

May 5, 2021

DRI 352-M4 MVRHS Athletic Fields
MVC staff and commissioner questions for HAI/MVRHS

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Please note that answers to questions raised during the Land Use Planning Committee pre-public hearing review (Oct. 19 – Dec. 14) were not all requested in writing. However, the applicant submitted many answers in writing, and those documents are available on the [MVC website](#).

LOGISTICS

1. What role is Daedalus still playing?
2. Has the high school committed to more than phase 1?

SPECS

3. What are the Gmax ratings of the existing and proposed grass fields?
4. Please provide the MVC with samples of the BrockFILL material.
5. Please provide the MSDS for the Greenfields carpet material.
6. What are the square footages for 1) the synthetic field, 2) the renovated grass field, and 3) the JV baseball diamond?
7. Does the current grandstand have 500 or 800 seats? (We have conflicting information.)

MAINTENANCE

8. Please provide the recommended maintenance program for the synthetic field.

MATERIALS

9. What is the material for the new running track?
10. Are there fire test reports for the proposed synthetic carpet and wood infill materials that you can provide to the MVC?
11. How will the plastic fibers be prevented from entering the watersheds over time?

USE

12. Would there be user fees for the new track and field?
13. What rules would exist for users of the new track and field?
14. Could this project lead to an increase in use?

OTHER FEATURES

15. Are there any electric vehicle charging stations for the parking spots?
16. Will the buildings be all-electric?

WASTEWATER

17. Please provide plans and details for the septic tight tanks and future tie-in to sewer.

GENERAL

1. What aspects of Option B, phase 1 of the Master Plan are still relevant to this project?
2. Please provide a separate plan for pedestrian traffic on the site (acknowledged at 5/5/20 staff-applicant meeting).
3. Is the high school likely to pursue other phases or elements of the master plan in the future?
4. How will the high school coordinate spillover parking from Sharks and MV Soccer United games, or from other events?
5. What is the expected life span of the new track? How will it be disposed of at the end of its life?

COSTS AND MAINTENANCE

6. What will phase 1 of the project cost, and how will it be paid for?
7. How will this project affect taxpayers in each Island town?
8. How much has MVRHS spent annually for maintenance of the current playing fields since 2000?
9. Is the high school currently using best maintenance practices?
10. Will the MVRHS purchase a maintenance package plan? How much would that cost?
11. How will the high school balance the additional maintenance needed for the fields with the maintenance needed inside the school itself?
12. Is there a plan for incident response if unexpected contaminants get on the field? What would that cost per year?

ENVIRONMENT

13. Has Huntress investigated the likelihood of the synthetic field shedding microplastics into the environment? Is there a way to capture particles smaller than the proposed 0.212 mm geotextile fabric, or is there a finer fabric?
14. What fiscal and economic safeguards will be in place to protect the towns should the groundwater become contaminated as a result of the synthetic field?
15. What firms will be involved in the PFAS/PFOS testing, and will the methods account for local environmental conditions? EPA Method 537 identifies 18 different PFAS in drinking water, but there are many thousands in existence.
16. How will fertilizers for the grass field be controlled so as not to negatively impact users or the environment?

USAGE

17. Please provide a table or tables showing the following information (acknowledged at 5/5/20 staff-applicant meeting):
 - a. Current annual use per field, and the projected annual use for phase 1 only.
 - b. A list of sports offered at the high school, along with the playing seasons
 - c. The number players per year, and which fields they use.

18. Does the school share the goal of not exceeding 680 hours of use on any of its grass fields, as recommended by Huntress? How close will phase 1 get to that goal?
19. Has the high school considered MV Soccer United's intentions to use an expanded field network at the Boys and Girls Club? How would that affect the high school project?
20. Will user fees for community use of the athletic facilities increase as a result of the project?

WASTEWATER

21. How many bathrooms already exist on-site? Only the two portable toilets?
22. Please provide information about how frequently the proposed tight tank will be pumped out, and where the effluent will be disposed of (acknowledged at 5/5/20 staff-applicant meeting).
23. Please provide a letter from the Oak Bluffs board of health stating their position on the installation of the tight tank, and a letter from the town sewer board stating that the project can be connected to the sewer system once space is available.

