



## Finance and Programs & Services Committees Report

### City of Newton In City Council

**Tuesday, November 28, 2023**

Finance Committee Present: Councilors Grossman (Chair), Kalis, Gentile, Noel, Oliver, Humphrey, and Malakie

Finance Committee Absent: Councilor Norton

Programs & Services Committee Present: Councilors Krintzman, Noel, Humphrey, Wright, Albright, Baker, Ryan, and Greenberg

Also Present: Councilors Kelley, Leary, and Crossley

City Staff: Perry Rosenfield, Manager of Financial Planning; Connor Roach, Senior Financial Planner; Jonathan Yeo, Chief Operating Officer; Maureen Lemieux, Chief Financial Officer; Liam Hurley, Assistant Superintendent of Newton Public Schools; Nicole Banks, Commissioner of Parks, Recreation and Culture; Luis Perez Demorizi, Director of Parks and Open Space; Steve Curley, Comptroller; Mike Jackson, Athletic Director; Pat Gonzalez; Athletic Director; and Jaclyn Norton, Committee Clerk

For more information regarding this meeting, a video recording can be found at the following link: [11-28-23 Joint Finance and Programs & Services Meeting](#)

### **Referred to Programs and Services and Finance Committees**

- #359-23**     **Appropriate \$2,400,000 for Synthetic Turf Carpet at Newton North High School's Dickinson Field**  
HER HONOR THE MAYOR requesting authorization to appropriate and expend the sum of two-million four-hundred thousand dollars (\$2,400,000) from June 30, 2023 Certified Free Cash (001-3240) for synthetic turf carpet and infill materials, installation, and construction oversight to replace the synthetic turf field at Newton North High School's Dickinson Field and to resurface the perimeter track.
- Action:**     **Finance Approved 5-1-1 (Councilor Malakie Opposed) (Councilor Humphrey Abstained)**  
**Programs & Services Approved 6-1-1 (Councilor Wright Opposed) (Councilor Humphrey Abstained)**

**Note:** Nicole Banks, Commissioner of Parks, Recreation and Culture, joined the Committee and noted that the Department has held meetings and researched synthetic turf vs natural grass to find a solution that can meet the needs of the City. During the attached presentation she also detailed how the number of sports and teams has increased further. Luis Perez Demorizi, Director of Parks and Open Space, presented the benefits that synthetic turf fields can have including an increased athletic season, the ability for sports to be safely overlaid, and the ability to allow more space for higher impact sports. The attached presentation also provides a cost-benefit analysis for natural grass vs synthetic turf along with the spending allocation for premier playing fields.

This proposal would replace the synthetic turf carpet and infill material along with resurfacing the rubberized track surfacing. Mr. Demorizi noted that these are both 13 years old and are recommended to be replaced every 8-10 years. The current turf at Dickinson Field would be recycled by a facility in Pennsylvania into plastic lumber products. This recycling was also done for the turf fields at Newton South High School. The new turf would be comprised of a slit film and monofilament turf carpet along with a 75% TPE and 25% sand mixture for the infill. This project is anticipated to be completed before the fall 2024 athletic pre-season.

The total cost for this project is \$2,400,000 and is broken down into the following components: \$992,607 for construction costs, \$1,282,393 for the turf and infill materials, and \$125,000 for administrative services related to the design and construction.

Multiple Councilors noted concern with this project being funded through free cash while the creation of a synthetic turf field at Albemarle is being funded through ARPA. Jonathan Yeo, Chief Operating Officer noted this turf replacement had been planned to be funded through free cash for years and the creation of a synthetic turf field at Albemarle is a separate project.

Concerns were raised by Councilors regarding the environmental and health factors of synthetic turf. Regarding the presence of PFAS in the selected materials, Heather Lanza from CDM Smith noted that the materials were tested and PFAS were detected in very low amounts under very extreme conditions. These conditions were outside those which the synthetic turf would experience in the environment. Commissioner Banks added that she has been in contact with Linda Walsh, Commissioner of Health and Human Services, who had no safety concerns regarding the results of the testing. A report with the results of the testing will be made available soon according to Ms. Lanza. A Councilor asked staff if the City has done work regarding finding an area for new grass fields. Commissioner Banks stated that this is part of the athletic field strategy of the Department and noted specific plans to increase the grass athletic field space at the Burr school. These expansion plans do however rely on the repair of the synthetic turf field at Newton North along with the new synthetic turf field at Albemarle to handle demand while these expansions to grass athletic fields are being conducted. Multiple Councilors stated that while these trade-offs do exist this proposal is necessary for the maintenance of Dickinson Field and that the turf materials in the proposal are better than the current materials.

Councilor Albright moved approval for the Programs & Services Committee and called the question. Programs & Services Committee members voted 6-1-1 (Councilor Wright Opposed) (Councilor Humphrey Abstaining) on a motion to approve from Councilor Albright. The Finance Committee subsequently voted 5-1-1 (Councilor Malakie Opposed) (Councilor Humphrey Abstained) on a motion to approve from Councilor Kalis.

### **Referred to Programs & Services and Finance Committees**

#### **#155-23(2) Appropriate \$50,000 to a Parks, Recreation & Culture Account**

HER HONOR THE MAYOR requesting authorization to appropriate and expend the sum of fifty thousand dollars (\$50,000) from acct # 5503R602-590001 B.A.A. Marathon to a Parks, Recreation & Culture Account to fund a "Heartbreak Hill" banner.

