SOLENO

MASTERING WATER SUSTAINABLY



CASE STUDY: JULY 2024

EMERGENCY CULVERT REPAIR ON VERMONT ROUTE 116 WITH KUSTOMFLO HDPE PIPE

An effective solution to reopen a washed-out roadway

Culverts are essential components of stormwater management systems, enabling water to flow beneath roadways and preventing erosion and flooding. A functioning culvert preserves the safety and usability of transportation routes and protects nearby ecosystems and communities. When a culvert is compromised, immediate action is required to prevent further damage and ensure public safety.

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THE CONTEXT

Recent storms caused extensive damage to Vermont State Highway Route 116 in Hinesburg, VT, washing out a significant section of the roadway. With numerous roads in the region still closed due to washouts, there was an urgent need for rapid and effective repairs to restore critical transportation routes. The Vermont Department of Transportation approached Soleno to explore potential solutions for their specific challenges. Leveraging our expertise in custom pipe fabrication, we provided a large-diameter pipe solution, ensuring a timely and effective response to their infrastructure needs.

THE SOLUTION

Soleno responded promptly to the emergency request, using its stock of KUSTOMFLO pipes to address the situation effectively. By mid-week, 93.5 linear feet of 94.5-inch KUSTOMFLO pipe was shipped, and the contractor, Kubricky Construction Corp, installed the pipe by Friday. The road was reopened shortly thereafter, significantly minimizing disruption to local transportation.

The installed product consisted of 93.5 linear feet of 94.5-inch KUSTOMFLO pipe. The pipe was intentionally oversized to allow for partial burial of the invert, enabling the installation of riprap to support aquatic life passage. Soleno's ability to meet the tight timeline, combined with its emergency readiness and in-stock availability, ensured that the road could be reopened within a week.





THE BENEFITS

The rapid response from Soleno demonstrated its commitment to addressing emergency situations effectively. The use of oversized KUSTOMFLO pipes provided a sustainable solution, accommodating environmental considerations such as aquatic life passage. The durability of the product and the efficiency of the installation process ensured a long-term, reliable outcome. The contractor was able to complete the project and move on to other critical repairs in the region, further demonstrating the effectiveness of the solution.

KUSTOMFLO HDPE pipes are known for their robust and tailor-made piping systems designed to meet specific project requirements. The ADAPTIVE design allows optimization of the pipe profile to align with the precise needs of the project or applicable standards. These HDPE pipes are engineered to customer specifications to optimize the performance of a flexible pipe. They offer versatility with hundreds of profile types and configurations with variable wall thickness, including solid wall, closed profile, and open profile options.

KUSTOMFLO pipes meet the requirements of current standards, including ASTM F894, DIN 16,961, EN 13,476, and BNQ 1809-300 for both gravity and pressure pipe applications. They provide a wide diameter selection and unique joining technologies and allow for the manufacturing of custom manholes and accessories to meet the specific needs of any project.

This emergency repair project on Vermont State Highway Route 116 highlights Soleno's ability to respond quickly and effectively to infrastructure crises.The success of this project underscores the value of having reliable, high-quality solutions ready to deploy for any type of situation, setting the stage for similar opportunities in the future.

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PRODUCT USED

KUSTOMFLO

Our KUSTOMFLO pipe is made using world-renowned KRAH technology, resulting from an ADAPTIVE process that allows the optimization of the pipe profile to meet the specific needs of any project or applicable standard. This custom manufacturing approach, drawing on over 100 different profiles, lets you build to your unique specifications today to help connect communities for generations to come.



DISCOVER OUR PRODUCT

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For further information and to learn more about our services and products, please visit: soleno.com.

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