PLAYER SAFETY

24. What is meant by a critical fall height of 1.2 meters for the synthetic field?
25. Are there more head and knee injuries with artificial turf than natural turf?
26. Will the synthetic field get hotter than a typical grass field? Please provide details.
27. Is there any danger that the small particulates that make up the infill can be ingested, inhaled by athletes or get in their eyes?
28. What other risks are associated with synthetic fields (friction, sliding, etc.), and how have they been addressed by this plan?

Oct. 19 questions from commissioners at LUPC meeting

[LINK TO ANSWERS](#)

1. (Fred) Appreciate overall campus plan. Please confirm the phase one scope includes the following: 400m track (Field #1) and natural grass field (Field #2).
2. (Richard) Is there a plan to remove the old track?
3. (Linda) Plans are hard to see on screen. Reduce printed commentary, make plans larger. Can we color the cursor in future presentations? Make cursor larger. What are the reasons for moving the track? Dislikes acronyms and initials.
4. (Doug) How long can we expect the existing 400m track will last with routine maintenance? How can you extend its life? Will the new grandstand be designed so that it can be expanded? What would be involved in putting in natural grass instead?
5. (Doug) Is a synthetic turf field appropriate for the island in light of the available alternatives? We are an Island – Does salt affect the 400m track or synthetic turf field surfaces?
6. (Christine) Asked if the new field replaces the existing football field. “Where will football be played once you put a new 400m track & field in its place?”
7. (Joan) LUPC and MVC process – Could MVC staff get these questions/answers in one document? Can the answers be worked into the updated staff report before bringing it back to the LUPC?
8. (Fred) Synthetic turf at end of life – how is the end-of-life determination made? We discussed GMax and HIC testing, along with infill depth and fiber wear testing.
9. (Richard) How does salt water/air affect the synthetic turf?
10. (Doug) Synthetic field and 400m running track are designed as a single project. Would you design the track any differently if the field was natural grass. Why must Field #1 be synthetic? Are there alternatives track surfaces that are not rubber?
11. (Linda) Will there be games played here between towns? She would like to see youth sports played in their own town. “When Tisbury and Edgartown play, it should be in Tisbury or Edgartown, not Oak Bluffs.”
12. (Adam) What is the synthetic turf field made of? How is it installed? How long is its life expectancy? Why are the fields in the condition they are? Would like to understand how we plan to maintain the other five natural grass fields.
13. (Adam) Need to address player safety, health & environment. He went on to say field use is one reason the fields are in poor shape, but it can’t be the only reason why they’re so bad. Can grass fields be better maintained and withstand the HS use.
14. (Jim) Is the proposed new pedestrian walkways and parking along Sanderson Road part of this proposal?
15. (Christina) Are the new parking & walkways along Sanderson part of phase one?
16. (Christine) Asked Alex if the OBPB has lots of good information, will there be a link to the OBPB website on the MVC DRI website?
17. (Christina) Cost is an issue. Consider how to handle that discussion at hearing.
18. (Linda) Stated that the amount of time necessary to review this amount of material is much greater than we usually take for an application. How can we structure the LUPC so that we don’t randomly limit the applicant’s presentation time.
19. (Adam) At the close of the LUPC meeting Adam said we would pick up at the next meeting with issues and question; then will move forward.

20. (Doug) Cautioned all parties about 2 degrees of separations and how close we all are. Asked the public to please not lobby the commissioners. He then asked commissioners if they are approached by anyone, please decline from engaging.
21. (Fred) Encouraged all the commissioners to look at the DRI website as there is so much information. Discussion continued about how to identify on the website what is old and what is current. Suggest the most recent plans could be separated out. Possibility of creating separate section for old material.

FUNDING/OTHER SCHOOL NEEDS

1. How does this fit in with overall school building plans?
2. How will private funding affect future MSBA requests?
3. Will replacement also be covered by donations?
4. How will future phases be funded?

USAGE

5. Provide intensity factor for field use estimate.
6. Will the field be fenced and locked? What are the hours, especially during Covid?
7. Are the size and orientation appropriate for the projected uses?

HEALTH/SAFETY

8. Provide a field disinfection plan that meets new Covid response protocols and follows manufacturer guidelines.
9. Independent confirmation that the synthetic field products do not contain fire retardants.
10. Independent confirmation of temperature data (how much higher than natural grass).
11. Provide a fire safety plan for the synthetic field.