**Action:** **Finance Denied 7-0**

**Programs & Services Approved 5-2-1 (Councilors Humphrey and Noel Opposed) (Councilor Wright Abstained)**

**Note:** Commissioner Banks noted that the Parks, Recreation & Culture Department has been working to display a banner on Commonwealth Ave during the Boston Marathon. This banner is located at the top of Heartbreak Hill and has been held up for the past two years by being tied to two bucket trucks from the Urban Forestry division of the Department. The proposal would replace a light pole located at 360 Commonwealth Ave and install a new light pole on the interior side of the street. These poles would be equipped with eye bolts for cross-street banners along with attachment points for side banners. Commissioner Banks also stated that a similar light pole design can be seen at the intersection of Commonwealth Ave and Beaumont. The attached presentation contains a diagram of the poles along with photos of the proposed location.

Regarding banner use, the side banners would be treated similarly to other side banners and incorporated into public art initiatives. The cross-street banner would have a maximum use of 6 weeks per banner posting with 4 months of aggregate posting during the pilot year and be used only for City messaging.

Multiple Councilors raised support for this revised design that has the banner attached to light poles with one Councilor noting how this proposal is consistent with the City's Banner Policy. Councilors also described how this proposal will allow a current program to operate in a better way and how it will promote pride for Newton. Other Councilors voiced concern with the cost of this program with one Councilor stating that they were unsure if this would be a cost savings compared to the current method of the banner being tied to two bucket trucks. Councilors also proposed that these funds could have been allocated to playground improvements as has been done historically along with costs incurred by hosting the marathon. Mr. Yeo responded that

\$90,000 of this funding had been approved by the Council earlier this year for playground improvements.

Programs & Services Committee members voted 5-2-1 (Councilors Humphrey and Noel Opposed) (Councilor Wright Abstained) on a motion to approve from Councilor Albright. The Finance Committee voted 7-0 on a motion to deny from Councilor Oliver.

The meeting adjourned at 8:01 pm.

**Respectfully Submitted,**

**Rebecca Walker Grossman, Chair of Finance Committee**

**Josh Krintzman, Chair of Programs & Services Committee**



## Improving Quality, Quantity + Maintenance of Athletic Fields



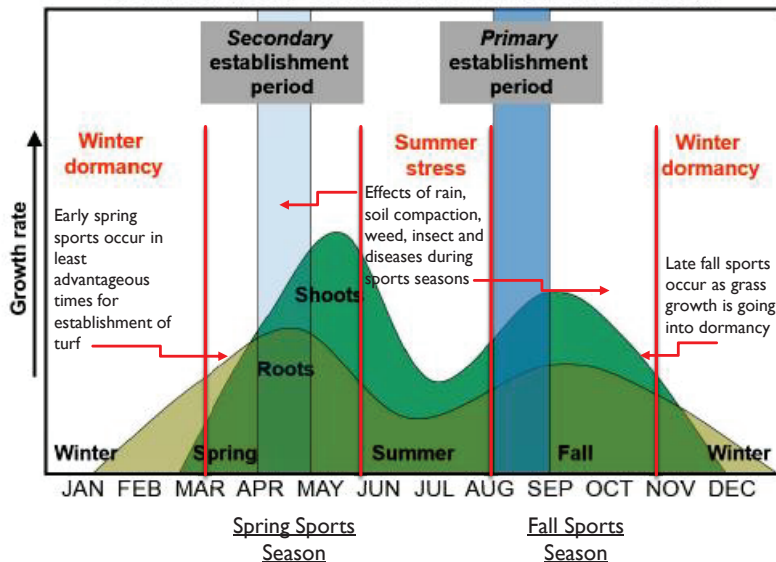
# RECTANGULAR ATHLETIC FIELD SEASON

	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEP	OCT	NOV	DEC
<b>Synthetic Turf</b>												
<b>Natural Turf (Grass)</b>												

Light green are for times of the year where New England weather limits use

## THE SCIENCE OF NATURAL GRASS IN NEW ENGLAND - SPRING AND FALL SPORTS

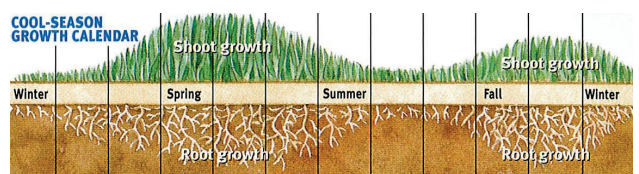
### Cool-Season Turf Establishment Periods



Early spring sports occur early in the growth cycle of natural turf and fall sports occur late into the fall growth cycle.

Shoots grow best with 65°-75° air temp

Roots grow best with 55°-65° soil temp



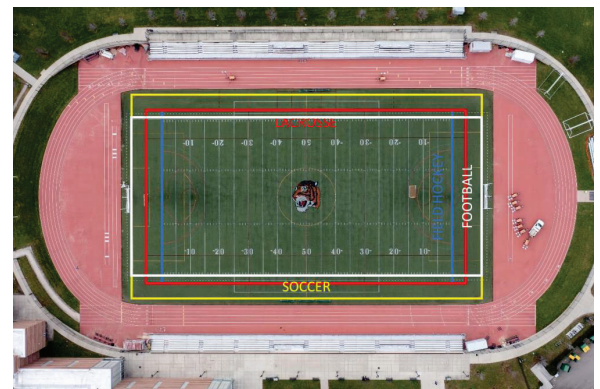
The natural growth cycle of grass turf

## GRASS FIELD USAGE AND AVAILABILITY

- Fields unavailable until mid April, depending on weather
- Fields unavailable during or after rain events.
- Extensive use creates compaction, poor drainage, worn goalmouths, and weed proliferation
- Does not allow for sports to be safely overlaid
- No rectangular field space to offer new groups during spring and fall seasons. (Except Sunday evening)
- Converting to a turf field minimizes the chaotic impact of weather, deteriorating field conditions, and need to reschedule games.
- Synthetic turf conversion adds space (without sprawling) to prioritize higher impact sports and more players can share the field.

