Subtotal				\$ 1,246,200.00
Athletic Field Equipment				
Safety Netting	360.00	LF	\$ 180.00	\$ 64,800.00
Soccer Goal Pak Uprights	1.00	LS	\$ 35,000.00	\$ 35,000.00
10x15' storage units	2.00	EA	\$ 15,000.00	\$ 30,000.00
Flagpole	1.00	EA	\$ 9,000.00	\$ 9,000.00
Scoreboard	1.00	EA	\$ 20,000.00	\$ 20,000.00
Fences and Gates	1.00	LS	\$ 65,000.00	\$ 65,000.00
Subtotal				\$ 223,800.00
Total Costs				
SUBTOTAL OF SITE CONSTRUCTION ITEMS				\$ 1,493,000.00
DESIGN/ENGINEERING SERVICES 6.5%				\$ 97,100.00
GENERAL CONDITIONS, BOND, CONTRACTOR OH&P 10%				\$ 149,300.00
CONTINGENCY 15%				\$ 224,000.00
TOTAL				\$1,964,000.00

RECOMMENDATION STA FIELD 1.1: OPTION 1
OPINION OF COST
ST. ANDREWS FARM FIELD



Item	Quantity	Unit	Unit Price	Total
Site Preparation/Demolition				
Mobilization	1.00	LS	\$ 5,000.00	\$ 5,000.00
Clearing and Grubbing	1.00	LS	\$ 5,000.00	\$ 5,000.00
Erosion Control and Termporary Facilities	1.00	LS	\$ 2,500.00	\$ 2,500.00
Subtotal				\$ 12,500.00
Athletic Improvements				
Natural Grass field ~ 110,000 sf @ 8"				
Mass Grading	2,700.00	CY	\$ 12.00	\$ 32,400.00
Fine Grading Field	1.00	LS	\$ 25,000.00	\$ 25,000.00
Irrigation	1.00	LS	\$ 35,000.00	\$ 35,000.00
2" Field Sub Drainage	4,250.00	LF	\$ 8.00	\$ 34,000.00
10" Collector Drain	950.00	LF	\$ 22.00	\$ 20,900.00
Nyloplast Intakes	4.00	EA	\$ 800.00	\$ 3,200.00
Amend and Replace Top Soil	2,040.00	CY	\$ 8.00	\$ 16,400.00
Import Sand/Gravel Fill	680.00	CY	\$ 22.00	\$ 15,000.00
Sod	110,000.00	SF	\$ 1.50	\$ 165,000.00
Subtotal				\$ 346,900.00
SUBTOTAL OF SITE CONSTRUCTION ITEMS				\$ 359,400.00
SOFT COSTS 6.5%				\$ 23,400.00
GENERAL CONDITIONS, BOND, CONTRACTOR OH&P				\$ 36,000.00
CONTINGENCY 15%				\$ 54,000.00
TOTAL				\$ 473,000.00

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RECOMMENDATION STA FIELD 1.1: OPTION 2
OPINION OF COST
ST. ANDREWS FARM FIELD

Item	Quantity	Unit	Unit Price	Total
Site Preparation/Demolition				
Mobilization	1.00	LS	\$ 1,000.00	\$ 1,000.00
Erosion Control and Temporary Facilities	1.00	LS	\$ -	\$ -
Clearing and Grubing	1.00	ls	\$ -	\$ -
Subtotal				\$ 1,000.00
Athletic Improvements				
Natural Grass field ~ 110,000 sf"				
Sand Channeling using a SandKat	12,300.00	SY	\$ 1.10	\$ 13,600.00
Deeptine Aerate	12,300.00	SY	\$ 0.50	\$ 6,200.00
Fraise Mowing	12,300.00	SY	\$ 0.75	\$ 9,225.00
Irrigation	1.00	LS	\$ 7,500.00	\$ 7,500.00
Overseed	98,000.00	SF	\$ 0.10	\$ 9,800.00
Subtotal				\$ 46,325.00
SUBTOTAL OF SITE CONSTRUCTION ITEMS				\$ 47,325.00
SOFT COSTS 6.5%				\$ 3,100.00
GENERAL CONDITIONS, BOND, CONTRACTOR OH&P				\$ 4,800.00
CONTINGENCY 5%				\$ 2,400.00
TOTAL				\$ 58,000.00

RECOMMENDATION STA FIELD 1.1: OPTION 3
OPINION OF COST
ST. ANDREWS FARM FIELD

Item	Quantity	Unit	Unit Price	Total
Site Preparation/Demolition				
Mobilization	1.00	LS	\$ 1,000.00	\$ 1,000.00
Erosion Control and Temporary Facilities	1.00	LS	\$ -	\$ -
Clearing and Grubing	1.00	ls	\$ -	\$ -
Subtotal				\$ 1,000.00
Natural Grass field ~ 110,000 sf"				
Hybrid Stitching High Use Areas	12,000.00	SF	\$ 7.25	\$ 87,000.00
Sand Channeling using a SandKat	12,300.00	SY	\$ 1.10	\$ 13,600.00
Fraise Mowing	12,300.00	SY	\$ 0.75	\$ 9,225.00
Deeptine Aerate	12,300.00	SY	\$ 0.50	\$ 6,200.00
Irrigation	1.00	LS	\$ 7,500.00	\$ 7,500.00
Overseed	98,000.00	SF	\$ 0.10	\$ 9,800.00
Subtotal				\$ 133,325.00
SUBTOTAL OF SITE CONSTRUCTION ITEMS				\$ 134,325.00
SOFT COSTS 6.5%				\$ 8,800.00
GENERAL CONDITIONS, BOND, CONTRACTOR OH&P				\$ 13,500.00
CONTINGENCY 5%				\$ 6,800.00
TOTAL				\$ 164,000.00

IMPROVEMENTS: MULTI-USE FIELD HM1.1

HAMPDEN MEADOWS ELEMENTARY SCHOOL

FIELD SIZE: MULTI-USE: 93,000/SQ.FT.

MAINTENANCE CLASSIFICATION: LEVEL 3 FIELD

PRIORITY LEVEL: 2

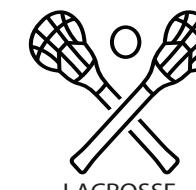
1. RECOMMENDATION: Recommendation is to provide add a new full size field that is a multi-sport field that can accommodate a wide range of users that are both passive and active. The site currently provides adequate parking and ample space to add other amenities such as playgrounds, restrooms, fit stations, and/or walking paths.

Note: That the cost opinion of this site is based on the athletic field only and assumes that the building is demolished and the area is left at a rough graded subgrade to build the field upon.

The estimate is also based on the assumption that the material on-site can be re-used and limited material would be imported to complete rough grading and modification of existing loam.

This opinion assumes water for irrigation is available for use.

POTENTIAL SPORTS:



OPTION 1:OPINION OF COST

CHIANESE LOWER FIELD

Item	Quantity	Unit	Unit Price	Total
Site Preparation/Demolition				
Mobilization	1.00	LS	\$ 5,000.00	\$ 5,000.00
Clearing and Grubbing	1.00	LS	\$ 0.00	\$ 0.00
Erosion Control and Termporary Facilities	1.00	LS	\$ 2,500.00	\$ 2,500.00
Subtotal				\$ 7,500.00
Athletic Improvements				
Natural Grass field ~ 93,000 sf @ 8"				
Mass Grading	700.00	CY	\$ 12.00	\$ 8,400.00
Fine Grading Field	1.00	LS	\$ 25,000.00	\$ 25,000.00
Irrigation	1.00	LS	\$ 35,000.00	\$ 35,000.00
2" Field Sub Drainage	4,800.00	LF	\$ 8.00	\$ 38,400.00
8" Collector Drain	900.00	LF	\$ 22.00	\$ 19,800.00
Nyloplast Intakes	4.00	EA	\$ 800.00	\$ 3,200.00
Amend and Replace Top Soil	2,300.00	CY	\$ 8.00	\$ 18,400.00
Import Sand/Gravel Fill	580.00	CY	\$ 22.00	\$ 12,760.00
Sod	93,000.00	SF	\$ 1.50	\$ 139,500.00
Subtotal				\$ 300,460.00
SUBTOTAL OF SITE CONSTRUCTION ITEMS				\$ 308,000.00
SOFT COSTS 6.5%				\$ 20,100.00
GENERAL CONDITIONS, BOND, CONTRACTOR OH&P				\$ 30,800.00
CONTINGENCY 10%				\$ 30,800.00
TOTAL				\$ 390,000.00



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MAINTENANCE

Over time the Athletic Fields have been facing performance challenges. These challenges include poor drainage, compromised natural grass cover and high weed contamination. It is not known what the maintenance approach has been in previous years leading up to the assessment other than regular mowing and lining of the fields.

- The fields displayed good depths of topsoil. The topsoil had a very smooth texture, likely indicating a high presence of silt and clay which may cause slow drainage. The soils, if reused, could benefit from significant sand amendments.
- There was minimal desirable turfgrass coverage across the fields. This likely influenced the low rotational traction ratings observed at all test locations.
- Several fields irrigation system appears to be operating in an inefficient or defective manner. This may be a simple matter of adjustments to the controller or the heads. It may also require some repair effort. An irrigation audit would be warranted.
- Physical soil testing identified a high percentage of fine textured aggregates and Organic Matter in the topsoil of every field. The laboratory confirmed that the high percentage of fines will likely lead to slow infiltration rates and low aeration potential.
- The average infiltration rate, measured under laboratory conditions and constant pressure was only 0.47" per hour. In Situ tests in the field only produced an average 0.22"/hr of infiltration For an Athletic Field, the infiltration rate should be greater than 6" per hour.
- Laboratory soil chemical testing for all fields determined Organic Matter content was high at greater than 5%, also the ratio between Ammonium and Nitrate may indicate low microbial activity essential for breaking compounds into plant available forms.
- All fields could benefit from sand being incorporated into the profile. Using large diameter cores and heavily topdressing would quickly introduce sand. This would improve drainage across the fields. This process takes two to three seasons to produce desired results but will provide ongoing improvements until the overall goal is reached.
- All fields will benefit from enhanced cultural, plant health, and nutritional maintenance procedures. Some field management practices are not benefiting the fields and may be detrimental. An improved and enhanced

maintenance plan would help sustain the fields.

