

ADVISORY COMMITTEE'S RECOMMENDATION

Note: This report is a “master report” which covers Warrant Article 23 and Warrant Article 24.

Recommendations:

By a vote of 22-0-2, the Advisory Committee recommends **Favorable Action** on **Article 23**, as amended.

By a vote of 15-7-1 the Advisory Committee recommends **Referral** of the subject matter of **Article 24** to the Athletic Field Surface Task Force, appointed pursuant to Article 23 at the 2022 Annual Town Meeting, with the understanding that maintenance or replacement of synthetic/artificial turf that has been installed and is existing prior to the adoption of this resolution, including, but not limited to, the synthetic/artificial turf fields at Skyline Park and at Soule Recreation, is permitted.

<p>Executive Summary:</p>	<p>Article 23, as amended by the Advisory Committee, calls for the Select Board, in consultation with the Park and Recreation Commission and the Advisory Council on Public Health, to appoint an Athletic Field Surface Task Force consisting of individuals with diverse backgrounds in such areas as athletics, recreation, risk assessment, public health, toxicology, children’s socio-emotional development, etc. to develop decision guidelines relative to installing artificial turf or natural grass on the town’s athletic fields and to notify Town Meeting members of a required public hearing and of the results of its work, to be completed by October 15, 2022.</p> <p>By a vote of 22-0-2, the Advisory Committee recommends Favorable Action on Article 23, as amended</p> <p>Article 24, as filed and subsequently amended by the petitioner (see Appendix at the end of this report), amends the Town’s By-Laws to create a three-year moratorium on the installation of synthetic turf on any Town property, but allows the replacement of the existing synthetic turf fields at Skyline Park and Soule Recreation. This would effectively bar the installation of a synthetic turf field at the new Driscoll School as is currently planned. After June 1, 2025, any new synthetic turf field would have to be free of organic fluorine, and after June 1, 2030, any replacement synthetic turf field would have to be free of organic fluorine.</p> <p>By a vote of 15-7-1, the Advisory Committee recommends referral of Article 24 to the Task Force identified in Article 23.</p>
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<p>Voting Yes will...</p>	<p>Voting Yes on Article 23, as amended by the Advisory Committee, will result in the Select Board, in consultation with the Park and Recreation Commission and the Advisory Council on Public Health (ACPH), appointing a Task Force to develop decision guidelines relative to installing artificial turf or natural grass on the town’s athletic fields and to notify Town Meeting members of a public hearing and of the results of its work, to be completed by October 15, 2022.</p> <p>Voting Yes to refer Article 24 would prevent the imposition of Article 24’s moratorium on the installation of new artificial turf fields, including the one proposed for the new Driscoll School, and would refer the subject matter of the article to the Athletic Field Surface Task Force.</p> <p>Voting Yes on the Petitioner’s motion under Article 24 would permit the replacement of the artificial turf fields at Skyline Park and Soule Recreation but would impose a three-year moratorium (until June 1, 2025) on the installation of new artificial turf fields, including the one currently planned for the new Driscoll School. Voting Yes would effectively require that the new Driscoll School field to be natural grass, consequently delaying the field’s opening for a year</p>
<p>Voting No will...</p>	<p>Voting No on Article 23, as amended, would result in the Park and Recreation Commission having no guidelines generated by an expert panel to assist them in developing a policy by October 15, 2022 regarding the use of artificial turf versus natural grass for athletic fields.</p> <p>Voting No to refer Article 24 and No on the Petitioner’s motion under Article 24 would result in no study of artificial turf and natural grass fields by the Task Force described in Article 23 and no restrictions on installing artificial turf on any Town-owned properties, including Driscoll.</p>

