ON-SITE TESTING
g-MAX IMPACT EVALUATION

Project Information

Project Name	Stellos Stadium ASTM F1936-19 *g*-max Impact Evaluation		
Client Info	R.A.D. Sports 171 VFW Drive Rockland, MA 02370	**Site Info**	Stellos Stadium 7 Stadium Drive Nashua, NH 03062
Report Date	10/2/2024	**Test Date**	10/2/2024
Report Status	Final	**Job No.**	100045/10223s
Prepared by	*Michael Rocheleau* *Field Operations Manager*		Michael J Rocheleau
Checked by	*Jeffrey Gentile* *Operations Director*		

Notes:
1. This report has been prepared by Firefly Sports Testing with all reasonable skill, 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 Firefly Sports Testing 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

Firefly Sports Testing was commissioned to perform on-site *g*-max impact testing per ASTM F1936-19. A complete test was performed in accordance with the ASTM F1936-19 Standard. The results have been summarized in the quick reference table below. Test results herein reflect the performance of the points tested, at the time of testing and at the temperature(s) reported. 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
***g-max* (g's)**	184	158	to	229	**200**
Infill Depth (mm)	31	25	to	36	**n/a**

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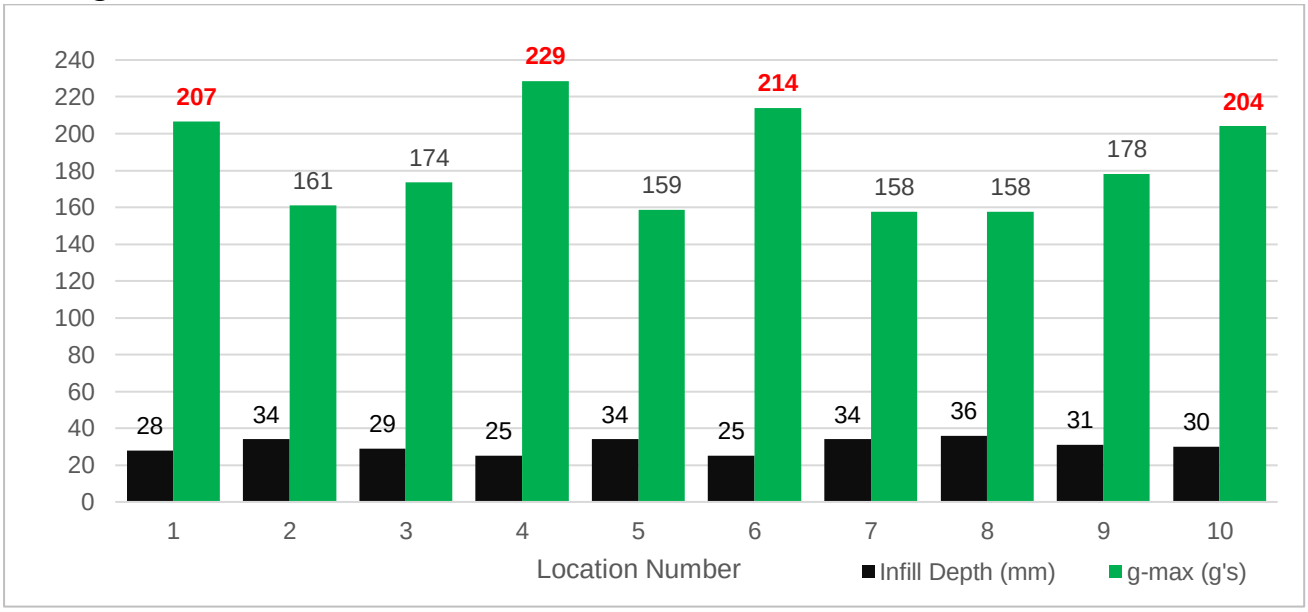
General Information

