



CASE STUDY - IN-PLACE ABANDONMENT OF STORMWATER PIPE - ELIMINATING VOID RISKS WITH FILLFOAM



THE CHALLENGE

An aging stormwater drainage pipe (24-inch diameter, 125 feet long) had become obsolete due to redevelopment.

- Traditional removal would require extensive excavation, operation challenges, and increasing costs dramatically.
- Potential soil erosion and voids around/under the pipe, leading to sinkholes, settlement, or pavement/structural damage over time.
- Risk of water infiltration, vermin entry, or unintended stormwater flow redirection.
- Standard flowable fill options were heavy, hard to pump long distances, and risked pipe damage or incomplete fill.
- There was only one access point.

The goal: Safely abandon the pipe in place while preventing future subsidence or instability.





THE SOLUTION

Foam Solutions MD used FillFoam™, a high-performance, pre-expanded foam that is lightweight and highly flowable to fill voids completely without heat generation or heavy equipment.

Key Applications:

- Accessed the pipe at ONE injection location; the foam's low density and excellent flow allowed full filling with limited access
- Foam expanded to completely encapsulate the interior, displacing air/water and creating a stable fill that's custom molded to the pipe.

Benefits Delivered:

- **Eliminated voids and soil migration risks:** foam provides long-term stability without settling or shrinking.
- **Minimal disruption:** No large-scale excavation, reduced traffic/operational impact.
- Lightweight (low psi load on surrounding soil/structures) and pumpable over long distances.
- Fast cure time for quick project completion.
- **Environmentally friendly alternative:** No heavy concrete trucks, reduced carbon footprint by 80-90% over traditional fills.



THE RESULTS

- **Performance Impact:** Pipe fully filled with 15 cubic yards and stabilized with FillFoam; post-install inspections confirmed no voids or settlement risks.
- **Cost & Time Savings:** Avoided expensive dig-and-remove; completed in 1 day vs. weeks for excavation.
- **Client Outcome:** Safe, reliable abandonment allowing for the development without future headaches.