

Remotely Monitoring the Niantic River Movable Bridge Project

November 15, 2010

The historic Bascule Bridge over the Niantic River, between East Lyme and Waterford, CT has been in operation since 1907, currently serving as a key link along Amtrak's busy Northeast Corridor rail line. While the bridge is safe, it is not equipped to handle increased traffic and higher speeds of modern trains. With help from the American Recovery and Reinvestment Act funds, Amtrak is replacing the aging structure with a more modern two-track, electrified railroad bascule (rolling lift) bridge located just 58 feet south of the present location.

Since the project is located in a somewhat remote area where there is little communication infrastructure or bandwidth, Amtrak installed a ConstructionCam robotic streaming video system from EarthCam at the jobsite. The all-weather webcam includes a 420x zoom with 360 degree continuous pan capabilities.

Using EarthCam's multi-functional Control Center 7 software service, project managers, construction crews and the engineering team use the system to remotely manage the project, document construction progress and resolve issues. The project manager can point, tilt and optically zoom the camera, check accurate weather details and view a time-lapse movie. The Amtrak project manager also uses the video cam to keep an eye on the river traffic. With continual live streaming of the jobsite (as opposed to a camera, which only updates periodically) he can head off a potential problem or concern, such as a large barge and/or tug coming up or down river, before it becomes an issue. Camera images are also fed to a public website to support local community relations.

When complete in May 2013, the new bridge will enable Amtrak to increase train speeds on and near the bridge and minimize traffic and delays.

