

MASTER PLAN
FOR
SHAW FARM
SUTTON, MASSACHUSETTS

PREPARED BY:
GATES, LEIGHTON & ASSOCIATES, INC.
LANDSCAPE ARCHITECTS

FEBRUARY ~ 2012

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INTRODUCTION

Winter 2012

Mr. James Smith, Town Administrator
Town of Sutton, Massachusetts
4 Uxbridge Road
Sutton, MA 01590

Subject: Master Plan for Shaw Farm

Dear Mr. Smith:

Gates, Leighton & Associates, Inc. (GLA) is pleased to present the Master Plan document for Shaw Farm. We look forward to presenting this document to the Board of Selectmen.

Shaw Farm is a 135 acre town-owned property located in the Town of Sutton, Massachusetts. Prior to being purchased, this property was formerly the Shaw Family Farm.

The Town's goal at the time the property was acquired was not only to maintain its natural resources and beauty, but to explore the options of re-programming the Farm as a new location for sports fields to better serve the nearby school, and as a location for a Department of Public Works facility, cell tower and formalized trail systems.

Our firm is fortunate to have been part of the visioning process to create a Master Plan for Shaw Farm this past spring and we look forward to providing the Town of Sutton with the groundwork to see this vision created.

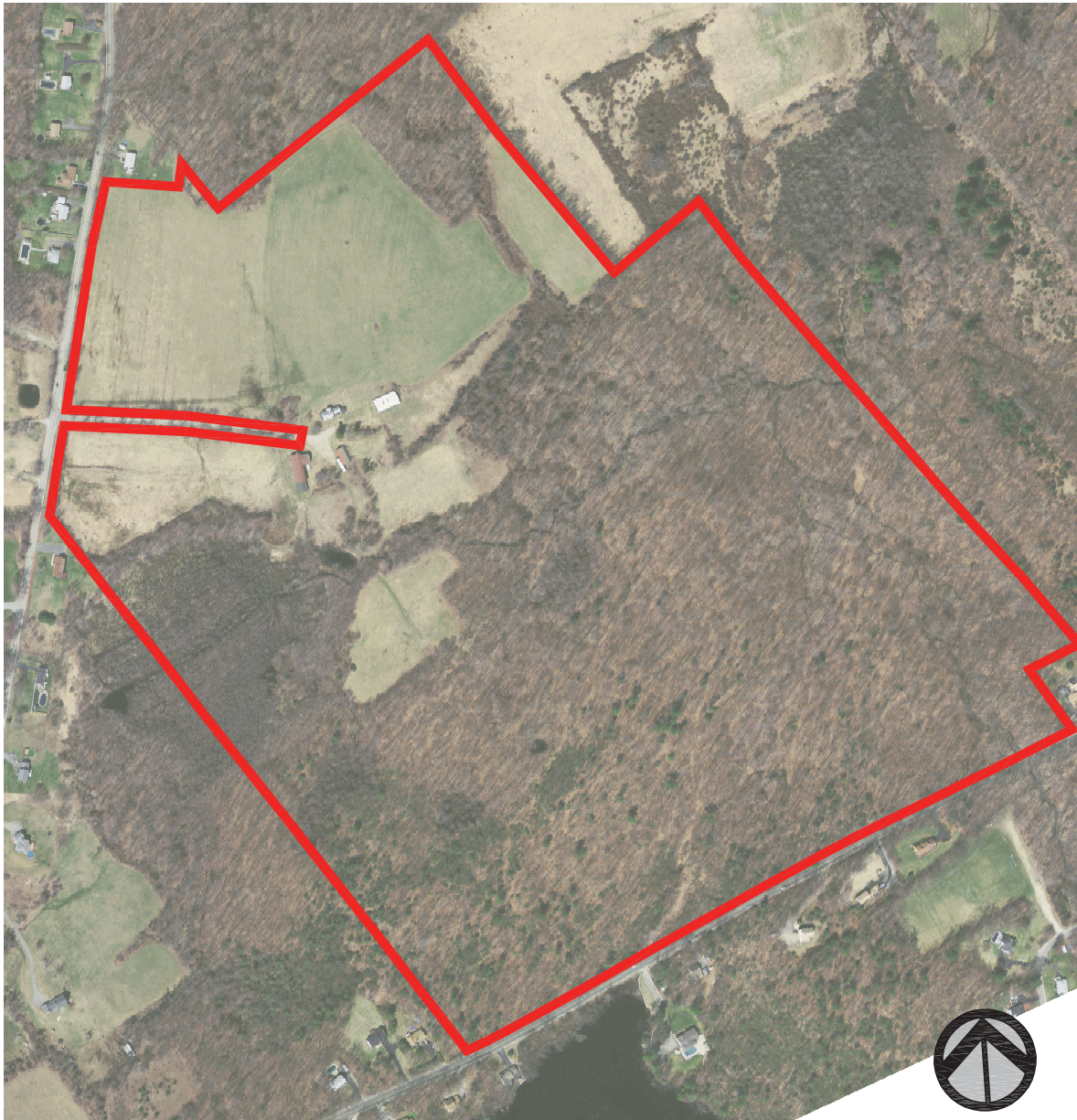
Sincerely,
GATES, LEIGHTON & ASSOCIATES, INC.



Donald S. Leighton, ASLA
President

SECTION NO. 1
PROJECT AREA

PROJECT AREA



Shaw Farm is approximately 135 acres located between Putnam Hill Road and the Central Turnpike. Located less than .5 miles from the school; the property is bordered by fields and forest to the north and east and residential homes along roadways to the west and south.

