



HIGH SCHOOL FOOTBALL

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'Life-threatening' turf at an Idaho high school? Lax testing raises safety concerns

BY MICHAEL LYCKLAMA

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Safety stands as the key word at every level of football as the concussion crisis has gripped America's most popular sport.

But the inconsistent application of safety standards on the Treasure Valley's artificial turf fields raises the question: How safe are high school athletes on these fields?

Public records show Eagle High's field reached "life-threatening" levels last fall, Dona Larsen Park's field failed to meet its contractual safety levels at installation and Middleton High hasn't tested its field since installing it six years ago.

<http://www.idahostatesman.com/sports/high-school/prep-football/article161...> 7/21/2017

Also at issue are which safety guidelines schools follow. The West Ada School District and Boise State both follow standards set by ASTM International. But some experts say adhering only to the highest allowable standard misses the point and puts players at risk.

“If you run at 10 mph as hard as you can, and you run into a brick wall and hit your head, you could expect to die,” said Buzz Splittgerber, who specializes in testing artificial turf. “What if I run into that same wall at 9 mph? What do I expect to happen — good things?”

‘LIFE-THREATENING’ LEVELS

So how hard is too hard? Testers use what’s called a G-max test to measure impact on the field. The higher the G-max score, the less impact the field is absorbing.

Any G-max scores above 200 “are considered values at which life-threatening head injuries may be expected to occur,” according to ASTM. The specifications also state if a single test point exceeds 200, no one should use the field until repairs can lower the score.

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THERE’S AN UPPER LIMIT FOR A REASON, AND IT SHOULDN’T GO ABOVE THAT. AND IT IS BECAUSE IT PUTS PEOPLE AT RISK.

Mike Gentile, Sports Labs USA managing director, on safety testing standards for artificial turf

But some organizations recommend lower scores. The Synthetic Turf Council, an industry trade group, recommends 165 as its G-max limit. And manufacturer warranties for turf fields typically spell out their maximums at well below 200.

By comparison, a well-maintained natural grass field typically ranges from 80 to 140 on the G-max scale, depending on soil moisture and weather conditions, according to a brochure from the Sports Turf Managers Association.



ECOlux repaired Eagle's field after it failed an Oct. 19 test. But the West Ada School District never tested its work, and Eagle hosted five more games last fall after the failed test, including a 5A state semifinal against Mountain View.

Otto Kitsinger - Idaho Statesman file

WEST ADA

In the past 11 years, Meridian, Eagle, and Rocky Mountain high schools installed synthetic turf fields on their campuses. The West Ada School District received a crash course in G-max last summer, when the district hired Splittgerber of Buzz Turf to test Eagle's and Rocky Mountain's fields for \$1,000 apiece.

Splittgerber did not test at Meridian because its new field was under construction.

The highest score at Rocky Mountain reached 184, according to results obtained by the Statesman through a public records request. That is above the Synthetic Turf Council's guidelines and warranties around the Treasure Valley, but below the 200

threshold set by the ASTM, which the district follows. ASTM has established more than 12,000 voluntary standards covering everything from children's toys to airplanes.

The larger concern came at Eagle, where Splittgerber's tests showed three of 16 spots exceeding the "life-threatening" level of 200.

West Ada kicked Eagle's football team off the field before the first day of practice Aug. 8 and hired ECOLux to make repairs. Before the team returned to the field Aug. 15, all three locations measured below 200, said Joe Yochum, West Ada assistant superintendent of operations.

But district testing records show results for only two of the three trouble spots. Results for the third spot — approximately the north 13-yard line — are missing.

"I was told verbally it was passed," Yochum said. "I don't know why I don't have a record of it."

The two documented locations Splittgerber did retest in August both measured below 200 — 195 and 124. ECOLux dropped the south goal line location dramatically by replacing a 5-yard section of turf between the hashmarks.

The school district hired Splittgerber to test the same three spots again on Oct. 19 for \$250. The missing location from August's tests measured at 227, well above the "life-threatening" threshold.

ECOLux returned later that day to repair that location, but the district never retested its work. Yochum said the district felt that it didn't need to because ECOLux previously made successful repairs. But ASTM guidelines state repairs should be "confirmed by subsequent testing."

Without a test, West Ada couldn't know the repairs lowered the G-max score, said Testing Services Lab Director Erle Miles, whose Georgia-based company tests almost 200 fields a year.

"That," Miles said, "is an opinion."

Eagle hosted five more games at Thunder Stadium after the Oct. 19 test — a JV game vs. Borah the next day, playoff games vs. Coeur d'Alene and Mountain View, as well as the Treasure Valley's 8-man and 11-man all-star games.

