



MEDFIELD ATHLETIC FIELDS MASTER PLAN STUDY

PREPARED FOR:
THE TOWN OF MEDFIELD

PREPARED BY:
PARE CORPORATION
BIRCHWOOD DESIGN GROUP



WHO WE ARE ?

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PROJECT ENGINEER



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PRINCIPAL

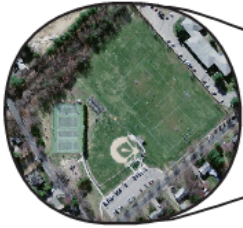


TASK:

REVIEW SIX EXISTING ATHLETIC FACILITIES IN TOWN:



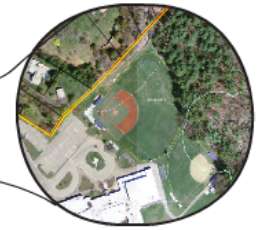
FIELD A:
HIGH SCHOOL MULTI-
USE SYNTHETIC FIELD
AND TRACK



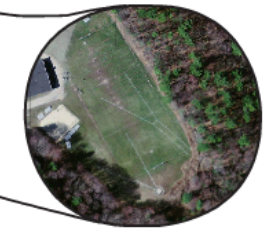
FIELD D:
METACOMET PARK
FIELDS



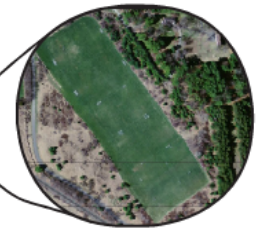
FIELD E:
RALPH WHEELOCK
MULTI-USE FIELDS



FIELD B:
MIDDLE SCHOOL
BASEBALL/SOFTBALL



FIELD C:
MIDDLE SCHOOL
PRACTICE FIELD



FIELD F:
RALPH WHEELOCK
SOCCER COMPLEX

MEDFIELD ATHLETIC FIELDS MASTER PLAN

THE PROCESS

1

KICK-OFF MEETING WITH TOWN

2

INVENTORY OF EXISTING CONDITIONS:

- FIELD GEOMETRY
- ENVIRONMENTAL CONDITIONS
- PLAYING SURFACE
- IRRIGATION
- DRAINAGE
- ELECTRICAL
- FIELD LIGHTING
- FENCING
- FIELD EQUIPMENT
- FREESTANDING STRUCTURES
- VEGETATION
- PARKING
- ADA COMPLIANCE
- OVERALL APPEARANCE

3

CONSTRAINTS MAPPING

4

MEETING WITH STAKEHOLDERS

5

DESIGN OPTIONS/COST ESTIMATES

6

EVALUATION OF TURF OPTIONS

7

PRIORITIZATION

8

RECOMMENDATIONS

VISION

Medfield is a community steeped in athletic tradition and excellence. The community has long provided places for residents both to recreate and participate in athletics. Whether this participation is purely for health, enjoyment or competition, the community will provide athletic fields that are safe and provide a high level of performance for all users both young and old .

FINDINGS:

FIELD A: HIGH SCHOOL MULTI-USE SYNTHETIC FIELD AND TRACK



- TURF IS STARTING TO DEGRADE WHICH WILL DECREASE THE SAFE PLAY ON THE FIELD
- TRACK IS READY FOR AN OVERSPRAY
- THERE ARE CURRENTLY ISSUES WITH THE BASE BELOW THE TURF
- THERE ARE DRAINAGE ISSUES IN THE FIELD
- GRASS IN THE FIELD IS NOT A GREAT DESIGN CHOICE
- THE FACILITY NEEDS ADA PARKING
- ATHLETIC FIELD LIGHTING IS IN WORKING CONDITION BUT, NEEDS TO BE UPDATED
- THE CONCESSION STAND SHOULD BE UPGRADED TO MODERN CODES
- STORAGE ON THE SITE SHOULD BE ORGANIZED
- BASIC AMMENITIES WOULDHELP TO IMPROVE THE FACILITY

FINDINGS:

