

PHASE 2

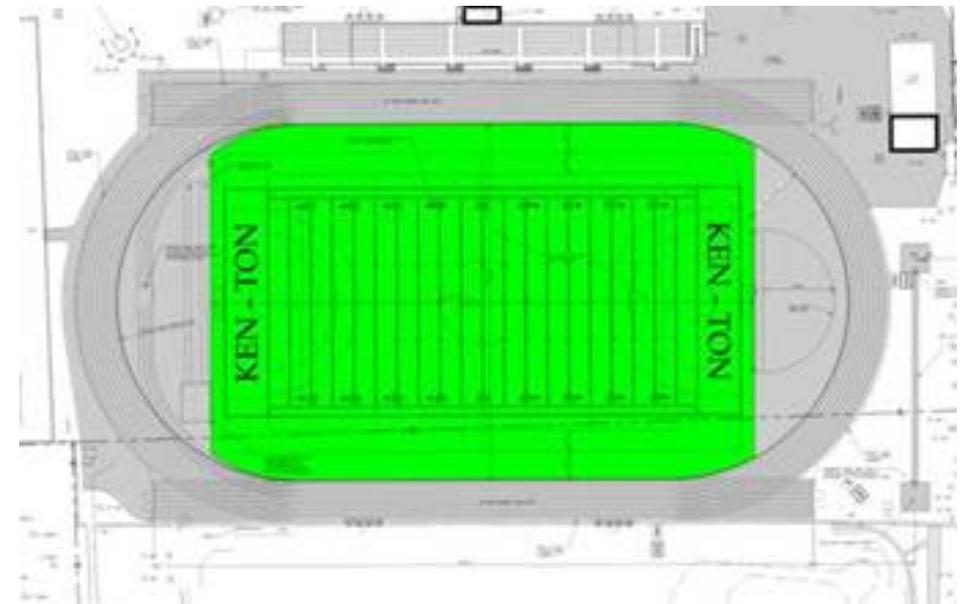
CAPITAL IMPROVEMENT PROJECT

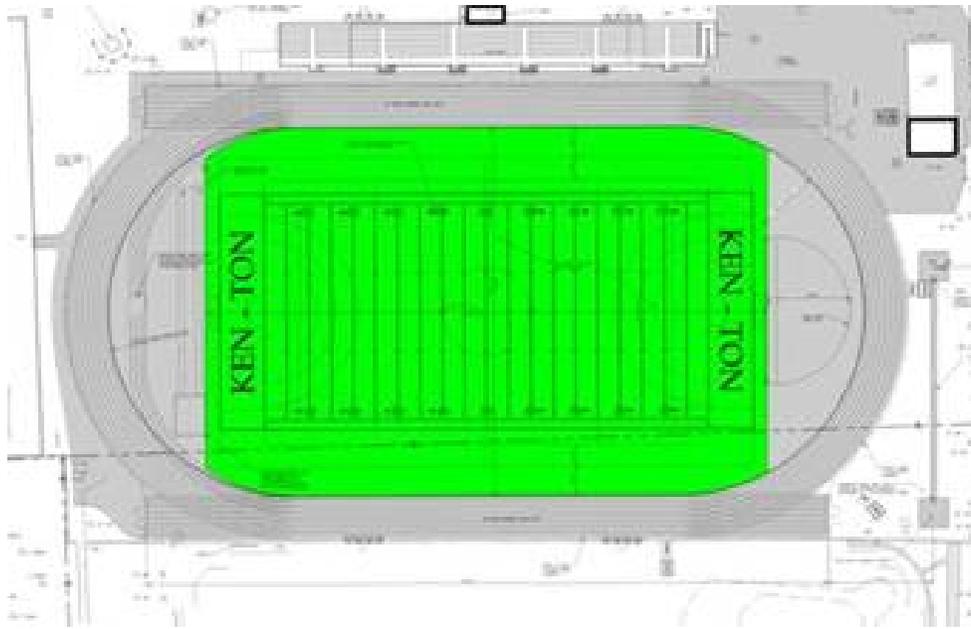
Turf Cost Analysis Report



Based on the results of the pending EPA report, one consideration would be to extract the already installed SBR crumb rubber at Adams Field and replace with an alternative infill material. Because SBR crumb rubber was in the base bid and already installed, there will be a significant cost associated with attempting to remove that material and replace with another.

The Turf Cost Analysis Report is intended to clarify additional cost related to contractor work removing the existing SBR crumb rubber infill from Adams Field, changing the infill material at Kenmore West High School and Crosby Field, delayed work fees and other associated cost with the deviation from the originally scoped bid work.





