



Case Study

Beyond the Brick: 50 Years of Renewed Vault Reliability

Even the smallest underground electric utility vaults come with hefty replacement costs. Holyoke Gas & Electric turned to a faster, more cost-effective alternative to address an aging, deteriorated vault—backed by a 50-year warranty and built to extend service life even further, without disrupting customers.

Challenges

Located in south-central Massachusetts, Holyoke Gas & Electric (HG&E) serves roughly 18,000 customers, meaning a single vault failure—though localized—can have an outsized impact on reliability, operations, and customer service.

Faced with the risk of imminent failure without intervention, HG&E identified one of its aging, deteriorating small brick vaults as a candidate for replacement—but at significant cost in resources, service downtime, and community disruption.

- ✓ **HG&E operates under municipal budget constraints with a lean workforce and limited resources.**
- ✓ **While the vault only measured 6.5 feet by 4.5 feet by 6.5 feet, the replacement costs and operational impacts would be significant.**
- ✓ **Vault replacement is costly and results in extended project timelines, service interruptions, and prolonged traffic detours.**

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Replacement or enlargement would have been highly challenging due to the close proximity of other existing underground utilities. Osmose's vault restoration solution helped us avoid these challenges and saved us budget dollars.

– Vincent O'Connell, Sr. Electrical Engineer, HG&E



Aging Infrastructure



Resource Constraints



Accelerated Timeline



Outage Avoidance

Vault Restoration: The Clear Choice

During a broader infrastructure discussion, Osmose introduced HG&E to their Vault Restoration Composite System—an alternative to full vault replacement that could be delivered in days at a fraction of the cost, no excavation required. Now widely adopted by utilities nationwide, the solution is backed by Osmose's 50-year warranty against spalling and cracking. For HG&E, the decision was straightforward: vault restoration was the best path forward.

Vault Restoration Delivered in Days

Within weeks, Osmose crews mobilized, coordinating closely with HG&E, city officials, and area businesses. From initial site arrival through vault preparation, composite system setup, installation, and cure time, the project was completed in just two and a half days—fully restoring the vault to its original structural capacity and enabling HG&E to make the necessary duct alterations. 10 duct banks were installed, secured, and sealed without compromising the restored vault's structural integrity.



**For more information on
Vault Restoration or to contact our team,
visit osmose.com.**



Vault Restoration Solution Overview

✓ Capitalized Cost & Time Efficiency

This composite system is 50-70% less expensive than full replacement, delivering restoration in days with minimal disruption, a quality-controlled application, and is regulatory compliant—no excavation required.

✓ Restored Strength & Reduced Risk

Not only does the system restore structural strength, it protects against further degradation, and enhances safety with fire and explosion resistance—mitigating both public safety and reputational risks.

✓ Proven Technology & National Recognition

Engineered with proven materials and validated by world-renowned engineers, this system is recognized by system owners across the nation is backed by a 50-year warranty.