

# ADAMS & CRIPE

## Maplewood Township Committee

### Why We Do Not Support Artificial Turf for Maplewood

#### Environmental impacts

Plastic turf makes the environment hotter, more polluted, and more flood prone.

An artificial turf field:

- Requires the removal of acres of soil and trees,
- Creates a 'heat island' hotter than asphalt, making recreational space unavailable at the hottest time of the year,
- Releases gas like methane (even in the dark), as well as other air pollutants,
- Requires regular treatment with chemicals to remove weeds, mold, fungus and animal waste,
- Contains PFAS, a class of 'forever' chemicals which require environmental remediation even in small quantities,
- Disperses 6000-7000 pounds/year of microplastics into the environment,
- Is constructed on an impervious base which prevents rainwater from soaking into the ground and replenishing drinking water aquifers,
- Has an internal drainage system designed to shed water quickly like a parking lot; these huge volumes can overwhelm municipal stormwater systems and cause flooding,
- Wears out in 10 years, adding 450,000 pounds of unrecyclable plastic and used tire waste to the waste stream.

#### Health impacts

Artificial turf is not a safer playing environment than natural grass.

- Players on artificial turf fields experience higher rates of heat injury, lower extremity injury and concussion than on natural grass.
- Players on artificial turf are exposed to toxic dust and gases as field components abrade and heat up.

#### Fiscal impact

Including installation, maintenance, and disposal (but excluding borrowing costs), a single artificial turf field costs \$200,000-\$300,000 per year.

- Installation: Underhill Field (1.3 acres) lasted 12 years and just cost \$2.5 million to replace. The next replacement cycle will cost more as it is usual after 20 years to re do the stone base and drainage system.
- Maintenance: About \$15,000/acre annually. Basic contracts to perform some maintenance operations on a single artificial turf field cost \$5000-8000/field/year in our area. Crumb rubber replenishment (\$1/pound, or \$6000/year), the cost to repair rips in the plastic rug, and the cost of snow removal (which requires specialized equipment) are extra, as is insurance (fire, flooding, vandalism).
- Disposal: Over \$200,000 for field removal, transportation, and dumping in a landfill.

## **Latest News on Artificial Turf**

### **Governments Banning Artificial Turf Due to Health and Environmental Impacts**

**NY State Gov. Hochul has passed a law that bans sales of artificial turf with PFAS after Dec. 31, 2026.** This would ban the sale of any existing artificial turf since the industry says it has not been able to manufacture turf without PFAS. Thus, any attempt to install artificial turf today is an attempt to ignore not only scientists and physicians who oppose artificial turf because it poses a threat to human health and the environment, but the official judgment of the NY State government which reached the same conclusion over an extended period of time."

See Article 27 Title 33 of the Environmental Conservation Law <https://dec.ny.gov/environmental-protection/recycling-composting/carpet>

The **European Union ban on crumb rubber**, which TC was negotiating to install in DeHart. This means that if the Anti-Turf Referendum had failed, the TC would have installed a product banned by the EU because of its threat to human health and the environment

[https://ec.europa.eu/commission/presscorner/detail/en/ip\\_23\\_4581](https://ec.europa.eu/commission/presscorner/detail/en/ip_23_4581)

Also, see the excellent **Philadelphia Inquirer editorial** of March 21, 2024 which called for a ban on artificial turf in Philadelphia parks. The editorial was the result of several years of investigation and reporting by the Inquirer.

<https://www.inquirer.com/opinion/editorials/turf-ban-pfas-chemicals-cancer-fdr-park-sports-20240321.html>

Finally, note that the Federal Environmental Protection Agency is starting to regulate PFAS (which ALL brands of artificial turf contain) and has just published the list of hundreds of water systems across the country containing significant amounts of PFAS.

## **Natural Grass – It Can Work!**

Natural grass playing fields are the better alternative. **With the right kind of field maintenance**, natural grass can withstand high use, while also preserving a cooler, greener, safer community space for all. There is no need to dig up and discard existing grass fields, which can be renovated through appropriate maintenance techniques.

Communities across the US including in New Jersey have used a **soil-based approach to grass maintenance** resulting in playing fields that:

- Can support 1000-2000 hours per year of athletic play,
- Rarely require cancellation for rain or for field maintenance,
- Are affordable, costing \$5000 – 8000 /acre/year to maintain (including labor).

### **A soil-based approach**

- Focuses on soil **biology** (not just soil chemistry or particle size),
- Recognizes that it is the soil ecosystem that creates good drainage and good plant nutrition,
- Recognizes that when in balance, the 'soil food web' can (for example) produce up to 200 pounds of nitrogen (fertilizer) per acre per year, retrieve trace minerals plants need on demand, and continually create air space in soil, allowing rain to soak in and plant roots to grow,
- Aims to optimize conditions so soil organisms can do their jobs,
- Takes specific action to counteract the stress of athletic play, through regular aeration, overseeding, and application of appropriate nutrients,
- Differs from conventional field maintenance, which relies on chemicals to treat **symptoms** of poor soil health (weeds, disease, stunted growth) without correcting underlying causes,
- Costs LESS over time as the soil ecosystem strengthens (less need for supplemental nitrogen, less need for grass seed as canopy thickens).

### **Dehart Field**

Poor playing conditions at Dehart have been caused by

- Poor field drainage resulting from extreme compaction of the subsoil during installation. Rainwater has never been able to drain adequately.
- Failure to follow consistently the soil-based maintenance protocol required to achieve successful, high-use fields such as described above

**\$100,000 has now been allocated to create an improved grass field, addressing deep compaction and improving soil ecology.**