

# FINAL REPORT

## Artificial Turf Study

### Leachate and Stormwater Characteristics



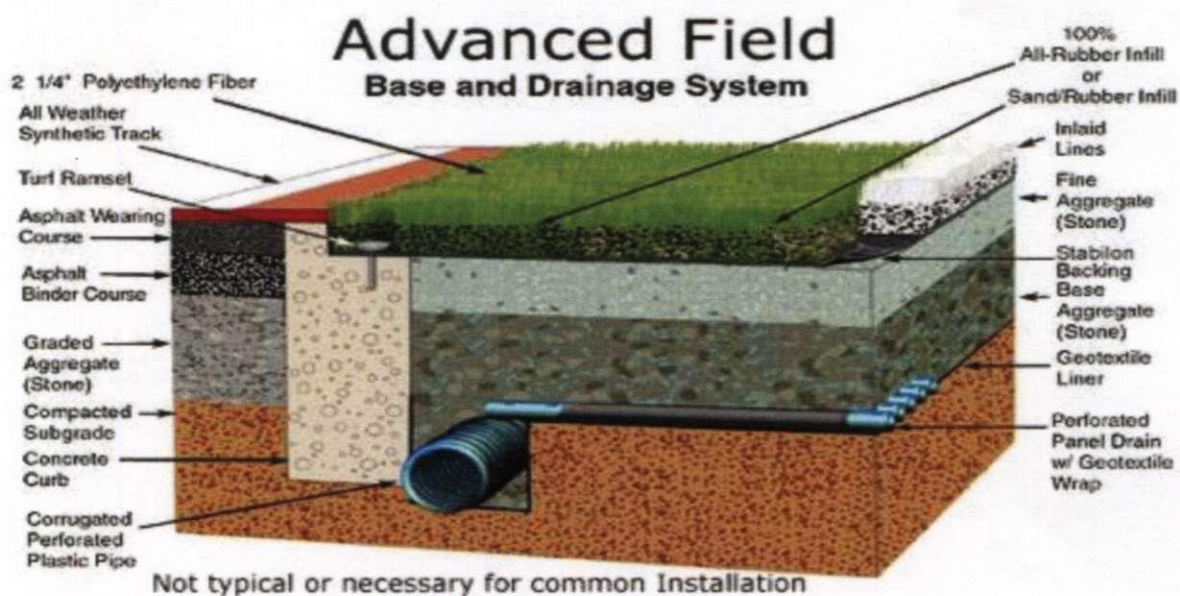
Connecticut Department of Environmental Protection  
July 2010

of polyethylene or polypropylene grass fibers, with a crumb rubber (sometimes intermixed with sand) infill layer, and underlain by crushed stone/gravel with a piped drainage system (see Figures 1 and 2 below).

**Figure 1.**



**Figure 2.** (source: [www.suncountrysystems.com/.../syntheticgrass.jpg](http://www.suncountrysystems.com/.../syntheticgrass.jpg))



The critical field component for this study is the infill layer, which includes crumb rubber materials produced from recycled tires. The infill layer can be composed of entirely styrene-butadiene rubber (SBR) granules, produced by ambient and/or cryogenic grinding process, or intermixed with quartz crystals (sand). The assumption for this study, and the sampling plan, is that precipitation lands on the surface of the artificial turf field, flows downward through the infill and rock/gravel layers, collects in the subsurface drain pipes and then ultimately discharges from the field. The artificial turf drainage pipes often discharge to existing subsurface drainage