



Newton High School Turf and Track Improvements Project

City of Newton

CDM Smith

Michael Dodson, PMP, RLA
Glenn Howard, PMP, RLA
Heather Lanza, MSc

City Of Newton Parks, Recreation & Culture Department

Luis Perez Demorizi,
Director
Greg Mellett,
Assistant Director

October 24, 2022

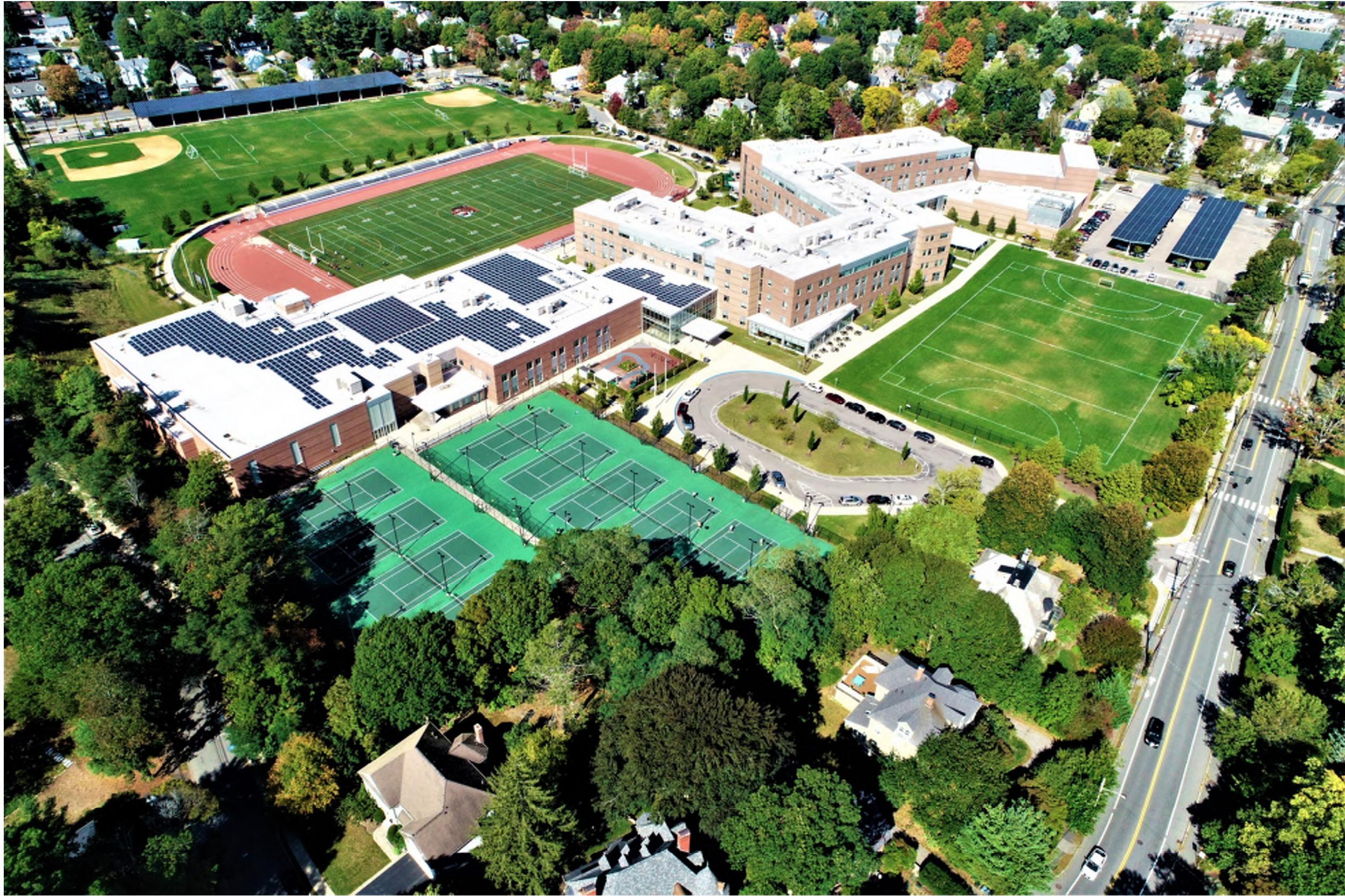
**CDM
Smith**

Project Goals

- Synthetic turf field replacement
- Winkler Stadium synthetic turf field replacement and track surfacing replacement
- Evaluation of track and field events at Winkler Stadium and Brandeis Road Field
- Field collector drains cleaned
- Assume no new drainage improvements
- Removal and disposal of existing synthetic turf
- Turf to be recycled







Project History

- Newton South HS synthetic turf fields and track constructed in 2009
- Newton North HS synthetic turf fields and track constructed in 2010
- Synthetic turf typically needs to be replaced about 8 - 10 years after installation
- Rubberized track surfacing typically needs to be replaced about 8 - 10 years after installation
- Fields are at their “end of life cycle” and currently have safety issues

Existing Photos



Existing Photos



Project Status

- Turf manufacturer interviews included Shaw Sports, AstroTurf, and Field Turf
- Review of synthetic turf options for multi-purpose sports fields
- Review of infill material options including organic and non-organic materials.

Infill Material Comparison

	Product	Pros	Cons
Non-Organic	SBR (Crumb Rubber Recycled Tires)	Most widely used Durability / Longevity No irrigation required Reduced migration of material Reduced maintenance	Elevated heat levels Environmental / health concerns
	EPDM (Post Industrial Recycled Rubber)	Durability / Longevity No irrigation required Reduced migration of material Reduced maintenance	Elevated heat levels
	EPDM (Virgin Rubber)	Durability / Longevity No irrigation required Reduced migration of material Reduced maintenance	Elevated heat levels Increased cost
	TPE (Thermo Plastic Elastomer)	Reduced heat levels No irrigation required Reduced maintenance	Higher cost over crumb rubber Manufactured product
Organic	Cork and Coconut Mixture	Sustainably harvested Reduced heat levels	Increased maintenance (replenish) Reduced seasonal play (freezing) Increased cost Irrigation recommended
	Cork	Sustainably harvested Reduced heat levels	Increased maintenance (replenish) Reduced seasonal play (freezing) Increased cost Irrigation recommended Increased migration of material
	Southern Pine	Sustainably harvested Reduced heat levels	Increased maintenance (replenish) Increased cost
	Acrylic Coated Sand	Reduced heat levels	Increased maintenance (replenish) Increased cost

Per- and Poly-fluoroalkyl Substances (PFAS)

- What are PFAS?
 - Large class of man-made chemicals that contain fluorine
- Why is PFAS in the news?
 - Studies suggest potential for adverse health effects at high levels of exposure
- Where are PFAS found?
 - PFAS are used in many consumer products
 - Slow to break down in the environment



<https://riversideca.gov/sites/default/files/press/img/RPU%20Products%20Containing%20PFAS.JPG>



Interviews with leading turf companies

Next Steps

- Finalize Material Selection
- Provide an update on materials selection on Nov 2nd
- Permit the work at Newton South HS with the Newton Conservation Commission
- Request construction funding for both HS projects



Thank you for attending!