

Recreation Master Plan Report Towns of Hamilton and Wenham, MA

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TOWNS OF HAMILTON/WENHAM RECREATION MASTER PLAN REPORT

Volume 3

Section 1.0 – Introduction, Background, and Purpose

Gale Associates, Inc. (Gale) was engaged by the Hamilton/Wenham Recreation Department to assist the joint Recreation Department with the development of a Recreation Facilities Needs Assessment and Master Plan. The goals of this study were:

1. To complete a facilities inventory and assessment to identify adequacy of existing facilities.
2. To complete a Recreation Program Needs Assessment to determine the adequacy, effectiveness and appropriateness of current recreation programs.
3. To prepare a Master Plan of Facility and Program Enhancements to better meet the recreational needs of Town stakeholders.
4. To prepare phasing plans and capital improvement budgets consistent with the Master Plan recommendations.
5. To review current maintenance resources and offer recommendations regarding the maintenance for an enhanced population of facilities.

In the initial stages of the planning effort, Gale completed an inventory and evaluation of the Towns' recreational assets. Subsequently, Gale completed a community recreational needs survey, which resulted in nearly 400 responses, followed by a series of community sensing sessions and planning charrettes. The full details of the facilities assessment and needs survey, along with results and conclusions were provided to the Town under separate cover, and they form Volumes 1 and 2 of this report.

The intent of this report is to first define the Planning Program. The Planning Program is an articulation of the Town's recreation facility functional requirements, needs and priorities as determined from the facilities evaluation, the needs survey, demand matrix, and sensing sessions, as described above. Secondly, this report will offer recommendations regarding a series of program and facilities enhancements intended to accomplish the Planning Program. Finally, this report will provide recommendations regarding a possible phasing of the proposed enhancements along with a capital improvements budget associated with their implementation. These recommended program and facility

enhancements form the basis of the Hamilton/Wenham Recreation Master Plan going forward.

Section 2.0 - Synopsis of Recreation Facility Evaluations and Demand Conclusions

As an initial step in the recreation master planning effort, Gale completed an evaluation of twelve (12) recreation sites. Additionally, Gale completed a demand assessment to quantify the use of the existing facilities and to assess their serviceability, compliance with applicable standards, and most importantly, their adequacy.

This initial deliverable, published under separate cover as Volume I, addressed the following questions:

- What is the general condition of the population of recreational and athletic field sites included as part of this project?
- What record information or base plans are available for each?
- What are some of the immediate repair or renovation needs for each site (as opposed to redevelopment)?
- How many scheduled uses, by type, does each field sustain in a given year?
- What is the resultant impact on the quality of turf associated with this demand?

The assessment was performed using accepted industry standards and guidelines where available, such as The National Federation of State High School Associations (NFHS) and the Massachusetts Interscholastic Athletic Association guidelines. Similarly, the Architectural Access Board Guidelines were used to assess ADA compliance.

The fields were also evaluated for serviceability (i.e. are systems and equipment in good repair and meeting the intended purpose?) and safety. The findings are categorized as they relate to the safety, serviceability, and accessibility of the components. The findings of the assessment led to recommendations for each individual site.

2.1. Base Plan Development

An essential task of the Master Planning effort is the creation of a suitable base plan for each field in AutoCADD to serve as the basis for the schematic planning effort to follow. Gale contacted Town officials to

obtain record information and GIS data (assessor's maps, utility maps, topographic maps, and wetland maps) as available. Additionally, we consulted FEMA maps, state soil maps, and aerial mapping available on the MASSGIS web site. Gale produced a suitable base plan for each facility. The base plans are provided in Volume 1 of the Master Plan.

These base plans reflect property line and topographic data as available and are sufficient for the Master Planning effort; however, these plans are not suitable for detailed design, and any projects completed as a result of this Master Plan in the future will require a full property line and topographic survey. The results of these more detailed updated surveys may require modifications to the Master Planning assumptions.

2.2. Facility Condition Summary

Gale provided a Field Assessment Report as Volume 1, which detailed the general condition of each athletic facility including athletic fields, hard courts, and playgrounds. Based on the results of the Needs Assessment Study, it is apparent that Town recreational facilities such as the Patton Park Pool facility, passive recreation trail networks, and recreational programs are very important recreational assets within the Town. Rather than include their evaluation with the active recreational facilities, we have incorporated their assessment, needs, and recommendations as individual sections in this report. Please refer to Sections 8, 9, and 10 of this report for this information.

The individual field assessment reports, provided within Volume 1, detail the general condition of each athletic facility, to include fields, courts, and playgrounds. Additionally, Gale compiled a listing of short-term maintenance and repair items required at each of the subject sites to address immediate needs. These repairs are recommended to provide safe, serviceable, and accessible facilities, and are not related to the renovation strategies to be presented in this report. It should be noted that the evaluations were completed in later winter/early spring, and therefore the fields were not in season. While the complete short-term maintenance needs are included in Volume 1 of the Master Plan, they are summarized as follows:

Patton Park

60' Baseball Diamond & MPR in Outfield

- Dimensional constraints: 160' to right field does not meet 200' Little League dimensions and limits field use.

- General maintenance required, i.e. re-grading of pitcher's mound, weed removal, infield mix supplementation, and infield seasonal repair. The stone dust and clay mix base paths, pitchers' mounds, and home plate areas should be re-graded, supplemented, and repaired to eliminate lip, infield mix migration, and weeds.
- Existing fields need to be aerated to relieve compaction, top-dressed, fertilized, reseeded, and re-grown to eliminate bare spots.
- Spectator seating is not provided. Additionally, spectator viewing areas are within 350' of the 90' baseball diamond batter's box and pose a potential safety hazard.
- There is no ADA accessible route to the field. A walking path from the parking areas to the field shall be constructed to enhance pedestrian flow, accessibility, and eliminate potential pedestrian/vehicular conflicts.

90' Baseball Diamond

- Re-grading of outfield required due to low spots, heaves, ruts, and depressions, specifically in left field.
- Pitcher's mound should be reconstructed and re-graded.
- General maintenance required, i.e. re-grading, weed removal, base path repair, raking, and lip removal.
- Infield to be supplemented with a free draining infield mix.
- Outfield shall be aerated to relieve compaction. Consider installation of flat panel drainage system to improve drainage conditions currently prohibiting use of field after rain events.
- Spectator seating and ADA accessibility should be provided from the parking lot. Gravel parking lot is in poor condition with potholes, ruts, and heaves and several areas of ponding water.

Three (3) Standard Tennis Courts

- The tennis courts are in generally good condition. There do not appear to be structural deficiencies in the asphalt mat.
- Foot traffic between the tennis courts, parking lot, and basketball courts does not allow for adequate turf cover. An asphalt,

concrete, or stone dust path shall be created to allow for better flow of pedestrian traffic and adequate landscaping.

One (1) Full Basketball Court

- There is no 10' high perimeter fencing for ball containment and safety purposes; it is recommended that one be installed.
- Courts are currently not surfaced. Acrylic surfacing provides improved court performance and an improvement in terms of aesthetics; the surfacing of these courts is recommended.

Playground

- Recommend the addition of a 4' high perimeter chain link fence for the purposes of safety.
- Surface containment edging should be installed; no edging currently exists.
- Existing surfacing material should be verified and brought up to correct depth per maximum fall height. Surfacing should be raked to distribute, grade, and remove debris. Current surfacing is not ADA accessible.
- Does not contain age-appropriate signage per the U.S. Consumer Product Safety Commission (CPSC) and American Society for Testing and Materials (ASTM) Playground Safety Guidelines; proper signage should be installed.

Pingree Park

60' Baseball Diamond (Cheeseman Field)

- The field is in generally good condition with exception of the dimensional constraints (13' short of regulation distance to foul pole) requiring a waiver for Little League play. The field should be expanded to meet Little League dimensional regulations.
- There is no ADA accessible route to the field. A walking path from the parking areas to the field shall be constructed to enhance pedestrian flow, accessibility, and eliminate potential pedestrian/vehicular conflicts.

90' Baseball Diamond (Wildes Field) & Multipurpose Field

- Distance to right field foul pole is approximately 250', which does not meet NFHS regulations of a 300' foul pole distance.
- The stone dust and clay mix base paths, pitchers' mounds, and home plate areas are in fair condition. Base paths and pitchers' mounds require significant weeding, raking, re-grading, and lip removal.
- Recommend installation of fencing to extend from backstop along first and third base lines. No fencing/netting is installed other than at the backstop and player seating areas. Additional fencing should be installed for player/spectator safety.
- Spectator seating is not provided.
- There is no ADA accessible route to the field. An accessible route shall be provided to an accessible spectator seating area.

60' Baseball Diamond (Black Field)

- The field is in generally fair condition. Dimensional constraints (190' to right field) do not meet Little League regulation field dimensions. The field should be expanded to meet the requirements.
- Spectator seating is not provided.
- There is no ADA accessible route to the field. A walking path from the parking areas to the field shall be constructed to enhance pedestrian flow, accessibility, and eliminate potential pedestrian/vehicular conflicts.
- Fencing should be provided between the parking and playground areas and the field.

Playground

- Existing surfacing material should be verified and brought up to correct depth per maximum fall height. Several areas beneath play structures do not contain adequate depths of surfacing. Surfacing should be raked to distribute, grade, and remove debris. Current surfacing is not accessible.

- Does not contain age-appropriate signage per the U.S. Consumer Product Safety Commission (CPSC) and American Society for Testing and Materials (ASTM) Playground Safety Guidelines; proper signage should be installed.
- Playground equipment shall be separated and grouped based on age-appropriateness.
- Building-up of debris, vegetation and pine needles shall be removed from playground.

Four (4) Standard Tennis Courts

- Tennis courts are in fair to poor condition. The tennis courts are nearing the end of their useful life. Although there is not evidence of significant structural base mat issues, it appears that cracks in the asphalt wearing course have been attempted to be repaired. The courts require milling and re-surfacing to remove cracks, correct heaves, dips, and ruts (causing ponding), and provide an adequate playing surface.
- Spectator seating is not provided.
- Fencing is in poor condition and is out of plumb, rusting, and does not contain mid or bottom rails for adequate tension of fence fabric. Fence posts, rails, fabric, and gates shall be replaced.

Parking Area

- Existing gravel parking area should be re-graded, if not paved, to provide positive drainage. Several potholes, heaves, and ruts shall be corrected.
- Parking area does not provide formal ADA accessible parking. An area should be paved to denote handicap parking spaces and to ensure that the appropriate amount of space is allotted.
- No edging or fencing is installed to prohibit vehicular access to field and avoid potential safety conflicts between the parking area and field of play.

Donovan Field

One (1) 60' Baseball Diamond

- Outfield areas should be re-graded and reconstructed to include a subsurface drainage system. Poor drainage throughout outfield due to grading and compacted soils. At a minimum, existing playing field needs to be top-dressed, fertilized, reseeded, and re-grown to eliminate bare spots.
- Player seating areas shall be weeded and supplemented with gravel and/or stone dust.
- Spectator seating is not provided. ADA Accessibility to the field is not provided.

One (1) Multi-purpose Rectangular Field

- Existing playing field areas need to be re-graded, top-dressed, fertilized, re-seeded, and re-grown to eliminate bare spots.
- Use of multipurpose field area should be de-conflicted with the baseball diamond to maximize use of the facility.
- There are no player and spectator seating areas. No accessible routes are provided to the field areas.
- Fencing and/or protective sports netting should be installed to avoid lost balls in the adjacent woods, which are typically infested with ticks and mosquitoes.

Parking Areas

- No formal parking is provided. The gravel access drive is in poor condition due to poor drainage and erosion. The access drive shall be reconstructed and/or paved.
- A formal parking area shall be constructed to include a bus turn-around and accessible parking spaces.
- An accessible pedestrian route shall be provided from the parking area.
- Fencing shall be provided around the field areas to prohibit vehicular access to the fields.

Fairhaven Field

One (1) Multi-purpose Rectangular Field (340' x 180')

- Recommend installation of 4' chain link fencing around the perimeter of the field play area for ball containment and safety.
- Irrigation system is installed, however is sparingly used due to Town water bans.
- Site amenities such as scoreboard, storage, and seating areas are not provided. An accessible route shall be provided to accessible spectator seating areas.

Playground

- Existing surfacing material should be verified and brought up to correct depth per maximum fall height. Several areas beneath play structures do not contain adequate depths of surfacing. Surfacing should be raked to distribute, grade, and remove debris. Current surfacing is not accessible.
- Does not contain age-appropriate signage per the U.S. Consumer Product Safety Commission (CPSC) and American Society for Testing and Materials (ASTM) Playground Safety Guidelines; proper signage should be installed.
- Surfacing containment shall be provided, as well as a 4' chain link fence for safety during concurrent use of the multipurpose field and playground.

Parking Areas

- Parking area for the adjacent Library and Recreation Department is paved, has formal drainage, and is in good condition.
- It appears that parking availability may be limited during use of the field areas.
- Accessible parking is provided.

DPW Field

One (1) Multi-purpose Rectangular Field (156' x 120')

- Turf conditions are fair due to weak turf growth in several areas. Because the field is not used significantly, there are not significant bare areas or areas requiring full reconstruction.
- Dimensional constraints do not allow for full-size, small-ball sports. A backstop is provided in the southeast corner of the facility for T-ball, however it is in failing condition and no diamond is constructed.
- Recommend reconfiguration of the facility as a dedicated diamond or multipurpose field area to allow for maximum use.

Iron Rail Fields

Field 9 – Multipurpose Rectangular Field (195' x 330')

- Recommend installation of 4' chain link fencing around the perimeter of the field play area for ball containment and safety.
- Planarity of the field is good with exception of some heaves/ruts in playing areas.

Field 8 – Multipurpose Rectangular Field (210' x 330')

- Turf conditions are good. Few bare areas at goalmouths that require top-dressing, fertilization, re-seeding, and re-growth.
- Planarity of the field is good with exception of some heaves/ruts in playing areas.
- Southeast corner of field is adjacent to wetland and experiences poor drainage in wet season.

Field 7 – Multipurpose Rectangular Field (175' x 310')

- Turf conditions are fair to good. Several bare areas at various goalmouth areas that require top-dressing, fertilization, re-seeding, and re-growth.
- Field is at a low elevation and drains poorly in the wet season, prohibiting play and effecting serviceability.

West Wenham Park

One (1) Multi-purpose Rectangular Field (145' x 106')

- Field is constrained dimensionally and has poor planarity, prohibiting play at nearly any level.
- Dimensional constraints do not allow for maximum use of the facility.
- Parking area is not provided for the facility. Parking along the side of the street is a potential safety hazard. Accessibility to the field area is cost-prohibitive due to the site topography.

One (1) Standard Tennis Court

- Tennis court in poor condition due to significant cracking and apparent structural deficiencies in the asphalt mat. The courts require complete pulverization and reconstruction to become adequately serviceable and avoid potential safety hazards associated with the failing asphalt mat.
- The asphalt mat has significant dips, heaves, and ruts, causing ponding and an out of level play surface.
- 10' chain link fencing around the perimeter of the court is in fair to poor condition. Fencing is rusting in some areas and is leaning out of plumb. Fencing does not contain mid or bottom rails for adequate tension of fence fabric. The fence posts, rails, fabric, and gates should be replaced.

One (1) Basketball Court (60' x 40')

- Basketball court is in poor condition due to significant cracking and apparent structural deficiencies in the asphalt mat. The court requires complete pulverization and reconstruction to become adequately serviceable and avoid potential safety hazards associated with the failing asphalt mat.
- Dimensions of the basketball court are significantly smaller than the "Ideal Measurements" provided by NFHS as 84' x 50'.
- The asphalt mat has significant dips, heaves, and ruts, causing ponding and an out of level play surface.

- 10' chain link fencing is shared on the western edge of the court with the tennis court. No additional fencing is provided. Full perimeter fencing shall be provided for ball containment and safety purposes, especially considering the topography to the south of the court.

Hamilton-Wenham Regional High School

The outdoor athletic facilities at Hamilton-Wenham Regional High School consist of four (4) multipurpose rectangular fields, a 60' baseball diamond, a 90' baseball diamond, and a 400-meter running track and field events.

Field 1 – 330' x 170' Multipurpose Rectangular Field & 60' Diamond

- Areas of the field need to be top-dressed, fertilized, re-seeded and re-grown, and rested to eliminate bare spots in localized areas.
- There is no ADA accessibility provided to the field and there are no spectator seating areas. An accessible route shall be provided from the parking areas to accessible spectator seating.
- The 60' diamond infield and backstop are in failing condition and are no longer useful for baseball or softball purposes and should be demolished to expand natural turf field areas.

Field 2 – 330' x 180' Multipurpose Rectangular Field

- This field is in poor condition. It has sparse growth and significant deficiencies related to poor root-zone development, bare areas, ruts, and worn turf cover.
- The field exhibits poor drainage after a rain event due to overuse and over-compacted soils. Drainage issues prevent scheduling events after rain events. Aeration to relieve compaction and a potential subsurface drainage system shall be implemented.
- Entire field area needs to be top-dressed, fertilized, re-seeded and re-grown, and rested to eliminate bare areas throughout.
- There is no ADA accessibility provided to the field and there are no spectator seating areas. An accessible route shall be provided from the parking areas to accessible spectator seating.

Field 3 – 330' x 180' Multipurpose Rectangular Field (Baseball Outfield)

- This field is in fair to poor condition. It has sparse turf growth and deficiencies related to worn turf, poor root-zone development, bare areas, and ruts.
- Areas of the field need to be aerated to relieve compaction, top-dressed, fertilized, re-seeded and re-grown, and rested to eliminate bare spots in localized areas.
- The rectangular field is in conflict with the outfield of the baseball field and therefore prohibits concurrent use in the spring.
- There is no ADA accessibility provided to the field and there are no spectator seating areas. An accessible route shall be provided from the parking areas to accessible spectator seating.

Track and Field Event Venues

- The track is in fair condition and does not appear to have significant slope, planarity, or drainage issues affecting its serviceability. The trench drain system appears to be in fair to poor condition due to cracking, heaving, and peeling of the surface.
- The track asphalt base mat appears to be in good condition, with no apparent structural deficiencies. Track surfacing is in fair condition. While there is not significant delaminating, there are areas of apparent UV degradation and surface wear due to the age of the track.
- Long/triple jump runways are in good condition. Long/triple jump pits should be raked and supplemented with sand.

Game Field

- The football field turf is in generally good condition due to constrained use. The field is irrigated and has fair growth density. Compaction should be relieved through aeration. Several localized areas are worn throughout the center of the field and along the player seating areas and need repair in the form of topdressing, fertilizing, re-seeding and re-growth.
- Drainage issues due to compacted soils prevent scheduling of events after significant rain events.

- The grandstands are in good condition and appear to be in compliance with accessibility regulations in terms of ramps, ADA seating, safety railings, and toe-board panels.

Baseball Field

- The baseball field is in poor condition and requires full reconstruction.
- The infield is in poor condition and requires weeding, raking, removal of lip buildup, reconstruction of mound, and supplemental infield mix proportioned to promote drainage.
- Distance from batter's box to backstop is approximately 20' and does not meet the recommended distance of 60'.
- There is no spectator seating and no ADA access to the field.

Middle School

60' Baseball Diamond

- The solar orientation of the field is not optimal (southeast).
- The stone dust and clay mix base paths, pitchers' mounds, and home plate areas are in poor condition and require seasonal maintenance. Infield mix is poorly drained and should contain appropriate proportions of sand, silt, and clay to improve drainage. Recommend weeding, supplemental infield mix, raking, and removal of lip buildup.
- Turf condition is generally fair with exception of localized areas where turf is worn. Compacted soils appear to restrict drainage. Drainage in outfield is poor due to adjacent wetland areas, specifically in right field.
- There is no ADA accessible route to the field. A walking path from the parking areas to the field shall be constructed to enhance pedestrian flow, accessibility, and eliminate potential pedestrian/vehicular conflicts.



Winthrop School

60' Baseball Diamond

- The stone dust and clay mix base paths, pitcher's mound, and home plate areas are in poor condition and require complete reconstruction. Recommend weeding, supplemental infield mix, raking, and removal of lip buildup at a minimum. Infield mix does not promote drainage. Grading of pitcher's mound does not meet requirements.
- Outfield fencing is not provided due to use of adjacent field areas.
- No parking facilities are provided adjacent to the field. No accessible routes are provided from the school parking lot to the field. Spectator seating is not provided.
- Turf quality is poor due to several bare areas and low turf growth density throughout the entire outfield and infield.
- The outfield should be re-graded to eliminate low spots throughout center and left field. Use of outfield as multipurpose field area results in poor turf quality throughout.

Cutler School

60' Baseball Diamond

- The field is in generally fair condition.
- Dimensional constraints due to significant upward sloping of outfield in left field.
- Distance to backstop (15') less than recommended (25') Little League distance.
- The stone dust and clay mix base paths, pitchers' mounds, and home plate areas are in poor condition and require seasonal maintenance. Recommend weeding, supplemental infield mix, raking, and removal of lip buildup.
- Turf condition is fair to poor due to several bare areas, worn turf, and weed infestation.
- Planarity of the field is poor due to sloping of land in outfield.

Buker Elementary

Two (2) - 60' Baseball Diamonds

- Both fields are dimensionally constrained (140' – 150' to outfield) due to shared use of outfields and location of school access routes.
- Entire field area needs to be top-dressed, fertilized, re-seeded and re-grown, and rested to eliminate bare areas throughout.
- Base paths, pitchers' mounds, and batters' boxes require reconstruction. The outfield contains several dips, heaves, and ruts, as well as unprotected manhole covers.
- Player seating is provided and is in close proximity to roadways. Recommend fenced dugouts and additional fencing along roadways.

Overall, the sites are in generally fair condition. A majority of the fields throughout these sites have deficiencies in similar areas, which are dimensional constraints, grading and drainage concerns, parking facilities, spectator seating, and ADA accessibility. The fields which experience dimensional constraints and drainage issues specifically result in a compromise on the serviceability and availability of the fields. Additionally, all of the Little League baseball fields, with the exception of Cheeseman Field at Pingree Park, do not have the proper outfield fencing, making it difficult to determine each facility's adherence to any governing dimensional standards.

2.3. Field Demand Conclusions

2.3.1. Rest Period. All heavily used athletic fields require a 30-45 day rest period during an active growth period in the fall or the spring. This allows the predominately blue grass to repair itself by rhizome propagation and "re-knit" the rootzone. This process does not take place during the summer when cool weather grasses like Kentucky blue grass are dormant. This is a significant challenge for virtually all public school and municipal organizations.

The Hamilton-Wenham fields sustain heavy use and the majority of these fields do not have a spring or fall rest period. The fields that appear to have a rest period are the baseball diamonds at Pingree Park, the diamond at Donovan Field, and the multipurpose Field 1 at the High School. The multipurpose field at West Wenham also has a rest period, however the field is so

insufficiently sized and has such poor planarity that it is currently used for a mere ten (10) events annually. The majority of the remaining fields do not have a rest period in the spring or fall, to include the most heavily used fields at Patton Park, the High School, and all elementary schools.

2.3.2. Inclement Weather Policy. It should be noted that it only takes playing once on a very wet field to destroy the turf root zone for that season. An effort must be made not to play games or even practice on fields that are excessively wet. Based on the conclusion that the Hamilton and Wenham fields sustain heavy use, an Inclement Weather Policy is strongly recommended as a management tool for preventing damage to fields in the event of inclement weather.

Currently, the Hamilton/Wenham Recreation Department manages use of the fields through a Playing Field and Facility Permit. Under this procedure, the Recreation Department and the DPW Public Grounds Department are responsible for prohibiting play of scheduled events during inclement weather. Through this process, permitted field users are notified when inclement weather will prohibit use of the fields. Additionally, the Recreation Department website contains a "Field Closures" section, which announces which fields are currently closed due to inclement weather. While this method is somewhat successful, it remains a challenge to prevent use of fields in the instance of unscheduled play, after hours use, and in the case of un-forecasted inclement weather conditions. With the Hamilton/Wenham fields sustaining heavy use, it can be challenging to maintain team schedules while also prohibiting play as necessary. At the same time, the heavy use of fields contributes even more to the importance of forbidding field use in wet conditions.

The enforcement of a restrictive inclement weather policy by field managers is the singular best management practice available. A typical policy addresses the importance of not playing on fields during wet conditions, as it protects the safety of players, condition of fields, serviceability of facilities, and is fiscally responsible to taxpayers. The policy should outline condition assessment procedures and the responsibility of the Recreation Department, athletic team staff, and players as it relates to inclement weather and field use. A complete inclement weather policy shall include information on its purpose, implementation procedures, field closure guidelines, communication processes, and enforcement and penalty procedures. The inclement weather policy shall be provided to all permitted field users, as well as posted at all

facilities to inform unscheduled users of the importance of prohibiting use during inclement weather. A sample Inclement Weather Policy has been included as Enclosure 1.