## WHY ARE SYNTHETIC TURF FIELDS SO PREVALENT?

- Spatial issues (can handle 3 times the use of a grass field)
- Cannot be overused
- Can handle multiple sport overlays
- Predictable, dependable availability and playability
- Can be lighted without creating compacted, unsafe play conditions (almost 500 hours of addl. play at NSHS stadium)
- Competitive equity, between schools, between communities
- Help address limited hours to accommodate all sport needs
- Allow for more centralized play
- Allow for earlier season practice/play



## Turf and lights at the High Schools

- # of sports has increased over time (e.g., lacrosse)
- # of teams: NSHS, NNHS have more teams because they have Varsity, JV, and Fresh. Sports
- Configured to host most all rectangular sports
- Maximize # of players during practices
- Less travel needs for students to fields
- Onsite Amenities include lockers, rest rooms, shower/changing area
- Athletic trainer onsite after school
- Onsite Parking

## TURF FIELD NEEDS FOR NEWTON NORTH HIGH SCHOOL

### NEWTON NORTH HS TEAMS

#### **FALL:**

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

#### **WINTER:**

- 2 TRACK TEAMS, WEATHER PERMITTING

#### **SPRING:**

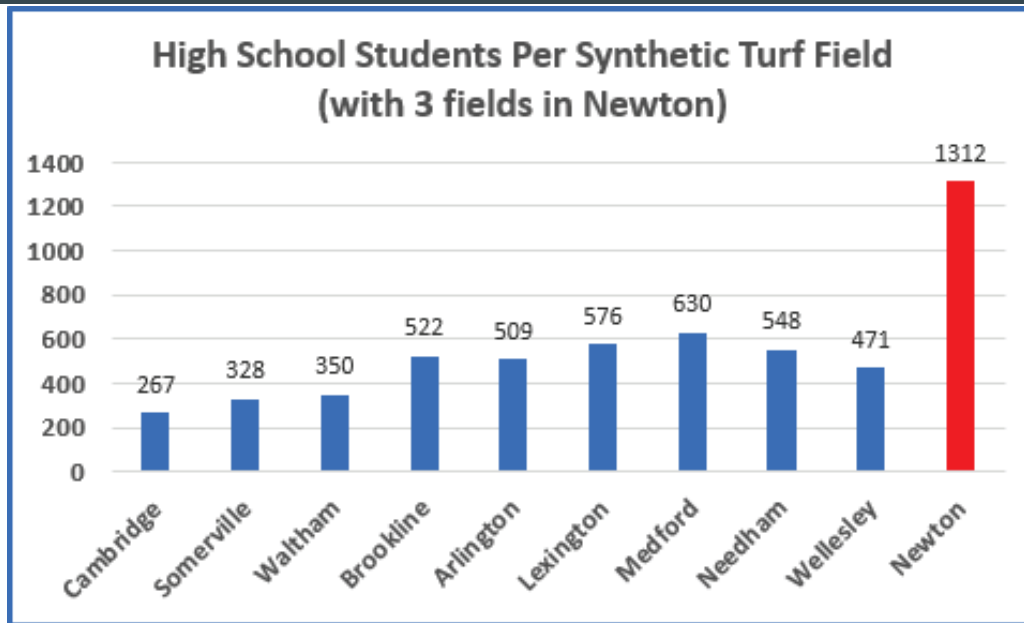
- 3 GIRLS LACROSSE TEAMS (ALL LEVELS)
- 3 BOYS LACROSSE TEAMS (ALL LEVELS)
- 2 OUTDOOR TRACK (VARSITY, JV)

UP TO 12 PRACTICES/GAMES EACH WEEKDAY TO SCHEDULE





## COMPARISON WITH OUR NEIGHBORS



## RECENT TURF PROJECTS AND DIFFERENT APPROACHES

### New or newly replaced synthetic turf field

- Belmont (adding 2)
- Cambridge (has 9, adding another)
- Lexington
- Needham
- Boston
- Westwood
- Chelmsford (adding 1)
- Wellesley
- Natick
- Brookline (replacing 1; adding 1)
- Watertown
- Boston College

### Outside of Rte. 128 w/restrictions

- Concord: Ban allows turf for school fields
  - Wayland: Ban allows turf for school fields
  - Springfield: Some organic fields: Has turf field for school use
  - Marblehead: Organic grass: Has turf field for school
  - UMass Lowell: 2 turf newly resurfaced fields
  - Sharon: Moratorium expired
- ❖ Unaware of any community converting a turf field back to grass in our region

## MAKING ROOM FOR MORE GRASS FIELDS

- Current and upcoming expansions
  - Burr School: Expansion of usable grass field space from ½ acre to 5 Acres
  - McGrath: Reconfiguration of fields to improve access to rectangular fields
  - Albemarle: Reconfiguration to eliminate field overlay so regulation fields can be used concurrently
  - Forte Park Relighting: New sports lighting to increase playability of existing grass fields



## EXPANSION OF FIELD AREAS WITH SCHOOL PROJECTS



Mason-Rice Recess field @ Newton Centre Playground

- Smaller playing field expansion at school lands (new Lincoln-Eliot school, Horace Mann, Franklin)
- Considerations for expansion potential:
  - Smaller fields help in fall with practices but don't meet demands for full size fields
  - Asking schools to move recess around premier playing field spaces is undesirable
  - Used by sport groups in fall out of necessity

## COST-BENEFIT

### Maintaining a synthetic turf

- \$2M +/- , \$1.2M every 10 years
- Other Considerations/impacts
  - Changes nature of open space area
  - Waste/reuse/recycle
- Need to resurface every 10 years
- All the benefits cited previously