FIELD B:
MIDDLE SCHOOL BASEBALL/SOFTBALL



- THE FIELD IS GENERALLY IN GOOD CONDITION
- IT IS RECOMMENDED TO ADD 8' CHAIN LINK AT BOTH THE SOFTBALL AND BASEBALL DUGOUT
- FIELD WILL NEED TO BE REPLACED IN THE NEXT 5 TO 7 YEARS
- ATHLETIC FIELD LIGHTING WOULD EXTEND THE USE OF THE FIELD BUT, LOCATION NEAR NEIGHBORS MAY NOT BE APPROPRIATE
- THE TOWN SHOULD INVESTIGATE THE EXPANSION OF TURF DURING THE NEXT REPLACEMENT
-
- THE EDGE OF THE SYNTHETIC TURF FIELD AND GRASS SHOULD BE ADDRESSED ANNUALLY
-
- THERE ARE SOME GRADING ISSUES WITH THE INFIELD OF THE SOFTBALL FIELD THAT SHOULD BE ADDRESSED

FINDINGS:

FIELD C:
MIDDLE SCHOOL PRACTICE FIELD



- THE FIELD IS IN THE WORST CONDITION OF ALL THE FIELDS
- THE FIELD IS UNDERSIZED FOR ANY SPORT EXCEPT FOR FOOTBALL
- TRACK THROWING EVENTS OCCUR IN THIS AREA
- THERE ARE WETLANDS AND A STREAM ON THE OUT SKIRTS OF THE FIELD
- THE FIELD IS SURROUNDED BY FOREST AND SECLUDED FROM NEIGHBORS

FINDINGS:

FIELD D: METACOMET PARK FIELDS



- THE FIELD IS SURROUNDED BY RESIDENTIAL NEIGHBORS TO THE NORTH, EAST AND WEST.
- THE FIELD IS LARGE AND IN GOOD CONDITION.
- PARKING IS LIMITED AND THERE ARE SIGNS OF PARKING ON THE STREET.
- DRAINAGE FLOWS TO THE SOUTHWEST
- THE FIELD IS ORIENTED MORE EAST/WEST THAN THE PREFERRED NORTH/SOUTH
- THE FIELD COULD USE ADA ACCESS IMPROVEMENTS

FINDINGS:

FIELD E:
RALPH WHEELOCK SCHOOL MUTLI-USE FIELDS



- THE FIELDS ARE HEAVILY USED
- ONE OF THE FIELDS IS NOT ORIENTED THE PREFERRED NORTH/SOUTH DIRECTION
- PARKING IS AN ISSUE, PARKING IS ON THE GRASS
- DRAINAGE FLOWS TO A SWALE TO THE EAST
- THE FIELD COULD USE ADA ACCESS IMPROVEMENTS
- THE FIELDS ARE SURROUNDED BY FOREST TO THE SOUTH AND EAST

FINDINGS:

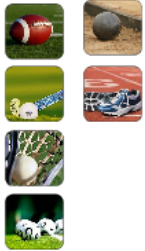
FIELD F:
SOCCER COMPLEX AT RALPH WHEELLOCK



- PARKING IS LIMITED TO THE FACILITY
- THE FIELDS COULD USE ADA ACCESS IMPROVEMENTS
- FIELDS ARE GENERALLY IN GOOD CONDITION WITH IRRIGATION
- FIELDS ARE SURROUNDED BY FOREST AND WOODED AREAS
- FIELDS ARE HEAVILY USED

PRIORITIZATION:

FIELD A:
HIGH SCHOOL MULTI-USE SYNTHETIC FIELD AND TRACK



1

THE FIELD NEEDS TO BE REPLACED AS THE TURF IS BREAKING DOWN AND THE CONDITION OF THE SURFACE WILL BECOME UNSAFE.

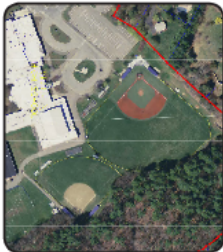
FIELD C:
MIDDLE SCHOOL PRACTICE FIELD



2

THE FIELD PROVIDES ADJACENT PARKING AND IS NOT ADJACENT TO RESIDENTIAL PROPERTIES. THIS FIELD WOULD BE IDEAL FOR REPLACEMENT. ADDITIONALLY, THE REPLACEMENT WOULD TAKE ADDITIONAL PRESSURE OFF OTHER FIELDS.

