



City of Cambridge

Executive Department

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City Manager

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IN CITY COUNCIL
June 8, 2026

To the Honorable, the City Council:

The City's work at Ahern Field is grounded in a long-standing effort to expand access to high-quality recreation space, particularly for Cambridge's youth to participate in sports and outdoor play. As our children recover from the pandemic and confront a world of greater isolation and polarization, it's critical that we provide opportunities for sports. Participation in programs across all levels – from introductory clinics to competitive youth leagues – has increased significantly in recent years and the City continues to hear that the biggest constraint to more children participating is the need for reliable, nearby fields that can support consistent play. For many families, having dependable fields within the neighborhood is essential to ensuring that children can participate fully.

A key reason the City chose synthetic turf at Ahern is to strengthen this access and invest in youth sports development citywide. The City and local nonprofits offer low-cost and no-cost programming, making equitable access central to their mission. The proper maintenance of grass fields primarily consists of resting and restricting activity, which works against reliable and frequent use. When grass fields deteriorate or require extended closures, programs must relocate or reduce capacity, and participation in local programs drops, pushing families into club programs that can cost thousands of dollars. While we would all prefer a well-rested grass field, the reality is that synthetic turf is the best option for our community.

The City also recognizes that creating additional turf capacity will help reduce the cycle of fields becoming worn down to dirt, unusable after rain, or placed on hold for maintenance. While natural grass will always play an important role in Cambridge's park system, heavily used fields like Ahern face year-round demands that grass cannot consistently sustain. Adding a reliable surface in this part of the city will ease pressure on other facilities, reduce cancellations, and ensure more predictable access across the entire recreation network.

At the same time, the Ahern project has always been envisioned as more than a field replacement. The design takes a full-park approach – upgrading playgrounds, circulation, landscaping, and shaded gathering areas – to better serve both active users and neighbors seeking everyday open space. The following memo is in response to Awaiting Report #26-30 which requested that the City Manager provide a report on how the decision to install artificial turf was made, the rationale for artificial turf, the process taken to ensure community concerns, and that public health considerations are fully addressed.



This was prepared collaboratively by DPW, DHSP, the Public Health Department, and CDD, and details the factors that informed the City's evaluation of field surface options and the broader improvements proposed for the site.

Project Context and Existing Conditions

For years, Ahern Field and the surrounding park have struggled to keep up with the needs of the community. Poor drainage and heavy use leave the natural grass field worn down, muddy, and often unusable for long stretches of the year. The current layout also forces many activities to compete for limited space, making it difficult for organized sports, casual recreation, playground use, and neighborhood gathering spaces to comfortably coexist. At the same time, the playground and other park features have reached the end of their useful life and need replacement.

These challenges come at a time when **demand for youth sports in Cambridge is growing rapidly**. Cambridge Recreation has served more than 1,000 young people annually in registered programs over the past three years, with many programs filling within days, hours, or even minutes of registration opening. Local nonprofit youth sports organizations are experiencing the same growth. Over the past decade, Cambridge Youth Soccer enrollment has nearly doubled to approximately 2,300 players, while Cambridge Youth Lacrosse and Cambridge Flag Football have each grown by as much as 300%.

The condition of Ahern Field has made it increasingly difficult to meet that demand. Because the field cannot reliably handle heavy use or wet weather, programs are often displaced or forced to relocate to synthetic turf fields in other parts of the city. Cambridge Flag Football has reported enrollment drops of up to 70% during seasons when practices and games had to move outside the neighborhood. Cambridge Girls Youth Softball also declined use of the field due to poor conditions and limited amenities. When families are required to travel farther for practices and games, participation becomes harder, especially for working families and households without reliable transportation.

Providing safe, durable, all-weather athletic fields is about more than recreation. It is about making sure every child has access to the benefits that youth sports provide: exercise, teamwork, confidence, mentorship, and connection to community. It is also an important equity issue. **Cambridge Recreation and local nonprofit sports organizations intentionally offer affordable and low-cost programs so children can participate regardless of income**. Many programs cost little or nothing to join, while private "pay-to-play" sports programs can cost families thousands of dollars each year, often before equipment and travel expenses are even considered. For many families, those costs create barriers that leave children excluded from opportunities that we want all families to be able to access.

The proposed improvements at Ahern are intended to directly address these challenges. A more durable, reliable all-weather field would allow the space to support school and community use for much more of the year, reduce cancellations and relocations, and create more opportunities for children to play close to home. Just as importantly, these improvements would help ensure that access to sports and recreation in Cambridge is not determined by a family's ability to travel or afford expensive private programs.

The proposed design includes more than just a turf field. It also adds a large grass buffer with trees, a planted seating area, new playgrounds, courts, and preserves the well-loved path through the park. This project takes a full-site approach to improving the park instead of replacing one feature at a time.

Design Plan, as of May 27, 2026



In terms of the field surface, the decision is not between two equal options. It is a choice between:

- a synthetic turf field that can support reliable, year-round use and meet the increasing demands of users, or
- a field that provides a natural grass experience, but will either experience worn-down conditions or require regular closures and cancellations to maintain the field

Community Engagement and Design Development

Community feedback has played an important role in shaping the design of the project. Concerns about the condition, drainage, and heavy wear at Ahern Field have been raised through City open space planning efforts for more than 20 years. Those long-standing concerns helped lead to the inclusion of a turf field conversion when funding for the project became available.

When design began, the City held discussions with Cambridge Public Schools and the Community Charter School of Cambridge, key community partners and field users, both of which express support for a field that can support reliable, year-round daily use.

The City conducted extensive public engagement focused on how the park should function as both a neighborhood open space and a heavily used recreation facility.

