



Town of Arlington  
Department of Health and Human Services  
Office of the Board of Health

27 Maple Street  
Arlington, MA 02476

Tel: (781) 316-3170  
Fax: (781) 316-3175

Artificial Turf Study Committee Agenda  
04/02/24

Meeting Date: April 2, 2024  
Meeting Time: 5PM-7:00PM  
Location:

**Arlington Community Center (Formerly, Senior Center)**

Health and Human Services Conference Room  
27 Maple Street, Arlington MA.  
2<sup>nd</sup> Floor, Room #201 \*

\* In the event of a room change, notification and signage will be provided.

**Zoom- Registration link:**

<https://town-arlington-ma-us.zoom.us/meeting/register/tZAvcuqoqTssHt1BnuSXOpbXEnysRzAC-LUe>

**Sign up to speak at**

<https://www.signupgenius.com/go/20F0445AFA828A6F49-48809634-speaker#/>

**Objectives:**

- 1) To engage with the general public in a discussion about the ATSC draft report.
- 2) To discuss feedback from the general public in response to ATSC draft report.
- 3) To propose edits and supplemental material to be included in the final draft of the ATSC report.

**Details on the Community Input Discussion:**

- The Community Input Discussion will end after the last speaker has spoken or at 6:30PM, whichever happens first.
- This meeting will be conducted in a hybrid format (both in person and through the use of zoom).
- Each speaker will be given up to 2 minutes to speak.
- Any individual is welcome to speak during this agenda item; however, first priority will be given to members of the public who register ahead of time. Register to speak
- Comments/Questions/Discussions must be in reference to the draft report.
- The Chair reserves the right to limit discussion that is not associated with the draft report.

**Agenda**

- I. Acceptance of Meeting Minutes: March 27, 2024
- II. Correspondence Received
- III. Discussion: Community Input: 5:15pm-6:30PM
- IV. Discussion: Feedback, Edits, Supplemental Material
- V. New Business
- VI. Adjourn



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## Artificial Turf Study Committee Meeting Minutes

Meeting Date: March 27, 2024

Meeting Time: 7PM-8:30PM

Location: Zoom- Registration link:

<https://town-arlington-ma-us.zoom.us/j/9112875582>

### Objectives:

- 1) To discuss the first draft of the ATSC Report
- 2) To discuss logistics of holding a public input meeting
- 3) To discuss the project timeline, remaining deliverables, edits

Committee Members present: James DiTullio, Chair; Natasha Waden, Clerk; Mike Gildesgame; Leslie Mayer; Joseph Barr; Jill Krajewski; Marvin Lewiton; David Morgan

### Agenda

- I. Acceptance of Meeting Minutes  
Motion to approve meeting minutes from 03/19/2024 was made by Jill Krajewski.  
2<sup>nd</sup> by Marvin Lewiton.

#### Vote:

Mike Gildesgame, Yes

Leslie Mayer, Yes

Joseph Barr, Yes

Jill Krajewski, Yes

Natasha Waden, Yes

Marvin Lewiton, Yes

James DiTullio, Yes

Approved (7-0)

- II. Correspondence Received

Natasha Waden reported that the following correspondence was received:

- 1) Two emails from Susan Chapnick

- a. Concerns about data that was provided to the Committee in the 3/12/14 memo from Phil Lasker.
  - b. Article: Environmental Chemical Exposure and Mental Health Outcomes in Children: A narrative review of recent literature.
- 2) An email from Beth Melofchik with 6 links:
- a. An Article: PFAS Coats Skin of Children athletes after playing on Artificial Turf.
  - b. An additional link to the Guardian which references the findings of the article above.
  - c. Peer document: Test results for preliminary study PFAS on hands of soccer players and coaches: grass vs. artificial turf.
  - d. An Article: Dermal Uptake: An Important pathway of human exposure to perfluoroalky substances.
  - e. Peer Article: Industry in a dither about PFAS in synthetic turf.
  - f. Peer document: "Forever Chemicals" Disposal is Creating a Health Nightmare.
- 3) An email from Phil Lasker forwarding turf specifications from the Malden, MA Roosevelt Park project specifically for testing heavy metals and PFAS
- 4) An email from Mike Gildesgame with links to the following:
- a. An updated narrative section from the Environmental working group.
  - b. An updated chart: The Wetland Values Table.

### III. Discussion: Draft Report

Before discussing the draft report the Chair informed the Committee that he attended the Select Board meeting on Tuesday 3/26/24 to present the Committee's letter requesting an extension for the submission of its final report. The Select Board voted in support of the extension and discussed their satisfaction with the Committee's efforts as outlined in their draft report. As a result, the Select Board voted "No Action" on the proposed Warrant Article for the 2024 Town Meeting which would grant an extension of Committee to continue with their study.

The Chair clarified that minor changes were made to the draft report over the last few days in regards to some wording, grammatical corrections, formatting, and citations. These changes were mentioned as each section was discussed.

The Committee went through each section of the draft report to address all comments, questions, concerns and potential edits. As such, discussions within each section have been summarized below:

#### Introduction

One change in this section, made by the Chair, was the wording in the 3<sup>rd</sup> paragraph in reference to "skeptics". This term was removed and replaced with the word "proponents". Members of the Environmental group pointed out a couple of grammatical errors which had already been changed by the Chair. Members of the Safety group raised concern about the wording in the 3<sup>rd</sup> paragraph related to "regularly replacing artificial turf fields".

