

ATHLETIC FACILITIES STRATEGIC PLAN



2019

PREPARED BY:

Weston & SampsonSM

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ACKNOWLEDGEMENTS

We gratefully acknowledge the residents of the Town of Amherst, Town staff members, and the Amherst Center Recreation Working Group for their ability to understand Amherst's most critical athletic facility and recreational needs, create solutions that address those needs, and develop realistic strategies for implementing the actual improvements will help yield positive benefits for all future users, as key parts of the Athletic Facilities Strategic Plan (the "Strategic Plan") are implemented in the years to come. The recommendations and priorities established within this document address the needs of the Amherst community and the needs of various other stakeholders who rely on School and Town recreation facilities for use and enjoyment. Strategic Plan recommendations are intended to be pragmatic and recognize that municipal governments like Amherst must continue to provide a high level of service, even in times of financial uncertainty.



Athletic facilities are an important asset to the sports and recreation community. This study intends to strike the right balance by identifying and recommending renovated or new facilities to meet the needs of the Town of Amherst and the region.

When implemented, the improvements identified within the strategic plan will provide enhanced opportunities for public use and enjoyment. Recreational facilities will be more accessible and readily available to the school athletes, Town sports leagues, recreational leagues, and residents.

In particular, we thank the members of Amherst Leisure Services & Supplemental Education (LSSE), Amherst-Pelham Regional School District Athletic Department, Amherst Public Works Department, and Amherst Planning & Zoning Department for their assistance in providing key background data and mapping for the individual properties, and for their sage advice during the development of all aspects of this Strategic Plan.

Many residents and members of the Amherst sports community attended the public meetings and expressed their likes, dislikes, and wishes regarding the past, present, and future use of the various athletic facilities/properties. We thank them. In addition, we extend our appreciation to the many representatives of other Town departments, including the DPW, for their critical advice and insight. The recommendations contained in this Strategic Plan represent our best professional judgments and expertise, tempered by the unique perspectives of each of the participants in the process.

The Weston & Sampson Design Team
November 2018



EXECUTIVE SUMMARY

Working on behalf of the Town of Amherst and the Regional Schools through the Amherst Center Recreation Working Group, Weston & Sampson explored options for renovating existing athletic and recreation facilities and establishing additional facilities at strategic locations throughout the Town. The following study provides a comprehensive inventory and analysis of all existing conditions and a series of recommendations for improving, or adding new, facilities. While considering the identification of open space properties under the jurisdiction of the Town for potential facility development, we have looked specifically at the properties that the Town owns, operates, and manages, as well as properties within the Amherst-Pelham Regional School District with whom they share management.



A demand analysis has been prepared and is based on our examination of the physical conditions of all fields and information gathered during a series of meetings with key user groups and stakeholders. As work progressed, the following became clear:

- Playing venues serve a large part of the Amherst population. More than 3,465 participants used the study fields during the year for an average of 433 participants per field. Usage levels were recorded at 150% recommended levels for maintaining facilities in a good state of repair.
- There are not enough playing venues (existing field footprints) to meet use demands. To meet the current and future demands of the Amherst community, current venues need upgrades to improve physical conditions and drainage, allow for additional use, and offer easier maintenance and a new synthetic turf field playing venue needs strong consideration. For more information, refer to Appendix A - Study Facilities for field use data and to the Demand Analysis section.
- Due to heavy and often excessive use during all seasons of the year and during all types of weather, and weather that has become increasingly poor and unpredictable, turf conditions are stressed at many locations.
- Poor playing conditions can demoralize users and increase the risk of injury.
- Town maintenance operations staff, which is hampered by small numbers and lack of materials and equipment, wages an uphill battle to maintain the best conditions possible.
- There are no ADA parking spaces for the field facilities, parking, in general, is lacking and there are no ADA connections between the existing parking lots and the field facilities.
- The lack of a clear, concise, and evenly enforced "Field Use Policy" places those responsible for field upkeep at a great disadvantage. Many communities have long since adopted policies that have proven crucial to the maintenance of improved field/turf conditions by controlling use, particularly during poor weather.

Following are some key recommendations (refer to the larger study for an expanded discussion of these recommendations and for additional recommendations) which highlight suggested improvements to the delivery of athletic facility resources by the Town to the resident population.

- Amherst should adopt a Field Use Policy to govern the use of the fields. This will be essential to allow for improved playing conditions to be achieved and to protect any new investments that are made.
- The Town must set aside funds to renovate existing facilities to achieve a higher level of performance and to accommodate the myriad uses that are desired.
- As fields are renovated and reconfigured, rely less on fields that overlap, achieve layouts that allow for turf to be rested periodically, improve ancillary facilities and introduce lighting to expand periods of use.
- At least one multi-use rectangular synthetic turf athletic field should be constructed at the High School.
- Additional operations funds should be allocated on an annual basis to allow maintenance protocols to be improved throughout the system to include increased staffing levels.
- To achieve strong initial results, it is recommended that the Town embark on strategic improvements to the High School and Community Field.

Athletic Facilities Strategic Plan

Most communities have moved aggressively to expand their field-based playing venues because of dramatically increased rates of participation in traditional (baseball, football, soccer) and emerging (lacrosse, ultimate frisbee, field hockey, flag football) sports, and the expanding participation rate of women and girls in general. Likewise, Amherst sees expansion in the number of programs offered and the number of individuals participating.

There are high levels of risks involved with the continual operation of some of the facilities in their current condition. Many facilities exhibit safety issues that include compacted turf, worn resilient surfacing, uneven playing surfaces, sharp protrusions on fencing, and trip hazards. It is important to protect our users, specifically children; it is also important to protect the Town from liability implications. Recent litigation elsewhere has resulted in settlements of several hundred thousand dollars to injured athletes making use of public sports and recreation facilities.

As priority projects, we have included the recommended improvement plans for Amherst-Pelham Regional High School and Community Field within the Executive Summary. Refer to the larger Strategic Planning document for more detailed information on all topics. It should be noted that the reference "site" refers to the individual property being evaluated, whereas "field" refers to a particular play field within the property.

Amherst-Pelham Regional High School Recommended Improvements Plan



Summary of Improvements

- Construct the relocated 225' Softball Field.
- Reorient and construct a new High School Track and central Synthetic Multi-Use Field #1.
- Bleacher seating area with accessible press box
- Expand the Multi-Use Field to create a usable-size field
- Construct the additional Multi-Use Fields.
- Use engineered rootzone mix and sub-drainage to improve turf conditions.
- Upgrade the irrigation system for efficient, comprehensive watering of all turf areas
- Create new accessible pathways throughout the site to connect the fields; these paths could also be used as an education trail by adding interpretive signage regarding wetland and woodland wildlife habitats.
- Upgrade all dugouts and add accessible spectator seating where appropriate.
- Install shade shelters with picnic areas near the spectator areas for the fields.

- Upgrade the entrances with attractive signage, add new native plantings, and remove diseased, damaged, or invasive plant species throughout the site.
- Integrate trees throughout the site to provide shade.
- Improve access and pathways systems.
- Provide ADA accessibility to all facilities, spectator seating and viewing areas.
- Add support structures as necessary.

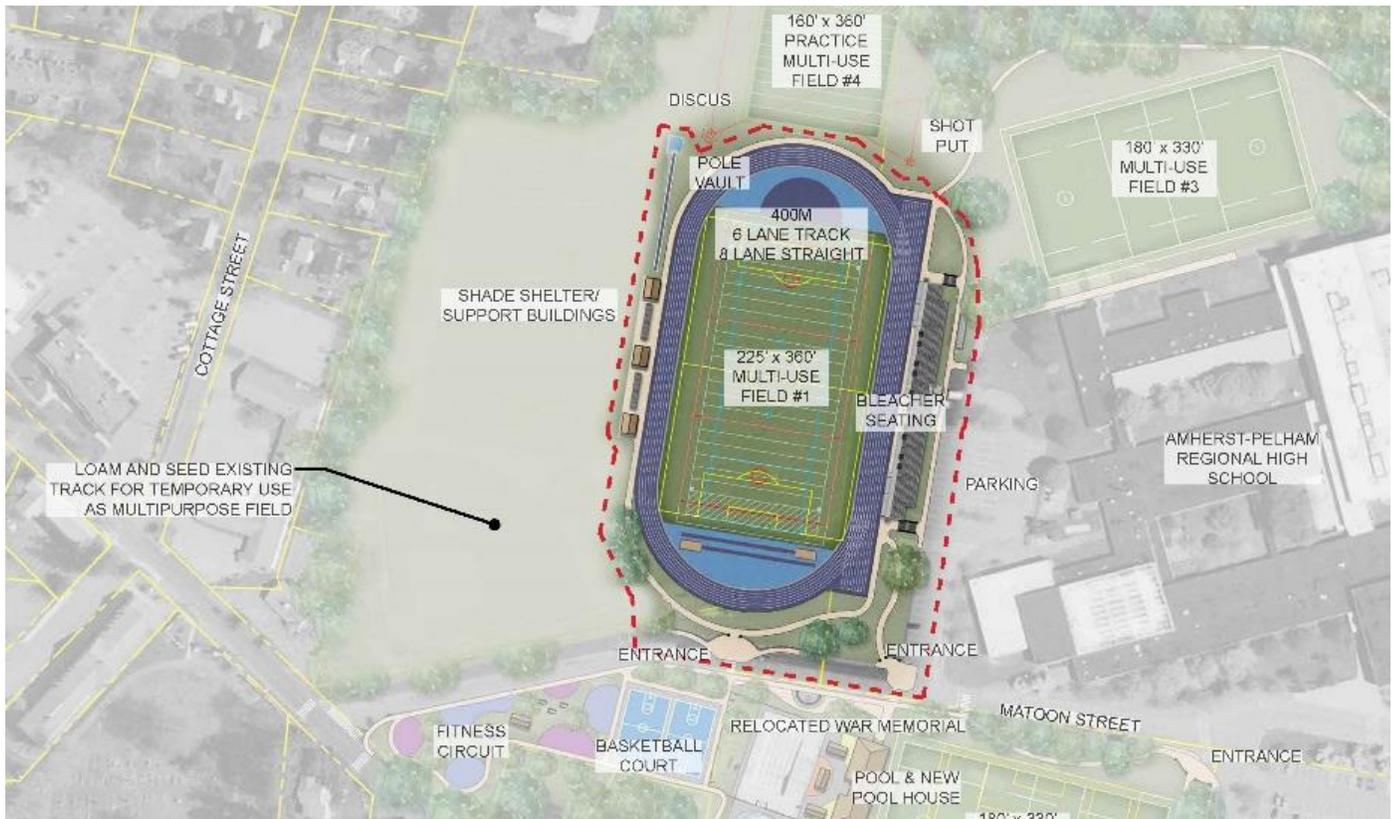
Community Field Recommended Improvements Plan



Summary of Improvements

- Expand and amend the existing practice Multi-Use Fields.
- Renovate the Baseball Field while moving it about 20 to 30 feet from Triangle Street.
- Upgrade the irrigation system for efficient, comprehensive watering of all turf areas
- Add ADA-compliant multi-generational pathways looped around fields as available for those who cannot use the steeper trails.
- Add spectator seating and other amenities.
- Install new shade shelters with picnic areas.
- Upgrade the entrances with attractive signage, add new native plantings.
- Provide ADA accessibility to all facilities, spectator seating and viewing areas.
- Integrate trees throughout the site to provide shade
- New Pool House, locker room, storage facility for more general use
- Upgrade Playground
- Proposed Splashpad Area
- Upgraded Basketball Courts
- Fitness Circuits

Amherst-Pelham Regional High School Recommended Improvements | PHASE I



Recommendations Summary

- Reorient and construct a new High School Track and central Synthetic Multi-Use Field #1 with bleacher seating.
- Create new accessible pathways throughout the site to connect the fields; these paths could also be used as an education trail by adding interpretive signage regarding wetland and woodland wildlife habitats.
- Upgrade all dugouts and add accessible spectator seating where appropriate.
- Install shade shelters with picnic areas near the spectator areas for the fields.
- Upgrade the entrances with attractive signage, entrance features, add new native plantings, and remove diseased, damaged, or invasive plant species throughout the site.
- Integrate trees throughout the site to provide shade.
- Improve access and pathways systems.
- Provide ADA accessibility to all facilities, spectator seating and viewing areas.
- Add support structures as necessary

INTRODUCTION

The Town of Amherst and the Regional Schools retained Weston & Sampson in the Fall of 2017 to complete this comprehensive Athletic Facilities Strategic Plan (the strategic plan). The Town of Amherst has funded the work to assess current field and park properties that provide critical outlets for athletic competition and recreational enjoyment for all residents (youths and adults) of the community and the surrounding towns.

It is important to note that recreation needs relate not only to the sports/athletic programs that make use of them, but also to passive recreational pursuits like walking trails, community gardens, and activities by individuals not aligned with a specific organization, such as the neighborhood kids who seek a pickup game of football, ultimate frisbee, or soccer within a particular venue or the parents who would like to stroll in the park with their children. In addition, we must consider that recreation is multi-generational, and the final Strategic Plan will identify strategies for improving recreational opportunities for those of all ages.

As demand for available recreational resources increases, pressures mount to establish and maintain recreation venues in good condition, and to offer a sufficient number of facilities to support the desired level of use, as well as provide gender equity for athletics. This strategic plan proposes preferred renovation designs at the study properties that, if implemented, can improve these conditions.

This strategic plan will serve as a guide for the future development of park and recreation properties, as well as a tool to secure funding from various private, Municipal, State, and Federal sources.

The specific scope of work undertaken by Weston & Sampson included:

- Compilation of base maps and plans suitable for the development of all conceptual design plans for each of the properties being considered.
- Demand analysis—defined service area and populations served, regional and local trends, competing uses of fields.
- Existing conditions analysis—facilities town-wide at schools and public parks. Assess existing usable area and potential for expanded uses on each property. Use standard methodology for grading, evaluating, and comparing fields.
- Review of existing maintenance issues and roles/responsibilities—interview Schools, Department of Public Works, Leisure Services and Supplemental Education Department, and other programs to learn of roles and conflicts.
- Development of at least three concept plans and associated cost estimates.
- Public meetings: led three public forums to present analysis and plans, and to receive public comments. Also attended three to four additional meetings with the Recreation Working Group as working sessions to review and discuss project materials.
- Development of phases and strategies for 5-10 year build out of each concept plan.
- Identification of funding sources (local, private, State, Federal) and alternatives.
- Development of maintenance plan (roles/ responsibilities) and life cycle costs.
- Access and parking to facilities—identify barriers and make recommendations for improved access, including possible offsite locations.
- Identification and evaluation of benefits and consequences of installing artificial turf or using natural grass/sod for active recreation fields.
- Development of recommendations for operating and capital budgets, including identification of resources needed to support concept plans (fields, playgrounds, etc.),
- Incorporation of community amenities—use information from 2017 Open Space and Recreation Plan including, but not limited to, accessible trails/paths, passive recreation areas, and picnic areas.
- Revenue generating potential of facilities, including cost/benefit analysis of tournament ready project versus other project.
- Assessment of the need for materials and equipment storage, including identification of future space needs.
- Security—identify possible issues and solutions for inappropriate use of fields after hours or by unauthorized users.
- Development and reproduction of the final, finished preferred strategic plan.