The property is split between wooded forest and grassed fields. The site is divided by a stream running through the center, as well as wetlands and vernal pools located throughout the site.

The slope across the site varies with areas of relatively flat fields to steeper hills with the highest point of the site being located in the southern corner.

SECTION NO. 2
EXISTING CONDITIONS

VISUAL ANALYSIS



With its layered fields, wetlands and densely wooded forest, Shaw Farm is an extremely diverse and pastoral landscape.

Buildings currently located on the site include a farmhouse, barn and two smaller storage structures.

Unfortunately the buildings, as well as the 14 foot entrance drive leading into the site, have fallen into a state of disrepair.

A network of trail systems is already located throughout the wooded areas and is currently being used for cross country.



6 FARM HOUSE



7 BARN



8 SIGNAGE

Current infrastructure on the site is limited: Electric service is from Putnam and Central; currently there is no sewer or public water to the site.



1 LOWER FIELD



4 SHED



10 CENTRAL TURNPIKE



2 VIEW TO MIDDLE FIELD



5 VIEW TO WOODLAND FIELD



11 VIEW FROM UPPER FIELD

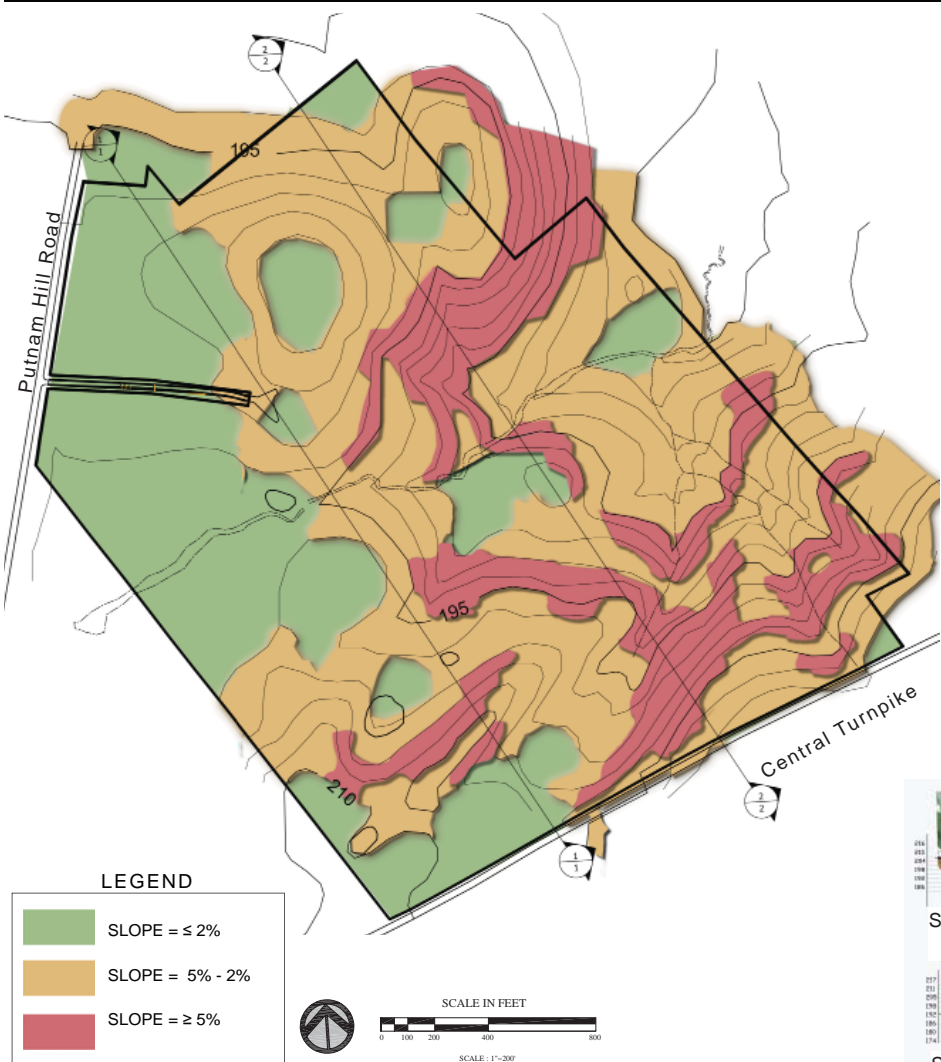


3 MIDDLE FIELD



9 VERNAL POOL

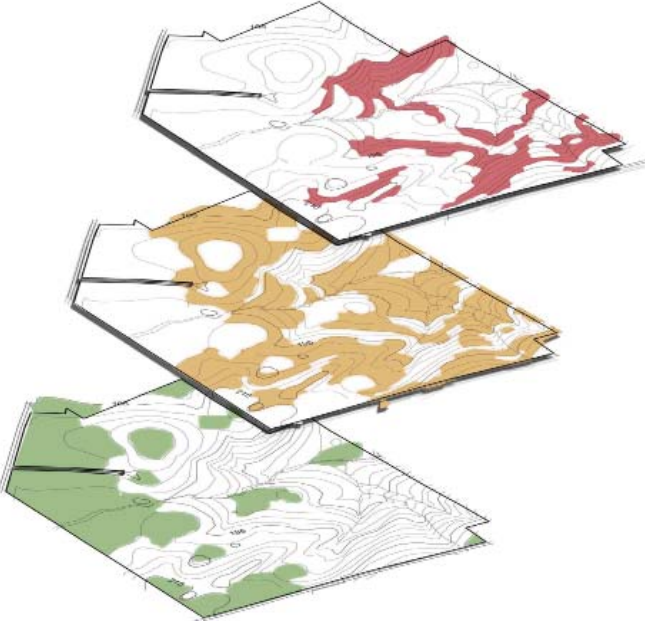
SLOPE ANALYSIS



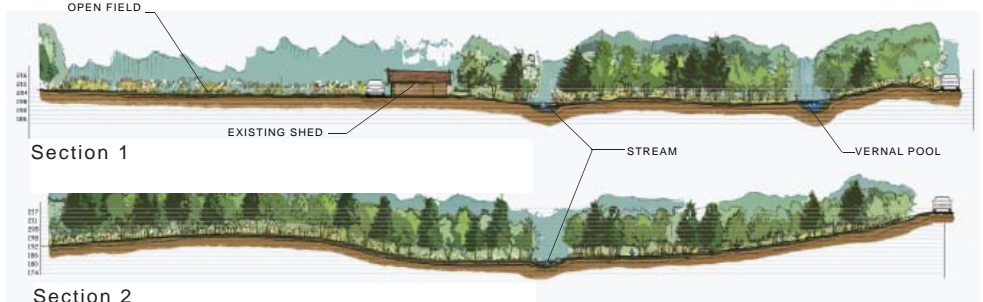
SLOPE ANALYSIS PLAN



LOCUS MAP



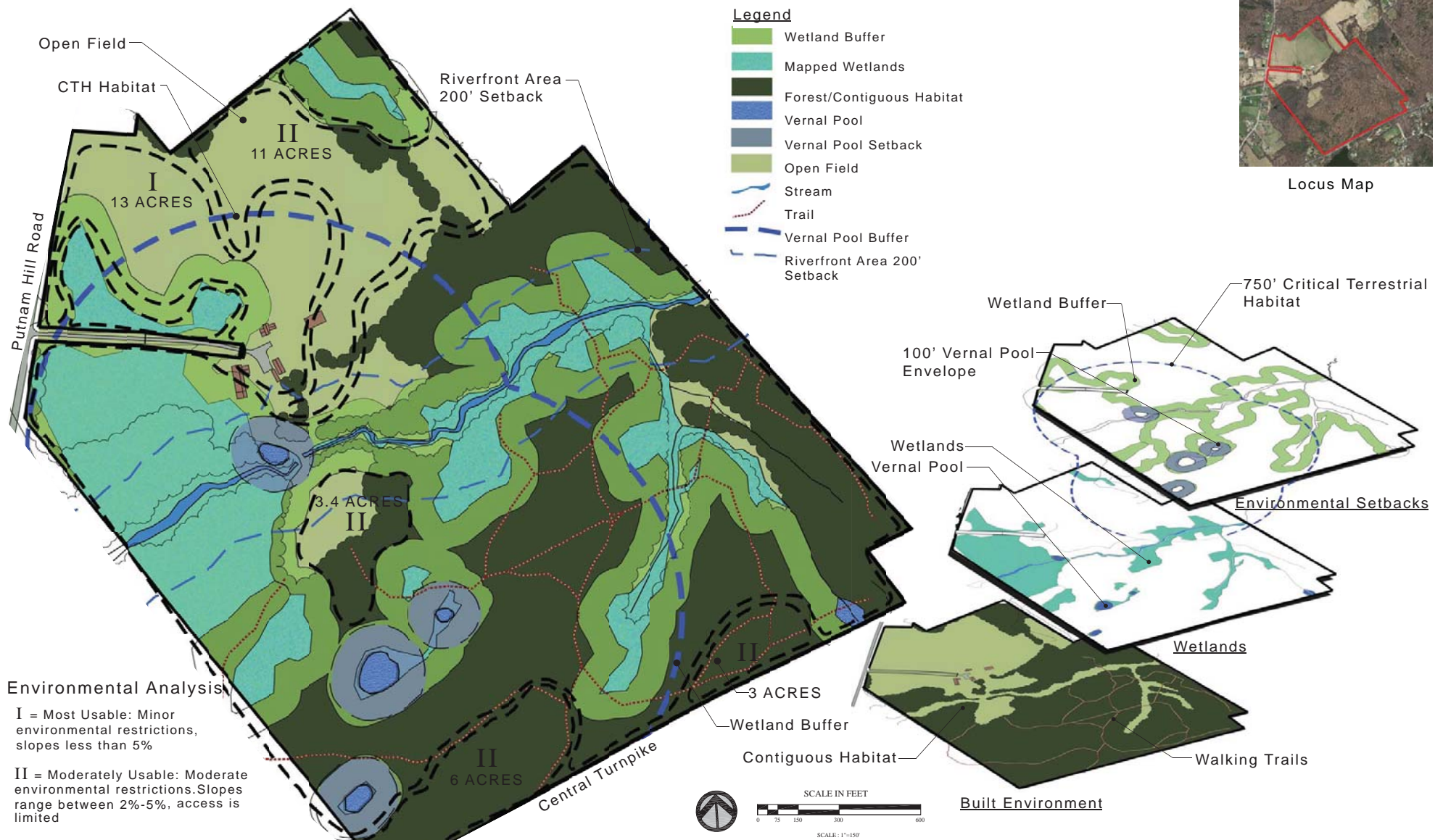
SLOPE ANALYSIS LEVELS



Section 1
Section 2
Scale - 1"=100' 4x Vertical Exaggeration

EXISTING SITE SECTION ELEVATIONS

ENVIRONMENTAL ANALYSIS



SITE OPPORTUNITIES & CONSTRAINTS

Constraints:

In 2010 after the kick-off meeting, Pare Corporation performed an initial delineation of wetlands, vernal pools and streams, and used GPS to delineate the existing trails on site.

