TOPICs

February 2008

The Importance of Project Pre-Design: How Well Do You Know Your Property?

In the excited rush to acquire land for a new development, the temptation is often to make decisions regarding the layout of roads and structures soon after establishing a preliminary project boundary. The initial emphasis on development costs and site design, however, can mean that the site constraints (and the potential long-term impacts of these constraints) get overlooked. By thoroughly evaluating the project area during the Pre-Design stage of development, energy developers can gain a clearer vision of optimal project design.

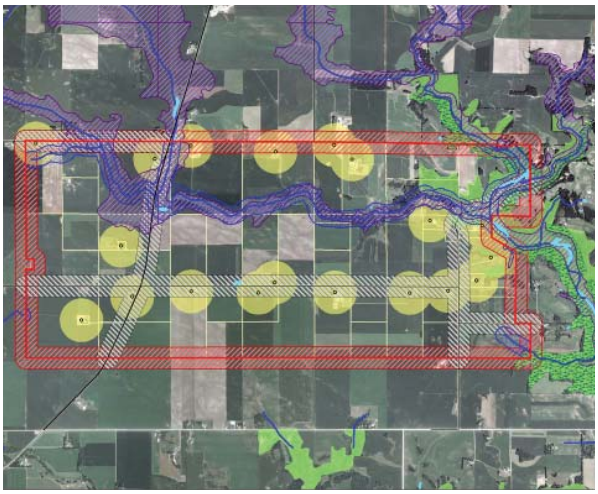
Seasoned developers understand the value of engaging a Pre-Design team with wide-ranging skills and experience. As profiled in the January TOPICs, a comprehensive permitting matrix is one tool used to lay the groundwork for strategic design and development. The use of Geographic Information Systems (GIS) during land acquisition is also key, revealing how natural resources, property ownership, infrastructure, and zoning issues affect the site. In addition to conducting permitting and GIS analyses, an effective Pre-Design team addresses:

- Community and landowner relationships
- Real estate management
- Land survey and title needs
- Environmental assessments
- Cultural resource concerns
- Infrastructure availability
- Transportation and haulage limitations
- Engineering challenges and opportunities

Site visits and field assessments are used to determine how environmental features and cultural resources will affect the design and viability of a proposed project.

The return on investment for resources dedicated to Pre-Design is comprehensive knowledge of the risks and opportunities that a proposed project can entail. When land constraints are fully understood, a realistic site plan can emerge. Concept drawings might be useful tools for gaining the interest of financial partners or landowners, but a thinly researched plan is likely to create false hope for the property's potential. It may also encourage premature permit application submittals or design decisions, resulting in lost time and money.

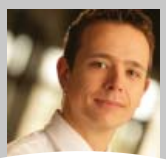
The risks of rushing into design and submittal can arise from several types of constraints. These constraints might include the participation of certain parcels in another entity's project, the land's physical features, the location of utilities and easements, or future land use plans for the surrounding area. A protected wetland, poor soils, a major pipeline, or a county's recently



A GIS site suitability study highlights setbacks for infrastructure such as homesteads and roads and for natural resources such as streams.

adopted zoning ordinance are all examples of constraints that can result in additional permit requirements, higher construction costs, or design revisions that could have been avoided if revealed during Pre-Design.

By ensuring that project design is realistic from the outset, costly iterations driven by discovery of new constraints can be avoided. Delaying cultural resources field investigations or title commitment reviews for a wind farm project, for example, can result in last-minute turbine movements or even a reduction in overall project size. Only by optimizing project value and minimizing delays caused by re-designs, revised budgets, and difficult approvals can a project's full potential be realized. Pre-Design is a sound financial investment that helps to manage risk while laying a firm foundation for the Design and Post-Design phases of project development.



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