

July 10, 2018

If it ain't one thing, it's another

Camp Lincoln Bridge

Vehicles used by the National Guard don't tend to be lightweight. In fact, the word 'heavy' pretty much dominates any description of them. When they drive across bridges, the girders and beams that hold them up have a right to demand hazardous duty pay.

Just outside Springfield, IL, the 160 acres of Camp Lincoln have been a training ground for the Illinois National Guard since 1898. On the north end of the property, a small bridge spanned Spring Creek. Built sometime before 1936 and most recently upgraded in 1943, its girders and beams long since raised the white flag in the face of modern day Guard vehicles.

That it needed to be replaced was obvious. The process of replacing it became a much more interesting story.

To begin, the creek floods regularly and constructing a new bridge above flood level would have required raising the surrounding banks by 15 feet. So a 'submersible' bridge - essentially a 3-sided, precast concrete culvert - was designed. The precast elements would be dropped into place and then backfilled.



Geotech investigations discovered the underlying soil wasn't suitable for conventional spread footings and piles had to be driven but while excavating to install a cofferdam, the backhoe operator lost a tooth. Not one of his own pearly whites, but a heavy steel one from the backhoe bucket. While searching through the wet muck for the lost tooth, he came across a shiny brass object that turned out to be a 'collar disc,' a quarter-sized button worn on the collar of a military uniform. The disc bears the insignia of the Eighth Illinois Infantry, a segregated unit that fought on the Mexican border during the 1916 Pancho Villa Expedition, and in France during the First World War as the 370th Infantry, one of the most decorated units of the war.



Courtesy The State Journal-Register

Work on the bridge was immediately stopped and archeologists were flown in to examine the button and investigate the site further. They determined that the disc was likely lost by an Illinois Guardsman between 1923 and 1936.

On the same day that the disc was found, it was also determined that there was some contamination in the soil that would have to be remediated. Environmental testing of the water and soil, though, showed that it was relatively minor issue and simple soil aeration would solve the problem.

On top of all these issues, the federal funding came with a very strict timeline so coordination with the Illinois Department of Natural Resources and the various permitting agencies became exercises in early notice and careful real time walking through the design process.



But all's well that ends well and the budget turned out to be sufficient to pay for the vehicle bridge plus an added running path to the side that will accommodate the 900 full-time and more than 1,700 traditional Guard soldiers who run to keep in shape.