The image above identifies an aerial view of Amherst-Pelham Regional High School & Community Field. The vast majority of field playing venues that are controlled by the Regional School District and the Town typically receive extremely heavy use and the inevitable scheduling conflicts that occur between school athletic programs and community-based youth/recreational sports leagues. The school track is also used by residents for walking or jogging when not in use by the student athletes.

During the past several months, representatives of Weston & Sampson have developed conceptual and final “preferred” master plans for each of the designated field facility properties. The master plans were generated in response to the needs of the Town and Schools as expressed by various user groups and others who are responsible for the programming and maintenance of the various sites. At the outset of the process and in conjunction with the strategic planning work, Weston & Sampson representatives frequently toured the properties to assess the existing conditions of all field facilities, identifying

current limitations, safety and maintenance issues, and potential opportunities for providing improved facilities and improved user experience. Existing conditions assessments are included in the form of a series of photographs, plans, and narrative descriptions contained later in this document.

The major elements of the conceptual master plans for each property were presented to key stakeholders during April and May 2018.

In addition to identifying capital improvement priorities for each site, it is important to note that this recreation strategic planning document also identifies important considerations pertaining to the establishment of a fields-use policy. If adopted, this field's-use policy will help to:

- Clearly articulate when fields are available for use and when they are closed due to inclement weather, the need to “rest” turf, or for other maintenance or refurbishment efforts.
- Reduce the pressure on those making the decisions to close or delay opening a field by having clearly defined expectations and protocol.
- Improve conditions at each playing field venue by eliminating play during poor weather. Poor weather use of fields can destroy in moments what has taken months to prepare for use and enjoyment.

It was clear that the desire of all participants in this process was to improve playing conditions for all sports groups and players at all locations so that competition could be held within venues that meet minimum organizational standards and that are safe, attractive, and comfortable for both users and spectators. In short, there was a strong desire to establish recreational venues that the Town could take pride in. This report represents the culmination of the strategic planning process, as well as the narrative and graphic depictions of the preferred master plans with descriptions of potential improvements, potential expansion scenarios, and implementation strategies. In addition, to identifying new and refurbished facilities that meet the needs of various programs and activities, there was an attempt to identify other important initiatives that might improve the overall performance of a property/facility including: improved turf conditions, improved parking, site access and circulation, and improved ancillary features and landscape qualities that establish the characteristics inherent in first-class park and athletic facility properties. Implementation of the improvements outlined in this Strategic Plan will require significant effort. The Funding Opportunities section of the report identifies potential granting agencies, non-profit entities, and other sources of capital dollars or in-kind services that might help with refurbishment of one or more of the properties.

It is important to note that a “master plan” is typically general and dynamic; as such, the recommendations are not “cast in stone”. It is fully intended that, as particular projects are implemented, the actual scope of improvements contained in this report will again be validated or refined to meet actual field conditions through a continuing dialogue with stakeholders.

Background

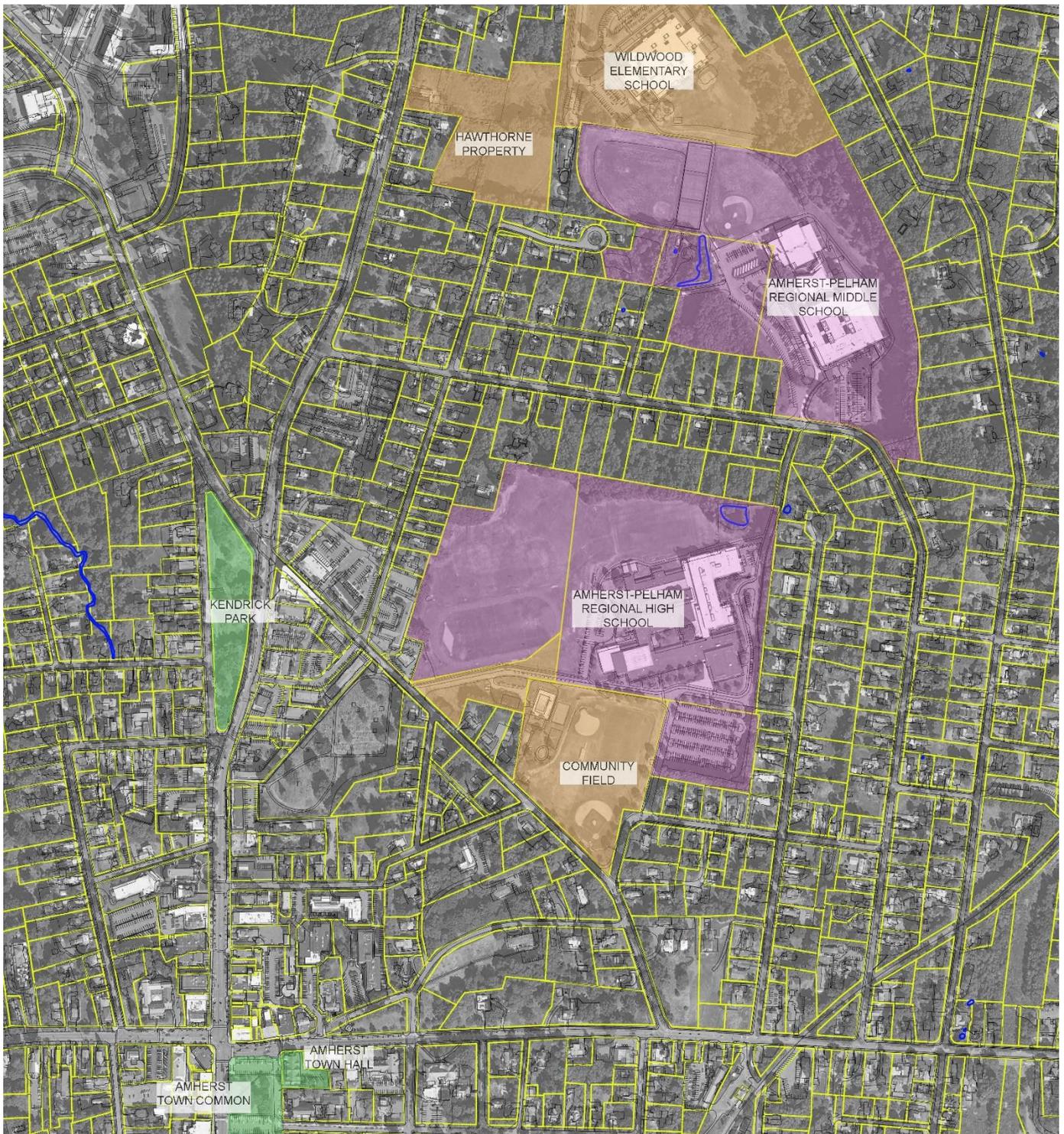
The Strategic Plan focuses primarily on six properties under control of the Amherst Pelham Regional School District or the Town of Amherst. The properties are clustered to the north of downtown Amherst and are in relatively close proximity to each other.

The list of properties and summary of basic assets is included below.

List of Study Properties

<i>Property</i>	<i>Address</i>	<i>Acres (*)</i>	<i>Description of Facilities</i>
<i>Amherst - Pelham Regional High School</i>	21 Matoon Street	10.8	The Region's major recreation facility containing the high school track & field facilities and four natural grass multi-purpose fields with athletic field lighting.
<i>Community Field</i>	21 Matoon Street and Triangle Street	7.8	The Town's major recreation facility containing the Stan Ziomek baseball field, a softball field, a natural grass multi-purpose field with a press box mainly used for football, War Memorial Pool and bathhouse, playground, one basketball court, and a small support building
<i>DPW Building/Property</i>	Matoon Street	1.2	Town-owned property adjacent to Community Field and the High School housing the DPW parks maintenance facility.
<i>Amherst Pelham Regional Middle School</i>	170 Chestnut Street	7.8	Middle School fields containing a full-size baseball field with a multi-purpose field in the outfield, a softball field with a multi-purpose field in the outfield, and six tennis courts.
<i>Wildwood Elementary School</i>	71 Strong Street	4.3	Town-owned property containing a natural grass multi-purpose field, two old little league fields, and two playgrounds.
<i>Hawthorne Property</i>	East Pleasant Street and Morrow Lane	6.6	Town-owned undeveloped land containing trails, stone walls, and remnants from prior use as a farm. The site provides a key connection from Morrow Lane to the Elementary School.

(*) Area dedicated to athletic facilities, not total size of property



The image above identifies an aerial view of the Town of Amherst. The locations of the core properties are indicated. The colors indicate the jurisdiction of the property. The purple shading indicates regional school district control and the orange shading indicates Town of Amherst control.

Other Study Reference Properties

The following properties were reviewed and considered for the Town-wide usage and demand analysis; however, they are not directly part of the study:

- Mill River Recreation Area
- North Amherst Field (Cow Field)
- Fort River Elementary School
- East Street School
- Kiwanis Park (Stanley Street)
- Groff Park
- Crocker Farm Elementary School
- Plum Brook (Potwine Lane)



Aerial Images, from left to right, of Mill River Recreation Area, Fort River Elementary School, and Kiwanis Park.



Aerial image of Amherst-Pelham Regional Middle School and Wildwood Elementary School fields and courts.

Basic Goals and Objectives

The basic goals of the strategic planning process, in relation to the properties referenced above, included the following:

- Engage representatives of field and park programs in an organized and thought-provoking dialogue in order to develop a series of concepts for the appropriate refurbishment, redevelopment, and/or expansion of all designated properties.
- Analyze current Town sports programming offerings and participation; identify shortages, limitations, and gender and sport inequities; and develop a strategy for providing new and refurbished facilities to specifically meet the burgeoning needs of various user groups, leagues, and activities.
- Provide universal, barrier-free access to all facilities and features located within a given property. Improvements will provide new opportunities for all park patrons, especially for the disabled and elderly within the community.
- Propose new amenities and facilities that are well-designed and self-sustainable; that are durable, long lasting, easily maintained with limited resources; economically feasible; and that may be implemented by using a combination of capital improvement funds and in-kind/volunteer services and donations.
- Developing plans that provide upgraded ancillary facilities such as drives, parking areas, pedestrian connections to facilities within the property, and appropriate linkages to adjacent facilities.
- Develop recommendations for operation and maintenance of proposed facilities.
- Establish revenue generating potential of the facilities, if designed for tournament ready play.

PUBLIC OUTREACH & DEMAND ANALYSIS

Informational Meetings & Public Comment

The strategic planning process included a series of informational and public comment sessions, with primary meetings identified in the chart located below. (Refer to Appendix for all meeting agendas and notes.)

<i>Meeting</i>	<i>Subject</i>	<i>Date</i>
<i>Recreation Working Group</i>	Project kick-off meeting, outline scope of work, and review project schedule requirements.	November 20, 2017
<i>Site Walks and Assessment</i>	W&S and staff visit each site and assess existing conditions.	November 29, 2017
<i>Initial Public Outreach and Input Meeting</i>	Review of initial mapping and field reconnaissance efforts, and receipt of comments regarding limitations and opportunities at all playing venues.	February 28, 2018
<i>Staff Meeting</i>	Debrief on initial public meeting, and discuss moving forward and initial concepts.	April 10, 2018
<i>Site Walks and Recreation Working Group Meeting</i>	W&S and staff visit site, discuss programming and use, and assess spring conditions. Review of initial site concept plans.	April 26, 2018
<i>Public Outreach and Input Meeting</i>	Open public meeting to review initial draft master plan concepts.	May 8, 2018
<i>Public Outreach and input Meeting</i>	Open public meeting to review the preferred master plan concepts and potential phase 1 area	October 3, 2018

Meetings with the Amherst Center Recreation Working Group were held in the First Floor Meeting Room at Town Hall or the Community Room at the Police Station; larger public meetings involving sports league stakeholders, elected officials, and members of the general public were held in the Town Room at Town Hall with the final meeting held at the High School.

Large-scale colored plans and PowerPoint presentations were used to communicate Strategic Plan findings, recommendations, and concept diagrams for each of the properties. Feedback from each meeting was generally constructive and positive, with most participants expressing keen interest in achieving dramatic improvements to the facilities and acquiring new facilities to provide enhanced conditions for all users. Some residents expressed concern over spending so much money on recreational improvements; however, most of the comments received after the public meetings supported improvements to the recreational facilities. At the first public outreach meeting, many patrons complained about the overall condition of the facilities and the Town's ability to fund the maintenance of new facilities.



Demand Analysis

The facilities analyzed are in use by the Amherst Pelham Regional Public Schools (Regional Schools) and the Town of Amherst. The Regional Schools serve the Towns of Amherst, Pelham, Leverett and Shutesbury and includes a diverse population of approximately 2790 students. In order to assess the best use of each property, it was important to consider the most pressing needs of the entire Amherst and Regional Schools community.

This Demand Analysis represents a synthesis of the information obtained during the hosting of information meetings and of the data generated during the strategic planning process. In order to compile the array of needs, a variety of methods and tools were used including those summarized below:

- Information obtained at informational meetings;
- Information obtained at meetings with all key stakeholder groups including schools, LSSE, and all other sports groups and organizations;
- Information and advice from the Town staff members, including all key departments since these individuals are charged with the programming, maintenance, and operation of all facilities;
- Anecdotal data gathered during the strategic planning process;
- Analysis and inventory of existing facilities and conditions throughout the Amherst parks system; and
- Use of recognized parks and recreation related standards and requirements.

Regarding the last two items in the bulleted list above, comprehensive inspections were conducted at each of the venues to inventory the quantity of various facilities and to assess their conditions. The physical condition of a facility can often be a strong indicator of the degree of use or overuse, especially in a community like Amherst where resources are expended to achieve quality playing conditions. Extensive wear and tear exhibited on a field always identifies a need, whether it is a need for additional fields to accommodate the sheer number of users, or the need for fields that are properly constructed and, therefore, able to be better maintained.



In the end, information compiled during the informational meeting process, the inventory of current facilities, and the analysis of existing conditions were most critical in determining the needs of the community. As some of the Town's playing field needs are met at dedicated school properties, the resulting Needs Assessment considers the inherent scheduling difficulties that occur when playing field venues must accommodate school-related activities and events first and foremost, while other Town youth sports leagues must fit their events in around the schools' schedules.

In addition, there is a general lack of dedicated rectangular-shaped fields that are available for the exclusive use of football, soccer, lacrosse, ultimate frisbee, field hockey, and other similar athletic programs. As a result, the sports programs that require rectangular-shaped fields often make use of "multi-use" fields that physically overlap baseball or softball field venues. Under this scenario, the overlapping nature of the field creates scheduling conflicts, creates physical conflicts if unlike activities are attempted at the same time, and ensures that facilities are in extremely high demand during all playing seasons. Maintaining turf under these conditions becomes a major challenge.



Community Field (photo at left) and ARHS main field (photo at center) and the Middle School baseball field are much loved and far too over-used and saturated to the point where maintaining quality playing conditions is impossible. Community Field and the Middle School field are examples of multi-use rectangular fields overlaid on softball and baseball diamonds.

It is also important to note that many respondents expressed an interest in the development or improvement of other ancillary facilities at the various playing field properties (e.g., support buildings, walking trails, backstops, fencing lines, parking areas, sports lighting, irrigation, basketball courts, children's playground equipment, shade elements, drinking fountains, restrooms etc.).

Other factors playing into the development of an appropriate recreation needs assessment for Amherst include the following:

Current Trends - The popularity of certain recreational activities decreases and increases over time. For instance, lacrosse and ultimate frisbee is experiencing incredible growth in many New England communities, including the Amherst region. Soccer continues to maintain great popularity with more than 700 participants.