The Committee agreed to change the wording in a way that was clearer about the frequency of replacing both artificial turf and grass fields.

### Scope of Work

The Environmental group suggested that the specific areas related to turf fields be formatted into bullet points as opposed to the narrative format.

The Committee did not feel it was necessary to change the format.

### Access to Youth Sports and Its Impacts on Mental and Physical Health

The Environmental group pointed out a few minor grammatical edits and recommended adding two additional footnotes: 1) a reference to Tom Irwin Advisor's webpage which provides information "About" the company; and 2) an explanation of "Linear sand injection system".

The Committee agreed to the grammatical edits and additional footnotes.

### Heat Impacts on Human Health and Heat Related Injuries

The Environmental group pointed out a few minor grammatical edits. Multiple Members of the Safety group suggested that clarification be added in the 2<sup>nd</sup> paragraph as it relates to what region of the country surface temperatures averaged from 140 degrees- 170 degrees F. Members expressed that this seemed confusing when the 3<sup>rd</sup> paragraph discusses actual temperatures taken on Arlington fields by the High School Athletic Director.

The Committee agreed on minor edits and that additional language should be added to clarify the specific region of the country in which those temperatures are associated with.

A further explanation was given to assure Members that the information was initially provided in the narrative report, but when combining sections to create the final report this may have been left off.

### Heat Impacts on the Environment

A lengthy discussion was had among Members in reference to the 3<sup>rd</sup> paragraph regarding "hot spots" and the use of the word "avoid" as it pertains to the installation of artificial turf fields. This discussion also led to a discussion about similar wording in the "Findings and Recommendations" section of the report (specifically, bullet 4). This discussion is also referenced under that section.

Some Members were adamant that the use of the words "hot spots" and "avoid" were strong and gave a negative connotation towards the installation of artificial turf. Members discussed that rather than "avoiding" the installation near hot spots, it should be worded in a way that recommends this factor should be part of the case by case consideration for artificial turf fields. There was additional discussion about the wording in this section (under Environment) vs. the wording in the Recommendations and Findings section. The Environmental group pointed out that the language seemed appropriate in the Environment section, as it pertains to the environment; however, they recognized that in the "Findings

and Recommendation” section, that the wording does seem to suggest heat islands should be a consideration to placement of artificial turf, but not necessarily avoided.

The Committee agreed to leave the language in this section as it stands, whereas it is worded differently in the “Recommendations and Findings” section. However, another Member wanted to acknowledge that limiting placement in “hot spots” may also be perceived as an equity issue. A Member of the Safety group acknowledged that the Parks and Recreation Department do regularly hear from residents that “nicer” fields are in certain areas of Town. As such, the Committee agreed that an additional talking point should include equity, perhaps to be discussed in the “Findings and Recommendations” section.

#### Skin/Bacteria

There was no discussion about this section of the report.

#### Injury Rates

There was no discussion about this section of the report.

#### Chemical Impacts on Human Health and the Environment

The Environmental group pointed out a few minor grammatical edits. Multiple Members referenced confusion in the 2<sup>nd</sup> paragraph after “Microplastics” as it relates to 6-PPD Quinone, specifically about where it has been discovered in artificial turf fields. As such, the Committee agreed to change the language from “some artificial turf” to “used tires”.

Additional conversation was had about the 6-PPD Quinone section, in which the Environmental group made the following suggestions: 1) the need to change “6-PPD Quinone” to “6-PPD” and clarify that it transforms into 6-PPD Quinone when exposed to ozone and oxygen; 2) add an additional sentence which refers the reader to the “Chemical and Particulate Runoff Impacts” section, where 6-PPD Quinone is discussed further; 3) strike the last sentence about coho salmon; 4) strike, in the 3<sup>rd</sup> paragraph after 6-PPD Quinone the words “It seems advisable” and replace with “the Committee believes”; and 5) add additional language in the last sentence of the section (under the chart: comparing infills:) which clarifies that testing should be completed by an independent lab and provide additional explanation for the rationale.

Committee Members agreed to the edits and additional language suggested.

#### Alternative Infills

Multiple Members questioned the 1<sup>st</sup> paragraph in reference to the “benchmark study”. Upon further review of the footnote (56) it appeared that the link to this source was not accurate, as such both the Clerk and Environmental group will look into this to clarify the reference.

The Committee expressed some confusion in this section as it pertains to the reference of neighboring towns using “plant-based infills” as well as another reference to “natural” infills. Members wanted to clarify that neighboring towns were using “plant-based infills” as that was not their understanding. Additionally, Members discussed that not all alternative infills are plant based or natural. As such the Committee agreed to strike the words “plant based” and “natural” and replace them with “alternative infill”.

Members also discussed that Milton should not be considered a neighboring town, but that the Committee had several discussions about Malden and their decision to change their artificial turf infill from crumb rubber to BrockFill. The Committee agreed to strike the word “neighboring” and elaborate more in this section about Malden.

### Chemical and Particulate Runoff Impacts

The Chair clarified that for formatting purposes, the hyperlinks in the narrative of this section (“Wetlands Protection Act”; “regulations”; “Bylaw”; and “regulations”) would be removed in the final draft.

The Environmental group pointed out some minor grammatical edits and also suggested the following: 1) that the majority of the language in the 2<sup>nd</sup> paragraph starting with “contaminants of concern...” and ending with “Furthermore, microplastic particles from infill...” Should be removed and referenced in a footnote, as many aspects of these chemicals have already been discussed under the “Chemical Impacts on Human Health and the Environment” section. 2) To strike “This concern is not theoretical”.