- All fields would also benefit for a more structured and scheduled approach to maintenance in line with each individual fields scheduled and actual usage and needs. All performance turfgrass fields must undergo routine maintenance throughout the year to recover from athlete usage. Additionally, the turf must overcome competition for surface coverage against weeds and a constant threat of insect and disease damage. This requires cultural strategies such as regular mowing, aerification, fertilization, overseeding and topdressing. These tasks are performed to make the soil more conducive for incorporating and more sustainably maintaining new improved seed varieties. Advances in turfgrass seed breeding have yielded traffic, drought, insect, and disease resistant cultivars that have a higher chance of survival in the soil environments created by the usage required to satisfy community demands. The chart below is an example of a yearly maintenance program for an athletic field to support consistent and safe playing conditions.

Recommended Athletic Field Maintenance Frequency Chart - Example based on a 1.75 Acre field size.

Operation	Task	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov
Maintenance Operations	Mowing	2	8	8	8	8	8	8	8	4
	Line Marking		4	8	8	8	8	8	8	4
	BB Infield Grooming	2	15	15	15	10	10	10	2	
	Irrigation		20	20	20	30	30	30	20	10
Cultural Operations	Overseeding			1			1	1		1
	Core Aeration			1					1	
	De-Thatching			1				1		
	Deep Tine Aeration									1
Product Applications	Top Dressing		1	1				1		
	Nutrition (Various)			1	1		1	1		1
	(Spray or Granular)	Wetting Agents	1	1	1	1	1	1	1	
	Insecticide Application			1						
End of Season Renovation	Insect Control (Organic)			1	1					
	Herbicide Application							1		
	BB Infield Lip Maintenance								1	
	(2-3 year rotation each field) BB Infield Laser Leveling								1	

- The following is a baseline for maintenance on the fields as found in the Town of Barrington. These are recommendations and budgets based on man hours and product. These costs are exclusive of equipment costs. Labor rates may differ based on labor agreements within the Town.

- Please note that the product names in the list do not indicate the only available products on the market and in no way are indicating a use of a specific product. These are simply used for the development of an estimating.

- The final estimate is for maintenance practices only. This does not include any capital improvements or repair items included in the budgetary number.

- Note that these maintenance practices are guidelines and that they do not take into account the various restrictions per site. Each individual site will need to be modified based on its conditions and restrictions.

Hybrid Stitched Multi-Use Field Maintenance: Level 1

100 000 sq.ft.

Description of Activity	Man Hours	Man Hour Cost	Product	Product Cost	Total Activity Cost
50 Mowings / Season	113	2,825.00		\$	2,825.00
Growth Regulator, Once Per Month	12	300.00	Primo	1,227.60	\$ 1,527.60
Topdressing, 5 Applications Per Year	31.5	787.50	Sand	1,987.50	\$ 2,775.00
Water, 1 Acre Inch Per Week/ 26 Weeks	6	150.00	City Water	6,171.36	\$ 6,321.36
Fertilizer @ 6.1 #s N / year	12	300.00	Fertilizers	1,548.00	\$ 1,848.00
Paint, 6 Applications Per Season / 20-5 Gal. Pails	45	1,125.00	Paint	378.75	\$ 1,503.75
Aeration,5 Times Per Year	25	625.00	Verti-Drain		\$ 625.00
Fungicide, Four Applications / Season	8	200.00	Disarm 480 SC	1,575.00	\$ 1,775.00
Over-Seeding, Once Per Season	5	125.00	Seed	997.50	\$ 1,122.50
Herbicide, One Applications Per Season	2	50.00	Herbicide	22.66	\$ 72.66
Fence-line Maintenance, 2 Apps. Per Year	8	200.00	Control Products	125.00	\$ 325.00
Miscellaneous	50	1,250.00	Misc. Products	200.00	\$ 1,450.00
Pre-emergent Applications	4	100.00	Drive 75 DF	360.18	\$ 460.18
Insecticide Applications	4	100.00	Dylox	358.22	\$ 458.22

Labor Cost \$ 8,137.50 Supplies Cost \$ 14,951.77

Note: Field should be Fraise Mown every 4 years.

Labor Cost \$20 x 25% benefits = \$ 25.00 Labor Cost Per Hour

Sand Based Multi-Use Field Maintenance: Level 2

100 000 sq.ft.

Description of Activity	Man Hours	Man Hour Cost	Product	Product Cost	Total Activity Cost
50 Mowings / Season	113	2,825.00		\$	2,825.00
Growth Regulator, Once Per Month	12	300.00	Primo	1,227.60	\$ 1,527.60
Topdressing, 5 Applications Per Year	31.5	787.50	Sand	1,987.50	\$ 2,775.00
Water, 1 Acre Inch Per Week/ 26 Weeks	6	150.00	City Water	6,171.36	\$ 6,321.36
Fertilizer @ 6.1 #s N / year	12	300.00	Fertilizers	1,548.00	\$ 1,848.00
Paint, 6 Applications Per Season / 20-5 Gal. Pails	45	1,125.00	Paint	378.75	\$ 1,503.75
Aeration,5 Times Per Year	25	625.00	Verti-Drain		\$ 625.00
Fungicide, Four Applications / Season	8	200.00	Disarm 480 SC	1,575.00	\$ 1,775.00
Over-Seeding, Once Per Season	5	125.00	Seed	997.50	\$ 1,122.50
Herbicide, One Applications Per Season	2	50.00	Herbicide	22.66	\$ 72.66
Fence-line Maintenance, 2 Apps. Per Year	8	200.00	Control Products	125.00	\$ 325.00
Miscellaneous	50	1,250.00	Misc. Products	200.00	\$ 1,450.00
Pre-emergent Applications	4	100.00	Drive 75 DF	360.18	\$ 460.18
Insecticide Applications	4	100.00	Dylox	358.22	\$ 458.22

Labor Cost \$ 8,137.50 Supplies Cost \$ 14,951.77

Labor Cost \$20 x 25% benefits = \$ 25.00 Labor Cost Per Hour

Mowing Season : 33 Weeks x 1.5 Mowings / w = 50 Mowings / Season x 2.25 hrs. / Mowing = 112.50 hrs.

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Competition Field Maintenance Cost Estimates: Level 3

90 000 sq. ft

Description of Activity	Man Hours	Man Hour Cost	Product	Product Cost	Total Activity Cost
33 Mowings / Season	58	1,450.00		\$	1,450.00
Aeration, 3 Times Per Year	15	375.00	Verti-Drain	\$	375.00
Sod Replacement Sidelines	12	720.00	Sod	1000.00	\$ 1,720.00
Fertilizer @ 4.9 #s N / year	8	200.00	Fertilizer	1323.00	\$ 1,523.00
Soil Amendments	1	25.00	Gypsum	183.68	\$ 208.68
Herbicide Applications	1	25.00	Herbicide	14.28	\$ 39.28
Pre-emergent Applications				\$	-
Growth Regulator A, M, J, J, August	5	125.00	Primo	762.60	\$ 887.60
Game Field Prep's	60	1,500.00	Paint	378.75	\$ 1,878.75
Over Seeding	15	375.00	Seed	570.00	\$ 945.00
Pre-emergent Applications		-		\$	-
Insecticide Applications			Dylox	\$	-
Water, 1 Acre Inch Per Week	10	250.00	Water	5554.24	\$ 5,804.24
Miscellenous \$25.00 / Month	30	750.00	Supplies	200.00	\$ 950.00
Stadium Preps	18	450.00		\$	450.00
Labor Cost		6,245.00	Supplies Cost		9,986.55

Mowing Season : 33 Weeks x 1.5 Mowings / w = 50 Mowings / Season x 1 hrs. / Mowing = 50 hrs.

Non-Competition Field Maintenance Cost Estimates: Level 4

70 000 sq. ft.

Description of Activity	Man Hours	Man Hour Cost	Product	Product Cost	Total Activity Cost
66 Mowings / Season	50	1,250.00			1,250.00
Aeration, 2 Times Per Year	10	250.00			250.00
Fertilizer @ 4.9 #s N / year	8	200.00	Fertilizer	1029.00	1,229.00
Soil Amendments	2	50.00	Gypsum	157.54	207.54
Herbicide Applications	2	50.00	Herbicide	25.80	75.80
Pre-emergent Applications		-			-
Game Field Prep's	30	750.00	Paint	375.00	1,125.00
Over Seeding		-	Seed		-
Pre-emergent Applications		-			-
Insecticide Applications			Dylox	\$	-
Water, 1 Acre Inch Per Week	20	500.00	Water	4319.00	4,819.00
Miscellenous \$25.00 / Month		-	Supplies	200.00	200.00
Labor Cost		3,050.00	Supplies Cost		6,106.34

Mowing Season : 33 Weeks x 2 Mowings / w = 66 Mowings / Season x .75 hrs. / Mowing = 49.50 hrs.

Labor Cost \$20.00 x 25% benefits = \$ 25.00 Labor Cost Per Hour

Softball Field Maintenance Cost Estimates

65 340 sq. ft.

Description of Activity	Man Hours	Man Hour Cost	Product	Product Cost	Total Activity Cost
66 Mowings / Season	33	825.00			825.00
66 Infield Drags/Season	66	1,650.00			1,650.00
Aeration, 3 times per year	15	375.00			375.00
Fertilizer @ 4.9 #s N / year	5	125.00	Fertilizer	192.96	317.96
Soil Amendments	2	50.00	Gypsum	56.30	106.30
Herbicide Applications	2	50.00	Herbicide	4.76	54.76
Fence Line Maintenance	2	50.00	Control	35.00	85.00
Spot Spray Round-Up, 1 Time / Month	2	50.00	Round-Up		50.00
Set-Up batting Cages and Bleacher Net	10	250.00			250.00
48 Game Field Prep's	145	3,625.00	Chalk	160.00	\$ 3,785.00
Prep Field for Season	15	375.00	Ag-Lime		375.00
30 Game Field Prep's	45	1,125.00	Chalk	106.65	1,231.65
		-	Paint	138.00	138.00
		-	Turface MVP		-
		-	Turface Quick Dry		-
Field Re-prep Double Header's	5	125.00			125.00
Weekly Mound Repair Products	99	2,475.00	Mound Clay	9.00	\$ 3,375.00
Tear Down Batting Cages and Bleacher	2	50.00			50.00
Over Seeding	3	75.00	Seed	137.50	212.50
Water, 1 Acre Inch Per Week	6	150.00	Water	4032.00	4,182.00
Miscellenous \$25.00 / Month	100	2,500.00	Supplies	250.00	2,750.00
Pre-emergent Applications	2	50.00	Dimension	41.10	91.10
Insecticide Applications					
			Labor Cost	13,975.00	Supplies Cost
					5,163.27

Mowing Season : 33 Weeks x 2 Mowings / w = 66 Mowings / Season x .5 hrs. / Mowing = 33 hrs.