The City conducted multiple rounds of public outreach and stakeholder engagement throughout the planning and design process. These efforts included:

- June 23, 2025 – In-person park tabling focused on overall park needs and existing conditions
- July 22, 2025 – Additional in-person park tabling and community outreach
- September 18, 2025 – Online public focus group meeting centered on athletic recreation needs and field/court use. Representatives from recreation, summer leagues, summer food, Cambridge Youth Lacrosse, Cambridge Youth Soccer, Cambridge Youth Hockey, Cambridge Flag Football,

Cambridge Youth Softball, and Community Charter School of Cambridge were in attendance.

- March 11, 2026 – In-person public open house focused on the overall park design and community priorities

The March 11, 2026 open house included both presentation and breakout discussion formats. **At that meeting, the project team identified which elements of the design were fixed and which remained flexible and open to refinement.** Residents shared feedback on park layout, entrances, seating, play areas, landscaping, and how the park functions as a neighborhood gathering space.

Community input has directly influenced many aspects of the current design. Feedback received through meetings, tabling events, stakeholder discussions, and the open house informed changes related to circulation, entrances, seating, gathering areas, play spaces, landscaping, and the overall organization of the park.

That feedback is reflected in the current design, which includes:

- Improved park entrances and circulation
- Expanded seating and shaded neighborhood gathering areas
- New and upgraded play spaces
- Enhanced landscaping, additional planted areas and 34 new trees

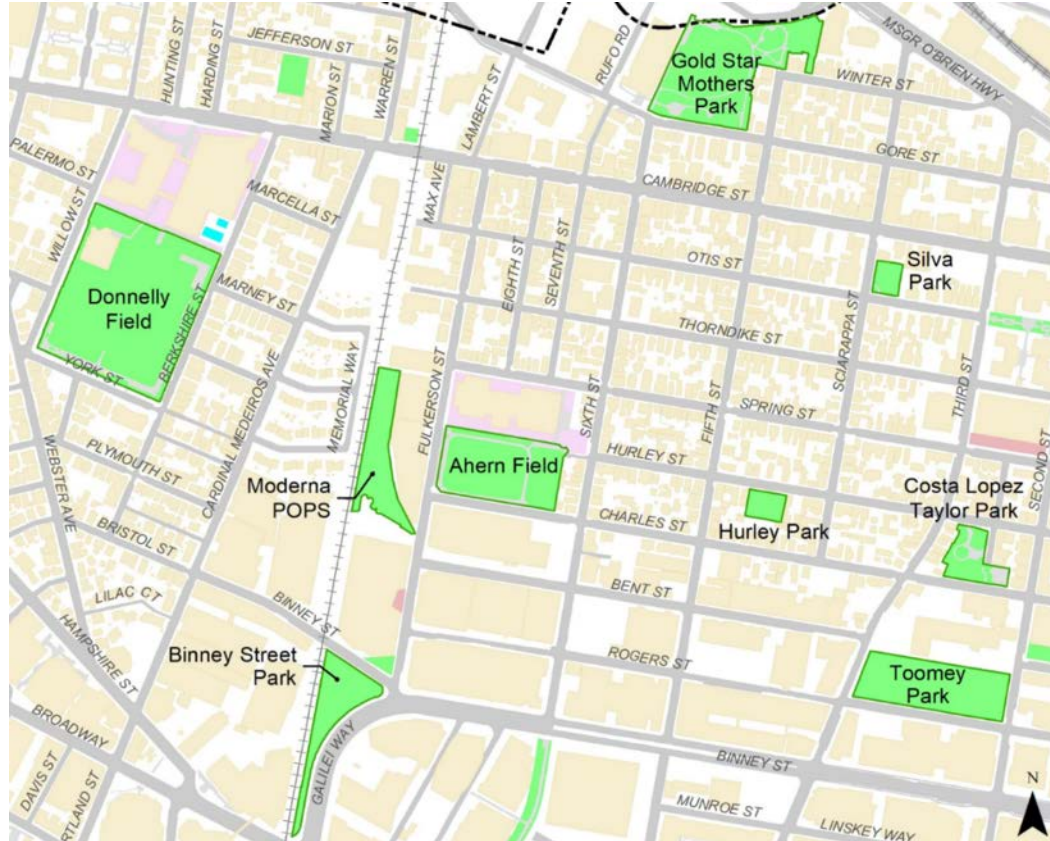
While the field surface has been one part of the discussion, the overall project reflects a wide range of community priorities focused on creating a more welcoming, functional, and usable public space for both active and passive recreation.