Members also discussed concerns that this section did not equally address the runoff impacts associated with the use of pesticides or synthetic fertilizer treatments on natural grass fields; nor was there any information about what types of chemicals might already be in the existing soil on grass fields. Additional conversation was had about the possibility of elaborating a bit more in this section about the ubiquitous nature of chemicals found in the environment/soil. One example mentioned was how PFAS are found everywhere in the environment, including on clothing and in food packaging.

A Member of the Safety group inquired about whether or not there was any research that referenced the difference between runoff on natural grass vs artificial turf surfaces. The Environmental group responded that although they could not recall a specific study in the moment; they surmised it would largely depend on site specific field conditions

The Committee agreed that either this section or another section should be edited to include additional information about runoff impacts from the use of pesticides/fertilizers on grass fields and the ubiquitous nature of chemicals found in the environment.

### Stormwater Management Impacts

A Member of the Safety group inquired about the status of Mass DEP’s proposed change to the definition of permeable surface. The Environment group reported that Mass DEP was expected to adopt the change in April.

The Environmental group suggested, in paragraph 6, to strike the words “are at best permeable” and replace them with “do impede infiltration of water into the underlying soil”.

The Committee agreed to the wording change.

#### Climate Change Resilience Impacts and Ecological Effects

Members of the Safety group were concerned that this section was a bit subjective, as there were not many footnotes that can direct the reader to references. One example mentioned was a lack of reference to carbon sequestration.

A Member of the Health group pointed out that footnote 18 is not referenced on the page. It was determined that this footnote was left in from the Environmental group’s narrative report, but that it would be corrected in the final version of the report.

The Committee agreed that additional footnotes linking the reader to references are needed in this section.

#### A Cost Comparison of Artificial Turf Fields to Natural Grass Fields

A Member of the Health group inquired if others felt that this section relied too heavily on information presented by Ian Lacy of Tom Irwin Advisor’s. The Chair discussed that in his opinion Mr. Lacy’s presentation was neutral and balanced on the topic of artificial turf and natural grass fields. No additional conversation was had amongst the Committee and it appeared that Members agreed he was viewed as a neutral subject matter expert on both topics.

The Environmental group suggested adding a paragraph to this section about the two major Town funding sources that might be applicable to future field projects: 1) Capital funds; and 2) CPA funds. Additional conversation was had in reference to restrictions for the use of CPA funds (state funding) for projects related to the installation of artificial turf fields. A suggestion was made to review the CPA guidelines prior to adding the paragraph to ensure that the information is accurate in regards to the restrictions and to include a citation.

The Environmental group also suggested that a sentence should be added at the end of the 4<sup>th</sup> paragraph which indicates that the costs outlined in this section do not include other typical elements associated with a field such as bleachers, lighting, fencing, etc. or other soft costs for design and construction management. Another suggestion was made to consider reformatting this section as more of a narrative description as opposed to using multiple tables.

The Committee agreed to 1) add additional information about Capital and CPA funds with special attention to the CPA guidelines associated with artificial turf field installation, including a reference; 2) incorporating an additional sentence outlining what is not included in the costs as outlined above; and 3) to reformat this section as more of a narrative description.

## Importance of Field Maintenance / Organic & Non-Organic Maint. of Natural Grass Fields

The Committee had a lengthy discussion about these two sections of the report. Members expressed the following concerns: 1) these sections do not clearly inform the reader that maintenance alone will not lead to increasing field usage, especially as it pertains to grass fields; 2) changing the maintenance program on natural grass fields from organic to non-organic treatments will not increase access to the existing fields, nor will it increase the field usage in the shoulder seasons or during periods of inclement weather; 3) this section does not adequately address that given Arlington's limited playing fields (primarily grass), that simply improving the maintenance program will actually decrease field usage because it would require fields to be rested, and 4) converting one or two fields to artificial turf will not necessarily increase access or allow for the expansion of current programs, it would likely help elevate pressure on natural grass fields, provide users access earlier and later in the seasons, and reduce cancellations as a result of inclement weather.

Members discussed that the topic of maintaining fields (including resting and treatment of fields-organically or not), has not really been researched or discussed very much by the Committee. Members also discussed that some of the challenges with this has to do with the limited number of fields and what the goals would be in terms of utilizing the current fields. For example, is the Town looking to increase access to playing, expand programs, or maintain high quality fields? The Committee seemed to come to the conclusion that Arlington could not accomplish all of these goals given the current number and types of fields, even if an existing field were to be converted from grass to artificial turf. Another Member inquired whether or not the new fields at the High School would help to alleviate this issue. A representative from the Parks and Recreation Commission explained that the High School fields fall under the jurisdiction of Arlington Public Schools and charge a higher rate for use than those fields that fall under the Recreation Department. Additionally, whereas the school programs take priority, the current field, as well as the new fields to be installed, is less accessible to the broader community programs and users. Although, some of the high school programs also utilize Recreation fields (grass), it may take some of the burden off of those fields. However, a point was made that the high school activities are typically occurring right after school, whereas the community programs (run by volunteer coaches/parents) are typically running a bit later in the afternoon after the typical work day. Members also discussed how maintenance and specific types of field treatments may fall within the purview of Arlington's Public Land Management Plan, but this also has not been reviewed by this Committee.

