Bowling Mamola Group
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On-site Cameras Record, Share and Archive Construction of One of the World's Longest Arch Bridges

Nevada Department of Transportation's public relations effort yields unexpected project-management benefits

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C H A L L E N G E :
Increase public support and goodwill through use of always-on construction cameras

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Building what would be one of the world's largest arch bridges over Nevada's Galena Creek was an audacious plan — the kind of big, bold idea suited to a region that is home to the Hoover Dam. But constructing the 1,719-foot-long structure as part of the Interstate 580 extension between Reno and Carson City would not be quick or easy. The Nevada Department of Transportation needed public and taxpayer buy-in for the project, which had been considered off and on since the 1950s.

So project managers came up with a big idea of their own: An array of on-site, Web-enabled, high-resolution construction cameras that would feed public interest in the $400 million project and give taxpayers a constantly updated view of the bridge's progress.

> "The cameras improved trust with stake-holders and increased accountability for the department and our contractors."
>
> Todd Montgomery, NDOT Assistant Construction Engineer

The rugged terrain and lack of power and landline telecommunications could have thwarted the plan, but OxBlue got the job done using solar-powered stations and cellular-based cameras.

"OxBlue rose to the occasion," said Randy Bowling, one of the founding principals of engineering firm Bowling Mamola Group, which managed the project for NDOT. "OxBlue gave us reliable remote cameras that were solar powered and operated on a cellular network. OxBlue was just superb."

Benefits of OxBlue Construction Cameras & Technology

■ **Public Relations** – Builds goodwill by giving all stakeholders access to Web-enabled, high-resolution, time-lapse images

■ **Transparency & Accountability** – Lets taxpayers and officials track and document project progress from anywhere, at any time

■ **Project Management** – Allows team members to remotely view images for real-time troubleshooting, saving time and travel costs

■ **Claims Minimization & Resolution** – Reduces "my-diary-vs.-your-diary" debates by documenting when work is completed and by whom, keeping work moving forward

SOLUTION:
A bird's eye view for bridge watchers and builders alike

Since 2006 the OxBlue cameras have given Nevadans — and anyone with an Internet connection — a photo chronicle of the Galena Creek Bridge project. Most viewers are locals, as NDOT intended, but not all. One engineer in Great Britain starts his day by checking in on the bridge's progress.

"The cameras provided us with a visual form of transparency and a public-information tool," said Todd Montgomery, an NDOT assistant construction engineer who oversaw the planning and design phase of the bridge project. "They improved trust with stakeholders and increased accountability for the department and our contractors, as well."

Bowling agreed that OxBlue's cameras have been a public-relations success. That was not a surprise. What did surprise him was how effective the system has been in improving project management.

■ **Cost savings:** Project managers and specialists in remote locations are able to view images simultaneously for real-time troubleshooting — without the delay and expense of having to travel to the site. One example of better scheduling came from the geotechnical engineer for the project. From hundreds of miles away in California, he used the cameras to monitor soil being excavated. When soil color indicated excavation had reached a particular depth, he knew it was time for a site visit.

■ **Claims minimization and resolution:** "The cameras are going all of the time, so there is a photographic record," Bowling said. That has reduced the "my-diary-vs.-your-diary" debates between NDOT and its contractors about when work was completed, whether deadlines were met and who was on site on particular days. The photographic archive saves time, money and frustration for all parties so things can keep moving forward.

"These were uses that we had no idea of at the time that the cameras went in," Bowling said. "This has proved to be a huge benefit from a project-management and claims-avoidance perspective. The result has been a substantial savings to NDOT."

Bowling not only is a believer in Web-enabled construction cameras, he's a proselytizer who has been making presentations to industry colleagues across North America about how to incorporate the technology into their projects. When he speaks about the effectiveness of construction cameras, he recommends OxBlue.

"OxBlue's technology has been extraordinarily easy to use. It's easy to set up, easy to maintain," he said. "What's more, the support is unbelievably good. We are absolutely, without reservation, thrilled with what OxBlue has been able to do."

OxBlue's high-resolution, time-lapse, Web-enabled cameras and imaging technology provide public-relations and project-management benefits to the Nevada Department of Transportation.

About OxBlue: OxBlue is a leading construction camera service provider, giving numerous Fortune 500 companies the hardware, connectivity and expertise to enable constant access to jobsites through high-resolution, time-lapse, Web-enabled construction camera images. OxBlue's cameras connect people on and off site, and help measure variables such as labor, risk, quality and materials. The cameras provide accountability and increase communications between construction companies and clients.