MAINTENANCE

12. Breakdown of high school's 2019 annual budget for athletic fields maintenance.
13. What is the cost to maintain proposed field house and other non-field facilities?
14. What is the acreage of play area only? (For estimating potential cost of organic maintenance.)
15. Will proposed natural grass program succeed? (I will send additional questions as well.)
 - a. Grading, irrigation, soil amendments, planting, nutrient management, etc.
 - b. Does the proposed maintenance program align with current BMPs?
 - c. Work with organic grass expert to develop/revise program?

NITROGEN

16. Independent confirmation that the infill will not leach nitrogen.
17. Options for additional nitrogen reduction benefits for parking areas.

RECYCLING/DISPOSAL

18. Confirm that the proposed field is made from recycled materials.
19. Conduct an alternatives analysis for end-of-life recycling, or other waste stream diversion.

TRAFFIC/PARKING

20. What is the effect on school bus parking?
21. Will there be charging stations for future electric busses?
22. Confirm total current and future parking spots at the school.

OTHER

23. What is the anticipated start date and duration of construction?
24. Will the school's current insurance policy cover this project?
25. Other phases are likely in future, and the master plan recommends more fields. How will that affect the funding, budgets, environmental impacts, etc.?

Nov. 11, 2020 staff and commissioner questions

[LINK TO ANSWERS](#)

1. Do the federal flammability standards (COD FF 1-70) apply to synthetic fields? Are there other fire safety standards that apply specifically to synthetic fields?
2. On the issue of fire safety, please address the toxicity of smoke from a potential fire.
3. Is there currently a licensing agreement between HAI and the high school, or between Daedalus and the high school? If so, please provide a copy.
4. Please provide reference for the STMA 680-820 hours-per-field estimate for grass fields.
5. If later phases of the Athletic Field Master Plan do not proceed (or only proceed after a number of years), what are the implications for the Phase 1 project, in terms of usage, costs, field overlap, usability of remaining fields, etc.?
6. Please clarify whether user fees will apply to field use by non-MVRHS students, and provide a copy of the current field use policy.
7. How much tree and other vegetation clearing is required for Phase 1 (apart from the removal of 4 trees to make room for the bus drop-off)? Would the clearing in the area proposed for the synthetic turf be different if a grass field were proposed for that area?
8. Are ongoing additional landscaping costs built into the MVRHS budget?
9. Please explain why synthetic turf requires no watering. How do you keep it saturated?
10. What intensity of storm is the storm drainage system engineered to?
11. Please detail any specific equipment for installing or maintaining synthetic turf (other than the field groomer and sweeper attachments which are included in the vendor contract) which the MVRHS would require? Are these capital costs included in the cost comparisons provided?
12. Are you recommending and costing out standard grooming or premium? If the former, does the high school have the equipment and training to do the deep cleaning to remove debris and contaminants?
13. Do the proposed improvements to the natural grass field (i.e. re-establishing the mid-field crown, improving the topsoil composition and adding infiltration trenches) include any other reconstruction or renovation? Are your recommendations consistent with TURI (or other applicable) recommendations for establishing a grass field capable of moderate to heavy usage with proper maintenance?
14. What are the risks of failure to properly maintain synthetic turf (for instance, due to lack of funding; e.g. loss of warranty protection, injuries, etc)?
15. If recycling is not an option at the end of the synthetic field's life, who will decide how, where, and when to dispose of the materials?
16. Is there a lighting shutdown time?
17. What are the implications, if any, of returning a synthetic field to grass, if that proved desirable?
18. Please describe what happens to synthetic fibers over time (from wear and tear), including at what point in their life it will occur with MVRHS projected usage. Please also provide photos of synthetic fields after a variety of years of use.
19. Synthetic Turf fibers may resist turf bind and work free at 18 lbs of force. What does that equate to?

20. Infill may not ordinarily go airborne, but what about when it is not saturated, and how often is a non-saturated condition expected to occur? What are the risks if the infill becomes airborne in a heavy windstorm? What about infill “splash”?

21. Warranties and Insurance

- a. Are there warranty-voiding conditions?
- b. Provide indications of out-of-warranty costs experienced by other users.
- c. Is there a plan for transitioning maintenance work to MVRHS staff once the product is out of the maintenance agreement AND the warranty period?
- d. Who provides indemnities to MVRHS, and what is their insurance coverage?
- e. Is liability insurance for the two options (synthetic and natural turf) the same?