Borah coach Jason Burton, Mountain View coach Judd Benedick, Coeur d'Alene coach Shawn Amos and Corey Turner, the director of the all-star games, said they were not aware of any safety issues at Eagle's field. None could recall any concussions caused by the turf from those games.

Eagle coach Paul Peterson said he knew about the field's problems in August but not the failed October test.

"They told me don't be on it, so I wasn't. They told me I could be, so I was," Peterson said.

Turner said he would have moved the all-star games had he known about safety concerns.

"I could have played in Caldwell (at Simplot Stadium). I could have played in Middleton," he said. "Caldwell was willing to give me their stadium for free."

Eagle's soccer teams played on a nearby grass field last season, and the Mustangs' lacrosse team played its spring season at Eagle Middle School and the high school's soccer field.



Rocky Mountain's Cal Criner slams Timberline's Terek Zimmerman to the turf during an Oct. 1, 2015, game at Dona Larsen Park.

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DONA LARSEN PARK

Boise's four city high schools — Boise, Borah, Capital and Timberline — play their varsity football games at Dona Larsen Park, a field that failed to meet its project specifications and its warranty on opening day in 2012, according to public records.

The binding project specifications between Idaho's Division of Public Works and McAlvain Construction mandated that none of the 10 G-max-tested locations on the field exceed 125 upon installation.

All 10 did, testing results show.

The FieldTurf warranty also guaranteed none of the 10 points would exceed 130 upon installation.

But six of 10 did, the highest reaching 155.

McAlvain Construction submitted a substantial completion certificate stating the project met its agreed-to contract. Barry Miller, Public Works project manager for Dona Larsen Park, said his agency can't check every standard on a large project.

"We're relying upon design professionals to tell us everything is up to the standards they had specified it," Miller said. "... We don't go and try to check every document and report."

When told of these findings June 1, Tammie Newman, McAlvain Construction's project director for Dona Larsen Park, said she needed time to search the company's records. She did not return multiple calls in the past six weeks seeking comment. McAlvain was the only company with a state contract for Dona Larsen and hired the subcontractors.

FieldTurf performed repairs after the first season of use. Testing results show every point that was retested on Dec. 17, 2012, measured below the warranted 130. But eight of the 10 still exceeded the project specification standard of 125.

Boise State, which owns Dona Larsen Park, accepted the repairs as sufficient.

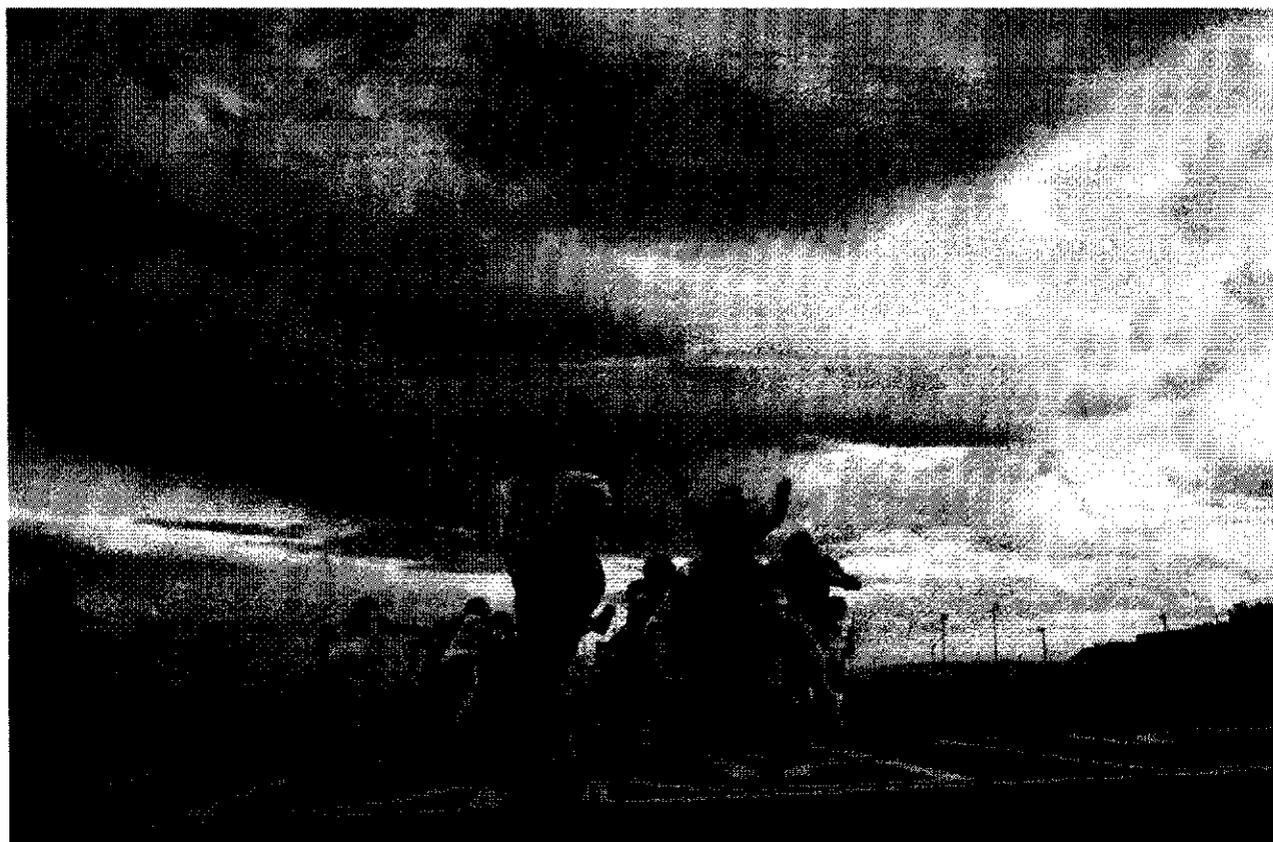
“All parties agreed this was satisfactory, and the field was deemed acceptable under both the initial contract and the warranty agreement,” Boise State sports information director Joe Nickell wrote to the Idaho Statesman in an email.

