

**Project Information**

<b>Project Name:</b>	Fairfield Ludlowe High School		
<b>Client Info:</b>	Fairfield Public Schools	<b>Site Info:</b>	Football Field
<b>Report Date:</b>	8/27/24	<b>Test Date:</b>	8/23/24
<b>Report Status:</b>	Complete	<b>Job #:</b>	24505045
<b>Prepared by:</b>	Roger Clough		
<b>Checked by:</b>	James Leszuk		

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
<b>Gmax (g's)</b>	160	148	to	176	200
<b>Infill Depth (mm)</b>	28	18	to	30	n/a

**Table of Contents**

Project Information.....1  
 Summary.....1  
 General Information.....2  
 Method.....2  
 Results Table.....3-4  
 Location Photos.....5

**General Information**

<b>Testing Device</b>	ASTM F1936 Apparatus TRIAX 2010 Data Acquisition	<b>Test Method</b>	GMAX
<b>Install Date</b>	2015	<b>Test Date</b>	8/23/24
<b>Field Orientation</b>	Drop 9 = northeast	<b>Primary Sport</b>	Football
<b>Product Info</b>	FTOMP	<b>Infill System</b>	rubber
<b>Underlayment</b>	shockpad	<b>Air Temp (°F)</b>	73
<b>Turf Cover %</b>	100	<b>Soil Moisture %</b>	
<b>Humidity %</b>	68	<b>Weather Conditions</b>	Sun
<b>Misc. Field Notes</b>		<b>Technician</b>	Roger Clough

**Method**

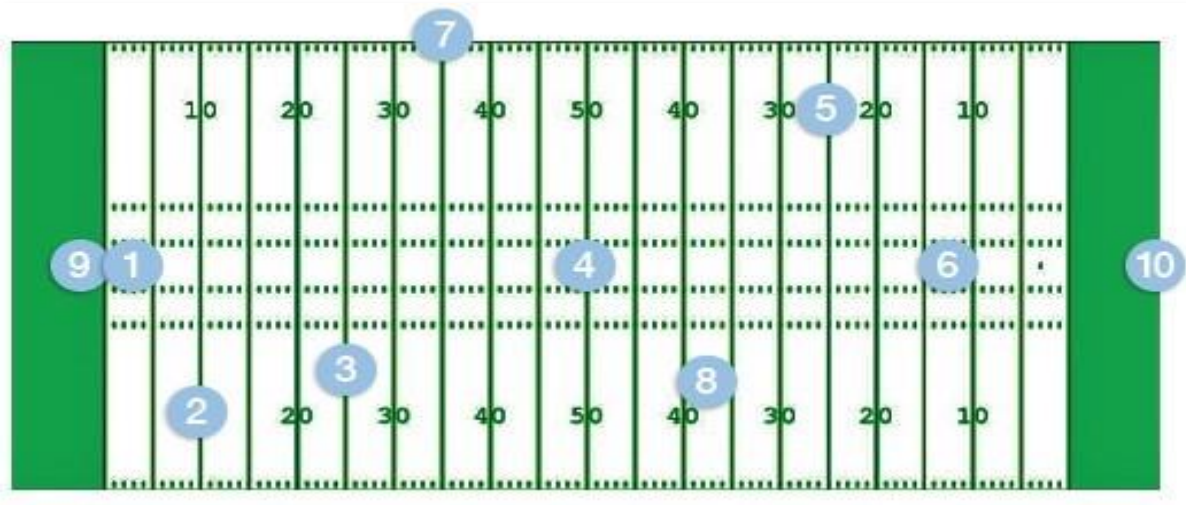
Method Background ASTM F355 Procedure A and ASTM F1936 are test methods used to measure the impact attenuation properties of synthetic turf playing systems. ASTM F355 Procedure A covers the overall test method and ASTM 1936 specifies the method for measurement in the field on an installed synthetic turf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

# On-Site Testing GMAX Impact Evaluation

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	166			25	85
1	3	167		167	25	85
2	2	151			29	85
2	3	157		154	29	85
3	2	157			25	85
3	3	159		158	25	85
4	2	157			29	85
4	3	162		160	29	85
5	2	164			30	85
5	3	167		166	30	85
6	2	167			18	85
6	3	170		168	18	85
7	2	148			30	85

# On-Site Testing GMAX Impact Evaluation

Loc#	Drop #	Gmax (g's)	Location Description	Gmax Avg (g's)	Infill Depth (mm)	Surface Temp (°F)
7	3	152		150	30	85
8	2	152			29	85
8	3	156		154	29	85
9	2	148			31	85
9	3	154		151	31	85
10	2	171			30	85
10	3	176		173	30	85

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



**Location #1**



**Location #2**

# On-Site Testing GMAX Impact Evaluation



**Location #7**



**Location #4**



**Location #5**