### Land acquisition and development (Grass)

- Land (5 acres) with houses? Require soil mitigation?
  - Tree clearing \$\$
  - Eminent domain taking private property/houses \$\$\$\$
  - Removing land from other potential uses: housing
- Other considerations/impacts
  - Parking, Lighting, Traffic generated to new areas
  - Increased water use, fertilizer, IPM, mowing
- Requires additional staff (wages/benefits)

## ANNUAL MAINTENANCE COSTS

### Natural Turf

Additional grass fields one more staff person is needed

\$10K for grass management

\$5K for mowing

\$2K for leaf removal and irrigation system repairs

\$17K+ for a premier field (+ \$50K if on city water)

### Synthetic Turf

\$2,250/field maintenance

- 2 staff at 2 hours per field twice monthly; seven months (56hrs)

\$5K/field Contractual costs - Approximately \$5,000 per field per year

- Deep grooming, deep clean, Gmax test/report

\$1,500 year eight (end of warranty)

\$1,200 for infield mix

\$ 0 water costs

\$10K annually per field (3x more availability/use than a grass field)

## OTHER FACTORS:

### Grass

- Irrigation (water costs and system maintenance), fertilizer\* (phosphorous and nitrogen), thatching, seeding\*, aeration, IPM (weed control and grub control), mowing, lining, dog and bird waste

\* increases watering and mowing requirements

### Synthetic Turf

- Heat: less use in summer, grass fields available if needed.
- Watering/spraying: nothing is required or done
- Reuse/downcycling

## PREMIER PLAYING FIELD SPENDING ALLOCATION

- Note: Does not include water, mowing, or personnel costs

	fy23	aeration	slice seeding	fertilizer	topdressing	lime	ipm	site total	site acreage	per acre cost
albemarle	\$ 4,350.00	\$ 13,738.75	\$ 12,426.50	\$ 6,162.50	\$ -	\$ 2,320.00	\$ 38,997.75	7.25	\$ 5,379.00	
bowen	\$ 1,200.00	\$ 5,685.00	\$ 5,142.00	\$ 2,550.00	\$ -	\$ -	\$ 14,577.00	3	\$ 4,859.00	
burr park	\$ 600.00	\$ 3,855.00	\$ 2,792.25	\$ 1,275.00	\$ -	\$ -	\$ 8,522.25	1.5	\$ 5,681.50	
cabot	\$ 700.00	\$ 3,316.25	\$ 2,999.50	\$ 1,487.50	\$ -	\$ -	\$ 8,503.25	1.75	\$ 4,859.00	
forte park	\$ 1,200.00	\$ 3,790.00	\$ 3,428.00	\$ 1,700.00	\$ -	\$ -	\$ 10,118.00	2	\$ 5,059.00	
lincoln warren	\$ 1,500.00	\$ 4,737.50	\$ 4,285.00	\$ 2,125.00	\$ -	\$ 800.00	\$ 13,447.50	2.5	\$ 5,379.00	
lower falls cc	\$ 1,000.00	\$ 4,737.50	\$ 4,285.00	\$ 2,125.00	\$ -	\$ 800.00	\$ 12,947.50	2.5	\$ 5,179.00	
lyons field	\$ 300.00	\$ 1,421.25	\$ 1,285.50	\$ 637.50	\$ -	\$ -	\$ 3,644.25	0.75	\$ 4,859.00	
nahanton park	\$ 800.00	\$ 3,790.00	\$ 3,428.00	\$ 1,700.00	\$ -	\$ 640.00	\$ 10,358.00	2	\$ 5,179.00	
nep - jay gordon	\$ 300.00	\$ 1,421.25	\$ 1,285.50	\$ 637.50	\$ -	\$ -	\$ 3,644.25	0.75	\$ 4,859.00	
new cold springs	\$ 1,200.00	\$ 5,685.00	\$ 5,142.00	\$ 2,550.00	\$ -	\$ -	\$ 14,577.00	3	\$ 4,859.00	
newton highlands	\$ 1,650.00	\$ 7,067.50	\$ 5,930.38	\$ 2,337.50	\$ -	\$ -	\$ 16,985.38	2.75	\$ 6,176.50	
nnhs	\$ 2,400.00	\$ 10,280.00	\$ 7,446.00	\$ 5,100.00	\$ -	\$ -	\$ 25,226.00	4	\$ 6,305.50	
nshs	\$ 2,400.00	\$ 10,280.00	\$ 7,446.00	\$ 3,400.00	\$ -	\$ -	\$ 23,526.00	4	\$ 5,881.50	
oak hill	\$ 2,800.00	\$ 13,810.00	\$ 12,678.00	\$ 6,800.00	\$ -	\$ -	\$ 36,088.00	8	\$ 4,511.00	
richardson	\$ 600.00	\$ 2,842.50	\$ 2,571.00	\$ 1,275.00	\$ -	\$ -	\$ 7,288.50	1.5	\$ 4,859.00	
warren house	\$ 3,300.00	\$ 10,422.50	\$ 9,427.00	\$ 4,675.00	\$ -	\$ -	\$ 27,824.50	5.5	\$ 5,059.00	
weeks field	\$ 3,600.00	\$ 11,370.00	\$ 10,284.00	\$ 5,100.00	\$ -	\$ -	\$ 30,354.00	6	\$ 5,059.00	
cultural practice total	\$ 29,900.00	\$ 118,250.00	\$ 102,281.63	\$ 51,637.50	\$ -	\$ 4,560.00	\$ 306,629.13	58.75	\$ 5,222.44	
number of sites maintained this year - 18	per acre range	0-3K	3.1-5K	5.1-8K	8.1-10K	>10K				
		0	10	8	0	0	total fy cost	total acreage	avg per acre cost	
		0%	56%	44%	0%	0%				