American colleges, through their admissions policies, increasingly promote the need for well-rounded students who are immersed in both academics and extra-curricular activities. This, in addition to a national movement toward improving "wellness" through improved diet and exercise, has been cited as a possible contributor to the increase in athletic participation rates in many suburban communities, including Amherst.

Increasing Athletic Field Usage – Whether it is due to the increase in the popularity of athletics, enactment of Title IX for women's sports, more children playing sports, region usage, or a combination of the three, the number of the users at the playing field venues is increasing. The construction of new venues has not kept pace with the increased participation rate. And, with modest numbers of maintenance support staff for the Schools and Town, it is easy to see why poor field conditions prevail at numerous locations.



Field Use Analysis - Weston & Sampson concludes that some of the fields are used more than 150% of their safe use annually. This does not include outside regular events such as the rentals, passive recreation, or other informal events that may occur. Refer to Appendix B for a detailed table of field usage. The following is a summary of the average study field use:

- The 8 core study fields (High School Fields #1, #2, #3, #4, Community Field, Middle School Field #1 and #2, and Wildwood Elementary School Field) were used an estimated 3776 hours, there was an average of 472 hours per field annually. This number is skewed, however because some fields were used over 600 hours each and some under 200 hours annually.
- More than 3465 participants used the study fields during the year for an average of 433 participants per field during the calendar year.

To provide a better understanding of the analysis and recommendations in this report, it is useful to compare the industry standard recommendations with the assumptions used in this report. The industry standards and report assumptions can generally be divided in two categories: "ideal utilization" and "realistic utilization" assumptions. The list below outlines some of the ideal recommendations of turf professionals regarding the use and maintenance of the athletic fields. Note that "industry standards" refers to the general beliefs from turf professionals (Sports Turf Managers Association (STMA), Turf Magazine, professional designers and various turf professors at Universities) based on experience, research and testing.

The following are considered “ideal utilization” of natural grass athletic fields:

- Make every effort to begin each season with 100% turf coverage.
- Industry field and turf professionals recommend limiting field event scheduling to 25 to 50 events (100 to 250 hours) of use per year. Natural turf areas become noticeably thin and bare beyond this limit and unable to recover.
- Each field should receive at least eight (8) weeks rest (no use at all) during the active growing season each year to allow the turf to rejuvenate prior to the next year’s use.
- Each field should receive one inch minimum of water, through rain or irrigation, each week, to maintain healthy and vigorous growth.
- Turf should receive the same level of industry recommended maintenance during active, inactive, and field rest periods.
- Each field should receive one (1) full year of rest with a full rejuvenation program every four (4) years to permit turf to be revitalized and to develop a sufficient “thatch” layer. Although seasonal thatch removal is a normal part of turf maintenance, athletic fields require a certain thickness of thatch to protect roots from players’ cleats, to maintain moisture, and to cushion players from injury.
- Football, soccer, and lacrosse tend to be more damaging to turf than other sports such as baseball and softball. Therefore, to prevent overuse of natural turf, a shared use field (i.e., soccer teams using baseball outfields) tends to be discouraged by field maintenance professionals.

While the above recommendations are “ideal utilization”, Weston & Sampson believes that it is unrealistic for most municipal recreation and maintenance departments to administer these “ideal” recommendations as a whole. Fiscal budget, personnel and facility supply limitations require a more “realistic utilization” of athletic fields.

Listed below are industry standard recommendations for realistic utilization:

- Make every effort to begin each season with 100% turf coverage.
- Field scheduling should be limited to 75% to 90% of maximum capacity per week to allow sufficient rain date game replays; allowance for field, player, and equipment setup/takedown time; and some measure of in season field rest.
- Limit use of each sufficiently maintained natural turf field to 500 to 600 hours of use per year.
- Sufficient field quantities should exist to permit each field at least four (4) weeks rest (no use at all) during the active growing season each year to allow the turf to rejuvenate prior to the next year’s use.
- Fields that are not irrigated should be scheduled for minimal use during the summer season with play rotated frequently during the season to minimize turf damage or provide on-site irrigation or watering systems for each Town field. Exceptional damage occurs easily with use during hot and dry summer months.
- Maintain sufficient thatch levels and vigorous turf. All fields should receive the industry- recommended levels of maintenance throughout the spring and fall growing seasons.
- Play on multi-use fields should be routinely rotated, where possible, to minimize areas of turf damage and wear.
- Fields should be aerated and slice-seeded as necessary to ensure adequate root growth and turf coverage.

Given these factors, and because of the survey and strategic planning process, many basic needs have been identified, as summarized below:

AMHERST'S PLAYING FIELD NEEDS
Renovated Playing Venues to Accommodate Usage
Fewer overlapping / Multi-use Fields
Opportunities to Rest Fields
Improved Ancillary Facilities (Irrigation Systems, Bleachers, Backstops...)
Lighting to expand Period of Usage
More Funding for Basic Field Maintenance and Improvements
Increased Staffing Levels to Maintain Fields
New Capital Funding for Major Improvements at Field Properties

It is anticipated that the Town and Regional Schools will require additional facilities in the future to meet the continued Town-wide increase in sports activity participation rates. The “preferred” plans developed for each of the athletic field sites attempt to address the needs that are most pressing, most widely supported and most realistic given the nature of the properties that are available and given the fiscal realities of the community. However, since land is tight at all venues, there are limited realistic opportunities for field expansion at existing facilities, which will cause Amherst representatives to look to other potential open space properties to seriously address the poor playing conditions and lack of venues that characterize the system. There is also a need to limit the distance and amount of travel time for High School and Middle School athletic programs. Relying on the refurbishment of existing facilities alone is risky, as capital investments may deteriorate rapidly unless the rates of use can be significantly curtailed at each playing venue.

SITE BY SITE ANALYSIS & RECOMMENDATIONS

Overall Recommendations – General Themes for all Sites



The strategic planning effort presents a unique opportunity for the Town of Amherst to assess their major park, recreation, open space, and athletic facility properties and develop a series of thoughtful and achievable enhancements to these spaces that will provide benefits to all members of the community.

In undertaking this planning process and developing the concept plans, several basic, recurring themes for improvements became apparent. In this section, we summarize these basic themes which can be implemented as capital improvements are planned and constructed at many or all of the properties in the Strategic Plan.

Pathways, Trails & Picnic Areas – Throughout the public input sessions of the strategic planning process, many stakeholders sought improvements designed for multi-generational use of the parks. One consistent theme from the user-survey was a request for amenities that would serve all ages. The preferred Master Plans call for incorporating new and upgraded pathways and trails, as well as picnic areas at all park and school locations. These types of passive recreational amenities provide opportunities for residents of all generations, backgrounds, and abilities to enjoy and they complement the traditional active recreational facilities located at these same properties. At most sites, pathways can be constructed in compliance with accessibility regulations since most of these sites have an abundance of gentle terrain and few extreme slopes. Pathways (especially pathways that form a loop around the perimeter of a property) are attractive for walking, jogging, skating, and biking and often become one of the most appreciated park amenities. We recommend the following improvements to enhance the park user experience, offer additional conveniences, and promote environmental stewardship in conjunction with the installation of new paths and trails.

- Install measured markers around loop paths to facilitate individual exercise programs, regardless of the varied overall length of the existing and potential loop paths at each site.
- Provide multi-generational fitness stations either in “pod” areas or regularly spaced along the loop paths.
- Place benches for rest and/or interaction at logical social gathering points along pathways and trails, and within other peaceful and attractive settings.
- Install interpretive signage to describe a site’s unique natural, cultural, and/or historical characteristics.
- Provide tree plantings to lend greater shade to the pedestrian corridors, provide enhanced wildlife habitats, and improve overall site aesthetics.
- Provide picnic areas where applicable and upon request.
- Place drinking fountains with bottle filling stations and pet friendly features within various park settings and along pathways, especially on longer trails where dehydration could be an issue.



Access and Linkages – Another important improvement type includes provisions for new and improved access to the properties, by foot, and by car. This can be accomplished by providing convenient and appropriately scaled parking amenities, reducing conflicts between pedestrians and drivers, and providing logical ADA-compliant linkages between various site features and facilities within a given space. The preferred Master Plans identify a series of improvements that focus on the primary park entrances and parking areas near the core of each property. Our primary recommendations for improvements to enhance park access and linkages include the following:



- Eliminate any badly deteriorated and difficult-to-maintain existing conditions.
- Develop new park entrances and reconfigure drives/parking areas to provide clear travel patterns, clearly defined parking spaces, more efficient use of the overall space, and more parking spaces.
- Establish pedestrian connections from all reconstructed parking areas to provide safe, convenient, and ADA-compliant access to all major park facilities and park areas.
- Reconstruct the parking areas to include new pavement or porous surfaces, low-impact approaches to storm drainage, curbing, edges, and striping to achieve ADA compliance.
- Install traffic-calming measures to slow vehicular traffic and provide for safe pedestrian movement throughout the area (e.g., speed bumps, tabled (or raised) crossings, and special surface textures and colors to delineate areas of pedestrian use and traffic-related signage.



Pedestrian/maintenance circulation at J.J. Lane Park in Natick, MA | Princeton Soccer Fields in Princeton, MA | Cushing Park in Framingham, MA (Weston & Sampson)

Athletic Fields and Courts – The strategic planning process identified the critical need for new and refurbished athletic facilities (i.e., fields, diamonds, courts, etc.) to better support the myriad of sports programs that operate within the community. Based on participation rates for various activities, Amherst does not have enough fields to accommodate the large number of users. The resulting problem is two-fold; with heavy programming/overuse and limited facilities, the Town cannot serve their recreation programs adequately, and appropriate field conditions cannot be maintained. To this end, we have structured the preferred Master Plans for various properties to:

- Recognize the desire of community members to provide attractive, first-class sports facilities that can be maintained with reasonable ease in a manner that fits the Town's (and league's) operation and maintenance abilities;
- Identify the need to develop facilities that are properly oriented, properly designed, and contain appropriate setbacks and buffers to ensure user safety;
- Recognize the surrounding land use context and the need to be a good neighbor by developing safe, attractive park and recreation amenities that respect the needs of abutting property owners; and
- Provide perimeter fencing and appropriate gates to enclose the facilities, limit access, control use, and help maintain high-quality court, turf, and infield surfaces.



Ty Cobb Field, Worcester, MA



New basketball facilities at Lake Street Park, Waltham, MA | new sports field lighting at Ware Memorial Field in Ware, MA (Weston & Sampson)

Advantages and Disadvantages of synthetic turf and natural turf

With the increasing popularity of youth sports and the high demand of fields and field maintenance, many communities are installing synthetic turf fields to handle the increase in user demand. Synthetic turf is extremely durable, long lasting and easy to maintain, making it a reliable field, when other natural turf fields are being over used with little to no rest creating safety hazards and poor playability. Below are a list of the advantages and disadvantages of each field type.

SYNTHETIC TURF FIELD	
ADVANTAGES	
Lower Maintenance Costs	Synthetic turf requires much less yearly maintenance which includes grooming the field every 100 hours of play, top dressing the infill every 2-3 years, and annual G-MAX monitoring. Annual maintenance costs can range from \$15,000-\$25,000.
Playing Time	Due to the durability, synthetic turf can be utilized up to 3,000 hours of play per year and can be played on in most weather conditions. Extended play seasons - can usually play March to December
Environment	An average synthetic turf field uses about 10,000 gallons of water per week, saving about 40,000 gallons per week compared to a natural turf field. Also, the need for harmful pesticides and fertilizers is eliminated.
Fewer Injuries	The even playing surface creates fewer injuries compared to the uneven surface of natural turf where dips and patches form and are enhanced during wet conditions creating mud and slipping hazards.
DISADVANTAGES	
Initial Costs	The initial costs can be 3-4 times that of a natural turf field
Abrasive	Synthetic turf has been known to be more abrasive than natural turf, resulting in more turf burns on the player's skin.
Heat Hazards	Synthetic turf has heat absorbing properties
Replacement Costs	The replacement costs are a lot higher for synthetic turf and can reach up to approximately 75% of the initial investment

NATURAL TURF FIELD	
ADVANTAGES	
Initial Cost	The initial cost of a natural turf field is about one third of the cost of a synthetic turf field
Performance	Natural grass creates more friction than artificial turf, a factor that accelerates rates at which objects move across its surface. In a game such as baseball or soccer, reduced friction means ground-based plays that may be easy catches on natural grass are more difficult on artificial turf.
Replacement Costs	The replacement costs are similar to the initial costs, which are much lower than the cost of replacing a synthetic turf field.
DISADVANTAGES	
Maintenance Costs	Annual maintenance costs for a natural grass field can be more than three times that of a synthetic turf field. These costs include mowing, watering, fertilizing, aeration, seeding and labor.
Playing Time	Natural turf should not be played on more than 700- 800 hours per year, limiting the amount of use it gets. If a natural turf field is being played on more than the recommended amount, there is less rest/ recovery time for the grass, resulting in more safety hazards and poor playing surfaces. Natural turf is also restricted by the weather condition. Must wait until after mid-April to play most years
Environment	An average natural turf field uses about 50,000 gallons of water per week during the growing season. Also, natural grass fields require pesticides and fertilizers which are harmful to the environment

Reasons for Regional Schools to install a synthetic turf field:

- Increased availability of school athletic facilities for community use
- Expanded partnership with local youth sports programs
- A necessity for athletic competition and adequate preparation
- Extension of seasonal field usage (March-December in comparison to mid-April through November)
- Solution to New England weather (Practice/compete on fields earlier in the Spring, allowing for competition on wet, rainy days; natural turf fields require cancellation in most cases)
- Flexibility in scheduling practices and games; opportunity for longer time slots, necessitated by increased numbers of student-athletes
- Ability to rest the natural turf fields for proper maintenance
- Provide an equitable playing surface for our student-athletes from comparable youth and high school towns and athletic programs
- Provide continuity for youth players who are playing on synthetic turf and future collegiate athletes who will be playing on turf at the NCAA level
- Potential for revenue-generating opportunities through community and private use
- Ability to host regional tournaments
- Pride in school, athletic, and community facilities

We recommend the installation of at least one synthetic turf field at Amherst Pelham Regional High School. This will allow for school teams to use the field in early March and into late November when high school athletics generally occur. It is difficult for high schools to start the season in mid-April since it is so close to the end of the school year. Due to current natural turf conditions, the fields cannot be used prior to April and have not been available most of the fall season. This will also allow the school to use the field in the winter for other activities if the weather allows. Many schools use their synthetic turf fields throughout the winter months during mild weather conditions.

Children's Playgrounds – Playgrounds provide a destination for neighborhood children and their parents, often becoming hubs of community life. These playgrounds provide opportunities for the siblings of children involved in other recreational activities at these properties like baseball, soccer, or lacrosse. The preferred Master Plans call for new or relocated playgrounds at some park and school locations.

Our general recommendations for the proposed play areas at each of the park locations include:

- Installation of new, attractive, and exciting play equipment and swings that appeal to various age groups;
- Installation of new and/or expanded playground infrastructure, including ADA accessible inclusive play, edging, surfacing, and utilities;
- Enclosing play areas designed for younger children with attractive fence treatments;
- Installation of seating, signage, and other furnishings; and
- Installation of trees, landscaping, shade shelters, and picnic areas.