The results (shown on the left) highlighted the environmental constraints that would begin to dictate the location of all program elements on site.

The existence of vernal pools on site were verified by setting fish traps in all potential locations.

Slope analysis and all environmental setback information was converged to isolate areas suitable for site improvements. These areas are rated as either I (most usable) or II (moderately usable).

Program Elements:

Track & Soccer field: The northwest corner of Shaw farm proved to have the greatest opportunity for a track location based on the close proximity to the school, minor environmental restrictions and expenses of flat areas suitable for a field.

Little League Field: Opportunities for a little league field were similar to the track facility, including the 11 acres located on the top of the hillside and close to proposed parking.

DPW Facility: 6 acres located adjacent to the Central Turnpike provided excellent highway access and few environmental restrictions. The existing vegetation and contouring provide a natural buffer making the area an ideal location for a new facility.

Cell Tower Location: Many potential locations on site. Location should have access and be outside of any wetland/river setbacks.

Driveway Expansion: 14' foot paved driveway exists and can be widened.

SECTION NO. 3
PROPOSED IMPROVEMENTS

CONCEPTUAL STUDIES



Program Elements:

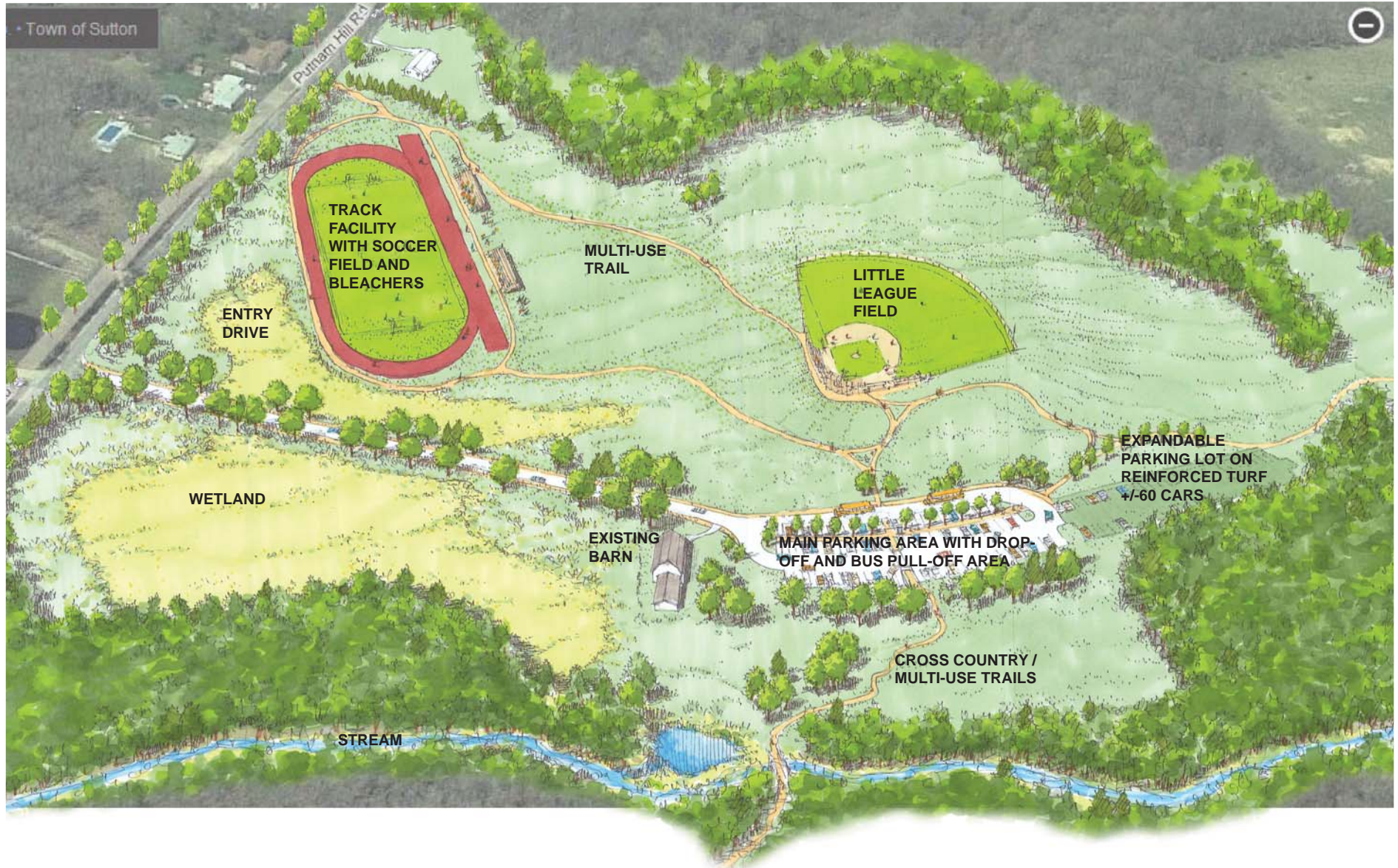
1. Widened Roadway Suitable for two way traffic
2. Parking
3. Pedestrian Connection to School
4. Track & Soccer field
5. Little League Field
6. DPW facility
7. Cell Tower Location
8. Cross Country Trail

