

Daniel Lloyd

Creative Writing Portfolio

November 2023

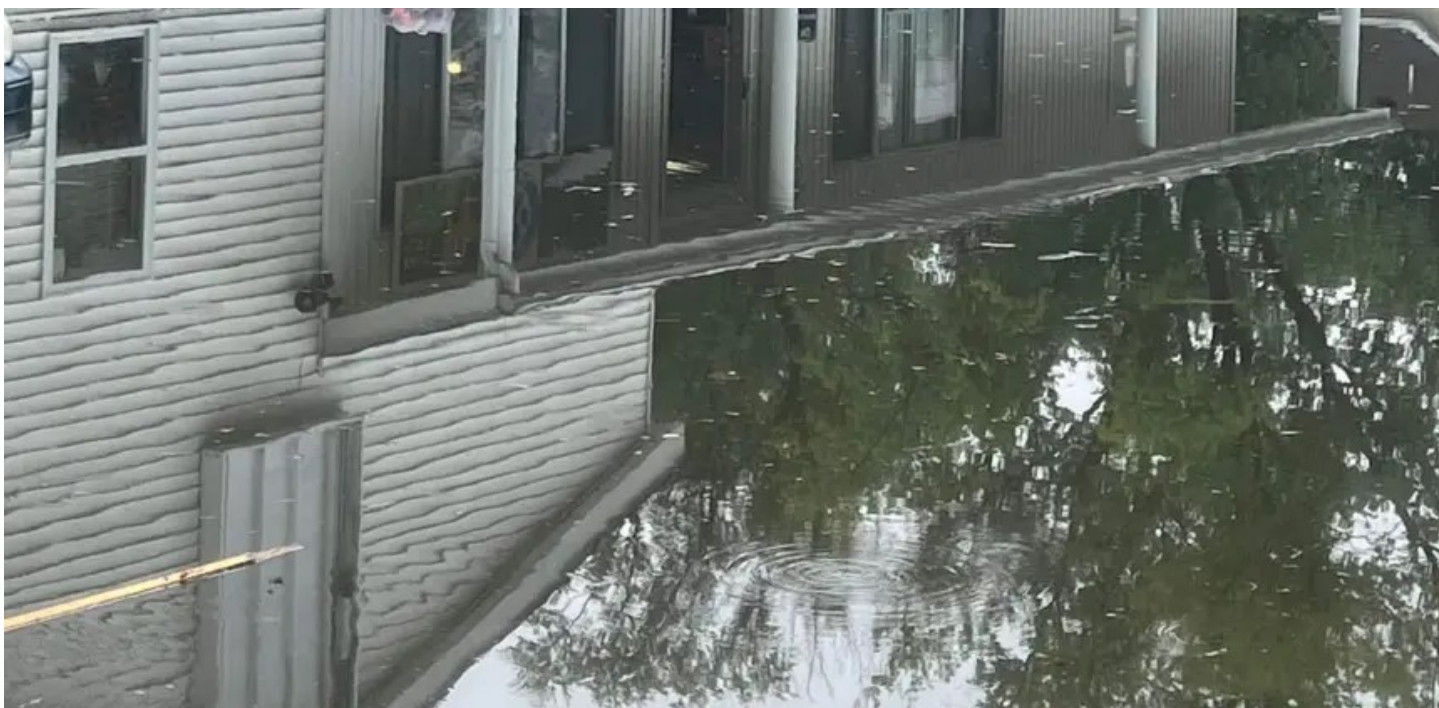
Nate's Corner: Kristen in Accounting - Natura

Here at Natura, dogs are part of the family. We do what we do to improve the lives of dogs, dog people, and people in the pet industry. We wanted to take the time to shout out Kristen here in Accounting for going above and beyond not only when it comes to keeping the lights on around here, but she—along with her wife, Rachel—is also a rockstar to the pups in her life. They're dedicated pet owners with two dogs and two cats in their household.

Kristen would have pursued a veterinary career, she says, but she doesn't do well with blood, so she finds other ways to show her love for dogs. She pet/house sits, works for a local boarding and daycare facility, and generally falls head over heels with just about every dog she meets. She has also worked with several neighbors and acquaintances to get Natura installed in their yards and she even installed Natura in her own yard to give her dogs a better play area.

Rachel was always drawn to dogs as well. According to Kristen, whenever they would go to a friend's house Rachel would spend all her time with the dog, offering to take them for a walk or help with training—but she was unsure of exactly how she wanted to use her talents to help dogs.





(Image courtesy of New York Post.)

Rachel and Kristen first heard about Stray Paws Rescue when they saw [a tragic news story featuring the facility](#). In 2022, St. Louis, Missouri saw heavy flooding due to a “hundred-year” rain event that swept through the area. Unfortunately, Stray Paws Rescue was hit particularly badly by the flood, leading to ten dogs’ deaths. Rachel was so affected by the story that Kristen took notice. Kristen finally convinced Rachel that helping animals was really what she wanted to do, it seemed, and what better way than pitching in to help the shelter whose story had so affected her?

[Stray Paws Rescue](#) is a St. Louis-area nonprofit that strives to protect and improve the lives of rescued animals and finally place them in loving permanent homes. The nonprofit works with vets in the area to provide medical care for abandoned or stray animals. They work tirelessly to save animals from euthanasia, be it through the rescue itself or one of the many associated foster homes. Rachel started volunteering and eventually found herself in a full-time role at the rescue.