Safety surfacing should include a combination of poured-in-place rubberized surfacing in critical fall and landing zones and engineered wood fiber for the rest of the playground areas. New and improved play areas must be compliant with all ADA requirements, such as providing play equipment for children of all abilities, providing proper access and surfaces, and meeting all current CPSI safety regulations. In addition to new play equipment, we recommend that all required utility infrastructure (drainage, sub drainage, water service, etc.) be in place and that new site furnishings, including park benches, drinking fountains, signage, trash receptacles, tree plantings, and related landscaping be included in all playground refurbishment efforts.



Playgrounds at Bay View Academy Riverside, RI | Children's Grove at Cushing Park in Framingham, MA | Menino Park in Charlestown, MA (Weston & Sampson)



J.J. Lane Park in Natick, MA | Sandy Beach Park in Hopkinton, MA | Stock photo of picnic shade shelter (Weston & Sampson)

Support Buildings – We have indicated potential locations for new park support buildings on the preferred Master Plans for many of the properties. New or updated support buildings should contain restrooms and storage accommodations. Where appropriate, larger structures could be designed to contain concession stands or office/meeting spaces. Sheltered/screened porta-john structures could be a practical alternative to support buildings at certain sites. In Section – Needs Assessment, we discussed the issues surrounding the development of park support buildings.



Informal Playing Fields – All communities need fields/areas that can support informal play for pick-up games, informal practices, kite flying, frisbee tossing, etc. The proposed Master Plans address these needs, as space allows. When left unprogrammed, some fields can be used for open play. The town may want to have the ability or options to limit this use, however, to occasionally rest the fields in the same way as they do the actively programmed fields.



Basic Park Aesthetics and Inherent Natural Qualities – The preferred Master Plans identify improvements that help to protect, preserve, and enhance the aesthetics and inherent natural qualities of each property, while improving sustainability in terms of the environment and maintenance. Recommendations that focus on improving the overall aesthetics of the individual park properties include certain basic elements, identified below. Please note that the Town can implement these types of improvements as funds become available within certain geographic sections of the parks. It is important to establish a standard visual appearance that becomes recognizable as the Town of Amherst’s “look.” This standardized motif would allow for improved overall park aesthetics and ease in completing potential repairs, replacements, or expansions at a particular facility or feature. To achieve these goals, our recommendations include:

- Enhancing recreation property edges by providing new fencing, tree plantings, and associated landscaping;
- Removing, replacing, and/or upgrading interior park fence lines and deteriorated systems with more visually appealing alternatives;
- Enhancing and upgrading the surroundings of buildings and play areas;
- Establish the “Carry in – Carry out” rule at all passive sites;
- Undertaking park-wide planting and vegetation management programs that include removing invasive or diseased tree/shrub species, pruning desirable species, and installing new plantings to lend shade, better define spaces within each park, improve park aesthetics, and enhance wildlife habitats where possible;
- Providing coherent, cohesive information and installing interpretive signage Town-wide and throughout each park
 - Establishing a consistent theme that becomes easily recognizable as Amherst’s motif
 - Providing distinct signage at historical sites that sets them apart, yet still resembles the general theme of Amherst’s signage;
- Installing additional site furnishings park-wide (e.g., benches, picnic tables, shade shelters, bike racks, etc.) to offer conveniences to park users and improve park aesthetics.



Utility Upgrades – As capital projects are planned and implemented, it will be important to confirm requirements for utility infrastructure upgrades to ensure that existing systems are replaced in a timely fashion and do not disturb recent or future park improvements. The master plans identify the following primary objectives:

- Provide wells (where feasible) for new or refurbished bathrooms, concessions stand, and field irrigation systems.
- Improve stormwater management systems to replace deteriorated facilities and develop stormwater management techniques that are environmentally friendly and appropriate within the context of each particular site. In accordance with best management practices, new systems are generally required to disperse stormwater within a site and return stormwater to the soils located below, in lieu of directing untreated runoff to nearby wetlands, roadways, or parking areas.
- Move overhead electric services to below ground to improve site aesthetics and comply with the requirements of various granting agencies.

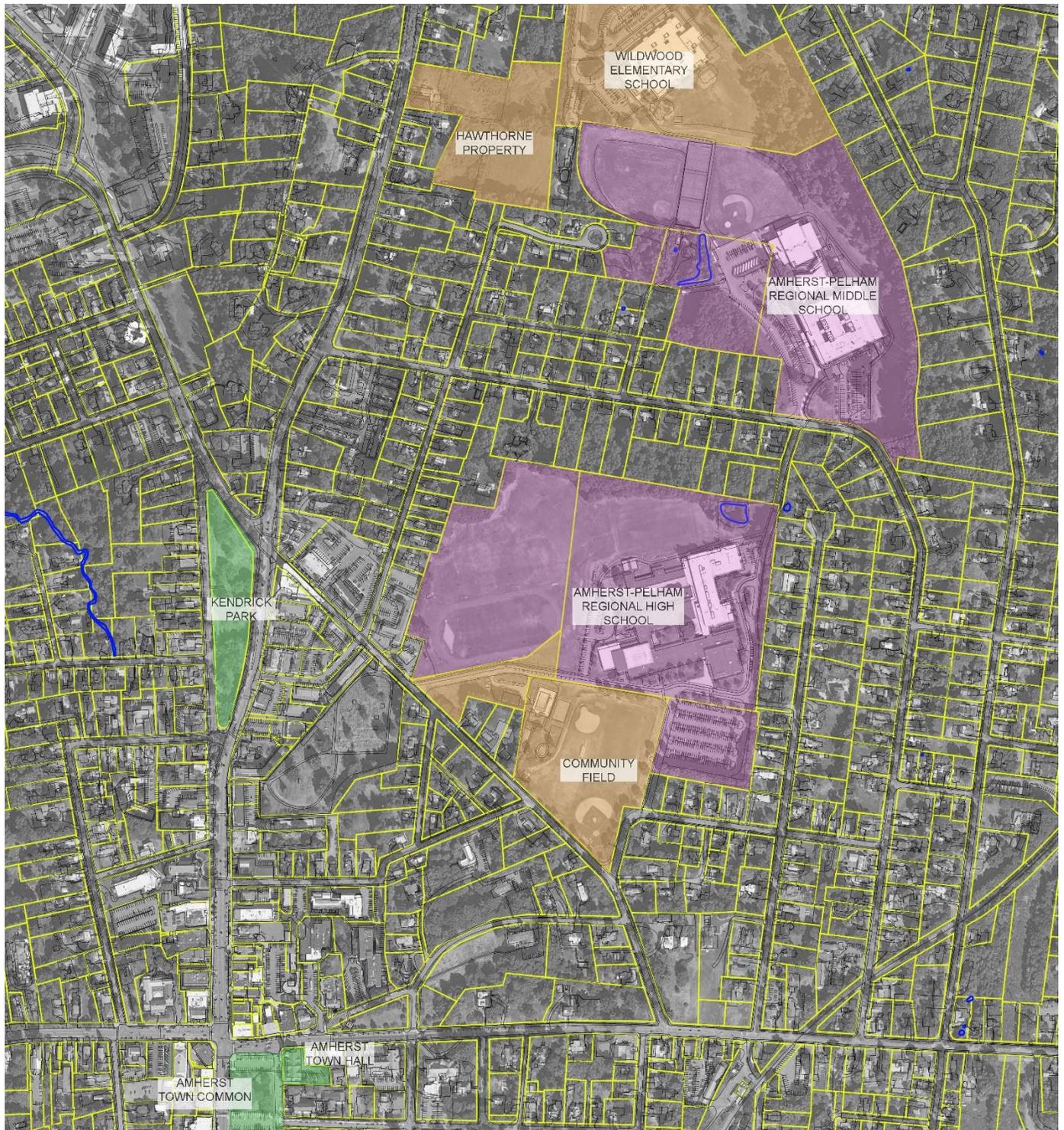
Site Analysis & Recommendations

The preferred Master Plans included on the following pages identify the proposed configuration of the site features at each individual property. It is important to note that most recommendations suggest the refinement, enhancement, or refurbishment of existing facilities within the properties. However, the plans also recommend the development of a modest level of new facilities and amenities that would provide new or expanded opportunities for public use and enjoyment. Importantly, if additional sites become available to the Town, the new recreational amenities at these new locations could alleviate/eliminate problems at other Recreation and Parks and School properties.

The following profile sheets articulate the properties that are not used to their full potential. These properties are valuable assets to the Town of Amherst and, if properly redesigned, could provide more meaningful recreational value to the Town. These properties include, but are not limited to:

- Amherst Pelham Regional High School;
- Community Field;
- DPW Building/Property;
- Amherst Pelham Regional Middle School;
- Wildwood Elementary School; and
- Hawthorne Property.

It is important to note that Town representatives have provided a significant amount of input and many suggestions during the strategic planning development and review process. In addition, the public at large contributed to the development of the preferred plans by offering their advice at several well-attended hearings. We have developed short narratives to introduce and support each preferred Master Plan, which graphically depicts the basic scope of improvements. We have included larger existing conditions and preferred Master Plans in the Appendix.



The image above identifies an aerial view of the core area of the Town of Amherst. The locations of the properties are indicated. Note that many of the facilities are near the center of town.

AMHERST-PELHAM REGIONAL HIGH SCHOOL- EXISTING

Basic Site Description and Location

Amherst-Pelham Regional High School is located on Matoon Street. Included in the site is the High School Track with central game field. As well as a large open field area located in the back consisting of practice fields. This image shows an aerial view of the site, which contains:

- High School Running Track and Field Facilities
- Central Multi-Use rectangular field #1 – primarily used as a game field
- 3 natural grass multi-use fields #2, #3, and #4.
- One 250 car parking area and one 54 car parking area shared with the High School and Community Field



Programmed Uses

- ARHS Boys & Girls Soccer
- ARHS Cross Country Boys & Girls
- PE Class
- Amherst Invite Ultimate Tournaments
- ARHS Ultimate Frisbee Boys & Girls
- LSSE Sugarloaf Youth Track
- ARHS Track & Field Boys & Girls
- ARMS Track & Field Boys & Girls
- ARHS Girls Field Hockey
- ARHS JV Soccer Boys & Girls
- ARHS Girls LAX
- Amherst Youth LAX
- LSSE Soccer Camp
- ARHS Football Practice
- ARHS Boys Varsity/ JV LAX



Track and Multi-Use Field #1



Overall image of Track and Multi-Use Field 1 (left photo), the poor surface condition (middle photo,) and the consistent cracking and damaged areas of the track (right photo) have resulted in the track being unusable for league and tournament meets. Note the lack of ADA accessibility at the site as shown in the panoramic photo on the previous page.

Back Multi-Use Fields #2, #3, and #4.



Back Multi-Use Field #2 (left photo), Back Multi-Use Field #3 (middle photo), and Back Multi-Use Field #4 (right photo).

Summary of Existing Conditions

The Amherst- Pelham Regional High School is widely used by the entire community and the region. Due to its location and relation to the schools, multiple school groups and a wide range of user groups vie for use of the facilities with a high demand for play time. The fields suffer from overuse. The primary issues of concern for this site include:

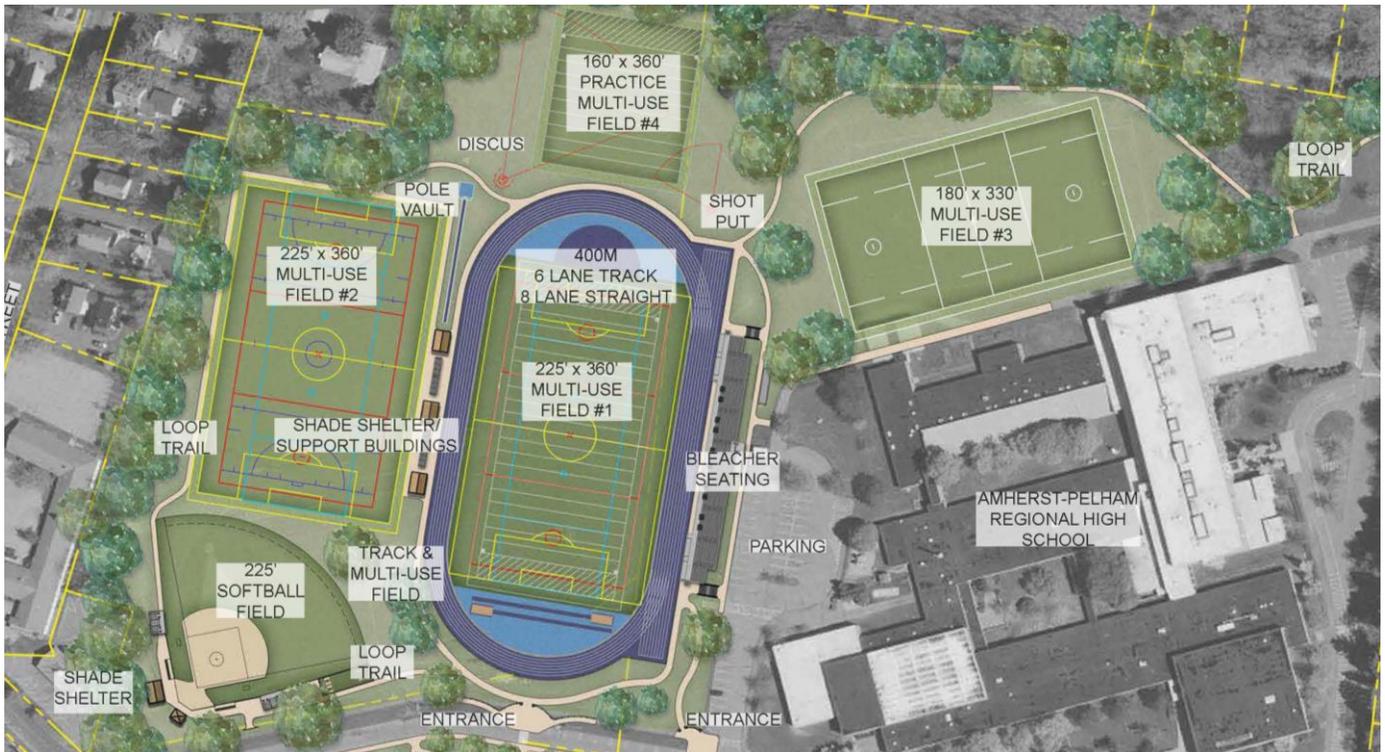
- The fields are overused, and this usage exceeds their capacities.
- The fields are poorly oriented, three of the four are at an east-west orientation, requiring players to face the setting sun later in the day.
- The space at the site is not fully utilized and lacks multi-generational facilities for community-wide use.
- The turf conditions are mostly poor to fair at the fields.
- The facility lacks adequate seating and access pathways sufficient for ADA requirements.
- There are serious drainage issues at the fields, with standing water observed during site visits.
- There are no ADA parking spaces for the field facility and parking, in general, is lacking.
- There are no ADA connections between the existing parking lot and the field facilities.
- The fencing is in relatively poor condition and needs replacement.
- Tan Book is culverted under the High School fields. Consideration needs to be made to properly address this for proposed improvements.

AMHERST PELHAM REGIONAL HIGH SCHOOL- PROPOSED

Recommended Improvements

The recommended improvements include relocating and reconstructing the High School Track and central Multi-Use Field #1, improving the natural turf to increase the amount of play for each field, as well as improving the playability and safety for the players. Also, by re-orienting the track it allows for a larger Multi-Use Field #2, Multi-Use Field #3, and Multi-Use Field #4 becomes a half size practice field. These improvements also allow for the Multi-Use Fields to be laid over with multiple game fields. In addition, a 225' Softball Field has been incorporated within the area of the site. The addition of these fields could allow for additional larger Multi-Use Fields to be created in the Community Field side of the site.