Members recognized that the Committee has not done enough research regarding the specific concerns outlined above but that there are important points that should be made. As such, the Committee agreed that the "Organic vs. Non-Organic Maintenance of Natural Grass Fields" section should be removed but a few sentences about organic vs. non organic maintenance should be folded into the "Importance of Field Maintenance" section. Additionally, a reference to Arlington's Public Land Management Plan should be included in this section.

The Committee agreed to allow the Chair and Clerk to edit this section to reflect the above conversations.



## Findings and Recommendations

The Environmental group made a suggestion to strike, in the 2<sup>nd</sup> paragraph, the word “undeniable”. All Members were in agreement with this edit.

The Committee had a lengthy discussion in regards to the language used to describe when artificial turf fields should be considered; specifically in the sections outlined below:

- 3<sup>rd</sup> paragraph regarding “The Committee believes that artificial turf should be an option for future field planners in Arlington, but it is an option that should not be considered until natural turf options have proven unworkable, impractical, or financially infeasible”;
- 4<sup>th</sup> paragraph (before the bulleted considerations) regarding “(after exhausting natural grass options)”;
- 5<sup>th</sup> paragraph (after the bulleted considerations) regarding the last sentence as it pertains to the “default option”.
- Last paragraph regarding the last sentence as it pertains to “only (a) when natural turf options prove to be unworkable, impracticable, or infeasible..”.

The Chair explained it was his understanding that Members were in agreement that the Committee’s field preference is natural grass. Other Members expressed their understanding was that artificial turf should be considered on a case by case basis and in conjunction with the points outlined by the Committee. Members expressed concern that some of the language, in the above mentioned paragraphs, were worded to strongly and/or seem to carry a negative connotation towards the installation of artificial turf fields. The conversation went on to discuss the perceived and various interpretations of what the decision makers and/or the public classify as a grass field that is unworkable, impractical or financially infeasible option and to what extend and through what type of proof. One Member pointed out that anytime a field renovation is discussed, the decision makers are already taking these factors and others into consideration. These conversations involve a decision making process to determine what makes sense for the site. These conversations do not consider whether or not natural grass is more workable than artificial grass. The case may be that both are workable but there is no assumption that the default surface is grass. It is this Member’s believe that by stating the “default” is natural grass, it may discredit the decision makers and create a “turf war” in the community. Most Members were adamant that they wanted to make it clear that the Committee’s preference is for natural grass fields, but there was an acknowledgement that some of the language should be changed slightly to convey that message and remove any negative association with the installation of artificial turf.

The Committee agreed to the following;

- 1) Strike the word “undeniable” in the 2<sup>nd</sup> paragraph;
- 2) Edit the last sentence in the 3<sup>rd</sup> paragraph to state: “The Committee believes that artificial turf should be an option for future field planners in Arlington, but it is an option that should be considered after careful evaluation of the practicality and feasibility of natural turf options”.
- 3) Strike the parenthetical in the 4<sup>th</sup> paragraph;
- 4) Strike the last sentence the 5<sup>th</sup> paragraph starting with “ Nevertheless....”;

- 5) Edit the last sentence in the last paragraph to align with "part a" to match the wording agreed upon by the Committee in item #2 above.

### Footnotes

The Committee had a lengthy discussion about the final footnote, #94, which references that the Committees findings and recommendations concern *future* projects not yet in the planning stages and specifically mention the Arlington Catholic and Arlington High School fields.

A Member of the Environmental group expressed concern that this footnote limits the options that Town Meeting can have in regards to this report and suggests that the Town should ignore this information when looking at current or future projects. And while the Member acknowledged contracts are in place for field construction, it should not mean that a contract can't or shouldn't be amended based on new information. As such, the recommendation was to remove the footnote altogether.

The Chair addressed the Committee to make 2 points in reference to the Footnote

Point 1: The Chair summarized the history of this Warrant Article by explaining the following proceedings at Town Meeting that led to this Study Committee outlined by bullet points..

- The original substitute motion, from Beth Melofchik, was for a moratorium on Artificial Turf Fields, but included an exemption for the High School field.
  - That motion was voted down.
- A different substitute motion was approved, (Stamps/Benson)
  - That motion had 2 parts: a) to establish the Artificial Turf Study Committee and b) to place a one year moratorium on the construction of artificial turf fields which included an exemption of the High School field.
  - The substitute motion was passed, but divided into 2 separate parts:
    - § Part A was the formation of this Study Committee; and
    - § Part B included a 1 year moratorium, exempting the High School Field\*
  - The Chair noted that there had been no discussion at Town Meeting about including either a moratorium or a review of the High School Field project
  - Part A was passed and Part B was voted down by Town Meeting

Point 2: The Chair acknowledged that this Committee has never really discussed the High School field until our last meeting. He summarized that this Committee has never consulted with the High School Building Committee, has never requested any documents or asked to see any of the contracts, as such, this Committee knows very little about what stage the project is in, other than that it seems to be very far along. The Chair also acknowledged that at this point any change order of the project would potentially cost the Town a lot more money.

As such, the Chair was adamant that the footnote should remain, as it is an honest statement and consistent with the history of the Warrant Article and of the work of this Committee.

Multiple Members were in agreement with the Chair's comments. Although further discussion was had in regards to the possibility of the Committee removing the comment and/or removing the specific locations (Arlington High School and Arlington Catholic fields) from the comments. Additional conversation was had in regards to the need to reference the High School project because it is an active project, whereas there are no other projects going on at other fields in Arlington with regard to artificial turf. Other Members did not have a concern with referencing the only 2 artificial turf fields in Town. A brief conversation was had amongst Members to express that if they had known or thought this report would influence decisions for the current High School project, they would have expected the Committee to take a different approach as to its research and investigation and consider additional factors. After extensive conversations related to cost and politics the Committee agreed to the following:

- 1) Strike the words "findings and recommendations" and replace with the word "scope".
- 2) Strike the word "concern" and replace it with the words "was focused on".
- 3) Remove the italics front from the word "*future*" to regular font "future".

