



Synthetic Turf Improvement Projects

City Council Finance Committee, City of Newton

CDM Smith

Glenn Howard, PMP, RLA

Heather Lanza

City Of Newton

**Parks, Recreation &
Culture Department**

Nicole Banks,
Commissioner

Luis Perez Demorizi,
Director

Greg Mellett,
Assistant Director

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**CDM
Smith**



NEWTON
Parks, Recreation & Culture

Turf Field Needs for Both High Schools

NEWTON SOUTH HS TEAMS

FALL:

- 3 GIRLS SOCCER TEAMS (9TH, JV, VARSITY)
- 3 BOYS SOCCER TEAMS (9TH, JV, VARSITY)
- 3 FOOTBALL TEAMS (JV, VARSITY)
- 3 FIELD HOCKEY TEAMS (9TH, JV, VARSITY)
- 2 CROSS COUNTRY TEAMS ON TRACK

WINTER:

- 2 GIRLS TRACK TEAMS (WEATHER PERMITTING)
- 2 BOYS TRACK TEAMS (WEATHER PERMITTING)

SPRING:

- 3 GIRLS LACROSSE TEAMS (ALL LEVELS)
- 3 BOYS LACROSSE TEAMS (ALL LEVELS)
- 2 OUTDOOR TRACK (VARSITY, JV)
- 2 MIDDLE SCHOOL TRACK TEAMS
- 1 UNIFIED TRACK TEAM
- POTENTIAL RUGBY TEAMS

UP TO 11 PRACTICES/GAMES EACH WEEKDAY TO SCHEDULE

NEWTON NORTH HS TEAMS

FALL:

- 3 GIRLS SOCCER TEAMS (9TH, JV, VARSITY)
- 3 BOYS SOCCER TEAMS (9TH, JV, VARSITY)
- 3 FOOTBALL TEAMS (9TH, JV, VARSITY)
- 3 FIELD HOCKEY TEAMS (9TH, JV, VARSITY)
- 2 CROSS COUNTRY TEAMS ON TRACK

WINTER:

- 2 TRACK TEAMS, WEATHER PERMITTING

SPRING:

- 3 GIRLS LACROSSE TEAMS (ALL LEVELS)
- 3 BOYS LACROSSE TEAMS (ALL LEVELS)
- 2 OUTDOOR TRACK (VARSITY, JV)

UP TO 12 PRACTICES/GAMES EACH WEEKDAY TO SCHEDULE

Athletics at HS Fields & Albemarle Sports Complex

Winter:

- Oxford Rd. Neighborhood soccer
- Juventus Boston
- Newton Area Flag Football League Clinic
- Newton Girls Soccer
- Newton Youth Soccer
- Boston Villa Soccer club
- BOH & Day Middle Schools
- General Park and School Field Users

Spring:

- B.A.T. Training
- Buda Youth Frisbee
- J. Lowe Soccer Camps (BC clinic)
- Newton Boys Lacrosse league
- Boston FHC (field hockey clinic)
- Newton Area Flag Football League Clinic
- Eastern Mass Women's Soccer (Suburban Thunder games)
- USA Track and Field New England – outdoor track
- Newton Special Athletes – outdoor track
- Newton Girls Soccer
- Newton Youth Soccer
- Over the Hill Soccer League
- Newton Girls Lacrosse League
- Prime – workouts
- Tanrikulu resident group
- Eastern mass Women's Soccer League
- Newton Little League
- Newton LL Seniors
- Senior Youth Baseball
- Newton Girls Softball
- F.A. Day Middle School Athletics;
- Prime Baseball League
- Babe Ruth Baseball Tryouts
- Adult Cricket
- Extra Innings Baseball Clinic
- BOH & Day Middle Schools
- General Park and School Field Users

Summer:

- Eastern Mass Women's Soccer (Suburban Thunder games)
- BUDA Youth Frisbee
- Boston FHC (field hockey clinic)
- Newton Community Ed summer sports clinics
- REV Lacrosse
- Newton Special Athletes – outdoor track
- Bertuzzi Soccer Training
- NN/NS Football Clinic
- North fall pre-season training and tryouts
- Newton Little League
- Babe Ruth Baseball
- Adult Cricket
- Newton Girls Softball
- Newton Community Ed – baseball
- Boys and Girls Club
- Extra Innings Baseball Clinic
- Mustang Youth Football
- American Legion Baseball
- Prime Baseball
- Juventas Youth Soccer
- BOH & Day Middle Schools
- General Park and School Field Users

Fall:

- Newton Mustangs (youth football)
- Endurance Youth Field Hockey
- Newton Boys Lacrosse League
- Newton Area Flag Football League Clinic
- Over the Hill Soccer league
- Eastern mass Women's Soccer League
- Newton Girls Soccer
- Newton Youth Soccer
- Newton Mustangs Football game
- Newton Little League
- Newton LL Seniors
- Adult Cricket
- Newton Girls Softball
- Mustang Youth Football
- F.A. Day Middle School Athletics
- Extra Innings Baseball Clinic
- Lasell Baseball
- NNHS Baseball captain's practice
- BUDA Youth Frisbee
- BUDA Adult Frisbee
- BOH & Day Middle Schools
- General Park and School Field Users