MASTER PLAN

- 1 SIDEWALK CONNECTION TO SCHOOL
- 2 MULTI-USE TRAIL
- 3 TRACK FACILITY WITH SOCCER FIELD AND BLEACHERS
- 4 ENTRY DRIVE (EXISTING) WITH REINFORCED TURF SHOULDERS
- 5 EXISTING FARMHOUSE TO BE REMOVED
- 6 EXISTING BARN
- 7 MAIN PARKING AREA WITH DROP-OFF AND BUS PULL-OFF AREA WITH EXPANDABLE PARKING LOT ON REINFORCED TURF +/-60 CARS
- 8 CRITICAL TERRESTRIAL HABITAT
- 9 WETLAND
- 10 LITTLE LEAGUE FIELD
- 11 STREAM
- 12 200' STREAM BUFFER
- 13 NEW DPW FACILITY
- 14 CROSS COUNTRY / MULTI-USE TRAILS
- 15 CELL TOWER



PERSPECTIVE



PUBLIC WORKS FACILITY

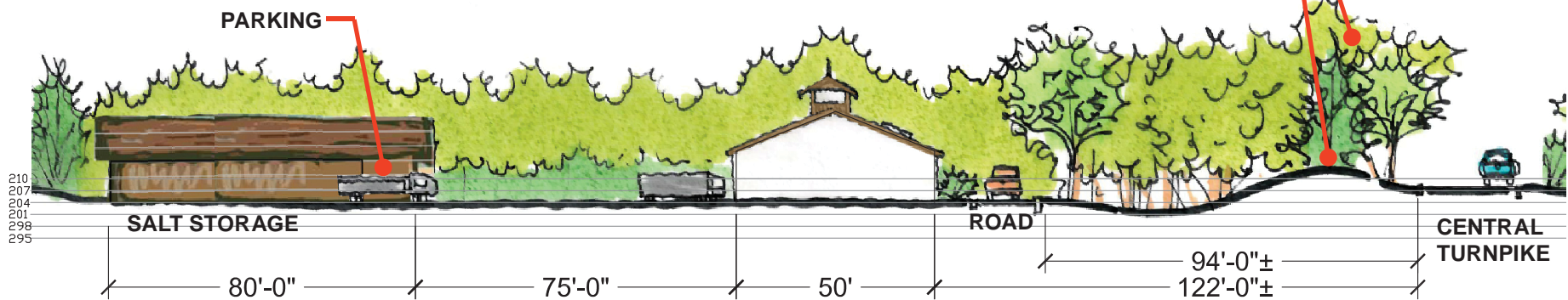
Highway facility Requirements

1. 10,000 Sf building including space for 5 parking bays, foreman's and director's office
 - A. Southern roof orientation for solar panels
 - B. Sand/salt storage area
 - C. All trucks and major equipment stored indoors
 - D. Close connection to central turnpike
 - E. Minimal building profile
 - F. Preservation of existing mature vegetation
 - G. Cedar or wood siding to soften appearance