## RECYCLING OUR OLD TURF FIELDS

### Recycling Facility:

APW Enterprises

191 S. Kiem St

Pottstown, Pennsylvania 19464

### Cost:

- Cost to remove and recycle old turf is Approx. \$43,000 per field

### Recycling procedures and status:

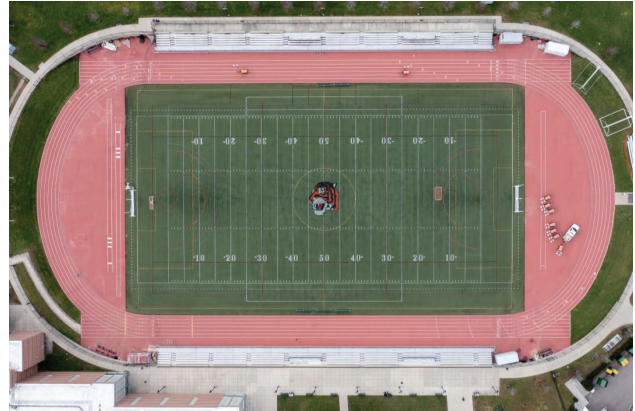
- The rolls of old turf have the infill removed, dried, cleaned, sized, separated, and bagged to be reused for new synthetic turf fields.
- The carpet is re-rolled, shipped to a recycling plant, also in Pennsylvania, and converted into new plastic lumber products for benches, decks, and boardwalks, among other things.
- NSHS turf fields have been processed as stated above and portions of the carpet have been sent to the plant to be converted into recycled plastic lumber

## HISTORY OF NNHS SYNTHETIC TURF FIELD

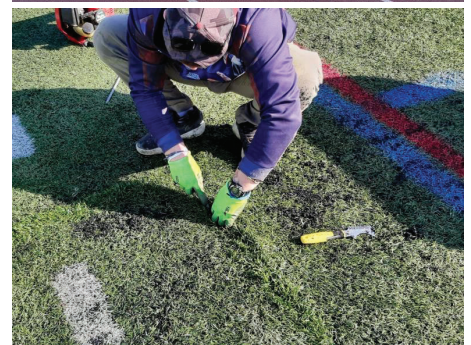
- Newton North HS synthetic turf fields and track
  - constructed in 2010 (13 yrs. old)
- Synthetic turf typically needs to be replaced about 8 - 10 years after installation.
  - Repairs can be done to extend lifespan an additional 2-3 years
- Rubberized track surfacing typically needs to be resurfaced 8 - 10 years after installation
- Fields are currently at their “end of life cycle”
  - repairs to extend lifespan of carpet are no longer effective

## SYNTHETIC TURF REPLACEMENTS & ENHANCEMENT

- Synthetic turf field replacements at NNHS Tiger Stadium Field
- Track Resurfacing



## EXISTING TURF AND TRACK CONDITIONS



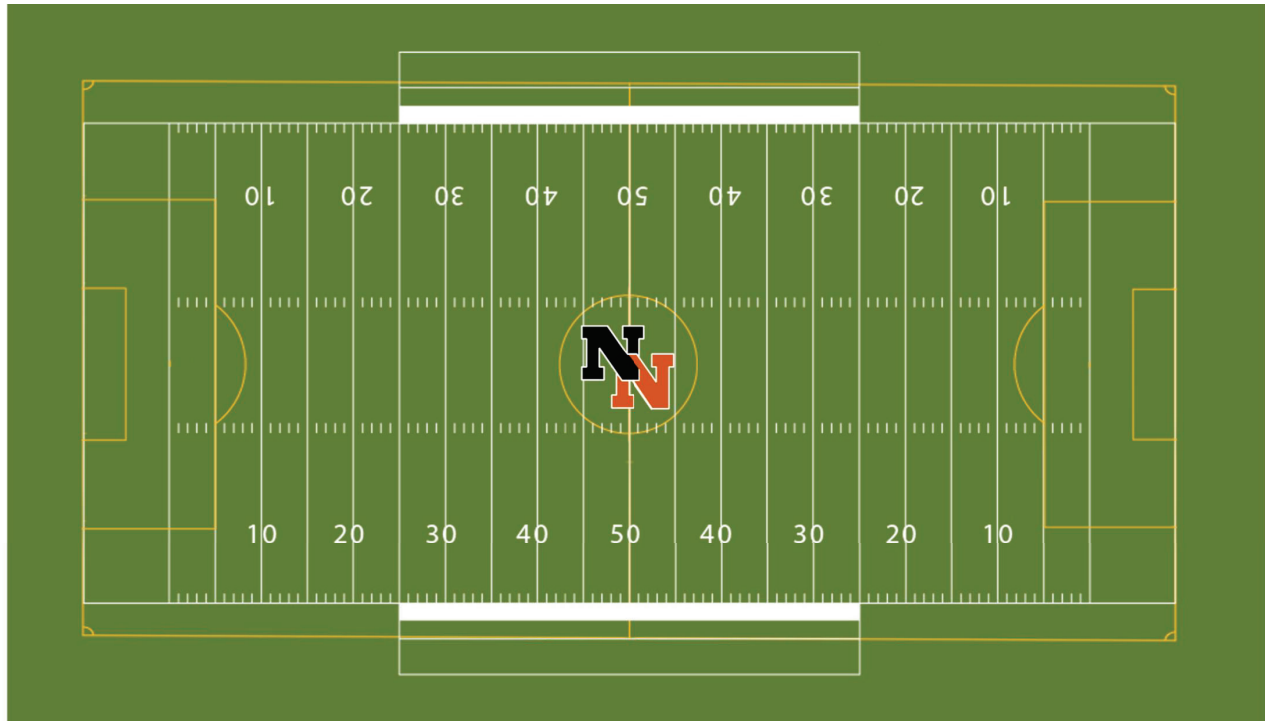
## NEWTON NORTH HIGH SCHOOL TURF & TRACK PROJECT SCOPE

- Tiger Stadium synthetic turf field replacement
  - Remove and recycle existing turf carpet
    - Same facility as NSHS Turf
      - AWS Enterprises, Pottstown Pennsylvania
  - Remove and reuse existing Crumb Rubber infill
    - Same facility as NSHS Turf
      - AWS Enterprises, Pottstown Pennsylvania
  - Replace with better and cleaner turf carpet and infill
- Field collector drains cleaned
- Track resurfaced