Open Space Context in East Cambridge

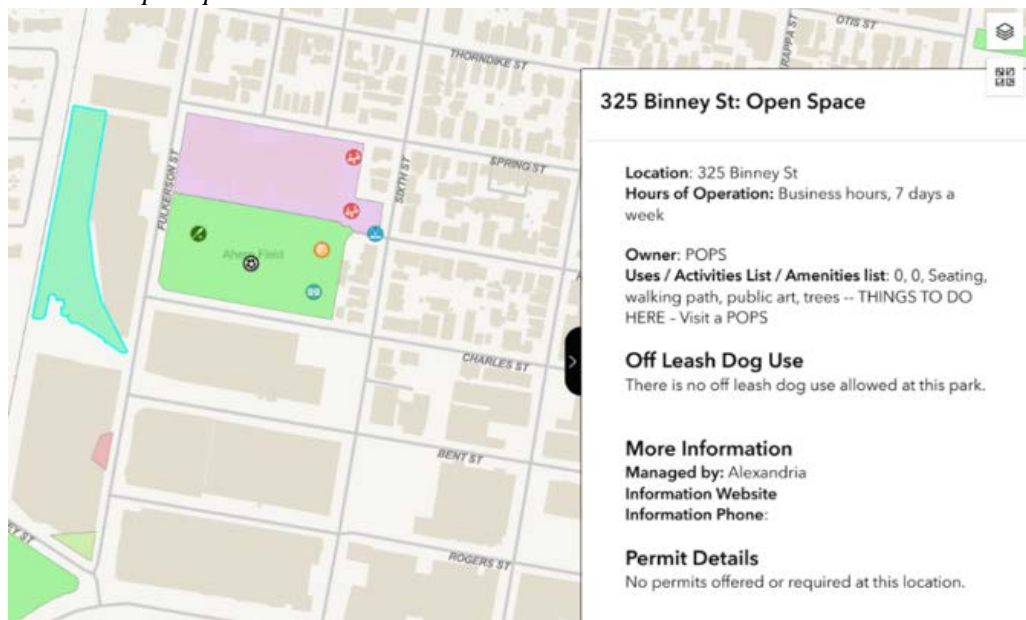
Ahern Field is part of a broader network of open spaces in East Cambridge, which contains a variety of nearby open spaces that support recreation, gathering, lawn use, and neighborhood access to green space. Recent additions and improvements including Toomey Park, Triangle Park, Little Binney Street, and publicly accessible open space at the Moderna campus provide a range of passive and active recreation opportunities within walking distance.

This distribution of spaces supports a diversity of experiences across the neighborhood.

Graphic 1: Open space within approximately a 10-minute walk from Ahern



Graphic 2: Screenshot from the interactive [City's Parks and Open Space GIS map](#) showing the publicly accessible open space at Moderna



Field Use, Demand, and Operational Constraints

Ahern Field supports a high volume and intensity of use, including school day activities, youth athletics, and informal community use. **Unlike fields that can be rested or rotated, Ahern experiences near continuous use from morning through evening in each season of the year.**

This includes both permitted and open use, such as daycare groups, afterschool programs, gym class, daily recess, and casual play. These patterns make it difficult to close the field for recovery without significantly limiting access.

Documented challenges with the current grass field include:

- Frequent relocation or cancellation of scheduled activities due to poor field conditions, especially during wet weather and seasonal transitions. User groups decline to use the field due to unpredictable conditions. Significant damage from pivot sports (including soccer, lacrosse, football, and ultimate frisbee).
- Scheduling conflicts between user groups due to limited field availability, particularly during periods when the field is closed or degraded due to weather or overuse.

East Cambridge currently has no weather-independent athletic fields, resulting in fewer reliable options for consistent play during wet or high-use periods.

The following analysis summarizes citywide booking data for pivot sports (including soccer, lacrosse, football, and ultimate frisbee) and softball, and how these trends inform the recommendation for synthetic turf at Ahern Field. “Hours Booked” identifies the total number of hours booked during the time period of April 1st, 2025, through November 30th, 2025. (Note: this number does not include field use by Cambridge Public Schools during the school day for Physical Education or use by DHSP afterschool programs.) (see **Graphics 3–9**).

Across Cambridge, these field types are in consistently high demand. Permitted booking data over the past three years shows that Ahern Field is actively used for both pivot sports and softball. It is important to note that this data reflects permitted use only and does not capture additional informal or unpermitted use by nearby schools, programs, and general park users. As a result, actual field usage is higher than what is reflected in the data (see **Graphic 3**).

To better understand access and distribution of facilities, the city can be divided into two sectors. Sector A includes West and North Cambridge up to Cambridge Common, while Sector B includes areas from Cambridge Common through Mid-Cambridge, Central Square, and East Cambridge.

There is a clear disparity in access to weather-independent (synthetic turf) facilities between these two sectors. Sector A currently has six synthetic turf fields, while Sector B has none. This imbalance limits playable hours in Sector B and places increased demand on grass fields, particularly during periods of inclement weather (see **Graphic 4**).

This difference in facility availability directly impacts how fields are used. Significantly more hours of play are accommodated in Sector A compared to Sector B, due to both the number of facilities and the presence of weather-independent surfaces. As a result, users are not always able to access fields within their own neighborhoods, which has been raised as a concern by residents (see **Graphic 5**).

When focusing specifically on grass fields, the disparity becomes more pronounced. Grass fields in Sector B experience, on average, approximately 20% more use than those in Sector A. Ahern Field typically

exceeds even this higher average. This level of demand has a direct impact on field conditions, contributing to deterioration and limiting usability (see **Graphic 6**).

More broadly, synthetic turf fields support significantly more hours of use throughout the year due to their resilience to weather conditions. In 2025, approximately 70% of all booked hours for pivot sports and softball occurred on synthetic turf fields, reflecting roughly 40% more hours of use compared to grass fields on a per-facility basis (see **Graphic 7**).

A comparison of site-specific conditions further illustrates this difference. At Russell Field, the conversion of an auxiliary field from grass to synthetic turf resulted in a substantial increase in use. In 2017, when the field was grass, fewer than 200 hours were booked due to poor conditions and weather limitations. In 2025, the same field—now synthetic turf—supported nearly 800 hours of use while remaining playable in a wider range of weather conditions (see **Graphic 8**).


Finally, a comparison of Ahern Field to existing synthetic turf facilities in Cambridge shows that, while sites may vary in size, similar surface conditions and lighting could support comparable levels of use. This reinforces the potential for Ahern to better meet current demand when upgraded to a weather-independent surface (see **Graphic 9**).