#### IV. Discussion: Project Timeline, Edits, Deliverables

The Chair discussed that next week the Committee would hold the Public Input session as a Hybrid meeting on Tuesday April 2<sup>nd</sup> at 5pm. The physical location of the Meeting would be held at 27 Maple Street, the Senior Center, in the Health and Human Services Conference room, but that zoom would also be available. The Chair express that not everyone would need to be present but if the majority could be that would be preferable.

The Chair discussed the following ground rules for the meeting: 1) limiting speaker time; 2) requesting the public to register ahead of time as a speaker; 3) requiring speakers to discuss specifics in the report; and 3) to allow for an engaging conversation among the Committee and the public.

At the end of the input session, the Committee will reserve time (30 minutes) to discuss the feedback and suggest additional edits.

The Chair discussed that the last Committee meeting is tentatively scheduled for Tuesday April 9<sup>th</sup> at 5pm and the sole purpose will be to vote on the report.

#### V. New Business

There was no new business discussed.

#### VI. Adjourn

Motion to adjourn was made by Mike Gildesgame.

2<sup>nd</sup> by Joseph Barr.

Vote:

Mike Gildesgame, Yes

Leslie Mayer, Yes

Joseph Barr, Yes

Jill Krajewski, Yes

Natasha Waden, Yes

Marvin Lewiton, Yes

James DiTullio, Yes

Approved (7-0)



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ARTIFICIAL TURF COMMITTEE MEETING COMMENTS FROM THE CHAT

Date: March 27, 2024

Time: 7PM

Location: Remote Participation

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Greg Dennis

26:49

**GD**

Periodically? (Apologies if I'm not supposed to comment)

Susan Stamps

28:54

**SS**

They don't mind our comments, Greg, and sometimes they are helpful. As long as we are polite

Susan Stamps

38:20

**SS**

The Thompson field is a hot spot because there is almost no shade there  
With roads and paved parking lots of multifamily housing all around it

Susan Stamps

48:32

**SS**

Just add at the beginning of the sentence the phrase "Based on current information,..."

Susan Stamps

56:27

**SS**

You could say, "especially if tree canopy is added as part of the project"

Susan Stamps

01:12:24

**SS**

`Pretty sure its in the crumb rubber

Greg Dennis

01:29:46

**GD**

Well, when artificial turf is installed, much of the existing soil is removed, so installation isn't purely additive in terms of chemicals.

Susan Stamps

01:32:42

**SS**

The literature was not convincing about underground tubes and other means of "capture" of storm water.

Susan Stamps

01:46:22

**SS**

2012 amendment-CPA-All but actual purchase of infi ll and carpet is funded by CPA

Susan Stamps

02:27:45

**SS**

Natural turf is the best for our ecology, which sustains

Susan Stamps

02:30:00

**SS**

Agree, it

Agree, it's redundant.

Susan Stamps

02:52:56

**SS**

"unworkable, impractical, or financially infeasible" covers all the bases cover the circumstances where grass would be a bad option - I think it should stay

Greg Dennis

02:56:35

**GD**

Given the controversy and discussion we've had in the community to date, I'm having a hard time imagining any future committee making a bee line to artificial turf. They're going to have to justify it, and I think the report gives them guidelines for doing so.

Joseph Barr

02:58:07

**JB**

Here's a suggestion: "The Committee believes that artificial turf should be an option for future field planners in Arlington, but it is an option that should only be considered based on a full evaluation of all potential options, taking into account all of the health, safety, and environmental topics documented in this report, along with any additional issues that may be identified in the future."

👍 1

Susan Stamps

03:00:31

**SS**

2

That sounds good

Joseph Barr

03:03:41

**JB**

I need to take off for a few minutes.

Susan Stamps

03:07:28

**SS**

Opining on current projects is not part of the charge in the motion approved by town meeting.

Susan Stamps

03:12:16

**SS**

This footnote specifically excludes the AHS project and this was not in the charge of the Tudy Committee. As the proponent I can say that was not the intent.

It is not for this committee to say whether or not the AHS project is exempt

Or up to the Town Manager

Town meeting is not going to take a vote on the report

No one asked you to give your opinion on this issue

Susan Stamps

03:16:32

**SS**

If the footnote goes, the last several words of the previous paragraph must go: "f...or all future projects not yet in the planning stages."

exactly

Susan Stamps

03:18:25

**SS**

This footnote is specifically omitting application of these principles to projects in current planning. There is no basis in the committee's charge for this declaration.

Susan Stamps

03:20:02

**SS**

It is for the community to take these principles and apply them to the AHS fields if there is a desire to do so.

Susan Stamps

03:21:18

**SS**

That is the town's decision, not this committee's decision

Susan Stamps

03:23:39

**SS**

Sure, David's suggestion would be fine

Susan Stamps

03:24:52

**SS**

I don't agree with that

This report does not have to influence AHS decisions at all

Susan Stamps

03:31:18

**SS**

Town meeting is not going to make a decision based on the report (not this year, anyway)

Susan Stamps

03:34:59

**SS**

we don't know that it's too late. Maybe Brockfill will give AHS such a deal...

