[Date]

[Addressee]

Subject: Human Health and Environmental Impacts of Synthetic Turf

[Salutation],

I understand that a synthetic turf installation is being considered for [Insert location]. I want to share significant concerns I have with respect to the human health and environmental impacts of synthetic turf and why a natural grass field is a better choice for our community.

[Insert presence of local waterways, parks, biomes that may be impacted]

The findings presented below are based on in-depth research that an independent research group, Healthy Building Network (HBN), conducted in 2020 by reviewing synthetic turf product literature, patents, peer-reviewed articles, and government documents analyzing the chemical content present in synthetic turf and infill. This research synthesized the chemicals and materials typically found in different turf and infill products, including synthetic turf with tire-derived crumb rubber, other synthetic infills, and organic infills. The research was used to generate the HBN Turf Hazard Spectrum, a tool that communities can use to select playing fields that minimize the use of chemicals harmful to human health and the environment. It can be accessed freely online at http://bit.ly/HBNTurfSpectrum.

HBN's webinar on athletic turf translates their findings for a non-scientific audience and may be viewed at https://vimeo.com/473234739.

While the links above describe HBN's guidance in detail, I want to highlight some key points.

1. **HBN recommends choosing natural grass over synthetic turf**. Synthetic turf carpet, infill, and shock pads can contain hazardous chemicals. Hazardous chemicals may also be used during the production, installation, and maintenance of these fields. Natural grass fields avoid the introduction of hazardous chemicals into the environment via the turf carpet and infill, and prevent microplastic pollution resulting from synthetic turf, a growing environmental concern. High quality fields can be achieved on natural grass without the use of synthetic pesticides or fertilizers.
2. **Every part of synthetic turf contains chemicals of concern.**
    a. Organic infills are an improvement over tire-derived crumb rubber, which contains mutagens, carcinogens, and reproductive and developmental toxicants, but the grass, backing, shockpad, and underlayments also contain hazardous chemicals and have environmental impacts.
    b. The "grass" or turf carpet can also contain chemicals of concern. Heavy metals, phthalates, and per- and polyfluorinated alkyl substances (PFAS) have been measured in turf fibers.[1] The turf carpet can also contain undisclosed, hazardous antimicrobials, or require regular application of hazardous chemicals as part of the maintenance procedures.[2]
    c. Synthetic turf often requires a shock pad underneath the carpet to increase its shock attenuation. These pads vary in composition but can introduce a number of chemicals of concern. HBN recommends avoiding the use of in-situ pads or prefabricated pads made with crumb rubber (see concerns noted above) or polyvinyl chloride (PVC).

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[1] "Potential Health and Environmental Effects Linked to Artificial Turf Systems - Final Report." Norwegian Building Research Institute, October 9, 2004. https://www.knvb.nl/downloads/bestand/7065/noorwegen-2004--potential-health-and-environmental-effects-linked-to-artificial-turf-systems; Cheng, Hefa, and Martin Reinhard. "Field, Pilot, and Laboratory Studies for the Assessment of Water Quality Impacts of Artificial Turf." Santa Clara Valley Water District, June 2010. https://www.valleywater.org/sites/default/files/Water%20Use%20Impacts%20of%20Artificial%20Turf.pdf; Massachusetts 1.Toxics Use Reduction Institute. "Per- and Poly-Fluoroalkyl Substances (PFAS) in Artificial Turf Carpet." Accessed September 11, 2020. https://www.turi.org/TURI_Publications/TURI_Chemical_Fact_Sheets/PFAS_in_Artificial_Turf_Carpet

[2] Massachusetts Toxics Use Reduction Institute, "Natural Grass Playing Field Case Study: Marblehead, MA" July 2019, https://www.turi.org/TURI_Publications/Case_Studies/Organic_Grass_Playing_Fields/Natural_Grass_Playing_Field_Case_Study_Marblehead_MA

3. **Artificial turf currently is not recyclable and cannot be recycled.**. Roughly 265 million square feet of synthetic turf and 777 million pounds of infill are currently in use in North America.[3] Current evidence suggests that no synthetic turf in the United States has ever been recycled, nor are there any current facilities that can recycle turf.[4] Lack of turf recycling could mean significant impacts when these installed turf fields reach their end of life.
4. **Artificial turf can require more use of potable water than natural turf.** In water scarce regions, synthetic turf can seem like a logical solution to decrease water use. However, potable water is required to cool and clean synthetic turf fields, while reclaimed water can be used on natural turf. [5]

I hope this information is helpful to you when making this important and impactful decision. Given the data provided, I am confident that a natural grass field is a healthier and safer choice for our community. Optional text: If a decision is made to use artificial turf, then efforts should be made to minimize the use of products and components that introduce additional hazardous chemicals to the community and the environment. I would be happy to answer any additional questions you may have.

Sincerely,

[Name/contact information]

[3] STMA. "Synthetic Turf Council Releases 2020 Synthetic Turf Market Report for North America." Accessed September 9, 2020. https://www.stma.org/news/synthetic-turf-council-releases-2020-synthetic-turf-market-report-for-north-america/.
Safe Healthy Playing Fields "Artificial Turf 'recycling' A decades long deception' https://youtu.be/9Wndy6dLJGk

[4] A risk assessment was not completed as a part of the review. See National Toxicology Program. "Synthetic Turf/Recycled Tire Crumb Rubber." Accessed September 11, 2020. https://ntp.niehs.nih.gov/whatwestudy/topics/syntheticturf/index.html.
Safe Healthy Playing Fields "Artificial Turf 'recycling' A decades long deception' https://youtu.be/9Wndy6dLJGk

[5] https://beachcomber.news/content/soccer-field-tap-drinkable-water-artificial-turf