Graphic 3: Citywide permitted use for pivot sports and softball

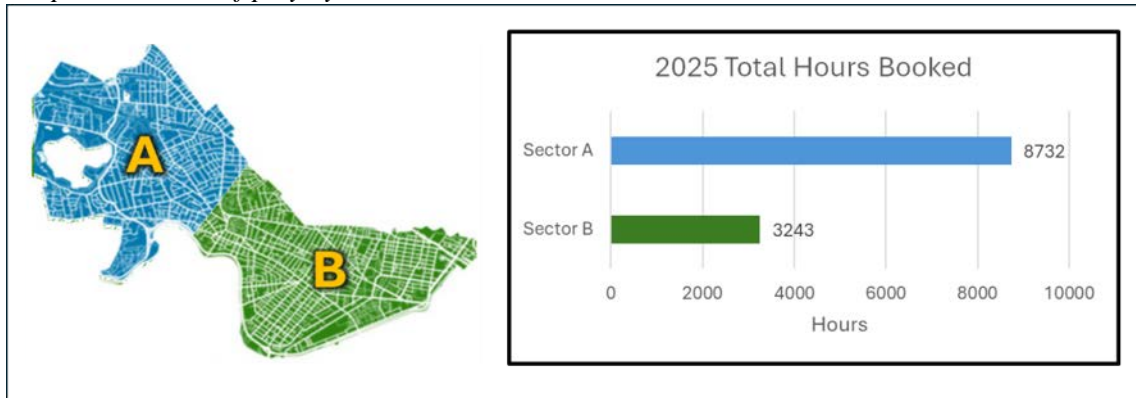
Location	Surface	2025 Hours	2024 Hours	2023 Hours	3 Year Average	Area	Sector
Buckingham	Grass	280	339	271	330	West	A
Danehy SB #1	Grass	262	301	372	312	North	A
Danehy SB #2	Grass	325	350	393	356	North	A
Danehy SB #3	Grass	370	440	393	401	North	A
Danehy Turf #1	Turf	1068	1178	934	1060	North	A
Danehy Turf #2	Turf	917	840	946	901	North	A
Danehy Turf #3	Turf	904	946	884	911	North	A
Danehy Turf #4	Turf	1333	461	1351	1048	North	A
Maher	Grass	283	425	283	317	West	A
Raymond	Grass	446	402	357	402	North	A
Russell	Turf	986	1017	924	976	North	A
Russell Auxiliary	Turf	796	679	721	732	North	A
St. Peters Softball	Grass	762	847	720	776	North	A
Tobin	Grass	n/a	n/a	n/a	n/a	West	A
Ahern	Grass	556	568	524	549	East	B
Cambridge Common	Grass	315	306	230	284	Central	B
Donnelly	Grass	731	784	1227	914	East	B
Gold Star	Grass	258	404	458	373	East	B
Hoyt	Grass	731	681	740	717	Central	B
Pacific	Grass	321	320	302	314	Central	B
Sacramento	Grass	216	202	196	205	Central	B
Sennott	Grass	638	611	90	419	Central	B

Graphic 4: Facility distribution by sector

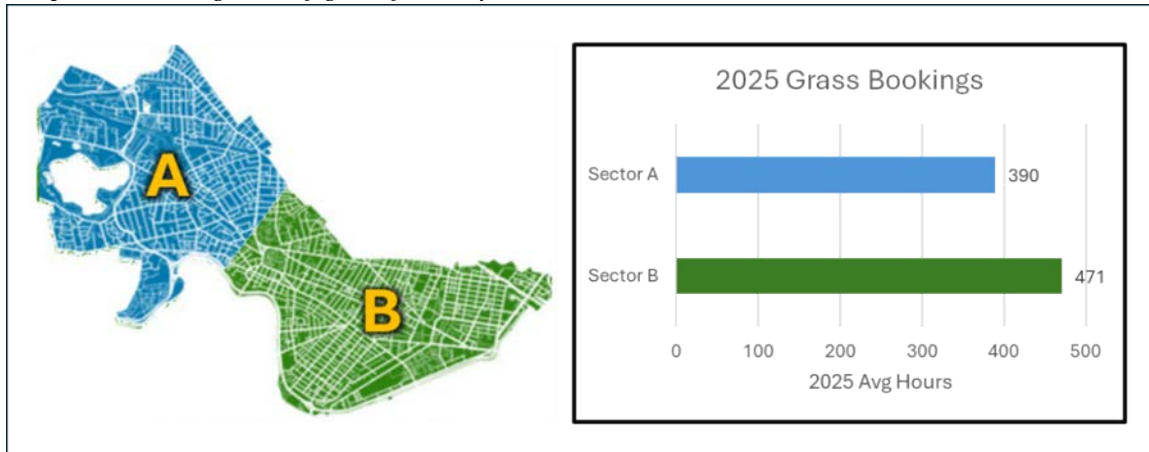
2025 Pivot Sports & Softball Data	Sector A (North & West)	Sector B (Mid, Central, East)
Facilities Booked	13*	8
Weather Independent Facilities Booked (turf)	6	0
Total Hours Booked	8,732	3,766
Average hours per/ Grass Facility	390	471
Average hours per/Turf Facility	1,001	0



