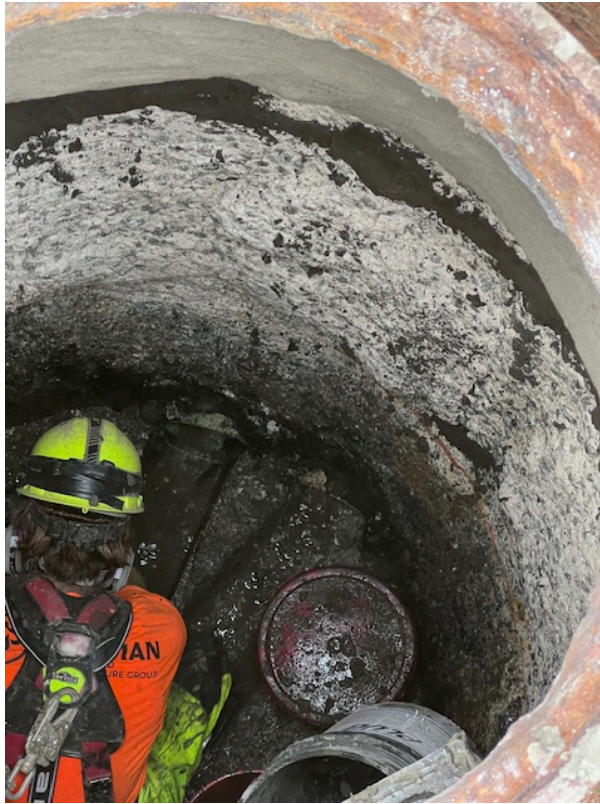


7 Costly Mistakes You're Making with Manhole Lining (and How OBIC Systems Fix Them)



Manhole rehabilitation projects fail more often than they should. Municipal engineers and public works departments across the country waste millions of dollars annually on lining systems that crack, bulge, or fail within months of installation. These failures aren't random: they stem from seven predictable mistakes that can be avoided with proper planning and the right technology.

OBIC (Onsite Burst In-Place Curing) spray-applied lining systems address each of these critical failure points through proven methodology and superior materials. Understanding these mistakes: and their solutions: can save municipalities significant reconstruction costs while extending infrastructure life by decades.

Mistake #1: Inadequate Surface Preparation

The most expensive mistake in manhole lining involves rushing the preparation phase. Many contractors skip thorough cleaning, attempting to apply liners over debris, corrosion, or deteriorated concrete. This approach guarantees premature failure.

Contaminated surfaces prevent proper adhesion between the substrate and lining material. Grease, sediment, and loose concrete particles create weak points where the liner will eventually separate from the manhole wall. The result: complete system failure within 12-24 months.

OBIC Solution: Veridian's OBIC process begins with comprehensive surface preparation using 3,000 PSI pressure washing to remove all debris, corrosion, and loose material. This creates the proper surface profile necessary for mechanical bonding. The preparation phase also includes detailed inspection to identify structural defects that require repair before lining application.



Mistake #2: Wrong Material Selection for Site Conditions

Different manhole environments require different lining materials. Using standard fiberglass liners in high-flow systems or chemical-exposure situations leads to rapid degradation. Similarly, applying thin-film coatings where structural reinforcement is needed results in continued deterioration.

Material selection must account for flow rates, chemical composition of wastewater, structural loading, and temperature fluctuations. Generic approaches ignore these variables, leading to costly failures.

OBIC Solution: OBIC polyurea hybrid linings are engineered for extreme conditions. The material provides chemical resistance, structural reinforcement, and flexibility to handle thermal expansion. Unlike rigid liners, OBIC systems accommodate substrate movement while maintaining waterproof integrity. The spray-applied process ensures uniform thickness and complete coverage, even in complex geometries.

Mistake #3: Ignoring Inflow and Infiltration Issues

Many rehabilitation projects focus solely on structural concerns while ignoring water intrusion problems. Groundwater infiltration and stormwater inflow continue damaging the system even after liner

installation. This oversight allows ongoing deterioration and reduces the effectiveness of the rehabilitation investment.

Unaddressed I&I problems also increase treatment plant loading and operational costs, creating ongoing expenses that compound the initial lining failure.

OBIC Solution: OBIC lining systems create complete water barriers, effectively eliminating inflow and infiltration. The seamless application covers all surfaces, joints, and penetrations. This comprehensive approach addresses both structural rehabilitation and water intrusion simultaneously, providing complete system restoration.