1. Please outline the high school's current practices in regard to grading, irrigation, grass planting and maintenance, aeration, and drainage for the grass fields at the high school.
2. Please respond to the position that it is not appropriate for a competition field to have a track when 1) seating is behind the track, 2) use of the field may impact use of the track, and 3) a bigger field may be more appropriate for the proposed uses.
3. Will the current irrigation system, including a well and booster pump, be upgraded to adequately irrigate all the fields?
4. Is it possible to provide a full-scale irrigation design at this stage? (To identify water source location, max pumping capacity, etc.)
5. Will the new grass field be "rain-out" proof?
6. How much existing topsoil will be stripped? (Plans say the top 12" are modified.)
7. Does the agriculture program at the high school teach organic grass maintenance? Could that program be involved in maintaining the high school fields?
8. Does "no recycling for energy" mean that the products can't be burned?
9. Show whether the proposed shockpad is made from recycled materials.
10. Please provide a simple, clear plan for the proposed monitoring wells, including the location of the wells, process for annual inspection, who will be in charge of sampling and analysis, and what standards will be used to determine if there is a problem with the groundwater.
11. What chemicals will be used in maintaining the natural fields (amounts and types)?
12. Is the woven turf backing a new technology and has it been proven in practice? What is its durability?
13. The Oak Bluffs Planning Board is concerned about the Edgartown-Vineyard Haven Road corridor in general. Provide more information about the effects on traffic.
14. Do PE classes include all sports and all years? (The more junior years would seem not to generate as much wear and tear.)
15. In regard to field usage, are the natural grass assumptions premised on the field reconstruction/design, irrigation, drainage and maintenance recommendations generally outlined in the document submitted by the Natural Grass Advisory Group?
16. In regard to maintenance activities, Chris's latest answers don't appear to cover infill replenishment – both periodic and regular top dressing (X% every #yrs) – or twiceannual deep-tine grooming. Can we assume that those activities are covered by the 2-year plan and that those costs are included in the detail of ongoing maintenance costs?
17. Are the following activities contemplated?
 - a. Spring/fall prep (Chris's answer says 2x in first year, but should it take place 2
 - b. times/year with a day each time?)
 - c. De-compacting
 - d. Watering
18. Clarify grass maintenance costs – replacement vs. sod only.
19. Do grass fields typically need a full reconstruction after so many years?
20. Provide details about rainwater harvesting and environmental educational opportunities for the high school, as mentioned in responses to HW.

21. Confirm whether the grass field will include underdrains and that the proposed leaching basins are sized to accommodate predicted flows. (Refer to HW review and responses.)
22. Confirm that stormwater from the synthetic field will be tested for nitrogen species. (Refer to HW review and responses.)
23. What is the total estimated cost of recycling the synthetic turf field, and does that include the costs of dismantling, testing, packing, and shipping all field components? Is that cost included in the donated funds? What specifically is the \$50,000 in escrow funds supposed to cover?
24. Confirm that field disinfection during the pandemic is limited to spot cleaning.
25. Confirm that the estimated grass maintenance costs are for one field or all the fields, and how many acres that entails. (Refer to HW review and responses.)
26. If recycling is not an option at the end of the synthetic field's life, what alternatives will be pursued, and what would they cost?

Dec. 2 questions with responses from MVRHS

[LINK TO RESPONSES](#)

1. Please detail the total amount committed by the donor, any capital costs that the donated funds will not cover, whether the donated funds are in place, and if they are subject to any contingencies.
2. Will the donors commit to longer-term funding to support the project?
3. Are there ways to organize additional funding, including from MVRHS alumni?
4. Could the community uses (youth groups and summer camps), estimated at 1,125 hours of use, be transferred to other Island fields to reduce usage on the MVRHS fields?
5. Relevant to financing, why did the prior Field Fund proposal to install natural turf not go forward? Are those issues still germane in light of the proposal?
6. How do we know future phases of the master plan will include only natural fields? The applicant needs to explain the longer-term plan.