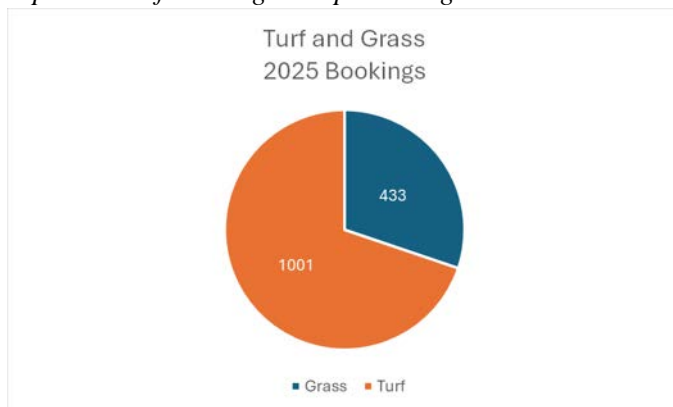
Graphic 5: Hours of play by sector



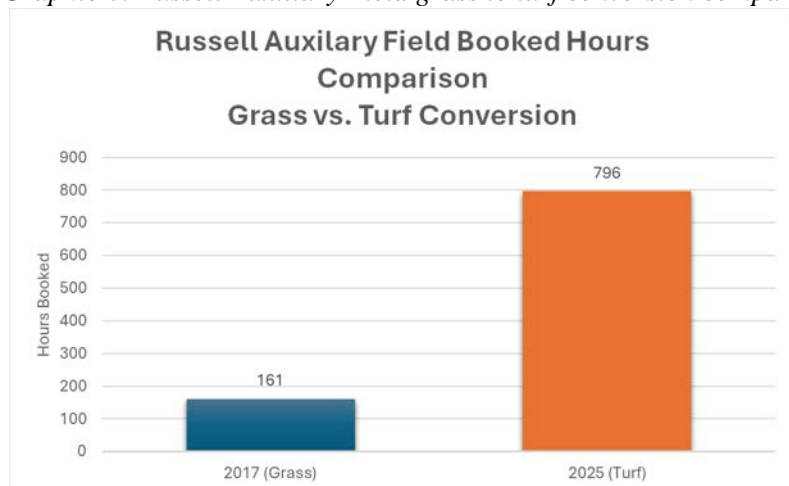
Graphic 6: Average use of grass fields by sector



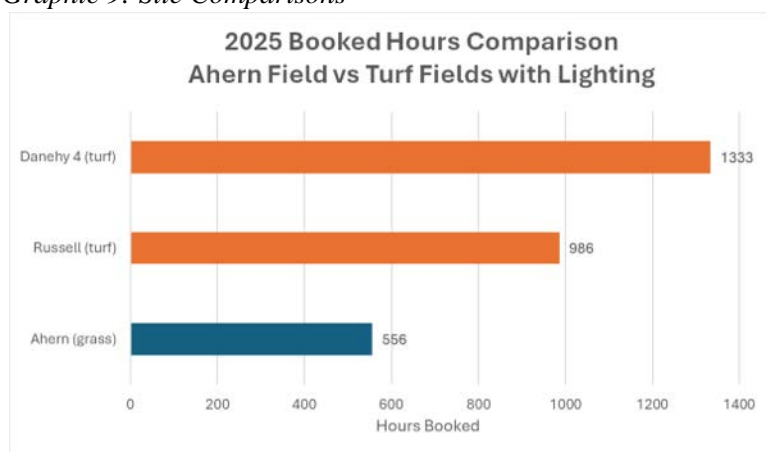
Graphic 7: turf bookings compared to grass



Graphic 8: Russell Auxiliary Field grass to turf conversion comparison



Graphic 9: Site Comparisons



The existing grass field is not meeting the needs of current users or the demand for reliable playing time. If the field remained natural grass, current conditions would continue, including:

- frequent closures and cancellations due to weather and field conditions
- limited availability for school and youth sports programs
- continued wear and damage from current levels of use
- fewer reliable places to play in East Cambridge compared to other parts of the city

Based on the various uses the field supports, these issues are not expected to improve without changing the playing surface or significantly reducing the usage of the field.

Evaluation of Natural Grass and Current Maintenance

Enhanced natural grass systems, including improved drainage, were evaluated. While these enhanced natural grass systems can perform well in lower-use environments, they still require regular recovery periods. Ahern field requires drainage improvements whether the field is natural grass or turf.

At Ahern, the combination of heavy daily use, type of play, and weather in New England limits the viability of natural grass. Even high-performance grass fields cannot sustain continuous, year-round use without degradation.

Unlike professional or training facilities—where optimal maintenance conditions and multiple fields allow for rotation and recovery—Ahern Field does not have the capacity to support that model. Limited space and consistently high demand require the field to remain in near-continuous use.

The field is used year-round by a wide range of users for both active and passive recreation. This includes school-day activities such as gym classes and recess, out-of-school-time programming, informal play, dog walking, and general community use. As a result, the field is utilized 365 days per year.

In addition, permitted use for organized activities typically runs from March through the end of November, with peak demand from youth-serving organizations in the spring and fall seasons. This results in the highest levels of use occurring outside of the primary growing season, when natural grass would otherwise require rest and recovery to remain viable.

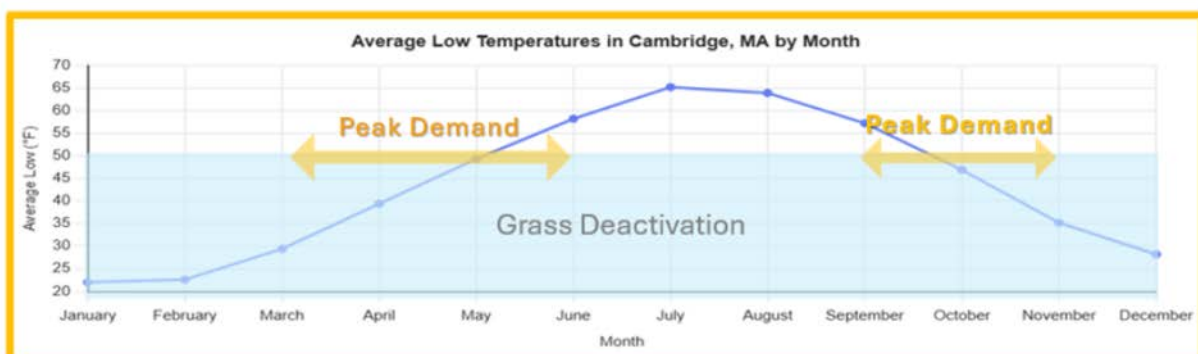
The City currently performs **extensive annual maintenance** at Ahern Field to keep the grass and softball field safe and playable. **Total annual maintenance costs are approximately \$36,000 and include fertilizing, seeding, aeration, topdressing, irrigation repairs and activation, mowing, litter removal, seasonal maintenance, and regular grooming of the softball field.** This does not include the significant water (300,000 to 1,500,000 gallons) used annually to irrigate a typical soccer sized field.

