

ERTEC Environmental Systems

Protecting the Integrity of Global Lands and Waterways™

Case Study GR8 Guard™



- > Lower Project Costs
- > Better Performance
- > ZERO Waste
 - ✓ Reusable
 - ✓ Recyclable



Application: Drain Inlet Protection: DOT Resurfacing Project

Product: GR8 Guard™ for drainage inlets

Location: Highway 280, San Mateo, CA

Customer: Caltrans April, May 2016

GR8 Guard™ is a patent pending, low cost system designed to keep sediment and debris out of grated storm drain inlets in paved areas. The berm layer forces water to rise to at least 1.5 inches before reaching the filter causing heavier particles to settle. The system filters storm water above the ground easing visual inspection and maintenance. The system has a high flow bypass designed to reduce the chance of back ups. It is easy to fasten to the grate with rebar tie-wire, has a long life, is resistant to traffic, and reusable. Grates do need to be removed, during installation or cleaning, reducing installer injuries and worker's comp claims.



Early in the project

The Challenge: On this linear project, there were about 430 drainage inlets of several types. Grated inlets on paved surfaces would require about 360 units. If it was decided to use traditional method (install drainage insert bags) for these grates, a crew of 2 or 3 laborers would be required over 3 weeks to visit each inlet, remove grates and install bags. Maintenance of each unit would require removal of the grates again.

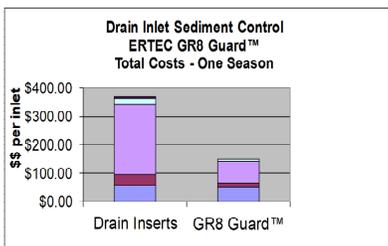
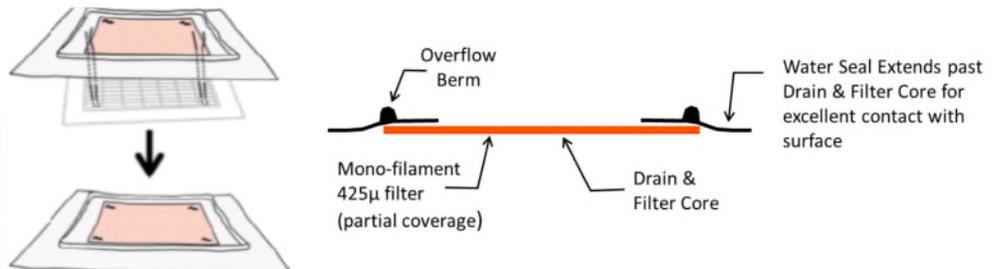
Alternatives: Current best practices include insert filters, or filter bags that envelop the grate, or various other non-technical methods (wattles, sandbags, etc). Insert filters and filter bags that envelop the grate require the removal of a heavy steel grate which is often difficult, requires more than one person, and can lead to back, foot and hand injuries. Insert systems can present difficulties when cleaning is required. Cleaning is often a difficult or impossible undertaking. The non-technical approaches can lead to back-ups at the drain inlet, extra debris inside the storm drain, and are usually often not reusable.

Solution: GR8 Guards are attached to the grate with rebar tie-wire at the corners. 430 units were installed by two laborers working separately in 1 week.

Summary and results:

"GR8 Guards worked great for us on this project. They were so easy to install, maintain and reuse and we never had to lift heavy grates. Over the course of this project there was limited maintenance and cleaning was so quick. The total cost to furnish the material, install, maintain and remove the units at the end of the project was less than \$100. We're not going to use anything else but ERTEC Top Guard(tm) systems on our projects. At \$60 per hour on public works projects, these make a huge difference." Bob Brown— Owner, Team EES

Economics: GR8 Guards typically have a lower first cost than other systems. And reduced installation costs, reduced maintenance costs and reusability dramatically add to the savings.



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