The follow-up tests at Dona Larsen remained well below the ASTM “life-threatening” level of 200. But their higher-than-specified results could necessitate further repairs.

Dona Larsen’s specifications are the only ones in the Treasure Valley to require regular G-max testing. They mandated that Boise State test the field in 2014 and again in 2019, one year before the warranty expires.

All test points on Aug. 6, 2014, remained below FieldTurf’s lifetime warranty of 175. But after 20 months and one full season of high school football since repairs, the highest point reached 165 — the Synthetic Turf Council maximum — and six of the 10 fell between 155 and 165.

The university has no plans to test the field again until it’s required to in 2019, said Bob Carney, Boise State’s associate athletic director for facilities, operations and championships.



Since installing its turf field in 2011, Middleton has not G-max tested it.

Otto Kitsinger - Idaho Statesman file

MIDDLETON HIGH

Middleton installed its turf field in the summer of 2011 with the requirement that the average G-max score at installation would not exceed 115. Testing records show it met those standards, averaging 110.1.

Middleton's specifications are the only ones in the Treasure Valley to use an average and not any location.

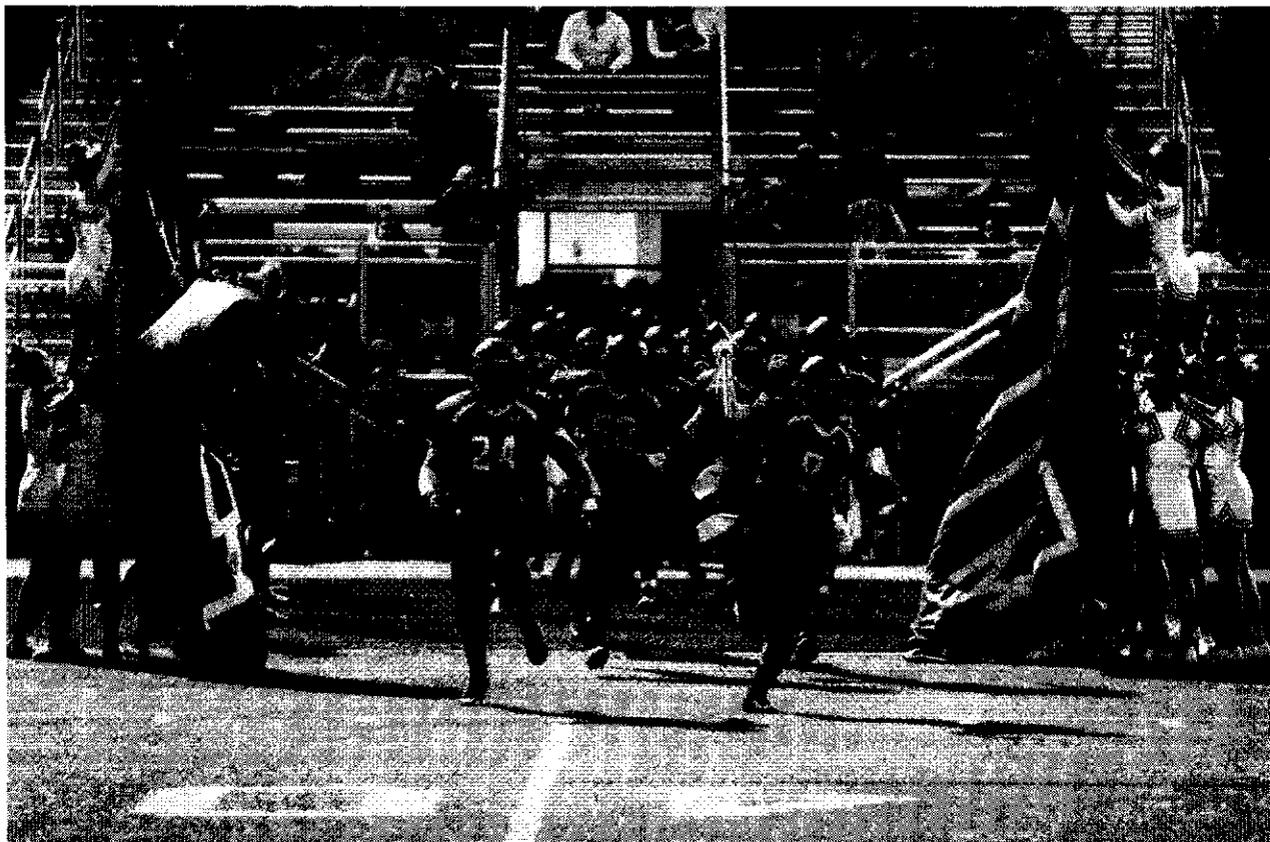
The specifications for Middleton's field also require that the G-max score never exceed an average of 150 through the life of its warranty, which expires before the 2019 football season. But the warranty from the turf manufacturer, Hellas Construction of Texas, doesn't cover G-max. And Middleton has not tested its field since installation.