Greg Dennis

03:42:03

**GD**

The building committee estimates BrockFILL will cost an additional \$190,000.

Susan Stamps

03:42:40

**SS**

I think AC owns that property

Susan Stamps

03:43:49

**SS**

You also have to look at the last several words of the par. above the bullet points to make it consistent with what you do with the footnote

Susan Stamps

03:49:28

**SS**

I suggest 2 minute limit

Susan Stamps

03:54:49

**SS**

Thank you all!




## Article 12 motion that was voted favorably May 10, 2023

Susan D. Chapnick <s.chapnick@comcast.net>

Wed 3/27/2024 5:05 PM

To:mikeg125@gmail.com <mikeg125@gmail.com>

Cc:Susan Stamps <susan.stamps@comcast.net>;Natasha Waden <nwaden@town.arlington.ma.us>;james\_ditullio@hotmail.com <james\_ditullio@hotmail.com>

 1 attachments (175 KB)

Certified Vote Article 12 - 10May2023.pdf;

CAUTION: This email originated from outside your organization. Exercise caution when opening attachments or clicking links, especially from unknown senders.

Mike,

I conferred with Susan Stamps to get a certified copy of the Article 12 substitute motion that passed Town Meeting on May 10, 2023. Here it is attached.

As you can see, the Article says nothing about exempting current projects from any findings of the Artificial Turf Study Committee.

Therefore, I believe that the draft report should remove any language in the "Findings and Recommendations" section about these recommendations only being relevant to "future projects not yet in the planning stages" and exempting the AHS fields (footnote) as this was not in the Article 12 motion that passed Town Meeting.

Thanks,

Susan

**Susan D. Chapnick, M.S.**

President & Principal Scientist

NEH, Inc.

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**OFFICE OF THE TOWN CLERK**

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**Juliana H. Brazile  
Town Clerk**

**ARTICLE 12**

**VOTE/THREE-YEAR MORATORIUM ON THE  
INSTALLATION OF ARTIFICIAL TURF ON TOWN LAND**

**VOTED: YES – 143 NO – 81**

That Town Meeting hereby establishes an “Artificial Turf Study Committee” to be structured, organized, and charged as set forth in Section A below.

**A. Artificial Turf Study Committee**

**1. Committee Membership and Organization**

As set forth below, the Committee shall consist of nine (9) members, of whom seven (7) shall be voting members and two (2) shall be ex officio non-voting members:

**a. Voting Members:**

- One person appointed by the Conservation Commission;
- One person appointed by the Park and Recreation Commission;
- One person appointed by the Capital Planning Committee;
- One person appointed by the Standing Committee of Envision Arlington;
- The Director of Health and Human Services or her designee;
- One Town Meeting Member appointed by the Town Moderator; and
- One town resident appointed by the Select Board.

The Town Moderator and Select Board shall strive to appoint persons with public health or environmental protection experience.

No voting member: a) shall have testified within the past five years in a court or administrative hearing in favor of or against the use of artificial turf; b) shall have worked for or in a firm or organization that within the past five years has had any involvement with the selection, installation, or management of the construction of an artificial turf field or whose income in the past five years was derived in whole or in part from work with artificial turf fields; or c) shall be a current or former member of the American Sports Builders Association or the Synthetic Turf Council, or whose business or firm or principal is or has been a member.

- b. Ex-officio Non-voting Members:
    - The Town’s Environmental Planner / Conservation Agent; and
    - The Town’s Recreation Director
  - c. Quorum

A majority of voting members shall constitute a quorum, and decisions shall be based on the vote of a simple majority of those committee members present and voting.
  - d. Organization and First Meeting

The initial meeting of the Study Committee shall be convened by the Director of Health and Human Services or her designee, and the first order of business shall be the self-organization of the Study Committee through the election of one or more chairs from among the voting members, whose responsibility shall be to convene and preside over all future meetings. The Committee shall also elect a clerk, whose duties shall include the proper posting of meeting agendas and minutes. The Study Committee shall designate any other officer as it sees fit.
2. Committee Charge and Reporting
    - a. The Committee shall review and report on artificial turf: its health, safety, and environmental impacts, and potential mitigation measures, and a comparison of artificial turf to natural turf fields.
    - b. The Study Committee shall complete its work and report its findings and any recommendations to Town Meeting and the Select Board no later than 30 days prior to the 2024 Annual Town Meeting or to any earlier Special Town Meeting if the report is ready earlier.
  3. Dissolution Committee

The Committee will be dissolved concurrent with the dissolution of the 2024 Annual Town Meeting, unless there is a vote of Town Meeting to effectuate an earlier dissolution of the Committee or to extend the Committee’s charge.


**A true copy of the vote under  
Article 12 of the Warrant for the  
Annual Town Meeting of the  
Town of Arlington at the session  
held on May 10, 2023.**

## Comments on Artificial Turf Study Committee Draft Report

Greg Dennis <gdennis@alum.mit.edu>

Thu 3/28/2024 1:06 PM

To: Jim DiTullio <james\_ditullio@hotmail.com>; Natasha Waden <nwaden@town.arlington.ma.us>

 1 attachments (97 KB)

Artificial Turf Committee Report Comments.pdf;

CAUTION: This email originated from outside your organization. Exercise caution when opening attachments or clicking links, especially from unknown senders.

Artificial Turf Study Committee,

Thank you for the thorough draft report and for your service on the committee. I read the draft with interest and would like to offer the attached comments for your consideration as you finalize the report.