Recommendations Summary



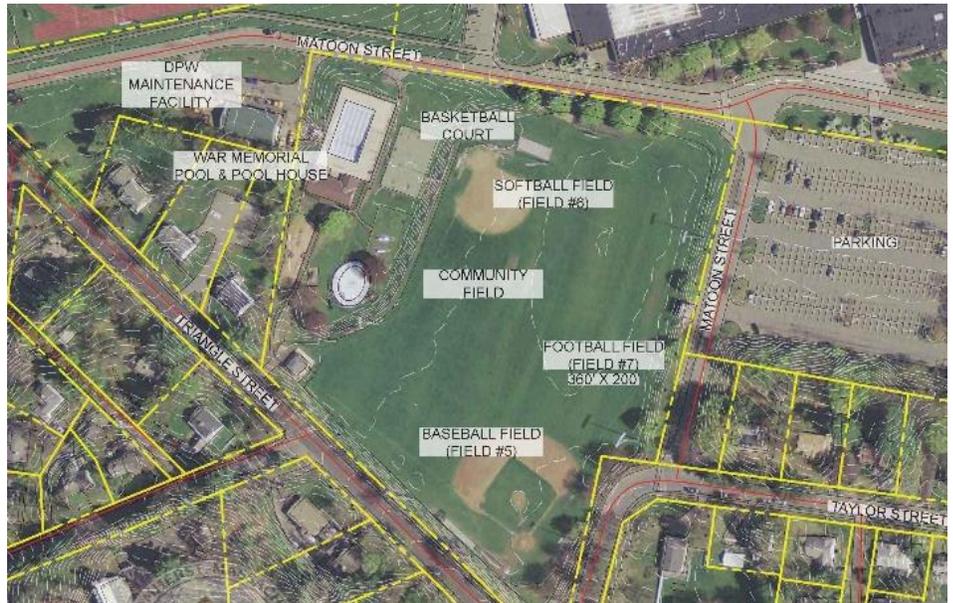
- Construct the relocated 225' Softball Field.
- Reorient and construct a new High School Track and central Synthetic Multi-Use Field #1.
- Bleacher seating area with accessible press box
- Expand the Multi-Use Field to create a usable-size field
- Construct the additional Multi-Use Fields.
- Use engineered rootzone mix and sub-drainage to improve turf conditions.
- Upgrade the irrigation system for efficient, comprehensive watering of all turf areas
- Create new accessible pathways throughout the site to connect the fields; these paths could also be used as an education trail by adding interpretive signage regarding wetland and woodland wildlife habitats.
- Upgrade all dugouts and add accessible spectator seating where appropriate.
- Install shade shelters with picnic areas near the spectator areas for the fields.
- Upgrade the entrances with attractive signage, add new native plantings, and remove diseased, damaged, or invasive plant species throughout the site.
- Integrate trees throughout the site to provide shade.
- Improve access and pathways systems.
- Provide ADA accessibility to all facilities, spectator seating and viewing areas.
- Add support structures as necessary.

COMMUNITY FIELD AND DPW SITE- EXISTING

Basic Site Description and Location

Community Field and DPW Site is located on Matton Street and Triangle Street, and is shared with Amherst-Pelham Regional High School as well as the Town. Included in the site is a Baseball Field, Softball Field, Football Field, Memorial Pool and Pool House, and a DPW Maintenance Faculty. It offers a wide variety of recreation activities in all seasons. The image to the right shows an aerial view of the site, which contains:

- Baseball Field #5
- Softball Field #6
- Football Field #7
- Basketball Court
- Playground
- War Memorial Pool & Pool House
- DPW Maintenance Facility
- One 250 car parking area and one 54 car parking area shared with the High School and High School Fields



Programmed Uses

- ARHS Varsity Baseball
- Amherst Baseball INC. (Youth Baseball)
- LSSE Youth Baseball Camp
- LSSE SAFL Youth Football
- ARHS JV/ Varsity Football
- AYBL
- ARHS Varsity Softball
- LSSE Flag Football League
- LSSE Flag Football Camp



Site Accessibility



Access to Community Field from Matoon St. (left photo), poor ADA accommodations (middle photo,) and access from Triangle St. (right photo).



Many of the facilities in the study are not ADA accessible or easily accessed by the elderly. Community Field softball field (left), Stan Ziomek Field (center), and the High School track area (right) where the fields lack accessible routes and spectator viewing areas.

Baseball Field #5, Softball Field #6, and Football Field #7



Softball Field #6 (left photo), poor conditions at the players areas at Baseball Field #5 (middle photo), and safety issues at Baseball Field #5 (right photo).

DPW and Pool House area



DPW Maintenance area (left photo), poor surface condition of basketball court (middle photo), and outdated play equipment and pool house areas (right photo).

Summary of Existing Conditions

Community Field is widely used by the entire community. Due to its location and relation to the schools, central location in town and available parking, multiple school groups and a wide range of user groups vie for use of the facilities with a high demand for play time. Many of the fields suffer from overuse and, with the athletic field lights, the duration of play throughout the day continues into the night. The primary issues of concern for this site include:

- The fields are overused, and this usage exceeds their capacity.
- Fields are prone to flooding and are wet in the spring.
- There is no ADA access for these facilities, and there are no formal handicapped viewing areas.
- There are no ADA connections between the existing parking lot and the field facilities.
- Press box, buildings and bleachers are tired and in need of replacement.
- The sports lighting is in good condition and could be relocated if needed.
- Courts and playground are neglected and unsafe for play.
- The poolhouse/concessions building is beyond its useful life.

COMMUNITY FIELD AND DPW SITE- PROPOSED

Recommended Improvements

The recommended improvements include the renovation of Existing Baseball Field #5, as well as amending the existing practice areas suitable for safe play. By relocating the Softball Field #6 and Football Field #7 to the Amherst- Pelham Regional High School site to the North, it opens the area to add additional rectangular Multi-Use Fields. With the proposed design, it opens a variety of layouts taking full advantage of the space. The addition of another full-size multi-use rectangular field in the Community Field area is feasible, as well as a variety of connecting trail systems between and around the sites. Also, the proposal includes relocating the War Memorial and upgrading the Pool House to use as potential restroom facilities when the sites are in use. Fitness circuits, Basketball Courts, Playground, and Splash Pad areas would also be proposed for the DPW Maintenance area.

Recommendations Summary

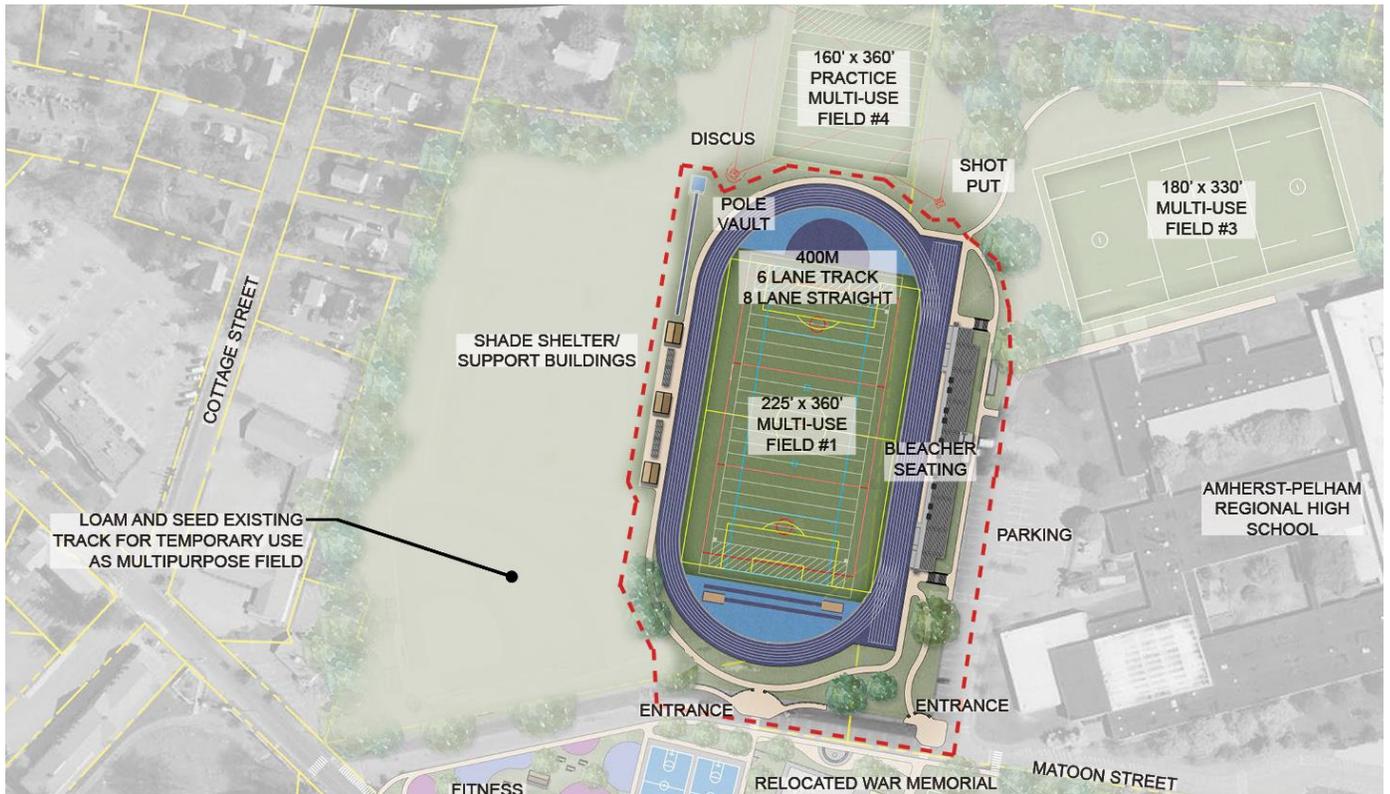
- Expand and amend the existing practice Multi-Use Fields.
- Renovate the Baseball Field while moving it about 20 to 30 feet from Triangle Street.
- Upgrade the irrigation system for efficient, comprehensive watering of all turf areas
- Add ADA-compliant multi-generational pathways looped around fields as available for those who cannot use the steeper trails.
- Add spectator seating and other amenities.
- Install new shade shelters with picnic areas.
- Upgrade the entrances with attractive signage, add new native plantings.
- Provide ADA accessibility to all facilities, spectator seating and viewing areas.
- Integrate trees throughout the site to provide shade
- New Pool House, locker room, storage facility for more general use
- Upgrade Playground
- Proposed Splashpad Area
- Upgraded Basketball Courts
- Fitness Circuits



AMHERST PELHAM REGIONAL HIGH SCHOOL- PROPOSED PHASE 1

Recommended Improvements

The recommended improvements include relocating and reconstructing the High School Track and central Multi-Use Field #1, improving the natural turf to increase the amount of play for each field, as well as improving the playability and safety for the players. These improvements also allow for the Multi-Use Fields to be laid over with multiple game fields. The addition of this facility could allow for larger Multi-Use Fields to be created in the Community Field side of the site.



Recommendations Summary

- Reorient and construct a new High School Track and central Synthetic Multi-Use Field #1 with bleacher seating.
- Create new accessible pathways throughout the site to connect the fields; these paths could also be used as an education trail by adding interpretive signage regarding wetland and woodland wildlife habitats.
- Upgrade all dugouts and add accessible spectator seating where appropriate.
- Loam and seed existing track area for temporary use as a multipurpose field.
- Install shade shelters with picnic areas near the spectator areas for the fields.
- Upgrade the entrances with attractive signage, entrance features, add new native plantings, and remove diseased, damaged, or invasive plant species throughout the site.
- Integrate trees throughout the site to provide shade.
- Improve access and pathways systems.
- Provide ADA accessibility to all facilities, spectator seating and viewing areas.
- Add support structures as necessary.

Cost Considerations – Potential Phase 1

The potential cost for proposed phase 1 program could range depending on several factors such as:

- Building style
- Type and size of press box
- Entrance feature design
- Type of track surface material and track facilities
- Type of field, synthetic vs. natural turf and design of either system
- Type, quantity and style of amenities such as shade shelters, drinking fountains, fencing, benches and bleachers
- Timeframe of construction

Through cost evaluation for the proposed program, we anticipate the potential cost to fall within the following range:

- High: \$6.2 Million
- Mid: \$4.6 Million
- Low: \$3.9 Million

We also investigated the cost of renovating the track and field “in place” and adding bleacher seating. This cost is estimated to be \$2.8 Million. This only includes the track replacement, installation of a synthetic turf field inside the track, associated spectator seating and access. It cannot be compared with the program for the full reconstructions outlined in the potential phase 1 program.

However, we do not recommend this approach for the primary reason that it will not relieve the orientation issue of both facilities and will not allow for an additional properly sized and oriented multi-use field.

These cost evaluations are based on a potential construction project to occur within one year of this report. If the project were undertaken at a later date, the town should anticipate a 10% increase in cost per year.

On the following page we have provided a detailed cost evaluation of the mid-range cost for the potential phase 1 program.



Track and multi-use field existing conditions to show the drawbacks of reconstruction in-place

Athletic Facilities Strategic Plan

The following pre-design program Budget Summary is an example estimate and identifies the initial breakdown of costs associated with the planned phase 1 program. All costs have been rounded and are estimated based on our previous experience with similar projects.

ITEM	DESCRIPTION		COST
Site Estimated Hard Costs:			
Mobilization, Overhead, Profit*		\$585,000	
General Site Preparation	Temp Controls, erosion controls, etc.	\$40,000	
Earthwork	Rough Grading	\$50,000	
Synthetic Turf Field	New synthetic turf field within the new walking track, scoreboard, goals	\$1,200,000	
Track & Field	New resilient surface track and all field amenities including shot put, discus, pole vault, long jump and triple jump pits.	\$885,000	
Bleacher System	Bleachers including access and press box	\$450,000	
Sports Lighting	New athletic field lighting, service, cabinet etc.	\$380,000	
Walkways & Plazas	Entry plaza, loop and circulation pathways	\$85,000	
Fencing & Walls	Repair of Front wall and new perimeter fencing and gates	\$45,000	
Support Structures	Shade shelters	\$100,000	
Drainage Improvements	New catch basins and drain lines, outside of athletic field drainage	\$50,000	
Landscaping	Loam, seed and tree and shrub plantings	\$145,000	
Estimated Hard Costs Sub-total:			\$4,015,000
Estimated Soft Costs total**:			\$602,250
Estimated Probable Construction Costs total:			\$4,617,250
<p>*Estimated bid for the project could be 15% above the Estimated Hard Costs to account for contractor's overhead, profit, mobilization and general conditions.</p>			
<p>**Estimated cost for testing, survey, architecture/ engineering design, management and contingency is 15% of the Estimated Hard Cost</p>			

AMHERST-PELHAM REGINAL MIDDLE SCHOOL, WILDWOOD ELEMENTARY & HAWTHORNE PROPERTY- EXISTING

Basic Site Description and Location

Amherst-Pelham Reginal Middle School, Wildwood Elementary School and the Hawthorne Property are located on Chestnut Street and Strong Street. Included in the sites is a Baseball Field, Softball Field, Multi-Use Fields, Tennis Courts, trails and Playgrounds. The image to the right shows an aerial view of the site, which contains:

- Softball & Multi-Use Field #1
- Baseball & Multi-Use Field #2
- New Tennis Courts
- Children's playground
- Multi-Use Field #3
- Passive trails at the Hawthorne Property
- One 143 car parking area and one 78 car parking area shared with the High School and Community Field



Programmed Uses

- PVSSL Youth Soccer
- LSSE Soccer Camp
- British Soccer
- PVLL LAX League- Rental
- PE class
- ARHS JV Soccer
- ARMS Boys & Girls LAX
- AYBL- Babe Ruth/ Mickey
- LSSE Sandlot Baseball
- ARMS Field Hockey
- LSSE All-Sport Camp
- Middle School Baseball
- LSSE Tennis Camp
- ARHS Boys & Girls Tennis
- ARMS Tennis
- LSSE ASAP Sports
- Afterschool Programs
- AYSA



Baseball and Multi-Use Field #2



Baseball Field #2 (left photo), poor infield conditions (middle photo), and outfield has existing wetlands. (right photo).

