

LOWER BEE BRANCH CREEK— TWIN CULVERT REPAIR

DUBUQUE, IOWA

The existing twin 10'x12' box culvert outlet structure at the northwest corner of the 'Old Pack Site' where the Bee Branch extends under the railroad tracks was partially removed as part of the Lower Bee Branch Creek Restoration project. The southeastern end of the culvert experienced excessive settlement.



Twin Box Culvert



Rotation of Wall Segments

The structural pieces associate with the culvert remained sound. So, it was possible to re-use the northern wall/footing, as well as the precast-like concrete slab-sections. While it was possible to re-use the central wall, it was deemed too heavy to attempt to reposition. Therefore, the central wall/footing and the slab-on-grade was re-cast to provide new construction equivalent to the original construction.

A phased sequence of construction was developed to address weather conditions/monitoring, south wall repositioning, north wall repair, central wall reconstruction, precast top slab re-installation, new box culvert outlet installation, and site grading.

