

COLUMBIA, CONNECTICUT RECREATION PARK MASTER PLAN



2017 Master Plan Report



Prepared for:
The Town of Columbia, Connecticut

Prepared by:
Weston & Sampson

TABLE OF CONTENTS

ACKNOWLEDGEMENTS2

EXECUTIVE SUMMARY3

INTRODUCTION4

- Background..... 4
- Basic Project Goals and Objectives..... 6
- Description of Existing Site 8

PUBLIC OUTREACH & NEEDS ASSESSMENT.....17

- Informational Meetings & Public Comment 17
- Needs Assessment..... 18

RECOMMENDATIONS.....20

- Initial Efforts..... 20
- Master Plan – Full Build-out..... 30
- Phasing and Funding Options 32

APPENDIX33

- *Appendix A | Recreation Park Field Use Matrix*
- *Appendix B | Existing Site Plan*
- *Appendix C | Existing Site Analysis Plan*
- *Appendix D | Proposed Master Plan*
- *Appendix E | Phase 1 Plan – Overall*
- *Appendix F | Phase 1 Plan - Enlargement*
- *Appendix G | Public Outreach Meeting Notes*
- *Appendix H | Details of Cost Estimates*

ACKNOWLEDGEMENTS

We recognize the residents of the Town of Columbia, whose participation helped forge this master plan. The recommendations and priorities that are established within this document address the needs of the community and the needs of various other stakeholders that make use of the important recreational amenities located at the property. Master plan solutions are intended to be pragmatic, and to recognize the basic fact that municipal governments like Columbia, must continue to provide a high level of service in a time of great financial uncertainty. To this end it becomes essential that residents who enjoy the benefits of this important park continue to advocate on its behalf and continue to be diligent custodians in a way that helps to encourage maximum appropriate use.

When implemented, the improvements identified within the master plan will provide enhanced opportunities for public use and enjoyment. Recreation Park will be a place where residents of the town and town sports league participants can come to enjoy passive and active recreational opportunities.

The Recreation Park of the future will be filled with park patrons of all ages engaged in positive activities that help to maintain good health, good will and good cheer within the community and larger society.

We also wish to express our appreciation to members the Columbia Parks and Recreation Commission, and other committed public and private servants who contributed to the development of this master plan.

And to express our appreciation to members of the steering committee:

Columbia Town Administration:

Mark Walter | Town Administrator
George Murphy | Director of Public Works
Paula Stahl | Town Planner | Client Contact
Carmen Vance | First Selectman

Nikki Keldsen | Chair of the Recreation Commission
Marc Volza | Director of Parks and Recreation
Cindy Postemsky | Recreation Commission Member

Thank you,

The Weston & Sampson Project Team



EXECUTIVE SUMMARY

Working on behalf of the Town of Columbia, Weston & Sampson explored options for renovating Recreation Park and Contiguous lands.

The following study provides a comprehensive inventory and analysis of all existing conditions and a series of recommendations for improving, or adding new facilities at the site. We have looked specifically at the potential passive and active recreation possibilities for expansion.

A needs assessment 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.

Surrounding towns have moved aggressively to expand their field-based playing venues due to dramatically increased rates of participation in traditional (baseball, football, soccer) and emerging (lacrosse and field hockey) sports and the expanding participation rate of women and girls in general. Columbia sees expansion in the number of programs offered and the number of individuals participating. Recent improvements to Multi-Purpose Field E represent an important beginning, showing that the town has the ability to renovate facilities with their forces and to begin implementing the recommendations in this Executive Summary and throughout this master plan report.

The most important goal of this study is to help the town get to the point of maintaining and operating the safest possible facilities regardless of the level of use. Across the country, we are experiencing a heightened focus on athlete and child safety; this increased awareness has resulted in increased scrutiny of all potential contributors to injury. People using athletic fields, trails, courts and playgrounds are inherently exposed to some risk of injury; however, the risk of head injuries is a major concern. Most concussions are the result of athlete-to-athlete collisions, but approximately 10-15% of concussions in sports are caused by head-to-surface contact. When a player falls on a field, the impact is absorbed by the playing surface and the player's body. The "harder" the surface, the greater the amount of impact that is absorbed by the player's body and this situation increases the probability that a fall will result in serious injury. Reduction or elimination of trip hazards and hard turf playing surfaces can greatly reduce the risk of injury. We support the premise that a properly constructed and properly maintained facility can help reduce injury risk.

Here are some sobering facts, as outlined in a presentation by John C. Sorochan, Ph.D., Distinguished Professor, Turfgrass Science, University of Tennessee Institute of Agriculture:

- Nearly 60% of high school students in the United States participate in organized sports – Center for Disease Control and Prevention, 2002
- Across high school sports, 250,000 concussions were reported in 2009 – National Research Council, 2013
- 3.5 million children under the age of 14 receive medical treatment for sports related injuries – Safe Kids, 2007
- 50% of these injuries are preventable – Brenner, 2007; Safe Kids, 2007

We invite you to review the larger document that follows and to actively participate in an endeavor to provide improved field-based recreational and athletic opportunities to all residents of Columbia.



INTRODUCTION

The Town of Columbia retained Weston & Sampson in 2016 to complete a comprehensive Master Plan for Recreation Park.

It is important to note that outdoor recreation needs relate not just to the sports/athletic programs that make use of them, but also to less formal recreational pursuits by individuals not aligned with a specific organization, like the neighborhood kids who seek a pickup game of football, baseball, 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 master 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 playing venues in good condition and to offer a sufficient number of facilities to support the desired level of use and provide gender equity. This document proposes a preferred master plan, that, if implemented, can improve these conditions.

By committing to a master planning process for a property like the Recreation Park Complex, a community sends a message that they seek to achieve a higher level of passive and active recreational performance. This is accomplished by undertaking an analysis of existing conditions, an assessment of community needs and the development of a conceptual master plan that identifies critical series of improvements. Without the benefit of a master plan, a community runs the risk of implementing improvements that are piecemeal, poorly planned/executed and oftentimes economically inefficient. The piecemeal approach also runs the risk of alienating key constituents by delivering less-than-stellar results, by losing momentum, and by precluding important opportunities for property enhancement that may not have been considered in a timely way.



Weston & Sampson partnered with Columbia representatives in a meaningful master planning process. The effort allows the opportunity to make Recreation Park a signature park, recreation, and open space asset that serves the Columbia community at an exceedingly high level. While many current property assets are maintained in high order and perform well, there is a sense that the site is a series of sports and recreation parts rather than a well-integrated, cohesive, and highly aesthetic, singular park venue. This master planning process seeks to improve that character.

After concluding the initial investigations, we prepared concept plans and/or improvement strategies that show meaningful solutions and recommendations for maintaining and upgrading the park in a way that improves performance and serves all constituents at a high level.

This master plan will serve as a guide for the future improvements, upkeep and esthetics of Recreation Park, as well as a tool to secure potential funding from various private and public sources.

Background

Columbia owns several parcels of contiguous land acquired over the years, totaling about 194 acres between Lake Road, Hennequin Road and Route 66, for recreation and natural resource protection. Wetlands and topography limit the total area for existing and future active recreation to about 60 acres.

The existing Recreation Park is on three of the parcels totaling 77 acres and has 28 developed acres dedicated to recreation. The balance of the current park acreage is wooded with some wetlands and steeper slopes. The facilities at the current park consist of:

- Five playing fields
- Volleyball court
- Pavilion and barbecue facilities
- 1-mile walking trail loop with stationed exercise equipment and connections to other trails

- Tennis court
- Basketball court
- A support building with concession stand, storage and bathrooms
- Two age-specific playgrounds

With the protection of Columbia Lake watershed in mind, the Town purchased land adjacent to Joshua Trust's Utley Preserve in the 1980s. The 74-acre parcel is on two sides of Utley Swamp, with trails on the northwest side connecting Joshua Trust trails to the trail at Recreation Park. Approximately 10 acres on the east side of Utley Swamp abuts the Recreation Park Parcel.

In 2014, the Town acquired from the Ellis family a 48-acre parcel that lies directly to the south, about 25 of those acres are either Utley Swamp, other wetlands or a wetland buffer. About 23 acres could be used for recreation. The property has 50' of frontage on Route 66. Part of the charge of this master plan was to determine the viability of safe access to the parcels and existing park.

At the beginning of the project Weston & Sampson received topographic surveys of the contiguous lands from Recreation Park to Route 66, including identification of wetland flags as follows:

- Topographic and Wetland Survey Route 66 and Hennequin Road depicting Existing Conditions Topographic Survey and Wetlands Boundaries, Prepared by Rob Hellstrom Land Surveying LLC, November 24, 2014, Scale 1" = 100'
- Perimeter Survey Showing Property of Edward & Renee Ellis located on the northerly side of Connecticut Route 66, Prepared by Datum Engineering & Surveying, LLC, January 30, 2014, Scale 1" = 100'.

This master 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
- Record and report on all existing conditions
- Identify safety issues and site limitations, constraints and opportunities
- Compile needs assessment results and identify the most critical recreation needs
- Engage the Columbia sports community in a public dialogue to further establish and confirm needs, preferences and priorities in relation to the future renovation and restoration of the property
- Develop a concept plan prepared specifically in response to community needs and preferences, and ultimately to be endorsed by both community participants and the Town representatives in the form of a "preferred" plan.
- Establish a budget and phasing, funding and implementation strategies for all desired property enhancements
- Develop and reproduce the final, finished preferred master plan

During the past several months, representatives of Weston & Sampson have developed conceptual and final "preferred" master plans for the property. The master plans were generated in response to the needs of the town as expressed by various user groups and others in the town Administration who are responsible for the programming and maintenance of the various fields. At the outset of the process and in conjunction with the master planning work, Weston & Sampson representatives frequently toured the property to assess the existing conditions of the facilities, identifying current limitations, safety and maintenance issues and potential opportunities for providing improved facilities and improved user experience. An existing conditions assessment is included in the form of a series of photographs, plans and a narrative description contained later in this document.