Removing the Crumb Rubber

Adams Field: 93,750 sq. ft.

No State Building Aid

Limited Warranty

Once the contractor is remobilized to the site, the existing SBR crumb rubber would be extracted. The existing 15 year warranty that was strategically specified by NYSED would be reduced to approximately 10 years. Potentially exposing the District to potential issues at full expense with no State Aid. NYSED will only aid school district every 15 years on turf field replacement. Removal of the existing SBR crumb rubber is not an exact science.

Removal could result in the turf shifting and becoming stretched out, causing warped or wavy lines on the turf field. If that does occur, the turf surface would need to be replaced.

Contractor remobilization: \$20,000

Extract existing material: \$145,000

Void existing 15 Year Warranty to 10 Years

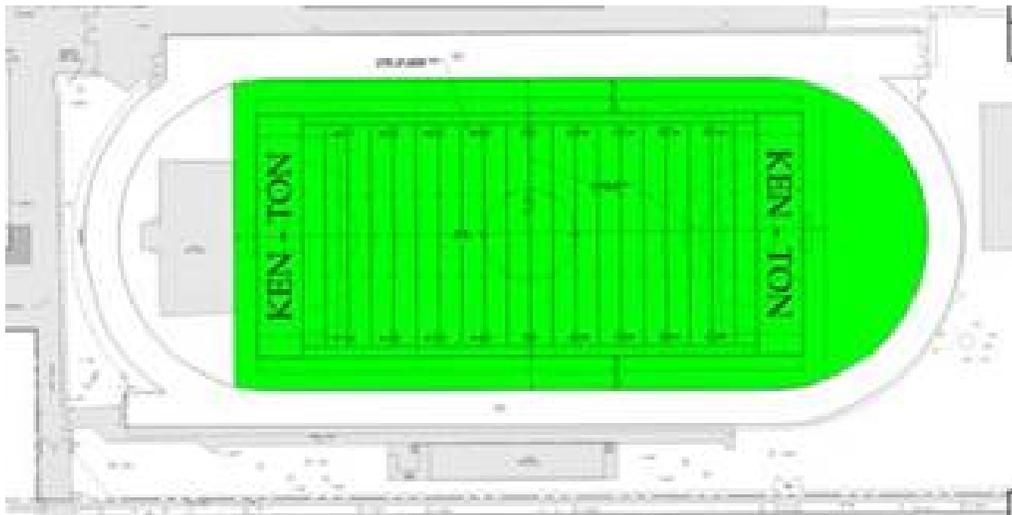
Turf Replacement: \$900,000

Installation of EPDM infill: \$140,000

Potential Cost at Adams Field: \$1,205,000



Many alternatives to SBR crumb rubber have been discussed and considered. At this point, the most popular alternative infill material would be EPDM rubber. Since only preliminary work has been completed at Kenmore West High School and Crosby Field, the additional extraction cost potentially faced at Adams Field do not exist.



In Western NY, EPDM is the most viable alternative to crumb rubber. The weather has less affect on this material, however, there have been cases with EPDM rubber where extreme heat has caused the individual rubber “pellets” to melt together, forming a congealed mass of rubber.

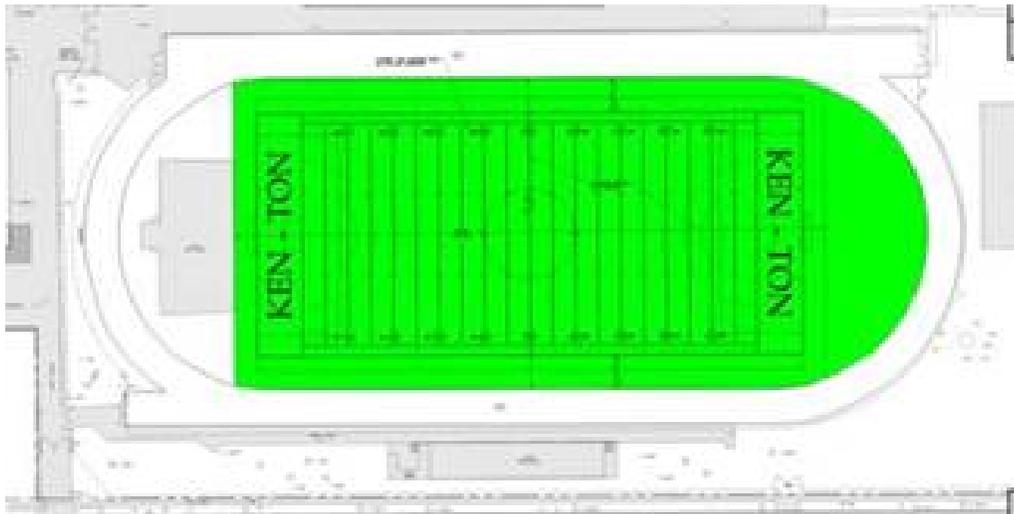


Kenmore West HS Field: 210,400 sq. ft.