<p>Financial impact</p>	<p>Artificial turf is more expensive than natural grass sod to purchase but less expensive to maintain. An analysis done for Harry Downes Field comparing the per-hour-of-use capital and maintenance costs for a natural grass field against those of an artificial field over a 20-year cycle concluded that: (a) the costs of the grass field (\$73/hour) would be slightly higher than those of the artificial field (\$64/hour) if the grass field were not closed for rest periods; and (b) would be about three times higher for the grass field (\$198/hour) than those of the artificial field (\$64/hour) if the grass field were closed for the recommended rest periods in order to preserve the quality of the field.</p> <p>Under current policy, if fields are not being used by the Brookline Public Schools or by the Recreation Department, they may be rented out to private user groups. Artificial turf fields can be rented out for a longer period during the year and under more varied conditions (i.e. after a rain storm), thus increasing potential revenue. The season for renting out grass fields is shorter and the weather conditions during which the grass fields can be rented are more limited.</p>
<p>Enforcement impact</p>	<p>Not Significant</p>
<p>Legal implications</p>	<p>Not Significant</p>

Introduction

Article 23, as amended by the Advisory Committee, asks the Select Board, in consultation with the Park and Recreation Commission and the Advisory Council on Public Health, to form an Athletic Field Surface Task Force, composed of individuals who offer expertise in and perspective on such matters as athletics, recreation, education, environment/climate, toxicology, risk assessment, capital planning, public health, and the socio-emotional and physical development of children. The group would be tasked with developing decision guidelines relative to installing artificial turf or natural grass on the Town’s athletic fields and subsequently notifying Town Meeting members of any public hearings and of the results of its work, to be completed by October 15, 2022, the deadline proposed by the petitioner. With the information generated by the Task Force, the Park and Recreation Commission would be able to develop a policy on the use of artificial turf or grass for athletic fields.

As originally proposed by the petitioner, the Park and Recreation Commission would appoint the Athletic Field Surface Task Force and request that it draft a policy regarding the uses of artificial turf and natural grass for athletic fields, after which the Park and Recreation Commission would

hold a public hearing and finalize the policy. As stated above, the deadline for completing this work would be October 15, 2022.

Article 24, as amended by the petitioners, proposes a by-law with the following provisions:

- 1) Brookline shall not install artificial turf on any town-owned property for three years except to maintain or replace existing artificial turf fields.
- 2) Beginning June 1, 2025, any new artificial turf field installed on town property must be free of organic fluorine as confirmed by the supplier and by tests conducted by an independent laboratory.
- 3) Beginning June 1, 2030, any replacement artificial turf field installed on town property must be free of organic fluorine as confirmed by the supplier and by tests conducted by an independent laboratory.

Evaluation Methodology/Research

- Memorandum from Alexandra Vecchio, Director of Parks and Open Space and Erin Gallentine, DPW Commissioner relative to Articles 23 and 24
<https://www.brooklinema.gov/DocumentCenter/View/30426/Article-23-and-24-Memorandum-03-30-2022?bidId=>
- Brookline’s Athletic Field Deficit Challenge and FAQs
(<https://www.brooklinema.gov/DocumentCenter/View/30427/Athletic-Playing-Field-Deficit--Solution-Summary-and-FAQs-03-30-2022>)
- “Intense Summer Heat Fluxes in Artificial Turf Harm People and Environment”. C.Y. Jim, *Landscape and Urban Planning*, 157 (2017) 561-576.
- Park School Flyer on Turf (<https://www.brooklinema.gov/DocumentCenter/View/30475/Park-School-Flyer-on-Turf>)
- MAPC Brookline Vulnerability Assessment (https://www.brooklinema.gov/DocumentCenter/View/30744/MAPC_Brookline_Vulnerability_Assess_2017-12_p24-25)
- October 19, 2021 Solid Waste Advisory Committee memo on Artificial Turf Field (<https://www.brooklinema.gov/DocumentCenter/View/30688/SWAC-Memo-on-Artificial-Turf-10-19-21>)
- April 6, 2022 Letter from Kayla Bennett, Director, Science Policy, Public Employees for Environmental Responsibility
(<https://www.brooklinema.gov/DocumentCenter/View/30530/BrooklineTurfLtrFinal>)
- Letter from the co-chairs of the Select Board’s Climate Action Committee re Cypress Playground Improvements/Synthetic Turf, October 23, 2017
<https://www.brooklinema.gov/DocumentCenter/View/30748/Ltr-P-R-Cypress-Field-SCAC-2017-10-23>
- Multiple emails from members of the public
- Town Meeting’s Vote on Special Appropriation 71 under Article 7 of the 2018 Town Meeting prohibited installing “plastic turf” on Cypress Field.