The major points of the conceptual master plan were presented to key stakeholders during September and October of 2016 and to the general public at an outreach meeting held on November 29, 2016.

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 a venue that meets minimum organizational standards and that is safe,

attractive and comfortable for both users and spectators. In short, there was a strong desire to establish a playing venue that the town can take pride in. This report represents the culmination of the master planning process.

This report contains narrative and graphic depictions of the preferred master plan 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, improving turf conditions, improved parking, site access and circulation, improved ancillary features and landscape qualities that establish the characteristics inherent to first-class park and athletic facility properties. Implementation of the improvements outlined in this master 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 the property.

It is important to note that a “master plan” is typically general and dynamic; and 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.



Basic Project Goals and Objectives

At present, Recreation Park reads as a series of parts rather than as a well-integrated, high-quality park and open space landscape. Internal and external circulation system improvements (pedestrian, vehicular, and service) could dramatically enhance movement between different park assets, provide valuable ADA and multi-generational benefits and help create a more cohesive arrangement of space.

PROJECT OBJECTIVES

Weston & Sampson performed the work identified in the RFQ as project objectives, including:

- Inventory and analysis of all existing assets
- Examination of access drives and parking areas and development of concept plans for improvements
- Analysis of unused or underperforming areas for reuse or new development
- Best layout for a total of eight to ten playing fields
- Identification of opportunities for perimeter pathways, linkages, trails and structures
- Feasibility of access off Route 66 for passive and active recreational use
- Development of a compelling master plan that sets forth a logical and compelling series of enhancements throughout the site
- Protection and preservation of Utley Swamp
- Estimate of associated costs



Goals

The basic goals of the master planning process in relation to The Recreation Park property included the following:

- Improvement of existing facilities to perform at a higher level
- Identification of new facilities and features that provide added value for current and future needs
- Identification of site enhancements that make the site more multi-generational and more inclusive
- Identification of enhancements that make the site more compelling aesthetically (in keeping with one's expectations for a signature park, recreation, and open space resource)
- 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 expansion of the property.
- Analyze current town sports programs offered by the town and participation, identify shortages and limitations, 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.
- Providing 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.
- Proposing 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.
- Determine the best layout and orientation of up to 8 to 10 new playing fields, additional basketball and tennis courts, trails, and structures.
- Analyze the feasibility of access off Rte. 66 for passive or active recreation and an estimate of the associated cost to provide access.
- Protection and preservation of Utley Swamp; any active recreation must be setback a minimum of 200' from Utley Swamp
- Develop phases for implementation that include any relocation of existing fields or other features.

Description of Existing Site

During the early stages of the project, representatives of Weston & Sampson gathered all available mapping and plan information to support the master planning study and proposed development efforts. The town provided GIS mapping for the property and aerial photography was also obtained. A site topographic/detail and property line survey was also performed by Rob Hellstrom Land Surveying LLC and supplied by the town and the resulting base plans will be suitable for the development of construction documents for all future phases of park improvements. A copy of the survey base plan overlaid on the aerial photo is included below with a larger version appearing in Appendix B.



Weston & Sampson representatives undertook extensive field reconnaissance work to observe how facilities are maintained and used, to better understand the physical characteristics of the site and to record the conditions of all natural and man-made features at the property. The following is a summary of our findings.

Topography

The current developed area of Recreation Park lies on a hillside, with steeper terrain on the eastern part of the park near Hennequin Road with flatter terrain on the western edge with the rest of the park generally sloping down to the east. The change in elevation is about 68 feet from the highest to lowest points on the property. The park's topography defines use areas in that the existing sports fields and courts are at the higher, relatively flat, western corner of the developed park, while steeper terrain lies between the built features and Hennequin Road.

The remainder of the contiguous land has varying topography. There are areas of relatively flat land and areas of the property that slope from 5% to 25%. A site analysis was prepared indicating the areas with steep slopes and those flatter areas that show potential for field or facility development. The site analysis diagram is below with a larger version appearing in Appendix C.



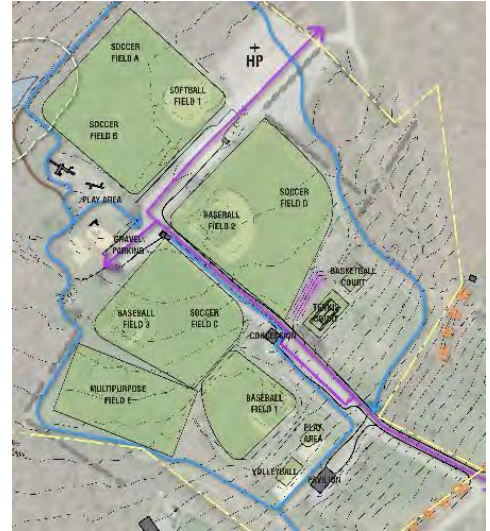
Vegetation

Existing vegetation at the Recreation Park property is characterized and summarized as follows:

- Much of the site's vegetation consists of deciduous shade trees throughout the vegetated areas of the site, except at the edge of the developed area of the park where there are evergreen trees along the edges.
- The playground and the entrances to the trails are set in groves of trees, leading to a very pleasing shaded atmosphere.
- Fairly mature deciduous trees and some evergreens are sparsely planted within the developed area of the park.

As future projects are planned, it will be essential to include new, strategic tree plantings and selective tree removals / pruning to provide a safer, more functional and attractive park landscape for new generations. Tree plantings are critical elements in any park setting as they provide:

- Shade for those seeking relief from the hot summer sun
- A place for a picnic or social gathering
- Aesthetic qualities that benefit a neighborhood
- Refuge for birds and other wildlife
- Visual screening to reduce impacts of various park activities on surrounding properties
- Health benefits by improving air and water quality



This view indicates the primarily deciduous tree cover at the site, spots of evergreens can be seen near the developed area of the Park. Note the lack of shade trees and planting at the developed area of the park. There are very few areas within the park to seek refuge from the sun.

Parking, Access and Park Circulation

Off-street Parking- the park has off street parking lots with capacity of \pm 160 cars. Parking is currently limited with community members reporting shortages during peak periods of park use. Parts of the parking areas are gravel and not marked, this causes inefficiencies and circulation difficulties. Two of the parking areas have dead ends causing further circulation issues. The parking area that is paved is in good condition and well-marked. The main access drive also cuts right through the middle of the park, separating the amenities. This places traveling cars in the line of foul balls, causing an inconvenient situation.



The aerial photo above shows the off-street parking areas at the park.



The visual statement along Hennequin Road does not convey an image that represents Recreation Park (both photos).

Pedestrian Access- there is no formal (paved) pedestrian access point into the Park from Henniquin Road and there are no crosswalk connections to help facilitate access into the park. Most if not all of the park facilities are not accessible to the handicapped.

Recreation Facilities

The chart below identifies condition summaries for major Recreation Park facilities. The recreational facilities at the park are incredibly popular. The fields, pavilion and playground are heavily used and much-loved facilities in town. The tennis and basketball courts are worn and not used as much as the other facilities; residents say this is due to their poor condition. The natural turf at the field is in good to excellent condition considering there is no irrigation installed and the town forces do not irrigate it with a water cannon. This is a tribute to the town maintenance staff who regularly test the soil, fertilize accordingly and aerate and slice seed about three times a year.



Facility	Condition Assessment
Softball and Multi-use Field (Field A & B)	Overlapping of rectangular field (mainly soccer) and softball creates programming conflicts. Lack of outfield fence is a gender equity issue since the little league field has a fence. There are drainage issues near first base and the right dugout. There is limited spectator seating and no accessible viewing areas.
Baseball Field 3 and Multi-use Field C	Ideal orientation. Backstop is in fair condition and there are no dugouts. There is a ledge outcrop in the corner of the soccer field. There are slope/grading issues in the southeast corner of the field. There is limited spectator seating and no accessible viewing areas.
Multi-purpose Field E	There are drainage issues near a portion of the perimeter path. Field is slightly too small. East-west orientation is not ideal. There is limited spectator seating and no accessible viewing areas.
Baseball Field 2 – 90' Diamond and Multi-use Field D	Ideal orientation. The left dugout is far from the fence, the dugouts need repair. The parking lot runs along the left foul line creating conflicts with foul balls and vehicles. There is a grading issue along the right field foul line. There is limited spectator seating and no accessible viewing areas.
Baseball Field 1 – Little League	Southeastern facing orientation is not ideal. The right outfield has drainage issues. Rock ledge is breaching the surface close to the foul line in left field. The dugouts need refurbishment. Bullpens cannot be mowed with current equipment. There is limited spectator seating and no accessible viewing areas.
Playgrounds	The children’s playground is in fair to poor condition and all equipment requires replacement. Town representatives have started upgrading the children’s playground facilities.
Tennis and Basketball Courts	There are cracks and patches in both the tennis and basketball courts. Town forces have attempted to keep up with repairs, however the cracks keep appearing. The asphalt and base are failing and the courts require reconstruction.
Volleyball Court	The volleyball court needs edging, the sand is traveling into the grass with no defined edge.
Access Drive and Parking Area	The condition of curbs, pavements and drainage systems are generally fair. The lighting system works intermittently and requires upgrading.
Trails & Pedestrian Pathway Network	The walking trails are generously wide and well maintained. Informational kiosks, wayfinding signage and fitness stations are provided along the trail. There are areas of wash out on steeper slopes. The pedestrian network around the fields is limited and not ADA accessible.
Pavilion and Barbeque Facilities	The pavilion is in good condition, it was recently refurbished and has a water spicket and barbeque pits.
Support Building	The support building has a fresh coat of paint and a new roof, however the interior needs updating, the restrooms are not ADA compliant, the storage/maintenance area and the concession facility is too small.
Site Furnishings and other amenities	There are very few benches, shade shelters or site furnishings. There are a few picnic table in various locations. Boulders are used to edge the parking areas and fields. These are used to prevent vehicles from driving on the fields, but are difficult to mow around and require trimming. Children have also been hurt climbing on them. Plastic drums are used for trash barrels. Fencing in general is a little worn and could use replacement or repair in certain areas.