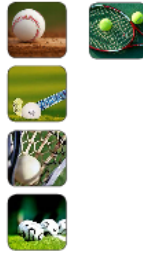
FIELD B:
MIDDLE SCHOOL BASEBALL/SOFTBALL



3

THIS FIELD WILL NEED TO BE REPLACED IN 5-7 YEARS. IT IS RECOMMENDED THAT THIS FIELD IS ADDRESSED WHEN TIME COMES UP FOR REPLACEMENT.

FIELD D:
METACOMET PARK FIELDS



4

THE FIELD IS SURROUNDED BY RESIDENTIAL NEIGHBORS. IT IS RECOMMENDED THAT MINOR IMPROVEMENTS OCCUR ON AT THIS FACILITY

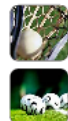
FIELD F:
SOCCER COMPLEX AT RALPH WHELLOCK



5

THIS FACILITY IS IN THE BEST CONDITION. IT IS RECOMMENDED THAT THESE FIELDS RECEIVE MINOR IMPROVEMENTS AND WHEN FUNDS ARE AVAILABLE, A NEW RESTROOM, CONCESSION, AND PARKING FACILITY ARE PROVIDED

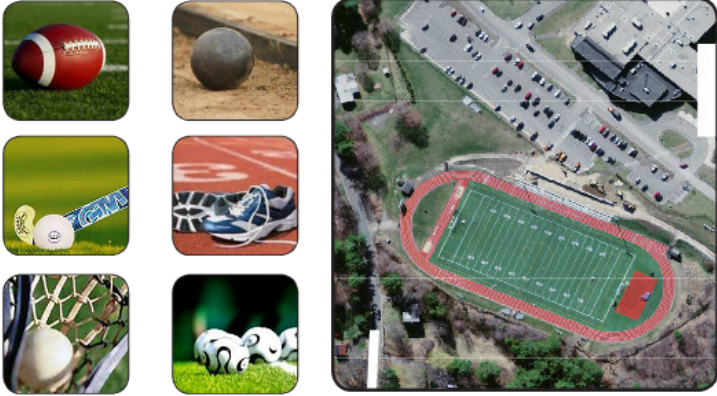
FIELD E:
RALPH WHELLOCK SCHOOL MUTLI-USE FIELDS



6

IT IS UNDERSTOOD THAT THIS SCHOOL WOULD POTENTIALLY BE REPLACED OR UNDERGO AN ADD/RENO. ANY IMPROVEMENTS COULD POTENTIALLY BE DISRUPTED BY THE FUTURE IMPROVEMENTS.

**FIELD A:
HIGH SCHOOL MULTI-USE SYNTHETIC FIELD AND TRACK**



Due to the high level of use of fields in the Town of Medfield and the current condition of the existing field at the High School it is recommended that the existing synthetic turf field with upgraded drainage system and synthetic track be replaced. The synthetic turf fibers are starting to deteriorate, a condition common found in a field with this amount of use and age of the product. The ability of the field to maintain infill in a stable condition will continue to be reduced in turn reducing the overall safety of the field to the athletes. Concerns over rising Gmax will continue to be an issue in the field. Currently there are multiple areas that flood on the field. This is an indication of a failing base/drainage system. It is recommended that a new drainage system replace the existing to alleviate flooding, additionally it is recommended that a trench and slot drain are added to the perimeter of the track to assist with drainage.

The synthetic track has clear base issues at the long-jump triple-jump areas. It is highly recommended that the "D-Zone Areas" are built to include synthetic track surfacing which will also assist in the function of the areas when running track meets. The track has been over-sprayed once to date. The track has reached an age in which it should be sprayed again. This should occur during this process. It should be noted that a track can only be sprayed a minimum of three times which should make the track functional for an additional five to six years.

This page lists a summary of the "Order of Magnitude" costs for upgrading the existing synthetic turf field and track at the high school. Provided are three alternates which the town should consider in making its decision in replacing the field.