Labor Cost \$20.00 x 25% benefits = \$ 25.00 Labor Cost Per Hour

Bi- annual Laser Grading of Infield \$ 8,000.00

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Baseball Field Maintenance Cost Estimates

196 000 sq. ft.

Description of Activity	Man Hours	Man Hour Cost	Product	Product Cost	Total Activity Cost
66 Mowings / Season	66	1,650.00		\$	1,650.00
66 Infield Drags/Season	66	1,650.00		\$	1,650.00
Aeration, 3 times per year	15	375.00		\$	375.00
Fertilizer @ 4.9 #s N / year	8	200.00	Fertilizer	675.00	\$ 875.00
Soil Amendments	2	50.00	Gypsum	157.44	\$ 207.44
Herbicide Applications	2	50.00	Herbicide	12.10	\$ 62.10
Fence Line Maintenance	4	100.00	Control	70.00	\$ 170.00
Spot Spray Round-Up, 1 Time / Month	4	100.00	Round-Up		\$ 100.00
Set-Up batting Cages and Bleacher Nets	8	200.00		\$	200.00
Prep Field for Season	20	500.00		\$	500.00
48 Game Field Prep's	145	3,625.00	Chalk	160.00	\$ 3,785.00
		-	Turfase Quick Dry	320.00	\$ 320.00
		-	Turfase MVP	580.00	\$ 580.00
		-	Paint	230.00	\$ 230.00
Field Re-prep Double Header's	8	200.00		\$	200.00
Weekly Mound Repair Products	99	2,475.00	Mound Clay	900.00	\$ 3,375.00
Tear Down Batting Cages and Bleacher Nets	8	200.00		\$	200.00
Over Seeding	6	150.00	Seed	570.00	\$ 720.00
Water, 1 Acer Inch Per Week	18	450.00	Water	12095.00	\$ 12,545.00
Miscellenous \$25.00 / Month	100	2,500.00	Supplies	250.00	\$ 2,750.00
Pre-emergent Applications	2	50.00	Dimension	108.15	\$ 158.15
Insecticide Applications	6	150.00	Dylox	458.22	\$ 608.22
			Labor Cost	14,675.00	Supplies Cost
					16,585.91

Mowing Season : 33 Weeks x 2 Mowings / w = 66 Mowings / Season x 1 hrs. / Mowing = 66 hrs.

Labor Cost \$20.00 x 25% benefits = \$ 25.00 Labor Cost Per Hour

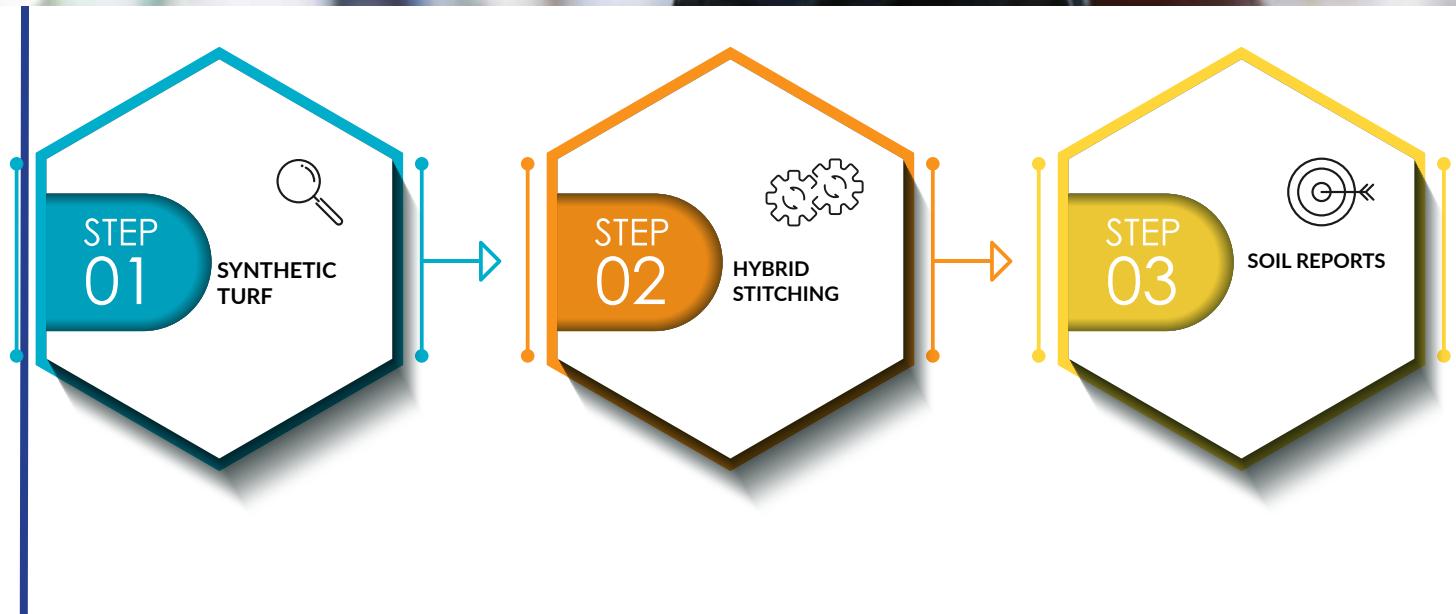
Bi- annual Laser Grading of Infield \$ 8,000.00

Field	Maintenance Level	Potential Costs
BARRINGTON MIDDLE SCHOOL FIELDS		
Baseball MS 1.1	Baseball	\$ 32,000.00
West Facing Multi-Purpose MS2.1	Competition Level 3	\$ 16,200.00
North Multi-Purpose MS2.2	Competition Level 3	\$ 16,200.00
South Facing Multi-Purpose MS2.3	Competition Level 3	\$ 16,200.00
	Total Maintenance Costs Middle School Fields: \$	80,600.00
BARRINGTON HIGH SCHOOL FIELDS		
Varsity Baseball HS1.1	Baseball	\$ 32,000.00
Varsity Softball HS1.2	Softball	\$ 20,200.00
JV Baseball HS1.3	Baseball	\$ 32,000.00
MP Adjacent to Parking Lot HS2.1	Competition Level 3	\$ 16,200.00
Stadium Field HS2.2	Competition Level 3	\$ 16,200.00
MP Field Behind JV Baseball HS2.3	Competition Level 3	\$ See HS 1.1 and HS 1.2
MP Field Behind Varsity Softball HS2.4	Competition Level 3	\$ 16,200.00
JV Softball Field HS3.1	Softball	\$ 11,500.00
Multi-use behind tennis	Non-Competition Level 4	\$ 16,200.00
	Total Maintenance Costs High School Fields: \$	160,500.00
BICKNELL PARK FIELDS		
Baseball Field BK 1.1	Softball	\$ 17,500.00
Multi-use BK1.2	Non-Competition Level 4	\$ 9,200.00
	Total Maintenance Costs Bicknel Park Fields: \$	26,700.00
CHIANESE FIELDS		
Baseball CH1.1	Baseball	\$ 24,000.00
North Multi-Use CH2.1	Non-Competition Level 4	\$ 9,200.00
Middle Field CH2.2	Competition Level 3	\$ 16,200.00
Lower Field CH2.3	Competition Level 3	\$ 16,200.00
	Total Maintenance Costs Chianese Fields: \$	65,600.00
HAINES PARK FIELDS		
Lower Baseball HAI1.1	Baseball	\$ 24,000.00
Upper Baseball HAI1.2	Baseball	\$ 30,200.00
Upper Softball HAI1.3	Softball	\$ 20,200.00
Upper Multi-Use HAI 1.4	Competition Level 3	\$ 16,200.00
	Total Maintenance Costs Haines Park Fields: \$	90,600.00
NYATT AVE FIELD		
West Softball NA1.1	Softball	\$ 11,500.00
East Softball NA1.2	Softball	\$ 11,500.00
	Total Maintenance Costs Nyatt Ave Fields: \$	23,000.00
PRIMROSE HILLS SCHOOL		
Softball Field PRH1.1	Softball	\$ 20,200.00
	Total Maintenance Costs Primrose Hills School: \$	20,200.00
SHERWOOD PARK		
Baseball SHW1.1	Baseball	\$ 24,000.00
	Total Maintenance Costs Sherwood Park: \$	24,000.00
SOWAMS PARK		
Multi-Purpose SOPRK2.1	Competition Level 3	\$ 16,200.00
	Total Maintenance Costs Sowams Park: \$	16,200.00
SOWAMS SCHOOL FIELDS		
Baseball Field SO1.1	Baseball	\$ 24,000.00
Baseball Field SO1.2	Baseball	\$ 24,000.00
	Total Maintenance Costs Sowams School Fields: \$	48,000.00
ST ANDREWS FARM		
Multi-Use STA1.1	Competition Level 3	\$ 16,200.00
	Total Maintenance Costs St Andrews Farm: \$	16,200.00
VETERANS MEMORIAL PARK		
Softball VMP1.1	Softball	\$ 20,200.00
	Total Maintenance Costs Veterans Memorial Park: \$	20,200.00
TOTAL MAINTENANCE COSTS TOWN WIDE ATHLETICS: \$		
		591,800.00

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CHAPTER E:

APPENDIX

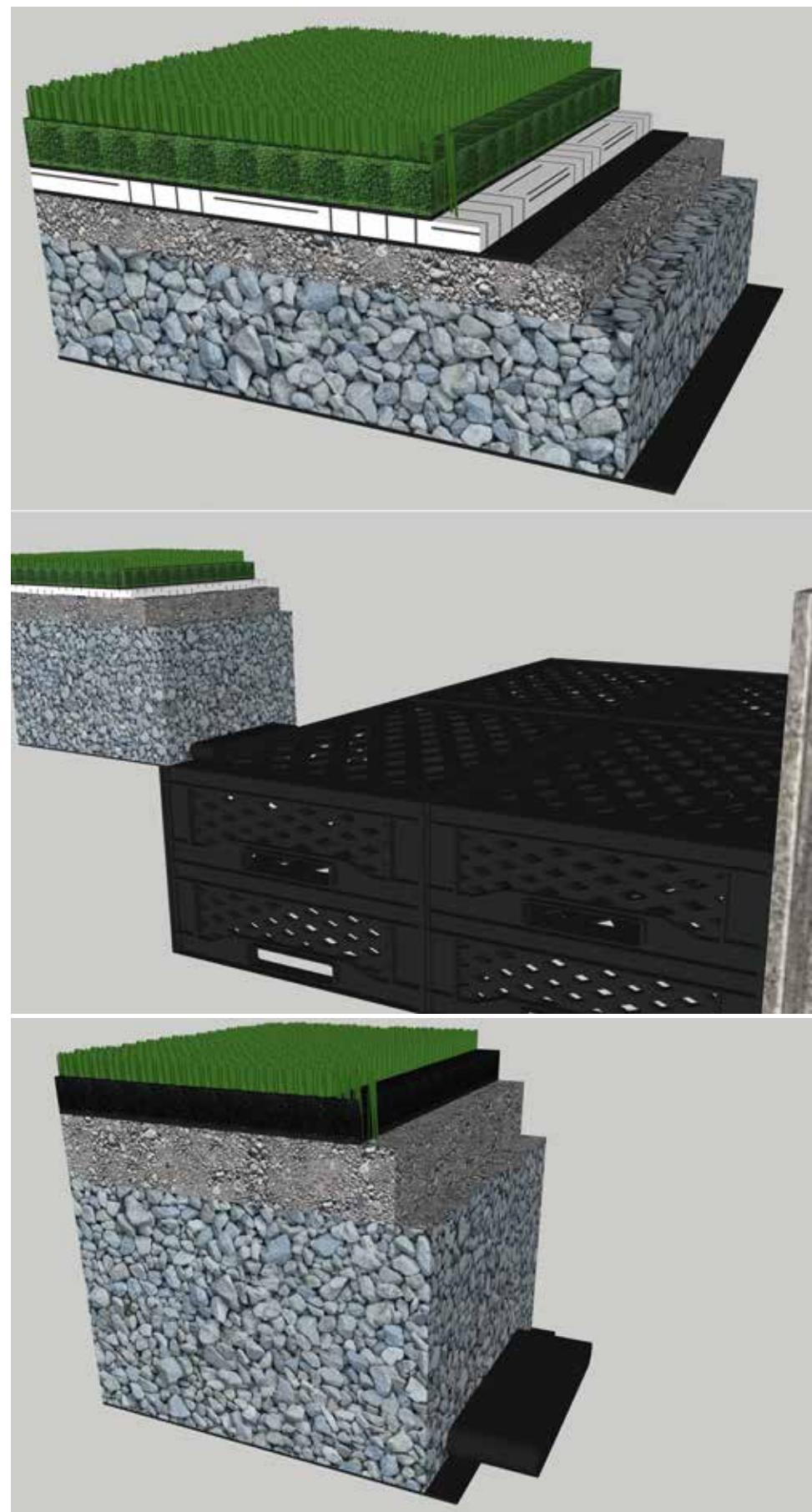


SYNTHETIC TURF

Synthetic turf can provide a safe, performing, and long lasting field surface. As a synthetic turf field is designed and built there are three major components of the field:

- 1. Synthetic turf and Infill:** There are a wide range of synthetic turf fibers that create a balance between performance and longevity. When evaluating synthetic turf, it is best to assess the usage and performance of the field and assess that versus the financial goals of the end user. There has been advancement in synthetic turf over the past few years that has provided manufacturing processes that allow for the removal of polyurethane backings making the turf itself recyclable into post consumer products. There are also a wide range of infills that include petroleum base products like Crumb Rubber, EPDM and TPE as well as a wide range of organic infills. Each infill has an impact on the performance of the field. Typically these infills are mixed with sand to create the area where the users interact with the surface. For more information on the various infills and synthetic turf fibers see the following pages.
- 2. Shock Pad:** There are also a wide range of shock pads. A shock pad is an underlayment that provides the cushion under the synthetic turf and infill. This underlayment allows a designer/installer modify the mixes of infill and the synthetic turf fiber to change the performance of the field. In short, this allows for the field to be softer or harder depending on the users end goal. The shock pad also creates a soft surface for the users impact with the field.
- 3. Drainage:** Drainage is critical under the field. This allows for the field to expand its use during rain events as well as creates a stable platform on which the field can be played. One of the major benefits of synthetic turf is its ability to be used during and immediately after a rain event and due to the stable base, the field provides a extremely consistent playing surface.

One of the main reasons to select a synthetic surface is to extend the usable hours of the field. With modern synthetic turf surfaces, consideration can be given for more sustainable and recyclable products in the industry. In 2019, East Providence High School built the first fully recyclable synthetic turf field. In 2018, the Town of Norwood, Massachusetts built a field over a create system which allowed the field to collect water which was used for irrigation on site for the rest of the school property. This system provided 75% of the irrigation demand for the site.



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Turf Systems



Monofilament

Most appropriate for lighter-use applications or soccer fields, monofilament systems feature fibers that are extruded through a spinneret in single strands. The pros of this type of system include: great aesthetics. Because monofilaments stand up straighter, they help slow ball roll. This is especially beneficial for soccer. At the same time, monofilament systems are the least durable. One particular problem that all synthetic turf manufacturers have had trouble with, is tuft bind. Tuft bind is the amount of force it takes to pull the fibers from the coated backing. With a monofilament system, if one fiber in a tuft is pulled out, the entire tuft becomes loose and is compromised. This is because when the fibers are punched through the backing during manufacturing, they tend to stack like spoons, so the coating applied to the backing tends to surround the outside of the fibers, rather than working its way down between the fibers. A higher face weight and heavy backing are important with a monofilament system.

Slit Film

Slit film systems, recommended for very-heavy-use applications, are extruded in a sheet that is cut (or slit), forming a sort of honeycomb pattern. Upon installation and use, the fibers break apart, or fibrillate. This is the most durable type of system, but it is less aesthetically pleasing than the less durable monofilament or hybrid-type systems.

Hybrid

Hybrid or blended systems feature both monofilament and slit film fibers in the same products. It can accommodate most applications, although fields that experience extremely high use might still benefit from a slit film system. Some of the pros of the hybrid system include good aesthetics, good ball-surface interaction and good resistance to wear.

Comparison of Synthetic Turf Systems



Comparison of Infill Systems

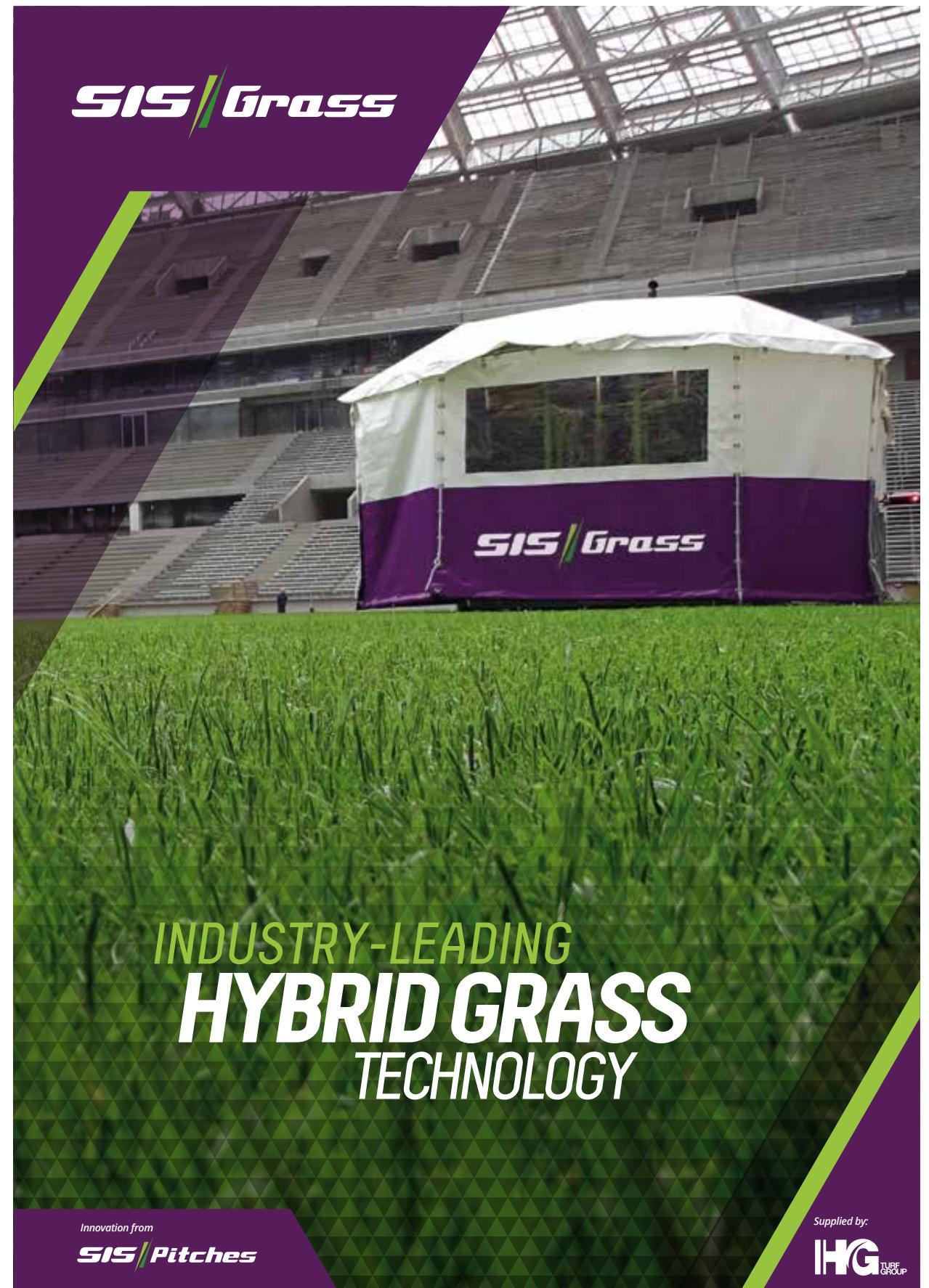
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HYBRID STITCHING

Hybrid stitching can provide an alternative to a synthetic turf field. They are used throughout the world and provides high performance and quality of engineered grass fields with some of the benefits of synthetic fibers. Synthetic fibers are used to reinforce the turf as they are stitched in to the engineered grass surface. The stitched surface can vary in depth creating channels for water and nutrients to move vertically in the rootzone system. The synthetic turf fibers also give the system a matrix that can support higher levels of use than those without.