Thank you,

Greg Dennis

Town Meeting Member, Precinct 1

Dear Artificial Turf Study Committee,

Thank you for the thorough draft report and for your service on the committee. I read the report with interest and would like to offer the following comments.

### **Youth Mental and Physical Health**

I greatly appreciated this section of the report. The comments about the importance of sports and physical activity to the mental health and physical well-being of you are on point. Team sports are indeed beneficial to the health and wellness of children and young adults. As the report explains, participation in youth athletics is associated with improved cardiovascular and bone health, heightened feelings of empowerment and self-control, and lower rates of stress and depression.

I think this section of the report could be augmented with some words about the inverse relationship between athletic playing time and internet screen time. As parents today know, a child with idle spare time is usually a child seeking out a screen to entertain them. Parents have some tools to combat this, but for a variety of reasons, both technical and social, it's an uphill battle. This parental intuition is backed by research demonstrating that sports participation improves self-control and mediates internet addiction.<sup>1,2</sup> These facts should heighten our concern around curtailing youth playing hours, because excessive screen time for youth is associated with learning difficulties, hyperactivity, anxiety, and depression.<sup>3</sup> Team sports are one of the few surefire tools parents have to limit screen time for their kids.

### **Heat Impacts**

The term "Wet Bulb Globe Temperature" (WBGT) could figure much more prominently in this section. The report mentions the term, but it does not define it, explain its relevance, or cite the relevant research that compares WBGT values across different athletic surfaces. According to the National Weather Service, WBGT measures the "expected heat stress on the human body when in direct sunlight."<sup>4</sup> Utilized by the military, OSHA,

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<sup>1</sup> Lian Y, Peijie C, Kun W, Tingran Z, Hengxu L, Jinxin Y, Wenyun L, Jiong L. "The Influence of Family Sports Attitude on Children's Sports Participation, Screen Time, and Body Mass Index." *Frontiers in Psychology*. 2021 Dec 20;12:697358.

<sup>2</sup> Park, Jae-Ahm & Park, Mi-Hyang & Shin, Ji Hye & Li, Bo & Rolfe, David & Yoo, Jong-Yeol & Dittmore, Stephen. "Effect of sports participation on Internet addiction mediated by self-control: A case of Korean adolescents." *Kasetsart Journal of Social Sciences*. 2016 Sep. 37. 10.

<sup>3</sup> Muppalla SK, Vuppapapati S, Reddy Pulliahgaru A, Sreenivasulu H. "Effects of Excessive Screen Time on Child Development: An Updated Review and Strategies for Management." *Cureus*. 2023 Jun 18;15(6):e40608.

<sup>4</sup> National Weather Service. "Wet Bulb Globe Temperature: How and when to use it." <https://www.weather.gov/news/211009-WBGT>

and the American College of Sports Medicine, it is widely viewed as the “gold standard” for creating heat-related safety guidelines for physically active populations.<sup>5,6</sup>

Not only is WBGT highly relevant to the question of heat-related impacts on athletes, but there is extensive research comparing WBGT values across athletic surfaces that would be relevant to include in the report. Specifically, all of the available research (at least all that I am aware of) has found negligible differences between WBGT values over natural grass, artificial turf, and other athletic surfaces.<sup>7,8,9,10</sup> The report does mention one anecdotal measurement of WBGT values over two Arlington fields, but the statistical research should carry a lot of weight, especially since it’s not clear in the report whether the anecdotal reading constituted a controlled experiment.

Instead of leading with WBGT, the report first mentions, and thereby confers greater weight to, surface temperature readings. It seems the relative ordering of the two kinds of measurements ought to be reversed. Athletes don’t lay down with bare skin on the field for extended periods – a key reason why governmental and regulatory bodies use WBGT. I would suggest leading with a WBGT explanation, along with the relevant studies, and leave surface temperatures to a secondary point.

If there are to be any recommendations about dealing with potential heat stress, I argue that they should apply to all athletic surfaces in town, not just natural grass and artificial turf, tennis and basketball courts, and any other athletic surface should be subject to the same recommendations. Notably, some of the cited research into WBGT over athletic surfaces found tennis courts to have marginally higher WBGT values than either natural grass or artificial turf. I expect you would agree that any kind of safety or monitoring recommendation for heat stress ought to be comprehensive and apply to all athletic surfaces in town.

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<sup>5</sup> National Weather Service. “Wet Bulb Globe Temperature Informational Guide.”

<https://www.weather.gov/media/safety/heat/2020-WBGT-Handout.pdf>

<sup>6</sup> Cates J, Rheeling, J. “Wet Bulb Globe Temperature (WBGT) – Why Should Your School Be Using It?” National Federation of State High School Associations. Apr 2023.

<https://www.nfhs.org/articles/wet-bulb-globe-temperature-wbgt-why-should-your-school-be-using-it/>

<sup>7</sup> Pryor JL, Pryor RR, Grundstein A, Casa DJ. “The Heat Strain of Various Athletic Surfaces: A Comparison Between Observed and Modeled Wet-Bulb Globe Temperatures.” *Journal of Athletic Training*. 2017 Nov; 52(11): 1056–1064.

<sup>8</sup> Kopec R. “Response of the Wet-Bulb-Globe-Thermometer Heat Stress Index to Selected Land Use Surfaces.” *Southeastern Geographer*. Vol. 17, No. 2 (November, 1977), pp. 133-145

<sup>9</sup> Guyer H, Georgescu M, Hondula D, Wardenaar F, Vanos Jennifer. “Identifying the need for locally-observed wet bulb globe temperature across outdoor athletic venues for current and future climates in a desert environment.” *Environmental Research Letters*. 2021 Dec; 16(10).