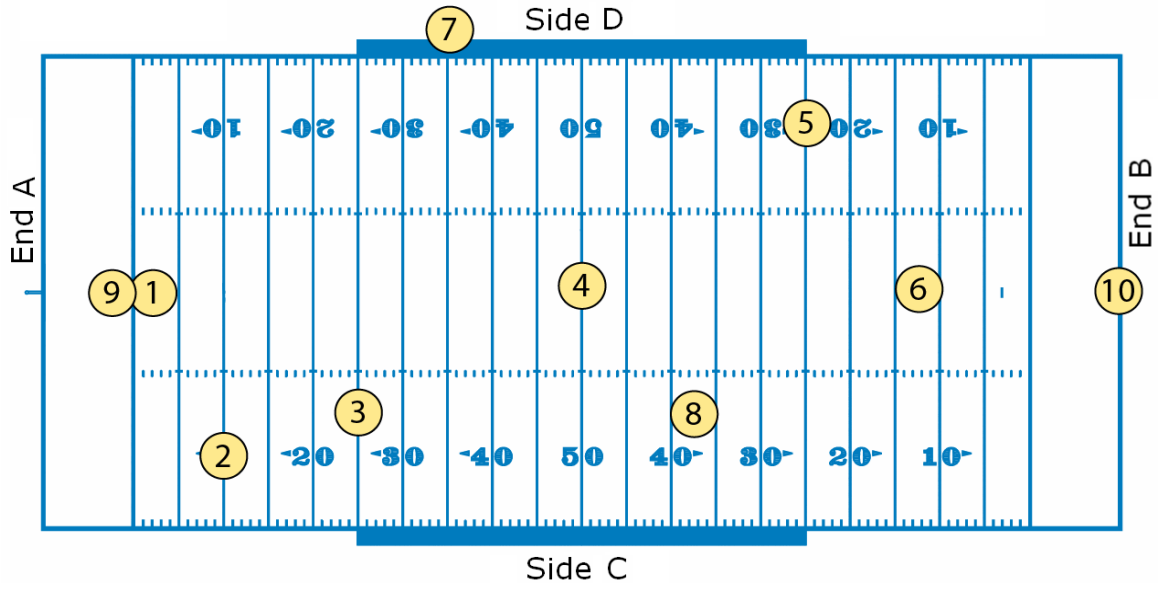
Testing Device	ASTM F1936 Apparatus TRIAX 2010 Data Acquisition	**Test Method**	ASTM F1936-19 ASTM F355 Procedure A
Install Date	n/p	**Test Date**	10/2/2024
Field Orientation	End A= Southwest	**Primary Sport**	Football
Product Info	n/p	**Infill System**	Rubber & Sand
Underlayment	None	**Air Temperature (°F)**	53
Turf Cover %	n/a	**Soil Moisture %**	n/a
Humidity (%)	88	**Weather Conditions**	Partly Cloudy
Misc Field Notes	None	**Technician**	AD

Overall Photo

Average Results



Location Map



Results

Loc #	Location Description	Drop 1 g-max (g's)	Drop 2 g-max (g's)	Drop 3 g-max (g's)	Average g-max (g's)	Infill Depth (mm)	Surface Temperature (ºF)
1	Goal Line, End A, center of field	194	204	209	**207**	**28**	**65**
2	10 Yard Line, End A, 63 ft from center of field to Side C	143	159	163	**161**	**34**	**65**
3	25 Yard Line, End A, 40 ft from center of field to Side C	155	173	174	**174**	**29**	**65**
4	Center of the field	210	228	229	**229**	**25**	**65**
5	25 Yard Line, End B, 63 ft from center of field to Side D	140	157	160	**159**	**34**	**65**
6	12 Yard Line, End B, center of field	192	213	215	**214**	**25**	**65**
7	35 Yard Line, Side D, 6 ft outside of the in-bounds line	144	157	158	**158**	**34**	**65**
8	37 Yard Line, End B, 40 ft from center of field to Side C	143	158	157	**158**	**36**	**65**
9	6 ft from Goal Line to the back of the End Zone, End A, center of field	155	176	180	**178**	**31**	**65**
10	6 ft from the back of the End Zone to the Goal Line, End B, center of field	181	201	207	**204**	**30**	**65**
	Note: Per ASTM F1936, the average g-max is the average of the second and third drops.			**Average**	**184**	**31**	**65**