Systems can vary in depth which allow for a range of uses and installations including a full field or in high use areas like goal boxes and goal mouths. The system should be installed on the highest level of competition fields due to the increased maintenance to keep the system performing. The system also has to be placed on a high performing rootzone mix which allows for drainage through the system.

Note: The following is a brochure from a manufacturer of a hybrid system. This by no means is the only system available and by no means is this intent for the town to use this system. This is purely for informational purposes only.



NEW INDUSTRY-LEADING MACHINE
USED FOR THE FIRST TIME AT
FC BARCELONA

Two years after revolutionising the hybrid grass market with the fully electric **SISGrass Universal** machine, we are proud to announce the launch of the second generation **SISGrass** machine, which is also 100% electric. The machine can stitch a full-size football pitch in just 7 days using electricity, a huge step forward in reducing our environmental footprint.

"THIS IS ANOTHER STEP IN OUR DRIVE TO INNOVATE AND DELIVER TECHNOLOGY THAT SIGNIFICANTLY REDUCES OUR CARBON FOOTPRINT".

GEORGE MULLAN, CEO, SIS PITCHES

AWARD-WINNING HYBRID PITCH SYSTEM

SISGrass is an advanced reinforced turf system, which is a 95% natural grass surface with high performance polyethylene fibres inserted into the surface, offering more playing hours and faster pitch recovery than 100% natural surfaces.

LEADING THE FIELD IN HYBRID PITCH TECHNOLOGY

SISGrass has been installed all over the world, working with some of the biggest names in sport.

We've provided pitches for every major tournament in 2018/19 including:

- ▶ EUROPA LEAGUE FINALS
- ▶ 2019 AFRICA CUP OF NATIONS
- ▶ AFC ASIAN CUP
- ▶ EUROPEAN RUGBY CHAMPIONS CUP
- ▶ UEFA CHAMPIONS LEAGUE
- ▶ 2018 CLUB WORLD CUP
- ▶ 2018 WORLD CUP AND WORLD CUP U-17
- ▶ 2019 RUGBY WORLD CUP
- ▶ PRO14 GRAND FINAL

INNOVATIVE TECHNOLOGY

We've developed our technology to cater for all major sports, including football, rugby, American football, golf, cricket and tennis.

With our innovative fleet of **SISGrass** machines, we're able to cater to a variety of clients, from full-size football pitches to cricket wickets, we can install a hybrid surface, bespoke to your requirements.



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SISGrass

- ▷ Installs SISGrass
- ▷ Suitable for rugby, football, American football
- ▷ Electric machines available
- ▷ Bespoke spacings
- ▷ Suitable for large areas



SISGrass UNIVERSAL

- ▷ Installs SISGrass and SISGrass Lite
- ▷ Suitable for golf, cricket, tennis
- ▷ 100% electric machines
- ▷ Bespoke spacing and depths
- ▷ Suitable for smaller areas

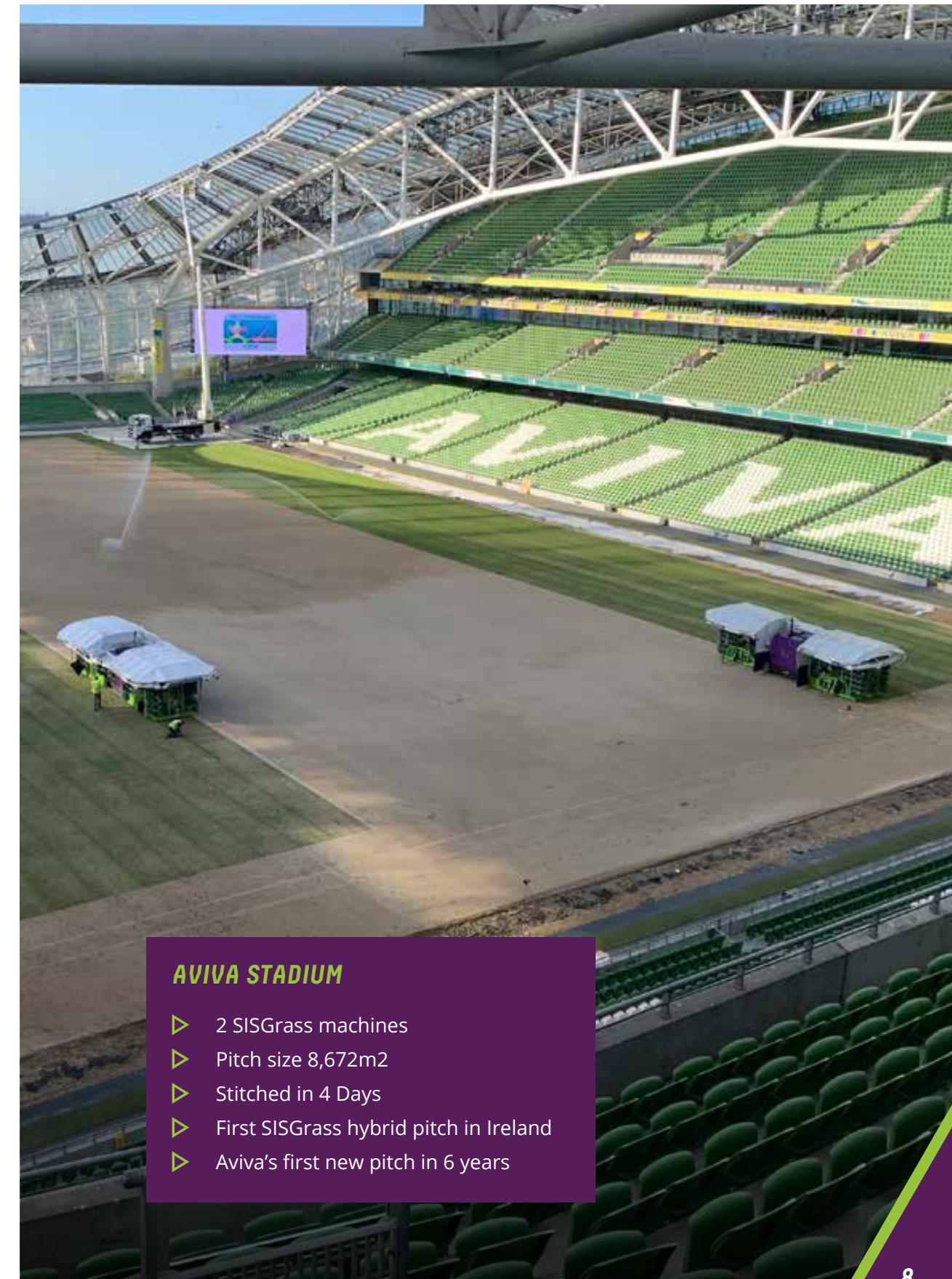
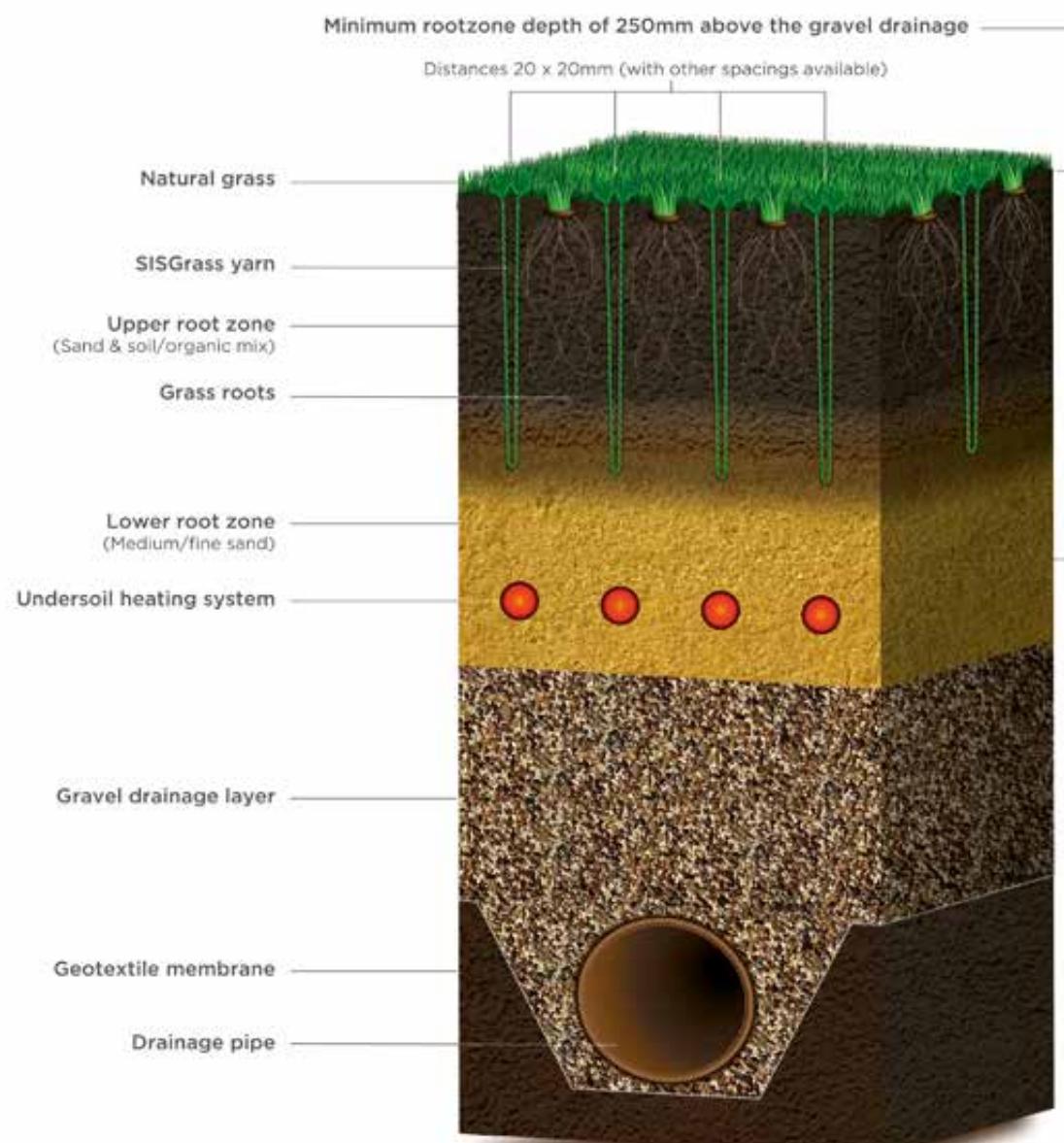


21ST CENTURY PATENTED FIBRE INJECTION TECHNOLOGY

- ▷ **SPEED** - SISGrass machines operate up to 3 times faster than other systems on the market.
- ▷ **ACCURACY** - Greater accuracy of installation thanks to the Laser-guided system.
- ▷ **ELECTRIC MACHINES** - our electric machines can reduce the carbon footprint of each pitch installation and reduce the risk of oil leaks
- ▷ **BESPOKE** - Stitch spacing can be tailored to customers' requirements and budget.
- ▷ **SAFE** - Flat tracks for minimal turf surface disturbance.
- ▷ **FIBRES** - Unique durable two tone fibres that meet the requirements of FIFA and World Rugby.
- ▷ **PATENTED** - Mechanism which allows the machine to insert the synthetic fibres efficiently and accurately.
- ▷ **MANY APPLICATIONS** - a system that is not only dedicated to football and rugby but can reinforce any natural grass playing surface.