2.3.3. Demand. An aggressively maintained, irrigated field that is rested for up to a third of the fall or spring growing season can theoretically sustain up to 200 - 250 team-uses per year, depending on how well built and how well maintained it is, and can still maintain a high quality and safe athletic turf. A scheduled team use is a 2-hour game or practice involving 15-20 athletes. For most municipal fields, which may be poorly built, are less well maintained, seldom rested, and often poorly watered, a more realistic level of use is 200 scheduled team uses per year.

Based on user questionnaires, Town records, and interviews with sport leadership, Gale and the Recreation Department identified all formal uses made of each field facility. As reflected in the demand analysis matrix at Enclosure 2, many of the Towns' fields currently experience more than 250 scheduled team uses per year. These fields cannot sustain an acceptable stand of turf even if properly well maintained and rested. Clearly, the most heavily scheduled field in the Towns are the Patton Park fields, High School Field 2, Buker Elementary fields, and Fairhaven Field, each nearing or exceeding around 400 annual uses. The largest contributor to the use of the playing fields in the Towns is clearly the youth sport users, with Little League and Youth Soccer utilizing the majority of the field space on an annual use basis.

Out of all the sites analyzed, there are eleven (11) fields (nine (9) site locations) of the twenty-two (22) athletic fields in the Towns which are over scheduled, i.e. see an average of over 250 scheduled team uses per year. Another three (3) fields experience over 200 uses and must be aggressively maintained and rested to maintain an acceptable safe stand of turf. As a result, fourteen (14) out of twenty-two (22) athletic fields maintained by the Towns are either broken down or heavily distressed.

Significantly, there are nearly 5,300 scheduled team events occurring on Hamilton-Wenham athletic fields every year. This number is based on scheduled events only; it does not include informal or undocumented uses. The average number of scheduled team uses experienced by each field in the Towns, assuming that all uses were pro-rated over the existing population of fields uniformly over the Towns' inventory of twenty-two (22) fields, is 240 events per year. However, this method is inaccurate in determining the amount of field space required due to varying field

dimensions, uses, and accounting for those fields that are not useable for the majority of organized sporting events. It is apparent that there is a deficit in field space if the current recreation and school programs are to be sustained and/or expanded.

It is also understood that several youth lacrosse teams are currently using non-Town-owned facilities such as Clark Field and the Pingree School. Because of the current shortage of field space, the youth teams are using these alternative locations, and in the instance of the Pingree School, a usage fee is assessed. These uses are not accounted for in the total number of scheduled team uses, as only the Town-owned facilities are included in this Master Plan. It should be noted, however, that unless additional facilities are developed and demand is redistributed, these users will continue operating on non-Town-owned space. However, in the development of the proposed new facilities, the demand shall be re-assessed and an effort made to incorporate their uses over Town-owned facilities.

With a population of twenty-one (21) fully-usable fields (not including West Wenham Park, which is significantly geometrically insufficient for most levels of play), the Town can logically sustain 4,200 demands with current resting and maintenance policies, resulting in a field deficit of some 1,100 uses or four to five (4-5) field equivalents. This is admittedly a gross estimate and does not take into consideration the type of fields (ball fields or rectangular) most required, nor does it distinguish between youth sports and school sports; however, it is a valuable data point as we begin to formalize the Planning Program below.

2.3.4. Field Demand Impact – Equivalent Team Uses. While the number of scheduled uses is important to gain an understanding of field space adequacy and turf quality, it can be misleading, as scheduled uses do not always correlate to damage to the turf condition. Obviously, high school football is more deleterious to turf condition than softball, as larger, more competitive athletes cause higher stress loads on the playing surface. Also, different sports cause damage to turf in different areas. For example, football causes turf to wear between the hash marks, while soccer and lacrosse cause wear at the goals, at center field and along the sidelines. As a result, we must account not only for the number of uses, but for the type of use and age of the participants, by applying an impact factor to the raw scheduled use data.

We have somewhat arbitrarily assigned an impact factor of 1.0 to women's soccer as the average activity in terms of field impact and deterioration. We assume that high school football is twice as damaging to the turf and assign it a 2.0 impact factor accordingly. Other impact factors for various sports were assigned based on assumed turf impact and multiplied by the number of scheduled uses for each type activity to yield the equivalent team uses in terms of turf damage and impact.

While this approach is arguably somewhat imprecise, it is a definite improvement over the consideration of raw scheduled use data alone, as it accounts for differences in the impact on turf condition of the various uses of the athletic fields (see Enclosure 3).

The equivalent scheduled team use data for fields which routinely sustain use for sports such as men's lacrosse or football obviously tend to be higher than actual scheduled uses, while those for fields which are routinely used for Little League baseball tend to be less.

Section 3.0 – Synopsis of Needs Survey

One of the keys to the development of a comprehensive recreation needs assessment for the Towns of Hamilton and Wenham is to assess the perceptions of community stakeholders relative to recreation services, programs, and facilities available to them. In order to complete such an assessment, Gale prepared, fielded and analyzed a recreation needs survey and conducted two (2) sensing sessions with various recreation stakeholders.

In a web-based survey, residents of the Town were asked to complete a Hamilton/Wenham Recreation Questionnaire. A total of nearly 400 survey responses were received. This is somewhat of a low response rate in comparison with similar studies conducted in Massachusetts towns. A complete copy of this survey, the raw survey results, and Gale's analysis of those results were provided in detail under separate cover as Volume 2 of this Master Plan study. The findings and conclusions are summarized below.

3.1. Conclusions and Recommendations

With nearly 400 responses, the Hamilton/Wenham recreational needs survey provides insight into the perceptions of the various recreational constituencies and stakeholders. These conclusions may be somewhat skewed however, given the narrow demographics of the participants, with over 93% being adults, with only token participation by school age children, teenagers, young adults or elders.

The survey assessed attitudes, opinions and priorities in a number of different ways. From question to question the trends, and hence the conclusions, were fairly consistent. As a result we believe there is strong consensus, at least within the sampled age group, in the following conclusions:

1. The most important perceived recreational need throughout the Towns of Hamilton and Wenham is for an improved pool facility at Patton Park. Based on the perceptions of the survey participants, the pool is outdated, undersized, unheated, has poor restroom and changing facilities, and does not provide adequate pool deck space. Additionally, it was noted several times that the hours, scheduled users, and age-appropriateness of the facility is not meeting the users' needs. It is apparent that a redevelopment strategy for the pool facilities in Hamilton and Wenham is a top priority.
2. The second most important recreational need throughout the Towns is for additional playing fields, both baseball fields and multi-purpose rectangular fields. The existing population of fields is inadequate to effectively meet current demands. It is recognized by most of the community that lights, allowing for extended use of existing fields may mitigate the shortage, however turf quality will suffer as increased play is accommodated on lighted, already overtaxed fields. In response to the field shortage, based on survey results, there is a widely held opinion that synthetic turf may be appropriate and the majority of the respondents favored installation at the existing high school game field.
3. There is a moderate demand for improved and/or additional trail facilities throughout the Towns to meet a number of needs, including hiking, walking, and biking for all age groups. Of these, the biggest concerns appear to be the need for bike paths and trails. There is a perception that sufficient off-road trails may already exist but they are perhaps poorly publicized, poorly marked, poorly mapped, or have inadequate trail head facilities such as parking, signage, restrooms or shelter. Additionally, there appears to be a need for improvements to road signage for cycling. We recommend a dedicated project aimed at trail facilities publicity and improvements, and a commitment to providing safer cycling opportunities through signage and proper roadway marking. It appears that for relatively small expenditures, the Towns can respond to a well articulated demand.
4. While not as strong as the consensus related to additional field space and improved pool facilities, there is a strong demand in the community for expansion or enhancement of the recreational education programs, targeted mainly at adults, pre-school age

children, and teens. There is common perception that the programs offered may be inconvenient in terms of scheduling, mainly for the adult groups. It appears that offerings for toddler or pre-school age children are lacking in availability. Although not articulated as well as the need for these two (2) age groups, it appears that the recreational needs of the teenage group may not be currently met.

5. It is apparent through both survey responses and results of the sensing sessions, that maintenance and upkeep of athletic fields and parks is often not sufficient and appears to be affecting serviceability of the Towns' field inventory. In response to a survey question regarding new or improved recreation facility, an overwhelming number of responses indicated that maintenance was required, rather than new or improved facilities. Based on the demand placed on the field inventory, it is nearly impossible to provide maintenance that will sustain the level of use currently placed on the fields. A more sufficient quantity of fields, as well as a consistent maintenance regimen, will allow for more adequate and available playing fields.
6. Throughout the survey, there was a consistent sense that tennis is more often played on private or out-of-town facilities. However, the survey results also indicated in moderate quantity that the desire for tennis facilities in the Towns of Hamilton and Wenham does exist. Additionally, in several responses, the poor condition of the Pingree Park and West Wenham tennis facilities was noted. Based on this information, it can be concluded that there is a need for new or improved tennis facilities in the Town of Hamilton and/or Wenham.
7. There is little support in the Town for either a dog park or skate park. While there may be individuals who support each of these potential developments with strongly held opinions, it does not appear that any of them garner much support.

The conclusions of the Needs Assessment Survey and User Group Sensing Sessions allow us to understand how the current recreational facilities, programs, needs, and potential enhancements are perceived by the users. Based on these conclusions, we can better focus our master planning program to address the actual needs of the Hamilton and Wenham communities.



Section 4.0 – Athletic Field Planning Program Requirements

Based upon Gale’s evaluation of the Town’s athletic fields, the quantification of demands for athletic fields, the expressed need for additional athletic fields voiced at sensing sessions, and the high priority given to additional athletic fields reflected in the town-wide survey results, it is readily apparent that additional athletic field space is one of the most compelling recreational facilities needs within the Towns of Hamilton and Wenham. Currently, in order to limit the amount of play on each field to somewhere around 200 scheduled team uses per year, and in order to afford spring or fall rest periods to most key fields, it appears that the town requires an additional four (4) to five (5) athletic fields. The following is a summary of the planning program:

Current Capabilities = 4,200 Events per Year
21 Fields (Excluding West Wenham Park) @ 200 events
per field = 4,200 Events (@200/year)

Event Space Shortage = 1,100 Events (5,300 – 4,200)
Field Shortage = 4 – 5 Fields (1,100 Events / 225 Events per field)
(Planning Program)

Priority 1: 3 Multi-Purpose Rectangular Fields
1 Little League (60 foot) Baseball Field

Priority 2: 1 Little League (60 foot) Baseball Field
1 Multi-Purpose Rectangular Field

TOTAL: 4-6 New Athletic Fields

With improvements to the durability of existing fields, maintenance of an effective inclement weather policy, implementation of rest periods, and re-distribution of demand to less utilized fields (e.g. DPW Field, HWRS Fields, Donovan 60’ Diamond), the creation of four (4) to six (6) new fields will enable the Town to support its current and projected sports programs without chronic detriment to facilities, and the serviceability and safety deficiencies that result.

Section 5.0 – Proposed Athletic Facilities Improvements

Beyond the immediate field maintenance summarized in Volume I of the master plan study, Gale evaluated each location for its potential for redevelopment and/or expansion to better meet the needs of the community. Gale assessed each existing recreational parcel and several undeveloped Town-owned parcels to determine their potential for expanded recreational facilities, considering available topography, wetlands and other environmental constraints, flood plain, zoning, etc.

5.1 Proposed Facility Redevelopments

The purpose of this section is to provide an overview of the proposed redevelopment strategies for a number of facilities that provided an opportunity for redevelopment. Redevelopment may consist of construction of athletic fields, new tennis and basketball courts, re-orientation of existing fields, complete field renovation and/or reorganization of existing fields, strategic placement of synthetic turf, new athletic lighting, and/or increased parking. Please refer to Section 8 for proposed improvements to the Patton Park Pool Facility. The final objective of the planning effort will be to define a combination of these individual redevelopment projects that will accomplish the planning program of four (4) to six (6) fields or field equivalents as defined above. The following is a summary of the individual facility redevelopment strategies.

5.1.1. Patton Park Redevelopment. Based on the facility evaluations, the fields at Patton Park have geometric constraints, poor solar orientation, lack of spectator seating, drainage issues, non-compliance with ADA accessibility regulations, and inadequate parking. As it relates to development of additional fields, Patton Park is not an ideal candidate due to spatial constraints. However, due to high demand and level of play at both the 90' and 60' baseball diamonds, the facility is in need of renovations to the existing fields. The following enhancements are proposed at Patton Park:

- *Reconstruction of the 90' baseball diamond.* The conceptual layout includes re-orienting the field to provide a more adequate solar orientation of north/northeast, as opposed to the current south facing direction. See Figure C-1 at Enclosure 4. The reorientation will also address safety concerns related to fly balls and spectator seating at the Little League facility. To provide a fully compliant baseball facility, the reconstruction shall include installation of subsurface drainage, re-grading to promote drainage, installation of an engineered sand-based root zone, permanent outfield fencing, 300' foul pole distances, 350' distance to center field, 30' hooded backstops, dugouts, and spectator seating. Full reconstruction of the facility will address the drainage issues, poor solar orientation, lack of outfield fencing, and current geometric constraints.
- *Reconstruction of the 60' baseball diamond.* The primary issue related to the existing 60' baseball diamond, primarily used for Little League, is the geometric constraint. The

foul pole distance of 160' to right field is inadequate. To provide a compliant facility, the Little League field should be reconstructed to provide a distance of 200' to the foul pole. See Figure C-1 at Enclosure 4. Additionally, a reconstructed infield and mound, as well as re-grading and general maintenance to the outfield shall be provided.

- *Vehicular / Pedestrian Circulation.* The parking area at Patton Park is in poor condition and requires reconstruction. Because it is located at the rear of the facility, it is primarily used for the 90' baseball diamond and does not allow for immediate access to the entire Park facility. Additionally, there are no formalized pedestrian circulation routes throughout the Park, resulting in potential safety issues as well as incompliance with ADA regulations. The proposed Patton Park redevelopment includes re-construction of the existing parking lot, addition of twenty (20) centrally located parking spaces, construction of a 6' walkway throughout the entire facility, a centrally located entrance/memorialization area, two (2) age-appropriate play areas, and a concessions/amenities/restroom facility.
- *Multipurpose Rectangular Field.* While there is no room for additional field development within Patton Park, it may be beneficial to show how a multipurpose field would be able to fit within the adjacent parcel, currently used for passive recreation. If the Town were given the opportunity to acquire this additional piece of property, Patton Park would become an even greater recreation asset due to its enhanced recreational opportunities and its central location with the Town of Hamilton. Construction of a 300' x 165' multipurpose facility would require approximately 1.8 acres of additional land.
- *Playground Areas.* The redevelopment schematic includes a new playground area, which is proposed in generally the same location as the existing playground. It is our understanding that redevelopment of the existing playground is currently in planning, and it is the intent that because of its location, the proposed redevelopment of the entire Patton Park facility will not be impacted by this. Because the playground renovation has not yet begun, we have included it in the proposed Patton Park redevelopment.



The proposed Patton Park Conceptual Layout is provided under Enclosure 4.

5.1.1.1. Cost Estimate. The following is a cost estimate for the improvements associated with the proposed redevelopment of Patton Park. It should be noted that these cost estimates are not adequate for budget development due to the conceptual nature of the proposed redevelopment.

<u>Patton Park Improvements</u>	
Rebuild 90' Baseball Diamond	\$ 300,000
Improvements to 60' Baseball Diamond	\$ 175,000
Parking Improvements	\$ 80,000
Walkways / Landscaping	\$ 50,000
Amenities Building (960sf @ \$190/sf)	\$ 182,400
Playground Areas	\$ 80,000
Soft Costs (7%)	\$ 60,718
Contingency (10%)	\$ 86,740
Total	\$ 1,014,858

5.1.2. Pingree Park Redevelopment. Based on the facility evaluations, the primary concern with the fields at Pingree Park are the geometric constraints, lack of ADA access, lack of spectator seating, poor parking facilities, and lack of supporting amenities for the 90' baseball diamond. The conceptual redevelopment proposes to relocate the 90' baseball diamond to provide the appropriate dimensions (300' to foul poles, 350' to center field), relocate Black Field to provide adequate dimensions, construct a 170' x 300' multipurpose field, reconstruct the tennis courts, and construct two (2) new playground facilities.

- *Field Reconstruction.* The conceptual layout includes complete reconstruction of three (3) fields at Pingree Park, including a 60' diamond, 90' diamond, and multipurpose field. To provide high quality playing fields, the construction shall include subsurface drainage, an engineered sand based root zone, an athletic field seed mix, proper grading, fencing, backstops, and fully reconstructed infields. Redevelopment of the facility will allow for two (2) U10 Soccer fields to be located in the outfield of the 90' diamond, as well as an additional new multipurpose field. Due to their poor condition, the four (4) tennis courts are proposed to be pulverized and reconstructed in place to



include acrylic surfacing, tennis nets and posts, and new perimeter fencing. The existing playground area shall be removed and two (2) new age-appropriate playground facilities constructed adjacent to the two (2) 60' baseball diamonds. The existing Cheeseman Field is intended to remain in place.

- *Parking Lot / Pedestrian Access.* The parking area at Pingree Park is in poor condition and requires reconstruction. Additionally, there are no formalized pedestrian circulation routes throughout the Park, resulting in potential safety issues as well as incompliance with ADA regulations. The proposed Pingree Park redevelopment includes reconstruction of the existing parking lot and construction of a 5' walkway throughout the entire facility, including a centralized memorialization area.

The proposed Pingree Park Conceptual Layout is provided under Enclosure 4.

5.1.2.1. Cost Estimate. The following is a cost estimate for the improvements associated with the proposed redevelopment of Pingree Park. It should be noted that these cost estimates are not adequate for budget development due to the conceptual nature of the proposed redevelopment.

Pingree Park Redevelopment

Rebuild 90' Baseball Diamond	\$ 300,000
Rebuild 60' Baseball Diamond	\$ 175,000
New Multipurpose Field	\$ 150,000
Parking Improvements	\$ 50,000
Walkways / Landscaping	\$ 20,000
Playground Areas	\$ 80,000
Reconstruct Tennis	\$ 200,000

Soft Costs (7%)	\$ 68,250
Contingency (10%)	\$ <u>97,500</u>

Total **\$ 1,140,750**

5.1.3. Hamilton-Wenham Regional High School Redevelopment. Due to the significant amount of maintenance required to provide an adequate game facility at HWRHS, uses of

the main game field are severely constrained. Due to the constrained uses of the field, the supporting fields at HWRHS experience increased demand and therefore require significant amount of maintenance to sustain that demand. Additionally, the track and field venue is beyond its useful life and, although the asphalt base mat is in good condition, the surfacing has experienced UV degradation and wear. The proposed redevelopment of the HWRHS facilities is intended to provide an all-weather, multipurpose field surface that can withstand the high demand that the high school fields experience, thus decreasing the demand placed on the entire athletic campus fields.

- *Game Field Reconstruction.* The conceptual layout includes installation of an all-weather, 190' x 330' multipurpose infilled synthetic turf field at the location of the existing game field. Construction of the field would include a significant base system comprised of a concrete curb, base stone, and subsurface drainage. The redevelopment also proposes installation of a high end, four (4)-pole athletic field lighting system adequate for both football and small ball sports. Use of synthetic turf combined with a lighting system will allow the multipurpose field to more than quadruple its current uses, thus allowing for adequate demand and rest on the rest of the campus fields.
- *Track and Field Reconstruction.* The conceptual redevelopment proposes to reconstruct the existing track, resulting in a new 110' radius track with six (6) lanes on the oval and eight (8) lanes on the straightaway. Currently, the track straightway is located on the visitor's side of the track, opposite the bleacher system. The straightaway would be relocated to the grandstand side of the track to allow for better spectator visibility during running events. The track is proposed to be surfaced with a ½" acrylic latex surface, ideal for high school track competition. The high jump and pole vault venues would also be reconstructed during the track construction.

The proposed Hamilton-Wenham Regional High School Conceptual Layout is provided under Enclosure 4.

5.1.3.1. Cost Estimate. The following is a cost estimate for the improvements associated with the proposed redevelopment of HWRHS. It should be noted that these cost estimates are not adequate for budget development due to the conceptual nature of the proposed redevelopment.



Hamilton-Wenham Regional High School Redevelopment

Synthetic Turf/Stone Base / Drainage	\$ 750,000
Athletic Field Lighting	\$ 300,000
Reconstruct existing track and field events	\$ 50,000

Soft Costs (7%)	\$ 112,000
Contingency (10%)	\$ <u>160,000</u>

Total **\$ 1,872,000**

5.1.4. Donovan Field. The Donovan Field Recreation Facility experiences significant drainage issues, is adjacent to wetland resources, and is not maintained to the extent required to sustain the amount of demand placed on the facility. While redevelopment opportunities at Donovan do not afford the ability to construct new, additional fields, we recommend making long-term improvements to the facility to achieve best recreational use of the parcel.

- *Athletic Field Development.* The proposed redevelopment at Donovan Field includes reconstruction of both the multipurpose field as well as the 60' baseball diamond. Currently, the fields share the use of the outfield, which does not allow for concurrent play. The redevelopment reorganizes the facility to provide improved solar orientation of the 60' diamond, and to allow for concurrent use of both fields. Additionally, the redevelopment allows for the addition of a small practice area. The redevelopments shall include significant subsurface drainage improvements to mitigate the flooding and ponding issues currently experienced on the fields. The redevelopment shall also address the planarity issues by providing a grading scheme that promotes drainage runoff and maintains adequate slopes for athletic field use. The multipurpose field is conceptually sized at 210' x 330', while the 60' diamond achieves required dimensions of 200' to foul poles. The practice area is sized at 150' x 140'.
- *Parking.* Parking facilities at Donovan Field are currently non-existent. The driveway from the roadway is in poor condition due to soft areas, drainage, and lack of adequate base construction. The redevelopment proposes to reconstruct the driveway, as well as to provide a parking lot for approximately forty (40) vehicles.



The proposed Donovan Field Conceptual Layout is provided under Enclosure 4.

5.1.4.1. Cost Estimate. The following is a cost estimate for the improvements associated with the proposed development of Donovan Field. It should be noted that these pre-design cost estimates are not adequate for budget development due to the conceptual nature of the proposed redevelopment.

Donovan Field Redevelopment

Multipurpose Field Construction	\$	225,000
60' Baseball Diamond	\$	220,000
Parking Facility	\$	45,000
Soft Costs (7%)	\$	34,300
Contingency (10%)	\$	<u>49,000</u>
Total	\$	573,300

5.2 Undeveloped Parcels

In addition to looking for redevelopment opportunities within currently developed facilities, part of the Master Planning effort is to evaluate currently undeveloped parcels for potential redevelopment. While the Towns of Hamilton and Wenham are aware of several areas of land which are appealing to recreational development, there were two (2) notable parcels that have a greater chance of being acquired by the Town for potential development. The following sections provide information on the redevelopment opportunities at the Patton Estate and the parcel adjacent to the Cutler School.

5.2.1. Patton Estate Development. The Patton Estate was recently gifted to the Town of Hamilton for potential recreational development. The parcel is approximately twenty-five (25) acres and consists of a house, pond, gravel yard, swimming pool, and several supporting buildings. At the time of the Master Plan, a committee was developed to determine the potential for recreational development. It is understood that the vision of the Committee is to develop a recreational facility on the southwestern portion of the parcel, to maintain views from the house and along the front of the property. The following is a summary of the proposed redevelopment at the Patton Estate.

- *Active Recreation.* The proposed development at the Patton Estate provides for two (2) full size multipurpose athletic

fields (190' x 300'), with a shared 60' baseball diamond at one (1) of the rectangular fields. The area of development is limited in size due to topography, as well as the need to maintain views from the front of the lot. The area of the proposed redevelopment is located such that construction within significant slopes and hills is minimized, to avoid significant earthwork that may be cost prohibitive. The 60' baseball diamond shall be constructed with temporary outfield fencing, due to the use of the outfield as a multipurpose field. Construction of the fields shall include an engineered sand-based root zone, subsurface drainage, and irrigation systems.

- *Passive Recreation.* The development of the Patton Estate affords an opportunity to provide passive recreation opportunities in addition to the active recreation athletic fields. The conceptual layout includes approximately a quarter-mile of walking trails around the perimeter of the existing pond, as well as picnic areas, seating areas, and landscaping throughout. The walking/running trail location is adjacent to the athletic fields, and both are located in close proximity to a centralized amenities building, playground, and memorial area. The existing riverfront access shall be maintained for pedestrian access upon redevelopment.
- *Parking.* A parking lot for approximately sixty (60) vehicles is provided, as well as sidewalks, pedestrian circulation routes, and a driveway extending from the front of the lot to the recreation facility. A significant amount of landscaping is proposed to maintain views and provide a buffer from the main buildings at the Estate.

The proposed Patton Estate Conceptual Layout is provided under Enclosure 4.

5.2.1.1. Cost Estimate. The following is a cost estimate for the improvements associated with the proposed development of the Patton Estate. It should be noted that these cost estimates are not adequate for budget development due to the conceptual nature of the proposed redevelopment.