Dec. 14 questions from staff and commissioners

[LINK TO ANSWERS](#)

[ADDITIONAL RESPONSE TO MARBLEHEAD CASE STUDY](#)

1. What qualifications and requirements will there be for specialized contractors and equipment? Will this specify experience in natural grass field maintenance?
2. Are Huntress and MVRHS willing to work with a natural sports turf specialist to finalize/revise the construction and maintenance plans for Field 2, provide education to the school, and carryout maintenance?
3. What is the current square-foot price for synthetic turf?
4. Clarify whether maintenance costs refer to all the grass fields, or just the one in the proposal.
5. Who is being consulted to determine the location of the proposed groundwater monitoring wells, and are two wells enough?
6. Talk more about the proposed infill for the synthetic field, including how it is spread out, where it sits in the system, and whether it migrates over time.
7. Explain the reduced impact associated with the shock pad under the synthetic field. Why is the range of risk reduction so large? What is the stated reduction relative to?
8. What about the Marblehead fields? Why are their field usage rates so high and why can't the Vineyard duplicate their usage?

Dec. 17, 2020 questions from staff and commissioners
Includes additional questions from Oct., Nov., and Dec.

[LINK TO ANSWERS](#)

1. Questions for MVRHS Facilities Director Mike Taus: Is the high school currently using best management practices for the maintenance of the natural grass fields? If not, then with the use of those BMPs (assuming proper construction of the fields and adequate budgeting for maintenance), can you say whether the fields could withstand greater usage, and if so, how much? If the high school is not using BMPs currently, is there any reason why the contractor performing the maintenance work for the MVRHS is not applying those standards? Does the high school maintenance staff have adequate training to apply BMPs?
2. If nitrogen is applied at the rates specified in, and otherwise in accordance with, the Island fertilizer regs, how much of that nitrogen is typically absorbed by the field, and how much goes into the groundwater?
3. If fertilizer-grade urea cannot be applied to the synthetic turf field to melt ice, what is proposed to be applied to enable the field to be used in freezing temperatures?
4. Question for MVRHS: Please provide the current fee schedule, and explain how the fees might increase after the project is completed.
5. What are the concussion rates for the proposed system?
6. Assuming a clear, hot summer day, what is the range of how much hotter the proposed synthetic turf would be, compared to natural grass turf? Please note the assumptions underlying your answer.

Oct. 26, 2020 responses:

7. Please specify which cleaning and disinfection chemicals/products will be used for spot-cleaning the field. Are there studies showing that rain-water is enough to ward off bacteria like MRSA?
8. Nov. 13 responses:
9. Question for MVRHS: Please provide whatever written agreements are in place between the MVRHS and each of HAI and Daedalus.
10. What would be the implications, in terms of usage and the quality of the synthetic field and field #2, if future phases of the master plan are not completed?
11. Question for MVRHS: Is the field use policy the same as the MVRHS Student Handbook?
12. Please provide the photos of synthetic fields at various stages in their life cycles, including ones nearing end of life (these don't have to be the same products as proposed). Please comment on the effect of UV rays on the grass blades over time.
13. Are there separate warranties for each element of the field? Please provide documentation. Will these be personalized warranties, and can you provide examples of personalized warranties from other HAI projects?
14. Please provide a copy of the current insurance policy that covers the fields. Does the policy cover replenishment and/or replacement of synthetic products following a major storm? If not, where would that funding come from.

Dec. 2 responses:

15. Question for MVRHS: Please provide documents/confirmation that the replacement of the synthetic field will be covered by donations.
16. What are future phases of master plan Option B likely to cost over 20 years?
17. Please detail all the assumptions in the field use analysis provided. In particular, please comment on each of the points raised by Richard Bennet in his email correspondence dated March, 4, 2020, specifically his point 2.
18. Please reference the specific organizations and provide specific documents that conclude that synthetic turf is non-flammable. The Iron Turf MSDS states “material will burn in a fire,” and combustion products contain carbon dioxide, carbon monoxide, various hydrocarbons. (Standard 29 CFR 1910.1200, referenced in response to question 1 on Nov. 13, refers to hazardous chemicals, not flammability.) Please also provide the COD FF 1-70 test results for the Iron Turf product.
19. Question for Mike Taus: How is the high school budget for athletic field maintenance spent? Has the high school spent its entire field maintenance budget on field maintenance in the last 3 years? If not, what portion was spent?
20. Confirm that the field house is no longer part of phase one. If so, those plans would need to return to the MVC for review. Please provide an estimate for the cost of non-field maintenance for phase one.
21. We still need to see an alternative plan for disposal, which accounts for the possibility that recycling will not be an option at the end of life.