Mistake #4: Improper Installation Procedures

Installation errors plague many manhole lining projects. Common problems include incorrect mixing ratios, improper application temperatures, inadequate curing time, and failure to follow manufacturer specifications. These procedural mistakes compromise liner performance regardless of material quality.

Fiberglass liner bulging during grout pours represents a particularly costly installation error. When installation crews exceed recommended pour depths, the liner deforms inward, creating stress concentrations that lead to cracking and failure.

OBIC Solution: OBIC application requires specialized equipment and certified technicians trained in proper procedures. The spray-applied process eliminates many installation variables present with pre-fabricated liners. Real-time quality control during application ensures proper thickness, coverage, and

curing. Veridian's technicians follow strict protocols for confined space entry, surface preparation, and material application.

Mistake #5: Insufficient Structural Assessment

Many projects proceed without comprehensive structural evaluation, applying liners to manholes with underlying stability problems. Continuing settlement, joint movement, or foundation issues will eventually compromise any lining system. This approach treats symptoms while ignoring root causes.

Structural deficiencies also create liability concerns when rehabilitated manholes fail prematurely, particularly in high-traffic areas or critical infrastructure locations.

OBIC Solution: Veridian's rehabilitation process includes thorough structural assessment before lining application. Significant defects receive appropriate repairs using compatible materials. The OBIC system itself provides structural reinforcement, increasing overall manhole strength and stability. This comprehensive approach ensures long-term performance and eliminates premature failures due to underlying problems.



Mistake #6: Inadequate Quality Control and Testing

Many lining projects lack proper quality assurance protocols. Contractors may skip adhesion testing, thickness measurements, or visual inspections that verify proper installation. Without documented quality control, municipalities have no assurance that rehabilitation work meets specifications.

Poor quality control also complicates warranty claims when liners fail prematurely. Undocumented installation procedures make it difficult to determine whether failures result from material defects or installation errors.

OBIC Solution: OBIC installations include comprehensive quality control procedures. Technicians document surface preparation, material application, and curing conditions. Thickness measurements verify uniform coverage, while adhesion tests confirm proper bonding. This documentation supports warranty protection and provides municipalities with verification of proper installation.

Mistake #7: Lack of Post-Installation Maintenance Planning

The most overlooked mistake involves treating lining installation as a permanent solution requiring no future attention. All infrastructure requires ongoing maintenance, and lining systems are no exception. Municipalities that skip post-installation inspection and maintenance programs experience reduced system life and unexpected failures.

Proper maintenance planning extends lining life and identifies minor issues before they become major problems. This proactive approach maximizes the return on rehabilitation investment.

OBIC Solution: OBIC systems are designed for 50+ year service life with minimal maintenance requirements. However, Veridian provides maintenance recommendations and inspection protocols to maximize system performance. The durable polyurea material resists chemical attack, abrasion, and thermal cycling, reducing maintenance needs compared to traditional liners.



The Cost of These Mistakes

These seven mistakes cost municipalities far more than the initial rehabilitation investment. Failed linings require complete removal and replacement, often involving excavation and traffic disruption. Emergency repairs disrupt service and create liability exposure. Most importantly, failed rehabilitation projects damage public confidence in infrastructure management.

Conservative estimates place the cost of lining failure at 300-500% of the original rehabilitation investment when accounting for removal, replacement, and service disruption. These costs make proper initial installation critical for fiscal responsibility.

OBIC: The Comprehensive Solution

OBIC spray-applied lining systems address all seven failure modes through proven technology and installation procedures. The polyurea hybrid material provides superior chemical resistance, structural strength, and longevity compared to traditional alternatives. Professional installation by certified technicians ensures proper application and performance.

Veridian Plumbing and Infrastructure Group specializes in OBIC rehabilitation services, combining advanced materials with comprehensive project management. Our approach addresses the complete rehabilitation scope, from initial assessment through final quality assurance.

Municipal engineers and public works professionals seeking reliable manhole rehabilitation solutions should evaluate OBIC systems for their next project. The technology eliminates the common failure modes that plague traditional lining approaches while providing documented long-term performance.

Contact [Veridian Plumbing and Infrastructure Group](#) to discuss OBIC rehabilitation solutions for your municipality's infrastructure needs. Our team provides technical consultation, project planning, and professional installation services designed to maximize rehabilitation investment and extend system life.