## Project Challenges
- Inflow & Infiltration into culvert
- Culvert not internally accessible
- Pavement settlement due to loss of bearing soils

## Solution
- Inject structural polymer to fill voids and seal the culvert joints.
- Injection plan covered 10 joints. Each joint required 3 injections, 2 at 8’ on the sides of the culvert and 1 at 3’ just above the culvert.

## Support
- Designed injection locations, quantities and depths
- Ground Penetrating Radar (GPR) to locate the voids
- Pre-construction and safety meeting onsite with crew
- On-site installation

## Outcome
- **Problem Solved:** One day installation resulted culvert joints being sealed and void space filled in to customer satisfaction.
- **In-situ Technology:** Filled voids and sealed culvert joints to prevent future inflow & infiltration.