SISGRASS HYBRID PITCH CROSS-SECTION



SISGRASS PITCH RENOVATION

Conducting yearly renovation of SISGrass hybrid pitches is imperative in order to maintain the playability and performance of the surface.

IMPORTANCE OF ANNUAL PITCH RENOVATION

A failure to conduct these works will lead to a build-up of excess organic matter and ultimately, deterioration of surface performance in future years.

Yearly removal of all vegetation and organic matter is highly recommended. Best practice for this procedure is to use a Koro Field Topmaker, fitted with a Universe® Rotor.



WATCH THE VIDEO!

EXCEEDING OUR CLIENTS' EXPECTATIONS, EVERY TIME.

6 STADIUMS FOR 2018 WORLD CUP IN RUSSIA

- ▷ LUZHNIKI STADIUM – OPENING AND FINAL MATCH STADIUM
- ▷ MORDOVIA ARENA
- ▷ ROSTOV ARENA
- ▷ SAMARA ARENA
- ▷ KALININGRAD STADIUM
- ▷ OTKRYTIYE ARENA

- ▷ ST GEORGE'S PARK, THE FA, UK
- ▷ DERBY COUNTY FC STADIUM, UK
- ▷ SOUTHAMPTON STADIUM, UK
- ▷ CHELSEA FC TRAINING GROUND, UK
- ▷ AFC BOURNEMOUTH STADIUM, UK
- ▷ HULL CITY AFC TRAINING GROUND, UK
- ▷ FULHAM FC STADIUM, UK
- ▷ NEWCASTLE UNITED FC STADIUM, UK
- ▷ READING FC STADIUM, UK
- ▷ SWANSEA CITY AFC, UK
- ▷ BIRMINGHAM CITY FC STADIUM, UK
- ▷ CELTIC FC STADIUM, UK
- ▷ AMEX STADIUM BRIGHTON, UK
- ▷ LOUGHBOROUGH UNIVERSITY, UK
- ▷ YORK COMMUNITY STADIUM, UK
- ▷ PARC Y SCARLETS, UK
- ▷ ABERDEEN FC TG, UK
- ▷ NK MARIBOR STADIUM, SLOVENIA
- ▷ NATIONAL STADIUM, MALTA
- ▷ LAMBEAU FIELD, USA
- ▷ OLYMPIACOS FC STADIUM, GREECE
- ▷ BAKU OLYMPIC STADIUM, AZERBAIJAN
- ▷ AL MAKTOUM STADIUM, DUBAI
- ▷ ATHLETIC BILBAO TC, SPAIN
- ▷ CITY ARENA, SLOVENIA
- ▷ BESIKTAS JK STADIUM, TURKEY
- ▷ RIZESPOR STADIUM, TURKEY
- ▷ GALATASARAY STADIUM, TURKEY
- ▷ TRABZONSPOR STADIUM, TURKEY
- ▷ GAZIENTAP STADIUM, TURKEY
- ▷ FENERBAHCE STADIUM, TURKEY
- ▷ AKHISAR STADIUM, TURKEY
- ▷ TSV 1860 MUNICH TC, GERMANY
- ▷ WERDER BREMEN STADIUM, GERMANY
- ▷ SAMMY OFER STADIUM, ISRAEL
- ▷ GAMLA ULLEVI STADIUM, SWEDEN
- ▷ LERKENDAL STADIUM, NORWAY
- ▷ HEARTS FC STADIUM, UK
- ▷ WIGAN FC DW STADIUM, UK
- ▷ MARC'ANTONIO BENTEGODI STADIUM, ITALY
- ▷ STADE DE LA RABINE, FRANCE
- ▷ BAKCELL ARENA, AZERBAIJAN
- ▷ FC BARCELONA, SPAIN
- ▷ AS MONACO TC, MONACO
- ▷ GLASGOW RANGERS FC TRAINING GROUND, UK
- ▷ AVIVA STADIUM, IRELAND
- ▷ TIANJIN OLYMPIC STADIUM, CHINA
- ▷ BMO FIELD, CANADA

10

"THE SISGRASS TEAM WERE VERY PROFESSIONAL FROM START TO FINISH. THEIR INGENUITY IN THEIR MACHINES AND EXPERIENCED PERSONNEL WAS A PLEASURE TO WORK WITH. I CAN CONFIDENTLY SAY THAT THIS TECHNOLOGY HAS IMPROVED OUR FIELD CONDITIONS AND CONSISTENCY. PLAYER FEEDBACK HAS NEVER BEEN BETTER. WE LOOK FORWARD TO SEEING WHAT THE PRODUCT CAN DO FOR YEARS TO COME."

**ROBERT HEGGIE | DIRECTOR OF GROUNDS
BMO FIELD 2019**

A *PASSION* FOR PERFORMANCE

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INFO@HGTURFGROUP.COM.AU
HGTURFGROUP.COM.AU



Saturated Paste Report

Job Name	TLATBDBM-23		Date	7/24/2023	
Company	Tom Irwin Advisors Inc		Submitted By	Scott Vose	
Sample Location	Sherwood	Veterans			
Sample ID	Park	Mem Park			
Lab Number	201580	201581			
Water Used	DI	DI			
pH	6.2	6.1			
Soluble Salts	ppm	58	61		
Chloride (Cl)	ppm	37	37		
Bicarbonate (HCO ₃)	ppm	23	29		
SOLUBLE CATIONS	ANIONS	SULFUR	ppm	1.55	1.15
	PHOSPHORUS	ppm	0.06	0.16	
	CALCIUM	ppm	10.11	10.90	
		meq/l	0.51	0.55	
	MAGNESIUM	ppm	1.97	1.70	
		meq/l	0.16	0.14	
	POTASSIUM:	ppm	4.48	7.47	
		meq/l	0.12	0.19	
	SODIUM	ppm	2.54	1.81	
		meq/l	0.11	0.08	
PERCENT	Calcium		56.40	56.81	
	Magnesium		18.28	14.75	
	Potassium		12.98	20.22	
	Sodium		12.34	8.22	
	Boron (p.p.m.)		0.04	0.04	
TRACE ELEMENTS	Iron (p.p.m.)		0.63	0.44	
	Manganese (p.p.m.)		0.03	0.02	
	Copper (p.p.m.)		0.02	0.02	
	Zinc (p.p.m.)		0.02	0.02	
	Aluminum (p.p.m.)		0.66	0.55	
OTHER					

Logan Labs, LLC

Saturated Paste Report

Job Name	TLATBDBM-23		Date	7/24/2023	
Company	Tom Irwin Advisors Inc		Submitted By	Scott Vose	
Sample Location		Victory	Sowans		
Sample ID		HS	School		
Lab Number		201582	201583		
Water Used		DI	DI		
pH		6.7	5.6		
Soluble Salts	ppm	109	42		
Chloride (Cl)	ppm	90	36		
Bicarbonate (HCO ₃)	ppm	37	24		
SOLUBLE CATIONS	ANIONS	SULFUR	ppm	2.51	1.8
	PHOSPHORUS	ppm	0.16	0.04	
	CALCIUM	ppm	18.85	6.42	
		meq/l	0.94	0.32	
	MAGNESIUM	ppm	2.49	1.87	
		meq/l	0.21	0.16	
	POTASSIUM:	ppm	6.21	2.74	
		meq/l	0.16	0.07	
	SODIUM	ppm	9.14	2.57	
		meq/l	0.40	0.11	
PERCENT	Calcium		55.17	48.69	
	Magnesium		12.12	23.58	
	Potassium		9.45	10.79	
	Sodium		23.27	16.94	
	Boron (p.p.m.)		0.04	0.04	
	Iron (p.p.m.)		0.5	0.34	
	Manganese (p.p.m.)		0.02	0.03	
	Copper (p.p.m.)		0.02	0.02	
	Zinc (p.p.m.)		0.02	0.02	
	Aluminum (p.p.m.)		0.49	0.42	
TRACE ELEMENTS					
OTHER					

Logan Labs, LLC

A

B

C

D

E

Saturated Paste Report

Job Name	TLATBDBM-23		Date	7/24/2023
Company	Tom Irwin Advisors Inc		Submitted By	Scott Vose
Sample Location	St Andrews	Chianese		
Sample ID	Farm	Park		
Lab Number	201584	201585		
Water Used	DI	DI		
pH	5.8	5.6		
Soluble Salts ppm	54	40		
Chloride (Cl) ppm	39	34		
Bicarbonate (HCO ₃) ppm	31	28		
ANIONS SOLUBLE CATIONS	SULFUR ppm	1.79	1.18	
	PHOSPHORUS ppm	0.53	0.15	
	CALCIUM ppm	9.13	6.37	
		0.46	0.32	
	MAGNESIUM ppm	1.47	1.14	
		0.12	0.09	
	POTASSIUM: ppm	5.55	4.79	
		0.14	0.12	
	SODIUM ppm	2.79	1.96	
		0.12	0.09	
PERCENT	Calcium	54.06	51.12	
	Magnesium	14.55	15.24	
	Potassium	17.06	19.95	
	Sodium	14.34	13.69	
TRACE ELEMENTS	Boron (p.p.m.)	0.04	0.04	
	Iron (p.p.m.)	0.91	0.6	
	Manganese (p.p.m.)	0.03	0.04	
	Copper (p.p.m.)	0.02	0.02	
	Zinc (p.p.m.)	0.02	0.02	
	Aluminum (p.p.m.)	0.82	0.65	
OTHER				