- **Alternate #1:** A higher grade of synthetic turf which is a mixture of a monofilament fiber and a slit film fiber reducing the splash of infill during play. This turf will have a face weight and more fiber which will provide a product which will perform well and stand up to the rigors of use. Additionally, it is recommended that a coated sand infill would be used. The coated sand provides an infill system that creates a firm, fast playing surface. The use of coated sand and the current warranties allow for an infill that can be reused for up to two cycles. Lastly, the alternate includes a shock pad. The shock pad provides absorbency within the field structure. This will reduce the overall Gmax in the field. Current warranties include a maximum Gmax for the life of the warranty which ranges between 20-25 years.
- **Alternate #2:** A standard 2" turf with SBR Rubber and Sand Infill. Included in this alternate is a shock pad.
- **Alternate #3:** Includes 5 storage units with concrete pads. An allowance for upgraded athletic field equipment.

TOTAL COSTS FOR MULTI-USE FIELD/TRACK REPLACEMENT

Opinion of Probable Cost - Medfield High School Multi-Use Synthetic Field and Track

Item	Quantity	Unit	Unit Price	Total
Base Bid				
Site Preparation				
Trailer and Temporary Utilities	1	LS	\$ 8,000.00	\$ 8,000.00
Construction Entrances	1	LS	\$ 12,000.00	\$ 12,000.00
Remove & Dispose Synthetic Turf	75000	SF	\$ 0.75	\$ 56,300.00
Silt Sock	1,159	LF	\$ 3.00	\$ 3,500.00
Inlet Protection	2	EA	\$ 300.00	\$ 600.00
				Subtotal \$ 80,400.00
Multi-Use Field				
Concrete Curb	1150	LF	\$ 25.00	\$ 28,750.00
Trench Drain	1150	LF	\$ 50.00	\$ 57,500.00
F&I Field Drainage	75000	SF	\$ 1.75	\$ 131,250.00
F&I Flat Drain	75000	SF	\$ 1.20	\$ 90,000.00
F&I 1" Base Stone	75000	SF	\$ 1.00	\$ 75,000.00
F&I 2" Finishing Stone	75000	SF	\$ 0.60	\$ 45,000.00
Turf Material	75000	SF	\$ 3.50	\$ 262,500.00
Rubber	75000	SF	\$ 0.56	\$ 42,000.00
Sand (E+L)	75000	SF	\$ 0.17	\$ 12,750.00
Football Uprights	1	PR	\$ 15,000.00	\$ 15,000.00
12' Ball Stopper Netting	400	LF	\$ 90.00	\$ 36,000.00
				Subtotal \$ 795,750.00
Synthetic Track Surfacing				
Gravel Base D-Zone	22000	SF	\$ 1.50	\$ 33,000.00
Bituminous Concrete Paving D-Zone	22000	SF	\$ 2.75	\$ 60,500.00
Track Surfacing	22000	SF	\$ 5.00	\$ 110,000.00
Track Re-Surfacing	32000	SF	\$ 1.50	\$ 48,000.00
Line Striping	1	LS	\$ 4,000.00	\$ 4,000.00
				Subtotal \$ 255,500.00
SUBTOTAL OF SITE CONSTRUCTION ITEMS			TOTAL	\$ 1,131,650.00
GENERAL CONDITIONS, BOND, CONTRACTOR OH&P				\$ 113,165.00
CONTINGENCY				\$ 56,582.50
SOFT COSTS				\$ 84,873.75
TOTAL				\$ 1,387,000.00

TOTAL COSTS SAVINGS FOR ALTERNATES FOR MULTI-USE FIELD/TRACK REPLACEMENT

Item	Quantity	Unit	Unit Price	Total
Alternate #1: Option A				
				Base Bid \$ 1,387,000.00
				Deduct SBR Rubber and Sand \$ (336,285.00)
				Upgraded Turf, Coated Sand Infill, and Shock Pad \$ 583,912.50
				Alternate #1 Total \$ 1,635,000.00
Alternate #2: Option B				
				Base Bid \$ 1,387,000.00
				Deduct SBR Rubber and Sand \$ (336,285.00)
				SBR Rubber, Sand, and Shock Pad \$ 472,650.00
				Alternate #2 Total \$ 1,524,000.00
Alternate #3				
				Equipment & Closeout 1 LS \$ 30,000.00 \$ 30,000.00
				Storage Units with Pads 5 EA \$ 12,000.00 \$ 60,000.00
				Alternate #3 Total \$ 90,000.00