Alternate Infill: EPMD

Installation of EPDM infill at Kenmore West HS: \$277,000

Installation of EPDM infill at Crosby Field: \$120,000



Crosby Field: 89,500 sq. ft.



Although EPDM rubber is the favored alternative infill material, other organic materials have been discussed. It is not recommended to use organic infill material given our climate in Western NY. Organic materials must be maintained similarly to natural grass and have a higher chance of harboring bacteria within the material as opposed to rubber alternatives where the bacteria burns off in direct sunlight.

Organic materials only carry a warranty of 8 years. If the material biodegrades in 8 years and needs to be replaced, this cost would not be aided by the state until 7 years when the 15 year renewal period is met.

Alternate Infill: Organic

Adams Field Organic Infill:	\$300,000
Adams Field Irrigation System:	\$125,000
Crosby Field Organic Infill:	\$285,000
Crosby Field Irrigation System:	\$120,000
Kenmore West HS Organic Infill:	\$475,000
Kenmore West HS Irrigation System:	\$200,000
Annual Antibacterial Maintenance (3 Fields):	\$75,000
Annual Upkeep and Maintenance (3 Fields):	\$150,000
Additional Grooming Equipment:	\$13,000
Total:	\$1,635,000



Site Preparation at Kenmore West High School Field

Delay of Work Cost

Currently the project is ahead of schedule with Phase 2D (Ken West & Crosby Fields) and limited impact on the schedule would be recognized if a decision was made prior to February 1, 2017. Both Kenmore West and Crosby Field would continue as planned for work to continue in Spring of 2017. If it is decided that Adams Field is to be replaced, the contractor will have to remobilized and fit work back into the their schedule. **There has a potential to have serious impact on 2017 sports if Adams Field needs to be reworked and there is a delay in starting/finishing the work at Kenmore West and Crosby.**

District Cost potential cost per month if Construction Contracts prolong past original contract date: \$166,000

Phase 2B Field Work Contract: December 2017

Phase 2D Field Work Contract: August 2018

Contingency Costs

As of November 16, 2016 the current Construction Contingency balance is \$2,416,961. Preliminary work has begun at Kenmore West and Crosby Fields in preparation for turf installation next Spring. The multiple scenarios that have been outlined previously into the report have been incorporated into the scenarios below. **Overall, Phase 2 Capital Construction Project has completed 33% of work, with 24 months of construction remaining.**

SBR Removal

Contingency Budget:	\$2,416,961
SBR Removal: 3 Fields	<u>-\$682,000</u>
Total:	\$1,734,961

Organic Infill

Contingency Budget:	\$2,416,961
Organic Infill at 3 Fields:	<u>-\$1,505,000</u>
Total:	\$911,961

Adams Turf Replacement with EPDM Infill

Contingency Budget:	\$2,416,961
SBR Extraction and Turf Replacement :	<u>-\$1,582,000</u>
Total:	\$834,961

Adams Turf Replacement with Organic Infill

Contingency Budget:	\$2,416,961
Organic Infill with Turf Replacement:	<u>-\$2,405,000</u>
Total:	\$11,961

Conclusion - Turf Cost Analysis Report

It is important to note that any changes which deviates from the original scoped project will have an associated cost. As the project moves forward, there are unexpected cost such as asbestos abatement, structural changes and design changes that all require change orders to be issued to one or multiple contracts.

Many of the changes outlined in this report would not be funded by the state and would count towards the District's local share.

Proposition 2 of the 2014 proposed capital project was voted on by the public with an approved \$1/month increase and was anticipated that 100% of the project would not be eligible for state aid. With the potential changes proposed, this could have a significant affect on the Kenmore Town of Tonawanda Union Free School District's budget moving forward, requiring additional revenues generated by the taxpayers.





PHASE 2

CAPITAL IMPROVEMENT PROJECT

Turf Cost Analysis Report