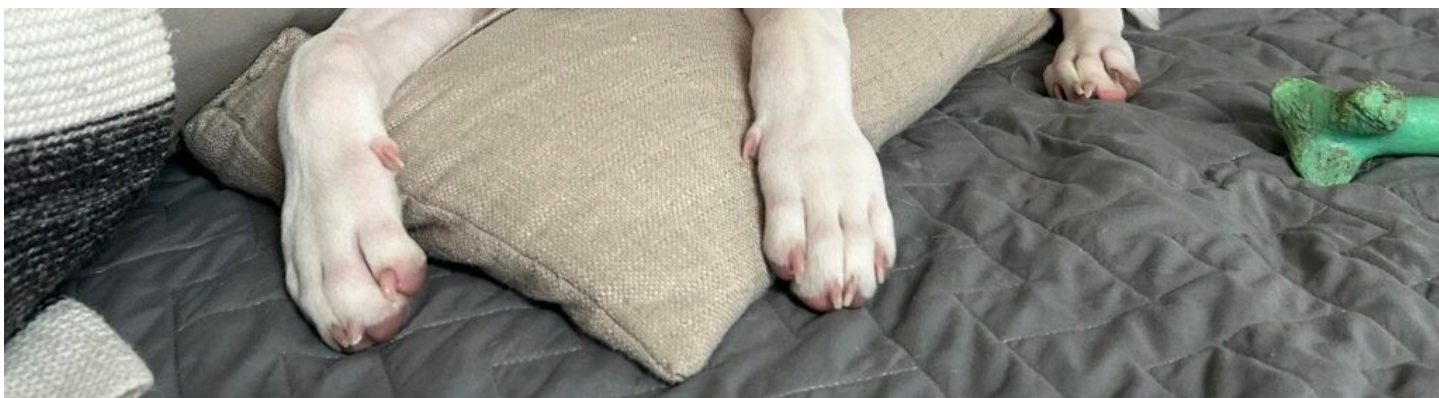




For Rachel, it was like a match made in heaven. It's about the dogs' stories, she says. For example, both Rachel and Kristen became attached to a sweet pit mix named "Juice" who had been tied up and neglected before he came in. He had a large gash on his neck when he showed up, but once he healed up and got settled he served as a kind of big brother during his time at Stray Paws Rescue. He would get along with just about any dog, so much so that the workers and volunteers would bring in Juice to spend time with new dogs to gauge their friendliness. Now, he finally found his forever home and the pet parents send Rachel and Kristen photos of him happily running through their rural homestead. The change he made from a scared, injured dog to a confident leader was inspiring.

That's one of the bittersweet things about the work: you hear these dogs' stories, and you see them every day, you tend to get attached. That's how Rachel and Kristen "failed" as foster parents for Stray Paws Rescue. They fostered a pit mix named "Blu" and they just couldn't let him go once he worked his way into their hearts. If only all our failures had such positive outcomes! It's a classic story and it demonstrates one of the reasons fostering can be so enlightening; everybody is better in a supportive home environment.





Blu was shy as can be in the shelter, but once they got him home, he opened up and his personality shined through—he wasn't shy one bit! That's not to throw stones at shelters; if a shelter is doing good work it tends to be a chaotic environment with many dogs, one that might make it difficult to get a read on a dog's true personality.

Kristen recommends fostering for this very reason. Dogs are simply more likely to find forever homes if they're in a loving, supportive environment that shows them at their best. You can even foster to adopt if you're worried about falling for the dog you're fostering. Remember, every dog fostered is another open spot at Stray Paws Rescue.

With Rachel working like a dynamo for these dogs, Kristen wanted to use her resources to help, too. When Kristen began here, Natura was just getting off the ground, but she saw an opportunity in the hybrid turf. Kristen reached out to dog-owning friends and Stray Paws Rescue to fix their outdoor ground cover situations. She helped replace the gravel ground at the facility with Natura to make the yard more beautiful and functional for the dogs.

It just so happened that Blu's mom, Banana Split, was the first to set her paws on the newly laid Natura, and she gave a glowing review in the form of running at Mach speed before rolling over on her back to wiggle back and forth. (We have it on good authority that Natura is a great back scratcher!) She'd never done anything like that on gravel. Kristen thought, "What dog would?"

Kristen found that the turf appeared to be safer than gravel, as well. She noticed that dogs with paw injuries or joint conditions would limp more as they walked along gravel or other hard, rough surfaces, and the recurring problem of gravel getting caught between dogs' paw pads disappeared immediately. She was satisfied that something as simple as a change in outdoor ground cover can noticeably improve dogs' lives.

Now, a year after the flooding that took the lives of people and dogs alike, Stray Paws Rescue celebrates a year of progress by throwing an event, making sure to invite the firefighters who risked their lives to help the facility when they needed it the most. It goes to show, whoever you are, there's something you can do to change dogs' lives for the better. Consider fostering a dog, donating to a local shelter, or finding some small way to make life easier and more comfortable for the dogs in your life.

Who knows, maybe you'll "fail" yourself into finding a new family member like Rachel and Kristen did.

If you're looking to make the dogs in your life healthier and happier, Natura is a great way to do it.

[Learn more here.](#)





The Problems and Pitfalls of Soil Erosion in the Solar Industry

Soil erosion can wreak havoc on a solar farm development at every step of its life cycle, from construction to operation. Here's an outline of the impact erosion can make on a solar farm project in order to better prepare your project today and for the future.

Why Erosion Control Matters Now

Today's more frequent, higher intensity storms necessitate effective erosion control planning and implementation on all medium- to large-scale solar farm developments. As far back as 2004, researchers predicted climate change's effect on erosion rates, with soil loss expected to escalate in areas with increased precipitation as well as locations subjected to more drought. According to a paper published by the Journal of Soil and Water Conservation, climate change is expected to increase soil erosion. "Where rainfall amounts increase," the researchers write, "erosion and runoff will increase at an even greater rate: the ratio of erosion increase to annual rainfall is on the order of 1.7." Worse still, the researchers concluded that "[e]ven where annual rainfall would decrease, system feedbacks related to decreased biomass production could lead to greater susceptibility of the soil to erode." Today, we are living with those predictions, so soil erosion must absolutely be addressed.

The ratio of erosion increase
to annual rainfall
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1.7

The importance of erosion control isn't just confined to global stewardship; erosion affects photo-voltaic (PV) facilities financially and existentially. Solar sites are under increased scrutiny by local governments and a critical public. In Guam, for example, the Attorney General's office recently sued Korea Electric Power Company and Samsung E&C America for damage caused to an underground drinking water source due to improper erosion control measures. Samsung E&C subsequently paid out a settlement to the Guam Contractor's License Board. There is still an EPA notice of violation and a pending

lawsuit filed by the Office of the Attorney General, including solar project owner Korea Electric Power Corporation's Guam subsidiary. This type of backlash is also common in the contiguous United States. A stop-work order was recently served to an Arizona-based power company during the construction of a solar farm in Campbell County, Virginia due to road damage caused by erosion and runoff. In fact, since breaking ground in 2020, the project has been issued six stop-work orders and 26 notices of violations by Campbell County. They have since spent resources implementing additional measures including truck washing stations and road sweepers. Deliberate planning (and the right solution) for erosion control can save your PV site and make sure that the project goes off without a hitch.

What Solution is Right for Your Development?

Until now, engineers for solar developments have had to choose between hard armor solutions that provide typically reliable, immediate to long-term protection, and lightweight solutions with superior aesthetics. There are several arguments to be made for each solution.

