ABSTRACT

The Iowa Department of Transportation initiated this research to evaluate the reliability, benefit and application of the corrosion detection device. Through field testing prior to repair projects and inspection at the time of repair, the device was shown to be reliable.

With the reliability established, twelve additional devices were purchased so that this evaluation procedure could be used routinely on all repair projects. The corrosion detection device was established as a means for determining concrete removal for repair. Removal of the concrete down to the top reinforcing steel is required for all areas exhibiting electrical potentials greater than 0.45 Volt.

It was determined that the corrosion detection device was not applicable to membrane testing.

The corrosion detection device has been used to evaluate corrosion of reinforcing steel in continuously reinforced concrete pavement.