Patton Estate Development

Multipurpose Field Construction	\$ 450,000
60' Baseball Diamond	\$ 250,000



Parking Facility	\$	100,000
Passive Recreation Areas	\$	65,000
Landscaping	\$	25,000
Amenities Building	\$	225,000
Playground Areas	\$	60,000

Soft Costs (7%)	\$	82,250
Contingency (10%)	\$	<u>117,500</u>

Total **\$ 1,374,750**

5.2.2. Woodland Mead Parcel. The Woodland Mead Parcel is located adjacent to the Cutler School on Woodland Mead Road. The parcel was provided to Gale as a location for potential acquisition of property, and in terms of location, is ideal as it is directly adjacent to a current athletic facility at the Cutler School.

- *Athletic Field Development.* The proposed development at the Woodland Mead lot consists of one (1) 60' baseball diamond as well as one (1) 180' x 270' multipurpose rectangular field. The area for potential development is fairly constrained in size, and the construction of both facilities does not allow for development of supporting facilities such as spectator seating, amenities, walkways, and significant parking. However, we feel that since this property has potential for acquisition, the extents to which it can be fully built out should be assessed. While the 60' diamond would mirror the location of the existing diamond at Cutler School and be adequate for Little League play, the multipurpose rectangular field is undersized for high school level play and would better serve as a field for youth sports.
- *Parking.* A parking lot for approximately eleven (11) vehicles is provided off of Woodland Mead. While the parking lot is undersized, there are limited opportunities for parking lot development at the site.

The proposed Woodland Mead Conceptual Layout is provided under Enclosure 4.

5.2.2.1. Cost Estimate. The following is a cost estimate for the improvements associated with the proposed development of the Woodland Mead Parcel. It should be noted that these cost estimates are not adequate for budget development due to the conceptual nature of the proposed redevelopment.



Woodland Mead Development

Multipurpose Field Construction	\$ 225,000
60' Baseball Diamond	\$ 175,000
Parking Facility	\$ 20,000
Soft Costs (7%)	\$ 29,400
Contingency (10%)	\$ <u>42,000</u>
Total	\$ 491,400

5.3 Alternative Redevelopment Strategies

Given the identified planning program which calls for a mix of three to four (3-4) additional multipurpose rectangular (MPR) fields and one to two (1-2) 60' baseball fields, and other recommended improvements related to playground and hardscape, Gale has developed two (2) strategies to achieve these facility enhancements. The strategies are outlined below.



Redevelopment Strategy # 1

<u>Location</u>	<u>Redevelopment Strategy</u>	<u>Field Change</u>	<u>Cost</u>
H-W Regional High School	<ul style="list-style-type: none"> • Synthetic Turf Field at Game Field • Track Renovation 	<ul style="list-style-type: none"> • +1 MPR • New Track Facility 	\$1.8M
Undeveloped Patton Estate	<ul style="list-style-type: none"> • 1 - New Shared 60' Baseball Diamond • 2 - New Multipurpose Rectangular Fields • 0.25 Mile Multipurpose Trail • New Parking Facility 	<ul style="list-style-type: none"> • +1 MPR • +1 60' Diamond 	\$1.4M
Pingree Park	<ul style="list-style-type: none"> • Reconstruct/Relocate 1-60' Baseball Diamond (200' CF) • Reconstruct/Relocate 90' Baseball Diamond (350' CF) • Pulverize/Rebuild Tennis Courts • Parking Lot Improvements • Playground Reconstruction 	<ul style="list-style-type: none"> • +1 MPR • New Tennis Facility 	\$1.2M
<u>OPTIONAL IMPROVEMENTS (NO NET FIELD CHANGE)</u>			
Patton Park [OPTIONAL]	<ul style="list-style-type: none"> • Reconstruct 90' Baseball Diamond • 60' Baseball Diamond Improvements • Playground Improvements • Reconstruct Parking 	<ul style="list-style-type: none"> • No Net Field Change 	\$1M
Donovan Field [OPTIONAL]	<ul style="list-style-type: none"> • Reconstruct/Relocate Multipurpose Rectangular Field • Reconstruct/Relocate 60' Diamond • Parking Improvements 	<ul style="list-style-type: none"> • No Net Change • Parking Improvements 	\$570K
TOTALS: +3 MPR, +1 60' Diamond			\$ 5,970,000



Redevelopment Strategy #2

<u>Location</u>	<u>Redevelopment Strategy</u>	<u>Field Change</u>	<u>Cost</u>
H-W Regional High School	<ul style="list-style-type: none"> • Synthetic Turf Field at Game Field • Track Renovation 	<ul style="list-style-type: none"> • +1 MPR • New Track Facility 	\$1.8M
Pingree Park	<ul style="list-style-type: none"> • Reconstruct/Relocate 1-60' Baseball Diamond (200' CF) • Reconstruct/Relocate 90' Baseball Diamond (350' CF) • Pulverize/Rebuild Tennis Courts • Parking Lot Improvements • Playground Reconstruction 	<ul style="list-style-type: none"> • +1 MPR • New Tennis Facility 	\$1.2M
Woodland Mead	<ul style="list-style-type: none"> • New Multipurpose Rectangular Field • New 60' Baseball Diamond 	<ul style="list-style-type: none"> • +1 MPR • +1 60' Diamond 	\$500K
<u>OPTIONAL IMPROVEMENTS (NO NET FIELD CHANGE)</u>			
Patton Park [OPTIONAL]	<ul style="list-style-type: none"> • Reconstruct 90' Baseball Diamond • 60' Baseball Diamond Improvements • Playground Improvements • Reconstruct Parking 	<ul style="list-style-type: none"> • No Net Field Change 	\$1M
Donovan Field [OPTIONAL]	<ul style="list-style-type: none"> • Reconstruct/Relocate Multipurpose Rectangular Field • Reconstruct/Relocate 60' Diamond • Parking Improvements 	<ul style="list-style-type: none"> • No Net Change • Parking Improvements 	\$570K
TOTALS: +3 MPR, +1 60' Diamond			\$5,070,000

Both redevelopment strategies accomplish a redevelopment program that provides a solution to the existing deficit of fields in the Towns of Hamilton and Wenham. The primary difference between the two (2)

strategies is the undeveloped parcel selected for development. Under Renovation Strategy #1, the Patton Estate is developed. Under Renovation Strategy #2, the Woodland Mead Parcel is developed.

Gale recommends implementation of Renovation Strategy #1 due to the fact that the Patton Estate property has been gifted to the Town with an area allocated for recreational development. The Woodland Mead parcel (under Renovation Strategy #2) would require land acquisition and does not achieve the level of programming that the Patton Estate parcel provides through redevelopment.

Section 6.0 – Athletic Field Demand and Rest Following Master Plan Implementation

An objective of the Master Plan is to reconstruct existing fields and/or develop sufficient new fields to better meet the demands placed on them by the existing athletic programs in Hamilton and Wenham. A goal is to provide sufficient fields by type such that the demand on any individual field does not exceed 200 to 250 scheduled team uses. As previously noted, 200 team uses is the maximum number that a properly irrigated and maintained field with a 30-45 day rest period during the active growth season can sustain and still maintain good quality athletic turf.

For purposes of this analysis, we assume that Renovation Strategy #1 will be implemented as a result of this Master Plan study.

- Hamilton – Wenham Regional High School game field & track
- Patton Estate Development
- Pingree Park Redevelopment
- Patton Park Redevelopment
- Donovan Field Redevelopment

The implementation of the Master Plan will result in the natural turf fields seeing a significant reduction in uses to approximately 200-250 uses per year and allow enough rest between seasons for re-growth and maintenance of the turf. This reduction is based on our assumption that the game field uses increase from 104 to 500 uses per year. In addition, it is apparent that the new synthetic turf fields will see heavy use throughout the year and become an important component of the Master Plan. Given that the Master Plan is calling for the complete renovation of several existing fields, we feel that the uses they can sustain will improve to between 200 and 250.

As shown in the table below, the implementation of the proposed strategy allows for a redistribution of demand with an overall reduction of demand on all natural turf fields.



FIELD USE ANNUAL SUMMARY - ACTUAL TEAM USES v PROPOSED					
Field Location	Field	Field Type	Total Annual Uses	Proposed Uses	Comments
Patton Park	60' Diamond & MPR	60' B / MPR	270	200	
	90' Diamond	90' B	144	200	
Pingree Park	Cheeseman	60' B	228	250	
	Wildes	90' B & MPR	233	200	
	Black	60' B	208	250	
	NEW	MPR	--	175	+1 MPR
Donovan Field	Field 1	60' B	152	250	
	Field 2	MPR	207	200	
Fairhaven Field	Fairhaven Field	MPR	168	200	
DPW Field	DPW Field	MPR	130	50	
Iron Rail Fields	Field 7	MPR	270	200	
	Field 8	MPR	207	200	
	Field 9	MPR	207	200	
West Wenham Park	Field 1	MPR	10	0	
H-W Regional High School	Game Field	MPR	104	--	+1 MPR
	NEW	Synthetic	--	500	
	Field 1	MPR	80	92	
	Field 2	MPR	110	200	
	Field 3 & 90' Diamond	MPR/90'B	150	127	
Middle School	Field 1	60' B	230	250	
Winthrop School	Field 1	60' B	110	250	
Cutler School	Field 1	60' B	230	250	
Woodland Mead	NEW	MPR		0	Not Built Under Strategy #1
Woodland Mead	NEW	60'B		0	Not Built Under Strategy #1
Baker Elementary	Field 1	60' B	178	250	
	Field 2	60' B	168	250	
Patton Estate	NEW	MPR	--	200	+1 MPR
	NEW	60'B	--	250	+1 60'D

Total 5,286 5,286

Section 7.0 – Athletic Field Enhancements Phasing

It is apparent that the implementation of the entire Master Plan is not feasible in a single project due to Town's fiscal constraints and the impacts on users, who must have field space during the redevelopment process. The Master Plan is therefore broken into discrete projects based on reasonable annual budget expenditures, priority of need, and minimization of user impacts. In general, the principles behind the formulation of the Master Plan phasing are to:

- Accomplish the projects, which result in the biggest impact first, to set the conditions for the project;
- Accomplish the remaining Master Plan elements in order of relative importance based on projected use;



- Attempt to accomplish all elements of the Master Plan in ten (10) years, including the current year;
- Attempt to balance the Town's expenditure on field renovation throughout the Master Plan implementation period;
- Schedule Master Plan elements that only provide for the renovation of an existing field in place, with no change in layout or use, late in the phasing plan.

Phasing Plan Summary

Phase 1, Fiscal Year 2014. Phase 1 should include the redevelopment of the fields at the Hamilton-Wenham Regional High School, to include reconstruction of the track and field events and installation of the synthetic turf field and lights at the game field. The results of these improvements will provide for a reconstructed multipurpose field allowing the total annual uses of the game field to increase from 104 to nearly 500, fulfilling a significant portion of the current unmet athletic field needs. The cost of these improvements total approximately \$1.8M.

Phase 1 shall also include the redevelopment of the Patton Park Pool Facility. The redevelopment includes reconstruction of a new 25-meter swimming pool, expanded deck, bathhouse, spray park, and proposed parking improvements. The cost of these improvements total approximately \$1.1M.

Phase 2, Fiscal Year 2016. Phase 2 should include the development of the recreational complex at the Patton Estate. The redevelopment is proposed to include two (2) multipurpose athletic fields, one (1) of which will share the outfield of a new 60' baseball diamond. In addition, the improvements include construction of walking trails, picnic areas, an amenities building, and a parking lot. The construction of this complex will allow for preparation of Phase 3, to provide athletic field space during the construction of improvements to Pingree Park. The cost of the development at the Patton Estate totals approximately \$1.4M.

Phase 3, Fiscal Year 2018. Phase 3 consists of the athletic complex redevelopment at Pingree Park, including reconstruction of both the 90' Wildes diamond and the 60' Black diamond. The redevelopment also includes reconstruction of the tennis facility and playgrounds, as well as parking lot and pedestrian circulation improvements. The preliminary cost estimate for this renovation totals nearly \$1.2M. It is important that the previous two (2) phases are completed to allow for use of the athletic fields while the Pingree Park fields are reconstructed.



Phase 4, Fiscal Year 2020. Phase 4 consists of the athletic complex redevelopment at Patton Park, including reconstruction of both the 90' baseball facility and improvements to the 60' baseball diamond. The redevelopment also includes development of parking areas, pedestrian circulation routes, an amenities building, and playgrounds. The preliminary cost estimate for this renovation totals nearly \$1.1M

Phase 5, Fiscal Year 2022. Phase 5 includes the redevelopment of the Donovan Fields. Although this redevelopment does not provide for an increase in quantity of fields, the demand placed on the fields will not be sustained without a complete renovation of the facility. The improvements include reconstruction of both the 60' diamond and multipurpose field, to allow concurrent usage of the facilities. The redevelopment also includes construction of a parking facility. The preliminary cost estimate for this renovation is \$570,000.

LOCATION	FY 2014	FY 2016	FY 2018	FY 2020	FY 2022
PHASE I					
HWRHS Track and Field	\$1.8M				
Patton Park Pool	\$1.1M				
PHASE II					
Patton Estate Development		\$1.4M			
PHASE III					
Pingree Park Redevelopment			\$1.2M		
PHASE IV					
Patton Park Redevelopment				\$1.1M	
PHASE V					
Donovan Field					\$570,000
Total Costs	\$2.9M	\$1.4M	\$1.2M	\$1.1M	\$570,000

Section 8.0 – Patton Park Pool Facility

8.1 Background

The existing public pool facility at Patton Park was built in 1961 and is over fifty (50) years old. The facility consists of a 25-yard poured concrete pool, concrete pool deck, bathroom and changing facilities, and an equipment building. With exception of equipment upgrades, the entire facility, including approximately 80% of the piping, is original to the 1961 construction. The pool is 7' deep in the deepest end and 4' deep in the shallow end, with an overall average depth of 5.5'. The dimensions of the pool are approximately 75' x 35', with a volume of 107,000 gallons of water. The pool is filled annually via municipal water.

The pool is currently maintained by the DPW. The filtration and sanitation system consists of rapid sand filters (eleven [11] years old) and liquid chlorination which is applied via an automated chlorinator. The pool contains two (2) main drains and can be manually drained through a pump system. Originally, the pool drained into the adjacent Patton Park pond. Within the fifty (50) years of its life, the facility has received the following upgrades:

- Filters – Originally consisting of sand filters, replaced with diatomaceous earth filter system, which was replaced with high rapid sand filters (~2001).
- Piping – 20% of piping has been replaced since 1961. Piping beneath the pool deck remains original to the 1961 construction.
- Automated chlorination – An automated chlorinator (liquid chlorine) was installed, which supplements the pool chlorination levels. The pool receives three to four (3-4) checks daily, which is in compliance with the Board of Health requirement.
- Virginia Baker Law upgrades – The two (2) main pool drains were affixed with drain covers to comply with the Virginia Baker Law in regards to anti-entrapment drain covers.
- Pool walls – Pool wall sections are coming out of plumb. Prior to opening, the sections are pounded into place via a rubber mallet to delay further failure of walls.
- Pressure testing – The pool received pressure testing in the Spring of 2012 to determine extents of cracking. The results of the testing were not received during this Master Plan.
- The facility is re-painted annually.

According to the Parks Expenditures & Budget for the fiscal years 2009 - 2011, the pool required a number of water leak repairs, electric work, painting, miscellaneous repairs, and supplies, totaling over \$8,000 in materials alone. Based on the Hamilton Public Works Department Parks and School Maintenance labor report, the estimated annual labor expense for pool maintenance totals nearly \$7,000.

Due to its age, condition, and requirement for compliance with the Board of Health regulations and building codes, the Patton Park pool requires a considerable amount of resources to continue operating the pool seasonally. The DPW Grounds Department provides a significant amount of labor, materials, and repairs to ensure that the pool meets

minimum requirements to open. However, there are a number of issues that will require additional resources to provide a safe, serviceable facility. The following evaluation of the pool facility provides a more thorough overview of the condition, safety, and serviceability of the facility.

8.2 Facility Evaluation

- Approximate dimensions of pool: 75' x 35' (25 yards, ~4 lanes). Recommended dimensions for high school level swimming is 25-meters and 6-8 lanes, or 82' x 50'.
- Concrete pool deck is experiencing cracking, heaving, and separation at joints. Areas of unlevel pool deck are a potential trip hazard.
- Concrete pool deck does not provide adequate area for access and seating.
- Fencing is in poor condition. The majority of the posts, rails, fabric, and gates are rusted, out of plumb, and require removal. New fencing with self-latching gates shall be installed.
- Pool storage shed is in fair condition, but is aesthetically poor. Storage shed is located on the pool deck, which limits available space for circulation and seating. Storage shed should be re-located away from the area of main circulation.
- Pool walls are out of plumb.
- ADA Access lift is provided. Handicap parking from the adjacent parking area is not provided. A ramp provides access to the handicap restroom from the parking area.
- Although the plumbing in the bathrooms is operational, the interior of the bathrooms are in poor aesthetic condition due to their age. Plumbing facilities (sinks, showers, toilets) are outdated and changing room benches are in poor condition.
- Number of fixtures provided does not meet Plumbing code, based on occupancy.
- Pool house is in good exterior condition. Evaluation of the mechanical/pool equipment was not completed as a part of this Master Plan.

Although the pool facility was evaluated during the off-season, it is apparent that the facility is lacking in both safety and serviceability. The dimensions of the pool and the pool deck are not adequate for high school level swimming competition. The pool deck has potential safety issues, and the supporting amenities buildings are outdated and require renovation. In addition to the poor aesthetic condition of the fencing, the gates are not equipped with self-closing latches, which does not meet state building code. While the evaluation provided insight into the general condition of the facility, it is important to obtain feedback from the users to determine the perceived needs of the facility. The following section provides an overview of the facility condition based on the perceptions of the Town users.

8.3 Needs Assessment

An assessment of the recreation facilities in the Towns of Hamilton and Wenham was facilitated through an online survey as well as various sensing sessions with youth sport leaders, Public Works employees, Selectmen, Recreation Board members, and other interested community members. Based on the results of the sensing session discussions, it is apparent that the Patton Park pool is a recreational asset to Town citizens. In addition, the community feels that the facility is outdated, undersized, and inadequate to serve its purpose as a high school swim facility and community swimming pool. The consensus reached throughout the Sensing Session discussions was that the Patton Park Pool is an important recreational asset and should be considered a priority in the redevelopment of athletic facilities within the Towns of Hamilton and Wenham.

As described in Section 3.0 – Synopsis of Needs Survey, participants in the community-wide survey were strongly opined that the Patton Park Pool is a major recreational asset. As a result of the survey responses, it was determined that consideration for improvements to the Patton Park Pool was the top priority of the survey participants. The following is a summary of the responses to several questions taken from the Survey:

Question

Question 7 & Question 8 - For each of the following resources, please indicate if you or your family members have utilized them for recreation in the past year.

If you responded NO to any locations on Question #7, please take time to indicate the reason why you did not use or visit the facility.

Summary of Responses

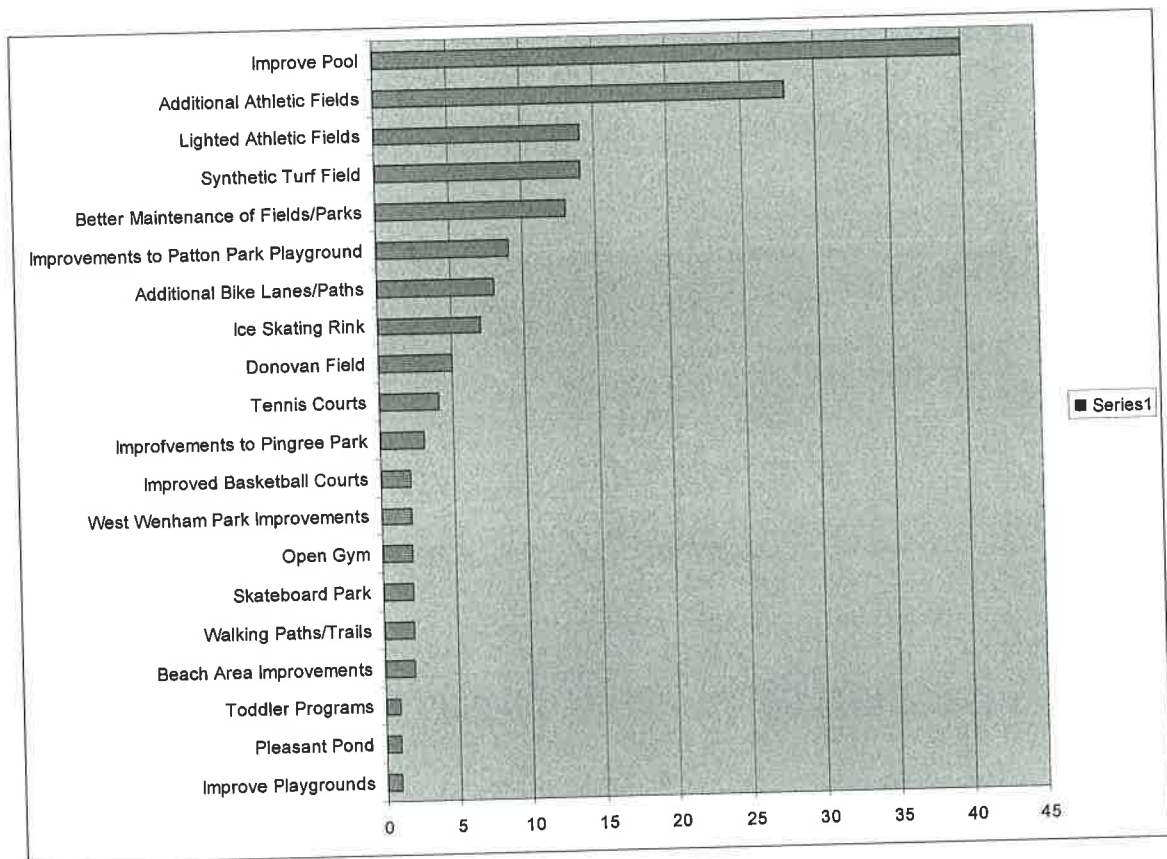
Patton Park Swimming Pool –
 Small; limited access hours
 Bathrooms are disgusting
 Pool is freezing
 No seating or areas to lie down
 Does not look appealing
 Extremely outdated and looks gross
 Old/Outdated/Disgusting facilities
 Old, bathrooms awful

Question

Question 16 – What are three (3) new or improved recreational facilities that you would like to see in Hamilton and/or Wenham?

Summary of Responses

The survey required a single answer for each priority: Priority 1, Priority 2, and Priority 3. The most responses within all three (3) of the priority options were for improvements to Patton Park Pool. See the graph below:



8.4 Conclusion

The results of the Facility Evaluation, Needs Assessment, and Community Sensing Sessions provide overwhelming support for improvements to the Patton Park Pool Facility as a priority in the Master Plan. As a result, Gale has developed two (2) conceptual layout schemes for the redevelopment of the Patton Park Pool Facility. While conceptual planning can provide an insight into spatial opportunities, requirements, costs, and development needs, a more mature design is required in the planning of such a facility. Gale recommends creating a committee to oversee the planning and design of a facility that will meet the needs of the community. The Committee shall consist of coaches, community users, DPW staff, and the Recreation Department to ensure that the facility will meet the needs of all levels from competition to family swimming. The evaluation photos and conceptual layouts are provided under Enclosure 7. The following is an overview of each layout:

Concept #1:

- Pool Size: 82' x 55' (Short Course / 6 Lanes)
- Deck Area: 7,200 SF
- Restroom / Locker Room Building: 1,225 SF
- Spectator Seating: 100 persons

Cost Estimate: \$850,000

Concept #2

- Pool Size: 82' x 55' (Short Course / 6 Lanes)
- Deck Area: 10,000 SF
- Spray Park: 600 SF
- Restroom / Locker Room / Storage Building: 1,350 SF
- Spectator Seating: 100 persons

Cost Estimate: \$1.1 M

Section 9.0 – Passive Recreation Trails

9.1 Overview of Trail Networks and Passive Recreation Opportunities

Passive recreation opportunities typically include open space and trail systems for walking, jogging, running, cycling, nature observation, snowshoeing, birding, horseback riding, picnicking, and similar unorganized, non-competitive activities. As is typical for municipalities, the Recreation Department for the Towns of Hamilton and Wenham do

not facilitate use and/or maintain the majority of the passive recreation areas throughout the Towns. While a portion of passive recreation is conserved throughout active recreation areas at several parks owned by the Towns (Patton Park, Pingree Park, & Iron Rail Fields), the majority of passive recreation opportunities in Hamilton and Wenham are either owned, facilitated, and/or maintained by the following private groups and associations:

- Essex County Trail Association (ECTA)
- Hamilton Conservation Commission
- The Trustees of Reservation
- Massachusetts Department of Conservation and Recreation
- Gordon College
- Essex County Greenbelt
- Mass Audubon Society
- Beverly Parks and Recreation Commission

The following is a list of known facilities offering trails and/or passive recreation opportunities in the Towns of Hamilton and Wenham:

- Chebacco Woods
- Cedar Pond
- Iron Rail Fields
- Bradley Palmer State Park
- Gordon College
- Harvard Forest
- Appleton Farms
- JC Phillips Nature Preserve
- Salem Beverly Canal
- Pingree Reservation
- Vineyard Hill Area
- Long Hill
- Willowdale Mill Reservation

While the land owners of the above-mentioned facilities vary, the Essex Country Trail Association (ECTA) is credited with maintenance, upkeep, publication, and facilitation of the trails and open space areas offered throughout the facilities. According to their website, The Trail Association “exists to protect access to the trails and open lands throughout Hamilton, Wenham, Ipswich, Topsfield, Essex and West Newbury” and “partner with both public and private landowners to ensure that the experience of open trails is positive for them as well as the trail users.” The Trail Association works to protect, maintain, repair, construct, manage, and assess the trail networks throughout the six (6) North Shore towns.