## SYNTHETIC TURF FIELD SURFACES AND MATERIALS SELECTION BASED ON A BALANCED APPROACH

- Turf Carpet:
  - Dual Fiber Turf: Slit Film + Monofilament
    - Fiber height: 2.25"
    - Appropriate for multipurpose sports: Soccer, Football, Lacrosse, Field Hockey and more!
    - Factory tufted field markings, fewer seams
- Infill Mix:
  - 75% TPE + 25% Sand
    - Reduced material Migration
    - Retains consistent GMAX ratings
    - Reduced heat levels as compared to Crumb Rubber
    - Minimal annual replenishing required at center field and goals
    - Less susceptible to freezing

## NEW TIGER STADIUM TURF LAYOUT



## #359-23 PROJECT BUDGET FUNDING REQUEST

- Total Estimated construction cost Incl. track resurfacing and recycling: **\$992,607**
- Turf and infill materials at Tiger Stadium: **\$1,282,393**
- Total Design and Construction administration services: **\$125,000**
- TOTAL PROJECT COST: **\$2,400,000**



## PROJECT TIMELINE

- Material Order (Infill and Carpet): December 2023
- Construction bid: February 2024
  - Installation of carpet and infill, track resurfacing
- Ground-breaking: After spring 2024 athletic season
- Reopening: In time for fall '24 athletic pre-season

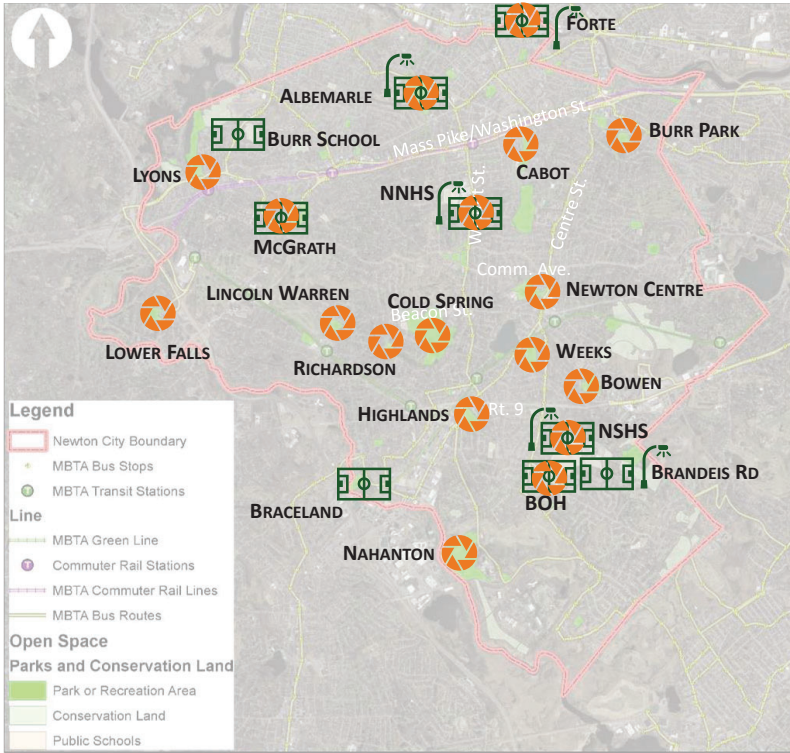
## Questions and Discussion

For additional questions and input please contact: [athleticfields@newtonma.gov](mailto:athleticfields@newtonma.gov)

For Presentation, Chat, recordings and meeting recordings, please go to [www.newtonma.gov/fieldprojects](http://www.newtonma.gov/fieldprojects)



Meet Sweet Adaline!



Current Projects + Status		
Project	Construction Status	Project Type
Albemarle Playground Phase 1 Improvements	60% Construction Docs	Parks/Athletic Fields
Albemarle Athletic Fields	On Going	Turf Management
Burr School Field Improvements	90% Construction Docs	Athletic Fields
Burr Park Fields	On Going	Turf Management
Bobby Braceland/ Upper Falls Playground	TBD	Parks/Athletic Fields
Brown/Oak Hill Field Improvements	TBD	Athletic Fields
Brown/Oak Hill Fields	On Going	Turf Management
Bowen Athletic Fields	On Going	Turf management
Cabot Park Fields	On Going	Turf Management
Cold Spring Park Fields	On Going	Turf Management
Forte Park Field and Sports Lighting Improvements	January -- 2024	Athletic Fields
Forte Park Fields	On Going	Turf Management
Highlands Athletic Fields	On Going	Turf Management
Lincoln-Warren Athletic Fields	On Going	Turf Management
Lower Falls Athletic Fields	On Going	Turf Management
Lyons Field	On Going	Turf Management
McGrath Park Field Improvements	90% Construction Docs	Parks/Athletic Fields
Mcgrath Athletic Fields	On Going	Turf Management
Nahanton Athletic Fields	On Going	Turf Management
Newton Centre Athletic Fields	On Going	Turf Management
Newton South Brandeis Rd. (Lion Drive) Field Sports Lighting	Completed 2022	Sports Lighting
Newton South Stadium Sports Lighting	Completed 2020	Sports Lighting
Newton South High School Turf & Track Improvements	Completed 2023	Athletic Fields
Newton South Athletic Fields	On Going	Turf Management
Newton North Tiger Stadium Sports Lighting	Completed 2023	Sports Lighting
Newton North Tiger Stadium Turf & Track Improvements	Summer 2024	Athletic Fields
Newton North Athletic Fields	On Going	Turf Management
Richardson Athletic Fields	On Going	Turf Management
Weeks Athletic Fields	On Going	Turf Management

