



PO Box 3465
Tualatin, Oregon 97062

Oregon LCB #8284

Washington CC #PACIFST952N9

SYNTHETIC SURFACE GMAX TEST REPORT

Hazelia Soccer Field



TEST INFORMATION

Report # 16-266 Date: August 30, 2016

Client: Lake Oswego Parks Facility: Hazelia Field

5705 Jean Road 17800 Stafford Road

Lake Oswego, Oregon 97034 Lake Oswego, Oregon 97034

Test Date: August 25, 2016

Selected Sport: Soccer

Tested By: Andrew Gibson

Testing Time Start: 2:54 pm Stop: 3:42 pm

Air Temperature (F) Start: 92° Stop: 92°

Humidity Start: 17% Stop: 17%

Weather Conditions: Sunny Clear Hot

EQUIPMENT USED ASTM F355

Test Equipment: TRIAx 2010 "A" Missile System

Certified Calibration Date: May 30, 2014

Calibration Certificate Number: 2672.01

Certified By: Dytran Instruments Inc.

RESULTS SUMMARY ASTM F1936-10 / ASTM F355 Procedure A

	<u>VALUE</u>	<u>LOCATION (See map page 3)</u>
Maximum Gmax (G's)	<u>221</u>	<u>1</u>
Minimum Gmax (G's)	<u>160</u>	<u>7</u>
Average Gmax (G's)	<u>190</u>	<u>N/A</u>
Maximum Infill Depth (mm)	<u>34</u>	<u>5,7</u>
Minimum Infill Depth (mm)	<u>17</u>	<u>1</u>
Average Infill Depth (mm)	<u>27</u>	<u>N/A</u>

GMAX TESTING DATA



REQUESTED DROP LOCATIONS

Test Point	Drop 1 (G's)	Drop 2 (G's)	Drop 3 (G's)	Average Gmax (G's)	Infill Depth (mm)	Field Temperature (F)
1	217	221	221	221	17	118
2	194	217	214	216	25	116
3	195	209	210	210	29	116
4	199	207	201	204	25	117
5	172	185	180	183	34	116
6	177	186	184	185	28	116
7	146	160	160	160	34	118
8	158	163	164	164	27	118
9	170	182	177	180	27	118
10	174	183	186	185	30	116

