On-Site Testing
GMAX Impact Evaluation

New England Turf Management

Project Information

Project Name:	Stellos Stadium		
Client Info:	Nashua, NH	**Site Info:**	Synthetic Football Field
Report Date:	5/23/22	**Test Date:**	5/20/2022
Report Status:	Complete	**Job #:**	
Prepared by:	Roger Clough		
Checked by:	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
Gmax (g's)	176.9	153	to	208	200
Infill Depth (mm)	36	31	to	40	n/a

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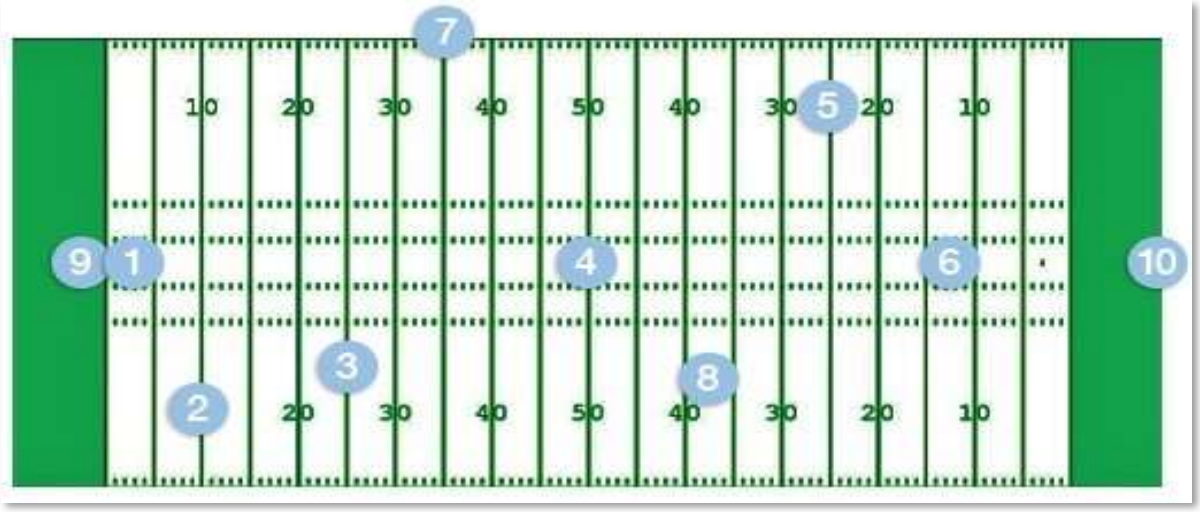
General Information

Testing Device	ASTM F1936 Apparatus TRIAX 2010 Data Acquisition	**Test Method**	GMAX
Install Date	2011	**Test Date**	5/20/2022
Field Orientation	Drop 10 = North East	**Primary Sport**	Football
Product Info	FTOMP	**Infill System**	rubber
Underlayment		**Air Temp (°F)**	54
Turf Cover %	100	**Soil Moisture %**	
Humidity %	86	**Weather Conditions**	sunny
Misc. Field Notes		**Technician**	Roger Clough

Location Map



Results Table

Loc#	Drop #	Gmax (g's)	Location Description	Gmax Avg (g's)	Infill Depth (mm)	Surface Temp (°F)
1	3	208		208	35	54
2	3	155		155	35	54
3	3	188		184	36	54
4	3	205		191	31	54
5	3	156		153	42	54
6	3	194		193	34	54
7	3	164		162	34	54
8	3	171		165	40	54
9	3	181		175	35	54
10	3	187		183	37	54

The above table outlines your Gmax score for the third drop at each location on the field and an average Gmax score for all three 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.

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.

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.

Overall Photo

Location Photos