

**Sealing pavement joints**

*Dow Corning® 888 Silicone Joint Sealant*

*Dow Corning® 888-SL Self-Leveling Silicone Joint Sealant*

*Dow Corning® 890-SL Self-Leveling Silicone Joint Sealant*

*The Dow Corning sales representative for the area was at the site for every step and provided technical guidance to the Rhode Island Department of Transportation and the contractor.*

**Historic pavement sealed to last**

To many residents and tourists who come every year to see the mansions, Bellevue Avenue is Newport, Rhode Island. The avenue runs through two historic districts, past the “Millionaires’ Row” of turn-of-the-century summer mansions, past the Tennis Hall of Fame, and into the center of historic Newport.

When the road was paved with concrete in 1925, no one could foresee the imminent change in fortune and fashion that would end Newport’s era of splendor. By the 1940s, it was no longer a millionaires’ resort, and by the 1960s, it was showing its age.

Things began to change in the 1960s when Doris Duke, a tobacco heiress, settled in Newport and began making historical preservation and renovation fashionable. She used her fortune to found the Newport Restoration Foundation and generally inspired the movement to protect and restore Newport’s architectural heritage.

Through all of this, the original concrete roadway continued to serve. In fact, it served for 60 years, and by the 1980s, it looked it. So, the City of Newport applied to the Rhode Island Department of Transportation (RIDOT) to repair the roadway and restore the curbing, sidewalks and lighting.

The project was somewhat unusual for RIDOT. They had been using asphalt almost exclusively for 30 or 40 years, but under the National Historic Preservation Act, this was not an option. This meant that RIDOT would install concrete for the first time in more than a generation.

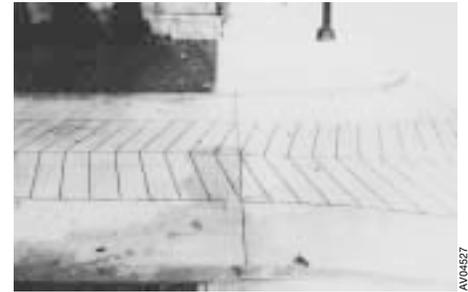
Not just any concrete would do. They wanted to find one that would match as closely as possible the original color and texture. The RIDOT materials section experimented, creating samples of various mixes until they found one that everyone agreed matched the historical requirements.



*The 60-year-old concrete pavement past Newport’s famous mansions was dangerously cracked and worn before it was replaced with materials that echoed the original.*

The 2.4-mile road was finished, 1/2-inch by 1/2-inch joints were cut, cleaned and sealed with 888 Silicone Joint Sealant.

There is only one Bellevue Avenue, but there are a lot of concrete surfaces, and they can all benefit from the capabilities of *Dow Corning* 888 Silicone Joint Sealant. This versatile, durable material is as much at home in highways, airports, shipping yards and parking terraces as it is in historic Newport.



*Bellevue Avenue gets both historical accuracy and long-lived performance from new concrete pavement sealed with Dow Corning® 888 Silicone Joint Sealant.*

RIDOT chose *Dow Corning*® 888 Silicone Joint Sealant to seal the pavement joints because of its flexibility across a wide temperature range and ability to handle the movement that was expected for this stretch of road. It is extremely long-lived compared with organic materials.

Repaving work began in 1990. The old concrete was taken up and the roadbed was excavated to a level eight inches below the surface. The old concrete was crushed to gravel and used as a base in the excavation. The new concrete was poured over it, and sprayed with a curing compound. When the



## **Dow Corning® brand Sealants** **Meet Tough Ft. Worth Specifications**

### **Sealing pavement joints**

Until 1989, all concrete pavement joints in the City of Ft. Worth, Texas, were sealed with hot pour organic materials. These products offered a limited lifespan and required streets to be closed repeatedly for repair. Frustrated by the situation, Ft. Worth pavement engineers decided to investigate alternatives.

As a result of the investigation, engineers decided to give silicone sealants a try, specifically *Dow Corning® 888 Silicone Joint Sealant*, *Dow Corning® 888-SL Self-Leveling Silicone Joint Sealant* and *Dow Corning® 890-SL Self-Leveling Silicone Joint Sealant*.

Only silicone joint sealants from Dow Corning have been able to pass all tests outlined in the city's specification. The sealants have been used to seal concrete pavement joints in both new and remedial applications throughout the city. Projects include high-traffic intersections and roadways, as well as residential streets. The city also specified *Dow Corning®* brand materials for the concrete runways and aprons at Ft. Worth's Alliance Airport.

The City of Ft. Worth now specifies that only silicone joint sealants be used in new or remedial concrete pavement projects, and at least 11 criteria have been established for selection of suitable materials. Since the specification was changed, all pavement projects within the city limits of Ft. Worth have employed silicone joint sealants from Dow Corning.



*Three types of Dow Corning® brand silicone joint sealants are being used to seal concrete pavement joints like this one in both new and remedial applications throughout the City of Ft. Worth, Texas.*

“Most of the work is being done with the self-leveling products,” explains Joe Cathey, president of Silicone Specialties Inc., a Dow Corning distributor based in Tulsa, Oklahoma. “They offer the performance required to meet the city's specification, and they also eliminate tooling and reduce waste. The savings in time and material translates to lower costs.”

The sealants deliver outstanding performance in airport, highway, bridge and parking deck applications, especially those exposed to extreme expansion and contraction.

*Dow Corning® 888  
Silicone Joint Sealant*

*Dow Corning® 888-SL  
Self-Leveling Silicone  
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— Joe Cathey,  
President  
Silicone Specialties Inc.

#### **FOR MORE INFORMATION**

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