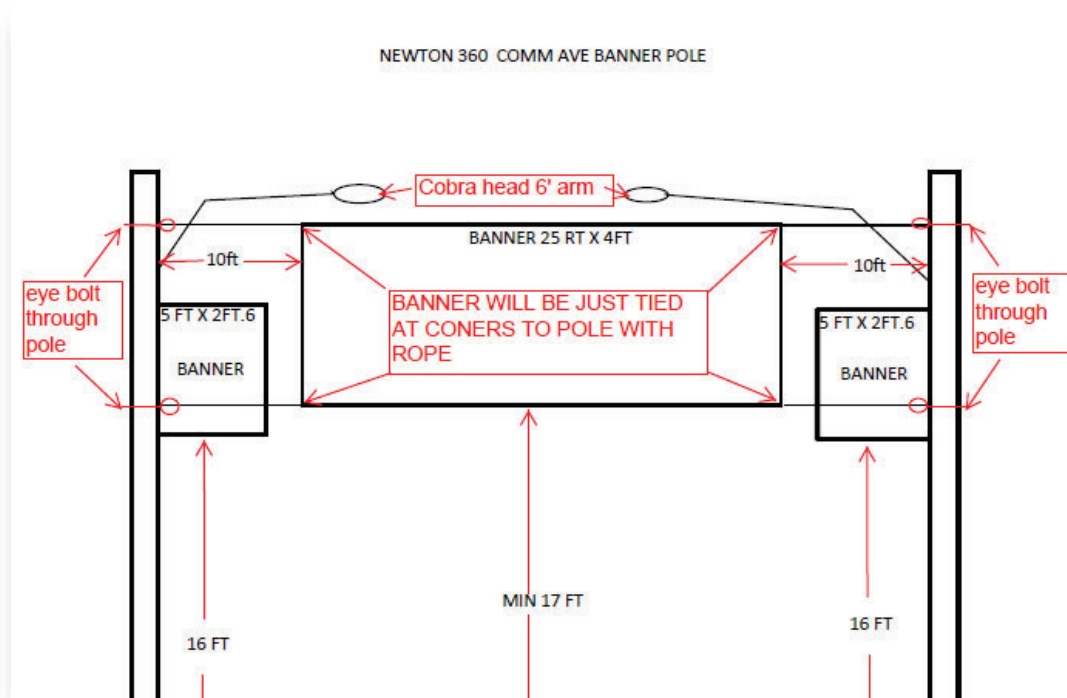
Improving Quality and Quantity at 20 Athletic field sites

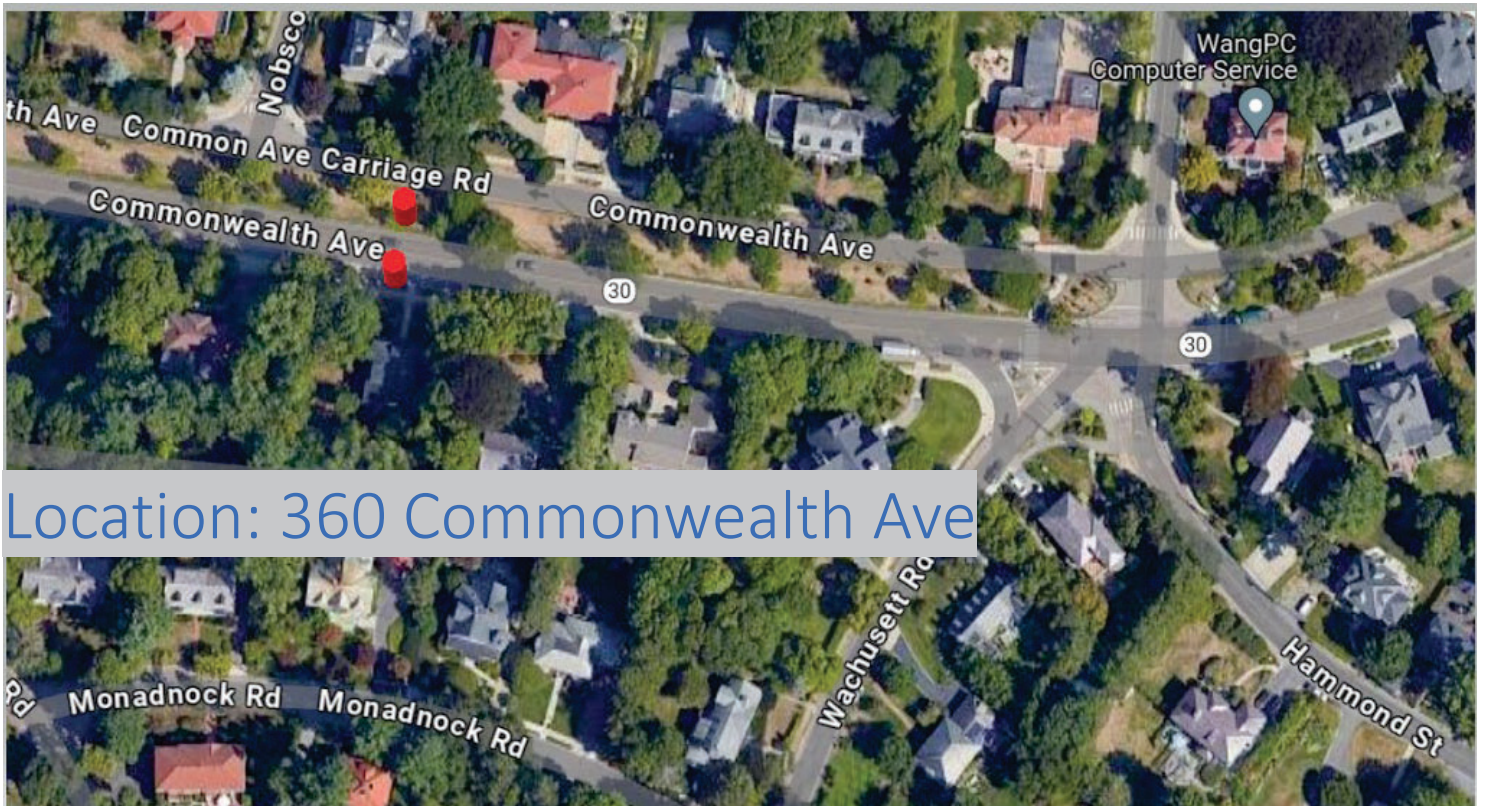
- 18 sites with Increased Grass Turf Management
- 11 Capital Projects