Grass fields are typically fertilized and seeded twice each year, in May and September. Heavily used fields also require additional maintenance practices to address soil compaction and drainage issues, including deep aeration using a vertique machine and topdressing with sand to improve drainage, air movement, and root growth over time.

Routine maintenance activities occur throughout the season. Fields are mowed weekly, litter is removed daily, irrigation systems are activated, repaired, and winterized annually, and worn areas such as dog holes are repaired regularly to help prevent injuries. The softball field also requires grooming several times each week during the spring, summer, and fall seasons.

As illustrated in Graphic 10, **peak demand at Ahern occurs during periods when natural grass is least able to recover.** This dynamic contributes directly to ongoing deterioration of field conditions under a natural grass model.

Graphic 10, Peak Demand When Grass Cannot Recover

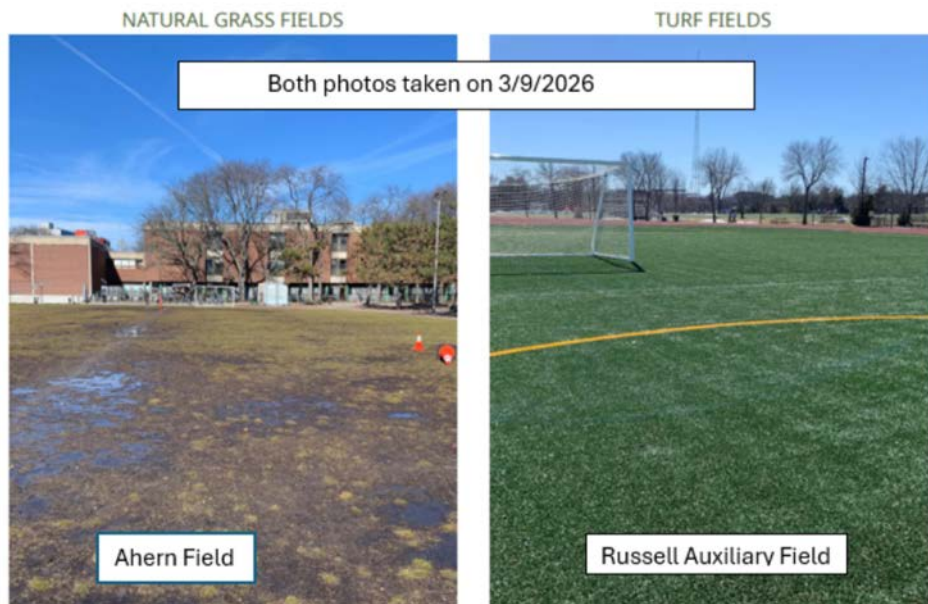


Peak demand at Ahern Field occurs in the spring and fall, when pivot sports—such as soccer, lacrosse, flag football, and ultimate frisbee—are actively scheduled. This demand is layered on top of the field’s year-round use and largely falls outside of the primary growing season for natural grass. As a result, the grass surface has limited opportunity to recover and regenerate.

Even with periods of rest, the level and intensity of use experienced at Ahern would continue to result in degraded playing conditions under a natural grass model and would require frequent closures and recovery periods.

This condition is illustrated in Graphic 11 which shows a comparison of field conditions on March 9, 2026. Ahern Field (left) exhibits limited grass coverage, standing water, uneven grading, and muddy conditions, all of which constrain safe and consistent use. In contrast, Danehy Turf Field 4 (right) demonstrates stable and playable conditions under similar seasonal circumstances, with active use occurring despite surrounding snow cover.

Graphic 11: Ahern vs. Danehy Turf Field 4 on March 9, 2026



Evaluation of Alternatives and Site Constraints

A range of alternative approaches and locations were evaluated to determine whether the identified recreation need could be met without the turf field at Ahern Field. This evaluation considered site size, existing programming, the ability to accommodate a full-size rectangular field, and the broader impacts on the park system and surrounding neighborhood.

While several locations can theoretically support some level of field use, each presents constraints related to space, conflicts with existing recreational uses, or the extent of disruption required to implement changes. In many cases, alternative approaches would shift impacts to other user groups, reduce access to existing facilities, or extend the duration and scale of construction impacts in this part of the city.

Based on these considerations, **no alternative location or approach was identified that could accommodate a full-size rectangular field while maintaining existing programming.**

Gold Star Mothers Memorial Park:

Gold Star Mothers Park was evaluated as a potential location for a full-size rectangular field. However, the site is smaller than Ahern Field and is currently configured as a heavily used full-size softball field.

Accommodating a full-size rectangular field at this location would require replacing or significantly altering the existing softball field. Gold Star serves as a primary softball facility, and **converting the field to a different configuration would introduce scheduling conflicts and reduce the availability of softball programming in this part of the city.**

While the park is currently undergoing reconstruction, incorporating a rectangular field would not resolve the underlying space limitations or the need to balance competing uses on the site. Given these constraints, Gold Star Mothers Park is not a viable location for a full-size rectangular field without displacing an existing primary recreational use.

Donnelly Field:

Donnelly Field was also evaluated as a potential location. While portions of the site could physically accommodate a rectangular field, doing so would require substantial reconfiguration of existing uses.