Logan Labs, LLC

Soil Report

Job Name	TLATBDBM-23		Date	7/24/2023
Company	Tom Irwin Advisors Inc		Submitted By	Scott Vose
Sample Location	Sherwood	Veterans		
Sample ID	Park	Mem Park		
Lab Number	14	15		
Sample Depth in inches	4	4		
Total Exchange Capacity (M. E.)	7.00	8.30		
pH of Soil Sample	6.2	6.1		
Organic Matter, Percent	6.16	5.85		
ANIONS	SULFUR: p.p.m.	26	22	
	Mehlich III Phosphorous: as (P ₂ O ₅) lbs / acre	453	570	
EXCHANGEABLE CATIONS	CALCIUM: Desired Value lbs / acre	1269	1505	
		1258	1459	
	Value Found Deficit	-11	-46	
	MAGNESIUM: Desired Value lbs / acre	134	159	
		119	126	
SODIUM:	POTASSIUM: Desired Value lbs / acre	145	172	
		134	213	
	Value Found Deficit	-11		
BASE SATURATION %	SODIUM: lbs / acre	23	25	
	Calcium (60 to 70%)	67.39	65.91	
	Magnesium (10 to 20%)	10.62	9.49	
	Potassium (2 to 5%)	3.68	4.93	
	Sodium (.5 to 3%)	1.09	0.97	
	Other Bases (Variable)	5.20	5.20	
TRACE ELEMENTS	Exchangable Hydrogen (10 to 15%)	12.00	13.50	
	Boron (p.p.m.)	0.5	0.62	
	Iron (p.p.m.)	295	290	
	Manganese (p.p.m.)	9	9	
	Copper (p.p.m.)	3.11	9.46	
	Zinc (p.p.m.)	3.58	7.22	
OTHER	Aluminum (p.p.m.)	1309	908	
	Ammonium (p.p.m.)	0.9	0.4	
	Nitrate (p.p.m.)	20.7	22.7	
	Silicon ppm	5.1	7.1	

Logan Labs, LLC

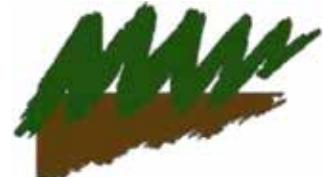
Soil Report					
Job Name: TLATBDBM-23			Date: 7/24/2023		
Company: Tom Irwin Advisors Inc		Submitted By: Scott Vose			
Sample Location	Sherwood	Veterans			
Sample ID	Park	Mem Park			
Lab Number	14	15			
Sample Depth in inches	4	4			
Total Exchange Capacity (M. E.)	7.00	8.30			
pH of Soil Sample	6.2	6.1			
Organic Matter, Percent	6.16	5.85			
ANIONS	SULFUR: p.p.m.	26	22		
	Mehlich III Phosphorous: as (P ₂ O ₅) lbs / acre	453	570		
	CALCIUM: Desired Value lbs / acre	1269	1505		
	Value Found	1258	1459		
	Deficit	-11	-46		
	MAGNESIUM: Desired Value lbs / acre	134	159		
	Value Found	119	126		
EXCHANGEABLE CATIONS	Deficit	-15	-33		
	POTASSIUM: Desired Value lbs / acre	145	172		
	Value Found	134	213		
	Deficit	-11			
	SODIUM: lbs / acre	23	25		
	Calcium (60 to 70%)	67.39	65.91		
	Magnesium (10 to 20%)	10.62	9.49		
BASE SATURATION %	Potassium (2 to 5%)	3.68	4.93		
	Sodium (.5 to 3%)	1.09	0.97		
	Other Bases (Variable)	5.20	5.20		
	Exchangable Hydrogen (10 to 15%)	12.00	13.50		
	Boron (p.p.m.)	0.5	0.62		
	Iron (p.p.m.)	295	290		
	Manganese (p.p.m.)	9	9		
TRACE ELEMENTS	Copper (p.p.m.)	3.11	9.46		
	Zinc (p.p.m.)	3.58	7.22		
	Aluminum (p.p.m.)	1309	908		
	Ammonium (p.p.m.)	0.9	0.4		
	Nitrate (p.p.m.)	20.7	22.7		
	Silicon ppm	5.1	7.1		
OTHER					

Logan Labs, LLC

Soil Report					
Job Name: TLATBDBM-23			Date: 7/24/2023		
Company: Tom Irwin Advisors Inc		Submitted By: Scott Vose			
Sample Location	St Andrews	Chianese			
Sample ID	Farm	Park			
Lab Number	18	19			
Sample Depth in inches	4	4			
Total Exchange Capacity (M. E.)	7.48	6.95			
pH of Soil Sample	5.8	5.6			
Organic Matter, Percent	3.49	5.39			
ANIONS	SULFUR: p.p.m.	24	43		
	Mehlich III Phosphorous: as (P ₂ O ₅) lbs / acre	1299	711		
	CALCIUM: Desired Value lbs / acre	1356	1260		
	Value Found	1183	986		
	Deficit	-173	-274		
	MAGNESIUM: Desired Value lbs / acre	143	134		
	Value Found	94	81		
EXCHANGEABLE CATIONS	Deficit	-49	-53		
	POTASSIUM: Desired Value lbs / acre	155	144		
	Value Found	188	175		
	Deficit				
	SODIUM: lbs / acre	28	33		
	Calcium (60 to 70%)	59.29	53.18		
	Magnesium (10 to 20%)	7.85	7.28		
BASE SATURATION %	Potassium (2 to 5%)	4.83	4.84		
	Sodium (.5 to 3%)	1.22	1.56		
	Other Bases (Variable)	5.80	6.20		
	Exchangable Hydrogen (10 to 15%)	21.00	27.00		
	Boron (p.p.m.)	0.72	0.41		
	Iron (p.p.m.)	295	216		
	Manganese (p.p.m.)	12	6		
TRACE ELEMENTS	Copper (p.p.m.)	2.06	1.52		
	Zinc (p.p.m.)	4.43	3.38		
	Aluminum (p.p.m.)	1315	1484		
	Ammonium (p.p.m.)	0.7	5.1		
	Nitrate (p.p.m.)	15.3	19.7		
	Silicon ppm	3.4	3.7		
OTHER					

Logan Labs, LLC

A
B
C
D
E



Turf & Soil Diagnostics

Tom Irwin Advisors
Barrington RI Athletic Fields
File #49134

A

B

C

D

E

July 26, 2023

Tom Irwin Advisors
Scott Vose

Barrington RI Athletic Fields
TSD File #49134

This report details the results of the seven soil samples from various athletic fields in Barrington RI. These samples were tested as received.

High School Baseball - Infield

The High School Baseball Infield Clay Composite (7/13/23) sample was tested for particle size to assess the potential for use in baseball/softball skinned areas. The Hummel Ballfield Guidelines and the ASTM F2107 Standard Guide for Construction and Maintenance of Skinned Areas on Baseball and Softball Fields are included for comparison purposes.

The sample is classified as sandy loam per the U.S. Department of Agriculture soil classification system.

This sample meets the ASTM F2107 guidelines.

When compared to the Hummel Ballfield guidelines, the sand content meets the guidelines, the gravel fraction is high, the clay content is low, and the silt to clay ratio is high.

The ASTM F2107 guidelines state: "If the performance of a skinned infield mix is not totally satisfactory after installation, its physical composition can be altered by incorporating sand or amendments to loosen it or by adding clayey soil to create a firmer mix. Such alterations may be related to player preference or to ease of maintenance."

Athletic Fields - Rootzone

The Chianese Park, St. Andrews Farm, Sherwood Park, Sowams School, Veterans Memorial Park, and Victory Field (HS) samples were tested for potential use in athletic fields. It is our understanding that these soils are from the existing sports fields.

The Chianese Park, St. Andrews Farm, Sherwood Park, Veterans Memorial Park, and Victory Field (HS) samples are relatively similar to each other. These samples are classified as sandy loam per the USDA soil classification scheme. The Sowams School sample has the highest sand content and is classified as loamy sand.

Page 3 of 4

An organic matter content of 3 to 5% by weight is typically recommended for most turf soils of this type. These samples have organic matter contents within this range or slightly higher.

The infiltration rates of these soils range from 0.1 to 0.8 in/hr. The two samples with sand contents higher than 70% have the highest infiltration rates. These infiltration rates suggest limited internal drainage may be expected. Infiltration rates are related to bulk density (compaction) such that they may be lower if the soil is installed or maintained at a higher bulk density (or vice versa).

Soils such as these typically have potential to provide acceptable water and nutrient holding for most turf and landscapes. As indicated by the low infiltration rates, they provide limited internal drainage and can be prone to excess compaction under heavy use. Surface drainage, from appropriate sloping or a crown, should be provided to ensure removal of excess water.

Please contact us if you have any questions or need further assistance. Samples are generally kept on the premises for 45 days after report date. Thank you for using Turf & Soil Diagnostics, Inc.