Following are a series of photographs that serve to document the existing conditions of various park facilities and furnishings.

Softball and Multi-Use Field (Field A & B)



The image at left shows the area where there are drainage issues at the softball field. All images above also show the lack of accessible viewing areas at the field. The image at right indicated the overlapping nature of the field. Note, the little league baseball field has an outfield fence, creating a gender inequity at the softball field.

Baseball Field 3 and Multi-Use Field C



The backstop and players benches (left photo), the rock outcropping at the end of the field (middle photo) and the lack of accessible seating and viewing areas (right photo).

Baseball Field 2 – 90' Diamond and Multi-Use Field D



The slope just outside of the foul line in right field (left photo), the third base dugout, and the overall positioning of the dugouts (middle and right photo).

Baseball Field 1 – Little League



The ledge outcropping along the left field foul line (left photo), the bullpens (middle photo), and the third base dugout (right photo)



The stand alone bleacher without ADA accessibility (left photo), the third base dugout (middle photo), the right field has a drainage issue, the grass does not get green along the trench drain area (right photo).

Playgrounds



The playground toward the front of the site is worn (left photo), the 2-5 year old's structure (middle photo) and the wooden swing (left photo).



The 5-12 year old's play structure as it was at the beginning of the study (left photo), it has since been replaced with a new structure (right photo).

Basketball, Tennis and Volleyball Courts



MASTER PLAN FOR RECREATION PARK



The tennis and basketball court surfaces are cracked and worn beyond repair. Town forces have tried to repair both surfaces but the asphalt base is no longer stable. The Volley ball court has no edging causing the sand to migrate into the lawn (bottom right photo)

Access Drive and Parking Area



The main drive runs right through the middle of the site and is too close to the baseball field causing issues with foul balls and vehicles. (left photo). Unpaved parking areas have erosion problems, and the view of the paved parking area between the softball field and baseball field (right photo).

Trails & Pedestrian Pathway Network



Most of the 1-mile loop walking trail is generously wide, well kept with smooth surfaces (left photo). There are areas of the pathways that washout at times and the town has difficulty maintaining these surfaces (middle and right photo).



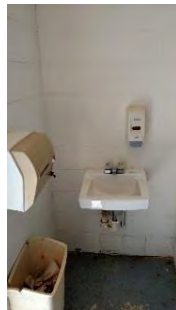
The woodland trails are rugged and less defined (left photo), Fitness equipment is installed at various location along the 1-mile trail (middle photo). The trail head signage at the entrance to the Utley Preserve Trail System (right photo).

Pavilion and Barbeque Facilities



The barbeque pavilion is much loved by the community

Support Building



The concession side of the support building (left photo), the interior of the restroom showing the lack of accessibility and dated fixture (middle photos)



The concession area, it is too small for the amount of activity at the park (left and middle photos). The maintenance area is too small to work on and store equipment efficiently (right photo)

Site Furnishings and Other Amenities



There are very few site furnishings or other amenities at the site. Commemorative plaques dot the landscape. The plaque for the Columbia Children's Playscape (left photo) and the Dunnack Field memorial plaque (middle photo). A granite bollard and chain rail separate the pedestrian path from vehicles along the main access drive (right photo).



There are a few storage buildings of varying styles and condition throughout the site. The existing perimeter trail shown middle and at right.

In summary the key issues at the site that can be address by this master plan are:

- Tennis court, basketball court and volleyball court need updating
- Overlapping fields
- Lack of dedicated soccer fields and softball field
- Drainage issues across the site
- Washed out pathways
- Additional and improved trails
- Handicap access
- Foul balls
- Parking
- Support building to small
- Playgrounds are showing age

Potential Route 66 Access - During the master planning process we analyzed the feasibility of access to the site off Rte. 66 for passive or active recreation and developed an estimate of the associated cost to provide access.

Weston & Sampson's traffic engineer conducted a field visit and prepared a rough cost estimate for widening Route 66 for left turn and right turn bypass lanes. The existing roadway width is 38-feet near the site. With by-pass lanes on both sides of the road, a total width of 40-feet would be required. See the diagram below. Intersection sight distance looking to the right from the proposed driveway is obstructed by a vertical crest curve. A conceptual engineer's opinion of construction cost ranges between about \$150,000 and \$220,000 depending on the need to mill and overlay the width of the road. This does not include cost for property impacts and pole relocations (if any) or design costs. Town personnel also had discussion with the Connecticut Department of Transportation (ConnDOT). During these discussion ConnDOT representatives stated that an entrance at that location may not be safe due to site lines and travel speeds on the existing route 66.



PUBLIC OUTREACH & NEEDS ASSESSMENT

Informational Meetings & Public Comment

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

Meeting	Subject	Date
<i>Working Group</i>	Project kick-off meeting, outline scope of work, review project schedule requirements	July 27, 2016
<i>Site Walk</i>	Meeting to review site conditions with town personnel	August 9, 2016
<i>Working Group</i>	Review information from site walk and project coordination	August 17, 2016
<i>Initial Public Outreach and Input Meeting</i>	Review of initial mapping and field reconnaissance efforts, receipt of comments regarding limitations and opportunities	September 22, 2016
<i>Working Group</i>	Review of initial site concept plans and public outreach meeting 1	October 17, 2016
<i>Working Group</i>	General review of DRAFT master plan including all concept plans	November 3, 2016
<i>Working Group</i>	Review of revised master plan and phasing plans, prepare for public outreach meeting 2	November 17, 2016
<i>Public Outreach Meeting</i>	Present draft improvement plans, receipt of comments and suggestions for moving forward	November 29, 2016
<i>Working Group</i>	Review of public outreach meeting 2, master plan revisions and phasing discussion	December 19, 2017
<i>Working Group</i>	Discussion of master plan and phasing revisions and budget considerations	February 2, 2017
<i>Working Group</i>	Review of possible Phase 1	April 6, 2017
<i>Working Group</i>	Consensus on overall goals for Phase 1	October 5, 2017
<i>Public Outreach Meeting</i>	Present plan for Phase 1	TBD

Meetings with the core Working Group were held at the Town Hall and larger public meetings involving sports league stakeholders, elected officials and members of the general public were held at the Yeomans Hall. Large-scale colored plans and PowerPoint presentations were used to communicate master plan findings, recommendations and concept diagrams. Feedback from each meeting was generally constructive and positive with most participants expressing keen interest in achieving dramatic improvements to the facilities to provide enhanced conditions for all users. Some residents expressed a concern over spending so much money on recreational improvements; however, most patrons desired improvements and more facilities. At the first public outreach meeting residents expressed interest for more trails, equity for both boy's and girl's athletics, improved circulation, improved playgrounds, more pavilions and potential access from Route 66. Preserving sensitivity to the areas adjacent to Joshua's Trust and Utley Pond were mentioned at both public outreach meetings. A summary of both public outreach meeting is attached at the end of this report, refer to Appendix F.

Needs Assessment

In order to assess the best use of the property, it was important to consider the most pressing needs of the entire Columbia community. This Needs Assessment represents a synthesis of the information obtained during the hosting of information meetings and of the data generated during the master planning process. To compile the array of needs, a variety of methods and tools were used including those summarized below:

- Information obtained at the meetings
- Information obtained at meetings with all key stakeholder groups including schools, the Recreation Department, and all other sports groups and organizations
- Information and advice from the town staff members, including all key departments (Town Administrator's Office, Public Works and Engineering Departments, Recreation Department) since these individuals are charged with the maintenance and operation of all facilities
- Anecdotal data gathered during the master planning process
- Analysis and inventory of existing facilities and conditions throughout the park
- 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 the property 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 Columbia where significant 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 city 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 soccer, lacrosse, 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, softball, or Little League 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.



The softball field is much loved and far too over-used to the point where maintaining quality playing conditions is impossible. The softball field is an example of a multi-use rectangular field overlaid on a diamond.

Columbia is also in need of an additional softball fields. There is only one legitimate field available for softball.

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, backstops, fencing lines, parking areas, sports lighting, irrigation, basketball courts, children’s playground equipment, etc.).

Other factors playing into the development of an appropriate recreation needs assessment for Columbia includes the following:

Current Trends- The popularity of certain recreational activities decreases and increases over time. For instance, Soccer is experiencing incredible growth in many New England communities, including Columbia.



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 Columbia.

Increasing Athletic Field Usage – Whether it is due to the increase in the popularity of athletics, enactment of Title IX for women’s sports or a combination of the these, 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.

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

- The five study fields were used an estimated 2,830 hours, there was an average of 566 hours per field.
- More than 16 teams play at the study fields in the fall for an average of 200 events per field during the season.