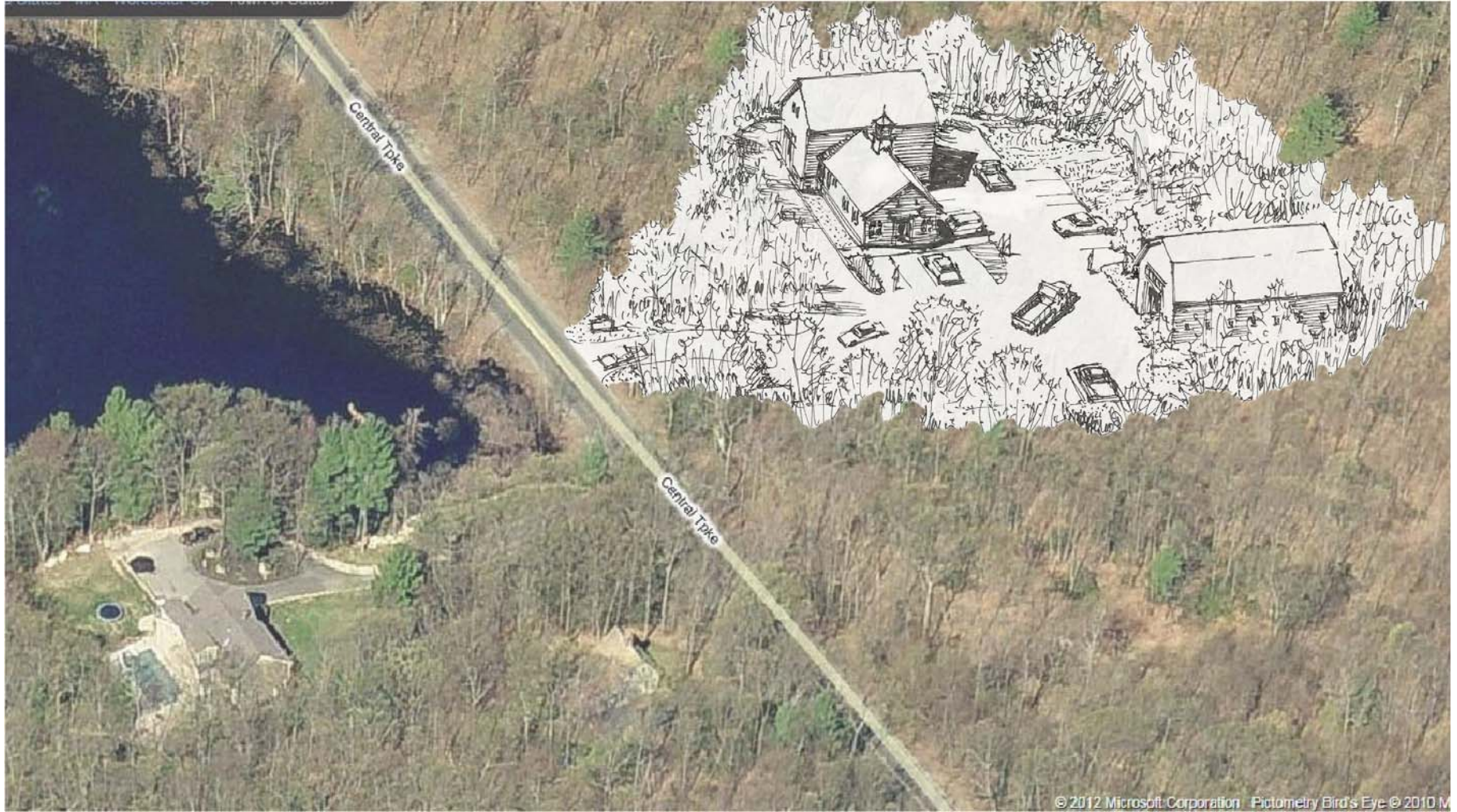


EXISTING VEGETATION

BERM AREA BETWEEN
DRIVEWAY AND
ROADWAY FOR BUFFER



Section From Roadway



SECTION NO. 4
PHASING & COST

PHASING PLAN

PHASE III
LITTLE LEAGUE
FIELD

PHASE I B
TRACK FACILITY

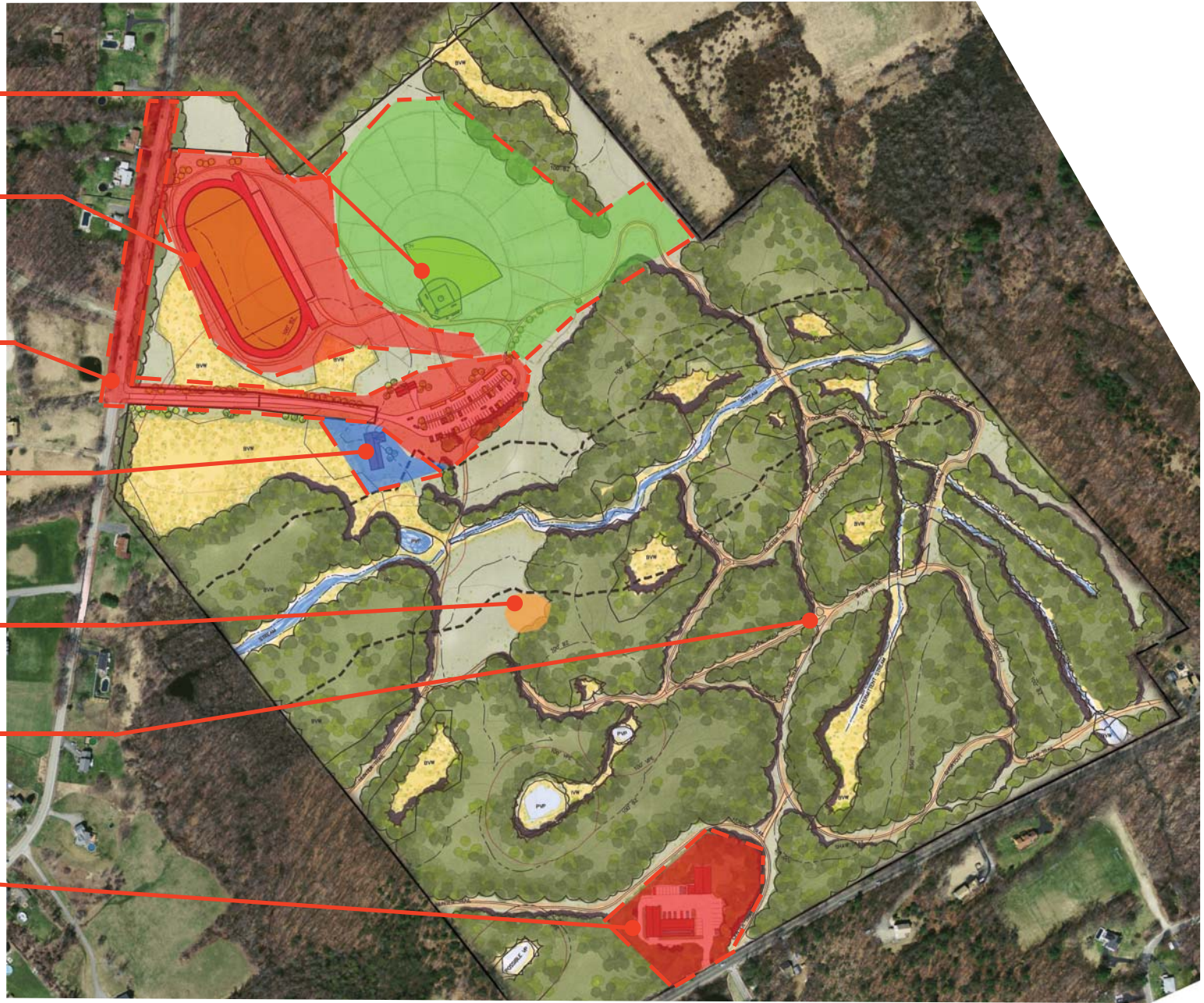
PHASE I A
SITE PREP
ENTRANCE
DRIVE & PARKING

PHASE IV
BARN / STRUCTURE

PHASE II
CELL TOWER

CROSS COUNTRY
TRAILS IN PROGRESS

PHASE I B
DPW AREA



COST ESTIMATE

ORDER OF MAGNITUDE COST ESTIMATE
Shaw Farm Preliminary Master Plan
Sutton, Massachusetts

Project Number: P-1070
Preparation Date: January 7, 2011

NOTE: LABOR COSTS ARE INCLUDED IN THE ITEM TOTALS.

