

Geopolymer Culvert Rehabilitation



Extend the Life of a Significant Segment of Infrastructure

Used to convey stormwater and streams, culverts are critical for proper drainage and overhead roadway support. Exposed to the elements, corrugated metal pipes (CMP) are subject to extensive deformation, settlement, severe corrosion, widespread section loss, backfill infiltration and substantial undermining. Replacement of culvert pipes is both costly and time consuming, requiring the closure of essential roadways.

A cast-in-place technology:

Michels offers a long-lasting structural solution for culvert rehabilitation. Applying geopolymer mortar directly to the surface of a culvert pipe results in a dense lining able to withstand weather and flow forces without having to replace the pipe. Spin and spray applications are used to re-establish structural integrity by installing an engineered lining thickness with higher flexural strengths than conventional lining systems. This trenchless method results in a long-term solution by adding years to the design life of the host pipe.

Cost-effect, longer-term solution

With an expected lifespan of 50+ years, geopolymer mortar provides an additional life cycle without the need to open cut for full replacement.

- Trenchless technology
- Quick return to service
- No road shutdowns
- Smaller footprint
- Pipe sizes: 24 inches and larger
- Pipe shapes: Any

