

On-Site Testing GMAX Impact Evaluation

Project Information

Project Name:	Fairfield Ward High School				
Client Info:	Fairfield Public Schools	Site Info:	Football Field		
Report Date:	7/15/2025	Test Date:	7/3/2025		
Report Status:	Complete	Job #:	25503917		
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Checked by:	Roger Clough				

Notes:

1. This report has been prepared by New England Turf Management with all reasonable skills, care and diligence within the terms of the contract with the Client and within the limitations of the resources devoted to it.
2. This report is confidential to the Client and New England Turf Management accepts no responsibility whatsoever to third parties to whom this report, or any part thereof, is made known. Any such party relies upon the report at their own risk.
3. This report shall not be used for engineering or contractual purposes unless signed by the Author and the Checker and unless the report status is "Final".

Summary

New England Turf Management was commissioned to perform on-site Gmax impact testing per ASTM F1936. A complete test was performed in accordance with the ASTM F1936 Standard. The results have been summarized in the quick reference table below. Complete results and background can be found in the subsequent sections of this report.

Quick Reference Results Summary

	Average	(min)	Range	(max)	Max per ASTM
Gmax (g's)	143	124	to	163	200
Infill Depth (mm)	26.8	22	to	31	n/a

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General Information

Testing Device	ASTM F1936 Apparatus TRIAX 2010 Data Acquisition	Test Method	GMAX
Install Date	2015	Test Date	7/3/2025
Field Orientation	Drop 9 = East	Primary Sport	football
Product Info	FTOMP	Infill System	rubber
Underlayment	shockpad	Air Temp (°F)	72
Turf Cover %	100	Soil Moisture %	
Humidity %	81	Weather Conditions	Sun
Misc. Field Notes		Technician	Ken Ordonez

Method

Method Background ASTM F355 Procedure A and ASTM F1936 are test methods used to measure the impact attenuation properties of synthetic turf playing systems. ASTM F355 Procedure A covers the overall test method and ASTM 1936 specifies the method for measurement in the field on an installed synthetic turf playing surface.

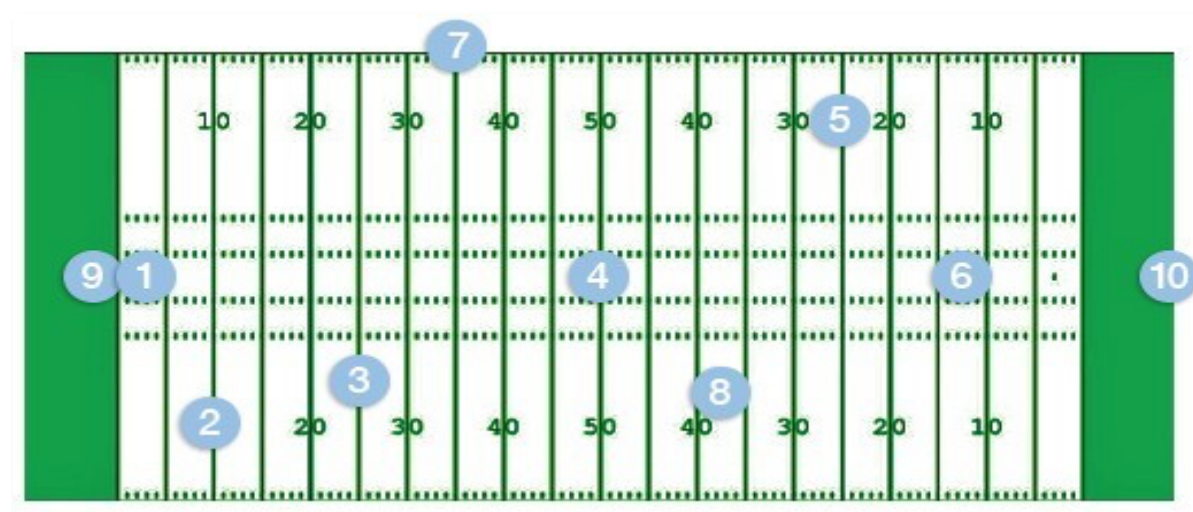
The test procedure involves dropping a 20 lb impacting missile three times at each location from a consistent height of 24 inches. The test is typically performed at 10 locations. The locations are based on the primary sport and the discretion of the tester. The first drop conditions / compacts the loose infill. This value is recorded but not included in the location average. The second and third drops are recorded and averaged for the location average. The location averages are used to determine the field average.

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The impacting missile contains an accelerometer sensor that measures the magnitude of deceleration (measured in units of gravity or g's) for the duration of impact. The deceleration measured during impact creates a curve. The peak of that curve is referred to as the "Gmax". This is the primary value measured with this test. The maximum allowable Gmax as specified in the current ASTM F1936 test specification is 200 g's.

Location Map



Results Table

Loc#	Drop #	Gmax (g's)	Location Description	Gmax Avg (g's)	Infill Depth (mm)	Surface Temp (°F)
1	2	145			26	73
1	3	146		146	26	73
2	2	137			29	78
2	3	140		138	29	78
3	2	145			29	73
3	3	150		147	29	73
4	2	159			24	74
4	3	163		161	24	74
5	2	149			25	77
5	3	151		150	25	77
6	2	152			29	77
6	3	157		155	29	77
7	2	142			31	74

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Loc#	Drop #	Gmax (g's)	Location Description	Gmax Avg (g's)	Infill Depth (mm)	Surface Temp (°F)
7	3	148		144	31	74
8	2	142			25	78
8	3	145		144	25	78
9	2	126			28	71
9	3	130		128	28	71
10	2	124			22	74
10	3	125		125	22	74

The above table outlines your Gmax score for the second and third drop at each location on the field and an average Gmax score for both drops. The location numbers correspond to the above field map. It also includes an infill depth reading. Per ASTM standards your Gmax score should be under 200.

Location Photos

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