Multi-Use Field #1



Existing Tennis Courts (left photo), Multi-Use Field #1 (middle photo,) and poor connections between fields. (right photo).

Wildwood Elementary School



Poor Turf Condition of Multi-Use Field #3 (left photo), poor playground conditions (middle photo), and standing water at Multi-Use Field #3. (right photo).

Hawthorne Property



Connection to Hawthorne Property from Amherst Middle School (left photo), entrance to Hawthorne Property (middle photo), and view from top of hill at Hawthorne Property (right photo).

Summary of Existing Conditions

Amherst-Pelham Regional Middle School and Wildwood Elementary School are used by the entire community. Due to the location and relation to the schools, central location in town, and available parking, multiple school groups and a wide range of user groups vie for use of the facilities with a high demand for play time. Many of the fields suffer from overuse. Primary issues of concern for this site include:

- Parking is a shared access parking lot and there are no ADA connections from the parking lot to the athletic facilities except for the newly constructed tennis courts.
- There is no athletic field lighting limiting the available play time.
- There is no dedicated fence around the play area.
- There is no safety surfacing at the playground and it is lacking accessible equipment.
- There is a lack of spectator seating and viewing areas in general, and there is no formal handicapped access or viewing areas.
- There are no bathroom facilities.
- The fields are overused, and this usage exceeds their capacity.
- Fields are prone to flooding and are wet in the spring, there was standing water at the time of site visits.
- Existing game fields are undersized and do not meet current standards for competitive play.
- Buildings and bleachers are tired and in need of replacement.

AMHERST-PELHAM REGINAL MIDDLE SCHOOL, WILDWOOD ELEMENTARY & HAWTHORNE PROPERTY- PROPOSED

Recommended Improvements

The recommended improvements primarily revolve around improvement to the two natural turf fields. Reconstruction of both the baseball field and multi-use field with a high performing natural turf system will greatly improve the use of this facility.

Recommendations Summary

- Full depth reconstruction of the natural Turf Fields.
- Create new pathways for access to all amenities including at the trail to the Wildwood Elementary School and Hawthorne Property.
- Upgrade the entrances with attractive signage, add new native plantings, and remove diseased, damaged, or invasive plant species along the edges.
- Integrate trees throughout the site to provide shade.
- New picnic/shade shelter/overlook at the Hawthorne Property.
- Provide ADA accessibility to all facilities, spectator seating and viewing areas.



Other Study Reference Properties

As indicated on page 8. The following properties were reviewed, inventoried and considered for the Town-wide usage and demand analysis; however, they are not directly part of the study.

Basic Site Description and Location

Mill River Recreation area is about 3 acres in size, and located off Montague Rd. The image to the right shows an aerial view of the site, which contains:

- Pool & Pool house
- Baseball Fields #1
- Baseball Fields #2
- Tennis Courts
- Children's Playground
- (2) Basketball Courts
- Passive trails
- 1 medium sized and 1 larger sized parking areas located at entrance

MILL RIVER RECREATION AREA



NORTH AMHERST FIELD (COW FIELD)



Basic Site Description and Location

North Amherst Field also known as Cow Field is about 2 acres in size, and located off Sunderland Rd. The image to the left shows an aerial view of the site, which contains:

- Rectangular Multi-Use Field- #1
- Street parking only

Basic Site Description and Location

Fort River Elementary School is about 5 acres in size, and located off South East St. The image to the right shows an aerial view of the site, which contains:

- Softball & Multi-Use Fields #1
- Softball & Multi-Use Fields #2
- Softball & Multi-Use Fields #3
- (2) Children's Playgrounds
- (2) medium sized parking area located at entrance

FORT RIVER ELEMENTARY SCHOOL



EAST STREET SCHOOL



Basic Site Description and Location

East Street School is about 2 acres in size, and located off the opposite side of South East St. The image to the left shows an aerial view of the site, which contains:

- Rectangular Multi-Use Field #1
- Half-Court Basketball court
- 1 small sized parking area located at entrance

KIWANIS PARK (STANLEY STREET)

Basic Site Description and Location

Kiwanis Park also known as Stanley St. Park is about 2 acres in size, and located off Stanley St. The image to the right shows an aerial view of the site, which contains:

- Baseball Field #1
- Softball Field #2
- Shared outfield Rectangular Multi-Use Field
- Passive trail head
- 1 smaller sized parking areas located at entrance



GROFF PARK



Basic Site Description and Location

Groff Park is about 6 acres in size and located off Mill Lane. The image to the left shows an aerial view of the site, which contains:

- Softball & Multi-Use Fields #1
- Softball & Multi-Use Fields #2
- Abandoned Baseball Field
- Children's Playground
- Future Splash Pad
- Support Building
- 1 smaller sized parking area located at entrance

CROCKER FARM ELEMENTARY SCHOOL

Basic Site Description and Location

Crocker Farm Elementary School is about 13 acres in size, and located off Shays St. The image to the right shows an aerial view of the site, which contains:

- Multi-Use Field #1
- Children's Playgrounds
- (4) Basketball Court areas
- 1 larger sized parking area located at entrance



PLUM BROOK (POTWINE LANE)



Basic Site Description and Location

Plum Brook also known as Potwine Lane is about 8 acres in size, and located off Potwine Lane. The image to the left shows an aerial view of the site, which contains:

- Large Rectangular Multi-Use Field area
- 1 medium sized parking area located at entrance

Field Use Policy & Maintenance

During the completion of the site analysis efforts at various field properties and in discussions with Town staff members, it became apparent that Amherst needs a more formal field use policy. In recent years, many similar communities have adopted field use protocols in order to:

- Bring fair and equitable treatment to all user groups.
- Control use of fields during poor weather conditions (note that good field and turf conditions can be drastically deteriorated by a single use/event held during bad weather).
- Protect recent/future field improvements.
- Maintain better field conditions overall.
- Reduce pressure on and help protect decision-makers by adopting a clearly articulated and evenhanded use policy that is widely published and understood.

Field use policies have become critical tools in establishing basic order and in protecting the significant investments that have been made at field complexes throughout the region. In fact, it is the desire to maintain superior playing conditions once major capital projects have been completed. That desire has motivated many communities to establish use protocols.

- In Waltham, Massachusetts, officials will not rush the opening of a new field facility until maximum grow-in (turf establishment) has been achieved. In this way, they are protecting their significant capital investments by preventing use until facilities can withstand play.
- In Needham, Massachusetts, fields are often closed for short periods of time for minor renovation efforts (e.g., seasonal aeration and slice seeding operations). This inconveniences user groups, but the need to maintain good playing conditions takes precedent.
- Officials in Westwood, Massachusetts and in Needham all aggressively monitor field conditions and issue advisories to user groups as to field status. In Needham, a parent or player does not leave for an event without checking the field status on the town's website or recorded information line. Coaches also alert parents and players through e-mail messages. During peak seasons, updates are issued on a daily basis (typically by 3:00 PM weekdays and early morning weekends). Needham recreation programming and public works staff collaborate to determine whether a field facility will be open for use.
- Waltham and Westwood hold violators of field policies responsible for damages to facilities.
- In many communities, fields that are plagued by heavy, wet soils that are slow to drain can be closed for several days until drier conditions allow for use without risk of excessively damaging the turf and underlying soil structure.

Excerpts from Westwood's "Guidelines for Use of Town and School Athletic Fields" are included below. The field use policy has become an essential tool in the programming, operation and maintenance of all field facilities and it helps officials to protect significant recent capital expenditures at various properties. Additional field use policies are attached at the end of the report.



Town of Westwood

Guidelines for Use of Town and School Athletic & Fields

Cancellation Policy:

Due to poor field conditions, potential hazards / unsafe conditions, and or inclement weather the Westwood Recreation Department and Westwood School Department reserves the right to deny an athletic activity or event from being held on a Town field. The two main purposes of this policy are to ensure the safety of participants and to prevent Town fields from getting abused and destroyed when the sod is vulnerable. Any Westwood School Administrator, Recreation official, Department of Public Works Official, Westwood Police Officer, or any other Town Official or designated person may deny use of a field and /or require an activity to stop.

Daily updates on fields, playable or closed www.townhall.westwood.ma.us, go to Recreation Department, click on field status.

Conditions that require cancellation of an athletic or field activity:

1. *No field will open until the spring thaw is complete.*
2. *A field is automatically closed if standing water is evident.*
 3. *Footing is unsure and slippery.*
 4. *Ground is water logged and "squishy".*
 5. *Grass can be pulled out of the ground easily.*
 6. *Lightning*
 7. *Severe weather storms*
8. *If concerned or in doubt about canceling, call the Recreation Department 461-0070 after 4:00 PM weekdays, or weekends after 7:00 AM.*
9. *League Officials make their decisions if weather / field conditions change after the initial cancellation (i.e. the sun comes out and dries the fields). They must use good judgment. If in doubt do not play or practice.*
10. *All League / Organization / Coach should "police" themselves, and report infractions to the Recreation & School Departments. The Recreation Department will contact League / Organization / Coach that have used fields improperly.*

Use of a closed field, or one with standing water, jeopardizes the safety of all, in particular children. Future League / Organization / Coach use of Town fields will be in jeopardy if this happens. In addition, if the inappropriate use requires additional maintenance to restore the field to safe conditions, costs to repair will be charged to the League / Organization.

As Amherst considers making capital improvements to various playing field venues, it is critical to establish and adopt a field user policy to protect future improvements and to maintain desirable playing conditions. Even without new capital improvements, the policy is needed to help protect and improve current playing conditions at all playing venues. It takes considerable resources (Town funds for labor, materials, equipment, etc.) to maintain fields at present. A field use policy would allow stakeholders to manage facilities better and to achieve better playing conditions as a result. Basic steps related to establishment of a field use policy in Amherst may include the following:

- Designate the responsible staff who will implement and enforce the field use policy. This includes having a dedicated supervisor on for overtime on weekends and holidays. The estimated cost for this additional labor is \$6,000 per year for the athletic season.
- As part of the policy there should be a collaboration between the School staff, facilities and town departments (LSSE and DPW).

- Review other similar policies used in surrounding towns.
- Meet with officials from nearby communities to determine strengths and weaknesses of their respective policies.
- Draft a field use policy that best meets the needs and desires that are unique to Amherst.
- Review the draft policy with key constituents and stakeholders. Establish support and buy-in.
- Adopt the policy.
- Begin implementation of the policy. Widely circulate and publicize the policy.

Field Use Policy Recommendations

It is important to note that the adoption of a clearly articulated, comprehensive field user policy in Amherst is not the sole avenue to better playing field conditions. As mentioned throughout the feasibility study, conditions will only improve by:

- Earmarking additional funds through the annual budgeting process for additional public works and schools maintenance staff hires, materials and equipment such that basic improvements can be undertaken without the need to go through a costly and cumbersome public bidding process.
- At field facilities that require major refurbishment efforts, authorize capital expenditures to design, bid and construct the desired facilities. This might include the upgrading of existing facilities or the development of new facilities within undeveloped sections of existing field properties.
- It is evident that Amherst has a shortage of quality multi-use fields. The conflicts and pressures are documented throughout this study. It is critical to establish new playing venues at other Town-owned properties (developed or undeveloped) that are suitable for field development.

As old fields are refurbished and new fields are developed, the field user policy becomes a mechanism for protecting fields and to maintaining better playing conditions overall for all users.

Maintenance

The Town should work with their consultants prior to the completion of each project to prepare an operation and maintenance plan for the established and newly constructed facilities requiring maintenance such as the fields, courts, splash pad, playground, and pool facility. In order to minimize adverse field conditions due to maintenance issues and to protect the town's investments, as a general outline we recommend that all fields be maintained to the Sports Turf Managers Association (STMA) and Turf Magazine industry standards listed below.

The Town, LSSE and Regional Schools should establish a protocol for the facility maintenance program, clearly defining a "central command" for maintenance and outlining who will be responsible for each required tasks and funding. This is essential to assure that the towns investments will be protected, and the required work will be completed as expected by the community. It will also allow for accountability for the maintenance, game preparation and general repairs of the facilities. A Memorandum of Understanding (MOU) defining the protocol should be prepared and agreed upon so proper operations and maintenance can occur for new as well as existing facilities.

To accomplish this the Town should hire or appoint a Director or Superintendent of Parks (The Superintendent) similar to the position in other Towns such as Needham and Natick Massachusetts to oversee the maintenance of the facilities, schedule the work effort and plan for capital improvements projects. It appears that this position will be best suited under the Department of Public Works. This individual would work closely and coordinate and cooperate with LSSE, the Regional Schools and other Town Departments to assure proper implementation of the maintenance and improvement programs. Recreation and School programming will still be under the direction of the LSSE Sports Director and the Regional School's Athletic Director. Under this recommendation a budget could be established for the maintenance of the facilities and the MOU could outline the contributions required by each entity needing maintenance services.

Along with this position the town and Schools should assess current staffing levels to properly maintain the fields and facilities. This should be based on an industry average of one staff person per ten acres not including the Superintendent. This equates to about an average of 10,000 maintenance staff hours per year.

To facilitate this staffing and maintenance, a budget of \$25,000 (\$7,500 labor, \$17,500 materials and equipment) per year for each two acre natural turf field and \$15,000 (\$4,500 labor, 10,500 materials and equipment) per year for each synthetic turf field should be established for maintenance of these and existing properties in order to maintain a safe and high level of quality turf on the fields. For example, the Middle School baseball field is a smaller field with an overlapping rectangular field, this should be considered one field whereas Community field is a large overlapping field so it should be considered two fields (baseball field and the football/softball field).

The industry standards are as follows:

Beginning of Season Conditions: The Town should make every effort to begin each playing seasons with 100% turf coverage on the fields and well-groomed infields.

Soil Testing: Perform at least once every three to five years to determine nutrient deficiencies. This allows fertilization to be tailored to each field's individual needs.

Fertilization: As a rule of thumb, fertilizers should be applied mid-spring, early June, mid-September, late October, and mid to late December.

Aeration: Perform in late March to early April, after school is out in June, and in late August before fall school sports begin. Aeration reduces ground hardness and compaction of soil, allowing roots to breathe and grow more easily, and making turf more resilient for falling players. This is the single most important maintenance element. Without it, all others are futile.

Mowing: Perform twice a week March through October and as needed from October to November. Turf maintenance professionals emphasize that mowing schedules should not be reduced when fields are resting or otherwise inactive, as regular mowing helps to ensure thick and vigorous turf growth.

Irrigation: 1 inch per week.