Synthetic Turf Replacements & Enhancement

- Synthetic turf field replacements at both NSHS Synthetic Fields
 - Winkler Stadium & Brandeis Rd Field
- Track Improvements
 - resurfacing at NSHS



Project History

- Newton South HS synthetic turf fields and track
 - constructed in 2009 (13 yrs. old)
- Synthetic turf typically needs to be replaced about 8 - 10 years after installation.
 - Repairs can be done to extend lifespan an additional 2-3 years
- Rubberized track surfacing typically needs to be resurfaced 8 - 10 years after installation
- Fields are currently at their “end of life cycle”
 - repairs to extend lifespan of carpet are no longer effective

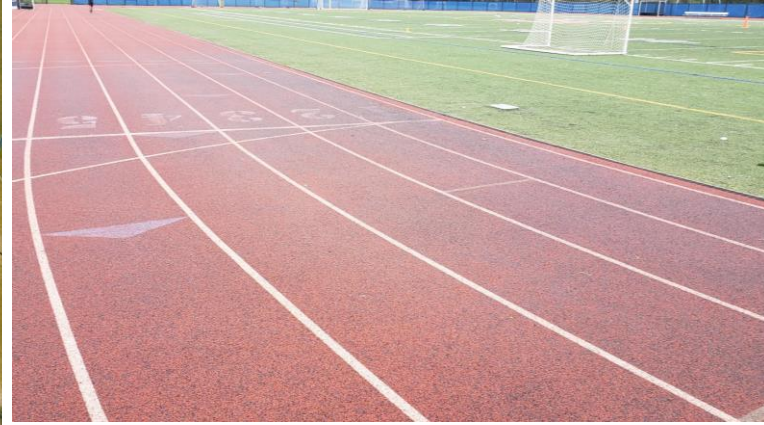
Existing Turf Photos



Existing Turf Photos



Existing Track Photos



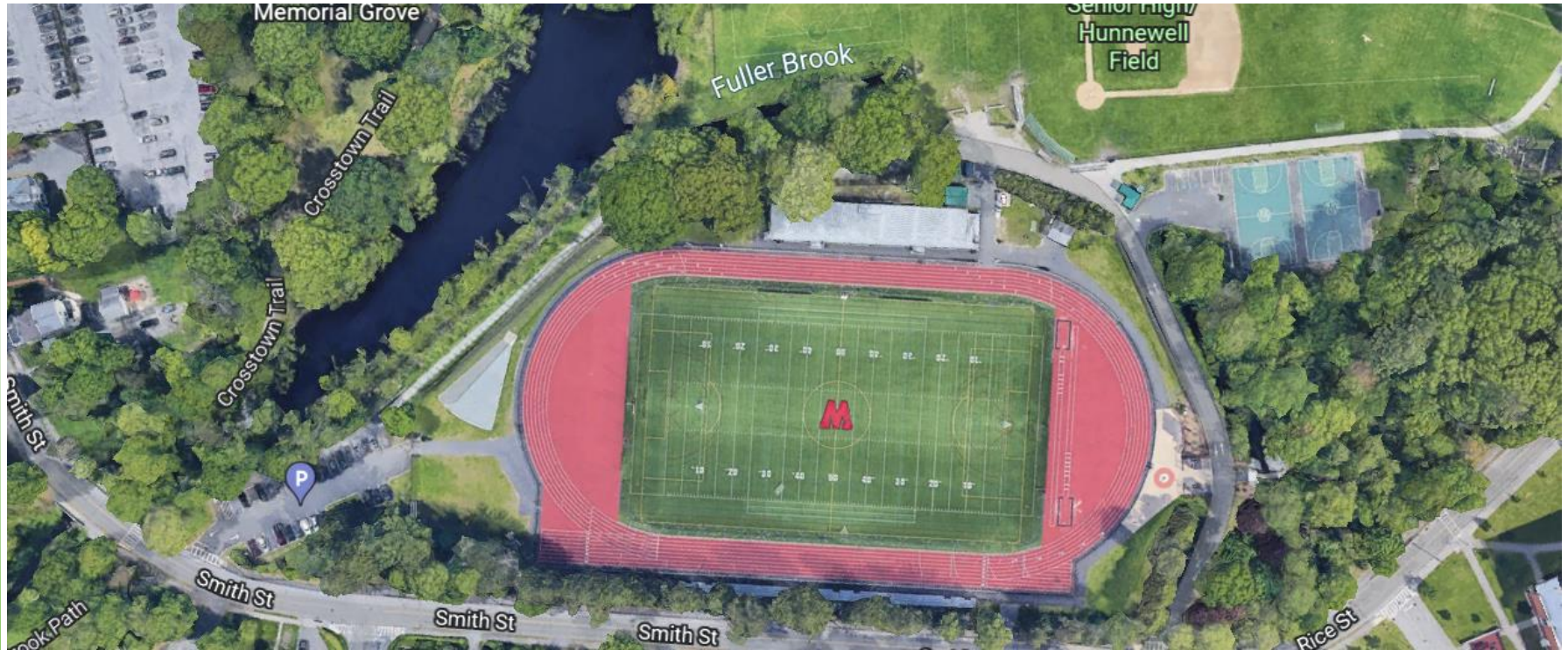
Newton South High School Turf Replacements Project Goals