Specifically, **accommodating a full-size rectangular field would require converting or removing two existing Little League baseball fields.** These fields are actively programmed and support a significant portion of youth baseball activity in the city.

Adding a rectangular field at Donnelly Field would create scheduling conflicts between soccer, lacrosse, other rectangular field sports, and the existing baseball program. These activities would be difficult to support at the same time and could reduce field access for one or more user groups.

This option would also require major reconstruction of the existing fields and other site improvements, resulting in significant additional capital investment costs.

Toomey Park:

Toomey Park was considered as part of the broader open space context in East Cambridge. However, the site is significantly smaller than Ahern Field and is designed as a neighborhood-scale park with an open field area, but not space for organized sports.

Accommodating a full-size rectangular field at this location would require a fundamental redesign of the park and the removal of existing amenities that were just constructed in 2021. Given the size and intended function of the park, this is not a viable or appropriate option.

Toomey Park is better suited to providing complementary open space functions, including lawn areas, seating, and passive recreation, rather than serving as a location for a high-use rectangular athletic field.

Rationale for Synthetic Turf at This Location

Ahern Field is uniquely positioned to address a citywide gap in weather-independent play space in East Cambridge (Sector B), where no such facilities currently exist.

Unlike other sites, Ahern:

- can accommodate a full-size rectangular field
- is already a high-demand location serving schools and youth programming
- does not require displacement of other primary uses

Synthetic turf is incorporated in the plan for Ahern Field based on its ability to:

- Support a significantly higher number of use hours
- Provide a consistent and safe playing surface
- Reduce cancellations and relocation of programming
- Improve equitable access to recreation for nearby residents and youth organizations

This approach is specific to Ahern and is not intended as a universal approach for all parks.

Trade-Offs and Open Space Strategy

There are clear trade-offs between natural grass and synthetic turf. Synthetic turf provides durability and high-capacity use but offers a less natural experience.

The City's broader open space strategy is to provide a **mix of space types across neighborhoods**, rather than relying on a single park to meet every need. At Ahern, the field is one component of a larger design that includes:

- Landscaped green areas
- Shaded seating and gathering spaces
- Walking paths and circulation improvements
- Areas intended for passive recreation

This approach allows the site to support a range of uses rather than relying on a single feature to meet all needs.

Turf Specifications

The City continuously reviews and updates its material specifications to reflect the latest available science and industry standards. **In 2022, the City worked in collaboration with the Public Health Department and technical experts to develop a synthetic turf specification with a particular focus on PFAS, heat reduction, and recyclability.**

Based on this review, the City identified a preferred system composed of three primary components: synthetic turf, organic infill (**the proposed field will not use crumb rubber infill**), and a resilient shock pad. Together, these elements are intended to function as an integrated system that improves performance, durability, and safety.

- **Synthetic Turf (Greensfields IronTurf):**
Selected for its demonstrated performance and environmental considerations, this product has undergone third-party testing indicating no PFAS chemicals of concern. It is designed for improved recyclability at the end of its useful life and carries a 10-year warranty, exceeding the industry norm.
- **Organic Infill (Brockfill):**
This system utilizes an engineered natural pine infill as an alternative to traditional crumb rubber. Third-party testing indicates no detectable PFAS compounds among those tested. The material contributes to reduced surface temperatures, improved traction, and impact attenuation, and does

not require irrigation. It is manufactured in the United States, carries a 10-year warranty, and is Cradle-to-Cradle certified.

- **Resilient Shock Pad (Brock Powerbase YSR):**

Installed beneath the turf system, the shock pad enhances impact absorption and overall field safety. It has also been third-party tested for PFAS (with none detected among those tested), is manufactured in an ISO-certified facility, and carries a 25-year warranty.

This specification is designed to avoid the intentional use of PFAS in materials wherever feasible. At the same time, it is important to acknowledge the broader environmental context: PFAS are now widely present at low levels in air, water, and soil. As a result, it is not currently possible to definitively claim that any product or material is entirely “PFAS free.”

The City’s approach is therefore to minimize potential sources of PFAS exposure through material selection while communicating clearly and accurately about what can and cannot be controlled. The proposed synthetic turf system incorporates a range of environmental and public health considerations, informed by current industry standards and best practices. Key elements include:

- **No Intentionally Added PFAS:**

All materials are specified to be manufactured without the intentional use of per- and polyfluoroalkyl substances (PFAS).

- **Natural Infill (No Crumb Rubber):**

The system utilizes a plant-based or mineral infill material in place of traditional recycled rubber, reducing reliance on synthetic infill products.

- **Cradle to Cradle™ Certified Components:**

Select materials meet Cradle to Cradle™ certification standards, which evaluate product safety, environmental impact, and recyclability across the product lifecycle.

- **Manufacturing Standards (ISO 14001):**

Materials are produced in facilities certified under ISO 14001, an international standard for environmental management systems that requires monitoring and reduction of environmental impacts.

- **Limits on Metals and VOCs:**

All components must meet established limits for metals and volatile organic compounds (VOCs), supporting both environmental quality and user health.

- **End-of-Life Recyclability:**

The turf system is required to include a manufacturer-supported program for recycling or reusing materials at the end of their service life. City specifications require that contractors provide chain of custody to confirm that the product is actually recycled and not just recyclable.

Public Health Considerations: PFAS, Microplastics and Heat

The City recognizes that residents have legitimate questions about emerging environmental and public health issues, including PFAS, microplastics, and heat, and has worked with the Public Health Department to evaluate these issues using current research and industry standards. While scientific understanding continues to evolve, the City’s approach is to:

- avoid known higher-risk materials (such as crumb rubber infill)

- specify materials to minimize potential exposures where feasible
- rely on current public health guidance and ongoing review of research

This approach reflects both the current state of science and a precautionary effort to reduce potential risks while providing safe and accessible recreation space.