HARD ARMOR SOLUTIONS

Hard armor erosion control materials like rock riprap have their advantages; they are instantly effective and generally reliable. Riprap is ubiquitous in many parts of the country and proven in many applications. But rock's disadvantages (literally) outweigh its benefits. Depending on your PV facility's distance to the nearest quarry, rock can be prohibitively expensive in materials alone. According to one calculation, "the transportation of rock riprap creates [an average of] more than 36 tonnes of emissions" for a coverage area of ~65,000 sq. ft, whereas the equivalent coverage of RECPs would produce around one ton of emissions. Once you factor in the labor and fuel

costs of all the added miles traveled transporting hard armor materials, the price adds up quickly.

Environmental concerns regarding rock riprap don't disappear after installation. On the contrary, in the Environmental Protection Agency's (EPA) document "Storm Water Technology Fact Sheet – Turf Reinforcement Mats," the agency states that although "these permanent measures can withstand great hydraulic forces, they are costly, and they do not provide the pollutant removal capabilities of vegetative systems." Through filter action, vegetation manages to stop the spread of pollutants. Furthermore, because many PV facilities are being constructed on or around agricultural land, it is vital that local pollinator populations are fostered. A paper in Environmental Science and Technology highlights the importance of "the development of solar-pollinator habitat to improve the compatibility of USSE facilities in agricultural landscape." In short, the way to create habitats for pollinators is to promote growth of native vegetation. The researchers go on to mention that "Other ecosystem services resulting from the planting and development of pollinator habitat at USSE facilities may include, but are not limited to, improvements to local biodiversity, water control, and carbon storage." Hard armor solutions are incapable of doing double-duty on your job site.

Maintenance is also an issue with rock riprap. Inevitably, some maintenance will be required during the hard armor installation's lifetime. This maintenance usually takes the form of replacing disturbed rock and the removal of weeds and other unwanted vegetation. Because riprap provides uneven footing, maintenance is difficult and potentially hazardous. Rock's inherent weight may also ne-

cessitate the use of heavy equipment during maintenance. Furthermore, using mowing equipment around rock near solar arrays greatly increases the likelihood of damage to the panels and/or supports by ejected rock, potentially resulting in costly repairs.

The transportation of rock riprap creates an average of more than 36 TONNES OF EMISSIONS





hard armor solutions. They usually don't require heavy equipment for installation or maintenance. The vegetation around and growing through the RECP can be maintained with standard mowing equipment. They also have clear economic advantages over hard armor solutions; they are generally cheaper per square foot and easier to transport. Where one truckload could hold less than 200 square feet of rock riprap, a similar truck can transport square footage of TRMs in the 10,000+ range. There are, however, certain drawbacks to traditional TRMs.

Most conventional TRMs have relatively **LOW SHEAR STRESS RATINGS**

of 2 – 3 lbs/sf before vegetation establishment

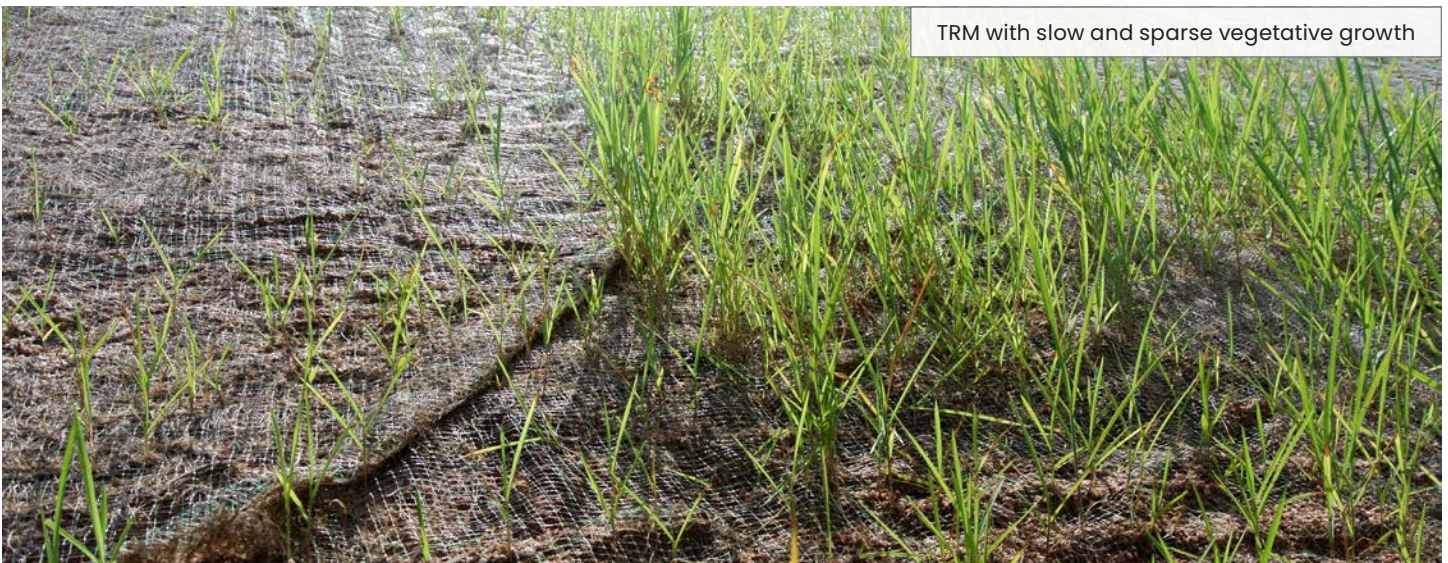
Maintenance is made more difficult by rock's tendency to generate and harbor dust that can be blown about and eventually land on the PV panels, which may increase the need and/or frequency of panel surface cleaning. According to the National Renewable Energy Laboratory, "[t]he energy lost annually from [solar panel] soiling amounts to as much as 7% in parts of the United States to as high as 50% in the Middle East." This is a significant loss in efficiency and is only exacerbated by rock's properties. Rock's simplicity and permanence are attractive but ultimately leave much to be desired when it comes to a well-rounded erosion solution.

TURF REINFORCEMENT MATS (TRMs)

TRMs and other rolled erosion control products (RECPs) are the most common "soft armor" erosion control solutions used today. RECPs are much easier to install than

Crucially, most TRMs require a 6-12+ month vegetation grow-in period before they can provide a high level of erosion resistance. According to the Erosion Control Technology Council's (ECTC) specifications for permanent RECPs, TRMs must have a minimum unvegetated permissible shear stress rating of 2 lbs/sq. ft, as most conventional TRMs have relatively low shear stress ratings between 2 and 3 lbs/sq. ft before vegetation establishment. This means that for an extended period after installation conventional TRMs are at a greatly increased likelihood of failure. With today's more frequent, high intensity storm events in many areas, and drought-induced slow vegetation establishment in others, you simply don't have time to wait for vegetation to mature for your solar project to become protected from erosion.