Although a complete evaluation of entire trail networks and passive recreation opportunity in the Towns of Hamilton and Wenham is outside of the basic scope of the Master Plan, it is important to evaluate each facility for its type of recreational use, public awareness, overall condition, and level of maintenance. Additionally, it is important to gain an understanding of the perceptions of community members in terms of any unmet demand as it relates to passive recreation opportunities. In the following sections, we have provided an overview of the evaluation of passive recreation facilities, as well as the results of the Needs Assessment as they relates to passive recreation opportunities.

9.2 Evaluation of Existing Facilities

Several of the trails through Hamilton and Wenham were visited, photographed, and evaluated based on recreational opportunities, trail markings, public awareness, and maintenance. Provided in Enclosure 8 is a spreadsheet summarizing the permitted uses (walking, biking, horseback riding, etc.) of each facility, which can be useful in promoting trail use and public awareness throughout the community. Also provided in Enclosure 8 is a trail map of several of the facilities, provided by the ECTA. The following is a brief description of several of the facilities and their corresponding evaluation.

9.2.1. Chebacco Woods. The Chebacco Woods property was purchased in 1997 from Gordon College by the towns of Hamilton and Manchester-by-the-Sea. It is currently supervised by the Chebacco Woods Land Management Committee (CWLMC). The facility consists of approximately 113 acres (within Hamilton) and a trail system through woodlands and several large ponds. The trail system loops through both Hamilton and Manchester-by-the-Sea, offering many passive recreation opportunities include hiking, biking, jogging, horseback riding, and dog-walking, as well as views overlooking several ponds. Parking is limited to eight to nine (8-9) cars and is located on the west side of Chebacco Road.

The facilities appear to be in good condition, are well maintained, and are clearly marked along Chebacco Road. Upon entering the facility, posted signage marks the trailhead along the roadway, and a 12' gate restricts vehicular access. Upon entering the trail, a trailhead provides maps, rules, and clean-up bags for pets. The Hamilton Leash Law applies to pets in the Chebacco Woods, and signage reminds the users that the area is within part of the public water supply and therefore pets are limited to marked trails.

9.2.2. Cedar Pond. The Cedar Pond area is owned by the Mass Audubon Society and is a Wildlife Sanctuary located off Cherry Street in Wenham. A network of unpaved trails loop around Cedar Pond, allowing opportunities for walking, hiking, and birding. Dogs, bikes, horses, and motorized vehicles are prohibited. Although signage is provided once within the sanctuary, the trails are not well marked or visible from the roadway. There is no formal parking area, however an open grassed area is provided at the trail head, sufficient for a few vehicles. At the trailhead, gates are provided to prohibit vehicular access, and signage reminds users of prohibited uses. There are no trailhead markers, maps, or information provided. Surface cover varies from old pavement to natural ground and grassland.

9.2.3. Iron Rail Fields. The Iron Rail Fields complex is a multipurpose rectangular field complex used for soccer in Hamilton and Wenham. A short network of natural walking paths border the fields and make a loop around the perimeter, along the woodlands and adjacent wetland areas. The paths are used for walking only, and provide a passive recreation opportunity in addition to the ongoing active recreation afforded at the facility. Parking areas and portable restroom facilities are provided. Signage for the trails is provided along Route 22 directing users to the parking area for access to the grassed / natural trails.

9.2.4. Bradley Palmer State Park. Bradley Palmer State Park is owned by the Massachusetts Department of Conservation and Recreation and consists of approximately 721 acres of trail, woodlands, and open fields following the banks of the Ipswich River through Hamilton and Topsfield. Activities permitted at the park include walking, running, horseback riding, cross country skiing, snowshoeing, mountain biking, and dog-walking. Parking for the park can be accessed from Highland Street in Hamilton, with space for approximately eight (8) cars. Additional parking is provided through the Topsfield entrance. The trail network throughout the park is extensive, well-maintained, and well-marked. In addition to the multitude of trails running through the park, the "Discover Hamilton" trail runs through the park, connecting to both the Willowdale State Forest and the Pingree Reservation. Maps and marked trails are provided through the park, as well as its permitted uses. The park is easy to access, well-marked and well-maintained, and provides an opportunity for multiple trail access throughout the Town of Hamilton.

9.2.5. Appleton Farms. The Appleton Farms is owned by The Trustees of Reservations, and consists of 658 acres of agricultural

fields, farm roads, and farm yards. Several grassed and mulched open trails are available for walking, running, cross-country skiing, snowshoeing, and horseback riding. Biking and motor vehicles are not permitting. Access to the facility is provided off Waldingfield Road in Hamilton. A significant parking area is provided for approximately twenty (20) cars. The facility is very well maintained, offering informational signage, trail maps, clean-up bags, and well groomed trails of mulch and/or open grassland.

9.2.6. JC Phillips Nature Preserve. The JC Phillips Nature Preserve is located off from Route 97 in Beverly. The park is owned by the Beverly Parks and Recreation Commission, but a portion of the Park is located in Wenham and is adjacent to Wenham Lake. Signage to the facility from the road is poor, however a new trailhead marker and maps are provided at the start of the trail. A gravel parking area is provided along Route 97, with space for approximately eight to ten (8-10) cars. Hiking trails spread across the Preserve along the west side of Wenham Lake and are opportune for walking, hiking, snowshoeing, and cross country skiing. A gate along the entrance prohibits vehicular access to the trails. The surface cover varies from gravel to natural cover.

9.2.7. Pingree Reservation. The Pingree Reservation is a 136 acre property consisting of a trail network for walking, hiking, biking, horseback riding, cross country skiing, and snowshoeing. The Reservation is accessed on Cutler Road, where parking is limited to space for two (2) vehicles. The Pingree Reservation connects through another passive recreation area, Harvard Forest, and its trails are part of the Bay Circuit Trail, which extends through thirty-four (34) towns in Eastern Massachusetts. The trails are single track, well-maintained, and consist of natural groundcover and/or manicured paths. Several horse jumps are constructed adjacent to the paths for horseback riders.

9.3 Needs Assessment

Based on the results of the Needs Assessment Survey and Sensing Sessions, the perception that there is a need for additional passive recreation opportunities is not significant. The results of the survey indicated that participants were currently more involved in active recreation rather than passive recreation activities. However, of those that indicated an interest in passive recreation, walking, horseback riding, biking, hiking, and cross country skiing were noted as part of their interests. When questioned about the priorities of recreation needs in the Towns, passive recreation opportunities were not a common response. It

is worthy to note, however, that when specific facilities such as Chebacco Pond and Cedar Pond were named, common responses indicated that participants were unfamiliar with the facility or unaware of its location. This is an indication that there may be a lack of public awareness of the passive recreation opportunities within the Towns.

While none of the passive recreation areas were noted as top priorities for improvements, there were a few responses indicating support for trail improvements and/or additional walking/biking paths. There is strong support for bike lanes, as opposed to bike paths, to be incorporated along the streets for cyclists. Further discussion on this will be provided in the Conclusions part of this section.

It is a recurring theme throughout the survey results that the community, as a whole, seems rather uninformed as it relates to the location, and availability, of the many recreational facilities, particularly those related to passive recreation, hiking, cross-country skiing, snow shoeing, and other trail related activities.

9.4 Trail Networks and Passive Recreation Conclusions

The majority of the trails throughout Hamilton and Wenham are well maintained, have formal trailheads, parking areas, and well marked trails. Most of the trails throughout the Towns are similar in characteristics, including usage policies, terrain, trail types, and condition. We strongly believe that this can be credited to the Essex County Trail Association (ECTA). While the trails are routed through various landowners, the majority of the trails are under the tutelage of the ECTA, which provides maintenance, cleanup, trail inspections, events, and support for the various trails under its care.

In terms of individual trail enhancements and improvements, the recommended improvements are minor. The ECTA does a tremendous amount of work to ensure that the trails are marked, opened, and seasonally maintained. The following is a summary of various improvements that may be made to improve the overall condition and serviceability of the existing trails:

9.4.1. Parking. With exception of Bradley Palmer State Park, Appleton Farms, and the Iron Rail Fields, the majority of parking facilities at the trailheads are undersized and/or unformalized. While parking alongside the road is sufficient for one (1) or two (2) vehicles, insufficient parking can be a deterrent to potential users of the facilities. However, if a formalized parking area at each location is unrealistic, posted signage shall be provided to indicate that parking is permitted for use of trail facilities.

9.4.2. Trail Information. While the majority of the trail areas provide a trailhead with maps and trail rules, few of the passive recreation areas provide an overview of their trails in terms of length and overall difficulty level. Based on the Needs Assessment, as well as the sensing sessions and discussions with the Council on Aging Director, several of the users are unsure what activities are permitted, and what level of fitness is required. Most of the trails within the Towns are flat, open trails ideal for walking, hiking, and nature observation. However, it is apparent that senior citizens desire walking opportunities where they can be confident that there are areas provided for sitting and resting, and where there are no bicyclists and/or motor vehicles. It may be beneficial for the Recreation Department and/or ECTA to provide a showcased trail weekly or monthly, targeted to a specific age group and/or fitness level. While this would provide a mode of public awareness of the range of trail facilities, it would also be an opportunity to satisfy an unmet demand for information on walking facilities adequate for senior citizens.

9.4.3. Public Awareness. During the facility evaluations, it was apparent that there are a modest amount of passive recreation and trail facilities provided in the Towns of Hamilton and Wenham. As seems to be common in suburban municipalities, there seems to be an abundance of trails and a lack of public outreach. While the active recreation programs are typically team oriented, competitive and formalized, and therefore require public participation and outreach, passive recreation opportunities are typically less structured and lack the push for public participation. The following are several ideas to increase public awareness of the trail systems and incorporate passive recreation opportunities into the mainstream recreational programs:

9.4.3.1. Recreation Department Website. The Recreation Department website does not provide any information on passive recreation/trail opportunities within the Towns. The ECTA website (<http://www.ectaonline.org/>) provides an abundance of information on the trails, organized by Town and/or activity. The Recreation Department should incorporate a link to this page and/or a section on their website that provides information on the variety of trails within the Towns.

9.4.3.2. Seasonal Booklets. The Recreation Department currently publishes four (4) seasonal brochures on the programs offered through the Department. The brochures provide information on scheduling of organized activities,

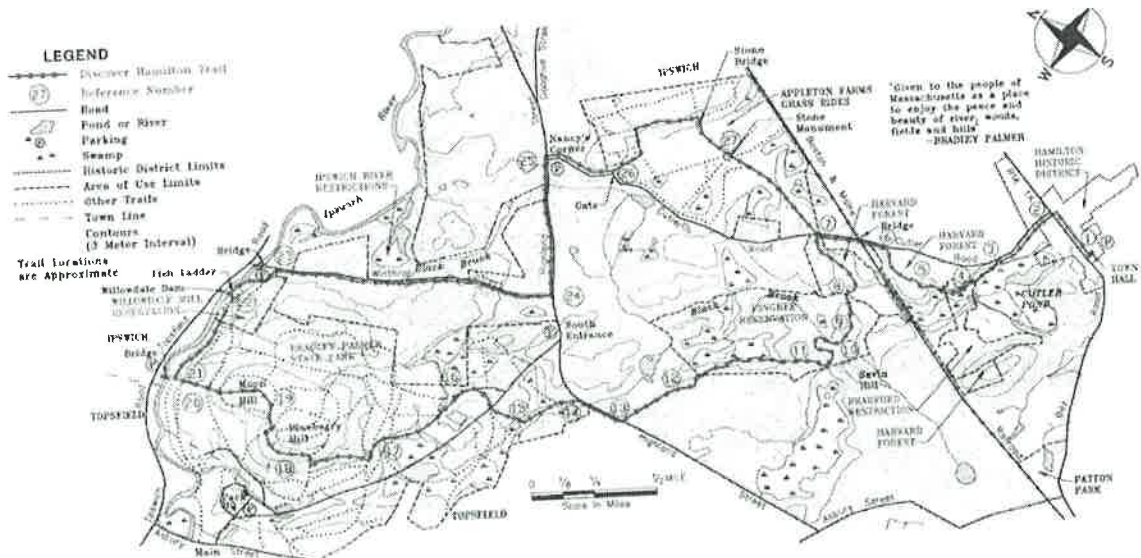
locations, and participation information. The Recreation Department should consider providing a two to three (2-3) page spread within each seasonal brochure which would highlight a handful of trails that can be used within the season. In addition to providing the information on the trails, the Recreation Department could also offer two to three (2-3) scheduled group activities such as Morning Walking Groups, Winter Snowshoeing, Group Hiking, Bird Watching, or Trail Running. While this would require additional program organization through the Recreation Department, it would certainly address the current lack of knowledge and familiarity of Town trails and passive recreation opportunities.

9.4.3.3. ECTA Partnership. According to its website, the ECTA organizes events and volunteer opportunities for enhancement of the trails it supports. The Recreation Department may consider partnering with the ECTA to advertise these events and volunteer opportunities in Hamilton and Wenham for those who may be interested in supporting enhancement of the trail systems. This would also be a mode of public awareness and advertising opportunities for the ECTA as well as the many trails through Hamilton and Wenham that it supports.

9.4.3.4. Council on Aging Programs. It was apparent through discussions with the COA Director that there is an unmet need for walking paths that are adequate for use by senior citizens and which provide resting and seating areas. If the Recreation Department were to incorporate trail use within its programming or public outreach programs, it may be beneficial to partner with the COA to organize group walks and trail information to provide this currently unmet demand.

9.4.3.5. Trail Orientation Program. To further promote the trail opportunities, we recommend that the Recreation Department create a week long Trail Orientation Program as part of its quarterly recreational offerings for interested Town citizens. In addition to expanding on the diversity of the recreational program, this enhancement would promote the partnership with the ECTA and Hamilton Conservation Commission and also assist in increasing the awareness of the rather extensive trail network that does exist within the Towns.

9.4.3.6. "Discover Hamilton" Trail. During the evaluation of trail facilities within the Towns of Hamilton and Wenham, Gale came across the "Discover Hamilton" trail. The "Discover Hamilton" trail begins in Hamilton near the Town Hall, and winds through the Town, including through Bradley Palmer State Park, Pingree Reservation, and Harvard Forest. The trail totals a circuit of approximately ten (10) miles and is believed to be originally created by the Conservation Commission. Maps of the trail can be obtained at the Town Hall. While the entirety of the trail was not evaluated for this Master Plan, Gale came across old, deteriorating markers for the trail while evaluating other sections of trails. The trail is a unique resource and it does not appear that the trail is maintained in its entirety, outside of the areas that meander through the more popular passive recreation areas mentioned above. It is our opinion that the trail provides a unique opportunity for enhancement and projects to involve community members. While enhancement, maintenance, and public awareness for such a trail is a large task, it may be ideal for community members, scouting groups, community service, and involvement of the Recreation Department and Conservation Commission to promote such a valuable resource. The image below is a trail map of the Discover Hamilton Trail, provided by the Conservation Commission.



9.5 Road Biking Opportunities

Although not considered a passive recreation or trail network activity, it is apparent that there is unmet demand in road biking throughout the Towns of Hamilton and Wenham. The results of the Needs Assessment and Sensing Sessions provide support for development of road signage and bike lanes/paths. One of the conclusions determined by the Needs Assessment Survey is that there appears to be a need for improvements to road signage for cycling. We recommend a dedicated project aimed at biking publicity and improvements, and a commitment to providing safer cycling opportunities through signage and proper roadway marking. This is clearly a significant task to undertake, which is why we recommend creating a Safe Biking Committee, either within the Towns of Hamilton and Wenham, or as a partnership with neighboring towns on the North Shore. There are a significant amount of biking groups throughout the area, including the following two prominent clubs:

North Shore Cyclists: A recreational bike club that draws its membership primarily from the North Shore area of Massachusetts. Most of our bike rides are routed along the back roads and shorelines north of Boston.

Essex County Velo: A nonprofit, volunteer organization whose mission is to enhance the opportunities for members to enjoy the numerous benefits derived from the simple, youthful act of riding a bike.

It may be beneficial for the Committee to partner with these groups in determining routes, process, and adequacy of biking areas within the communities. Working with the Towns and MassBike, a statewide biking organization, the committee may be able to determine the extents to which signage and roadway markings can be achieved.

Section 10.0 – Recreation Department Programming

While not as strong as the consensus related to additional field space and improved pool facilities, there is a strong demand in the community for expansion or enhancement of the recreational education programs, targeted mainly at adults, pre-school age children, and teens. There is common perception that the programs offered may be inconvenient in terms of scheduling, mainly for the adult groups. It appears that offerings for toddler or pre-school age children are lacking in availability. Although not articulated as well as the need for these two (2) age groups, it appears that the recreational needs of the teenage group may not be currently met.

The Recreation Department for the Towns of Hamilton and Wenham schedules a variety of recreational programs, which can mainly be categorized as active recreation, developmental, music, and education. The existing programs are

scheduled seasonally and offered over a variety of times throughout the season. Generally, the program fees are a per-session cost and are discounted for Town residents as opposed to non-resident participants. It is apparent that the majority of programs are youth oriented and are based on active recreation. Those that are offered for adults are typically fitness or recreation based. Recreational programs geared towards high school age children and senior citizens are nearly non-existent.

As a result of the Needs Assessment survey, the highest numbers for recreational activities that respondents currently do not participate in, but would like to, were for the following:

- Arts & Crafts
- Horseback Riding
- Ice Skating
- Tennis
- Fitness Training
- Swimming
- Culinary Arts
- Skiing (Cross Country)

The majority of these responses, with exception of skiing, are an opportunity for the Recreation Department to expand the variety of its recreational programming.

While Arts & Crafts are currently provided to toddlers and school-age children in both the Imagination Station and Patton Park Summer programs, arts and craft opportunities are otherwise non-existent. The Recreation Department may consider offering specialized programs such as drawing, painting, jewelry making, photography, sculpting, and holiday crafts. Additionally, this would enable to the Department to provide offerings to a more broad range of age groups, including toddlers, school-age children, and high school children. Adults and seniors may also indicate an interest in classes such as photography, painting, sculpting, and scrapbooking.

Culinary Arts classes have not been offered by the Recreation Department in the past and may be an opportunity to target the adult and even high school age participants in an effort to more effectively meet the unmet demand. While the Recreation Department does not have kitchen facilities, many municipalities use schools and community buildings to hold classes of this kind. The Recreation Department may want to include activities such as culinary arts and arts and crafts in a questionnaire to gauge the level of interest, most convenient scheduling times, and obtain feedback on the potential program offerings.

Horseback Riding, Ice Skating, Swimming, and Tennis have all been offered through the Recreation Department programs. Of the survey participants

indicating they have not partaken in any of these recreational programs, the most common reasons for this appear to be a result of lack of awareness and/or scheduling. The recurring theme throughout the survey and sensing sessions is lack of awareness of the recreational programs offered by the Town.

The majority of the recreational programs are held either at town athletic fields, the Recreation Center, or at the Meeting Place/Old Library. Of these, the programs held at athletic fields and at the Recreation Center seem to be utilized more than the other programs. It is also apparent that the facilities are generally in suitable condition for the respective programs held within them. Sports leagues and active recreation programs are held throughout town and school-owned fields, whose conditions have been assessed in this report.

The Recreation Department provided a summary of the participation levels of some of the non-active recreational offerings over the past several years. The following is a summary of that information:

Spring 2010

Imagination Station - 37 children
Star Wars Lego - 12

Fall 2010

Imagination Station - 71 children

Winter 2010-11

Fist Steps in Music - 6
Imagination Station - 76

Spring 2011

Imagination Station - 71 Children

Fall 2011

Imagination Station - 62

Winter 2011-12

Imagination Station- 94
Legomation - 10

Spring 2012

Fencing- 13

Several of the offerings over the past several years received such low interest that they were cancelled. They include: Claymation, Rocketeering, American Doll, Digital Sports Casting, Safe Circuits, Rock Climbing, Video Game Design, First Steps in Music, Robotics, Story Art, Gross Science, Arts & Crafts, Chess, Intro to Guitar, Engineering.

Based on the information provided above, it is evident that the Recreation Department provides a significant amount of recreational education programs, yet only a handful of the programs are popular among the communities. However, an evaluation of needs has indicated that such programs are in demand. Additionally, a wide variety of programming received such low interest that they were cancelled. From this information it can be concluded that public awareness and/or scheduling and availability is likely the cause for both the unmet demand, as well as the lack of interest and participation.

Feedback from the Recreation Needs Survey indicates that participants prefer the Recreation Department website and email blasts, as well as local print and online newspapers. Of similar popularity was the Town website, Recreation booklets, direct mail, fliers from school, and word of mouth. The Recreation Department currently takes advantage of all of these forms of communication. Many participants indicated they are unaware of recreation programs, yet over half of participants responded that they would use the website for information. We recommend that the Recreation Department continues use of the website, and perhaps enhance the website to provide more in-depth information on resources, facilities, programs, photographs, videos, and fliers to promote public awareness of the Recreation Department offerings.

In regards to age targeting, we recommend the Recreation Department consider broadening the activities for high school age children, young adults, and seniors. Based on the Needs Assessment and sensing session discussions, participants feel that these age groups do not have sufficient recreation program offerings in Hamilton and Wenham. We recommend broadening programs to incorporate the needs of these people. It may be worthwhile for the town to work with the high school in identifying the interests of the thirteen to eighteen (13-18) year old age group. This may include a survey or sensing session to gauge interest and obtain feedback from the potential program participants. In regards to targeting elders, it is important to obtain feedback this age group's particular interests. We recommend holding sensing sessions to obtain feedback on the unmet needs of interested individuals, as well as working with the Council on Aging and potentially forming a partnership to better meet the recreational needs of the senior citizens.

These recommendations are based on the challenges in program awareness, age group targeting, and broadening of program activities. As recurring responses in the survey, these recommendations may target the unmet recreational needs of the Hamilton and Wenham residents. Collaboration with the Council on Aging and High School to incorporate interests of high school students and senior citizens, broadening of program variety, and enhancement of the Recreation Department website will likely result in a more adequate program that better meets the needs of the community.

Section 11.0 – Council on Aging

Because of its recreational offerings for seniors in the Towns of Hamilton and Wenham and a voiced demand for recommendations on the improvement of said recreational opportunities, Gale conducted an interview with the current Director to receive insight into the programming offered by the COA to the residents of Hamilton and Wenham.

11.1 Evaluation

Currently, the Towns of Hamilton and Wenham operate two (2) separate Council on Aging (COA) organizations with a shared Director and separate budgets. There is a Council on Aging facility used in each Town. The Director of COA has been in the position for two (2) years and has seen a steady growth in participation levels.

Currently, the COA publishes a shared monthly newsletter for its Hamilton and Wenham members, which provides information on programs, support, outreach, health information, and scheduled activities. Recreational programming currently offered by the COA can be classified as Health & Wellness, Social, and Fitness and includes yoga programs, swim programs, walking clubs, zumba, movie nights, etc. The most popular programs recently have been chair yoga, kayaking, zumba, and bridge. Typically, the program sees participation from about six to fifteen (6-15) members for each program. It was not apparent that participation from either Town outnumbered the other.

The budget for the COA programs in FY 2011 was under \$8,000. A primary hardship is funding, as the COA is intended to provide low cost opportunities for seniors and generally covers 65-100% of programming costs for its members. Funding has often been provided by the Friends group as well as the Board of Health, for health related programming. In addition to budget constraints, a major constraint on the COA programming is availability of facility space. The Hamilton facility is in need of rehabilitation, including new flooring, to become useful space for recreational use. While the COA has opted to use private space on several occasions, budget constraints often rule out this option.

11.2 Recommendations

Due to the nature of the online Needs Assessment survey, a large majority of the senior residents of Hamilton and Wenham were either unaware or unable to participate in the online survey. However, there was a small portion of participants that indicated that recreational opportunities for seniors is perceived to be considerably lower than for other age groups.

In speaking with the COA Director, it is apparent that there is a desire for expanded recreational opportunities for COA members. While the COA has budget constraints and limited facility inventory, we recommend a partnership with the Recreation Department to expand offerings related to passive recreation, fitness, and well-being to better meet the needs of the seniors.

In redevelopment of the Patton Park pool facility and a potential expansion, we recommend that swimming lanes be open to seniors during weekday hours to provide an opportunity for dedicated use of the Patton Park pool. As a recreational asset in the Town, it shall be available to use by all age groups.