Lime: As needed to maintain a pH of 6.0-6.7

Seeding: Weather conditions make August to mid-September the preferred time of year to seed field areas. The method of seeding (slice seeding, hand seeding, hydroseeding) can be determined to fit the condition and size of the field being restored.

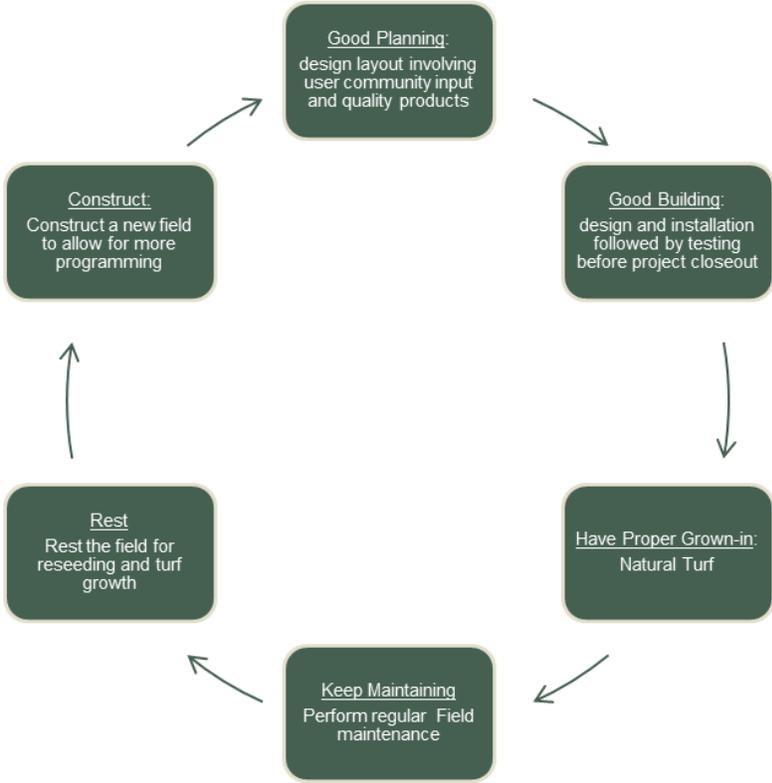
Field Lining: Before each game or as otherwise needed.

Pest Control: Any pest problems that are detected should be resolved using cultural practices. It is important to note that fields treated with pesticides must be taken out of play to avoid contact with players and children. This requires extra fields to accommodate relocated play. As part of the maintenance program and Integrated Pest Management (IPM) program should be developed.

Excess Thatch Removal: Performed in June when soil is dry.

Rolling: Perform three times per year when the ground is soft. This will help to keep playing surfaces from becoming inconsistent, uneven and lumpy, and improve player safety.

The standards need to be codified into a written plan to govern maintenance operations that all field maintenance personnel use and reference. The plan should be supported by sufficient labor savings equipment to allow implementation of all aspects of the plan.



All synthetic turf manufacturers have recommended maintenance practices. These include sweeping, dragging, loosening and redistributing of infill and cleaning. Cleaning may involve watering and the use of special solvents and cleansers. Depending upon use and weather conditions, a sand-rubber mix may need to be added annually to help restore the field’s resiliency. The sports turf manager will also need special knowledge in troubleshooting and minor repairs, such as seam repair and snow removal. The installer can provide this information per the manufacturer’s guidelines.

The chart on the following page indicates the potential maintenance tasks along with their respective occurrence and suggested equipment needed. This type of chart should be established for each facility and can be used as a checklist to assure the completion of tasks and for budgeting purposes. Some of the tasks could be sub-contracted out if necessary. In the following Action Plan and Summary of High Priority Initiatives section we have provided an estimated annual maintenance costs for each initiative, using this chart as a basic guide.

General Field/Park Areas	
Estimated Maintenance Program	
<i>Tasks</i>	
Mowing	Average once per week / twice per week for Athletic fields
Surface for infields	Annual Allowance
Garbage pick up	Twice per week
Landscape maintenance	Weekly
Blowing/sweeping/litter	Weekly
Shelter set up/take down	Twice per year (if fabric design)
Drainage	Clean out once per year
Misc paint touch up	Once per Year
Misc apparatus repair	Four times per year
Misc apparatus parts	Evaluate twice a year
Stone dust path maintenance	Three times a year
Snow removal	As needed
Irrigation startup/shut down	Twice a year
Mulching	Once a year, 3-inch depth
Pruning	Once a year
Field Maintenance Program	
Deep Tine Aeration	Twice per year
Fertilization	5 Applications- averaged
Top dressing	Twice per year
Core Aeration	Twice per year
Slice Seeding	Once per year
Seal coating allowance	Per year for amortizing, every 8 years

List of Equipment

Using guidelines from The Sports Turf Manager’s Association (STMA) as a base, we suggest the following list of equipment for maintaining the proposed facilities. The Town and School District should develop a capital budget, replacement schedule, and a utilization schedule to optimize the use of all equipment and accessories. Care should be taken to utilize all equipment per the manufacturer’s instructions.

The Town should allow for approximately 3200 square feet of storage area for this equipment. This may be provided in a central location or distributed among the sites.

Synthetic turf

- Grooming equipment: typically, some type of broom, brush or tine that is dragged over the field to stand the synthetic fibers up and to distribute the crumb rubber.
- Utility cart for grooming/cleaning equipment, pushing snow or operating sprayer.
- Spraying equipment: for the application of weed control, wetting agents to lessen the static charge to aid in drainage.
- Sweepers/Blowers: to remove trash and other materials from the playing surface.
- Vacuum: to remove small items, such as sunflower shells and peanut shells.

- Top dressing equipment: to periodically re-dress areas that have lost crumb rubber.
- Spiking equipment: for de-compaction and/or to help with redistribution of crumb rubber.
- Irrigation system and/or quick connect for wetting/washing down the field.
- Painters for adding additional lines and mechanical scrubbers for cleaning painted lines on the synthetic turf.
- Special rubber blade snowplow

Natural turfgrass

- Dedicated rotary mower for athletic fields
- Dedicated rotary mower for all other grass areas
- Small mower for intricate areas
- Line trimmers
- Irrigation system
- Aerator: core or plug type, typically pulled behind a tractor or utility vehicle.
- Roller
- Seed/Fertilizer spreader
- Weed and pest control application equipment
- Line Painter: available in walk-behind or riding configurations
- Infield groomer
- Infield drag
- Infield rakes
- Tractor or utility vehicle with low ground pressure tires to pull equipment
- Gator for transporting supplies, personnel and equipment
- Blower and / or sweeper: for debris / litter management
- Deep tine aerator
- De-thatching equipment: typically pulled behind a tractor
- Groove or Slit Seeder
- Top Dresser

Managing Special Events

Special requirements to host non-sports events for synthetic turf and natural turfgrass would include:

- Concerts
- Graduations
- Fireworks
- Overflow parking - Care must be taken to protect each type of field surface.

Typically, a sports turf manager will place a protective covering over the turf and will develop a plan to safeguard the turf during the event. Types of materials that should be considered to protect the field surfaces for staging and roadways are:

- $\frac{3}{4}$ inch plywood (may require multiple layers)
- Pre-manufactured road mat; and
- Geo-textile blanket.
- Possible consideration of fiber reinforced turf for events that can handle tractor trailer loads without damaging soil structure.

Other materials are available for flooring protection under the staging and for the seating areas. These products should be investigated to find the one that best suits the event situation. The use of these additional materials to host such events should be taken into consideration and incorporated into the overall cost to produce the event.

Synthetic turf

Concerns from these events are:

- burns from fireworks, cigars and cigarettes
- surface contamination (debris)
- security
- weight of materials (staging) if not properly designed and planned for may result in damage to the grade.
- Specifying appropriate shock pad to withstand intended loading

Flooring that is more specialized for seating may be necessary for certain events (graduation and concerts). Warranties should be reviewed prior to holding an event.

Natural turfgrass

Preventive fungicide applications may be necessary based on the climate conditions and the duration of the event. Surface contamination (debris), weight of materials (staging) are concerns that should be addressed during planning. Sod and grade may be adversely affected by the weight, length, and type of event, which could result in major grade repair and/or sod replacement. When planning for the event, the field's normal schedule must be able to accommodate the additional time necessary following the event to repair the turf. If the length of the event has caused irreparable damage to the turfgrass, time and resources must be allocated to replace it. Warranties still in effect should be reviewed prior to an event.

FUNDING & ACTION PLAN

Funding Approach & Opportunities – Capital Improvements

There are many potential sources of funding from both public and private entities that could help to pay for potential improvements to the study sites in Amherst. Donations, both large and small, can be lumped together to create the financing needed to undertake meaningful improvements. The Town of Amherst may aggressively pursue a variety of funding and implementation strategies that could include:

- **In-house Services-** Implement improvements making use of Town labor forces, materials and equipment. This method is typically appropriate for projects that are limited in scope, such as the construction of a parking area, driveway or sidewalk, clearing and grubbing in advance of a new field site capital project, refurbishment of a baseball infield or sections of a soccer field (goal mouths, center field areas etc.). As funding, materials, equipment and human resources permit, other minor improvement efforts can be planned and undertaken. The removal of dead/diseased trees and the pruning of healthy trees around a field perimeter, the installation of player's benches, small bleacher systems, trash receptacles, limited fencing runs and signage are examples of the types of minor enhancements that can be provided using Town forces and materials.
- **Donations/Corporate Sponsorships/Community Build-** Implement improvements for projects through a variety of means that might include construction of a field or ancillary facility with funding generated through linkage or mitigation arrangements (often originating from the approval of a large in-Town development). In certain cases, improvements can also be undertaken by contractors looking to donate services, equipment or materials. The supply of volunteer labor, available through regional corporate initiatives such as Timberland's Path of Service program, can also assist with smaller improvement projects.
- **Traditional Public Bidding-** Develop plans, specifications and estimates for the desired improvements, publicly advertise, receive bids and award a construction contract to the lowest qualified bidder. Projects typically range from small (approximately \$50,000 minimum) to very large (multi-million dollars).

Partnerships

Partnerships can also play an important role in the overall plan to improve, manage and maintain park properties. As an example, in many surrounding towns there are numerous privately managed sports leagues with impressive track records for supporting certain maintenance and capital improvement initiatives for numerous facilities. Communities are increasingly relying on public/private partnerships to create facilities and the desired playing conditions needed to support sports programming.

As these companies look to expand and reach a greater percentage of youths in the region, there may be the opportunity to partner on field amenities and improvements. Although this model would be new to Amherst, such an approach could accelerate improvements while offering patrons a local alternative over traveling to other sites in the state.

Funding Alternatives

For initial consideration, a number of potential funding sources have been identified. Many of the governmental sources identified allocate millions of dollars per year for parks, open space and athletic facility improvement programs, but competition is intense. The actual improvements are then implemented through a public design, bid and construction process. The alternative funding sources are as follows:

- **Commonwealth of Massachusetts - Division of Conservation Services (DCS)-** DCS has funded hundreds of park, open space, and recreation projects throughout Massachusetts over the past several decades. In June/July, the agency receives applications from municipalities for improvements to parks, playgrounds, and athletic facilities or for assistance in acquiring an open space property to help support community open space and recreation goals.

DCS administers several programs, including the Parkland Acquisition and Renovations for Communities (PARC) program, which generally funds acquisitions of parkland, as well as the construction of new parks and renovation of existing parks to a maximum of \$400,000. Funds tend to be earmarked to communities with greater than 35,000 residents that have fewer outlets for recreation. Demographics play a role in the grant award process, though. Communities that are more urban in nature with high percentages of low-income residents tend to fare better in the decision-making process compared to smaller communities with fewer low-income residents. For projects in smaller communities like Amherst, the PARC funding application would need to make a solid case that the sought-after funding is for a project of regional significance. Larger field complexes, with the ability to host regional events, would likely meet this criteria.

DCS also receives federal Land & Water Conservation Funds for distribution to communities that are considering park improvements or land acquisitions as described above. The allocation for Massachusetts for the upcoming year has not yet been determined; however, the funds, when available, may be used to supplement funding from the PARC program.

- **Community Preservation Act Funding-** A number of years ago, the Massachusetts legislature passed the Community Preservation Act, which allows cities and towns to generate funds through an added property assessment for improvements related to affordable housing, historic preservation, and certain types of park/open space acquisitions and enhancements. With this act, locally generated funding is matched up to 35%-40% with state dollars, and more than 100 communities in the Commonwealth have already adopted the legislation. If adopted in Amherst, this program could become an important source of local capital funding for the implementation of some of the recommended improvements identified in this study.
- **U.S. Soccer Foundation-** The U.S. Soccer Foundation has awarded grants to over 600 non-profit organizations since 1995. They support soccer programs and field building initiatives in the U.S. with a goal of promoting more active, healthier, and safer communities. Two types of grants are awarded each year. The first grant is called *Safe Places to Play* which assists the grantees with synthetic turf fields, lighting, irrigation, and sports courts. The second is called a *Program Grant* which assists with equipment and operating costs. Visit <http://www.ussoccerfoundation.org/> for further information and requirements of each grant.
- **Land & Water Conservation Fund-** In the past 40 years, LWCF has approved over 40,000 grants to states and localities, with over 26,000 of them awarded for development of recreation facilities. LWCF grants could cover up to 50% of the total project-related costs for public outdoor recreation and for fulfilling the program's planning requirements. Visit <http://www.nps.gov/lwcf/index.htm> for information on the planning requirements.
- **The Baseball Tomorrow Fund-** BTF awards an average of 55 grants per year averaging more than \$1.8 million annually. Their mission is to promote and enhance youth participation in baseball and softball. They fund programs, renovations and construction of baseball and softball fields, equipment and other selected program expenses. For more information on the fund and application process, visit http://web.mlbcommunity.org/index.jsp?content=programs&program=baseball_tomorrow_fund.
- **United States Tennis Association-** USTA's mission is to promote and develop the growth of tennis. In order to follow this mission, they have developed a USTA Facility Assistance program. They assist grantees with anywhere from tennis court repairs to new construction. For further requirements and details, visit http://www.usta.com/About-USTA/Tennis-in-the-Parks/Tennis_In_The_Parks/.
- **Dedicated Sales Tax -** A dedicated sales tax on food and beverages sold in the Town could be dedicated to the new sports complexes. This could also be considered for hotel stays since the Town is looking to use the facility for tournaments.
- **Naming Rights –** Private fundraising could be developed to fund a portion or all of it through naming rights for the site and through individual naming rights. A complex such as the track and field complex could raise 20%-30% of the development costs from naming rights.

