



# THE VIRTUAL WORKPLACE

## Web-based tools that link your project team

BY RACHEL KING AND JUDITH SHULMAN

Regardless of size and scope, every infrastructure project will likely require that multiple disciplines be involved at one phase or another. Now, imagine the complexities of multi-disciplinary teams collaborating from various locations at different phases of a project. From the initial planning, siting and design, to land acquisition, environmental permitting and construction management, experts from a variety of specialties are expected to be part of the team. This expectation means that each member of the team must have instant access to real-time information and the ability to collaborate on a virtual level.

### SIMPLIFYING THE PROCESS

As project demands increase on every front, from budget constraints and delivery deadlines to risk management and regulation compliance, the need for a clear, concise information management tool had become essential.

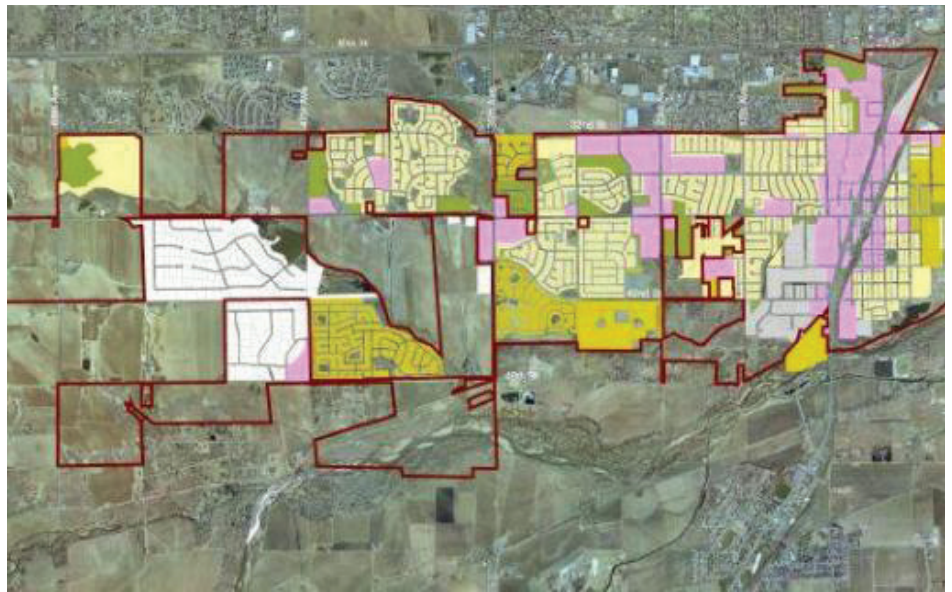
HDR's Real Estate Services group was in dire need of a tool that would help their professionals become more efficient. Their existing spreadsheets and various status report formats were difficult to manage and ineffective for large, complex projects. The team needed a web-based platform that was both flexible and scalable, one that could be efficiently used on small acquisition projects or extended to multi-state, multi-year infrastructure projects.

By leveraging a suite of advanced online tools, HDR brought that philosophy to life with iREALM<sup>SM</sup>, an interactive reporting and land management system. Through integrated web-based technology, the project team has one common interactive workplace that's easily accessible from any location. By using GIS mapping technologies in combination with powerful database and report generation tools, clients and their consultant teams can have immediate access to a centralized portal into their projects.

### MONITORING MILESTONES

One of the best ways to stay on top of a project schedule is monitoring the key project milestones. By using the iREALM interactive management system, the HDR team has been able to capture and organize each discipline's critical milestones and documentation on a project. That information is then made available to the entire team through a point and click interactive map, quick search tools, schedule and budget graphics, and a variety of reporting formats and summary tools. To accentuate areas of concern, the team will use overlaying geographic information like property boundaries, proposed right of way requirements and other land features to communicate visually. Simple queries can be used to highlight priorities, such as parcels behind schedule, properties that are cleared for construction or utility crossings that require relocations.

One application of this technology can be illustrated by a massive transmission line project currently underway in central Texas. Everything is considered bigger in Texas, and HDR's project with Lone Star Transmission is no exception. Lone Star plans to construct, own and operate Competitive Renewable Energy Zone, which consists of high-voltage electric transmission facilities within Texas. They will be constructing 350 miles of transmission line from west Texas wind farms to central Texas, and have established an aggressive schedule to obtain 1,600 easements. With 30 to 40 land agents negotiating easements, and each one working on hundreds of negotiations at a time, monitoring their progress will play a critical role in the project's ultimate success. The HDR project team will be able to utilize a custom web application to give clients a window into their work progress, as well as access to real-time progress reports, schedule updates, budget forecasts and project documents.



Project reports, interactive maps, documents and dashboard tools are all easily accessible through one centralized online system.

### STREAMLINED DECISION-MAKING

Since 2009, HDR has been coordinating closely with Utah State Division of Water Resources and their engineering and environmental teams to analyze the best alignment alternatives for a sizeable new water supply pipeline for the Salt Lake Valley. This was part of a concept report for the Bear River Pipeline, which commences at the I-15 crossing of the Bear River near Corrine, and ends at the Weber River near the Slaterville Diversion Dam. This major undertaking was authorized by the Bear River Project Development Act to develop waters of the Bear River system and meet the future water demands of northern Utah.

HDR's Real Estate Services team was asked to collaborate with engineering and environmental specialists and other consultants on the pipeline route selection study in central Utah. The team began by centralizing all the data analysis tools through iREALM's web mapping application and data entry system. By integrating the engineering findings with the various property impacts, environmental conditions and transportation concerns, the team was able to analyze each alternative and collaborate on their findings. As a result of their comprehensive evaluation of each alternative, they could consider the impacts of engineering and environmental challenges in combination with property and community issues. This streamlined the entire decision-making process. Once completed, the land-based data generated by the study can be leveraged for the future phases of the project, including land acquisition, permitting, construction management and even long-term corridor management.

### OVERALL BENEFITS

The ability to communicate project information quickly gives any team an edge when making important project decisions and ultimately increases the capacity to deliver high quality services and cost-effective solutions.

By using integrated web-based technologies like iREALM, project teams have instant access to a virtual common workplace, along with the ability to communicate and collaborate easily. The system's established processes, requirements, and procedures can be easily communicated, capturing the knowledge base of industry professionals as a training medium for new staff. This management tool that has expanded beyond just tracking real estate acquisition milestones to an essential tool for managing details of the broader lifecycle of land-based projects. HDR considers this technology not only as a program management tool, but also as a service enhancement.



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