While there is currently a walking group organized by the COA, we recommend incorporating passive recreation opportunities in the monthly COA newsletter. As stated in Section 9 of this report, there are a significant amount of passive recreation opportunities of which citizens appear to be unaware. To make best use of these facilities, senior citizens must be aware of the facilities and have an understanding of the availability, location, distances, difficulty, and trail uses for these facilities. The COA may consider working with the Recreation Department or any one of the Trail Associations mentioned in Section 9, to provide a "Trail of the Month" that would be appropriate for use as walking trails to the senior residents of Hamilton and Wenham.

In conclusion, the Council on Aging has seen significant improvements in its participation levels, and there is an apparent demand for additional opportunities as it relates to recreation. A potential partnership with the Recreation Department, use of the pool facility, an improved understanding of passive recreation opportunities, and additional or enhanced facility space will begin to better meet the needs of the senior population in the Towns of Hamilton and Wenham.

Section 12.0 – Facilities Management and Maintenance

The implementation of a Master Plan to expand/enhance recreation facilities is only effective if the work completed is properly maintained. This section of the report summarizes those activities that are routinely accomplished in the maintenance of high quality athletic fields, and provides recommendations in regards to maintenance activities, resources, and budget for proper maintenance of the athletic fields in the Towns of Hamilton and Wenham.

Specific turfgrass management practices vary throughout an athletic complex according to the type of play that is occurring in each locale and according to the stage of development of the athletic fields. Soccer, softball, and baseball each dictate a different set of conditions that require unique management approaches.

Additionally, specific areas within soccer fields in particular are subject to different stresses (e.g., goal mouths versus midfield and side line areas). Athletic complexes cycle through various stages of development including construction, grow-in, and maturity, each requiring a different approach to management.

A general description of a typical (mature) athletic complex turfgrass maintenance program is as follows:

12.1 Mowing

Turfgrass in areas of play is mowed at least weekly to provide a suitable playing surface. Regular mowing practices enhance turf density, color, texture, root development, wear tolerance, and other key aspects of turf quality. Mowing heights are adjusted from 2.5 inches from the growing season until mid-July, 3.5 inches from mid-July to mid-September, and then gradually brought back down to 2.5 inches. Clippings are either mulched and left or collected and disposed depending on the height of cut and thatch density.

12.2 Aeration

Aeration alleviates compaction and develops deep-rooted turf. It is accomplished by creating spaces in the turf, which allow moisture, nutrients and oxygen to penetrate to the root zone. Aeration also breaks up thatch, which helps contribute to the organic content of the soil and breaks the mat on the soil surface. High use fields should be aerated 2-3 times per year.

12.3 Irrigation

The irrigation season typically runs from June through August. During that period, each field footprint should receive one-half (1/2) inch of irrigation per week and be adjusted in accordance with weather patterns. For a typical 90,000 SF soccer field, this equates to 400,000 – 500,000 gallons per year.

12.4 Topdressing

Topdressing is applied periodically as a soil amendment, to maintain a smooth playing surface, and to vary the root zone particle size distribution. Top dressing adds soil, sand or other beneficial organic material and soil amendments (as determined by turf needs based on agronomic testing) to the surface of the turf. It should always follow core aerating.

12.5 Fertilizing

Fertilizing is done in order to provide micronutrients to the soil and acts as a “food” for the turfgrass plant. Fertilization should generally be done in the early spring and summer, and supplemented on selected fields in the early fall, as needed. This ensures that sufficient nutrients are available to develop healthy root zones during the peak growth period of May and June. Fertilization should be directly related to soil tests performed on an individual field. Once soil sample data has been obtained, fertilizer with the proper nitrogen/phosphorus/potassium ratio should be obtained and applied at recommended rates. Low solubility fertilizers applied only at rates which ensure uptake should be used to minimize groundwater or surface water impacts.

12.6 Lime Application

Lime application is generally performed in late November as it typically takes up to six (6) months to breakdown. Lime should be applied to soil based on the results of the annual soil testing.

12.7 Overseeding

Overseeding is recommended for athletic fields that are used in both the fall and spring seasons. Over-seeding is the spreading of seed over bare areas, or areas that are stressed, in order to enhance (fill-in) stressed or bare areas, to establish new turf, or to improve the conditions of the turf.

12.8 Pesticide Application

Pesticides should be used sparingly and by licensed applicators. Chemicals used must be of recent manufacture, and have quick and effective results. Chemicals that may present health hazards shall not be used. Approved pesticides can be found on the state university system website, and change periodically. Pesticides should not be applied as a prophylactic, but rather in response to an observed pest or disease, and tailored accordingly.

The resources needed to carry out the recommended maintenance regimen have been calculated on a per field basis as required for implementation of the typical maintenance regime. This calculation provides an estimate of the resources, manpower, equipment and materials to perform each activity on a typical 90,000 SF natural turf playing field. In addition to material costs, this calculation accounts for labor and overhead costs as well as equipment utilization rates and capitalization/depreciation. See table below for a summary of this calculation.



Maintenance Activity	Operational Costs	Annual Quantity (all field types)	Quantity (rect. fields)	Quantity (diamonds)	Total Cost (per field)	Field Specific Costs - Rect	Field Specific Costs - Diamonds
Equipment Maint, Services, Inventories, Training	\$3,560.00	1			\$3,560.00		
Fertilizer	\$1,254.00	1			\$1,254.00		
Soil Sampling, Spring Inspection, Work Order	\$50.00	1			\$50.00		
Irrigation (well supply)	\$0.00	13			\$0.00		
Lime Spreading	\$574.00	1			\$574.00		
Aeration	\$288.00	2			\$576.00		
Topdressing	\$1,504.00	1			\$1,504.00		
Overseeding	\$963.00	1			\$963.00		
Spring Cleanup, Servicing, Inspection, Sampling	\$1,316.00	1			\$1,316.00		
Inspection	\$1,368.00	1			\$1,368.00		
Cut grass, Empty Trash, Re-stripe, Rake out infield	\$444.00			24	\$0.00		\$10,656.00
Cut grass, Empty Trash, Re-stripe, Rake out infield	\$407.00		24		\$0.00	\$9,768.00	
Weed and Pest Control	\$383.00	1			\$383.00		
Misc Repairs	\$655.00	1			\$655.00		
				subtotal	\$12,183.00		
				General Subtotal		\$12,153.00	\$12,153.00
				Field Specific Cost		\$9,768.00	\$10,656.00
				TOTALS		\$21,921.00	\$22,809.00
						(Per Rect. Field)	(Per Diamond)
**Maintenance activities based on typical recommended maintenance regimen							
**Operational costs include resources, manpower, equipment, and materials							

Using these unit costs, the implementation of a typical maintenance program has been calculated for the inventory of fields in the Towns of Hamilton and Wenham and is tabulated below.



Typical Field Maintenance Costs

Field Type	Annual Per Field Maintenance Cost	Hamilton/Wenham Field Inventory (prior to Master Plan)	Hamilton/Wenham Field Inventory (after Master Plan)
Multipurpose Rectangular Field	\$21,921.00	10	12
Baseball/Softball Diamond	\$22,809.00	12	14
Total Maintenance Cost		\$492,918.00	\$582,378.00

The Hamilton and Wenham Departments of Public Works work as separate entities, but together employ a total of two (2) Maintenance Foremen, Equipment Operator, Summer Worker, and Truck Driver/Laborer for park and turfgrass management. Field usage hardly ever decreases to meet the allowable resources of the maintenance program. Instead, field usage is ever increasing and it is the expectation that the quality of the turf can sustain these uses. It is apparent that the Public Works Departments have extremely limited staffing and equipment resources, and therefore the current maintenance regimen is producing only fair results. While the Maintenance Department is putting in their best effort with the resources that are available today, their limited resources will likely become more significant upon implementation of the Master Plan.

Currently, the majority of the parks and fields are maintained by the Hamilton Department of Public Works, with exception of Pingree Park and West Wenham Park. The School facilities are maintained jointly by both the Hamilton and Wenham Public Works. The Town of Hamilton does have a Parks Budget, while the Town of Wenham relies on the Highway Department, Recreation Department, and Little League funds to pay for seed, infield mix, and additional requested maintenance. The following is a summary of the expenditures for the Fiscal Year 2011 in each of the Towns.

Town of Wenham:

For the Fiscal Year of 2011, the Town of Wenham spent approximately \$10,000 on field maintenance supplies alone, plus approximately \$1,500 from the Highway Department for field maintenance. This does not account for labor and staffing provided for field maintenance, and also does not account for equipment upgrades, parts, or maintenance. Expenses for staff salaries for field maintenance was not provided, but is estimated at \$35,000.

Town of Hamilton:

For the Fiscal Year of 2011, the Town of Hamilton spent approximately \$15,000 on field maintenance supplies and contracted work alone. This does not account for labor and staffing provided for field maintenance, and also does not account for equipment upgrades, parts, or maintenance. Expenses for staff salaries for field maintenance was provided and totaled approximately \$53,000.

Estimated Field Maintenance Budgets

Item	Department of Public Works	
	Hamilton	Wenham
Materials / Contracts	\$15,000.00	\$11,500.00
Staffing	\$53,000.00	\$35,000.00
Subtotals	\$68,000.00	\$46,500.00
TOTAL	\$114,500.00	

Estimated Budget Deficit

	Prior to Master Plan	After Master Plan
Industry Standard Estimate	\$492,918.00	\$582,378.00
Hamilton/Wenham Budget*	\$114,500.00	Unknown
Estimated Deficit	\$378,418.00	Unknown

*Estimated Budget based on FY 2011 expenditures

*Estimated budget is based on expenditures provided by the Hamilton/Wenham Recreation Department, and may not include materials and resources otherwise provided by the town outside of the Department of Public Works budgets.

The Hamilton and Wenham Departments of Public Works (DPW) have an extremely low budget in comparison with the recommended budget for maintaining the quantity of fields under the responsibility of the Recreation Department. While this budget is limited due to the constraints felt by the overall operations of the Recreation Department, their resources are used in the most effective way possible. Additionally, in the past, the Hamilton-Wenham

Regional High School Fields have been maintained by a private entity contracted by the Towns. In 2013, maintenance of these facilities will be the responsibility of the Hamilton and Wenham Departments of Public Works, which will only increase the resource constraints that the Departments are currently experiencing.

Maintenance needs of the athletic fields upon implementation of the Master Plan will be increased significantly. While the existing program is estimated to be under budget by nearly \$380,000, this deficit will increase once the Master Plan is implemented. As previously stated, the maintenance cost estimates are conservative, as the current Recreation Department budget may not be entirely all inclusive of the expenses.

Based on information provided by the DPW, there are currently several equipment constraints, including a need for a larger slice seeder as well as an aerator. This need will most likely become a necessity in the maintenance of fields upon implementation of the Master Plan. The ability to balance the maintenance activities of athletic fields and provide a consistent turfgrass management program will be the key to sustaining the heavy usage of the Towns' athletic fields.

Section 13.0 – Non-Traditional Funding Sources

As municipal budgets, and hence services, have declined, communities have found unconventional means of sustaining programs, and maintaining and even expanding facilities. Several of these are discussed below.

13.1 User Fees, Sport Organizations and Booster Clubs

Pay-as-you-go fee based programs have been the norm for nearly a decade. Semi-autonomous youth sport programs now fund or perform much of the routine facility maintenance and contribute to the enhancement or development of new facilities. Booster clubs and youth sport organizations, under an agreement with the Town, now commonly develop facilities on public land under a private procurement (outside public bid laws) and gift the resultant facility back to the Town.

13.2 Public Private Partnerships

Public Private Partnerships have also become commonplace as a means to get things done in a climate of reduced municipal funding. In many instances, commercial recreation developments have taken place on public land with expedited permitting by "for profit" companies in return for granting favorable fee and/or scheduling rights to the Town under the terms of a contractual agreement. These developments require a public

RFP solicitation of potential developers and typically involve a “design, build, operate and maintain” lease of fifty (50) years or more.

Public Private Partnerships can also include non-profit private partners such as small colleges, YMCAs or Boys and Girls Clubs. Salve Regina College of Newport, RI is landlocked but has growing athletic programs, while Middletown, RI Middle School has large land holdings but poor facilities and lacks funding. In a Public Private Partnership, a private company develops state of the art facilities on public land and enters into a use agreement with the school district.

13.3 Advertising and Naming Rights

Although traditionally frowned upon by most communities, it has become more acceptable in the current economic climate to consider corporate advertising and issuing of facility naming rights. We are aware of significant municipal projects with major corporate donors such as Roche Brothers, Boch Toyota and Citizens Bank. The resultant facilities often bear the name of the major donor, e.g. Citizens Bank Field. This often requires a change in Town policy or regulation.

When a significant donation is provided, it often makes sense to have the donor pay directly for some well-defined, stand-alone aspect of the project such as the athletic lighting. In this way it can be procured as a private solicitation precluding the requirement to pay the contractor prevailing Massachusetts public wage rates and allowing for the procurement of a specific proprietary product, e.g. MUSCO Lights.

13.4 Developer Impact Mitigation

Development or funding of recreation facilities can also be mandated of private developers by Town permitting boards (Zoning or Planning). The rationale for these “off site impact mitigation” conditions is that the developer, by increasing the housing stock in the community, is increasing the demands made of already severely constrained municipal recreation facilities. Communities have found this as an effective means of increasing the recreation facilities consistent with the growth of the community.

We recommend that the Town of Hamilton/Wenham Recreation Department meet with the Town permitting boards and request consideration of recreation related permitting conditions for future development.

13.5 Local Fund Raising

Community fund raising can have a large impact on athletic field project funding. The sale of donor recognition unit pavers, or centrally located stadium seating can result in substantial funds. The recent renovation of high school athletic facilities in Cohasset, MA was funded in large part from community fund raising with brick paver donor recognition.

13.6 In-Kind Services

Community fund raising groups should identify those contractors within their community that provide goods and services inherent in a field development project. Contractors or suppliers who specialize in landscape construction, site development, tree clearing, asphalt paving, aggregates, loam, or site furnishings can often be called upon to donate goods or services to community projects. Gale designed and permitted municipal athletic complexes in Kingston, MA and Wrentham, MA built largely with “in-kind” labor and materials. Such projects usually progress slowly and are a challenge to manage, however the ends often justify the process.

13.7 Public and Private Grants

There are many grant opportunities available for the development of primarily new or expanded athletic facilities. US Soccer is perhaps the best example of an organization looking to foster the growth of its sport and willing to invest in new or expanded facilities. The Mass Youth Soccer complex in Lancaster, MA was built largely based on grants from US Soccer Association. Similarly, the USTA is providing funding for new and expanded tennis facilities, particularly those incorporating the new reduced size “Quickstart” courts intended to foster interest in tennis in young children. Usually grant applications for these and similar organizations require mature feasibility studies and schematic level plans and cost estimates.

Section 14.0 – Overall Conclusions

14.1 Athletic Fields

- Out of all the sites analyzed, there are eleven (11) fields (nine (9) site locations) of the twenty-two (22) athletic fields in the Town which are over scheduled, i.e. see an average of over 250 scheduled team uses per year. Another three (3) fields experience over 200 uses and must be aggressively maintained and rested to maintain an acceptable safe stand of turf. As a result, fourteen (14) out of

twenty-two (22) athletic fields maintained by the Towns are either broken down or heavily distressed.

- The second most frequently cited recreational need identified in both the needs survey and sensing sessions was additional field space. The inclusion of lights and consideration of synthetic turf was strongly supported.
- There are select athletic fields in the community with 400 – 500 formal scheduled uses per year.

As stated previously, with the current un-resourced athletic field demands, as well as the newly added responsibility for maintenance of the High School fields, maintenance alone cannot provide the resources to meet the recreational needs. The recommended enhancements to athletic field resources will sustain their uses and provide the recreational facilities currently in demand by the Towns of Hamilton and Wenham.

14.2 Development of Additional Field Space

14.2.1. Patton Estate. The Patton Estate Parcel, as gifted to the Town of Hamilton for potential recreational use, will certainly become a recreational asset for both passive and active recreation opportunities. It is an ideal location and does not require an acquisition process by the Town. It is highly recommended that recreational development of the Patton Estate be supported and carried through in an effort to sustain the demand for athletic field space in the Towns of Hamilton and Wenham.

14.2.2. Woodland Mead Parcel. There is an opportunity to develop a 60' baseball diamond and a single, small multipurpose rectangular field adjacent to the Cutler School. While the Woodland Mead site has spatial constraints related to its size and location within a residential neighborhood, it affords an opportunity to expand the recreational facility currently in existence at the Cutler School. While this small complex may do little to meet the identified overall demand for field space, given its location proximate to the school complex, it is a viable candidate as a supplemental field to mitigate use of the existing Cutler School field.

14.3 Patton Park Pool Facility

Identified as the highest priority recreational need within the Towns, the Patton Park Swimming Pool redevelopment is essential in meeting the recreational needs of the community. Based on the needs assessment, the

pool is perceived as outdated, uncleanly, undersized, and insufficient for swim meets, open swim, and swim programs. While conceptual planning can provide an insight into spatial opportunities, requirements, costs, and development needs, a more mature design is required in the planning of such a facility. Gale recommends creating a committee to oversee the planning and design of a facility that will meet the needs of the community. The Committee shall consist of coaches, community users, DPW staff, and the Recreation Department to ensure that the facility will meet the needs of all levels from competition to family swimming.

14.4 Recreation Based Education

Recreation based educational classes remain a moderate priority with constituents. It appears that the Recreation Department has responded to this need with a variety of programs (including arts and crafts, music, and conventional education), however the perception is that the programs are not meeting the needs of users due to scheduling and lack of awareness. Additionally, a large number of programs had to be cancelled due to lack of participation. We recommend sustaining such programs and increasing public awareness through advertisement, websites, surveys, school partnerships, Council on Aging partnerships, and age-targeting.

14.5 Trail Networks and Passive Recreation Opportunities

The Town has an outstanding multipurpose trail network with miles of trails and access at a variety of locations throughout the Towns of Hamilton and Wenham. Additionally, the Town has a unique resource in the "Discover Hamilton" trail, which loops around the Town, completing a ten (10) mile circuit. The needs assessment concluded that trail awareness was a top priority and that users were somewhat unaware what resources were available. The master plan makes numerous recommendations for facility and communication improvements. We also recommend that the Recreation Department pursue a partnership with both the Essex County Trail Association and the Conservation Commissions to promote trail awareness and incorporate trail related programming into the Recreation Department offerings.

SAMPLE INCLEMENT WEATHER POLICY

PURPOSE

Town athletic fields are designed and maintained for the enjoyment and use of all residents. The purpose of this policy is to inform the public of certain rules and restrictions for fields to (1) prevent damage to the playing surface and (2) injuries to field users caused by inclement weather or unsafe playing conditions. An effective field maintenance program and inclement weather closure policy is essential for safety, upkeep, and enjoyment for all residents and visitors.

Field users are asked to help us by adhering to the following rules and procedures. Groups who use Town athletic facilities are expected to assist in protecting their participants and the fields during periods of rain and other inclement weather. **With respect to field quality, it only takes one practice or game to destroy a field that is not ready for play.**

POLICY

The Department of Recreation reserves the right to cancel or suspend outdoor facility and field use, including uses subject to an issued permit, for games, practices and other uses whenever field conditions might result in damage to the fields or injury to players.

Permits may also be cancelled when the health or safety of participants is threatened due to existing or predicted conditions, including but not limited to heavy rains, thunderstorms, and air quality alerts.

It is the field user's responsibility to visit the Recreation Department homepage at or call the Recreation Weather Hotline at (XXX) XXX-XXXX after 2:30 p.m. Monday-Friday or after 7:30 a.m. Saturday and Sunday to verify field closures. Closed fields may not be used.

The Recreation Department enforces field closure notices, and if groups are found using closed fields, the permit holder may be charged for the cost to repair the field. Additionally, if the Department determines that a permit holder has violated the field closure notice on multiple occasions, the entirety of their permit may be revoked and that organization's or group's ability to acquire future permits shall be under review.

PROCESS

The Department of Recreation uses various resources to get the most accurate conditions report at a particular site. These resources include coaches, Town employees, referees, and umpires. Information may be collected from one or more of these sources prior to a decision to close a field. Once the decision is made, the hotline and Recreation Department homepage are updated.

Weather is very difficult to predict. To assist with closure decisions, the Department utilizes weather forecasts from various sources. However, the Department reserves the right to close a field when a determination is made that use might cause damage or injury.

Please use the breakdown below as a general guide for which fields are closed

Rain

Artificial Turf – Open until conditions become unsafe for play

Natural Turf – Closed

- Note: Fields may be offline for multiple days in order for the field to completely dry-out and return to a playable condition.

Thunderstorm

Artificial Turf – Closed until storm passes (unless field becomes saturated)

- On-site umpires or referees allowed to make reopening call

Natural Turf – Closed (may reopen)

- Reopening dependant on amount of rainfall, the Recreation Department will make determination.

Snow or Ice

Artificial Turf – Please refer to the Recreation Department website or weather hotline to determine the status of artificial fields after snowfall.

Natural Turf – Closed

FIELD USE ANNUAL SUMMARY - ACTUAL TEAM USES

Field Location	Field	Field Type	Field Rested (Y/N)	Spring Uses	Summer Uses	Fall Uses	Winter Uses	Total Annual Uses
Patton Park	60' Diamond & MPR	60' B / MPR	N	280	170	60	0	510
	90' Diamond	90' B	N	55	10	79	0	144
Pingree Park	Cheeseman	60' B	Y	168	60	0	0	228
	Wildes	90' B & MPR	Y	0	0	233	0	233
	Black	60' B	Y	168	40	0	0	208
Donovan Field	Field 1	60' B	Y	112	40	0	0	152
	Field 2	MPR	N	165	0	102	0	267
Fairhaven Field	Fairhaven Field	MPR	N	198	55	105	0	358
	DPW Field	MPR	N	70	0	60	0	130
Iron Rail Fields	Field 7	MPR	N	143	0	132	0	275
	Field 8	MPR	N	143	0	144	0	287
	Field 9	MPR	N	143	0	144	0	287
West Wenham Park	Field 1	MPR	Y	0	10	0	0	10
	Game Field	MPR	N	40	0	64	0	104
H-W Regional High School	Field 1	MPR	Y	0	0	80	0	80
	Field 2	MPR	N	65	0	354	0	419
	Field 3 & 90' Diamond	MPR/90'B	N	90	0	60	0	150
Middle School	Field 1	60' B	N	116	90	90	0	296
	Field 1	60' B	N	116	100	60	0	276
Cutler School	Field 1	60' B	N	158	100	60	0	318
	Field 1	60' B	N	228	100	60	0	388
Baker Elementary	Field 1	60' B	N	126	0	40	0	166
	Field 2	60' B	N	126	0	40	0	166
Total								5286

B/S = Baseball/Sofball
 MPR = Multipurpose Rectangular

Anticipated Natural Turf Field Condition Based on Uses per Year**
 Sustainable good field conditions with optimal performance
 Fair to good field conditions with some thinning turf and localized wear areas
 Poor to fair field conditions with significant turf loss and field surface damage
 Field in Failure with potential for athlete injury

Uses per Year
 Less than 150
 150-200
 200-250
 Over 250

* In general, a single use consists of field being utilized by 10-20 people for two hours. ** The field condition parameters mentioned above assume that the field begins the year with good coverage and is part of an aggressive maintenance program that includes proper: irrigation, fertilization, aerating, top dressing, and resting period.
 ** The field condition parameters mentioned above assume that the field begins the year with good coverage and is part of an aggressive maintenance program that includes proper: irrigation, fertilization, aerating, top dressing, and resting period.
 The field condition parameters mentioned above are educated predictions compiled using various sources from Sports Turf Managers Association (STMA) and Gale's own representative experience in designing athletic facilities.