PFAS:

PFAS (per- and polyfluoroalkyl substances) have been the subject of increased public attention in recent years due to their persistence in the environment and potential health impacts. In response, major synthetic turf manufacturers have moved away from the use of PFAS in the manufacturing of turf systems, including fibers, backing, and infill materials.

The proposed field at Ahern will specify that no PFAS are intentionally used in the manufacture of the turf system components. In practical terms, this means that PFAS are not added to the materials or used as part of the production process. The City can require manufacturer certification to this effect as part of the procurement process.

It is important to note that PFAS are now widely present at low levels throughout the environment, including in soil, water, and air. Because of this, highly sensitive laboratory testing can sometimes detect trace amounts of PFAS even in materials where they were not used in manufacturing. For this reason, the focus of current industry practice and public health guidance is on avoiding the intentional use of PFAS, rather than attempting to demonstrate that a product contains zero detectable PFAS under all conditions.

Independent third-party testing of materials can be conducted if needed to provide additional assurance. However, current specifications and industry practices are designed to prevent the intentional introduction of PFAS into turf systems.

Based on current information and consultation with the Public Health Department, synthetic turf systems that do not use PFAS in manufacturing are not considered a meaningful source of PFAS exposure in this context.

Microplastics

Microplastics are an emerging area of public health research and are widely present in the environment. Studies have found that **human exposure to microplastics occurs primarily through diet and general inhalation, including through food, water, and indoor air.** These background exposure pathways represent the dominant sources of microplastic intake.

Artificial turf systems can contribute to microplastics over time through wear of synthetic fibers. However, research indicates that the potential for exposure varies depending on the materials used. Many of the concerns identified in existing studies are associated with crumb rubber infill.

The proposed field at Ahern will not use crumb rubber infill, eliminating one of the most commonly cited sources of microplastics associated with artificial turf systems. Instead, the design incorporates an organic infill material. This approach avoids one of the more commonly cited sources of microplastics in artificial turf systems.

While some uncertainty remains regarding microplastic generation from turf fibers over time, available research suggests that this pathway is not a primary driver of overall human exposure. The City has worked with the Public Health Department to review current research and to ensure that material selection and design decisions reflect the best available information.

As with many everyday environmental exposures, simple hygiene practices, such as washing hands after play and avoiding eating on the field, are reasonable precautions, particularly for young children.

Heat: Available data shows that synthetic turf surfaces can become significantly warmer than natural grass during sunny weather conditions, particularly during hot summer periods. Natural infill reduces the heat impact compared to traditional crumb rubber, but natural grass remains cooler due to evapotranspiration and other natural cooling processes. Studies and manufacturer data suggest that **organic infill systems may reduce surface temperatures compared to crumb rubber systems, in some cases by approximately 20–40°F under certain conditions.** Actual temperature reductions vary based on factors such as moisture content, sun exposure, and field design.

Recognizing the higher temperatures associated with turf fields, the project incorporates heat mitigation strategies, including expanded tree canopy, shaded seating and gathering areas, and access to cooler adjacent spaces within the park. In addition, operational practices such as scheduling adjustments, hydration breaks, and limiting use during extreme heat conditions can be implemented to support safe use of the field.

Practice in Other Communities

Communities across Massachusetts are taking a range of approaches to synthetic turf based on local conditions, recreational demand, and available space. Many nearby communities facing similar constraints, limited land area and high demand, have implemented synthetic turf fields as part of their park systems. Examples include Boston, Somerville, Arlington, Watertown, Lexington, Marblehead, and North Andover.

These communities often maintain a mix of natural and synthetic fields. For example:

- Somerville has added and renovated synthetic turf fields while maintaining grass areas
- Boston continues to add turf, where conditions support it. Clifford Park is an example of a new synthetic field that is currently being added.

Other municipalities have selected synthetic turf in locations with poor drainage or high use demands. These examples reflect a common approach of balancing durability, access, and environmental considerations. A one-size-fits-all approach is not appropriate in this context. **There is no one-size-fits-all approach to athletic field planning;** decisions are made based on site-specific conditions, usage demands, and operational considerations.

Harvard and MIT

Residents have asked if Cambridge youth programs could use Harvard or MIT fields. Both universities support community uses (Special Olympics, flag football, soccer, youth camps, etc.). However, their primary users of their athletic fields are their students including team sports, clubs, and intramurals. And similar to Cambridge, they are experiencing high and increasing demand for athletic fields.

Both universities also have similar experience as Cambridge regarding natural grass and turf fields. The turf fields provide a consistent playing experience, are weather-independent, require significantly less maintenance and water, and are able to sustain the heavy use. Turf maintenance is typically limited to repainting lines, testing the infill for compaction and resspreading the infill for evenness, as needed.

Harvard and MIT rely heavily on turf fields and similar to Cambridge consistently update their specification to ensure they are using the best available products.

While Harvard and MIT strive to support various youth programming, their turf fields are not a viable solution for the regular and consistent field use for Cambridge youth programs, which occur at the same time universities are obligated to support their own sports team and experience demand from their students for regular access.

Conclusion

The inclusion of synthetic turf at Ahern Field is based on balancing the demand for reliable access to recreation space for schools, youth sports and the broader community; commitment to growing youth athletic programs; public health considerations; and the City's goal of supporting a diverse network of parks and open spaces throughout the community.

Very truly yours,

A handwritten signature in black ink, appearing to read 'Yi-An Huang', with a stylized flourish at the end.

Yi-An Huang
City Manager