Discussion

The Advisory Committee held a meeting to discuss, deliberate, and vote on Warrant Articles 23 and 24 on April 14th at 7:00 pm.

https://brooklinema.zoomgov.com/rec/share/fV4Yn_D0SZnbd5Bm7v11iOHU_PsxDZV6a4FrnDO3OWp4zHWOQ11j-Z5_MIQ3HFj.8lKQyQZbE0eXRWd8
Access Passcode: Q.T^=Wh2

Article 23, filed in response to Article 24, recognizes that deciding whether to install artificial turf or natural grass surfaces on athletic fields requires technical expertise from across a variety of disciplines. It also requires balancing the demand for outdoor athletic opportunities against the potential health risks resulting from exposure to certain chemicals and the potential environmental impacts of an artificial surface, including the creation of heat islands, and the challenge to recycle or repurpose artificial turf that has outlived its useful life. Therefore in response to the need for the public in general and Town Meeting members in particular to have access to relevant and accurate information to consider the issue of artificial turf versus natural grass fields, the article, as amended by the Advisory Committee, presents a resolution by which Town Meeting would urge the Select Board, in consultation with the Park and Recreation Commission and the Advisory Council on Public Health, to appoint a Task Force on Athletic Field Surfaces.

The Task Force would comprise individuals with specified relevant expertise and experience. The Advisory Committee further recommends that the Task Force be charged with developing decision guidelines (a “decision-making tree” or rubric of pros and cons for synthetic turf versus natural grass) to help inform any policy developed by the Park and Recreation Commission that addresses materials to be used for athletic field surfaces. The Advisory Committee has adopted the completion date of October 15, 2022 as originally proposed by petitioner. While the Committee recognizes that this is an ambitious timeline, it also notes that the role of the Task Force will not be to undertake new research or to develop policies, but rather to review and synthesize existing relevant information into guidelines that can be considered by the Park and Recreation Commission. Moreover, it notes that the timeline may be critical to the necessary final decision on the Driscoll School field.

As noted previously, the original article stipulated that the Park and Recreation Commission be the appointing authority and that the Task Force produce an Athletic Field Surface Policy identifying the circumstances under which synthetic turf or natural grass should be utilized for athletic fields. The Advisory Committee, however, believes that the appointing authority should have a Town-wide perspective and access to a wide range of networks, including those with expertise relating to the concerns relevant to this issue. Consequently its recommended motion requests that the Select Board, in consultation with the Commission and Advisory Council on Public Health, make Task Force appointments. The Advisory Committee also believes that the responsibility for developing the policy for athletic field surfaces, as with other policies pertaining to recreational activities and recreational facilities, should rest with the Park and Recreation Commission.

Article 24 was filed to amend the Town's General By-Laws by adding a new By-Law that, in addition to imposing a three-year moratorium on the creation of additional artificial turf fields, also provides a timeframe that would prohibit any new artificial turf from being used unless it is composed of materials that meet specific standards. Two tests are required in the proposed By-Law to meet those standards; one is broad in nature, while the other is more precise but limited, at the present time, to testing for only 12 out of more than 12,000 chemicals. Under the proposed By-Law, the testing requirement for replacing existing artificial turf with new artificial turf becomes effective on June 1, 2030, but for new artificial turf fields, the effective date is June 1, 2025.

There are currently four artificial turf fields in the town: Skyline Park, Soule Recreation, Ridley School, and Harry Downes Field. Article 24, as amended by the petitioner, would permit new artificial turf to replace existing artificial turf at Skyline Park (a project scheduled for FY 23) and at Soule Recreation (a project scheduled for FY 27). It would prohibit the currently planned installation of artificial turf on the field at the new Driscoll School. The cost of changing the current plan and designing and installing a grass field is not fully known as this time; an initial analysis, however, reflects a neutral project budget impact but a significant delay in the opening of the field.