Given these factors, and because of the information gathered during the master planning process, many basic needs have been identified, as listed below:

- Dedicated softball field
- 2nd Softball field
- Dedicated soccer fields
- 2 new tennis courts/ pickle ball
- New basketball court
- Multiple maintenance storage sheds
- Possible dog park
- Trail systems
- Improved play areas/ volleyball court
- Bocce, ping pong, corn hole (yard games)
- Multiple bathrooms/ porta-john locations
- New entrance
- Multiple pavilions
- Ice skating with warming hut
- Disc golf course

RECOMMENDATIONS

Initial Efforts



The master planning effort presents a unique opportunity for the Town of Columbia to assess their major park, recreation, open space, and athletic facility needs and develop a series of thoughtful and achievable enhancements to Recreation Park that will provide benefits to all members of the community.

The narratives that follow describe the basic scope of improvements proposed within the property. It is important to note that the potential scope of improvements has been presented to the public and the master planning committee at numerous forums. The Master Plan describes an approach to providing new and refurbished recreational improvements in a manner that improves conditions and opportunities for use and enjoyment by all prospective park visitors. The narratives describe and support graphic plan images that are included throughout the section. These plans are conceptual in nature and are likely to be refined and expanded upon during future permitting, final design and implementation phases of work.

The initial recommended effort for Recreation Park is shown at right. The plan that shows the preferred and recommended range of improvements for the entire property is shown later in this section. We use excerpts from that plan to identify and describe in more detail the full range of intended improvements. An 11x17 inch version of this same Master Plan drawing is contained in the Appendix.

The graphic at right indicates a preferred first course of action or “Phase 1”. There are seven areas of initial improvement as follows:

- Access Drive/Circulation and Parking
- Trails & Pedestrian Pathway Network
- Multi-use Rectangular Field Complex
- Softball and Little League Baseball Complex
- Existing Baseball Field
- Entrance and Basketball Court Area
- New Maintenance Area for equipment and supplies used at Recreation Park

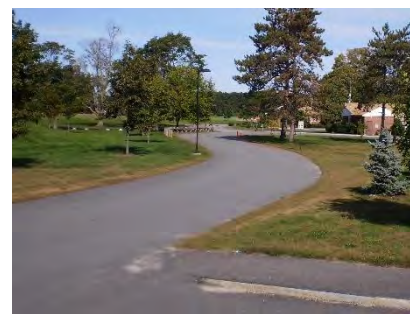


Access Drive/Circulation and Parking – An important improvement goal of the master plan includes provisions for new and improved access to the property, by foot and by car. This can be accomplished by providing convenient and appropriately scaled parking amenities, reducing conflicts between pedestrians 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 entrance to an exterior loop drive and parking areas near the perimeter of the property. Our primary recommendations for improvements to enhance park access and linkages include the following:

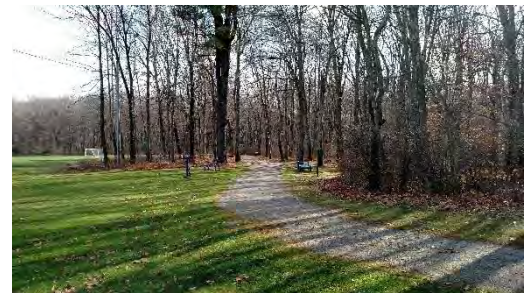
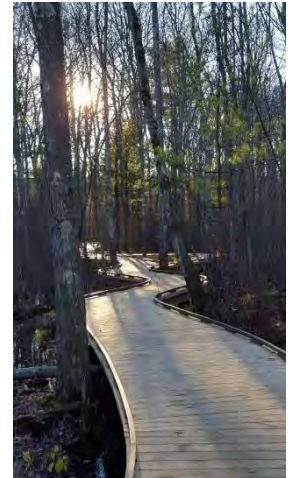
- Eliminate any badly deteriorated and difficult-to-maintain existing conditions
- Develop a new park entrance and reconfigure drives/parking areas to provide clear travel patterns, clearly defined parking spaces, more efficient use of the overall space, and more parking spaces
- Establish pedestrian 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)



Pathways, Trails & Picnic Areas – Throughout the public input sessions of the master planning process, many stakeholders sought improvements designed for multi-generational use of the park. One consistent theme from the meetings was a request for amenities that would serve all ages. The preferred master plan calls for incorporating new and upgraded pathways and trails, as well as picnic areas at various 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 in the park. Pathways can be constructed in compliance with accessibility regulations. 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 the 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 within various park settings and along pathways, especially on longer trails where dehydration could be an issue.



Pedestrian/maintenance circulation at Newman Conservation area in Needham, MA | Cushing Park in Framingham, MA (Weston & Sampson) | Existing trail at Recreation Park | Below: An artist’s rendering of a proposed boardwalk | Nature Trails at the Montreal Botanical Garden, Montreal, Quebec



Athletic Facilities – The master 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, Recreation Park 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 plan 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
- Provide perimeter fencing and appropriate gates to enclose the facilities, limit access, control use, and help maintain high-quality court, turf, and infield surfaces

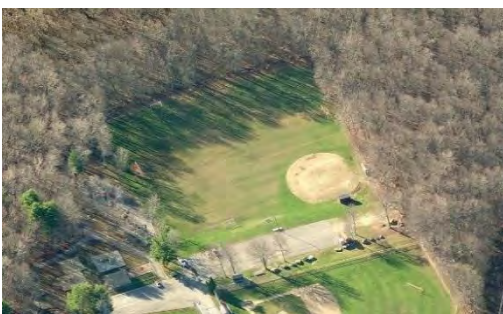
Multi-Use Rectangular Field Complex

The recommendations for this area include removing (and relocating) the girls’ softball field and parking area allowing for the expansion of the multi-use field into two full size (330’x180) athletic fields. This will allow for additional play by all “rectangular field” sports. The installation of a pavilion and picnic area would add a venue for events, barbeques, after game functions, and other town activities. The improvements would include:

- Renovating the natural turf field, with an amended loam root zone mix and drainage where needed.
- Incorporate spectator seating at edges
- Create new pathways for access to all amenities
- Install a new shade shelter with adjacent picnic areas and expanded children’s playground area
- Integrate trees throughout the site to provide shade



Multi-use rectangular field Complex



Aerial photo of the existing softball field at Recreation Park | New athletic field at Blackstone Valley Vocational School, Upton, MA (Weston & Sampson) | Princeton Soccer Complex, Princeton, MA (Weston & Sampson)

Softball and Baseball Complex

One of the main goals of the master plan was to create gender equity and general equity among all sports. Through the master planning process the need to develop a dedicated fenced in girls' softball field materialized. The improvements to this area would begin with the conversion of Little League Field 3 into a fully fenced-in girls' softball field and the construction of a new little league field in the location of the southern parking area and playground and the renovation of the full-size baseball field. The current 2-5-year-old play area would be either relocated or rebuilt adjacent to the newly installed play structure. The Concession, Storage and restroom building will provide a much-needed support building for these facilities. The overall program would include:

- New backstops
- New player's benches/dugouts with canopies
- Spectator bleachers on concrete pads
- Grading improvements throughout
- New drainage systems
- Improved loop pathway with connections to new parking and new/refurbished facilities
- Concession, Storage and Restroom Building

The Existing Little League baseball field 1 would remain until the future renovation of the entrance area. Refer to the future full build out plan shown later in this section.



Softball and Little League Baseball Complex



New little league field at Newman Elementary School, Needham, MA (Weston & Sampson) | Support buildings at Lowell Park, Barnstable MA



Improved softball field at Rockwood Field in Worcester, MA (Weston & Sampson)



Renovated baseball field, Ware, MA, Existing dugout shelters can be relocated to a more appropriate location. Leary Field, Waltham, MA

Entrance and Court Area

A renovated entrance at Hennequin would allow for the safe access to the site. The drive would be two-way to allow for easy entrance to and exit from the existing parking area. The existing parking area would be expanded by adding perpendicular parking stalls to the northern side of the lot. The entrance would lead to the narrow one-way park circulation drive that will access all features and traverse the outer edges of the park. The circulation drive will exit at a new location just south of the main entrance.

At the northern edge of the property, a new basketball court complex would be created. One court would be constructed during the initial effort while leaving room for a second court. This would better serve the community with the potential for 2 new basketball courts (which represents a net gain of 1 court). Under the initial effort, or "phase 1" the barbeque and volley ball area would remain in place.

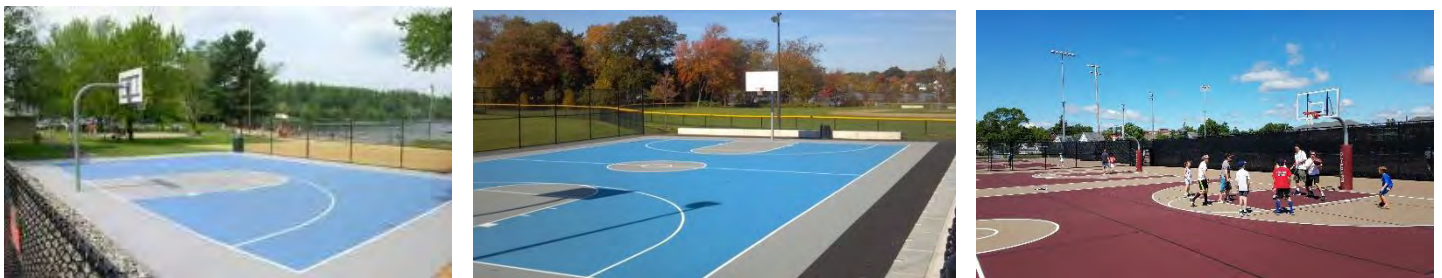
The existing tennis court would remain in place and possibly be resurfaced depending on the timing of the construction of the new proposed tennis court complex.