Duane K. Otto

Digital signature of Duane K. Otto
Date: 2023.07.26 09:49:40 -04'00'

Duane K. Otto
Vice President

Page 4 of 4

Softball



33.8 %

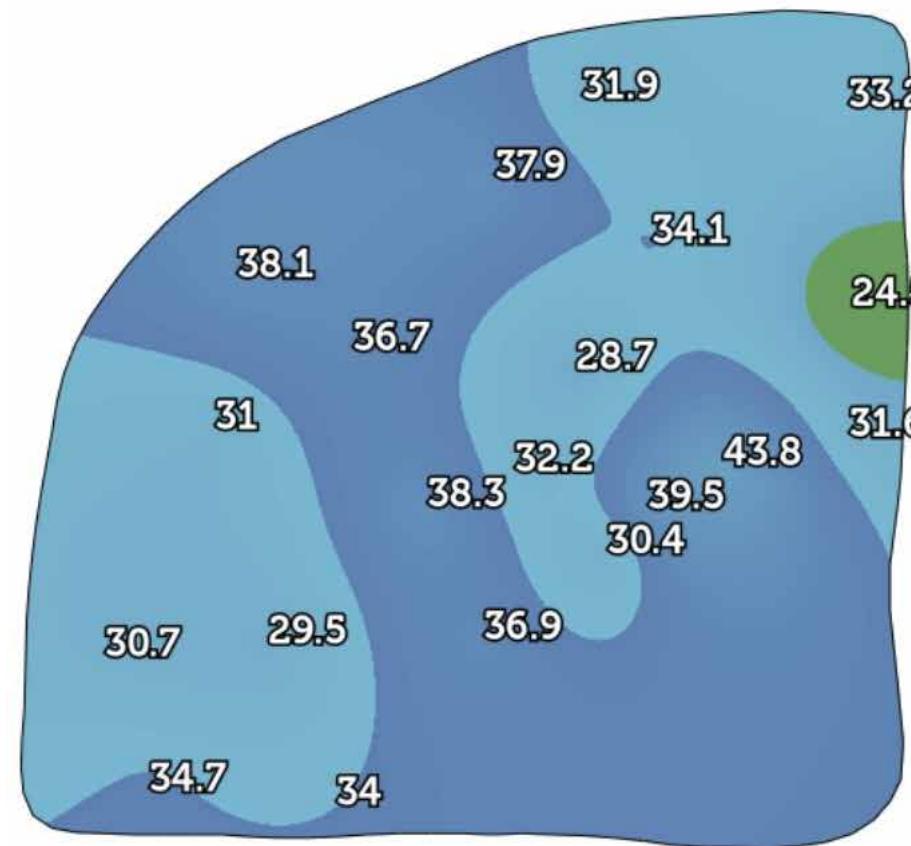
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LOW: 25 ↓

Distribution Uniformity

85

Turf Performance

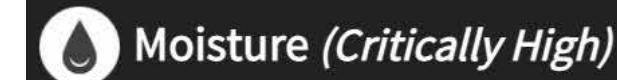
↑ 43



Jul 12th 2023, 8:39 am

Set 1 - 21 Samples

Victory Field



34.3 %

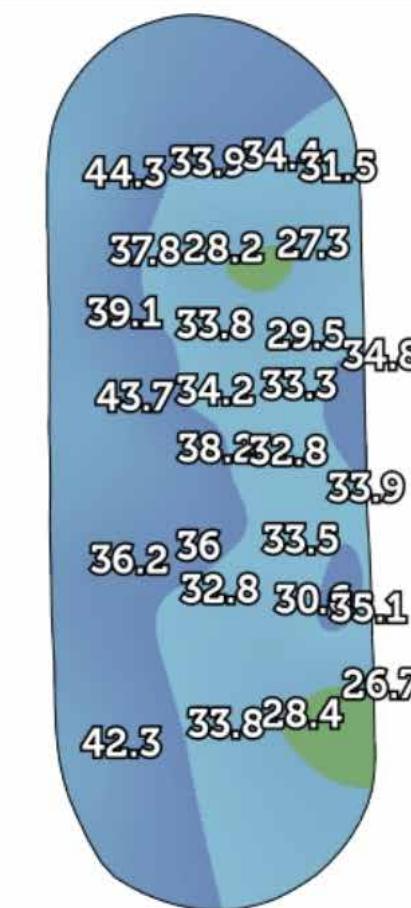
HIGH: 44 ↑
LOW: 27 ↓

Distribution Uniformity

83

Turf Performance

↑ 38



Jul 12th 2023, 11:47 am

Set 1 - 27 Samples

Ball Field Outfields



32.7 %

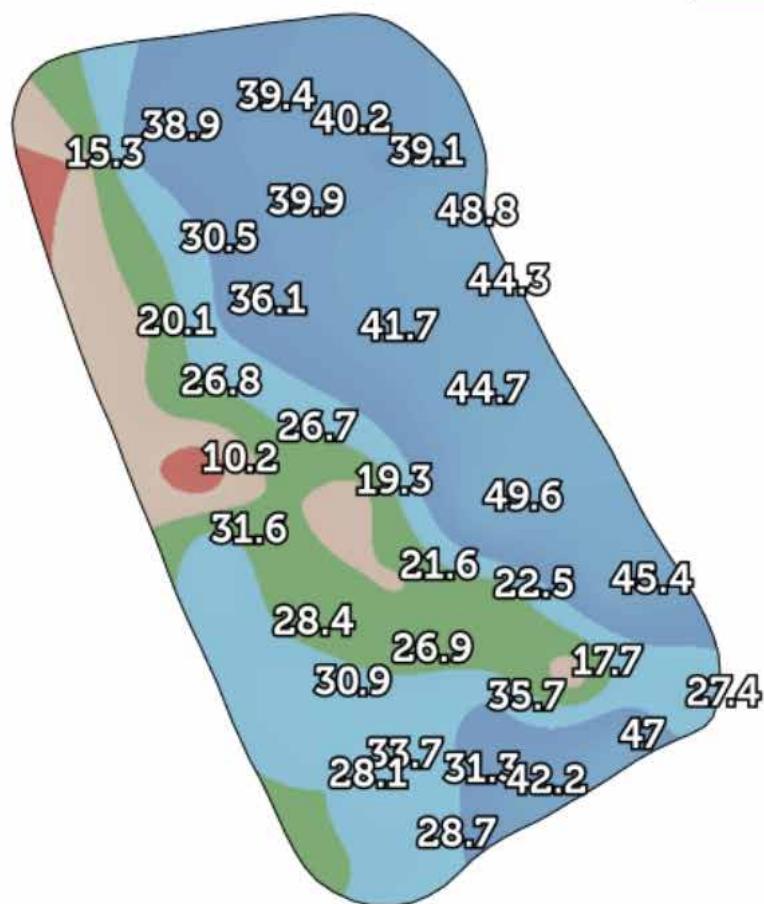
HIGH: 50 ↑
LOW: 10 ↓

Distribution Uniformity

59

Turf Performance

↑ 35



Jul 12th 2023, 6:54 am

Set 1 - 34 Samples

Top Rectangle



20.7 %

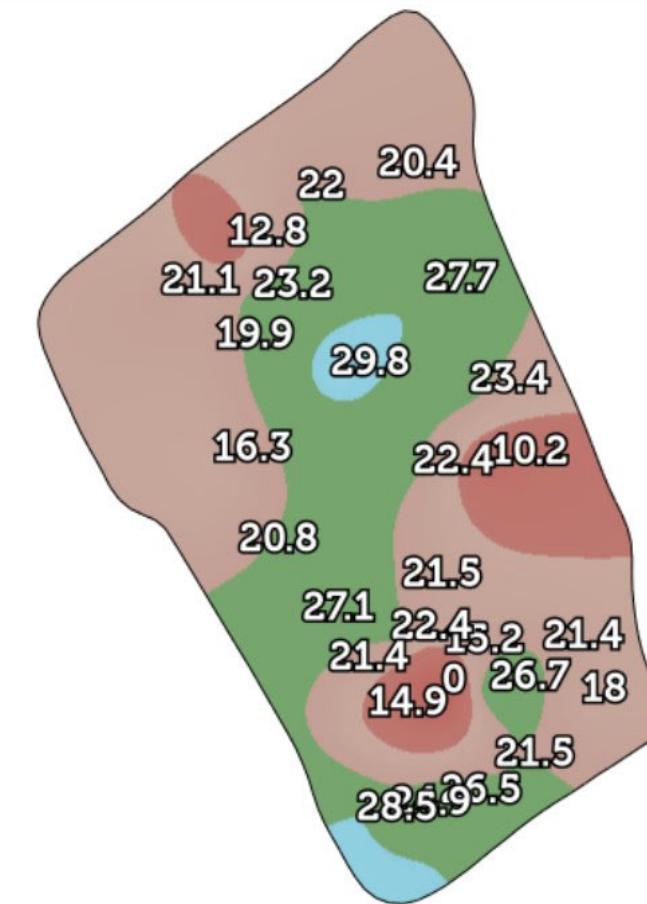
HIGH: 30 ↑
LOW: 0 ↓

Distribution Uniformity

56

Turf Performance

↓ 47



Jul 12th 2023, 10:05 am

Set 1 - 27 Samples

A

B

C

D

E

Soccer/LAX



22.7 %

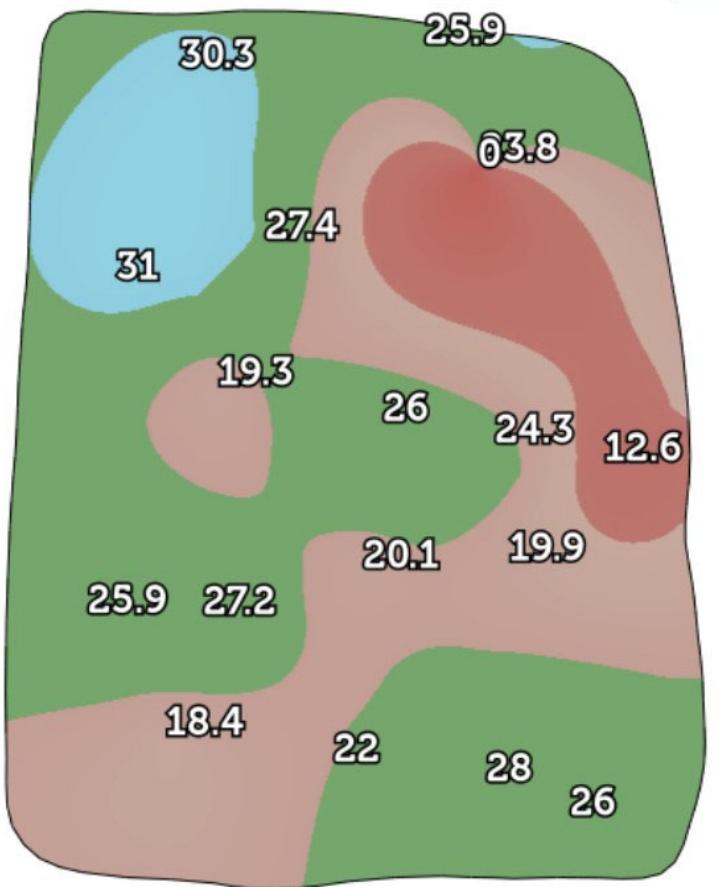
HIGH: 31 ↑
LOW: 0 ↓

Distribution Uniformity

55

Turf Performance

↓ 53



Jul 12th 2023, 12:56 pm

Set 1 - 18 Samples