Athletic Fields Study		Field Use Evaluation - Net Effective Uses (With Multipliers)																																				
User Organization	User Demand Statistics				Fields																				Baker 1	Baker 2	Cutler	Winthrop	West Wenhatch	DPW	M.S.	Iron Rail 7	Iron Rail 8	Iron Rail 9	Clark lax field	Pingree School	Recreation Gym	
	Number Teams	Number Participants	Season Start	Season End	Multiplier	Patton Park Little League (Lighted)	Patton Park Lg diamond	Patton Park Multi-use (outfield)	Donovan Diamond	Donovan Multi-use	Fairhaven	HS Game	HS Baseball	HS Field 1	HS Field 2	HS Field 3	Pingree Black	Pingree Cheeseman	Pingree Wildes & Outfield	Pingree Multi (outfield)																		
HWRHS JV Boys Lacrosse					1.75						10.5																											
HWRHS JV Girls Lacrosse					1.25						7.5				75																							
						262.5	129.6	149.5	114	340.25	364	150.25	72	140	533.75	87.5	156	171	222	0	318	124.5	265.5	234	17.5	130	253.5	275	333.5	333.5	126.75	122.5	964					



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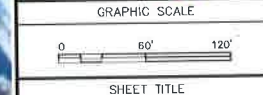
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**PATTON PARK
 SCHEMATIC
 LAYOUT**

DRAWING NO.
C-1
 PROJECT NO. **001101**

- RECONSTRUCT 90' BASEBALL DIAMOND (350' TO OUTFIELD)
- RE-ORIENTATE / IMPROVE 60' BASEBALL DIAMOND
- EXPAND PARKING AT 90' BASEBALL (40 STALLS)
- RECONSTRUCT PLAYGROUND FACILITIES
- RECONSTRUCT POOL FACILITY (REFER TO POOL SECTION)

SCHEMATIC

1 2 3 4 5 6

E
D
C
B
A



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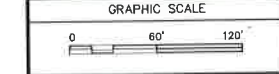
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SHEET TITLE

PINGREE PARK
SCHEMATIC
LAYOUT

- RECONSTRUCT 60' BASEBALL DIAMOND (200' TO OUTFIELD)
- RECONSTRUCT 90' BASEBALL DIAMOND (350' TO OUTFIELD)
- EXPAND/CONSTRUCT PARKING LOT
- RECONSTRUCT MULTIPURPOSE FIELD (165' X 300')
- PULVERIZE AND RECONSTRUCT TENNIS FACILITY
- RECONSTRUCT PLAYGROUND FACILITY


SCHEMATIC

DRAWING NO.
C-2
PROJECT NO. JOB NUM



- PULVERIZE/RECONSTRUCT TRACK FACILITY (110' RADIUS)
- INSTALL SYNTHETIC TURF GAME FIELD (195' X 360)
- INSTALL ATHLETIC FIELD LIGHTING

SCHEMATIC



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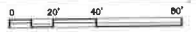
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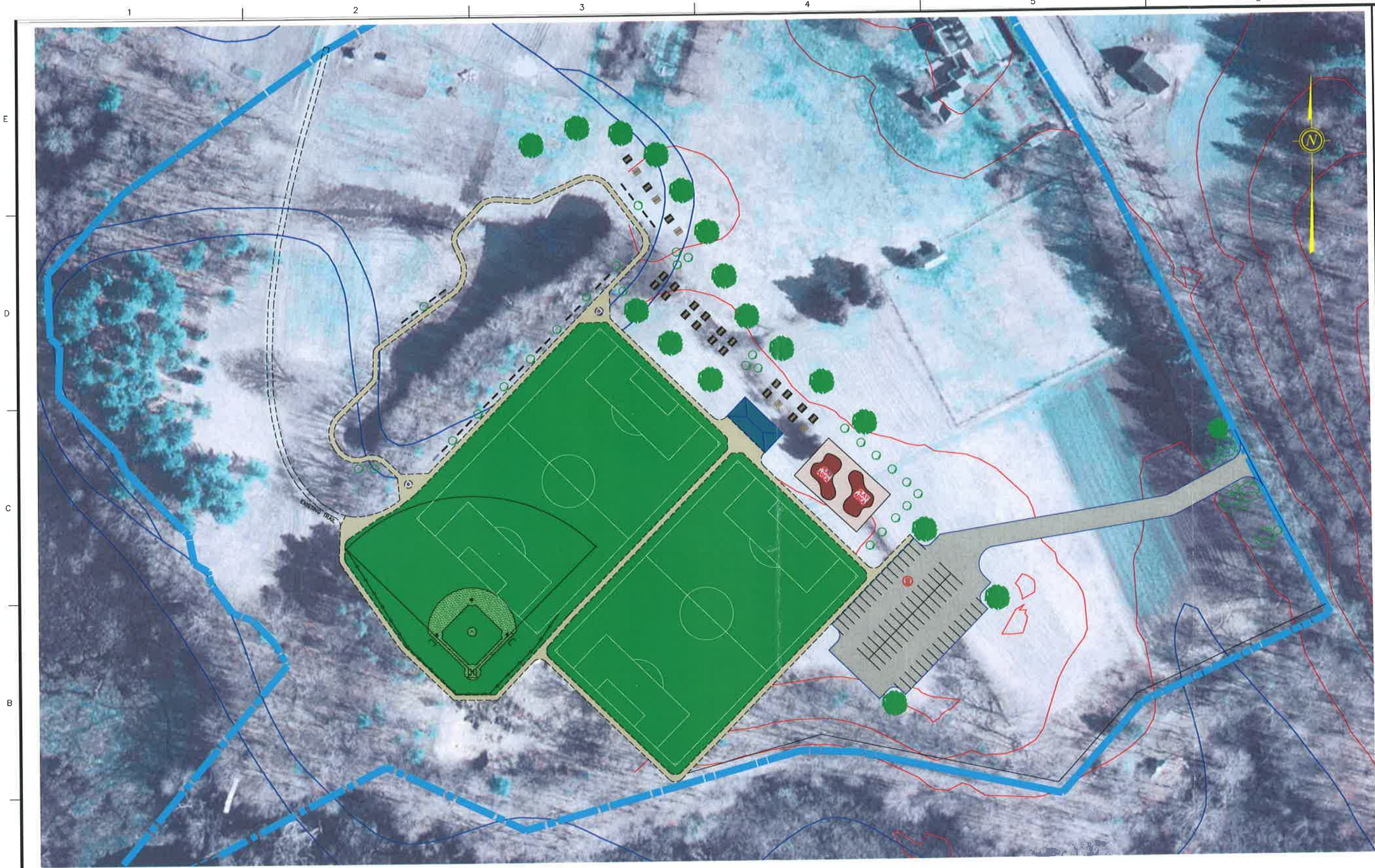
GRAPHIC SCALE



SHEET TITLE

**H--W REGIONAL
HIGH SCHOOL
LAYOUT**

	DRAWING NO.
	C-3
PROJECT NO. 006 HW	



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GRAPHIC SCALE	

SHEET TITLE
 PATTON ESTATE
 SCHEMATIC
 LAYOUT

- NEW MULTIPURPOSE FIELD (190' X 330') AND SHARED 60' BASEBALL DIAMOND (200' TO OUTFIELD)
- NEW MULTIPURPOSE FIELD (190' X 330')
- CONSTRUCT NEW PARKING LOT (60 STALLS)
- MULTIPURPOSE TRAIL (1/4 MILE LOOP)
- PICNIC AREAS & NEW PLAYGROUND FACILITY
- CONCESSIONS/STORAGE/RESTROOM BUILDING

SCHEMATIC

DRAWING NO.
C-4
 PROJECT NO. J06 MM



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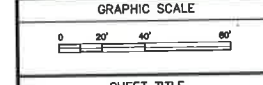
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SHEET TITLE
 DONOVAN FIELD
 SCHEMATIC
 LAYOUT

DRAWING NO.
C-7
 PROJECT NO. 008 MM

- RECONSTRUCT 60' BASEBALL DIAMOND (200' TO OUTFIELD)
- RECONSTRUCT MULTIPURPOSE FIELD (210' X 330')
- CONSTRUCT NEW PARKING LOT (39 STALLS)

SCHEMATIC

**TOWNS OF HAMILTON / WENHAM
ATHLETIC FACILITY MASTER PLAN
SCHEMATIC LEVEL PLANNING**

REDEVELOPMENT STRATEGY		
DESCRIPTION		ESTIMATED COST
PATTON PARK FIELD IMPROVEMENTS		
Rebuild 90' Baseball Diamond	\$	300,000.00
Reconstruct 60' Baseball Diamond	\$	175,000.00
Parking Improvements at Field Areas	\$	80,000.00
Walkways/Landscaping	\$	50,000.00
Amenities Building (960sf @ \$190/sf)	\$	182,400.00
Playground Areas	\$	80,000.00
	Soft Costs	\$ 60,718.00
	Contingency	\$ 86,740.00
	Total	\$ 1,014,858.00
PATTON PARK POOL IMPROVEMENTS - OPTION 2		
Demolition	\$	80,000.00
Construct new 82' x 55' gunite shell, cement plaster finish pool w/deck	\$	450,000.00
Construct new spray park	\$	80,000.00
Parking Improvements at Pool Area	\$	50,000.00
Bath House/Amenities	\$	250,000.00
	Soft Costs	\$ 63,700.00
	Contingency	\$ 91,000.00
	Total	\$ 1,064,700.00
H-W REGIONAL HIGH SCHOOL		
Synthetic Turf / Stone Base / Drainage Improvements	\$	750,000.00
Athletic Field Lighting	\$	300,000.00
Reconstruct existing track and field events	\$	550,000.00
	Soft Costs	\$ 112,000.00
	Contingency	\$ 160,000.00
	Total	\$ 1,872,000.00
PINGREE PARK		
Reconstruct 60' Baseball Diamond	\$	175,000.00
Reconstruct Multipurpose Field	\$	150,000.00
Reconstruct 90' Baseball Diamond	\$	300,000.00
Parking Improvements	\$	50,000.00
Playground Improvements	\$	80,000.00
Pulverize and reconstruct tennis courts	\$	200,000.00
Grading / Walkways	\$	20,000.00
	Soft Costs	\$ 68,250.00
	Contingency	\$ 97,500.00
	Total	\$ 1,140,750.00
DONOVAN FIELD		
Reconstruct 60' Baseball Diamond	\$	220,000.00
Reconstruct Multipurpose Field	\$	225,000.00
Grading / Parking / Walkways	\$	45,000.00
	Soft Costs	\$ 34,300.00
	Contingency	\$ 49,000.00
	Total	\$ 573,300.00
WOODLAND MEAD PARCEL		
Construct 1 multipurpose rectangular field	\$	225,000.00
Construct 1 60' Baseball Diamond	\$	175,000.00
Parking Facilities	\$	20,000.00
	Soft Costs	\$ 29,400.00
	Contingency	\$ 42,000.00
	Total	\$ 491,400.00
	TOTAL	\$ 6,157,008.00

COST ESTIMATE - HAMILTON/WENHAM MASTER PLAN

Conceptual Layout - Patton Estate

ITEM	DESCRIPTION	UNIT	QUANTITY	UNIT COST	COST	TOTAL COST	REMARKS
1	General Conditions					\$ 43,550.00	
1a	Bonds and Insurance (2%)	LS	1	\$ 23,550.00	\$ 23,550.00		
1b	Mobilization/Demobilization	LS	1	\$ 20,000.00	\$ 20,000.00		
2	Erosion Control					\$ 10,000.00	
2a	Erosion Control and Sedimentation	LS	1	\$ 10,000.00	\$ 10,000.00		
3	Demolition					\$ 10,000.00	
3a	Site Clearing	LS	1	\$ 10,000.00	\$ 10,000.00		
4	Multipurpose Fields and 60' Diamond					\$ 562,500.00	
4a	Earthwork	Field	2.5	\$ 60,000.00	\$ 150,000.00		
4b	Preparation of sub-base, shaping, compacting	Field	2.5	\$ 15,000.00	\$ 37,500.00		
4c	Subsurface Drainage	Field	2.5	\$ 50,000.00	\$ 125,000.00		
4d	Root zone construction, seeding	Field	2.5	\$ 60,000.00	\$ 150,000.00		
4e	Irrigation System	Field	2.5	\$ 30,000.00	\$ 75,000.00		
4f	Turf establishment requirements	Field	2.5	\$ 10,000.00	\$ 25,000.00		
5	Fencing / Backstops					\$ 60,000.00	
5a	Chain Link Fencing	LS	1	\$ 60,000.00	\$ 60,000.00		
6	Equipment					\$ 60,000.00	
6a	Goals, Goalposts, Foul Poles	LS	1	\$ 60,000.00	\$ 60,000.00		
7	Passive Recreation					\$ 65,000.00	
7a	Trails	LS	1	\$ 50,000.00	\$ 50,000.00		
7b	Picnic Areas	LS	1	\$ 15,000.00	\$ 15,000.00		
8	Site Amenities					\$ 250,000.00	
8a	Storage/Concessions building	LS	1	\$ 200,000.00	\$ 200,000.00		
8b	Landscaping	LS	1	\$ 50,000.00	\$ 50,000.00		
9	Playground					\$ 60,000.00	
9a	2 Playground Areas	LS	1	\$ 60,000.00	\$ 60,000.00		
10	Parking Facility / Drive					\$ 100,000.00	
10a	Parking Facility	LS	1	\$ 60,000.00	\$ 60,000.00		
10b	Driveway	LS	1	\$ 40,000.00	\$ 40,000.00		
					Subtotal	\$ 1,221,050.00	
					Contingency (10%)	\$ 122,105.00	
					Soft Cost - Design (7%)	\$ 85,473.50	
					Total	\$ 1,428,628.50	

FIELD USE ANNUAL SUMMARY - ACTUAL TEAM USES v PROPOSED					
Field Location	Field	Field Type	Total Annual Uses	Proposed Uses	Comments
Patton Park	60' Diamond & MPR	60' B / MPR	510	292	
	90' Diamond	90' B	144	200	
Pingree Park	Cheeseman	60' B	228	250	
	Wildes	90' B & MPR	233	200	
	Black	60' B	208	250	
	NEW	MPR	--	175	+1 MPR
Donovan Field	Field 1	60' B	152	250	
	Field 2	MPR	267	200	
Fairhaven Field	Fairhaven Field	MPR	358	200	
DPW Field	DPW Field	MPR	130	50	
Iron Rail Fields	Field 7	MPR	275	200	
	Field 8	MPR	287	200	
	Field 9	MPR	287	200	
West Wenham Park	Field 1	MPR	10	0	
H-W Regional High School	Game Field	MPR	104	--	
	NEW	Synthetic	--	500	+1 MPR
	Field 1	MPR	80	92	
	Field 2	MPR	419	200	
	Field 3 & 90' Diamond	MPR/90'B	150	127	
Middle School	Field 1	60' B	295	250	
Winthrop School	Field 1	60' B	276	250	
Cutler School	Field 1	60' B	318	250	
Woodland Mead	NEW	MPR		0	Not Built Under Strategy #1
Woodland Mead	NEW	60'B		0	Not Built Under Strategy #1
Buker Elementary	Field 1	60' B	388	250	
	Field 2	60' B	166	250	
Patton Estate	NEW	MPR	--	200	+1 MPR
	NEW	60'B	--	250	+1 60'D
Total			5286	5286	
60' B			2542	2542	
90'B			527	527	
MPR			2217	2217	

B/S = Baseball/Softball
 MPR = Multipurpose Rectangular

Avg. Events per Field

Anticipated Natural Turf Field Condition	Based on Uses per Year**	Uses per Year*
Sustainable good field conditions with optimal performance		Less than 150
Fair to good field conditions with some thinning turf and localized wear areas		150-200
Poor to fair field conditions with significant turf loss and field surface damage		200-250
Field in Failure with potential for athlete injury		Over 250

* In general, a single use consists of field being utilized by 10-20 people for two hours. ** The field condition parameters mentioned above assume that the field begins the year with good coverage and is part of an aggressive maintenance program that inc

** The field condition parameters mentioned above assume that the field begins the year with good coverage and is part of an aggressive maintenance program that includes proper: irrigation, fertilization, aerating, top dressing, and resting period.

The field condition parameters mentioned above are educated predictions compiled using various sources from Sports Turf Managers Association (STMA) and Gale's own representative experience in designing athletic facilities.

Phasing Plan Summary

Phase 1, Fiscal Year 2014. Phase 1 should include the redevelopment of the fields at the Hamilton-Wenham Regional High School, to include reconstruction of the track and field events and installation of the synthetic turf field and lights at the game field. The results of these improvements will provide for a reconstructed multipurpose field allowing the total annual uses of the Game Field to increase from 104 to nearly 500, fulfilling a significant portion of the current unmet athletic field needs. The cost of these improvements total approximately \$1.8M.

Phase 1 shall also include the redevelopment of the Patton Park Pool Facility. The redevelopment includes reconstruction of a new 25-meter swimming pool, expanded deck, bathhouse, spray park, and proposed parking improvements. The cost of these improvements total approximately \$1.1M.

Phase 2, Fiscal Year 2016. Phase 2 should include the development of the recreational complex at the Patton Estate. The redevelopment is proposed to include two (2) multipurpose athletic fields, one of which will share the outfield of a new 60 foot baseball diamond. In addition, the improvements include construction of walking trails, picnic areas, an amenities building, and a parking lot. The construction of this complex will allow for preparation of Phase 3, to provide athletic field space during the construction of improvements to Pingree Park. The cost of the development at the Patton Estate totals approximately \$1.5M.

Phase 3, Fiscal Year 2018. Phase 3 consists of the athletic complex redevelopment at Pingree Park, including reconstruction of both the 90' Wildes diamond and the 60' Black diamond. The redevelopment also includes reconstruction of the tennis facility and playgrounds, as well as parking lot and pedestrian circulation improvements. The preliminary cost estimate for this renovation totals nearly \$1.2M. It is important that the previous two (2) phases are completed to allow for use of the athletic fields while the Pingree Park fields are reconstructed.

Phase 4, Fiscal Year 2020. Phase 4 consists of the athletic complex redevelopment at Patton Park, including reconstruction of both the 90' baseball facility and improvements to the 60' baseball diamond. The redevelopment also includes development of parking areas, pedestrian circulation routes, an amenities building, and playgrounds. The preliminary cost estimate for this renovation totals nearly \$1.1M

Phase 5, Fiscal Year 2022. Phase 5 includes the redevelopment of the Donovan Fields. Although this redevelopment does not provide for an increase in quantity of fields, the demand placed on the fields will

not be sustained without a complete renovation of the facility. The improvements include reconstruction of both the 60' diamond and multipurpose field, to allow concurrent usage of the facilities. The redevelopment also includes construction of a parking facility. The preliminary cost estimate for this renovation is \$570,000.

LOCATION	FY 2012	FY 2014	FY 2016	FY 2018	FY 2020
PHASE I					
HWRHS Track and Field	\$1.8M				
Patton Park Pool	\$1.1M				
PHASE II					
Patton Estate Development		\$1.5M			
PHASE III					
Pingree Park Redevelopment			\$1.2M		
PHASE IV					
Patton Park Redevelopment				\$1.1M	
PHASE V					
Donovan Field					\$570,000

**PATTON PARK POOL FACILITY
HAMILTON, MA**



Pool and Deck



Bath House



Plaque on Bath House



Pool w/ cover



Planarity issues in concrete



Non self-latching gate



Bathhouse Interior



Handicap Accessible Restroom



Pool House Equipment



Pool House Equipment



Fencing, poor condition



Spectator Seating



Changing Areas, Bathhouse



Water Fountain



Handicap Ramp, no parking



1,225 SF BATH HOUSE

100-PERSON SPECTATOR SEATING

82' x 55' SWIMMING POOL

DECK SEATING

POOL HOUSE

- NEW POOL FACILITY (82' X 55')
- NEW 1,225SF BATH HOUSE
- 100-PERSON SPECTATOR SEATING
- NEW PARKING FACILITY (27 STALLS)
- PICNIC AREAS



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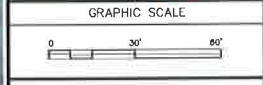
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SHEET TITLE

PATTON PARK
 SCHEMATIC
 OPTION #1

SCHEMATIC

DRAWING NO.

C-5

PROJECT NO. 000-1000



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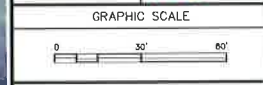
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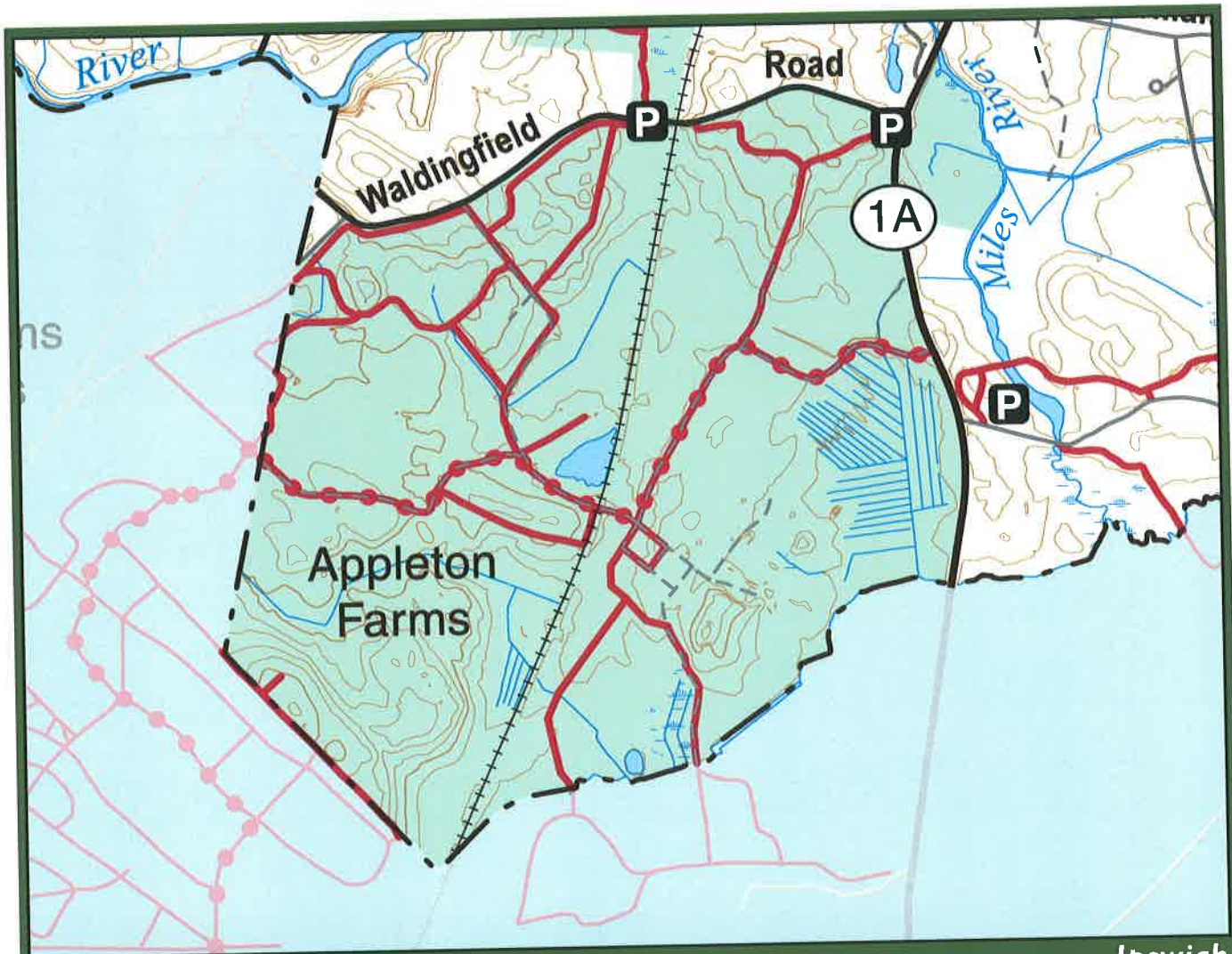
SHEET TITLE
**PATTON PARK
 SCHEMATIC
 OPTION #2**

- NEW POOL FACILITY (82' X 55')
- EXPANDED DECK W/ SEATING
- NEW 1,350SF BATH HOUSE/STORAGE
- 100-PERSON SPECTATOR SEATING
- 600SF SPRAY PARK
- NEW PARKING FACILITY (38 STALLS)
- PICNIC AREAS

SCHEMATIC

DRAWING NO.
C-6
 PROJECT NO. 001 11/11

	Walking	Running	Hiking	Mountain Biking	Birding	Snowshoeing	Dog-walking	X-Country Skiing	Horseshoe Riding	Motorized Vehicles	Wheelchair Accessible Trails
Chebacoc Woods	X		X	X					X		
Cedar Pond	X		X								
Iron Rail	X					X	X	X	X		X
Bradley Palmer State Park	X	X	X				X				
Gordon College	X		X			X		X	X		
Harvard Forest	X		X			X		X	X		
Appleton Farms	X	X					X	X			
Appleton Farm Grass Rides	X	X		X			X				
JC Phillips Nature Preserve	X		X				X				
Pingree Reservation	X		X		X	X		X	X		
Vineyard Hill Area	X		X								
Long Hill	X	X			X		X				
Willowdale Mill Reservation	X	X			X	X	X	X			
Manchester Watershed	X		X	X							



