



Case Study

application | **Brown Field Rehab Demarcation Layer**
location | **Parcel #1 Springwell Court, Detroit, MI**
product | **Mirafi® Orange Delineation Nonwoven Geotextile**

job owner | **Economic Development Corp.**
engineer | **Mactec Engineering and Consulting**
contractor | **Angelo Iafate Construction**

TenCate™ develops and produces materials that function to increase performance, reduce costs and deliver measurable results by working with our customers to provide advanced solutions.

THE CHALLENGE

The Economic Development Corporation of Detroit is an organization aimed at revitalizing urban areas in and around Detroit, Michigan. Heavy industrial use has created numerous land areas that cannot be safely re-used due to contaminants on the site and in the soil. Removal of these contaminants is cost prohibitive and could create a huge financial burden to the land owners and potential liability for potential purchasers. The project site was 6.3 acres in size and had seen many uses over the years. The challenge was deciding how such a site can be safely re-developed.



Detroit's heavy industrial past has left many sites with dilapidated structures and contamination.



The placement of Mirafi® delineation geotextiles was simplified by the larger roll sizes and easy lay-down.

THE DESIGN

To make these parcels more attractive to buyers and less of a burden to sellers, the EPA has allowed many of these sites to be sold and re-developed as Brown Fields. After demolition of existing buildings and clean-up of surface contaminants, it was decided that the contaminants in the sub-soils could be left in place without harm to the surrounding environment. However, to leave these soils in place, a visual barrier was required to provide a warning to future development that these were not undisturbed soils. The necessary barrier could not impede drainage.

THE CONSTRUCTION

Historically, barriers have been made of various products, including safety fence, plastic sheeting, and standard geotextiles. Safety fence provided an adequate visual barrier, but the small roll sizes and “product memory” made them difficult to install and installation was labor intensive. Plastic sheeting did not allow water to pass and created soil saturation and site instability. Standard geotextiles worked well, but did not provide much of a visual presence. The use of Mirafi® Orange Delineation Geotextile provided large roll sizes, easy lay down, permeability, and a visual barrier for future land use.

THE PERFORMANCE

Mirafi® delineation geotextiles are stable geotextiles that are easy to work with, yet strong enough to handle installation with heavy equipment. The Mirafi® orange delineation geotextile was easily rolled out and then covered with 1' of stone, prior to site restoration. TenCate Geosynthetics have provided a product that will not change long term site characteristics, will delineate clean fill and the contaminants left on site, and provide a permanent visual barrier to warn future land users.



The strength of Mirafi® delineation geotextiles allowed placement without installation damage by heavy equipment and will provide a long term barrier for future land use.



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