Funding Opportunities – Operational & Maintenance

The athletic facilities have numerous revenue sources to draw from to support operational, management, maintenance and bond payments that could also include long term capital replacement costs. The following are funding options to consider for operations of the sites:

- **User Fees-** User fees to access or use the athletic facilities outside of regular Regional School or regularly scheduled town activities. Fees can range from \$35 dollars for the maintenance cost per player to \$200 to \$400 per team in a sports league.
- **Concessions-** Concessions can be leased out to a private operator for a percentage of gross profits. Typically, 15%-18% of gross profits for concessions of a profit operator, or a managing agency over the site could manage concessions. In this case, it would be the Town of Amherst or Regional Schools.
- **Parking Fees-** During major special tournaments the Town could charge a \$5 parking fee for soccer, baseball, softball, ultimate or lacrosse tournament or game/match.
- **Field Permits-** The Town can issue field permits for practice, scrimmages or games. Permits should cover the operational cost of each field and management costs. If a private operator desires to rent the site for a sporting tournament for private gain, the Town should provide a permit fee plus a percentage of gross from the event.
- **Admission Fees-** An admission fee to an event can be utilized. Athletic facilities similar to this include an admission fee and a parking fee for major sports tournaments. High School sports games or tournaments typically include an admission fee. Student fees could be waived, or tickets could be provided.
- **Tournament Fees-** Tournament fees for events can be assessed for each team who enters a tournament and can range from \$150-\$400 a team and can vary based on the number of games guaranteed.
- **Official Drink, Food and Equipment Sponsors-** Official drink and food sponsors can be utilized for the complex. Each official drink and food sponsor pays back to the site a set percentage of gross. Typically, this is 5%-10% of costs for being the official product and receiving exclusive pouring and food rights to the complex. Likewise, official equipment sponsors work well for trucks, mowers, and tractors.
- **Scoreboard Sponsors/Advertisements-** Scoreboard sponsors pay for the cost of the scoreboards for the life of the board, which is usually 15 years.
- **Official Product Sponsors-** Official product sponsors for balls, shoes, hats, gloves, etc. can be used for the site. The sponsor prices can vary by how much exposure is received and the amount of sales created.
- **Advertising Revenue-** Advertising revenue can come from the sale of ads on banners in the park. The advertising could include sports fields, score boards, dugouts, and sun umbrellas over picnic tables, and in restrooms.
- **Wi-Fi Revenue-** The Town can set up a Wi-Fi area whereby a Wi-Fi vendor is able to sell the advertising on the Wi-Fi access banner to local businesses targeting the users of the site. This revenue has amounted to \$20,000-\$50,000 in revenue for similar sites.
- **Cell Tower-** Cell tower leases on top of sports lights can be used. This revenue source would support \$35,000-\$30,000 annually for the site if cell towers are needed in the area.
- **Program Fees-** Program Fees to support existing programs at each attraction can be employed in the form of lessons, clinics, camps, life skill programs, and wellness and fitness. These types program would help support the operations of each facility and the other sites within the parks or regional schools system.
- **Capital Improvement Fee-** A Capital Improvement Fee on all programs and events can be added. These athletic facilities will require an on-going maintenance endowment to keep them updated and positioned for the future. A

Athletic Facilities Strategic Plan

capital asset fee of \$2-\$3 on each person who participates in a class, event, or program can be incorporated into the cost of the program or event.

- **Batting Cages-** More batting cages could be incorporated into the facility. They can have a monthly pass available for youth and adults, as well as an individual use fee. This will generate money to support operating and managing the batting facility.
- **Volunteerism-** The revenue source is an indirect revenue source in that persons donate time to assist the facilities in providing a product or service on an hourly basis. This reduces the Town's cost in providing the service plus it builds advocacy into the complex.
- **Special Fundraisers-** Many agencies hold special fundraisers on an annual basis to help cover specific programs and capital projects to be dedicated to the athletic facilities.
- **Private Management of some facilities-** The Town should consider outsourcing elements of the parks system to save operating money where appropriate.

Some of the above potential revenue items can only be accomplished should the Town/Regional Schools construct tournament ready facilities. The increased cost to provide tournament ready facilities can range from zero to 20% of the cost of the facility. Since most of the High School facility should be constructed to NFHS and MIAA standards these costs should not increase dramatically for the High School facilities. In general, the income generated from leasing, renting and tournaments far outweighs the added cost of providing tournament ready facilities.

Annual Revenue Generating Potential

The following is a summary of the annual revenue generating potential of the Track and Field Facility and the resulting natural grass field to the west of the facility from the converting of the remaining existing track area into a grass multi-use field (Field 2). As indicated as Phase 1 in this strategic plan. We have also considered the use of Community Field and Field 3 for tournament use. The potential revenue is provided at a range level that is dependent on how much the Town or Regional Schools implements each item.

Track and Field Facility – Revenue Generating Potential		Potential Revenue	
Revenue	Notes	From	To
User Fees	\$250 to \$350 per use, estimated 84 non programmed uses per year (12 per month for seven months)	\$21,000	\$29,400
Concessions	Revenue based on \$250,000 to \$300,000 in gross revenue @ 15% commission for the Town or Regional Schools	\$37,500	\$45,000
Parking Fees	\$2.00 per car during major events or tournaments	\$40,000	\$52,000
Field Permits	Varies depending on intended use	\$25,000	\$50,000
Admission Fees	\$2.00 to \$5.00 admission fee for major events. Potentially 1500 people 20 times per year depending on tournaments and events	\$60,000	\$150,000
Tournament Fees	\$3,500 to \$5,500 per tournament/meet 4-8 times a year (Soccer, Lacrosse, Ultimate, Football, Track, Field Hockey, etc.)	\$14,000	\$44,000
Scoreboard Sponsors	Usually the cost of the scoreboard for the useful life (approx. 15 year)	\$4,000	\$6,600
Advertising Revenue	Varies greatly depending on amount of advertising included	\$15,000	\$40,000
Program Fees (Camps)	\$2,000 to \$4,000 per camp. Revenue from camps run by the Town LSSE or rented to outside camps.	\$16,000	\$35,000
Special Fundraisers or Events	\$5.00 to \$25.00 per user fee for special event or concert. 5 to 10 per year.	\$50,000	\$250,000
Capital Improvement Fee	Assess \$2 to \$3 per user on top of other league or tournament fees to set aside revenue for future capital improvement, or modifications	\$12,500	\$46,000
Total Potential Revenue:		\$295,000	\$748,000

Potential Regional Economic Impact

The economic impact of revenue for the region generated from teams visiting the region for tournaments. This can create an estimated annual average attendee/visitor spending revenue of \$125,000 to \$200,000.

The Tournaments are projected to have 4,320 annual participants. The analysis assumed that 5 tournaments will be held each year, with an average of 48 teams per tournament, and an average of 18 persons per team. Total annual attendees are estimated to be 4,320 as shown below.

Tournaments-Soccer Participants	
5	Tournaments
18	Players Per team
48	Teams
4,320	Estimated Participants

The estimated out-of-town visitor revenues from Tournaments are shown in the table below. Out-of-town visitors are estimated to be 20% of the total attendees/visitors. The out-of-town visitors are estimated to stay one night with average room rate of \$100 per double occupancy. The meals and retail spending are estimated to be \$30 and \$10 respectively. Economic multipliers used in the analysis are from the Regional Input-Output Modeling System produced by the U.S. Department of Commerce - Bureau of Economic Analysis.

General Field/Park Areas	
4,320	Estimated Attendees/Visitors
20%	Estimated Percent Out-of-Town Attendees/Visitors
864	Estimated Out-of-Town Attendees/Visitors
\$100.00	Average Cost Per Room Night
3	Occupants Per Room
\$33.33	Per Person Room Costs
\$30.00	Daily Spending: Meals
\$10.00	Daily Spending: Retail, Other
\$73.33	Daily Attendee/Visitor Spending
2	Average Attendee/Visitor Days
\$146.67	Average Attendee/Visitor Spending Per Event
\$126,720	Estimated Annual Average Attendee/Visitor Spending based on 5 tournaments a year

The assumptions have been intentionally conservative and local spending has not been considered in this analysis in order to accurately depict new revenue and economic impact being driven by these facilities and not simply a transfer from one sector in the Region to another. as money spent at the Sports Complex is likely a transfer of resources from one sector (e.g. going to the movies) within the local economy to another sector (e.g. going to the Sports Complex). The transfer of local spending from one sector to another sector within the local economy is typically accounted for as an economic growth neutral.

There are other economic impacts to consider such as additional revenue to the region due to the construction spending, increases in employment both during construction and at the complex after construction, and increase visits to town during events.

Action Plan and Summary of High Priority Initiatives

Implementation Strategies

An action plan or implementation strategy list can now be established for the facilities, as discussed during the strategic planning process. The level of implementation and identification of each effort, or phase, will greatly depend on available funding, the requirements of the funding source and the most urgent needs of the community. All proposed improvements should be in accordance with the preferred master plan for each site. All other improvements identified are lower priority and could be added as budget allows, added if dedicated donor funds become available or folded into future phases. The phases and potential timelines identified below can certainly be flexibly. The elements in each phase can be adjusted in the best interest of the town's future needs.

1. Improve the turf quality at two or three properties to allow for increased programming so that a field can be taken off-line for complete reconstruction.
2. Construct the following programs, one or two per year until complete, as a new field is brought "on-line" start the reconstruction of another field, subsequently repeat the process. During this reconstruction process, one field will be off line each year. Each field should include lighting.
3. Provide capital budget for maintenance of these improvements and existing facilities as indicated in the Field Use Policy & Maintenance section of this Strategic Plan. We have provided an estimated cost for maintenance of the elements in each phase. This budget may include subcontracting the work or providing the services in-house. The Town and Regional Schools can anticipate that approximately 30% of the budget will be for labor and 70% will be for materials and equipment.

Phase 1 – Track and Field Facility (detailed further on page 30)

- Reorient and construct a new High School Track and central Synthetic Multi-Use Field #1.
- Bleacher seating area with accessible press box
- [Loam and seed existing track area for temporary use as a multipurpose field.](#)

Through cost evaluation for the proposed program, we anticipate the potential cost to fall within the following range:

- High: \$6.2 Million
- Mid: \$4.6 Million
- Low: \$3.9 Million

Potential start date: Spring 2020

Construction Duration: 1 year

Anticipated annual maintenance cost: \$62,000 (\$18,600 labor, \$43,400 materials and equipment)



Phase 2 – Community Field Park Area

- New Pool House, locker room, storage facility for more general use
- Upgrade Playground
- Proposed Splashpad Area

Through cost evaluation for the proposed program, we anticipate the potential cost to fall within the following range:

- High: \$5.8 Million
- Mid: \$4.4 Million
- Low: \$3.8 Million

Potential start date: Spring 2021

Construction Duration: 1 year

Anticipated annual maintenance cost: \$72,000 (\$21,600 labor, \$50,400 materials and equipment)



Phase 3 – Softball Program

- Construct the relocated 225' Softball Field with all amenities
- Multi-use Field #2

Through cost evaluation for the proposed program, we anticipate the potential cost to fall within the following range:

- High: \$2.3 Million
- Mid: \$1.9 Million
- Low: \$1.4 Million

Potential start date: Spring 2022

Construction duration: 1 Year

Anticipated annual maintenance cost: \$70,000 (\$21,000 labor, \$49,000 materials and equipment)



Phase 4 – Community Field

- Expand and amend the existing practice Multi-Use Fields.
- Renovate the Baseball Field while moving it about 20 to 30 feet from Triangle Street.
- Renovate the infield at the Middle School Baseball field to match the new High School Field

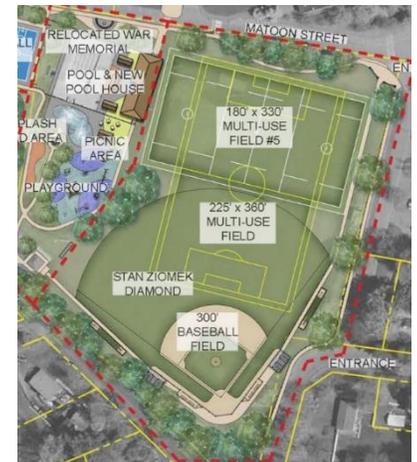
Through cost evaluation for the proposed program, we anticipate the potential cost to fall within the following range:

- High: \$2.6 Million
- Mid: \$2.1 Million
- Low: \$1.7 Million

Potential start date: Spring 2023

Construction Duration: 8 Months

Anticipated annual maintenance cost: \$70,000 (\$21,000 labor, \$49,000 materials and equipment)



Phase 5 – Middle School Field

- Renovate the natural Turf Fields.
- Create new pathways for access to all amenities including at the trail to the Wildwood Elementary School and Hawthorn Property.
- Upgrade the entrances with attractive signage, add new native plantings, and remove diseased, damaged, or invasive plant species along the edges.
- Integrate trees throughout the site to provide shade.

Through cost evaluation for the proposed program, we anticipate the potential cost to fall within the following range:

- High: \$450,000
- Mid: \$400,000
- Low: \$350,000

Potential start date: 2024

Construction Duration: 1 Year

Anticipated annual maintenance cost: \$42,000
(\$12,600 labor, \$29,400 materials and equipment)



Phase 6 – Multi-use Fields #3 and #4

- Renovate the natural Turf Fields
- Create new pathways for access to all amenities, wetland area and fields
- Upgrade the entrances with attractive signage, add new native plantings, and remove diseased, damaged, or invasive plant species along the edges.
- Integrate trees throughout the site to provide shade.

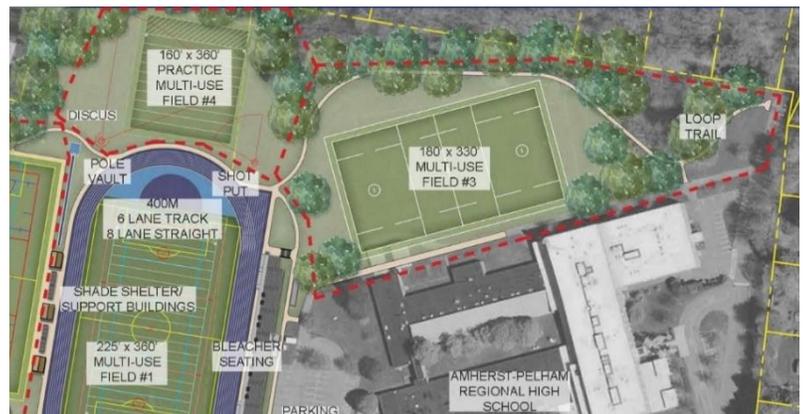
Through cost evaluation for the proposed program, we anticipate the potential cost to fall within the following range:

- High: \$450,000
- Mid: \$400,000
- Low: \$350,000

Potential start date: 2024

Construction Duration: 1 Year

Anticipated annual maintenance cost: \$42,000
(\$12,600 labor, \$29,400 materials and equipment)



Phase 7 – Basketball Courts & Fitness Circuit

- Install two basketball courts
- Install fitness circuit and picnic area

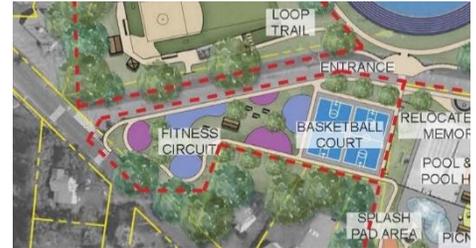
Through cost evaluation for the proposed program, we anticipate the potential cost to fall within the following range:

- High: \$680,000
- Mid: \$590,000
- Low: \$520,000

Potential start date: 2024

Construction Duration: 1 Year

Anticipated annual maintenance cost: \$36,000 (\$10,800 labor, \$25,200 materials and equipment)



Hawthorne Property

- Install walking trails
- Install shade Shelter

Through cost evaluation for the proposed program, we anticipate the potential cost to fall within the following range:

- High: \$250,000
- Mid: \$200,000
- Low: \$180,000

Potential start date: TBD, as funding is available

Construction Duration: 3 Months

Anticipated annual maintenance cost: \$12,000 (\$3,600 labor, \$8,400 materials and equipment)



APPENDIX

- Appendix A | Core Study Facilities Site Map
- Appendix B | Facilities Use Matrix
- Appendix C | Existing & Proposed Site Plans
- Appendix D | Meeting Agendas and Notes
- Appendix E | Public Outreach Meetings Sign in Sheets