The petitioners note that the presence of toxic chemicals in materials that are used to manufacture synthetic turf are of concern and that the relatively recent identification of PFAS in artificial turf makes that concern even greater. In addition, once artificial turf can no longer be played upon, its disposal becomes problematic because there are currently few ways that it can be recycled or repurposed. Furthermore, the Green House Gas emissions associated with the manufacture and installation of synthetic turf contribute to climate change, as do the documented urban heat islands that synthetic turf fields create in sunshine. Although acknowledging additional costs to the Town both in terms of maintaining grass fields (see "Financial Impact" above) and renting fields elsewhere to meet the demand for athletic fields, Article 24's petitioners and supporters emphasize that the environmental costs of artificial turf fields are far more significant.

The petitioners have noted that Article 24 is supported by the Advisory Council on Public Health and the Solid Waste Advisory Committee and further note that the continuing use of artificial turf contradicts the Town's Zero Waste Framework and Town Meeting's Declaration of a Climate Change Emergency. In addition, in response to the argument that artificial turf has already been approved and budgeted for the field at the new Driscoll School, the petitioners point out that PFAS information was not available to the Driscoll Building Committee when it reviewed and approved those plans.

The Advisory Committee recognizes the validity of the issues raised by Article 24's petitioners and supporters. At the same time, it notes the arguments that studies regarding adverse health effects from PFAs focus on such things as their presence in drinking water rather than in playing

fields. It also recognizes the legitimacy of the arguments made by its opponents who note the scarcity of playing fields in general, the demands on the fields that do exist, the restricted use of grass fields due to weather, the inability of grass to withstand constant use and the need to “rest” grass fields to maintain the grass, the resulting loss of recreational opportunities on grass fields due to weather and maintenance needs, and the very real need of people - and children in particular - to have access to outdoor recreational activities, exercise, and social interaction with their peers through informal and formal athletic opportunities. Based on the majority of emails received and comments made at the Capital Subcommittee’s hearings, the Advisory Committee finds that many members of the Driscoll School Community favor an artificial turf field, and moreover do not want an additional, unnecessary delay in the availability of a field after the new Driscoll School opens.

The Advisory Committee further notes that for the near future, Article 24 would have no practical impact on plans for athletic fields in the town were it not for the current plans for an artificial turf field at the Driscoll School and the time pressure that its installation schedule imposes. If Town Meeting approves Article 24 as proposed, the replacement of the artificial turf at Skyline Park and Soule Recreation could proceed, but an artificial turf field at Driscoll would be prohibited without the Park and Recreation Commission or Town Meeting having the benefit of the analysis and guidance to be generated by the Task Force.

A majority of Advisory Committee members recommends referral of Article 24 to the Task Force identified in Article 23 with the belief that this panel, with its diverse perspectives and expertise, will be helpful in pinpointing the critical factors that should be considered in developing a policy that seeks to strike a balance between the current conflicting goals expressed by supporters and opponents of Article 24.

Recommendations

ARTICLE 23

By a vote of 22-0-2, the Advisory Committee recommends Favorable Action on the following motion under Article 23, as amended: (Additions are underlined and bolded, and deletions appear in stricken text.)

VOTED:

WHEREAS Town Meeting is responsible for funding capital and operating budgets to install and maintain Brookline’s athletic fields; and

WHEREAS the Park and Recreation Commission recently oversaw the completion of the 2020 Athletic Fields Needs Assessment and Master and the Parks, Open Space and Recreation 2020 Strategic Master Plan Update, which concluded “The quantity and size of Brookline’s athletic

fields, especially multi-use turf fields, continue to not meet the current demand or the Level of Service standards for Brookline;” and

WHEREAS Brookline has recently installed a synthetic turf athletic field at the Ridley School, a grass turf athletic field at the Cypress Street Playground, and is planning to install a synthetic turf athletic field at the new Driscoll School where building construction has already begun; and

WHEREAS Brookline is implementing several best practices when procuring synthetic turf athletic field, including (a) procuring only organic infill for its synthetic turf athletic fields to avoid potential health risks associated with crumb rubber and to dramatically reduce “heat island” effects; (b) developing additional technical specifications in its Request for Proposals, such as requiring manufacturers to disclose whether their products contain certain chemicals of concern; and, requiring vendors to indicate whether and how they will recycle or repurpose turf components when Brookline uninstalls them; and

WHEREAS some concerns have been expressed about the environmental, safety, and health impacts of synthetic turf and of grass turf, and that installing grass turf in locations with high usage quickly transforms the surface to compacted dirt, reducing its safety, availability, and aesthetics; and