- Winkler Stadium, Brandeis Road Field and Tiger Stadium synthetic turf field replacement
 - Remove and recycle existing turf carpets
 - Remove and dispose of existing Crumb Rubber infill from recycled tires
 - Replace with better and cleaner turf carpet and infill
- Field collector drains cleaned

Why synthetic turf at the High School?

- Current fields are synthetic turf and provide near year-round use
- Synthetic turf fields are not subject to closures due to intensive use and/or precipitation
- Grass fields for a HS athletic campus is maintenance intensive
 - Irrigation is essential
 - Intensive use creates bare spots and compaction
 - Playability is negatively impacted due to precipitation and/or intensive use
 - Field closures and “resting” time reduce field availability
- Synthetic turf fields equal to approx. 3 grass fields
 - 2-3 acres per field to include any parking, grading and drainage, driveways etc.

Other Turf Fields in the Area



WELLESLEY HIGH SCHOOL HUNNEWELL FIELD, WELLESLEY

Other Turf Fields in the Area



FESSENDEN SCHOOL, NEWTON

Other Turf Fields in the Area



BOSTON COLLEGE, NEWTON/BOSTON

Other Turf Fields in the Area



DALY FIELD, DEPARTMENT OF CONSERVATION AND RECREATION, NEWTON/BOSTON

Other Turf Fields in the Area



UNIVERSITY OF MASSACHUSETTS LOWELL, LOWELL

Synthetic Turf Field Surfaces and Materials Selection Based on a Balanced Approach



Longevity

- Life Span and Warranty
- Quality of Carpet
- Quality of Infill
- Minimal Infill Replenishing



Maintenance

- Annual Maintenance
- Minimal Infill Displacement
- Minimal Large-Scale Repairs
- Reduced field marking labor



Player Safety in Turf

- Consistency in GMAX Rating
- Heat Index
- Toxic Chemical Exposure
- Freezing Conditions
- Consistency in Head Injury Criterion (HIC) Rating



Environmental Impacts

- Minimal Infill Displacement into waterways
- Cleaner Materials
- No need for Watering
- Future End-of-Life Disposal
- PFAS Exposure



Playability

- Playability
- Shock Absorption
- Minimal Disruption to Use
- Extended Seasonal Use
- Retain Newton Athletic Competitive Edge

Recommended Synthetic Turf Field Surfaces and Materials Selection Based on a Balanced Approach

- Turf Carpet:
 - Dual Fiber Turf: Slit Film + Monofilament
 - Fiber height: 2.25"-2.5" to ensure GMAX values
 - Appropriate for: Soccer, Football, Lacrosse, Field Hockey and more!
 - Infill Flyout and Displacement Control
- Infill Mix:
 - TPE + Sand
 - No material Migration
 - Retains consistent GMAX ratings
 - Reduced heat levels compared to Crumb Rubber
 - Minimal annual replenishing required at center field and goals
 - Less susceptible to freezing

Project Budget Funding Request

- Total Estimated construction cost Including track resurfacing: **\$967,000**
- Turf materials at Winkler Stadium: **\$1,146,354**
- Turf materials at Brandeis Road: **\$1,086,553**
- Total Construction Administration: **\$40,000**
- **TOTAL PROJECT COST \$3,240,000**

Project Timeline

- Construction bid: mid to late January 2023
 - Installation of carpet and infill, track resurfacing,
- Material Order (Infill and Carpet): mid-February 2023
- Ground-breaking: After spring 2023 athletic season
- Substantial Completion: End of summer, prior to the start of 2023-2024 athletic pre-season



Thank you for attending!

For more information, please contact us at: Athleticfields@newtonma.gov Or visit us at newtonma.gov/parkprojects

City Of Newton Synthetic Turf Field Ordinance (Ord. No. Z-96, 11-07-11)

Sec. 2-205.

Installation of synthetic in-filled turf athletic fields on city-owned property. The installation of synthetic in-filled turf athletic fields on city-owned property shall use sustainable, recyclable, lead-free, non-toxic products to the maximum extent feasible. The department responsible for the project, in conjunction with the city's chief procurement officer, shall make the determination of the maximum extent feasible for installation in any particular site. The determination shall take into account the best available technology, cost effectiveness, public health and safety, and environmental risks and benefits, and shall consider each proposed installation in light of site conditions, engineering feasibility, commercial availability, public safety, environmental impact and cost. Cost, however, shall not be the overriding factor in determining maximum extent feasible, and a determination of cost shall include consideration of projected life cycle costs including maintenance, repair, replacement, recycling and/or disposal costs over the estimated useful life of the installation.