ASTM guidelines recommend, but don't require, yearly testing. The Synthetic Turf Council recommends G-max testing after the first and third year of the turf's use, and then at the field owner's discretion afterward.

Darren Uranga, the director of finance and operations for the Middleton School District, admitted that Middleton can't know the G-max score of its field without a test. But he pointed out that the district isn't contractually obligated to test its field at any point after installation.

Nevertheless, with its warranty expiring in two years, he said the district is working to test it this summer.

"I know I've heard coaches and parents say our field is softer than other fields they've been on," Uranga said.



The West Ada School District is keeping an eye on Rocky Mountain's field, which will need to be replaced in the next couple years.

Otto Kitsinger - For the Idaho Statesman

ERR ON THE SIDE OF SAFETY

The West Ada School District and Boise State claim ASTM as the only standard they follow for their turf fields, considering any score below 200 safe.

But Splittgerber said schools should aim for scores that are much lower.

“That is exactly what is ingrained in their head. Anything below 200 is safe because it's not life-threatening anymore,” Splittgerber said.

“That's just dumb. It's like, ‘We want to fill the square so we can start playing football.’ That's the most important thing we can do. It's not, ‘Are these kids going to be in danger if we have 195?’ ”

Yochum and Spencer McLean, West Ada's administrator of buildings and grounds, admit they knew nothing about G-max standards 18 months ago. But after a year and a half of hands-on experience, they realize the days of rolling out a turf field and calling it safe for 10 years without any maintenance are over.

“We want to err on the side of safety,” McLean said.

“

WE QUICKLY REALIZED WITH TURF FIELDS, UNLIKE WHAT WAS THOUGHT 10 YEARS AGO, YOU CAN'T JUST PUT THEM IN AND WALK AWAY. THERE IS SOME MAINTENANCE REQUIRED. YOU'RE NOT MOWING IT. YOU'RE NOT IRRIGATING IT. BUT YOU DO HAVE TO DO CERTAIN THINGS TO IT.

Joe Yochum, West Ada assistant superintendent of operations

Boosters donated and installed all of West Ada’s original fields. But with the district investing \$621,204 into a new field at Eagle and \$592,491 into a new field at Meridian, and a replacement field due at Rocky Mountain in a couple of years, West Ada has established district-wide safety standards. It will test its fields yearly, and the new fields at Eagle and Meridian are warrantied not to exceed 150.

“Our goal is to create a safe environment,” McLean said. “That’s No. 1. If that means that we’ve got to spend \$1,000 per field per year to have it tested and verified that we’re within the regulations that are acceptable, then that’s what we need to do.

“That seems like a small number to pay.”

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TREASURE VALLEY HIGH SCHOOL TURF FIELDS

Location	Installed
Meridian	2006
Eagle	2006
Rocky Mountain	2008
Middleton	2011

Dona Larsen Park

2012

Note: Meridian replaced its turf field last summer and Eagle is installing a new field this summer.



The West Ada School District is replacing the artificial turf at Eagle High this summer after 11 years of use. **Darin Oswald** - doswald@idahostatesman.com

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