Appleton Farms

Ipswich
The Trustees of Reservations

KEY TO FEATURES

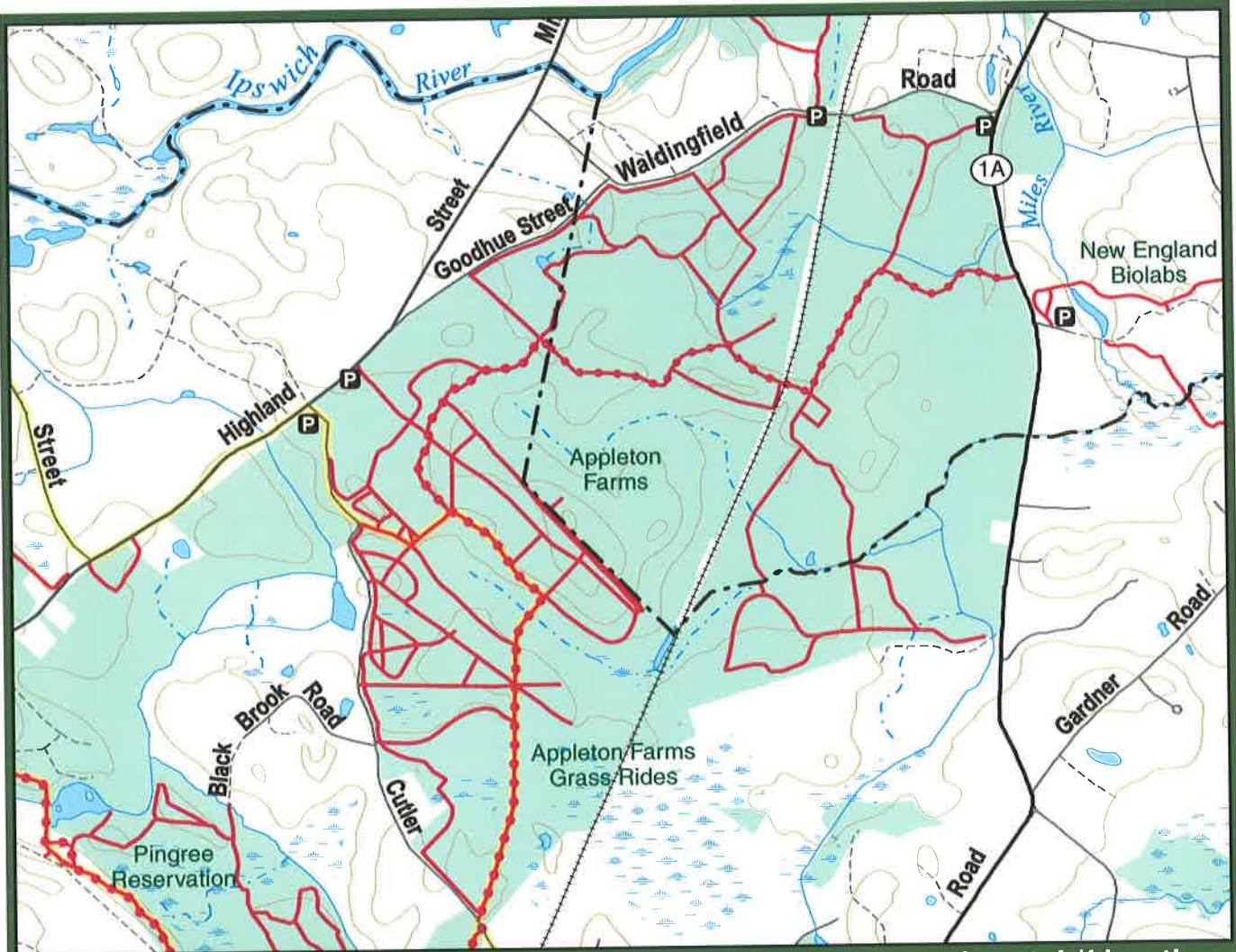
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|---------------------------|-------------------|-----------------------|
| Existing trail | Primary road | Open space property |
| Seasonal trail | Secondary road | Beach |
| Proposed trail | Street | Wetland |
| Sidewalk, bike path | Unpaved road | Pond |
| Trail in neighboring town | Railroad | Stream, coastline |
| Bay Circuit Trail | Trailhead parking | Contour lines (10 ft) |
| Discover Hamilton Trail | Prohibited uses | Intersection marker |

SCALE VARIES BETWEEN MAPS (SYMBOL SIZES ARE RELATIVE)
MAP SOURCE: ECTA Ipswich Trails Guide (2009)



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Appleton Farms & Grass Rides

Ipswich/Hamilton
The Trustees of Reservations

KEY TO FEATURES

	Existing trail		Primary road		Open space property
	Seasonal trail		Secondary road		Beach
	Proposed trail		Street		Wetland
	Slidewalk, bike path		Unpaved road		Pond
	Trail in neighboring town		Railroad		Stream, coastline
	Bay Circuit Trail		Trailhead parking		Contour lines (20 ft)
	Discover Hamilton Trail		Prohibited uses		Intersection marker



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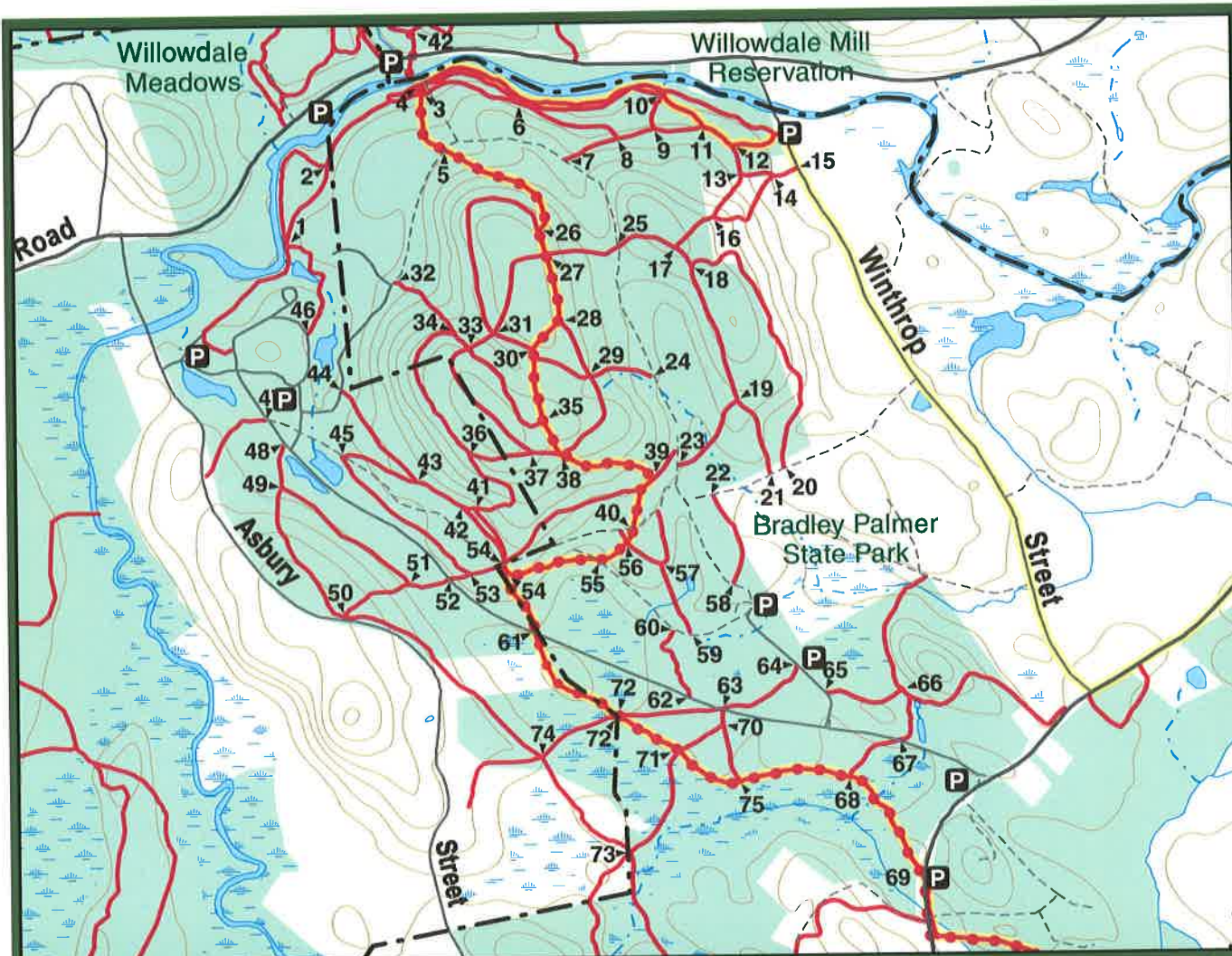
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SCALE VARIES BETWEEN MAPS (SYMBOL SIZES ARE RELATIVE)

MAP SOURCE: *ECTA Ipswich Trails Guide (2009)*,
ECTA Hamilton-Wenham Trails Guide (2007)



www.ectaonline.org



Bradley Palmer State Park

Hamilton/Topsfield
Dept. of Recreation & Conservation

KEY TO FEATURES

	Existing trail		Primary road		Open space property
	Seasonal trail		Secondary road		Beach
	Proposed trail		Street		Wetland
	Sidewalk, bike path		Unpaved road		Pond
	Trail in neighboring town		Railroad		Stream, coastline
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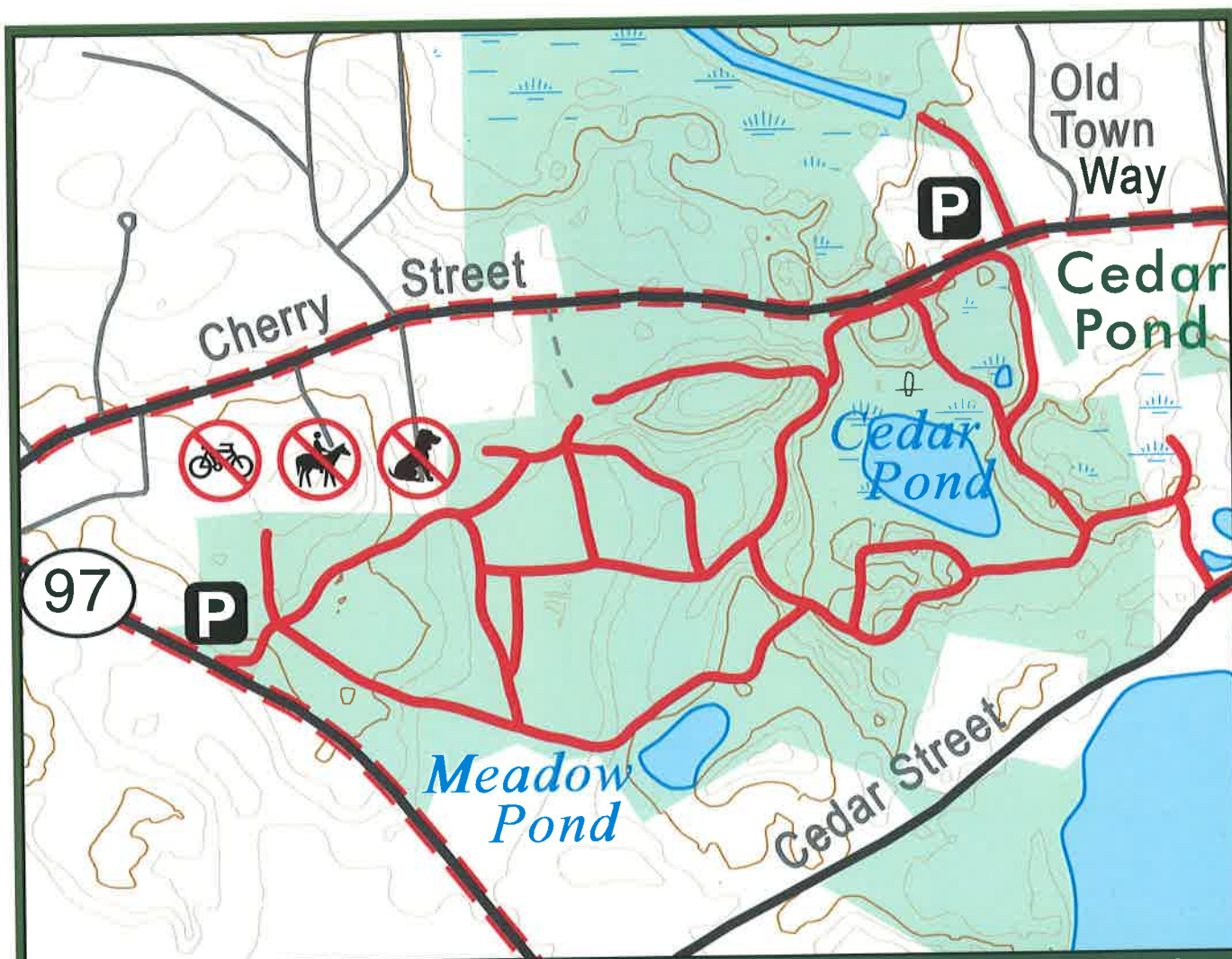
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MAP SOURCE: *ECTA Topsfield Trails Guide (2009)*,
ECTA Hamilton-Wenham Trails Guide (2007)



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Cedar Pond

Wenham

KEY TO FEATURES

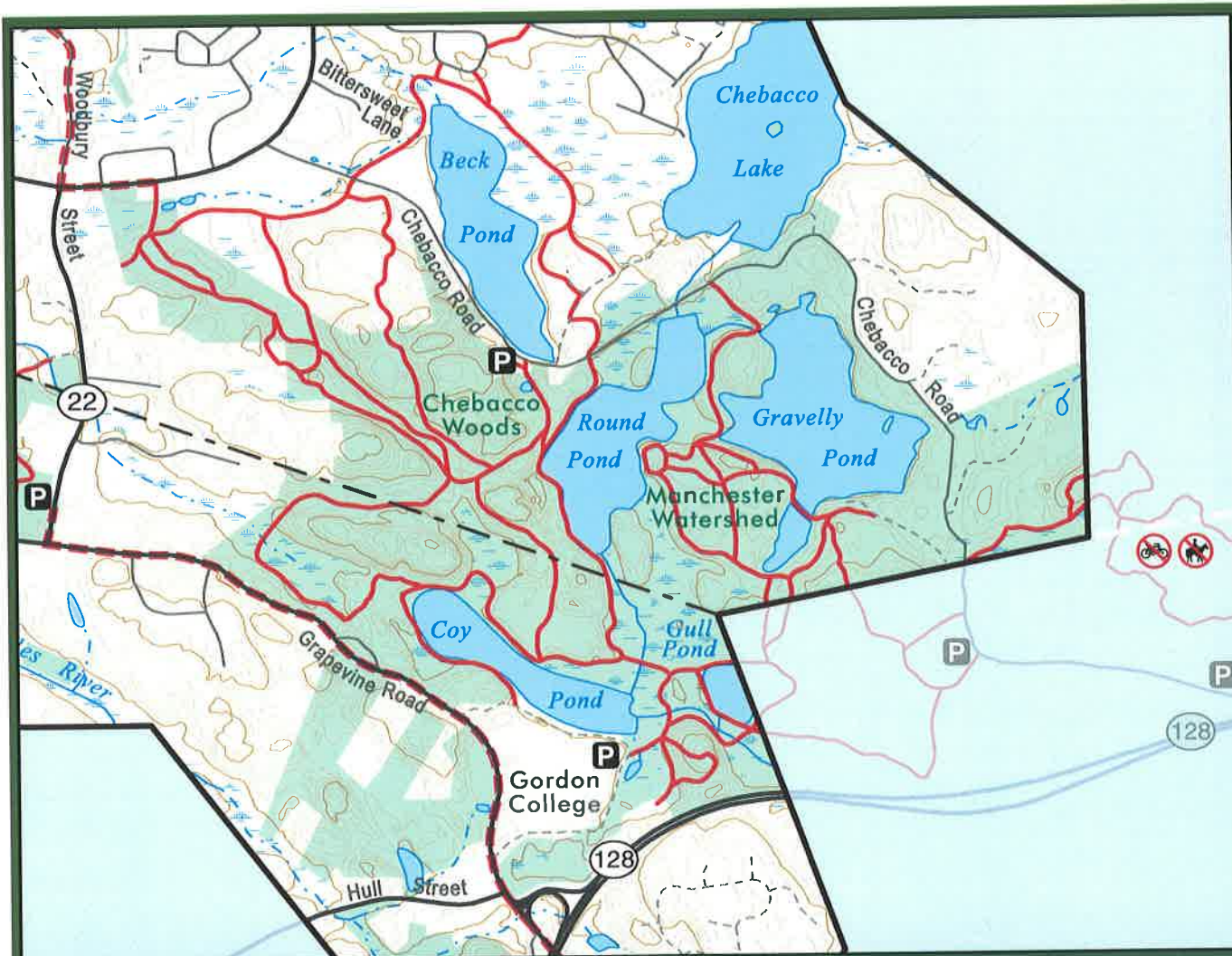
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|---------------------------|-------------------|-----------------------|
| Existing trail | Primary road | Open space property |
| Seasonal trail | Secondary road | Beach |
| Proposed trail | Street | Wetland |
| Sidewalk, bike path | Unpaved road | Pond |
| Trail in neighboring town | Railroad | Stream, coastline |
| Bay Circuit Trail | Trailhead parking | Contour lines (10 ft) |
| Discover Hamilton Trail | Prohibited uses | Intersection marker |

SCALE VARIES BETWEEN MAPS (SYMBOL SIZES ARE RELATIVE)
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Chebacco Woods

Wenham

KEY TO FEATURES

	Existing trail		Primary road		Open space property
	Seasonal trail		Secondary road		Beach
	Proposed trail		Street		Wetland
	Sidewalk, bike path		Unpaved road		Pond
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Essex County Trail Association
**LAMILTON
 WENHAM**
 RAILS GUIDE

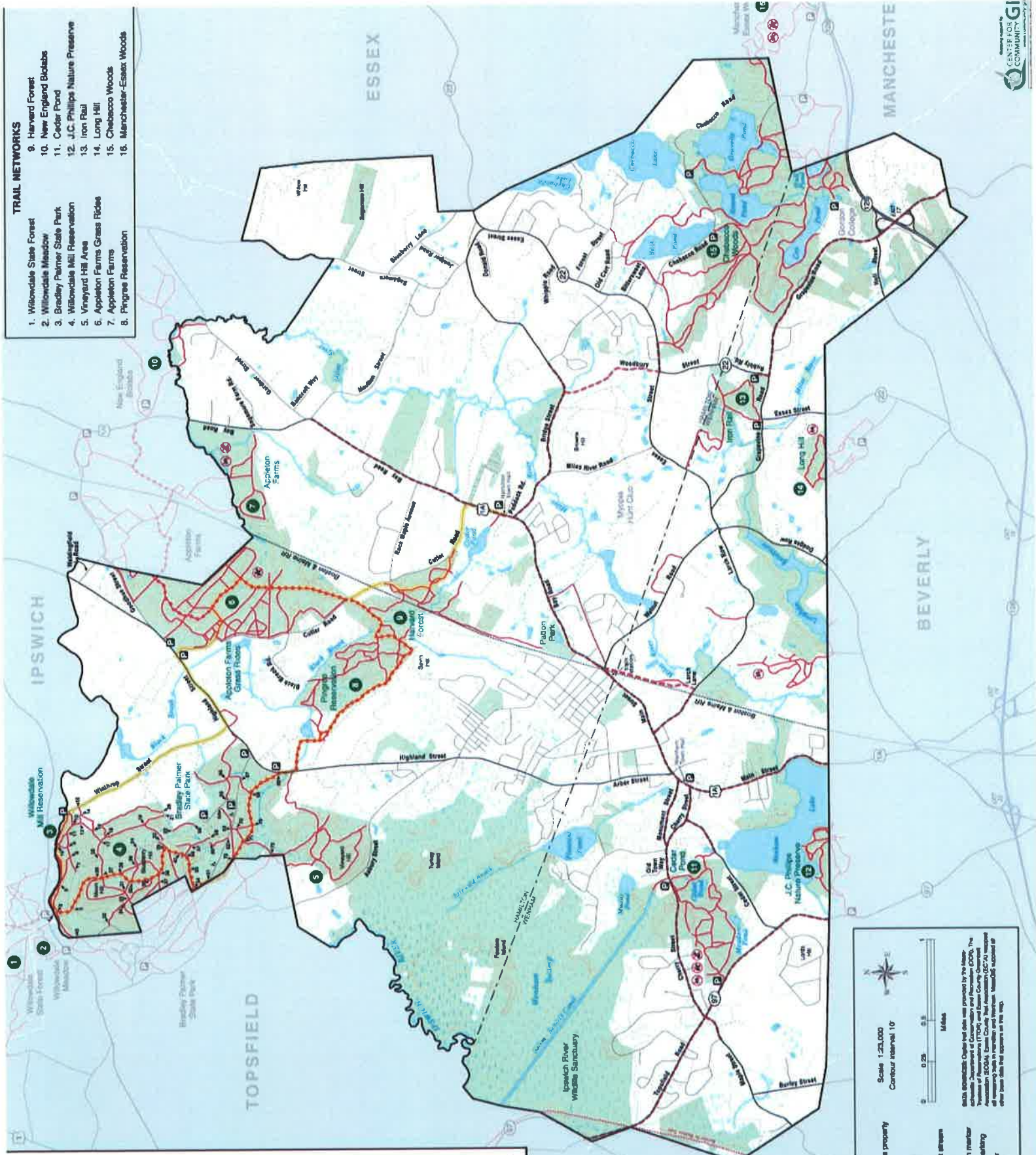
Join a MEMBER
 and enjoy today's
 trails. ECTA keeps
 up every trail
 and keeps them open.

Second Edition
 (2010)

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- TRAIL NETWORKS**
1. Willowdale State Forest
 2. Willowdale Meadow
 3. Bradley Palmer State Park
 4. Willowdale Mill Reservation
 5. Vineyard Hill Area
 6. Appleton Farms Grass Rides
 7. Appleton Farms
 8. Pingree Reservation
 9. Harvard Forest
 10. New England Bldblz
 11. Cedar Pond
 12. J.C. Phillips Nature Preserve
 13. Iron Rail
 14. Long Hill
 15. Chelacco Woods
 16. Manchester-Essex Woods



KEY TO FEATURES

- Existing trail
- Bay Circuit Trail
- Scenic, bike path
- Proposed trail
- Discover - Hamilton Trail
- Trail in neighboring town
- Primary road
- Secondary road
- Unpaved road
- Railroad

Open space property

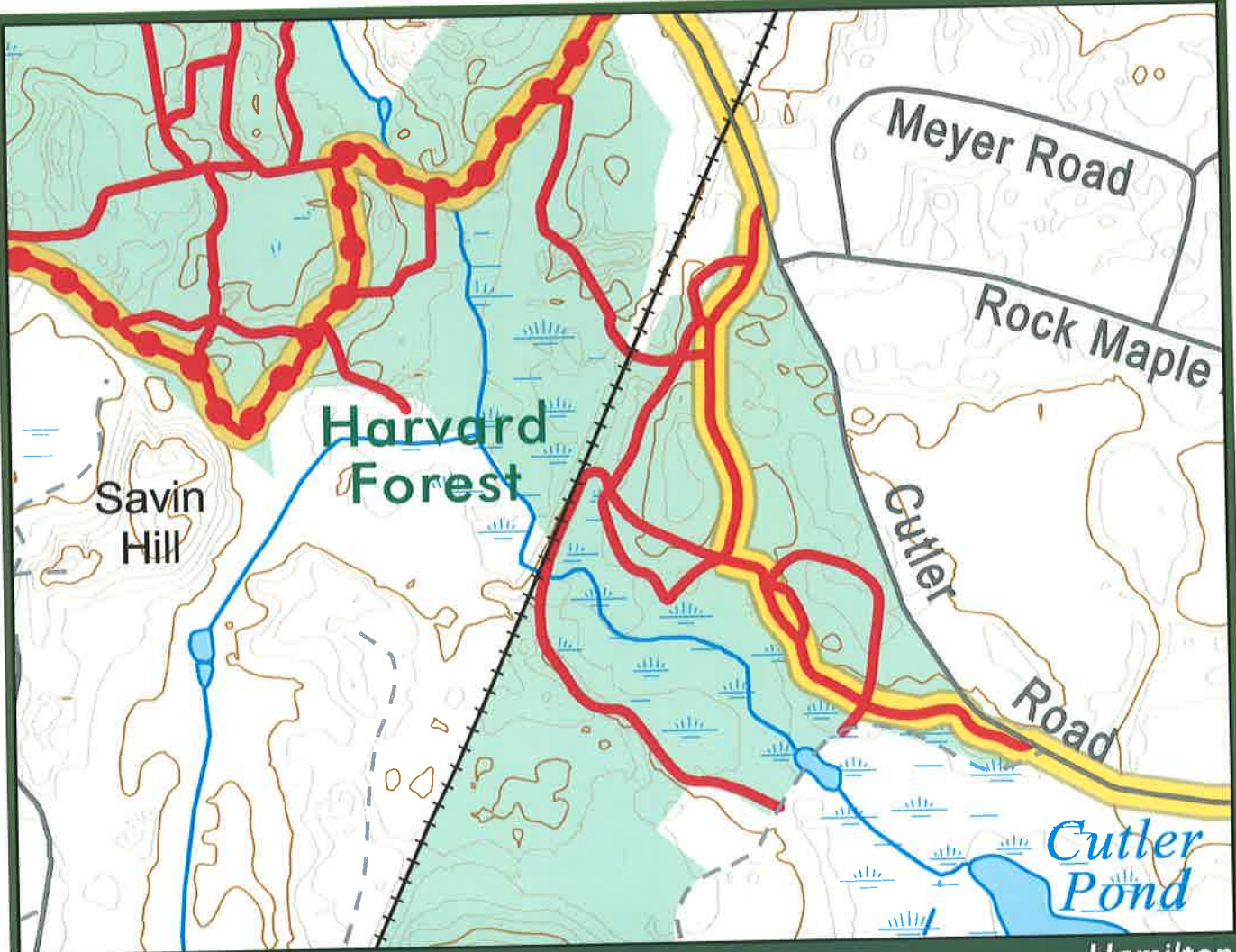
- Wetland
- Lake, pond
- Stream
- Intermittent stream
- Contour
- Intersection marker
- Trailhead parking
- Trail locator

Scale 1:23,000
 Contour interval 10'

0 0.25 0.5 Miles

ESSEX GEOGRAPHIC Digital trail data was provided by the MassGIS
 schedule. Assessment of Conservation and Recreation (ACR), the
 Association (ESDMA), Essex County Trail Association (ECTA) request
 all remaining data in Hamilton and Wenham. MassGIS supplied all
 other town data trail systems in the map.





