

CASE STUDY



Rebuilding Falls Road

Chagrin Falls, Ohio – The rebuilding of the 1.5 mile stretch of Falls Road is believed to be the longest brick road constructed in America in 2005. The restoration of this historical road was the result of a cooperative effort involving four communities, Cuyahoga county and the federal government.

After 80 years of wear and tear, the old brick road was in desperate need of replacement. The old pavers were removed and sorted. Approximately 1/2 of the old pavers were in

good condition and would be used in the rebuilding. The remainder of the pavers would be new. Approximately 600,000 brick pavers were required to rebuild the road.

Prior to installing the pavers, nine inches of concrete was poured to form the base of the road. The pavers were placed in the bed of a freshly placed asphalt sealer. The pavers were placed 3/16" apart and the joints filled with silica sand.

The Problem:

The road has a very steep grade. In order to prevent erosion of the joint sand from rain water flowing down the road, it was important to stabilize the sand. To prevent the pavers from heaving during harsh northern Ohio winters, it was also critical to limit the amount of water that could penetrate through the joint sand.



ChemMasters

How ChemMasters Met This Challenge



After review of the specifications, it was determined that **Sure-Lock WB** would be used to stabilize the sand in the joints. **Sure-Lock WB** is a high-solids sealer designed to penetrate deep into joint sand and bind it together and to the sides of the paves. The treated sand is very dense and less likely to be affected by the flow or rain water down the street. Since the sand will not wash away, the pavers will stay in line and are less likely to heave.

After the excess sand was swept away, **Sure-Lock WB** was spray-applied to the surface at an approximate rate of 100 square feet per gallon. Using a soft squeegee, **Sure-Lock WB** was moved into the joints to get as much material into the sand as possible. Only four workers were required for application. A truck driver moved the pump and the drums of **Sure-Lock WB** down the road; the sprayer used an airless to apply material to the surface and two men with squeegees pulled material into the joints. After application, the joints were checked by the inspectors and the contractor to ensure the surface was hardened by the **Sure-Lock WB**. Additional material was added to some of the millions of joints to ensure they were stable. After the **Sure-Lock WB** cured overnight, the road was opened to traffic.

Thanks to the design of the road, the excellent work of the contractors and the quality of the materials used, historic Falls Road is now ready to bear traffic for another 80 years.



These photos show the various stages of applying ChemMasters Sure-Lock WB over Falls Road.



What they said:

Dominic Cioffi of Cioffi Construction said, "It was a very high profile project for us and a very important one for the communities involved. We had never used Sure-Lock WB before, but sales and technical people from ChemMasters were there to help us every step of the way. Material was delivered on time and the professionals at ChemMasters were there whenever we needed them. The Sure-Lock WB as easy to apply and cost effective."



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County Supervisor: Mark Rinderman, Cuyahoga County

General Contractor: Cioffi Construction, Akron, Ohio