Dec. 12 responses:

22. Will irrigation requirements for field 2 reduce the water available for irrigating the other fields? Confirm that phase 1 before the commission will have no impact on existing fields besides field 1 and field 2, with the exception of reducing their annual usage.
23. Question for MVRHS: What specific activities for PE classes take place on the fields? Does this apply to all grades and classes?
24. What is the \$50K in escrow funds intended to cover and under what conditions would funds be able to be withdrawn from the account? What entity or entities will provide the escrow funds?
25. Question for MVRHS: Please detail any capital costs that the donated funds will (or might) not cover, whether the donated funds are already in place, and if they are subject to any contingencies. Will the donors commit to longer term funding for the project, including replacement of the synthetic field (not just once but in perpetuity), and future phases of the master plan? Does the donor’s pledge include paying for the entire \$7,729,928 Phase 1 estimated cost? If not, what does it cover specifically?
26. Question for MVRHS: What specific issues or concerns did the high school have with the Field Fund proposal?

Dec. 17 questions:

27. Confirm that future replacement of the synthetic field will include the same infill and products. (The MVC could apply a condition that replacement needs to come back for review.)

28. Is the maintenance budget provided for the natural grass field based on the Annual Maintenance Plan dated June 8, 2020? If not, please provide an updated maintenance budget for the grass field.
29. What is the overall campus plan for usage and play? Who will use what fields?
30. Will there be written guidance to protect athletes from high temperatures associated with the synthetic field? If so, please provide an example of what that guidance might look like.
31. Please provide a cost and energy comparison of current and proposed electrical use.

Jan. 22, 2021 questions from staff and commissioners

[LINK TO ANSWER TO QUESTION 1](#)

[LINK TO ANSWERS TO QUESTIONS 2-20 \(QUESTION 7 IS ANSWERED IN THE ATTACHMENT\)](#)

1. Provide details on existing sprinkler system for the playing fields.
2. Provide a diagram showing the current hourly usage of the athletic fields.
3. How does the July 2020 field use analysis account for away games? (The Dec. 28 Q&A document, question 16, addressed the analysis, but not in terms of away games.)
4. Huntress calculates that installation of a synthetic field over a 20-year period is \$1,675,834. If, alternatively those funds were invested on grass field(s) instead, what would be the approximate economic benefit be to the island locally if maintenance crews and other personnel were hired, trained and retained on island?
5. How is the sub-base layer for the synthetic field different than that of the natural field, in terms of cost and design?
6. What is the high school not doing in terms of current natural grass maintenance that leads it believe it must pursue a synthetic field?
7. How does HAI reconcile the statement made in the Q&A dated Dec. 28 (Question 1), “In my opinion, the natural grass fields at MVRHS cannot withstand greater usage, with or without additional BMP activities” to the statement by the Natural Grass Advisory Group in their submission that the problem with the MVRHS natural grass fields is not overuse but inadequate maintenance, and the statement in the Horsley Witten case study report, “It is likely that MVRHS could meet its usage needs with natural grass if they would commit to a maintenance program that focused on soil testing, aeration, soil amendments, frequent mowing, and the use of organic fertilizer to promote good soils and a strong root system”?
8. In the Q&A dated Dec. 28 (Question 11), HAI’s response notes that the fibers passed the UV tests. What does that mean to have passed the test in terms of the fiber's resistance to decomposition, durability, breakage, etc.? What has to be demonstrated to get such a score (or any other)?
9. What does it mean for the products to have passed the FIFA testing? (See May. 26 Q&A.)
10. Similarly, in the Q&A dated Nov. 13 (Question 18), HAI’s response notes that with wear and tear, fibers can fold and lay over. What effect does this have on durability, breakage, etc.? Given the anticipated use of the field over time (per the high school estimates of use), after how many hours/years of usage can that be expected to begin to occur?
11. In the Q&A dated Nov. 13 (Question 19) and elsewhere, HAI indicates that the plastic carpet blades can be dislodged with 18 lbs of force. With that in mind, how much breakage or pulling out of the fibers would occur during a typical athletic event, considering all the various types of contact with the field, including kicking, falling, scooping of lacrosse sticks, scuffing of cleats, and abrupt stops/turns?
12. What can be expected in terms of the percentage of carpet fiber loss annually due to wear and tear (i.e. normal use, exposure to UV light, etc.)? It would seem that carpet loss is expected, since the field must be replaced after 8–10 years.