Harvard Forest

Hamilton

KEY TO FEATURES

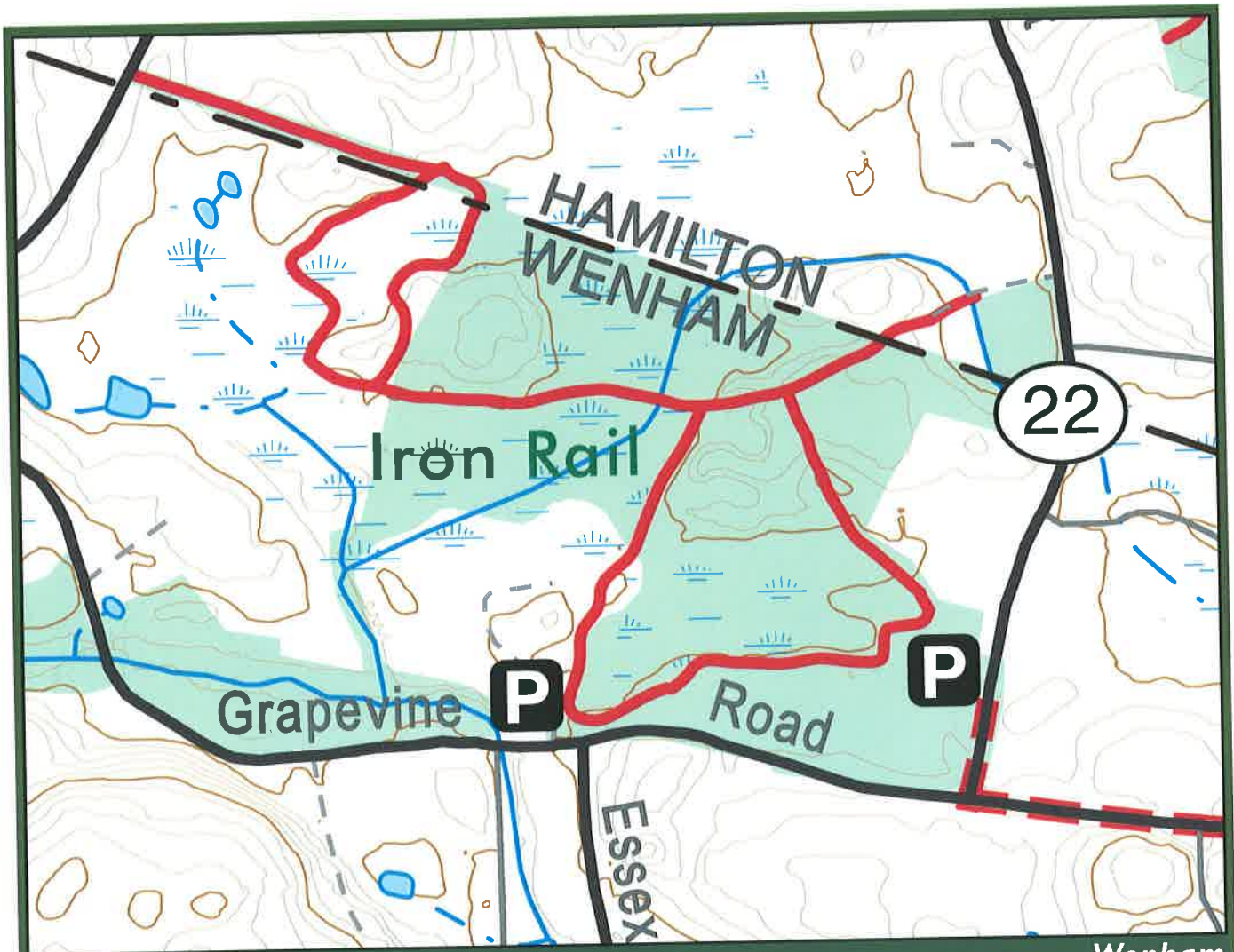
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| Existing trail | Primary road | Open space property |
| Seasonal trail | Secondary road | Beach |
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| Sidewalk, bike path | Unpaved road | Pond |
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| Bay Circuit Trail | Trailhead parking | Contour lines (10 ft) |
| Discover Hamilton Trail | Prohibited uses | Intersection marker |

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Iron Rail

Wenham

KEY TO FEATURES

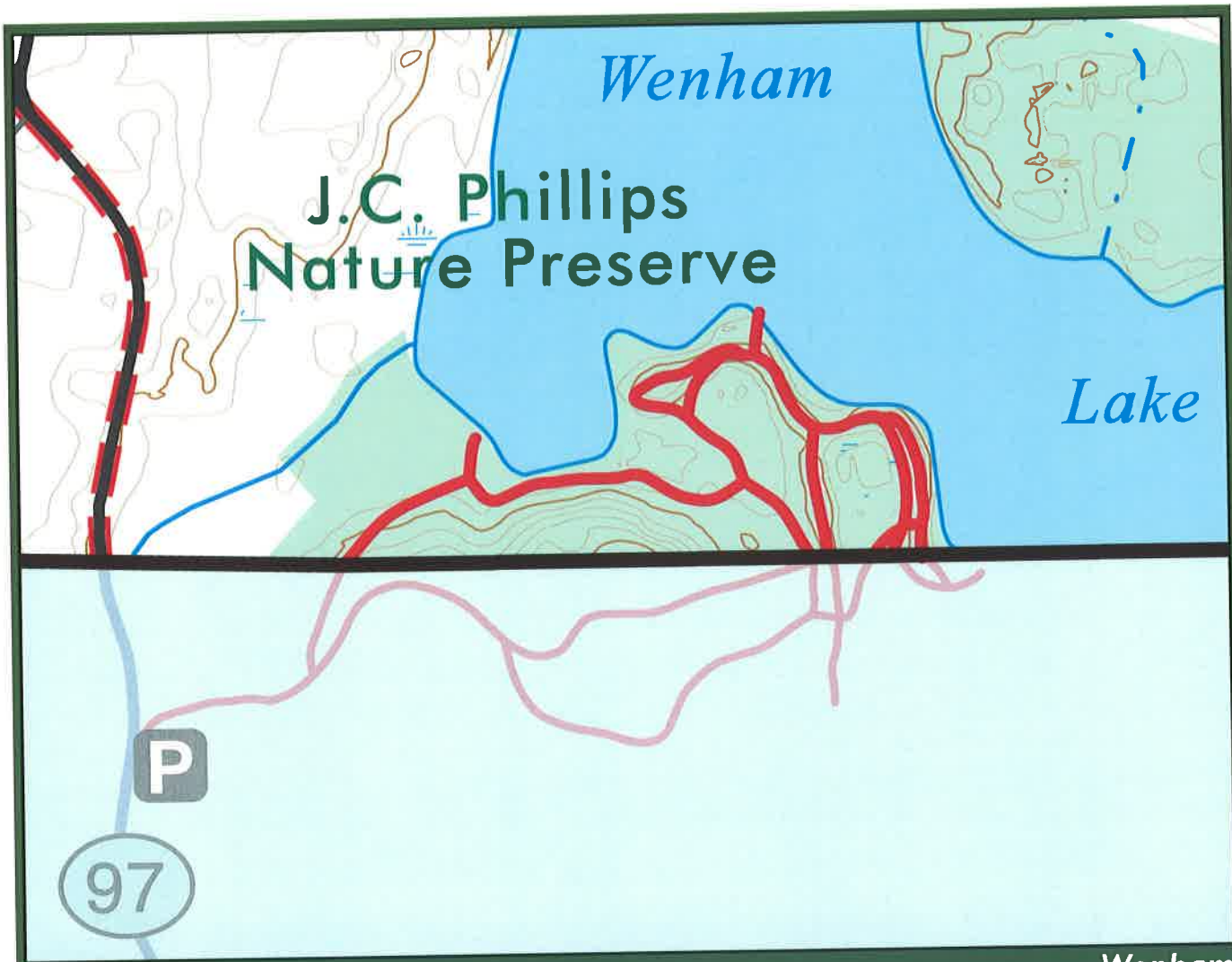
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J.C. Phillips Nature Preserve

Wenham

KEY TO FEATURES

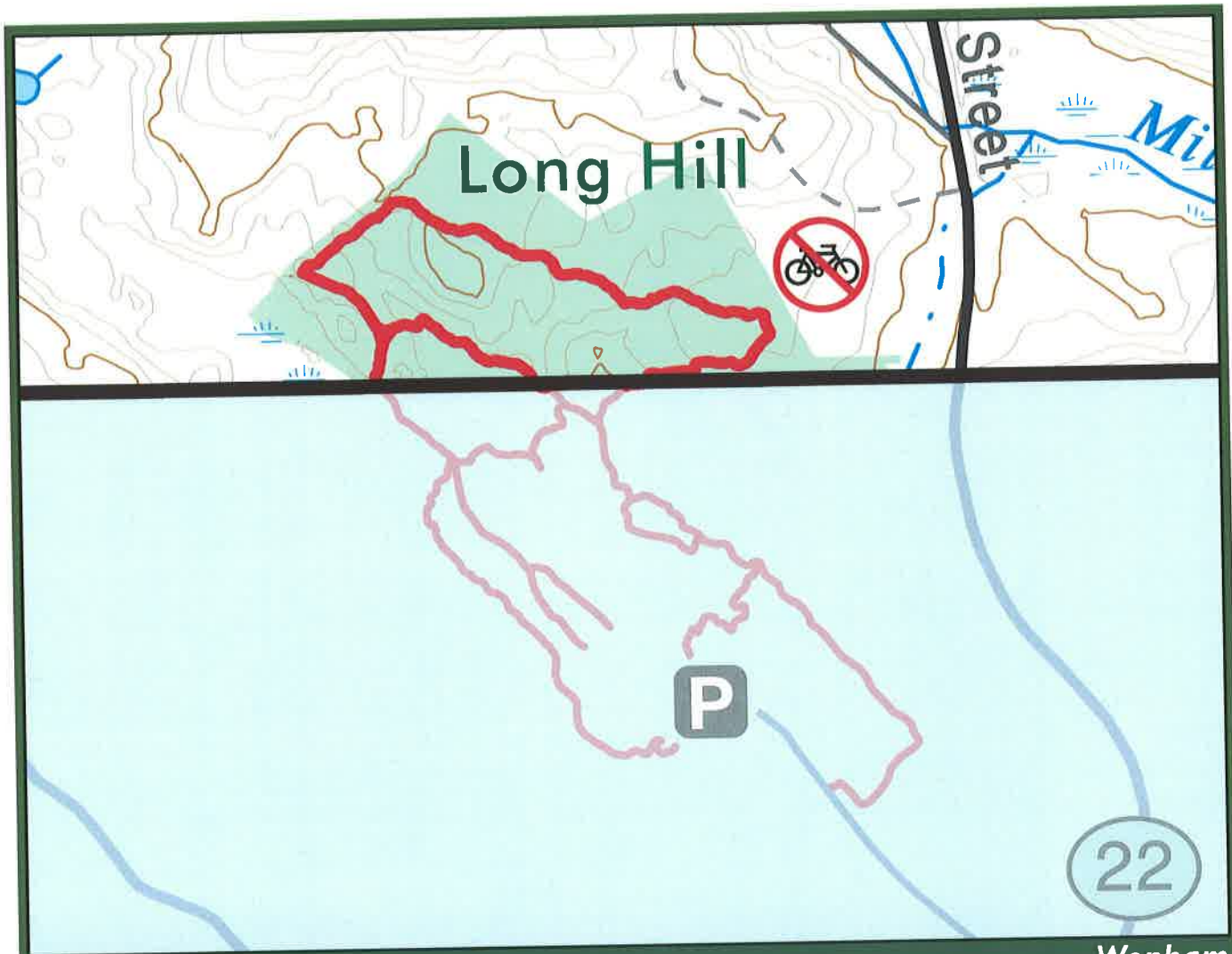
Existing trail	Primary road	Open space property
Seasonal trail	Secondary road	Beach
Proposed trail	Street	Wetland
Sidewalk, bike path	Unpaved road	Pond
Trail in neighboring town	Railroad	Stream, coastline
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Discover Hamilton Trail	Prohibited uses	Intersection marker

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Long Hill

Wenham
The Trustees of Reservations

KEY TO FEATURES

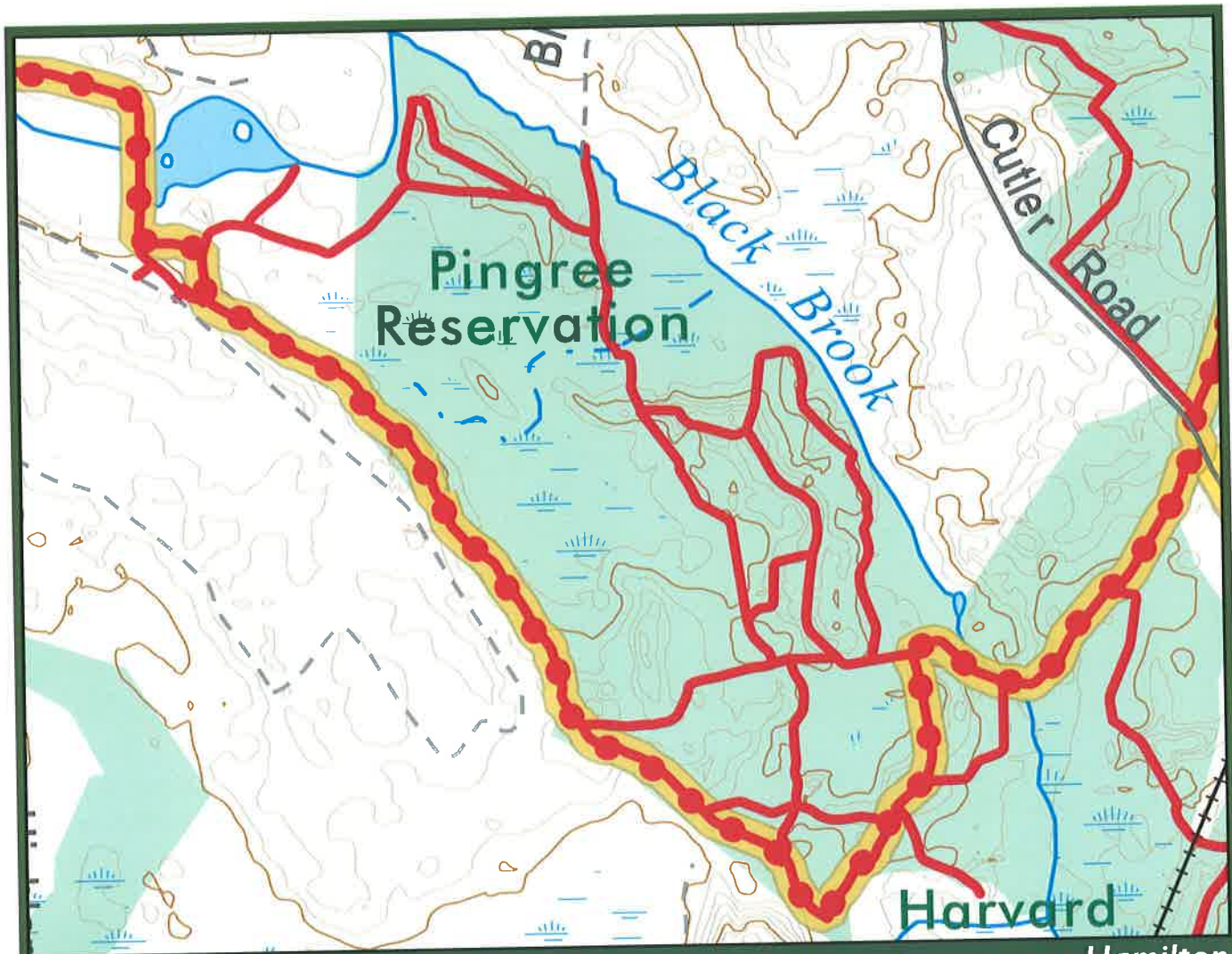
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|---------------------------|-------------------|-----------------------|
| Existing trail | Primary road | Open space property |
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| Bay Circuit Trail | Trailhead parking | Contour lines (10 ft) |
| Discover Hamilton Trail | Prohibited uses | Intersection marker |

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Pingree Reservation

Hamilton

KEY TO FEATURES

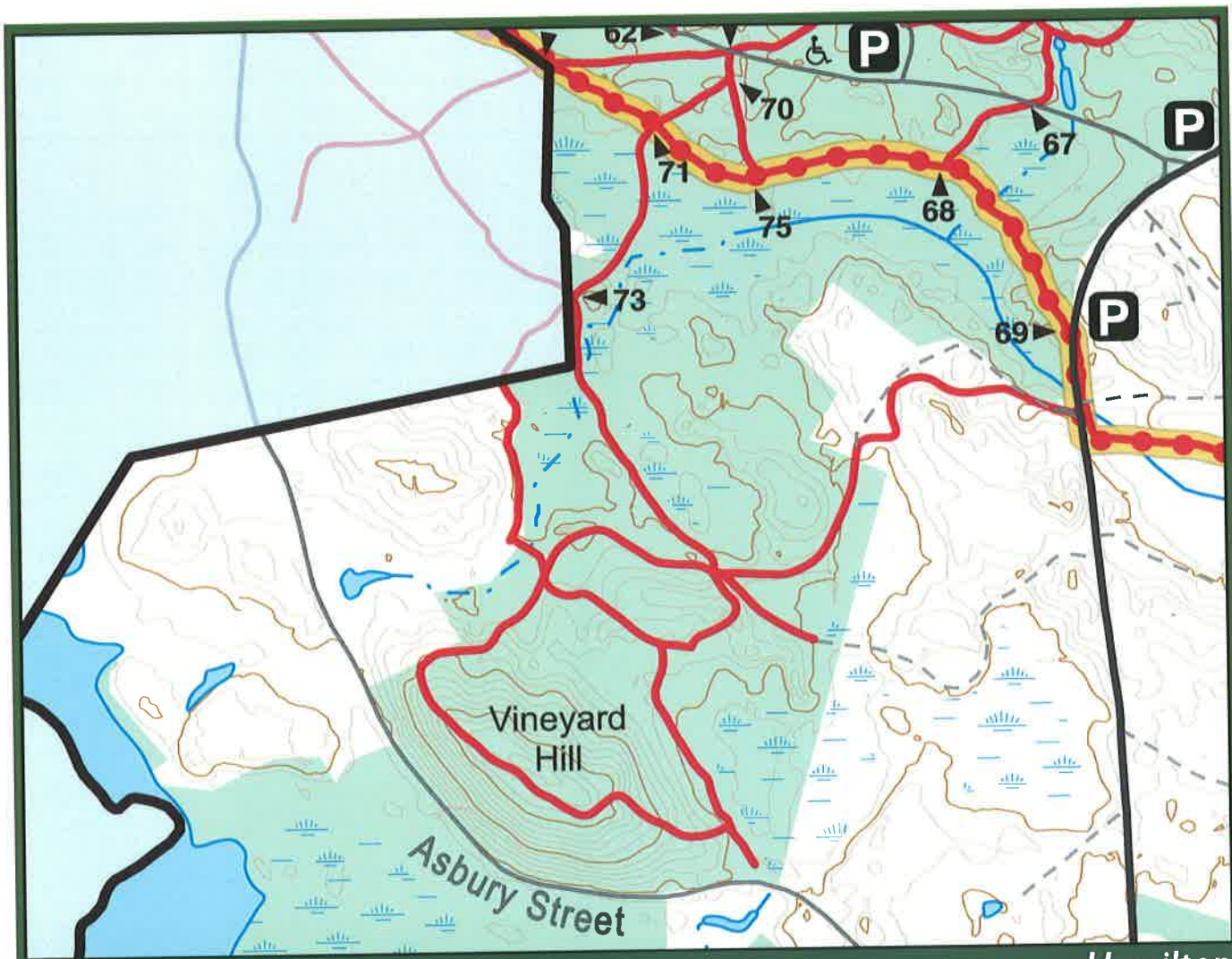
	Existing trail		Primary road		Open space property
	Seasonal trail		Secondary road		Beach
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	Sidewalk, bike path		Unpaved road		Pond
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Vineyard Hill

Hamilton

KEY TO FEATURES

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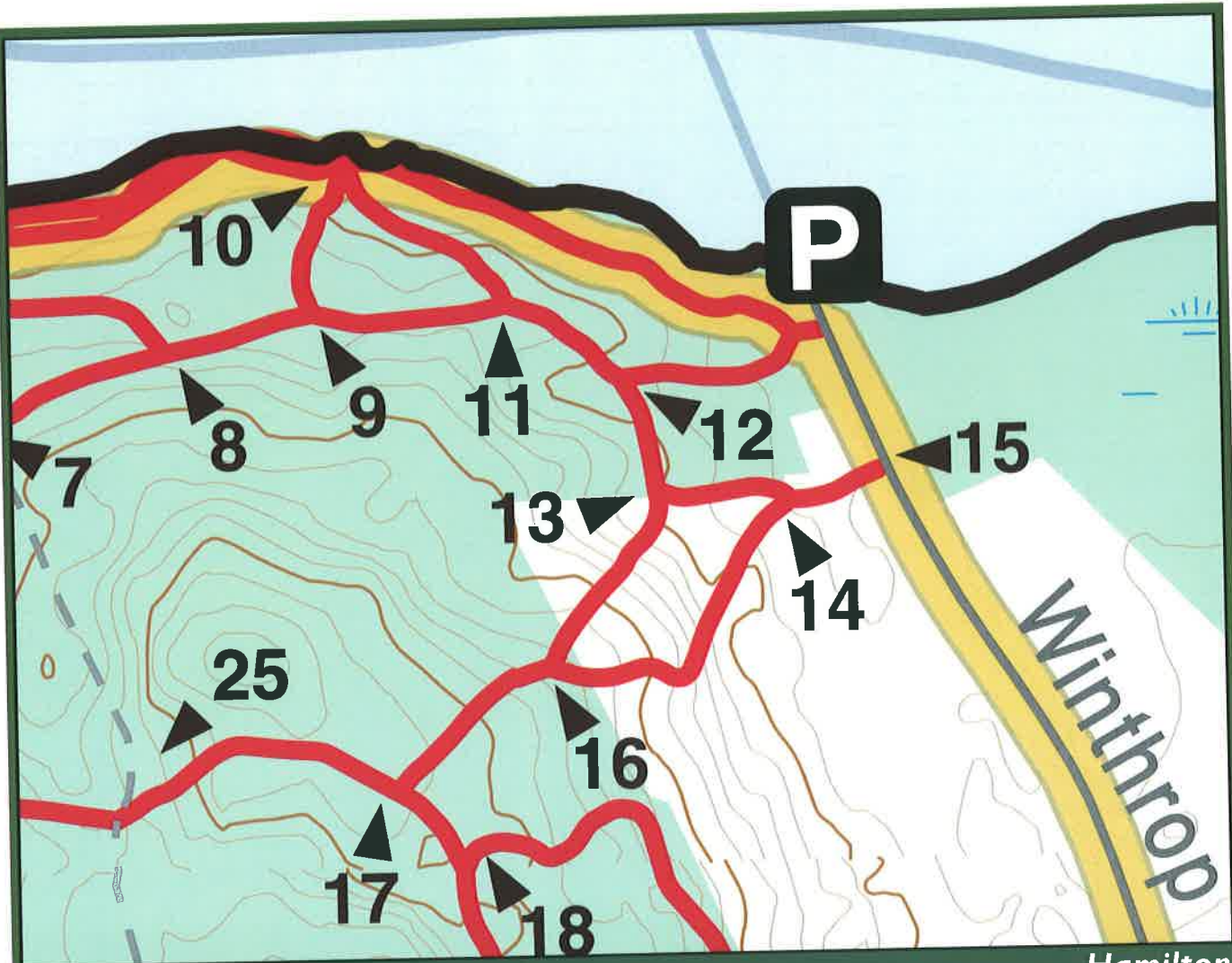


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Willowdale Mill Reservation

Hamilton
Essex County Greenbelt

KEY TO FEATURES

- | | | |
|---------------------------|-------------------|-----------------------|
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