Line #	Item	TOTAL
PHASE 1		
ia. SITE PREPARATION		
1.	Demolition	
A.	Demolition of Existing Structures/Allowance	\$ 50,000.00
2.	Site Clean-up, Clearing	
A.	Tree Trimming/Clean-up along Putnam Road and Shaw Farm Road (75mhr @ \$85)	\$ 6,375.00
B.	Invasive Species Removal along Putnam Road and Shaw Farm Rd (8000sy @ \$3)	\$ 24,000.00
	Sub-Total	\$ 80,375.00
ib. ENTRANCE DRIVE, PARKING AND WALKWAYS		
1.	Pedestrian Connections	
A.	Walkway from Putnam Rd. to Parking Facility & Fields (5' Asphalt. Walk/Base 820 sy @ \$40)	\$ 32,800.00
B.	Walk way from Parking Lot to Existing Trail System (5' stone dust 620 sy @ \$30)	\$ 18,600.00
2.	Driveway and Parking Lot	
A.	18' Driveway (1520 SY @ \$40) includes bit. removal and fine grading	\$ 60,800.00
B.	Parking Area (4272 SY @ \$40) includes excavation, grading, gravel borrow	\$ 170,800.00
C.	Lighting Allowance (assumes 10 @ 5,000)	\$ 50,000.00
D.	Site Furnishings Allowance	\$ 30,000.00
D.	Composting Toilets (assumes 4 units)	\$ 50,000.00
E.	Grass Parking (6,000 SF @ \$4)	\$ 24,000.00
F.	Signage Allowance	\$ 15,000.00
	Sub-Total	\$ 452,000.00
ic. SOCCER FIELD AND TRACK		
A.	Cut and Fill Allowance (Assume 2' depth 4000CY @ \$12)	\$ 48,000.00
C.	Synthetic Turf (Drainage, Base Aggregate, Synthetic Turf)	\$ 500,000.00
E.	Vinyl Fencing 6" (1550 lf @ \$35 and 2 gates @ \$1200/ea)	\$ 58,850.00
F.	Soccer Goals (2 @ \$3500)	\$ 7,000.00
G.	Lighting Conduit Allowance	\$ 15,000.00
H.	Track Surface (Drainage, Base Aggregate, Surfacing)	\$ 700,000.00
I.	Bleacher Seating	\$ 75,000.00
J.	Score Board	\$ 15,000.00
	Sub-Total	\$ 1,416,650.00
id. DPW FACILITY		
A.	Clear & Grub for DPW Facility (Assume 2' depth 4000CY @ \$12)	\$ 48,000.00
B.	Parking Area and Driveway (3342sy @ \$40)	\$ 133,680.00
C.	Building (10,000sf)	\$ 1,500,000.00
D.	Salt Storage	\$ 200,000.00
E.	Landscaping Seeding and Planting	\$ 60,000.00
	Sub-Total	\$ 1,941,680.00

III. LITTLE LEAGUE FIELD		
A.	Excavation (2' Deep 6772 CY @ \$12.00)	\$ 81,260.00
B.	Gravel Base (1643cy @ \$30)	\$ 49,290.00
C.	Soil Mix (542 cy @ \$12)	\$ 6,500.00
D.	Turf Mix (44800 sf @ .25)	\$ 11,200.00
E.	Vinyl Fencing 6" (884 lf @ \$35 and 2 gates @ \$1200/ea)	\$ 33,340.00
F.	Pitching Mound, home plate, bases line markings	\$ 7,000.00
G.	Back Stop	\$ 20,000.00
H.	Dug outs - 4 bench w/Fence surround	\$ 12,000.00
I.	Back Stop	\$ 20,000.00
J.	Sport Field Lighting Allowance	\$ 45,000.00
	Sub-Total	\$ 285,590.00
Permitting and Design Costs		
A.	Survey/permitting/civil engineering	\$ 120,000.00
B.	Site Design	\$ 60,000.00
C.	Architectural plans (See Notes)	
	Sub-Total	\$ 180,000.00
	PROJECT SUB-TOTAL	\$ 4,356,295.00
	Contingency 20%	\$ 871,259.00
	TOTAL	\$ 5,227,554.00
FUTURE PHASES OF WORK NOT INCLUDED IN ESTIMATE		
II. CELL TOWER		
A.	CELL TOWER (by others)	
IV. BARN OR OTHER STRUCTURES		
ESTIMATE NOTES		
A.	NIC Utility Services (Water, Electric and Sanitary Sewer)	
B.	Underground (Blasting, Pneumatic Hammers etc...) Not estimated	
C.	Barn (requires structural and re-use study)	
C.	DPW Design Build Construction Costs included in Design Services	

PERMITTING

Next Steps

1. Wetlands were located based on vegetation during a site walkover using a GPS unit, and are approximate. For design and permitting it will be necessary to formally delineate the wetlands. It is suggested that only those in the vicinity of the proposed work, not the entire site, be flagged, and the delineated wetland lines will need to be surveyed.
2. A topographic survey will be required.
3. A potential traffic analysis should be considered.
4. Subsurface testing for the fields and DPW should be performed. Currently there is not public water or sewer on site. Perc tests and well water investigation must be performed.