WHEREAS the decision between installing grass turf or synthetic turf at a particular athletic field entails many complicated tradeoffs, including: (1) how much time the field can be used each week to prevent compaction that can impede safety, (2) how much time the field will be unavailable for use during and following wet weather, (3) how much time the field will be unavailable for use each spring and fall for “rest periods”, (4) how consistently and for how long the playing surface will retain its original desirable properties given anticipated usage intensity (e.g., soft grass versus compacted dirt), (5) equity concerns associated with accessing alternative field space—often beyond walking range, necessitating driving—when field closures occur due to wet weather or seasonal rest periods, or if program constraints are imposed to preserve field surface conditions; (6) risk of user injury, (7) risk of user safety associated with possible heat island effects, (8) possible health risks associated with chemical exposure, (9) end-of-life disposition, (10) installation costs; (11) maintenance costs, (12) replacement or revitalization frequency, **(13) climate change mitigation** and adaptation and perhaps additional criteria; and

WHEREAS the Brookline Park and Recreation Commission lacks a formal policy guiding the circumstances under which it will recommend that athletic fields should be grass turf or synthetic turf; and

WHEREAS a nuanced understanding of the many factors involved should inform such a policy, diverse expertise should be brought to bear to consider their tradeoffs, consult with the wide array of ~~effected~~**affected** stakeholders, and be developed through a public meeting process, and Town Meeting itself does not possess all the required expertise or the time to sufficiently consider the tradeoffs to develop an appropriate policy for Brookline.

NOW THEREFORE BE IT RESOLVED THAT:

Town Meeting ~~urges the Parks and Recreation Commission to~~ **requests the Select Board, in consultation with the Park and Recreation Commission and the Advisory Council on Public Health, to take the following actions:**

- (1) **Understanding that time is of the essence, that by June 30, 2022,** A appoint an Athletic Field Surface Task Force, consisting not only of a few ~~Parks~~ **Park** and Recreation Commission **and Advisory Council on Public Health** members, **or their designees,** but also other community **members, individuals with professional expertise** and **Town and School** staff ~~members~~ that bring diverse perspectives such as athletics, recreation, **turf management,** the ~~Public Schools of Brookline,~~ **education,** environment/climate, toxicology, risk assessment, public health, children's socio-emotional and physical development, capital planning, and perhaps other domains;
- (2) Charge the Task Force to conduct its meetings in a manner that is consistent with the provisions and intent of the Open Meeting Law;
- (3) Charge the Task Force with proposing a ~~draft~~ Athletic Field Surface Policy **Decision Guidelines** to the Parks and Recreation Commission **and to the Select Board** by September 1, 2022;
- (4) **Charge the Task Force to h**Hold at least one Public Hearing to receive feedback on the ~~draft~~ policy **Decision Guidelines,** notifying **the public and** Town Meeting Members of the Public Hearing;
- (5) **Charge the Task Force to report out** ~~Finalize~~ **and adopt** the **final** Athletic Field Surface Policy **Decision Guidelines,** and notify Town Meeting Members **and the public** of its ~~their~~ completion, by October 15, 2022.

ARTICLE 23 ADVISORY COMMITTEE VOTES

Article Description	Athletic Field Task Force
AC recommendation (Favorable Action unless indicated)	22-0-2
Scott Ananian	Y
Carla Benka	Y
Ben Birnbaum	Y
Harry Bohrs	Y
Cliff Brown	Y
John Doggett	Y
Katherine Florio	Y
Harry Friedman *	
David-Marc Goldstein	A
Neil Gordon	Y
Susan Granoff	Y
Kelly Hardebeck	Y
Anita Johnson	Y
Georgia Johnson	
Alisa Jonas	A
Janice Kahn	Y
Carol Levin	Y
Pam Lodish	Y
Linda Olson Pehlke	Y
Donelle O’Neal, Sr.	Y
David Pollak	Y
Stephen Reeders	Y
Carlos Ridruejo	Y
Lee Selwyn	Y
Alok Somani	Y
Christine Westphal	Y
Dennis Doughty	
* Chairperson does not vote except to break a tie	