The basketball court would be reconstructed with:

- Paving and color sealcoating
- New basketball standards
- Fencing at court ends
- New spectator seating
- Potential court lighting for extended use
- Universally accessible path connections



Basketball Court and Entrance Area



New basketball facilities at Sandy Pond Beach in Ayer, MA, Waltham, MA and Portsmouth, NH (Weston & Sampson)

The park entrance would be enhanced with identification features such as walls, signage, gates and fencing to give it the identification deserving of a major town park property.

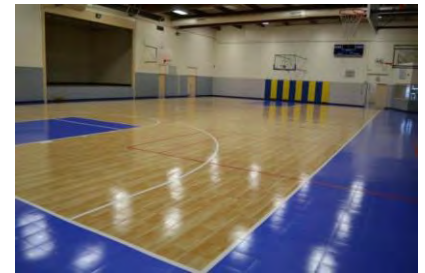


Example park entrance in keeping with the character of Recreation Park

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 Recreation and Public Works Departments 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.



Support Buildings – We have indicated potential locations for new park support buildings on the preferred master plans for the property. 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. The Town also wanted the master plan to position a possible future small recreation building with a multi-purpose gymnasium and to house the recreation staff. Sheltered/screened portable structures could be a practical alternative to restroom support buildings at certain locations where utility connections are difficult. In Section – Needs Assessment, we discussed the issues surrounding the development of park support buildings.



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 the 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 park. It is important to establish a standard visual appearance that becomes recognizable as the Recreation Park “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 area 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, shelters 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 throughout the park
 - Establishing a consistent theme that becomes easily recognizable as the parks motif
 - Providing distinct signage at historical sites that sets them apart, yet still resembles the general theme of the signage
- Installing additional site furnishings park-wide (e.g., benches, picnic tables, shade shelters, bike racks, drinking fountains, 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 or water connections (where feasible) for new or refurbished bathrooms, concessions stands, 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 the park. 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

The recommended upgrades will help to achieve dramatically better playing conditions and added amenities for all Generations. Properly constructed sports and recreation facilities will also be more easily maintained and support greater programmed usage with far fewer impacts caused by normal heavy use. Implementing the preferred plan will provide enormous benefit to school and community users, reduce safety concerns, provide environmental benefit and accomplish the following:

- New facilities correct deteriorated conditions, deficiencies, code issues and ADA concerns
- Higher performance of all facilities, relief to maintenance forces and increased field use
- Improved restroom facilities
- Larger rectangular field footprint and increased capacity
- Improved baseball field footprints + improved orientation
- Upgraded, dedicated softball field with perimeter fencing
- One additional basketball court
- Upgraded and more flexible multi-use field footprint
- Additional storage facilities
- Pathways link to all facilities
- New gateway entrance created
- State of the art stormwater management systems that provide environmental benefit (recharge of rainfall to soils below and protection of all surrounding environmental resource areas)



Initial Efforts Budget Considerations

The chart below identifies the basic cost of the initial proposed improvements, depending on final confirmed approaches to renovation, for each recommended sports and recreation facility improvement. As noted, a renovation approach might include one, two or three phases. The approach allows for each proposed area to be constructed individually. However, there are benefits to considering a single phased approach based on funding availability. Benefits include:

- Less costly to undertake one phase vs. two or more phases due to reduced mobilization and demobilization and economy of scale.
- Inflation creeps in with project completed over multiple years.
- There would be less disruption with a single construction effort vs. multiple.
- Larger projects tend to attract more competitive bidding.
- Larger projects tend to attract more qualified general contractors

ITEM	DESCRIPTION	COST
General Site Preparation	Construction fence, erosion controls, etc.	\$100,000
Roadway	Paved one way loop road starting and ending on Hennequin Road and bioswales for drainage	\$280,000
Parking	3 parking areas and bioswales/ BMPs for drainage	\$205,000
Inner Walking Paths	Paved walkways within the loop road	\$160,000
Outer Walking Trails	Stone dust trails outside of the loop road, connecting to existing trails, signage and kiosks	\$65,000
Multiuse Fields 1 & 2	330' x 390' field	\$250,000
Softball Field	Includes new skinned infield, slit seeded outfield, perimeter fencing, dugouts, backstops and drainage	\$220,000
Little League Field 2	Includes new skinned infield, sod infield, slit seeded outfield, perimeter fencing, dugouts, backstops and drainage	\$235,000
Existing Baseball Field Renovations	Renovations to the existing dugouts, fencing, turf and grading	\$25,000
Basketball Court	New basketball court	\$35,000
Site Furnishings	Includes benches, trash receptacles, bike racks, and park signs	\$70,000
Maintenance Building & Yard	Maintenance building with water and electrical connections, maintenance yard and 6' ht. fencing	\$315,000
Concession/ Storage/ Restrooms Building	New building located centrally between the little league fields with water and electrical connections and a new septic for concession, restrooms and storage	\$340,000
Pavilions	One pavilion located by the playground and the basketball court	\$30,000
Plantings & Other Seeding	Loam, seed and tree and shrub plantings	\$115,000
Estimated Hard Costs:		\$2,445,000
Estimated bid for the project could be 20% above the Estimated Hard Costs to account for contractor's overhead, profit, mobilization and general conditions.		
Estimated cost to Columbia for testing, architecture/ engineering design, management and contingency is 20% of the Estimated Hard Cost		

Additional Initial Efforts



The benefit of a Master Plan is that certain elements can be incorporated when town and volunteer efforts enable implementation with the knowledge that the work is consistent with the overall plan. Columbia DPW has the ability to construct a gravel road and a small parking lot; both elements in the same location as the Master Plan at Full Build-out (see graphic above). This would also give access to the ruins of the Little Homestead, the same family that the Saxton B. Little Library was named for.

Using the Master Plan at Full Build-out as a guide, volunteers would layout and develop trails that connect to Joshua Trust trails and also connect to the playing field area of Recreation Park. The 9-hole disc golf course would be designed by town staff to weave through the trees, and would be primarily developed by volunteers. The estimated cost for the drive, parking area, 9-hole disc golf, connecting trails and signs for trail head and wayfinding is \$70,000.



Example of a disc golf hole – Ninigret Park, Charlestown Rhode Island



Master Plan – Full Build-out



The future full build-out of the park adds additional desired amenities. The diagram above shows overall master plan program for Recreation Park. A larger version is attached at the end of the report. The implementation of the future elements would depend on funding and available resources. For example, if the town can organize a “community build” for the disc golf course then that project could be brought to the forefront. The full build-out programs include:

- Tennis court complex with pavilion and seating areas
- Two additional rectangular field complexes, one with a playground, porta-john enclosure and shade shelter
- An open lawn, flexible space area
- Additional trails, picnic areas and overlooks
- A nine-hole disc golf course
- Potential indoor recreation center
- New pavilions, volleyball courts, and bocce courts
- Children’s playground with a gaga ball court
- Associated access drives and parking areas

Phasing

As mentioned earlier in this document, the overall masterplan was developed in such a way that each portion of the recommendations could be constructed separately as long as access drive are constructed prior to or simultaneous to the construction. Some projects could be constructed by town forces or as stand-alone projects if a donor or sponsorship arises. The most practical and economical approach would be to group the proposed renovations into larger projects for development.

Tennis Court Area

A new tennis court complex would be created just to the west of the wetlands. The tennis court area has room for four courts that could be built in phases and would include all necessary amenities, including an event pavilion, small shade shelter, benches, porta-john enclosure, fencing and parking. Pickleball marking could be included if desired.



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 Recreation Park.

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 edging, surfacing, and utilities
- Enclosing play areas designed for younger children with attractive fence treatments
- Installation of seating, signage, and other furnishings
- 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.



Children’s Grove at Cushing Park in Framingham, MA (Weston & Sampson) | Other examples of natural play playgrounds

Phasing and Funding Options

Phasing

As mentioned earlier in this document, the overall masterplan was developed in such a way that each portion of the recommendations could be constructed separately as long as access drive are constructed prior to or simultaneous to the construction. Some projects could be constructed by town forces or as stand-alone projects if a donor or sponsorship arises. The most practical and economical approach would be to group the proposed renovations into larger projects for development.

Funding Options

Many potential sources of funding from both public and private entities could help to pay for improvements to field and park sites at Recreation Park. In addition, donations, both large and small, can be combined to help offset the town's responsibilities in undertaking these meaningful improvements. The Town of Columbia could aggressively pursue a variety of funding and implementation strategies that could include:

- **Traditional Public Bidding** – Develop plans, specifications, and estimates for the desired improvements and then publicly advertise, receive bids, and award a construction contract to the lowest qualified bidder. The costs for these types of projects can range from \$50,000 for small-scale work to hundreds of thousands of dollars, or even multiple millions for large-scale projects as outlined previously in the report.
- **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. These types of arrangements often originate from the approval of a large in-town development. In certain cases, we can also implement improvements using contractors who seek to donate services, equipment, or materials.

Partnerships

Partnerships could play an important role in the overall plan to improve, manage, and maintain park properties. For example, many privately managed sports leagues could provide certain maintenance and capital improvement initiatives for numerous facilities. More and more, communities are relying on public/private partnerships to create facilities and maintain the desired playing conditions needed to support region-wide sports programming.

Grants and additional funding

Connecticut Land Conservation Council receives state and federal **Land & Water Conservation Funds** for distribution to communities that are considering park improvements or land acquisitions. The allocation for Connecticut for the upcoming year has not yet been determined; however, the funds, when available, may be used to supplement funding from other sources.

For your consideration, we have also identified the following additional funding sources:

- **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 across the country with a goal of promoting healthier, safer, and more active communities. They award two types of grants each year. The first grant is called *Safe Places to Play*, which assists grantees with synthetic turf fields, lighting, irrigation, and sports courts. Stipulations may apply, such as the use of specific products. Funding under this source may need to be done by a private entity. The second grant is a *Program Grant*, which assists with equipment and operating costs. Visit <http://www.ussoccerfoundation.org> for further information and to read the requirements of each grant.