Potential Permitting

1. Review from the Conservation Commission which would include wetland replication (or wetland replacement).
2. ACOE- Over 1 acre of alteration within the CTH will require a General Permit.
3. Under the ACOE review by the Mass historical commission is required.
4. MEPA: Possible Environmental Notification Form.

SECTION NO. 5
SITE DETAILS

SITE DETAILS



BLEACHERS



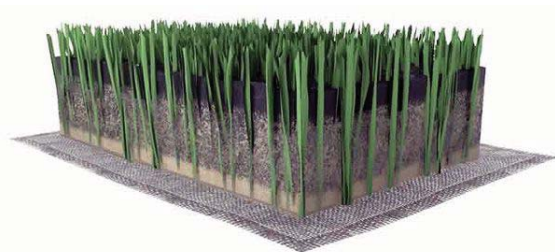
VIEW OF SYNTHETIC FIELD IN USE



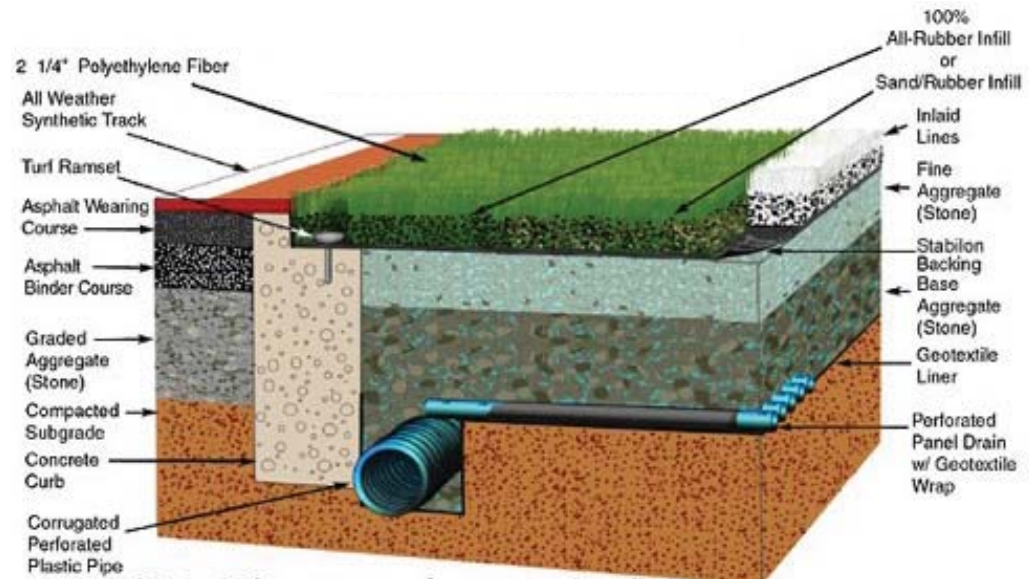
BASEBALL FIELD



DRIVABLE TURF SYSTEM



SYNTHETIC TURF SYSTEM

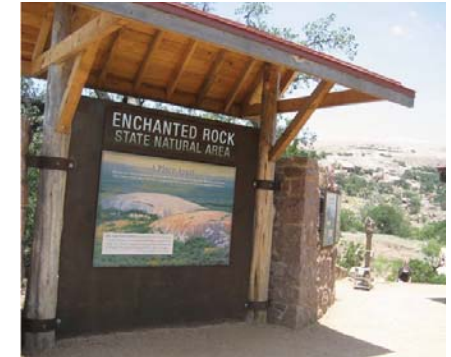


VIEW OF TYPICAL COMPONENTS OF SYNTHETIC TURF SYSTEM

SITE DETAILS - SIGNAGE



ENTRY SIGNAGE



TRAIL MARKERS



KIOSK - INTERPRETIVE SIGNAGE



APPENDIX
MEETING MINUTES



MEETING MINUTES

Subject: Shaw Farm, Sutton
P-1070

Meeting Date: February, 24 2010

Attendees: Jim Smith, Town
Jen Hager, Town
Kris Bradner, GLA
Arthur Eddy, GLA

Meeting Notes Prepared by: Kris M. Bradner

Gates, Leighton & Associates (GLA) attended a kick-off meeting with the Town Administrator and Town Planner for the Shaw Farm Master Plan Project at the Sutton Town Hall on February 24, 2010. The following items were discussed.

1. The site is approximately 135 acres of Town owned property formerly the Shaw Family farm. Jim Smith and Jen Hager gave GLA a list of items that they would like GLA to investigate for feasibility. The items are listed below in no particular order.
 - a. A Department of Public Works central facility. The facility would be a consolidation of the cemetery department and other miscellaneous operations.
Action: The Town will provide GLA with number and size of structures and other storage facilities, amount of parking, and any other specific needs.
 - b. A police facility. There are currently 14 officers employed by the Town.
Action: The Town will provide GLA with any specific needs for the police.
 - c. A library/community center.
 - d. A track and multi-purpose field with bleachers and concessions for the school and recreational use. Currently, the nearby school does not have a track facility.
 - e. Sidewalk connection from the school along the state road to the Farm.
 - f. A wind turbine, cell tower, solar collector. The intent is to set up an income source for the Town.
 - g. Four ball fields or some combination of fields that fit on the property.
 - h. Formalized trail system based on the existing trails for horseback riding, walking, mountain biking and cross-country training and meets. The Town forwarded the current trail map to GLA.