DROP POINT LOCATION PHOTOS



LOCATION 1



LOCATION 2



LOCATION 3



LOCATION 4



LOCATION 5



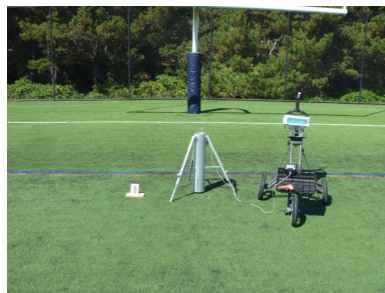
LOCATION 6



LOCATION 7



LOCATION 8



LOCATION 9



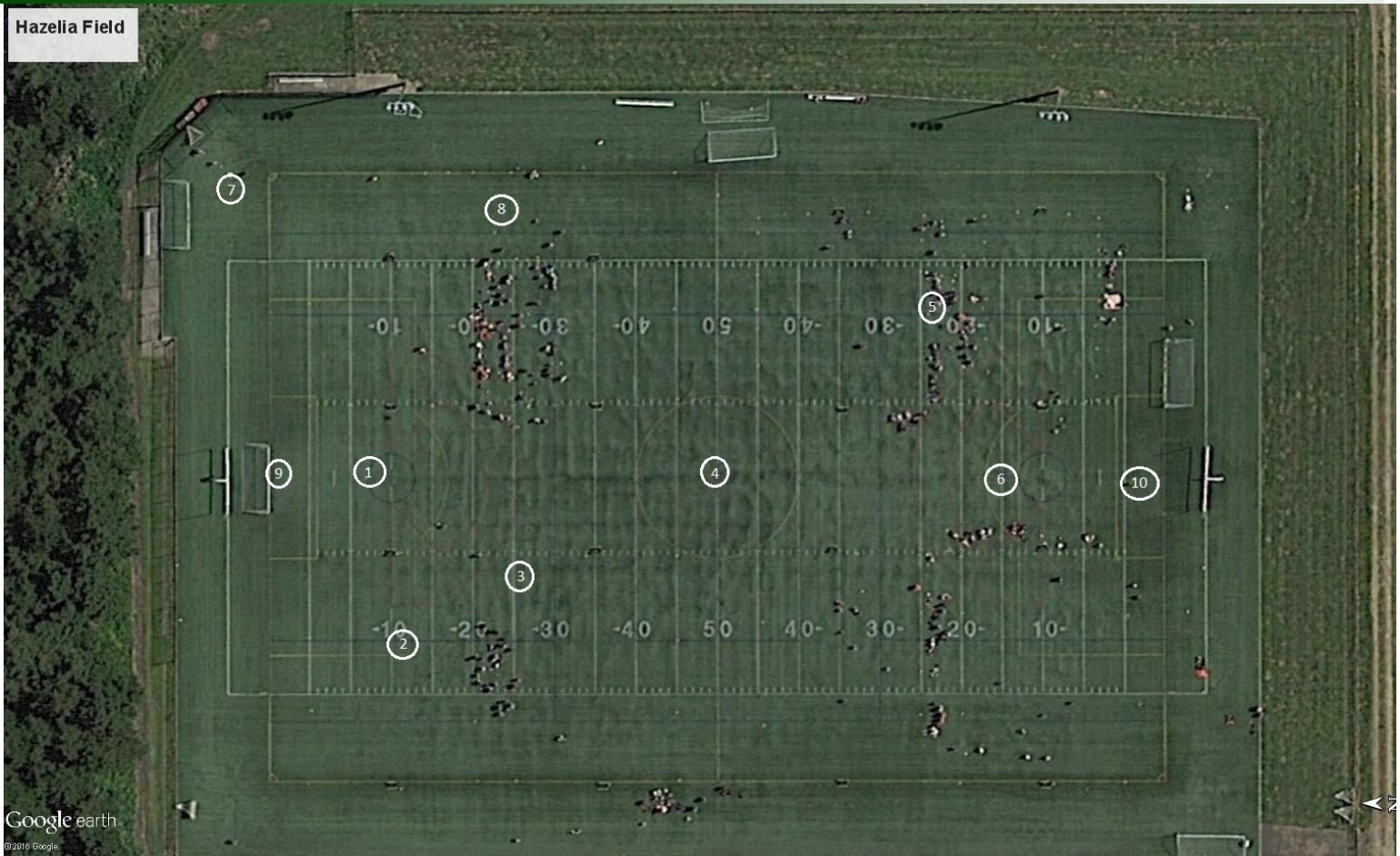
LOCATION 10

TESTING MAP



GMAX TESTING MAP

Hazelia Field



FIELD INFORMATION

Synthetic Turf Manufacture: Field Turf

Field Surface Product Name: FTOM 1F

Primary Sport: Soccer

Pile Height: 2 3/8 inches

Infill Type: Sand / Rubber

Year Built: 2007



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REPORT SUMMARY

An independent Gmax test was requested by the client. Gmax tests were performed in accordance with ASTM F1936-10 and NIAAA specifications. Certified and calibrated equipment was used in this testing in accordance with ASTM F355. The “G” results were electronically recorded and transposed into this report, the electronically recorded results are available upon request.

The employee performing the testing have been through the Turf industry (Ti) / National Interscholastic Administrators Association (NIAAA) course and have obtained Accreditation for comprehensive knowledge of sports field safety and proficiency in the testing and inspection of sports field surfaces.

No site abnormalities were found that caused deviations from standard test procedures.

Test results herein reflect the performance of the points tested, at the time of the testing and at the temperatures reported. Under the stated test conditions listed in this report, all test points met the requirement of <200 average Gmax when tested in accordance with the ASTM F1936-10 specifications. EXCEPT DROP LOCATIONS #1, #2, #3, and #4 AS SHOWN IN RED ON PAGE 2 OF THIS REPORT.

Although HIC (Head Injury Criterion) is not a required ASTM specification HIC values were also electronically recorded during testing and those results are available upon request.

GMAX DEFINITION

Gmax testing (also known as impact testing) is used to measure the impact attenuation properties of synthetic sports surfaces (artificial turf) and natural turf athletic fields. Gmax values express a ratio: the ratio of the maximum acceleration (deceleration) experienced during an impact, to the normal rate of acceleration due to gravity. The higher the Gmax value, the lower the shock-absorbing properties of the surface. Gmax measurements are a fundamental tool of athletic field safety testing.

Gmax testing ensures that your playing surface is with-in the parameters set by your organization. Annual testing demonstrates your commitment to safety and generates a historical record that can be important if warranty or liability issues arise.