Appendix

- Appendix A | Recreation Park Field Use Matrix
- Appendix B | Existing Site Plan
- Appendix C | Existing Site Analysis Plan
- Appendix D | Proposed Master Plan
- Appendix E | Phase 1 Plan - Overall
- Appendix F | Phase 1 Plan - Enlargement
- Appendix G | Public Outreach Meeting Notes
- Appendix H | Details of Cost Estimates







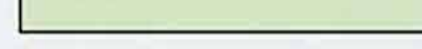




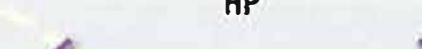

Recreation Park Field Use Matrix

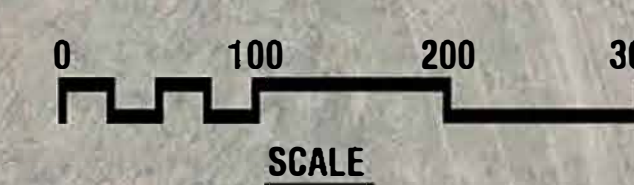
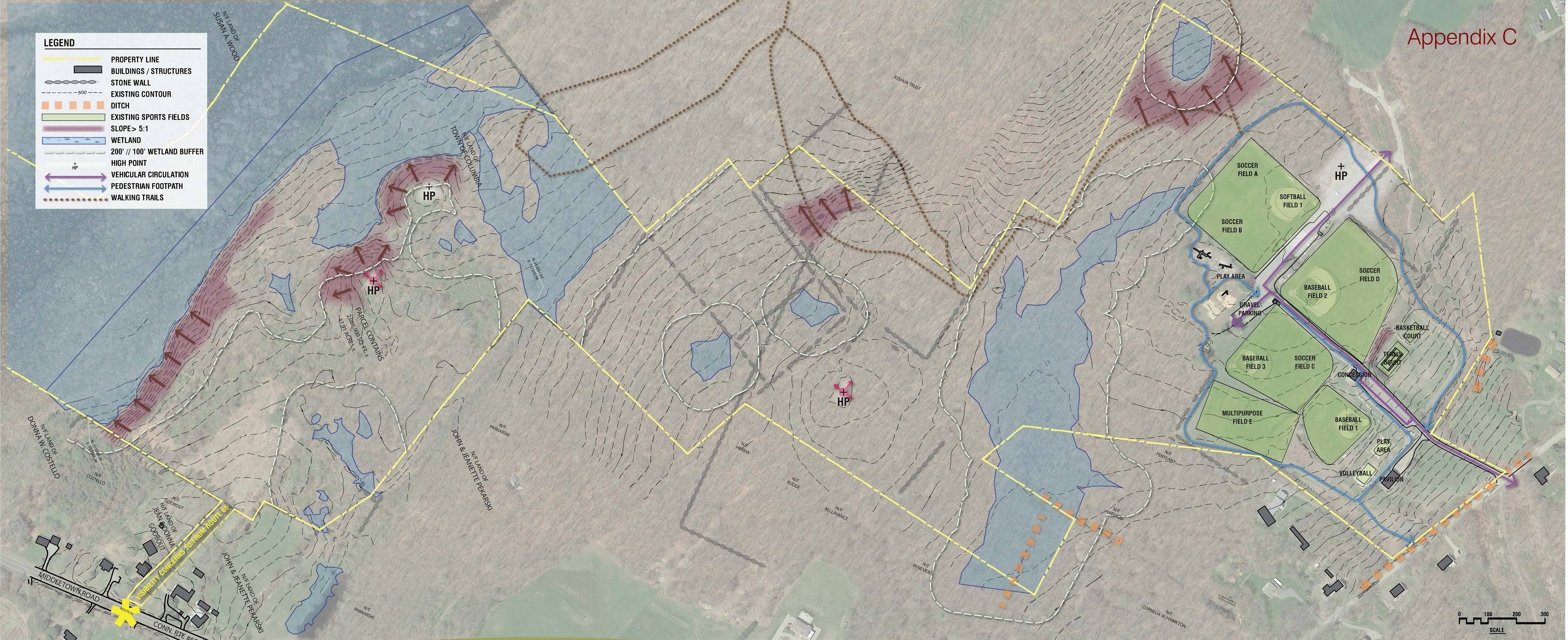
Columbia, Connecticut

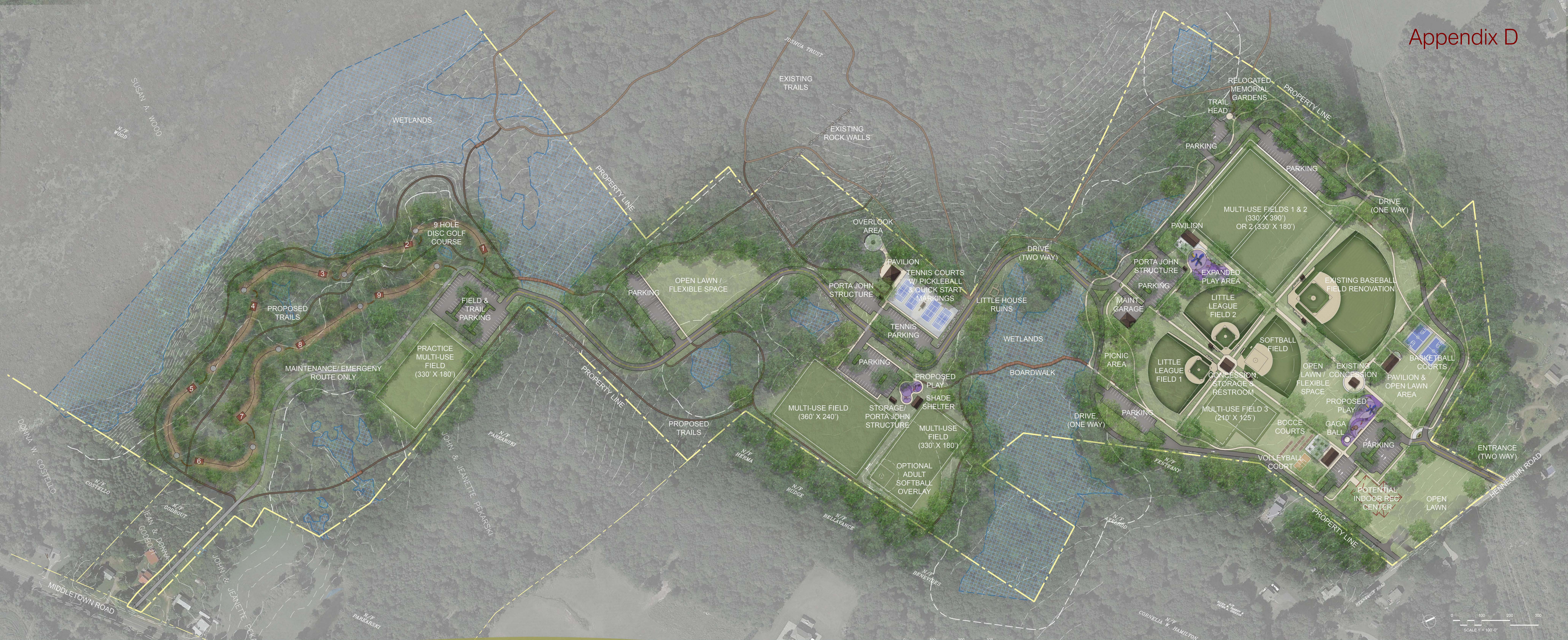
FIELD	SPORTS PLAYED ON FIELD	# OF WEEKS PER YEAR	PRACTICES PER WEEK	HOURS PER PRACTICE	HOURS OF PRACTICE PER YEAR	# OF HOME GAMES PER YEAR	HOURS PER GAME	GAME HOURS PER YEAR	# OF TEAMS	TOTAL HOURS OF PLAY PER SPORT	TOTAL HOURS IN USE
BASEBALL FIELD 1	Little League	9	1	2	18	6	2	12	5	150	150
BASEBALL FIELD 2	Little League	9	1	2	18	6	2	12	1	30	690
	School Baseball	9	1	2	18	9	2	18	1	36	
	Soccer	26	5	2	260	364	1	364	1	624	
BASEBALL FIELD 3	Little League	9	1	2	18			0	1	18	642
	Soccer	26	5	2	260	364	1	364	1	624	
SOFTBALL FIELD 1	LL Softball	9	1	2	18	6	2	12	2	60	724
	Adult Co-Ed Softball	10	0	0	0	10	2	20	1	20	
	Soccer	26	5	2	260	364	1	364	1	624	
	Camp	1	5	4	20	0	0	0	1	20	
MULTIPURPOSE FIELD	Soccer	26	5	2	260	364	1	364	1	624	624



LEGEND

-  PROPERTY LINE
-  BUILDINGS / STRUCTURES
-  STONE WALL
-  EXISTING CONTOUR
-  DITCH
-  EXISTING SPORTS FIELDS
-  SLOPE > 5:1
-  WETLAND
-  200' // 100' WETLAND BUFFER
-  HIGH POINT
-  VEHICULAR CIRCULATION
-  PEDESTRIAN FOOTPATH
-  WALKING TRAILS









LITTLE HOUSE
RUINS

WETLANDS

PICNIC
AREA

DRIVE,
(ONE WAY)

N/F
FENTEANY

N/F
AXELROD

CORNELIA W. HAMPTON
N/F

ELLEN N. FARRANT &
PETER A. JOHNSON
N/F

RELOCATED
MEMORIAL
GARDENS

TRAIL
HEAD

PARKING

PARKING

MULTI-USE FIELDS 1 & 2
(330' X 390')
OR 2 (330' X 180')