Most TRMs require a
6-12+ MONTH
 vegetation grow-in period



TRM with slow and sparse vegetative growth

The New Solution: InstaTurf®

We've developed a new solution that avoids the pitfalls of both hard armor solutions and conventional soft armor alternatives. InstaTurf is an innovative new hybrid turf system that offers the immediate and long-term erosion protection of hard armor solutions along with the light weight and cost-effectiveness of TRMs. InstaTurf utilizes a simulated three-dimensional grass structure to form a shear plane above the soil in conjunction with a specially engineered filtration fabric backing to immediately protect the soil from erosion much like natural grass. Because the mat is permeable, vegetation can simply grow through its simulated turf structure, further securing the product in place and increasing its already outstanding erosion resistance. Once vegetation grows in, InstaTurf permanently reinforces it, substantially increasing the vegetation's long-term erosion resistance. Thus, InstaTurf can enable the use of native plants in erosion-prone areas where unreinforced vegetation would eventually wash out, providing more habitat for local pollinators. This vegetation growth also filters sediments and other pollutants that would otherwise spread to populated areas or ecologically critical water sources. InstaTurf can be applied all over a solar development: along the panel drip lines, beneath the arrays, around pilings, in channels and other drainage systems, around detention ponds, outfall areas, and anywhere high flow-induced shear stresses and soil loss may occur.



SHEARFORCE 10

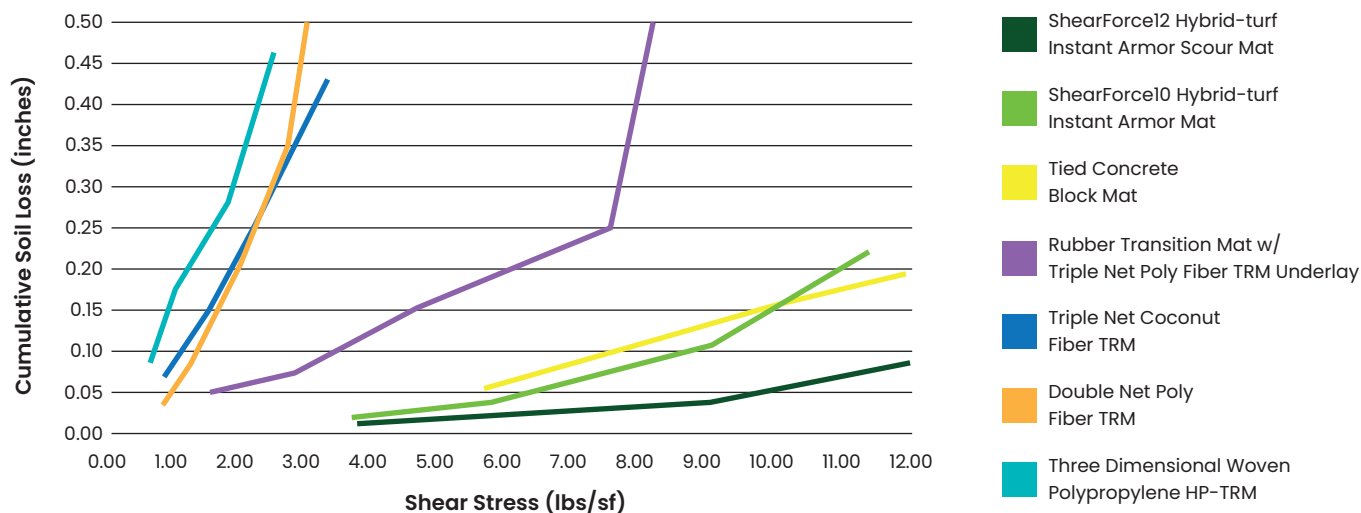


SHEARFORCE 12

Soil Loss vs Shear Stress

in ASTM D6460 Large-Scale Channel Testing of Unvegetated Permanent Erosion Control Mats

(0.50 Inch Cumulative Soil Loss Failure Criteria)



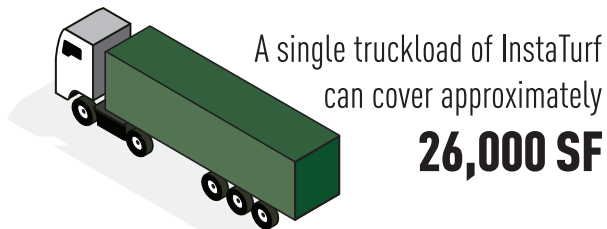
Sources:

Note: All referenced large-scale channel tests conducted as TREI Environmental's Denver Downs Research Facility using ASTM D6460 testing protocol or modified versions thereof.
 GrassWorx, LLC., 2018. ASTM D6460 Channel Testing of InstaTurf ShearForce 10 EC TRM and ShearForce12 Scour Control Mats in 20% Test Flumes, August, October and December, 2018.
 Motz Enterprises, 2018. Large-Scale Channel Erosion Testing of Flexamat Channel Lining, February, 2009.
 AASHTO-NITPEP Large-Scale Channel Erosion Testing of North American Green's ShoreMax Mats over P550-TRM, December 2011 (Amended April, 2016)
 AASHTO-NITPEP Large-Scale Channel Erosion Testing of North America Green's C350 Triple Net Coconut Mat, August, 2011. (Amended April, 2016)
 AASHTO-NITPEP Large-Scale Channel Erosion Testing of Western Excelsior's PPS-10, Double Net Poly Fiber Matting, May, 2014.
 AASHTO-NITPEP Large-Scale Channel Erosion Testing of East Coast Erosion Control's T-RECS Permanent Turf Reinforcement Mat, February, 2013. (Amended April, 2016)

As you can see in the graph on the previous page, the InstaTurf ShearForce10 and ShearForce12 (the two green lines) provide a much greater level of immediate (without vegetation) soil erosion protection than conventional TRMs and HP-TRMs, with performance more similar to a heavier and more costly tied concrete block mat under similar applied shear stresses. What's more, InstaTurf only becomes more effective as vegetation grows in. The immediate protection that InstaTurf provides means that you won't run the risk of your erosion control solution failing before vegetation can grow in. Once vegetation does grow in, landscaping and maintenance is simple because InstaTurf can be walked, mowed, and driven over normally.

LIGHTWEIGHT AND FLEXIBLE

InstaTurf is lightweight and easily transportable; a single truckload of InstaTurf ShearForce10 can cover approximately 26,000 sq. ft. Unlike hard armor solutions, InstaTurf can be placed on a slope and still allow for the installation of arrays on said slope. With a hybrid turf system, you can widen the potential scope of your solar project. The use of InstaTurf will allow you to take advantage of cheaper, more sloping land that would otherwise be unsuitable for PV facilities. Additionally, you can spend less time and money grading the land for the installation of arrays. Less grading also means you can avoid soil disruption that would expose more erosion-prone soil.



