

# Geospatial Services



When static data about a job site is obtained from multiple sources, it can often present confusing or conflicting views of the location. To help avoid this situation, Froehling & Robertson, Inc. employs Geographic Information Systems (GIS) technology to collect, organize, and analyze multiple types and sources of geographic data at once. More than mapping, this innovative service allows F&R's engineers to examine spatially referenced information and make more qualified decisions about resource management. Data such as the location of a bore hole or a wetland boundary can be linked to other information – including aerial photography, soil classifications, and topographic maps – thus adding dimensions to the analysis of job site data and supplying our clients with the facts they need to make the most informed planning or construction decisions possible. With GIS, F&R helps our clients turn data into decisions more quickly and accurately than ever before.

## Site Selection Analysis

Many of the issues related to a business's site-selection process are influenced by location. What transportation routes are nearby? Are there wetlands on the property? Where is the flood plain boundary? GIS can be used to answer complex geographical questions, identify resource distribution patterns, and model intricate environmental and ecosystem processes, thus making it an extraordinary tool for planning and decision-making. F&R can utilize existing GIS data to perform site selection analyses based upon a nearly unlimited range of criteria, or collect global positioning system (GPS) data and integrate it with existing GIS information to produce a detailed and flexible inventory of environmental and infrastructure resources.

## Due-Diligence Investigations

As GIS technology meets the needs of several core engineering functions, its usage has been integrated into all aspects of F&R's core operations, thus increasing the effectiveness of each service offered. Using hardware, software, and geographic data to support due-diligence investigations, regulatory compliance issues, and permit applications, obstacles can often be avoided from the very beginning of a site exploration. Our application of GIS technology allows clients to see all of the puzzle pieces at the beginning of the process, rather than being forced to address each issue in a piecemeal fashion that can lead to incorrect assumptions and misplaced resources throughout the life of the project.

## Cutting-Edge Technology

F&R's Geospatial Services division features staff trained in the latest techniques for gathering and analyzing large amounts of raw data, including the utilization of advanced field instrumentation such as standard and sub-meter GPS devices and dual monitor systems. F&R staff also has the ability to utilize GPS hardware to interface with, and transmit data to and from, state of the art mapping software suites.