Location Photos

Location #1

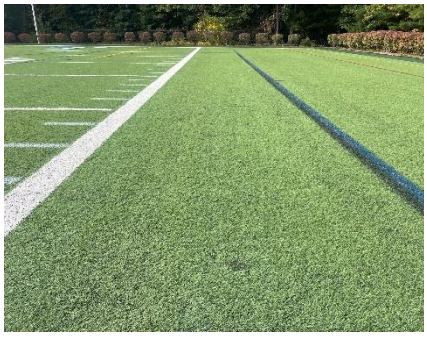
Location #2

Location #3

Location #4

Location #5

Location #6



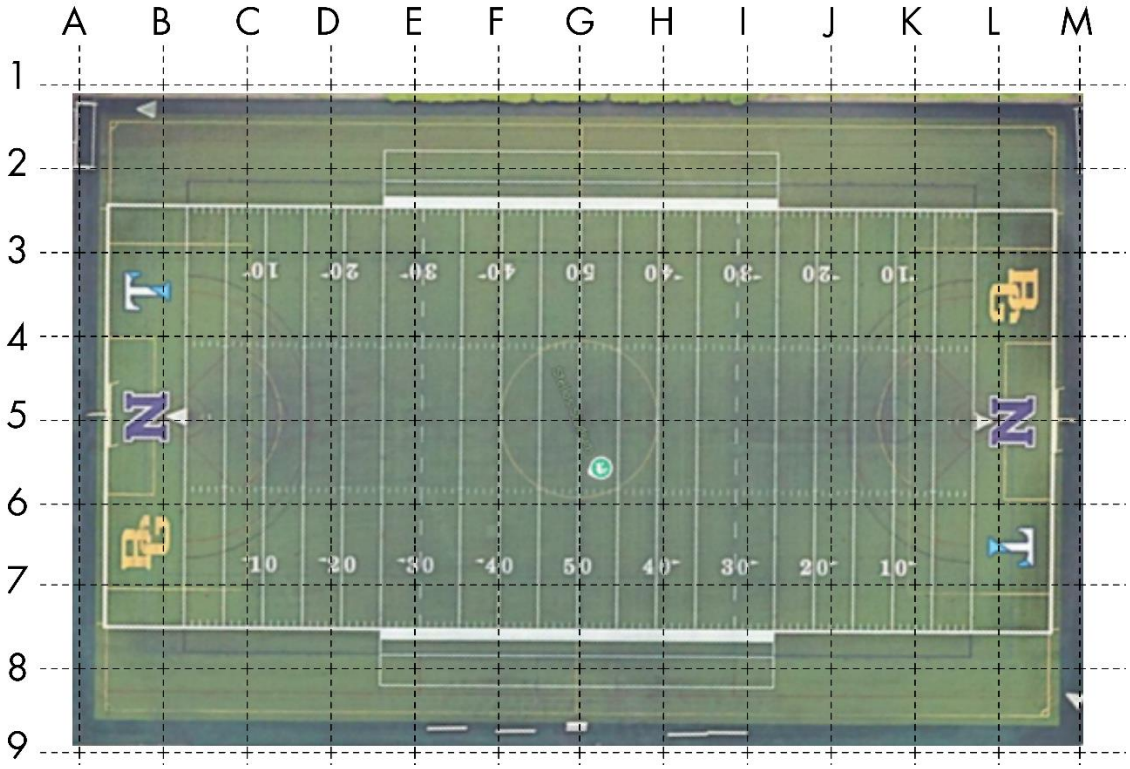
Location #7

Location #8

Location #9

Location #10

Annex – Visual Inspection



Item No.	X	Y	Length, X (ft)	Width, Y (ft)	Deviation Type	Comments
1	I.3	5			FL- Loose Fibers	White fibers loose around entire field
2	E	3.1	0.5	0.5	SF – Seam failure	
3	F	3.1	1	0.5	SF – Seam failure	
4	G	3.1	2	0.5	SF – Seam failure	
5	H.1	3.1	2	0.5	SF – Seam failure	
6	G.6	3.1	2	0.5	SF – Seam failure	
7	H.6	3.1	2	0.5	SF – Seam failure	
8	H.6	3.2	1	0.5	SF – Seam failure	
9	I	3.2	1	0.5	SF – Seam failure	
10	J	3.2	1	0.5	SF – Seam failure	
11	J.2	3.2	1	0.5	SF – Seam failure	
12	L	4.5	2	0.5	FW - Worn Fibers (High wear)	Yellow fibers across entire field degrading faster than green and white
13	J.6	5	5	5	FW - Worn Fibers (High wear)	
14	I	6.7	2	0.5	SF – Seam failure	
15	H	6.7	0.5	0.5	SF – Seam failure	
16	G.1	6.7	0.5	0.5	SF – Seam failure	
17	F.7	6.7	0.5	0.5	SF – Seam failure	
18	G	5	3	0.5	FW - Worn Fibers (High wear)	
19	F	6.7	0.5	0.5	SF – Seam failure	
20	E	6.7	1	1	SF – Seam failure	
21	D.2	6.7	2	2	SF – Seam failure	
22	D	6.7	1	0.5	SF – Seam failure	
23	C.4	5	1	1	SG – Gap in seam	
24	C.4	5	5	5	FW - Worn Fibers (High wear)	
25	C.4	5	5	5	IL– Lack of (Low) Infill	

Visual Inspection Photos

Item 1

Item 2

Item 3

Item 4

Item 5

Item 6

Item 7

Item 8

Item 9

Item 10

Item 11

Item 12

Item 13

Item 14

Item 15

Item 16

Item 17

Item 18

Item 19

Item 20

Item 21

Item 22

Items 23, 24 & 25

End of Report