



# Trenchless Manhole Rehabilitation with PREDL-FLEXLINER SYSTEM (fully lined)

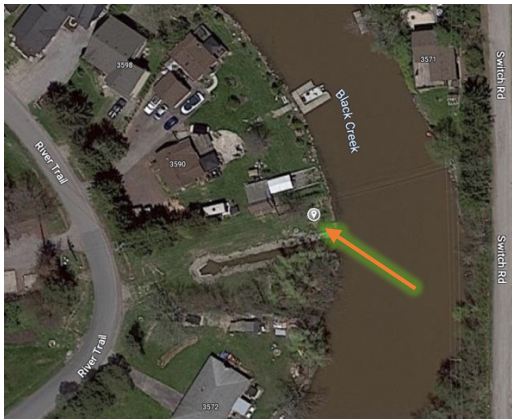


**Location:** Canada, Fort Erie

**Products used:** System PREDL-FLEXLINER in combination with PP-CORPROTECT and FLEXLINER Grout.

**Problem:**

A 14' deep manhole with heavy corrosion throughout. The bottom was very badly corroded, infiltration was present. The rising manhole rings were also already attacked by corrosion. The manhole was located next to a house in a neighborhood on a vegetation rich grassland next to a river. The location of the manhole would have resulted in a costly and complicated traditional full manhole replacement.



**Solution:**

In cooperation with Titan Environmental Containment and LINK Utility Technology, the PREDL-FLEXLINER was installed with PP-CORPROTECT, fully lining the manhole from base to cone.

Upon this manhole being identified as needing rehabilitation, a 3-D laser scan was completed and a rehabilitation proposal with drawings were prepared by PREDL. The new manhole was



		Menge:	Maßstab: 1:25
		Material:	Material: Gewicht: Dicke: Dichte:
Datum:	Name:	1-SA03-0010 NEW MANHOLE	
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<small>Entwickelt nach DIN 1052</small>			AK

custom made by PREDL utilizing the 3-D scan data.

The FLEXLINER (base section) was made from polyurea and the riser, cone sections out of Polypropylene (PP) CORPROTECT.

On site, the FLEXLINER and CORPROTECT segments were folded and inserted through the existing cone in a non-destructive manner. Once they are unfolded and welded, each section is backfilled with PREDL FLEXgrout creating a solid connection to the existing manhole. The watertight and gastight transition between the old pipe and new liner is created via the insertion of the FLEX-CONNECTOR (stainless-steel sleeve with EPDM transition piece).

This trenchless system makes it possible for a crew of as little as two people to rehabilitate the manhole without digging in the shortest time possible.



**Achievements:**

The trenchless technology allowed the complete rehab of this 14' deep manhole in 2 days. The flow was only required to be stopped for 4 hours. Since no large machines were needed there was no noise pollution for the surrounding neighborhood, nor was there damage to the grassland area at the site.

The installation of our system does NOT introduce environmentally harmful chemicals or sprays into the immediate or surrounding areas as some other systems do.

Furthermore, our system is designed and engineered to be sustainable, with an above average service life of several decades.



Rehabilitation with PREDL FLEXLINER for a sustainable future!