AESTHETICS

Aesthetics are a concern for many utility-scale solar projects. Both hard armor solutions and conventional TRMs can prove to be an eyesore for locals. This isn't simply an offhand concern for looks; site aesthetics can make or break a utility-scale solar project. Massive solar developments have been canceled because of public image. What would have been the US's largest solar farm was canceled in 2021 due to the locals' issues with the aesthetics of the development. Rock solutions are conspicuous and harsh looking, and TRMs can look ragged until vegetation fully grows in. InstaTurf's simulated 3-D grass structure mimics the look of grass during the critical stage of construction when locals are most likely to complain about site appearance.



InstaTurf's Unlikely Origins

After 28 years with a leading manufacturer of TRMs, Tim Lancaster theorized that a material that looks like grass would protect soil just like natural grass. He picked up an artificial turf doormat from his local hardware store and performed small-scale tests in his backyard to determine if vegetation would grow through the artificial turf matrix. After promising results, he partnered with St. Louis-based Grassworx LLC, the manufacturer of the artificial turf doormat he tested. Grassworx LLC produced a prototype specifically designed to prevent soil erosion and Tim subjected it to rigorous ASTM D6460 channel testing. Everyone involved was blown away by the results.

InstaTurf is a paradigm-shift in the erosion control space and a boon to solar developers everywhere. Its ability to provide rock-like erosion protection coupled with the vast benefits of natural vegetation is changing how engineers and developers think about protecting their solar farm projects. Schedule a consultation with Tim to determine if InstaTurf is the right fit for your solar development.

**For more information,
contact Tim Lancaster at InstaTurf**

**812.483.1532
tim.lancaster@grassworxllc.com**

insta-turf.com/solar

SOURCES:

- Expected climate change impacts on soil erosion rates: A review
- AG sues solar plant developer over environmental damage
- Solar farm under stop-work order; Campbell Co. residents concerned about road damage
- Engineered Earth Armouring Solutions: An Alternative to Rock Riprap
- Storm Water Technology Fact Sheet Turf Reinforcement Mats
- Examining the Potential for Agricultural Benefits from Pollinator Habitat at Solar Facilities in the United States
- Scientists Studying Solar Try Solving a Dusty Problem
- Installation Guide for Rolled Erosion Control Products (RECPs) Including Mulch
- Control Nettings (MCNs), Open Weave Textiles (OWTs), Erosion Control Blankets
- (ECBs), and Turf Reinforcement Mats (TRMs)
- InstaTurf ASTM D 6460 Test Report
- The US's largest solar farm is canceled because Nevada locals don't want to look at it

10 ways to Minimize Legal Liability for dog daycares Natura

Don't Fall Down on the Job: 10 Ways to Minimize Legal Liability at your Pet Business



Most dog daycare and boarding facility business owners are in the field because they love animals and have a special connection with them. Pet business owners truly want to do right by pets and pet owners, but owning a pet business comes with its own set of risks. When you care for people's four-legged family members, you're in the line of fire if anything goes wrong—but there are steps you can take to make your business safer and minimize legal liability should the unexpected occur.

Disclaimer: This blog does not, and is not intended to, constitute legal advice. The content below is for general informational purposes only and is no substitute for legal counsel. Only your attorney can provide assurances that the information contained herein—and your interpretation of it—is applicable or appropriate to your particular situation.

Facility improvements. Your very facility could present a weak point for incurring legal liability, for employees, clients, and dogs alike. Something as simple as stable footing or lack of tripping hazards can literally save your business by preventing a nasty fall.

Many improvements can be made using common sense, but it's worth looking into what the specific building requirements are for animal care facilities in your state. While it may be expensive to make these changes to your facility, there's a good chance it's a bargain compared to the legal fees, fines, and disruption to your business that litigation may cause if a client or employee finds problems in your facility.

Screen Dogs First. Every great club needs a good doorman. Unfortunately, not all dogs are suited to dog daycares in general or *your* daycare in specific. Understanding your workspace capacity and employee capability will allow you to preemptively screen dogs that might present problems for your employees and the other dogs. You know what to look for. A dog with temperament or behavioral problems is an obvious no-go in many cases, but it's also worth considering the physical limitations of your business. Your space may only allow for dogs of a certain size, or perhaps medical needs make it unfeasible for you to responsibly care for the dog without risk. Be sure to lay out clear expectations for dogs to be allowed into your business; it's one of the best ways to prevent problems before they occur.

Don't Forget to Screen Pet Parents too! Things get a little more difficult when it comes to screening your pet parents. It's more of a judgment call on your part, and you'll likely want to use your people skills so as not to give the impression that you're rejecting the prospective client as a person. If done intelligently, you can avoid future headache by only taking on clients who you think will be compatible with your business. For example, while we're all concerned for our pets' well being, some pet parents will micromanage and find a problem with everything you do. This tendency to be overly concerned can spell bad news for your business should anything unexpected happen, because oftentimes you're in the line of fire whether you did everything correctly or not.

If you've been in the industry for long enough, you may be able to spot these difficult types of clients early on—perhaps even during introductions—but should the pet parent become difficult later on, it's wise to have a policy for dropping clients that won't leave them disgruntled or hurt. Again, you don't want to give the impression that you're rejecting the client personally. Think of a few general “red flags” and “green flags” to look out for in prospective clients to better justify your decision to take them as a client or reject them. If you think no good will come from telling the pet parent *why* you don't want to work with them, come up with a few vague technical or clerical reasons why you or your business might not have the bandwidth to keep them as a client.

Drafting up a preliminary questionnaire to give prospective clients can help you identify incompatibility early on. This can be a living document that changes as you learn more about what you want from pets and pet parents to create a healthy working relationship and minimize legal liability for your pet business.

Invest in Employee Training. Your employees are the foundation of your business—if they're

unprepared for possible problems, they're far more likely to make mistakes and present liability risks when those problems arise. Lay out clear expectations for behavior and simple step-by-step instructions for a variety of situations, likely or unlikely. The proper, safe response to a situation should be reinforced so much that it becomes automatic for your staff to carry out. Examples of this include safe ways to deescalate scraps between the dogs, or remaining calm and efficient during medical events. The Red Cross offers a short [online cat and dog first aid training course](#), to give just one example. With proper training, not only will your employees be more prepared in the event of an emergency, they'll learn skills that make them more marketable in the pet care industry.

