

The city of Carmel, Indiana was in a dire situation when a rusted water pipe ruptured creating a massive sinkhole in the road at a major intersection. Fortunately, officers arrived at the scene and were able to secure the area surrounding the 12 by 18 feet hole before any accidents occurred. The storm pipe was removed and replaced but the city was faced with another obstacle. There was another 220 linear feet of storm pipe from the replaced section to a drainage lake that could collapse at any time!

SOLUTION

Removing the remaining pipe was not a practical option due to the location of utilities in the area. Conco Spray Solutions provided the city with an alternative solution, a structural liner that would hold infiltration back and provide a long-term structural solution with a 50-year design life.

RESULTS

Time was of the essence so after the lake was pumped down the pipe was dried and cleaned to remove debris. The Conco Spray team pressure washed the pipe surface at 5000 psi. Mortar was used to repair rusted voids in the invert. As voids were filled, more leaks became prevalent so chemical grout was utilized. The ASTM F1216 formula was calculated using a fully deteriorated pipe for a 50+ year design life. Sprayroq's SprayWall lining was applied at a thickness of approx. 630 mils. By providing a quick application and not removing the existing structure, Conco Spray Solutions minimalized the disruption of traffic flow and preserved the natural landscape in Carmel, Indiana.