13. What is the useful life, and the estimated cost and disposal plan, for the field elements other than the carpet: shock pad, infill, and the silica/sand layer? This estimate should include the costs of removal, transport, and any fees payable to a recycler/landfill.
14. What if recycling is not actually an option when the time comes (for instance, if the recycling business for this type of product is no longer economic)? What are the alternate disposal plans?
15. In the Q&A dated Dec. 28 (Question 23), HAI states that the escrow money can be accessed if the manufacturer “is unable for any reason to recycle as per the specifications”. What are those specifications, and if they have already been provided, where can they be found?
16. Is the high school willing to install solar panels on the field house to power the improvements?
17. Please specify the risks to athlete health and wellbeing if the synthetic turf field is not properly maintained once the 2-year maintenance program has ended.
18. Based on the Firefly Sports sample analysis for end-of-life determination, it appears the synthetic field should be regularly tested. However, the analysis does not seem to indicate is how many of the tests would need to fail in order to conclude the field must be replaced. Is there an objective standard by which the high school can determine that the field needs to be replaced (and with which the manufacturer would agree)?
19. Please provide any documentation of the risk of inhaled or ingested silica coming from the proposed sand layer of the synthetic field.
20. Have any of the relatively new hybrid turf/grass fields been considered for MVRHS by Huntress or their predecessors?

Feb. 4, 2021 questions from staff and commissioners

[LINK TO ANSWERS](#)

1. What would be the annual cost of athletic field maintenance if the high school applied the maintenance proposal for Field #2 to all of the athletic fields, including the game field?
2. Please provide copies of any agreements the high school has with Daedalus and Huntress.
3. Please provide a list of the existing high school fields and the times of year when they are intentionally taken offline in order to support the field maintenance and quality. Please also show how that schedule aligns with the existing and proposed maintenance plans.
4. Groundwater monitoring: Climate change will bring changes to the Island economy. For example, the potential for fewer visitors due to extreme weather events and their aftermath and a decline in the coastal real estate market. Another thing that will detract from the visitor economy is tainted groundwater, which is our sole source of drinking water and also enters our coastal ponds, affecting recreation and the shellfishing industries. If the two groundwater monitoring wells reveal the presence of microplastics, chemicals, or other contaminants related to the turf field, what will be done since the field will already be in place?
5. Will there be stormwater monitoring post-construction within the drainage system for Field #1?
6. Natural versus artificial materials: Wherever possible, working with nature, rather than against it, is the preferred method of climate adaptation. Today there are grass field designs that are said to better withstand heavy use, reduce impacts to the land and absorb more carbon. Based on regenerative landscape practices, these techniques better absorb water, decrease the need for irrigation, and reduce the need for chemical fertilizers. Can the applicant please explain why these techniques have not been proposed for the athletic field renovations? And will the applicant consider proposing them?
7. Job training: Knowledge of regenerative land use practices is a valuable, climate related workforce skill. Can the applicant please consider using the field renovations and maintenance as a workforce training experience for high school students?

March 9, 2021 questions from staff and commissioners

[LINK TO ANSWERS TO QUESTIONS 1-9](#)

[LINK TO ANSWERS TO QUESTIONS 11 AND 12](#)