<sup>10</sup> Grundstein A, Cooper E. “Comparison of WBGTs over Different Surfaces within an Athletic Complex.” *Medicina*. 2020; 56(6):313.

## Chemical Exposure

I think the report somewhat understates the amount of existing research that exists related to potential chemical exposure risk from artificial turf and crumb rubber. Notably, there have been several peer-reviewed and governmental studies of the question, and to date, none have found playing on or living near artificial turf to be associated with any kind of elevated chemical exposure or illness.<sup>11,12,13,14</sup> One of these studies is alluded to in the report, but surprisingly none are cited. While it is certainly legitimate to raise questions about the methodology and funding of each study individually, in doing so I think we should do so keeping in mind three points.

First, almost any study on a controversial topic will elicit criticism about methodology or oversights. As most of us are non-experts, I don't think we should engage much with methodological questions, and we should rely primarily on the reputation of the journal and the fact that study was peer-reviewed by those who are experts.

Second, while one should take the funding source into consideration, in the context of a peer-reviewed journal, the presence of industry funding shouldn't immediately negate the findings. Industry funding would carry greater weight in relation to an independently-published technical report, but a peer-reviewed journal doesn't cease being peer-reviewed in response to the funding of the submission. Being aware of the funding is important, but entirely dismissing the findings, as the report appears to do by not citing them, is not warranted.

Third, while we can critique the studies individually, we should understand what they are telling us in the aggregate. At the end of the day, artificial turf and crumb rubber have been around for about 60 years, and despite the heightened attention to the potential for chemical exposure, no study has yet to find any such genuine risk. In this respect, I worry the report is missing some of the forest for the trees with respect to this question. No one will argue with the claim that more research is ultimately needed, but in the current draft, the amount of words expended on the *potential* for chemical exposure obscures our current understanding of *actual* exposure. I think the reader deserves a more balanced assessment on this question.

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<sup>11</sup> Pronk MEJ, Woutersen M, Herremans JMM. "Synthetic turf pitches with rubber granulate infill: are there health risks for people playing sports on such pitches?" *Journal of Exposure Science & Environmental Epidemiology*. May 2020; 30(3):567-584.

<sup>12</sup> Schneider K, Bierwisch A, Kaiser E. "ERASSTRI - European risk assessment study on synthetic turf rubber infill - Part 3: Exposure and risk characterisation." *Science of the Total Environment*. May 2020; 718:137721.

<sup>13</sup> Bleyer, A. & Keegan, T. "Incidence of malignant lymphoma in adolescents and young adults in the 58 counties of California with varying synthetic turf field density." *Cancer Epidemiology*. Apr 2018; 53:129-136.

<sup>14</sup> Groot GD, Oomen A, Mennen M. "Evaluation of health risks of playing sports on synthetic turf pitches with rubber granulate – Scientific background document." Report number 2017–0017. Bilthoven, The Netherlands: National Institute for Public Health and the Environment (RIVM). Mar 2017.

Further, to fully understand chemical exposure risk of artificial turf, we should start with a baseline measurement of the chemicals and heavy metals in our natural grass fields today. While there are certainly chemicals in artificial turf and crumb rubber, the installation of artificial turf isn't purely additive. As you know, much of the existing soil, and all contaminants it contains, is removed to make way for the new infill and turf. Notably, when independent laboratory testing and analysis of natural grass and artificial turf was conducted for the town of Oak Bluffs, Massachusetts, the testing revealed much higher levels of toxic and carcinogenic heavy metals in the natural grass.<sup>15</sup> If the committee doesn't have the funding or means to obtain such a measurement, I think the report ought to contain a recommendation for such a measurement. Any chemical exposure analysis that looks solely at the artificial turf is just one half of the equation; we must consider what's being subtracted, too.

## Recycling

I think the report is too quick to dismiss the potential for recycling of artificial turf at the end of its useful life. It reads: "There is mixed data related to whether meaningful recycling of artificial turf fields is currently happening in the Northeastern United States." However, when nearby Watertown procured their new artificial turf for Victory Field, they required cradle-to-grave recycling as part of the contract.<sup>16</sup> There may be "mixed data" as to how frequently communities are choosing to require their turf be recycled, but the story doesn't appear mixed as to it being a possibility.

Recycling of artificial turf may not be common, but Arlington could be part of the solution to making it the norm. There is also evidence that recycling options will be expanding, as Dutch turf recycling company Re-Match is trying to expand aggressively into the US market.<sup>17</sup> Perhaps the committee could recommend that Arlington follow the example of Watertown and others to ensure the recycling of any future turf installations at end of life.

Thank you,  
Greg Dennis  
Town Meeting Member, Precinct 1

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<sup>15</sup> Tetra Tech. "Synthetic Turf Laboratory Testing and Analysis Summary Report." Martha's Vineyard Regional High School Athletic Fields Project (DRI 352-M4). Oak Bluffs, Massachusetts

<sup>16</sup> Breitrose C. "Council Approves Replacing Victory Field Turf with New Artificial Turf in Divided Vote." *Watertown News*. Mar 2023.

<sup>17</sup> Serafeim G, Duchene L, Moniz C. "Recycle & Re-Match: The Future of Soccer Turfs." Harvard Business School Case 124-032, October 2023. (Revised November 2023.)