PAVILION

PORTA JOHN
STRUCTURE

PARKING

MAINT.
GARAGE

EXISTING
PLAY AREA

LITTLE
LEAGUE-
FIELD 2

CONCESSION,
STORAGE &
RESTROOM

EXISTING
MULTI-USE
FIELD

SOFTBALL
FIELD

OPEN
LAWN /
FLEXIBLE
SPACE

EXISTING
LITTLE
LEAGUE- FIELD 1

EXISTING
CONCESSION

EXISTING
PARKING

EXISTING
PARKING

PROPERTY LINE

PROPERTY LINE

DRIVE
(ONE WAY)

BASKETBALL
COURT

EXISTING TENNIS
COURT

OPEN LAWN
AREA

ENTRANCE
(TWO WAY)

HENNEQUIN ROAD

HENNEQUIN ROAD



MEMORANDUM

TO: Paula Stahl
FROM: Michael Moonan
DATE: 9-22-2016
SUBJECT: Recreation Park Master Plan, Columbia CT – 9-22-2016 public meeting 1 notes
CC: Attendees, working group

Public Meeting 1

Meeting Attendees:

Town of Columbia Connecticut:

Mark Walter | Town Administrator
George Murphy | Director of Public Works
Paula Stahl | Town Planner | Client Contact
Carmen Vance | First Selectman
Nikki Keldsen | Chair of the Recreation Commission
Marc Volza | Recreation Director
Various Columbia Residents

Weston & Sampson:

Cheri Ruane | Vice President | Principal-in-Charge
Michael Moonan | Team Leader | Project Manager
Amanda Gaal | Site Designer

Columbia town officials and representatives from Weston & Sampson came together on Thursday September 22nd at 7:00 at Columbia's Town Hall to discuss how to better utilize the town's athletic fields. The goal of this meeting was to review the existing conditions and receive preferences, concerns, issues with the site and general input from town representatives and residents.

Following is a summary of the major items discussed:

Public Concerns

- 2.1 There were numerous discussions about concerns with access to the newly acquired portion of the site with the environmental obstacles such as wetlands, nature preserves and abutting properties.
 - a. A suggestion was said to make the rt. 66 entrance for passive recreation to avoid high volumes of people using it all at once.
- 2.2 Concerns for vehicular and pedestrian intersections. Would be best to keep as separate as possible. Currently the areas between the volleyball court and the pavilion have these issues.
- 2.3 The only regulation size soccer field is overlaid on the softball skinned infield.
- 2.4 Property owner on the left of the main entrance is concerned with light pollution
- 2.5 Equity for both boys and girls
- 2.6 Parking spaces are narrow and there are always children running around
- 2.7 There is no shade on the 2-5 playground. Sometimes the equipment gets so hot it will burn the child

Comments

- 2.8 Try to be sensitive to what we propose near the property line that abuts Joshua's Trust because it is a nature preserve.
- 2.9 Eversource does not own the property to the right of the main entrance. They have an easement for the power lines.
- 2.10 Many people don't use the park for strictly athletics
- 2.11 The park should be inclusive for all age groups
- 2.12 All pathways should be able to accommodate strollers and wheelchairs.
- 2.13 Maintain as much of the forest as possible
- 2.14 Shaded areas seem to be where people congregate.
- 2.15 The park gets really hot, needs more shade
- 2.16 There is some equestrian interest
- 2.17 Make sure playgrounds are in shaded spots

Suggestions

- 2.18 Would like to see the acquired land used for archery, Boy Scout campground and open fields for passive/active recreation.
- 2.19 Would like more than one picnic area.
- 2.20 Low maintenance gardens with benches
- 2.21 Direct traffic away from the center of the park
- 2.22 Relocate the existing tennis court and add at least one more.
 - a. Tennis is a high priority. It was really important to the Brand family
- 2.23 Reorient the fields according to the sun
- 2.24 Disc golf is really desired
- 2.25 Would like to see a water feature, like a splash pad

- 2.26 More water fountains
- 2.27 An ice rink could be turned into a roller hockey court in the summer
- 2.28 Explore a possible canoe launch in the swamp
- 2.29 Explore a location for a possible future community building

MEMORANDUM

TO: Paula Stahl
FROM: Michael Moonan
DATE: 11-29-2016
SUBJECT: Recreation Park Master Plan, Columbia CT – 11-29-2016 public meeting 2 notes
CC: Attendees, working group

Public Meeting 2

Meeting Attendees:

Town of Columbia Connecticut:

Mark Walter | Town Administrator
Paula Stahl | Town Planner | Client Contact
Carmen Vance | First Selectman
Nikki Keldsen | Chair of the Recreation Commission
Marc Volza | Recreation Director
Various Columbia Residents

Weston & Sampson:

Michael Moonan | Team Leader | Project Manager
Amanda Gaal | Site Designer

Columbia town officials and representatives from Weston & Sampson came together on Tuesday November 29th at 7:00 at Columbia's Town Hall to discuss how to better utilize the town's Recreation Park. The goal of this meeting was to review the draft master plan and receive preferences, concerns, and general input from town representatives and residents.

Following is a summary of the major items discussed:

Public Concerns

- 2.1 There were numerous concerns with restroom accessibility and locations. Many expressed the need to include restrooms in phase one.

- 2.2 Phase one should include the entire loop road. Demo the middle road as soon as possible.
- 2.3 The dog park should be moved to Phase one.
- 2.4 The gates get closed in the winter, which restricts the use for the dog walkers.
- 2.5 Playgrounds are not handicap accessible.
- 2.6 Turning the tennis courts into an ice rink in the winter is concerning due to past attempts at maintaining an ice rink.
- 2.7 If we relocate the softball field, where will the adult softball league play? An adult softball field needs to be 250'-300' which will not fit in the new location.
- 2.8 People can get zapped near the power lines when it is wet out.

Suggestions

- 2.9 Consider sticking to 4 tennis courts initially to provide a location in town for a tournament.
- 2.10 Consider using a portable fence on the multiuse softball field.

RECREATION PARK - PHASE 1

Columbia, Connecticut

ITEM	QTY	UNIT	UNIT COST	EXT COST	
GENERAL SITE PREP					
Construction Fence, Erosion Controls, etc.	1	LS	\$100,000.00	\$100,000	
				Subtotal:	\$100,000
ROADWAYS					
					4,270 LF @ 14' wd w/ 2' gravel edge
Rough Grading	7600	SY	\$1.00	\$7,600	68,320 sf
Clearing & Grubing	1.1	ACRE	\$6,000.00	\$6,600	3,026 LF= 48,416 sf
Fine Grading	7600	SY	\$0.90	\$6,840	68,320 sf
Compaction	7600	SY	\$1.90	\$14,440	
Bituminous Concrete Road @ 3"d (14' wide)	1115	TON	\$80.00	\$89,200	59,780 sf
Gravel Base for Bit Concrete Road @ 18"d	3320	CY	\$15.00	\$49,800	
2' Wide Gravel Edge @ 18" d	475	CY	\$15.00	\$7,125	8,540 sf
Line Striping ReflectORIZED	240	LF	\$2.00	\$480	crosswalks
Wood Guard Rail - Allowance	530	LF	\$35.00	\$18,550	
12' Single Swing Pipe Gate	0	EA	\$2,500.00	\$0	By Town
24' Double Swing Pipe Gate	0	EA	\$4,000.00	\$0	By Town
Underground Electrical From Hennequin Road	1	LS	\$50,000.00	\$50,000	
Bioswales & BMPs	1	LS	\$30,000.00	\$30,000	
				Subtotal:	\$280,635
PARKING					
					52,385 sf - 3 parking lots
Rough Grading	5820	SY	\$1.00	\$5,820	52,385 sf
Clearing & Grubing	1.2	ACRE	\$6,000.00	\$7,200	
Fine Grading	5820	SY	\$0.90	\$5,238	52,385 sf
Compaction	5820	SY	\$1.90	\$11,058	
Bituminous Concrete Parking @ 3"d	980	TON	\$80.00	\$78,400	52,385 sf
Gravel Base for Parking @18"d	2910	CY	\$15.00	\$43,650	
Line Striping ReflectORIZED	0	LF	\$2.00	\$0	2,410 LF - By Town
Wood Guard Rail- Allowance	270	LF	\$35.00	\$9,450	
Bioswales & BMPs	1	LS	\$30,000.00	\$30,000	
Trees	8	EA	\$1,000.00	\$8,000	
Loam @ 6"d	0	CY	\$20.00	\$0	By Town
Seed	18130	SF	\$0.20	\$3,626	18, 130 sf
				Subtotal:	\$202,442
WALKING PATHS					
INNER WALKING PATHS					
					6' WD- 3,185 LF, 8' WD- 1,315 LF, 12' WD- 700 LF
Rough Grading	5335	SY	\$1.00	\$5,335	47,990 SF
Clearing & Grubing	0.4	ACRE	\$6,000.00	\$2,400	6'- 1605 LF, 8'- 310 LF, conc pavers- 5,360 SF= 17,470 SF
Fine Grading	5335	SY	\$0.90	\$4,802	47,990 sf
Compaction	5335	SY	\$1.90	\$10,137	
Bituminous Concrete Walkways @ 3"d	710	TON	\$80.00	\$56,800	38,030 SF
Gravel Base for Bit Concrete Walkway @ 12"d	1410	CY	\$15.00	\$21,150	
Bituminous Concrete Plaza Areas	115	TON	\$80.00	\$9,200	6,220 SF
Gravel Base for Bit. Concrete Plazas @ 12"d	230	CY	\$15.00	\$3,450	
Concrete Pavers - Allowance	3740	SF	\$12.00	\$44,880	
Gravel Base for Concrete Pavers @ 12"d	140	CY	\$15.00	\$2,100	
				Subtotal:	\$160,253
OUTER WALKING TRAILS					
					6' WD- 3,300 LF
Rough Grading	2250	SY	\$1.00	\$2,250	20,250 SF
Clearing & Grubing	0.3	ACRE	\$6,000.00	\$1,800	6'- 2,190 LF, trail head opening- 450 SF= 13,590 SF
Fine Grading	2250	SY	\$0.90	\$2,025	20,250 sf
Compaction	2250	SY	\$1.90	\$4,275	
Stone Dust Surfacing	2200	SY	\$15.00	\$33,000	19,800 SF
Gravel Base for Stone Dust Path @ 12"d	735	CY	\$15.00	\$11,025	
Stone Dust Surfacing for Trail Head	50	SY	\$15.00	\$750	450 SF
Gravel Base for Stone Dust at Trail Head @ 12"d	17	CY	\$15.00	\$255	
Signage & Kioks Allowance	1	LS	\$10,000.00	\$10,000	
				Subtotal:	\$65,380