Plan for Larger Emergencies. When you're caring for many dogs, an emergency can prove to be far more hectic and complicated to deal with than it otherwise would be. A fire, for example, would mean absolute chaos for a pet business that lacks emergency procedures.

It's worthwhile to regularly drill emergency procedures so you and your staff are prepared in the event of the unforeseen. Some things to consider are adequate dog transport in the form of crates and leashes, easily accessible dog food and bottled water (oftentimes, vehicles are a great place to store these supplies), and life-saving techniques such as those taught by the Red Cross. If your area sees inhospitable weather such as intense heat or cold, portable shade, water, blankets/coats, and heaters are also great supplies to keep in an accessible place.

In short, you want to ensure that dogs are cared for even if you had to evacuate your facility in an instant.

Encourage a Healthy Pet Diet. While it's responsible for every dog daycare or boarding facility to have some extra food lying around in case the dogs are in need, using the food your clients bring in for their dogs may help minimize legal liability on your end. Make sure your clients know that they're expected to bring food in and let them know what food you have available for the dogs should they need it. With allergies, health requirements, and owner preference, it can be risky to feed the dogs from your own stock. Clear communication of your expectations will ensure that dog owners know the risks if they don't bring in their own food. Once again, a preliminary questionnaire will help you here. In this case, a questionnaire will help you determine if you're able to accommodate a dog's dietary needs and you can also gauge how cooperative the pet's parents will be when it comes to reliably providing food.

Maintain and Review Medical Records. Access to pets' medical records can help you in a pinch, or better allow you and your employees to preempt problems. Allergies and special needs should be discovered as soon as possible, ideally even before the pet's first day at your facility so there are no surprises. Keeping your own records with easy-to-read shorthand is a good way to ensure you accurately accommodate different dogs' needs.

Again, a preliminary screening questionnaire can come in handy here, as you can include questions

about their dog's medical history and special needs.

Keep Clear Lines of Contact with Clients. Keeping your clients up-to-date with the goings on in your daycare or boarding facility creates a sense of confidence and community in the minds of clients. In the event of an emergency, medical event, or simply a moment of ambiguity, having clear channels of communication between your business and your clients will help you avoid making decisions that leave pet parents upset and possibly push them to pursue legal action. Be sure to keep updated files for your pet parents so it's easy to contact them. While it's not likely that you'll be able to reach out to pet parents every time the path forward is unclear, the option is valuable.

Less direct contact is also appreciated, be it in the form of a post on your business's private social media group or a weekly e-blast. Pet parents want to feel included and informed when it comes to their pups, and a simple update can increase their confidence in your business and earn you the benefit of the doubt.

Document Incidents and Day-to-Day Occurrences. Keeping a solid record of incidents that occur at your business will create a paper trail that can help you identify high-risk situations or unwanted chemistry between dogs that might otherwise go unrecorded. Should a pet parent inquire about their pet's experience, it's always more trustworthy to have periodic updates rather than giving a non-response. In fact, it's a good idea to record everything, even smooth sailing. If a dog is injured and you suspect the injury occurred under someone else's care, for example, clear documentation of even mundane events makes it easier to prove that the dog was treated well in your care. When you're doing everything above board, documenting exactly what happens at your facility can only help you when it comes to liability risk.

Get Liability Insurance. This one is a no-brainer—it's in the name. Liability insurance is designed to cover medical or legal fees if you happen to be held responsible for injury or damage to property. At the end of the day, we can minimize legal liability; but even if you've prepared yourself and your team using the previous strategies, you can still be held responsible if something unfortunate happens. It's part of the risk in owning a pet business: people truly love their pets and will seek some kind of justice if they feel their animal has been wronged in some way. Liability insurance, then, is your last line of defense when it comes to liability in your pet business. Like all insurance, you don't need it until you need it.

By taking these steps, you can minimize legal liability for your business and create a safer environment for dogs. The pet industry is hectic enough without risking your business's very existence with avoidable litigation. As with all things in law, it is wise to consult a legal professional experienced in liability and/or pet businesses if you have any questions.

If you're looking for a way to improve your facility, [Natura turf](#) is an innovative outdoor ground cover that makes your yard more beautiful and your life easier.

“InstaTurf surprised me”: Standing Strong Against Hurricane Forces - InstaTurf

PROJECT OVERVIEW

Power Company via Ferguson Waterworks



APPLICATION:

Protecting a power substation experiencing heavy precipitation and repeated TRM/sod failure.

SITE DESCRIPTION:

Standard annual/perennial grass and legume mix

Silty Clay Loam soil

Approximate 4 ft wide channel bottom

Experienced over 6 inches of rainfall and 50+ mph winds over several days





Background

Ferguson Waterworks, an InstaTurf ShearForce products distributor, was contacted by the owner of a power substation in Eastern Virginia that was experiencing a recurring erosion problem. After a few storm events, the sod that the property owner was using to protect an outfall area and drainage channel on their site had to be replaced or repaired. The problem was proving costly and apparently insurmountable.

Scour and erosion in the outfall and channel were common sights, and every time the site owners spent resources to fix the problem, a storm would come and ruin their work before root development was adequate to protect the soil and keep the sod in place. Del Fuller, a sales associate with Ferguson Waterworks relished the opportunity to provide a solution to a problem that had cost the site owners time and money—but knew it was going to be a challenge since turf reinforcement mats (TRMs) had been previously installed in the channel before the sod, and those, too, had failed.

In such cases with significant immediate erosion potential, rock riprap is often the “default” solution for permanent erosion protection, and the owner was considering using it on this site as a last resort. In this case, though, rock was a major logistical challenge as 100 truckloads of material would need to be transported to this limited-access site. They needed a solution that would provide immediate erosion protection like rock but was also lightweight and more suitable for a remote location. The typical solutions just weren’t up to snuff.