Newton Parks, Recreation and Culture Department  
**Capital Improvements Plan**

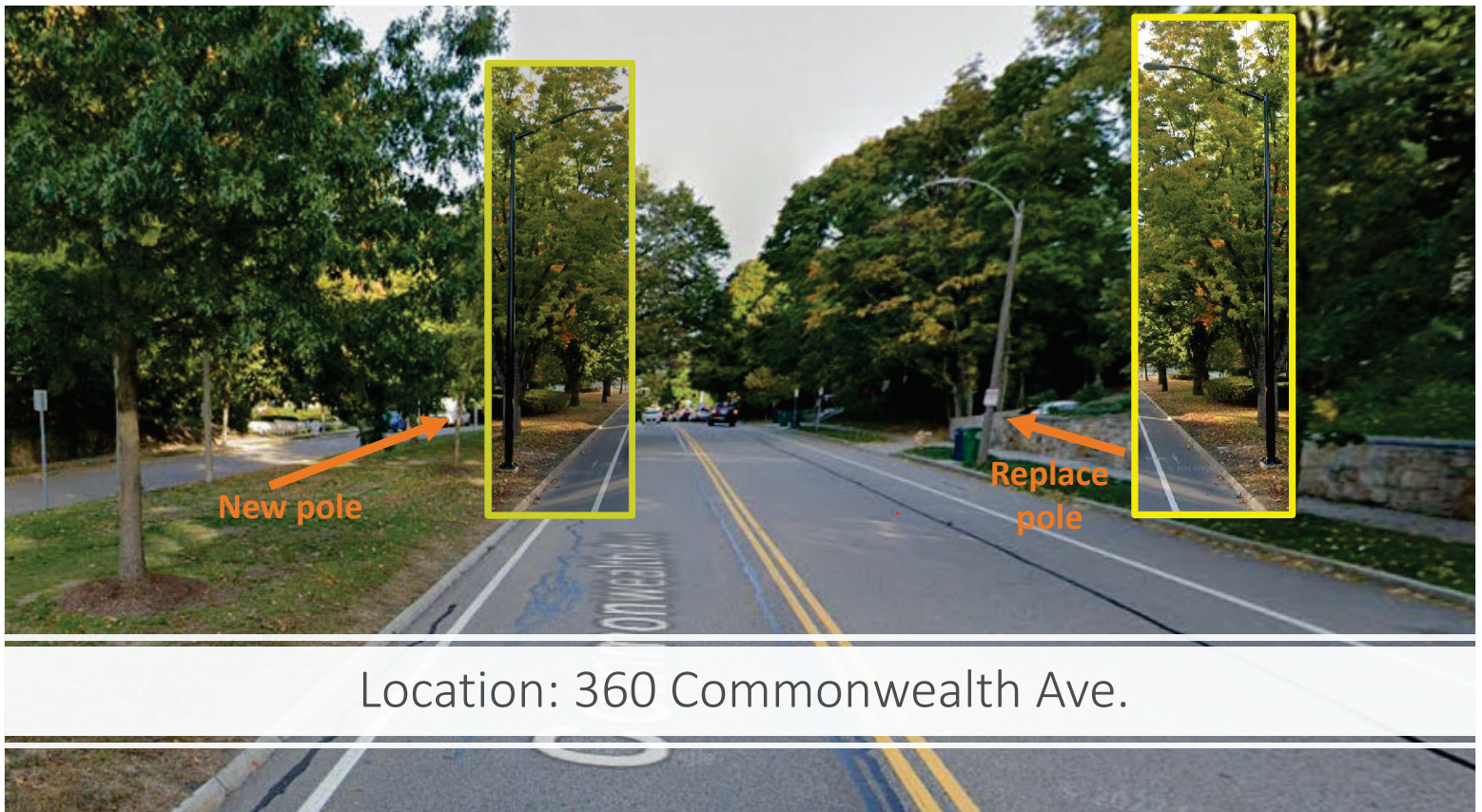


# Commonwealth Ave. Boston Marathon Banner





Location: 360 Commonwealth Ave



Location: 360 Commonwealth Ave.

New light pole (Comm. Ave at Beaumont)  
Black aluminum  
Light fixture (LED)  
Brackets for banners



## Banner Use

Bracket banners incorporated into public art initiative

Cross-street banner:

- 6 weeks max per banner posting
- 4 months aggregate posting over the course of the pilot year
- City-messaging only
- Holiday, event, celebrating culture, arts, community
- Messaging on both front and back