MULTIUSE FIELDS 1 & 2						143,500 sf
Rough Grading	5525	SY	\$1.00	\$5,525	49,730 sf	
Skim & Stockpile Topsoil @ 8"d	2670	CY	\$8.00	\$21,360	108,040 sf	
R&D Skinned Infield @ 4" d	115	CY	\$6.00	\$690	9,150 sf	
R&D Bit. Conc. Parking	2035	SY	\$10.00	\$20,350	18,300 sf	
R&D Gravel Parking	580	SY	\$3.00	\$1,740	5,200 sf	
R&S Backstop	1	EA	\$5,000.00	\$5,000		
R&S Dugouts	2	EA	\$1,500.00	\$3,000		
R&S Light Pole	1	EA	\$1,000.00	\$1,000		
Fine Grading	15950	SY	\$0.90	\$14,355	143,500 sf	
Light Compaction	15950	SY	\$1.90	\$30,305		
Amended Loam @ 8"d	3550	CY	\$30.00	\$106,500		
Slit Seeding	3.3	ACRE	\$2,000.00	\$6,600		
Drainage	1	LS	\$20,000.00	\$20,000		
Loam @ 6"d	455	CY	\$20.00	\$9,100	24,620 sf	
Seed	24620	SF	\$0.20	\$4,924		
				Subtotal:	\$250,449	

SOFTBALL FIELD						
Skim & Stockpile Topsoil @ 8"d	775	CY	\$8.00	\$6,200	31,275 SF	
R&D Skinned Infield @ 4" d	87	CY	\$6.00	\$522	7,000 sf	
R&S Backstop	1	EA	\$5,000.00	\$5,000		
Fine Grading	4440	SY	\$0.90	\$3,996	39,970 sf	
Light Compaction	4440	SY	\$1.90	\$8,436		
Infield Mix @ 4"d	105	CY	\$60.00	\$6,300	8,350 sf	
Foul Lines	2	EA	\$500.00	\$1,000		
Foul Poles	2	EA	\$3,000.00	\$6,000		
6' HT. Black Vinyl Chain Link Fence	600	LF	\$80.00	\$48,000		
6' HT. Single Black Vinyl Chain Link Gate	1	EA	\$1,000.00	\$1,000		
Backstop	1	EA	\$30,000.00	\$30,000		
Dugouts, Benches and Pads	2	EA	\$3,600.00	\$7,200		
Bleacher Seating on Cem. Concrete Pad	2	EA	\$12,000.00	\$24,000		
Amended Loam @ 8"d	775	CY	\$30.00	\$23,250	31,275 sf	
Slit Seeding in Outfield	1	ACRE	\$2,000.00	\$2,000		
Drainage	1	LS	\$25,000.00	\$25,000		
Loam @ 6"d	710	CY	\$20.00	\$14,200	38,390 sf	
Seed	38390	SF	\$0.20	\$7,678		
				Subtotal:	\$219,782	

LITTLE LEAGUE FIELD 2						
Rough Grading	5725	SY	\$1.00	\$5,725	51,530 sf	
Clearing & Grubing	0.25	ACRE	\$6,000.00	\$1,500	10,855 sf	
R&D Bit. Conc. Parking	920	SY	\$10.00	\$9,200	8,280 sf	
R&D Play	1	LS	\$7,000.00	\$7,000	7,143 sf	
Fine Grading	4960	SY	\$0.90	\$4,464	44,615 sf	
Light Compaction	4960	SY	\$1.90	\$9,424		
Infield Mix @ 4"d	74	CY	\$60.00	\$4,440	6,000 sf	
Sod for infield & Edge of Infield 3' wd	450	SY	\$12.00	\$5,400	4,060 sf	
Foul Lines	2	EA	\$500.00	\$1,000		
Foul Poles	2	EA	\$3,000.00	\$6,000		
6' HT. Black Vinyl Chain Link Fence	630	LF	\$80.00	\$50,400		
6' HT. Single Black Vinyl Chain Link Gate	1	EA	\$1,000.00	\$1,000		
Backstop	1	EA	\$30,000.00	\$30,000		
Dugouts, Benches and Pads	2	EA	\$3,600.00	\$7,200		
Bleacher Seating on Cem. Concrete Pad	2	EA	\$12,000.00	\$24,000		
Amended Loam @ 8"d	940	CY	\$30.00	\$28,200	38,030 sf	
Slit Seeding in Outfield	1	ACRE	\$2,000.00	\$2,000	33,970 SF	
Drainage	1	LS	\$25,000.00	\$25,000		
Loam @ 6"d	335	CY	\$20.00	\$6,700	18,040 sf	
Seed	18040	SF	\$0.20	\$3,608		
				Subtotal:	\$232,261	

EXISTING BASEBALL FIELD RENOVATION						
Regrading for ADA Access	1	LS	\$2,000.00	\$2,000		
Refurbish Existing Turf	1	LS	\$6,000.00	\$6,000		
Refurbish Existing Fence	530	LF	\$2.00	\$1,060		
Refurbish Existing Dugouts	2	EA	\$3,000.00	\$6,000		
Bleacher Seating on Cem. Concrete Pad	2	EA	\$5,000.00	\$10,000		

Subtotal: \$25,060

BASKETBALL COURT

Rough Grading	690	SY	\$1.00	\$690	6,200 sf
Skim & Stockpile Topsoil @ 8"d	155	CY	\$8.00	\$1,240	6,200sf
Fine Grading	690	SY	\$0.90	\$621	6,200sf
Compaction	690	SY	\$1.90	\$1,311	
Bituminous Concrete @ 3"d	115	TON	\$80.00	\$9,200	6,200 sf
Gravel Subbase for Bit. Conc. @ 18"d	345	CY	\$15.00	\$5,175	
Color Seal Coating	6200	SF	\$1.00	\$6,200	
Additional Court Features (Goals)	2	EA	\$5,000.00	\$10,000	

Subtotal: \$34,437

SITE FURNISHINGS

Benches backless	21	EA	\$2,000.00	\$42,000	
Benches with Back	3	EA	\$2,500.00	\$7,500	
Trash receptacles/ Recycling	13	EA	\$1,200.00	\$15,600	
Bike Racks	2	EA	\$500.00	\$1,000	
Park Signs	1	LS	\$5,000.00	\$5,000	

Subtotal: \$71,100

MAINTENANCE BUILDING & YARD

Rough Grading	920	SY	\$1.00	\$920	8,280 sf
Clearing & Grubing	0.2	ACRE	\$6,000.00	\$1,200	8,280 sf
Fine Grading	920	SY	\$0.90	\$828	8,280 sf
Compaction	920	SY	\$1.90	\$1,748	
Maintenance Building	1	EA	\$200,000.00	\$200,000	1,600 SF
Electrical Connection	1	LS	\$30,000.00	\$30,000	
Water Connection	1	LS	\$30,000.00	\$30,000	
6' BVCL Fencing	305	LF	\$70.00	\$21,350	
12' Single Swing Pipe Gate	0	EA	\$2,500.00	\$0	By Town
Bituminous Concrete Yard @ 3"d	155	TON	\$80.00	\$12,400	8,280 sf
Gravel Base for Yard @ 18"d	460	CY	\$15.00	\$6,900	
Loam @ 6"d	275	CY	\$20.00	\$5,500	14,785 sf
Seed	14785	SF	\$0.20	\$2,957	

Subtotal: \$313,803

CONCESSION/ STORAGE/ RESTROOMS BUILDING

Concession/ Storage/ Bathroom Building	1	EA	\$225,000.00	\$225,000	1,600 sf
Electrical Connection	1	LS	\$30,000.00	\$30,000	
Water Connection	1	LS	\$32,000.00	\$32,000	
New Septic Allowance	1	LS	\$35,000.00	\$35,000	
Renovation of Existing Concession Building	1	LS	\$15,000.00	\$15,000	

Subtotal: \$337,000

PAVILIONS

Pavilions	1	EA	\$30,000.00	\$30,000	
-----------	---	----	-------------	----------	--

Subtotal: \$30,000

PLANTINGS & OTHER SEEDING

Loam @ 6"d	1750	CY	\$20.00	\$35,000	94,410 sf
Seed	94410	SF	\$0.20	\$18,882	
Trees/ Shrubs	1	LS	\$60,000.00	\$60,000	

Subtotal: \$113,882

Estimated Hard Costs: \$2,436,484

Mobilization, Overhead & Profit (15%): \$365,473

Contingency (10%): \$243,648

Contractor's General Conditions (5%): \$121,824

Soft Costs (10%): \$243,648

TOTAL: \$3,411,078