Solution

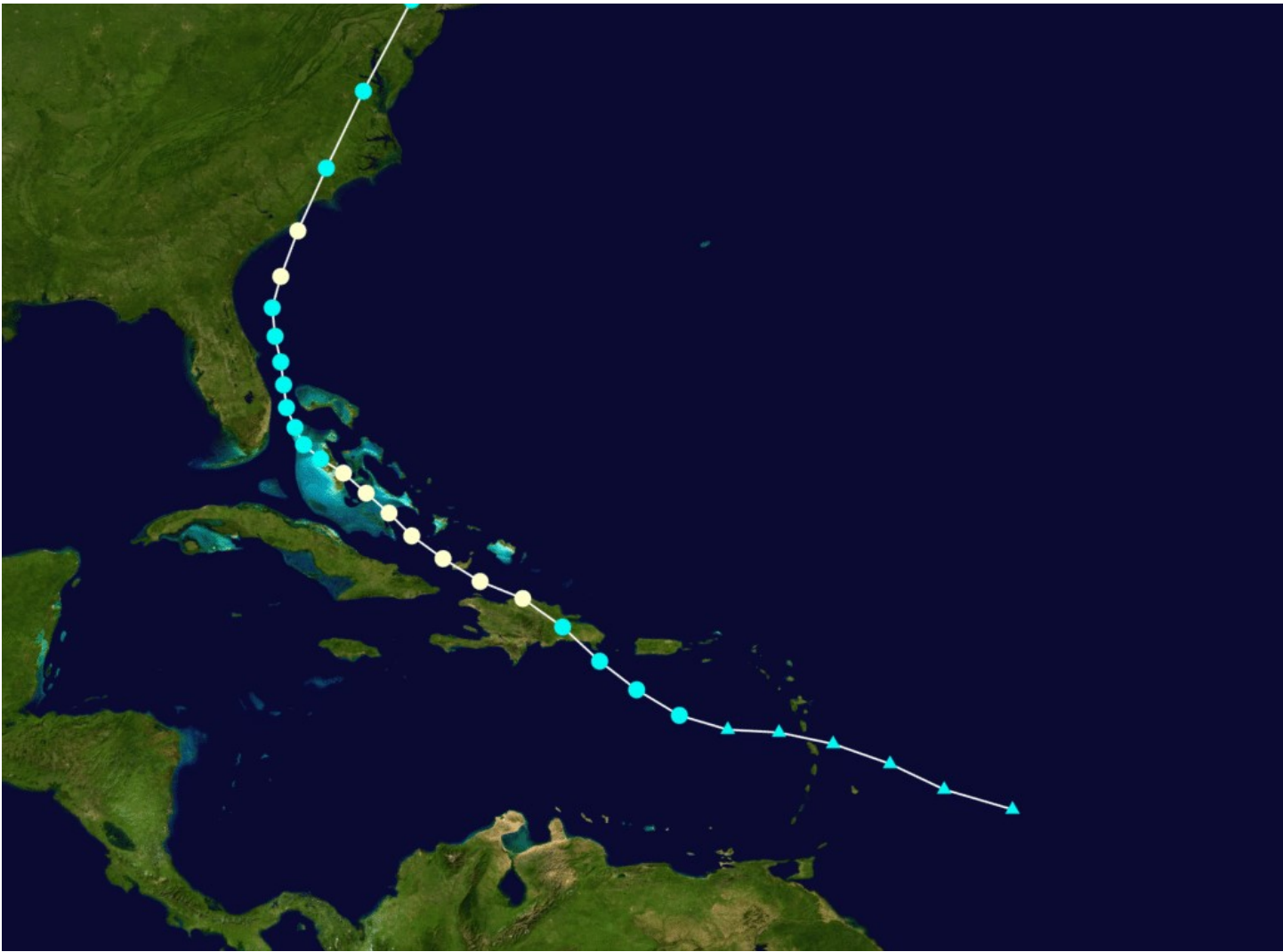
Del recommended a new product that Ferguson Waterworks had just begun to represent, the InstaTurf ShearForce10 hybrid-turf Instant Armor Mat. It’s lightweight and immediately effective for preventing erosion under high velocity, high shear stress water flow. Based on the product’s design

data, the ShearForce10 appeared to be a viable solution for the outfall and channel on the substation site, but Del had limited actual field experience with the product at that point. He was confident in the product, but spec sheets and laboratory test results don't always guarantee effective in-field performance.

After the substation owner decided to move forward with the ShearForce10 instead of rock and the local county engineer approved their plans, Ferguson Waterworks shipped enough ShearForce10 to cover approximately 13,000 sf to the site. All told, the ShearForce10 product only filled about half a truck, so the remoteness of the site was a non-issue. Since no heavy equipment was necessary for installation, it was also a great deal easier than rock to be put in place. The installation would have been much more difficult and costly if rock had been used. It would've been a logistical headache, and the expense to haul the material in would have been prohibitively high, let alone the installation costs. It was all going well, but rough weather would soon put the ShearForce10 to the test.

Not two weeks after installation, Del received concerning news: The remnants of Hurricane Isaias hit the substation, with the freshly installed ShearForce10 taking the full brunt of the 6" of rainfall and 50+ mph winds. Much smaller storms than this had knocked out sod and TRM installations on this site in the past. Dreading an uncomfortable phone call from the site owner, Del couldn't sit idly by, so he decided to visit the site himself just after the storm cleared.







Results

From the debris and stormwater still draining into the outfall area and downstream through the channel, it was obvious that a major storm had come through—you could expect no less after such a deluge—but then Del saw something hopeful: the water running by was clear. He had faith in the ShearForce10 product, but under the circumstances he hadn't dared to expect such a positive sign. There was no visible soil loss in the outfall area or channel.

Del visited the site again when the water receded, and his hunch was dead on; there was no need for repairs. InstaTurf was no worse for wear and the telltale signs of soil loss were nowhere to be found. In fact, grass was already coming through the simulated turf structure of the ShearForce10. Roots were developing and further enhancing the already outstanding soil protection this “hybrid-turf” product provided. The ShearForce10 stood strong against the heavy weather. The product's spec sheets and ASTM test reports were one thing, but now Del had directly witnessed its real-world capabilities, and he was blown away.

This was also a boon for the site owners. Where sod and TRMs had previously failed under less severe storms, and riprap was going to be extremely expensive to install, the ShearForce10 Instant Armor Mat just took on hurricane force flows with no erosion issues. Here was a product that was lightweight, immediately reliable, and easy to maintain. Impressed with such performance, the site owner now uses ShearForce10 on other projects sites as a cost-effective alternative to rock.

Divestments

Can you keep a secret? I've been getting rid of my trash lately. It's a tedious process if you want to do it right. Since you're so trustworthy, I'll tell you how to do it.

First, separate the trash based on the receptacles that you will be using. Make sure that each pile of trash isn't full of all the same items, but that there is a general coherence to the items. That is, try to make it look like somebody entirely different than yourself has lived their life consuming these products. If you are trying to throw away tins of cat food, make sure that you find a receptacle that belongs to a cat owner. If you throw away Coke cans don't do it in the trashcan of a diabetic. Try to learn what types of people eat the same kind of foods that you eat and throw your food waste in their bins. A pink-stained styrofoam meat tray would look entirely out of place at a vegetarian's house. You'll find types. You'll get to know these people. Whatever you do, make sure you never consider these people your friends.