1. If the groundwater monitoring wells reveal the presence of microplastics, chemicals or other contaminants, what will be done since the field will already be in place?
2. Natural versus artificial materials: Wherever possible, working with nature, rather than against it, is the preferred method of climate adaptation. Today there are grass field designs that are said to better withstand heavy use, reduce impacts to the land and absorb more carbon. Based on regenerative landscape practices, these techniques better absorb water, decrease the need for irrigation, and reduce the need for chemical fertilizers. Can the applicant please explain why these techniques have not been proposed for the athletic field renovations? And will the applicant consider proposing them?
3. Although the High School has not included any information in regard to later phases of the program for the improvement of the athletic fields, it is clear that as a consequence of phase 1, a softball diamond will be eliminated. There has been testimony that the diamond would be relocated in an area that is now forested. If cutting down the forest to accommodate the relocation were not permitted, what are the High School's contingency plans?
4. One of the things the MVC looks at is the availability of suitable alternatives, which would include the possibility of all-grass fields. If the MVC does not approve the use of synthetic turf at the High School campus, what alternatives would be available to accommodate the existing athletic program on all natural grass athletic fields?
5. Firefly Sports Testing is quoted in an answer provided by the Applicant (Jan. 25, 2021 Q&A) as saying, "Other than g-max there is no other single end-of-life test recognized in the industry." Specify the condition of the field components that would give rise to a failing test score (a cumulative D or F), making replacement necessary.
6. You have stated that the turf blades won't break or pull free because there is not enough force applied and because of the woven technology. You have also stated that with wear and tear, fibers can fold and lay over (Nov. 13, 2021 Q&A, question 18). Your submissions indicate the product (i) meets the European standard (at least in part for durability, although it is not clear that "meeting the standard" means there is no loss of mass), and (ii) meets the FIFA standard, which may or may not be relevant on the issue of loss. Finally, the Labosport testing concluded that there was zero yarn loss over the course of the testing and that the monofilament fibers retained their integrity and remained upright through the testing. In your opinion, is there any loss of plastic through degradation from wear and tear and UV exposure? If there is loss, what percent (by weight) is lost by the end of the product's useful life?
7. Is there anything that can be done prior to the installation of a synthetic field which would make the potential conversion to a grass field easier in the future?
8. In the Nov. 13 Huntress letter (question 21) the question was. "Are there warranty-voiding conditions?" The answer provided was, "no." As the manufacturer's warranty has not been provided, for clarification, there are any exclusions to the warranty for the Infilled Synthetic Turf System? Is there nothing the owner can do can which might void or limit the warranty?

9. Are there other playing fields on the Island that could be used by summer camps and youth groups in lieu of the High School's fields?
10. One of the things the MVC looks at is the availability of suitable alternatives, which would include the possibility of all-grass fields. In this regard, what specific issues were unable to be resolved with the Field Fund a few years ago which led to the termination of discussions? If the general sticking point was the terms of a license agreement, what aspects of that agreement were unable to be agreed? Putting aside the proposal before the MVC, are those issues still a bar to any arrangement with the Field Fund? (A similar question was posed on Dec. 2, 2020 (question 17 in the Dec. 12 response from the high school), and the answer was not helpful.
11. Please provide the minutes of all MVRHS School Committee (or subcommittee) meetings at which the athletic fields project has been discussed.

April 9, 2021 response to questions from commissioners

[LINK TO ANSWERS TO QUESTIONS 1, 2, 4-6](#)

[LINK TO ANSWERS TO QUESTIONS 3 AND 7](#)

1. Please address any health concerns known to be associated with the silica sand that will be used in the artificial turf system. Are there potential risks beyond inhalation? (Your response to Question 19 in the Jan. 25, 2019, Q&A document is noted.)
2. How will the proposed wood infill be kept from developing mold and mildew? Is dust a health concern? How does the infill remain stationary in heavy rain and wind?
3. If Field #1 is not permitted to be synthetic, will the project still be funded by private donations, and if so, which portions?
4. Is it possible that some of the current athletic uses or sports could take place elsewhere on the Island, such as at one of the elementary schools, to alleviate pressure on the high school fields?
5. Please explain the purpose of renovating Field #2, rather than one of the other fields at the high school, as the current Field #2 appears to be the newest and most well irrigated.
6. Is the applicant willing to consider a wood and/or fiber cement alternative to exterior PVC materials in the proposed Field House?
7. Follow-up to the March 17, 2021, response by Peter Summers (Question 6): Please provide copies of the minutes from all MVRHS School Committee and Athletic Facility Sub-Committee meetings at which the athletic fields project was discussed, going back to January 1, 2018. Because the School Committee minutes are not available online, and agendas for the School Committee and Facilities Sub-Committee meetings appear to be available only on an occasional basis going back to October 2020 (on the MVRHS Web Calendar), and because relevant discussion may not have been listed in the available agendas, we are unable to identify specific meetings and dates for which we would like the minutes. We do note that Facility Sub-Committee minutes for April 3, April 10, April 24, and May 8, 2018; and May 22 and 14, 2019, are available on the MVRHS website, so this request can exclude those meetings.