Find a selection of bins in your neighborhood. Sneak your trash into their bins under the cover of darkness. Be careful not to clink two glass bottles together in the quiet dark. Again, be sure that you have categorized and compiled your trash by the time you dispose of it. Later on, expand your circle to encompass whole counties until your nights are spent driving around disposing of individual articles of refuse. A plastic straw here, a used facial tissue there. Learn to live on no sleep.

If you do this, eventually your life will be spread out among countless others. You'll wonder if you'd ever lived at all. How could you know? There's no proof. You'll spread yourself out until you're thin enough to see through and, with any luck, disappear.

An Ode to Dogs...from Grass

Look, I get it. Dogs are man's best friend. As a humble blade of grass, I don't usually get jealous—and people don't often put their ears close enough to the ground to hear me, anyway—but I think it's about time I expressed my love for our four-legged friends.

As a blade of grass, my perspective on dogs may be limited (I don't have eyes or ears) but I have witnessed their presence and their activities countless times. I mean, I'm *grass*. I'm your lawn, your dog park, your dog yard. Who knows dogs better than me?

Perhaps what I love most about dogs is their curiosity about the world. Most of the time, I'm content just standing by and letting life happen around me—but dogs are different. They want to be a part of everything. Whenever a ball lands on me or a squirrel scampers over me, dogs are there to investigate.

I've never smelled anything in my life, so I wouldn't know what I smell like, but it must be good! Dogs love nothing more than sticking their noses into grass like me and giving it a big old sniff. *Eau de rhizome*, that's what I call it. Dogs never fail to flatter me.

Dogs are simply the best. They jump and play and roll around on me. They tickle me with their snouts and sometimes I give them a tickle back. Some of the most precious moments of my life are when dogs rest their bellies on me to cool down on a hot summer day. I am overjoyed when they paw at me and give me a little haircut with their teeth.

They leave little footprints in me when they walk and they make grass angels when they roll around on their backs. What's not to love about dogs? Dogs give me the attention I deserve.

Sure, sometimes they do their business on me. It's only natural. I'm grass: I *love* natural. They give me much needed moisture on a hot day or fertilizer when I'm not feeling my strongest. I'm a simple blade of grass; I'm not squeamish.

Sure, dogs are man's best friend, but grass is a friend to everyone! I don't get sore when humans give me a shave when my hair gets shaggy. People and dogs alike love the way I look and feel. What's the alternative? Mud, gravel, concrete, *artificial turf*. I have nothing against those guys, but ask anyone—dog or human alike—what they think of grass and they'll tell you, grass just has it goin' on! I'll admit, sometimes I need a little help. Toss some grass seed around, throw some water from the hose my way. Anything that keeps me from dying and turning into a dirty mud pit. It's the least I can ask.

As much as I love dogs, sometimes I get tired and torn up when I have dozens of paws running and digging on me all day, every day. I wish there was some way I could keep on hanging out with dogs (tons of dogs!) without ruining the way I look and feel. Oh well, I'm just a blade of grass. There's only so much I can do.

So this goes out to you, dogs. I love you, and I'm always game for a roll or a sniff. I hope the feeling's mutual, and to be honest, I get the impression you feel the same way.

Something Loud and Bright in the Dark

“There’s only one way I can explain it, sir,” the doctor said. “One day in the future, could be tomorrow, could be eighty years from now, your son—and let me remind you that this is completely unprecedented—your son will explode.”

A moment passed between the two men as they looked at each other. It was as though the father was stuck in time. He couldn’t begin to process what he’d just heard. But time hadn’t stopped; Nurses and orderlies and patients walked by without so much as a look toward the father.

“I don’t understand, doctor. How could this possibly be true?”

“It’s a new test. It can detect all sorts of abnormalities. See this chart? It says it right here, clear as day. I’m a doctor, sir, not an engineer. I didn’t design the testing machine. Rest assured, your son is completely healthy, for now.”

“What exactly do you mean by ‘explode,’ doctor?”

The doctor sighed deeply.

“All we know is that it will be an event relative to his size. Right now, it would probably be about the effectiveness of a regular hand grenade. When he’s fully grown the event may resemble the detonation of a small thermonuclear warhead.”

The father put his palm to his cheek. He looked back towards the closed door.

“Sir, I hope you understand that I can’t go back in there,” the doctor said.

The father walked back into the room to find his son asleep on his wife’s chest. She placed her finger to her mouth. He rubbed her head softly. The doctor informed the father that he was to take his wife and baby boy home: liability reasons. He assured the father that his wife and child were indeed healthy enough to leave, immediately.

The father, of course, drove as any father would drive his newborn home from the hospital. But there was something else in the back of his mind. He feared not only the dangers without the car—careless drivers, potholes, patches of oil on the road, unpredictable natural disasters including, but not limited to, tree-felling storms, earthquakes, tornadoes, sinkholes, etc.—he also feared the thing within the car. Every second of the drive home he feared that everything would seem to stop, the explosion occurring faster than his experience of sound or pain. In fact, he thought, the event would only seem significant from the perspective of a detached onlooker who witnessed the explosion—the fire, the sound, the confusion. He took back roads to avoid coming too close to other cars and pedestrians. When he wiped the sweat from his forehead he found that his hand was shaking. He parked in his driveway and rubbed his wife’s arm to wake her.

A month prior, the father built a crib in the couple’s bedroom. He wanted the baby within reach, in sight. But as he carried the child up the stairs and into his room he had second thoughts. The

crib was on his wife's side of the bed, just a few feet from where she slept. He set the boy on the changing table and moved the crib into the nearby sunroom attached to the bedroom.

"What are you doing?" she asked.

"Just moving the crib to my side. Just for now. You need your rest and I can see him from where I sleep if he's in here."

"Are you sure? It's not too far?"

"Honey, I have it handled."

That night, the mother slept more soundly than she had in months. She once rolled over to see the father sitting on the edge of the bed, staring into the dark void of the sunroom. She touched his back and he started. She made a shush sound and rolled over.

The father stood up and walked to the baby's crib. Unlike many newborns, the baby boy slept peacefully. What would his future hold? It would only get worse. It could happen any time. At school, at a graduation, in a crowd, at his wedding. And if he has his own child... If he knew what would happen to him, what he could do to others, could he sleep so peacefully? He turned around to see the hump in the bed that was his wife, the shape that formed in the static-like eigengrau of the room. He heard her steady breath. Slowly, quietly, he lifted one leg over the edge of the crib, then the other. He coiled himself tightly, fetus-like, with his back facing his bedroom and his wife. He pulled the baby to his chest and crossed his arms over the boy's body. He kissed the boy on his head and listened to the sound of his breath. He told himself not to squeeze.