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ROADS & BRIDGES

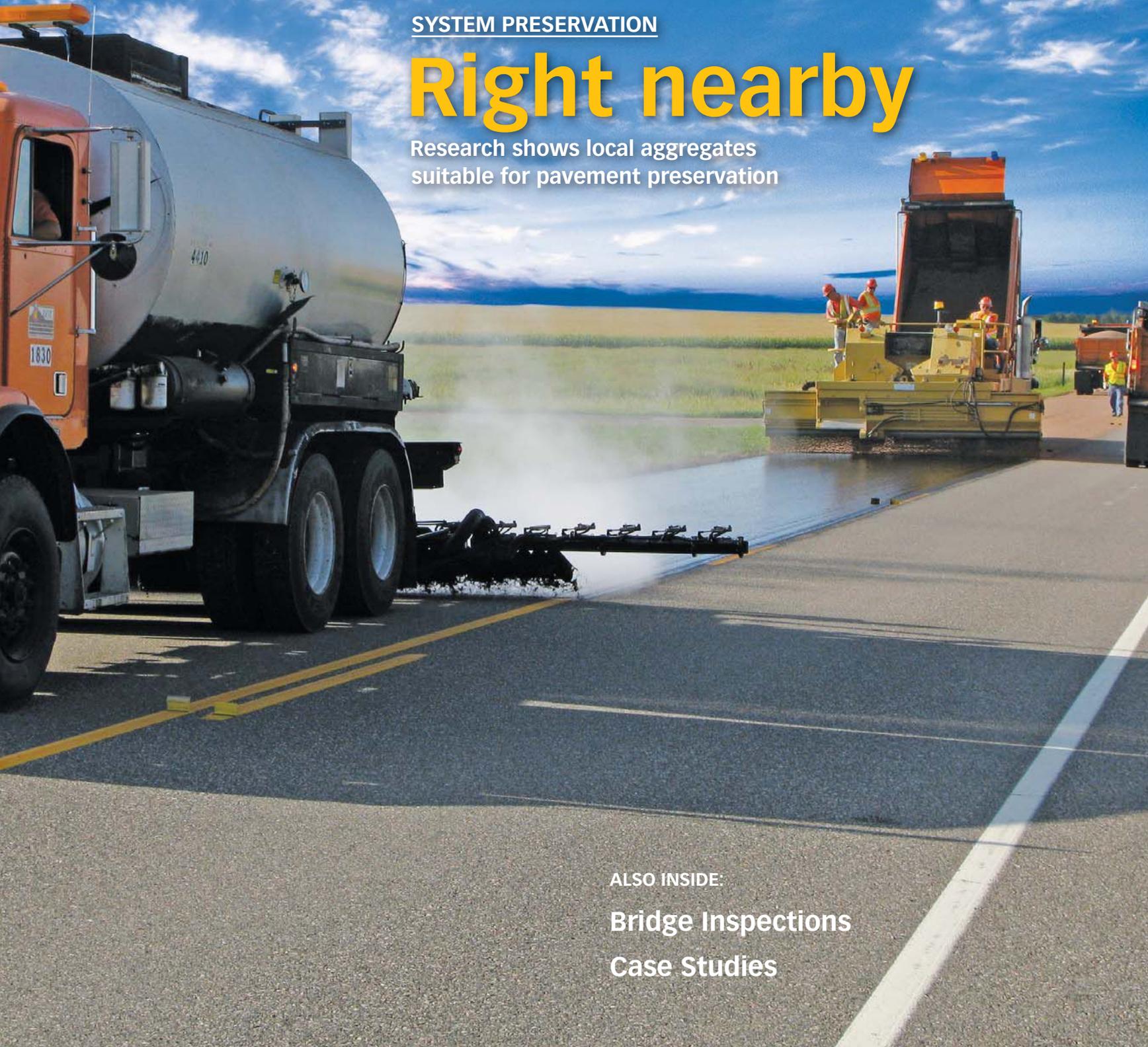
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Oakland Bay Bridge a paving challenge on two fronts

The westbound portion goes from five lanes to 20 lanes at the toll plaza, then back down to five lanes. "It made the joints and lane lines an increased challenge."

The San Francisco-Oakland Bay Bridge's recent reconstruction is considered an engineering wonder, particularly its self-anchored suspension (SAS) span.

But paving of the bridge had more potential to be a nightmare than a marvel. First, the SAS required placement of a challenging epoxy asphalt concrete (EAC). Second, paving of the toll area proved demanding because of its rapidly changing widths. Working on a bridge also upped the ante in terms of weight, reliability and productivity.

Fortunately, O.C. Jones & Sons Inc. of Berkeley, Calif., and its equipment proved up to the task.

The EAC is a chemical-based product that sets up quickly. Its use meant machines could not travel on the paving lane, and material had to be loaded from the side.

Meeting this challenge was a Weiler E1250A remixing transfer vehicle (RTV). The E1250A's conveyor accommodates offset paving, enabling trucks and the RTV to stay off the paving base.

Shedding weight on a bridge project is always a necessity, and the E1250A came through on that front as well. The Weiler RTV does not have storage capacity, helping the machine weigh 51,000 lb less than an RTV with storage.

"Since storage, or surge capacity, was not required, the Weiler E1250A proved to be the right choice and performed well," said Kelly Kolander, president and CEO of O.C. Jones.

The RTV fed material to a Cat AP1055E, and the paver helped overcome a few challenges as well, starting with reliability and productivity.

The paver also proved valuable when paving near the toll plaza. "Over half of the material placed was required to correct cross slope to aid drainage, establish a new roadway profile and level uneven pavement, which is all very time-consuming," said Project Manager Bill Jensen.

Additionally, the westbound portion goes from five lanes to 20 lanes at the toll plaza, then back down to five lanes. "It made the joints and lane lines an increased challenge," Kolander said. "The Cat pavers handle the variable widths very well; our crews really appreciate their versatility."

Equipment used included Cat AP1055E and AP655D asphalt pavers, Cat CB64, CB54 and PS150C rollers, as well as the Weiler E1250A RTV. All played a role in the project's success.

"Being such a complicated and specialized paving project," Kolander said, "not to mention such a high-profile one—we required high-production, quality equipment and 100% uptime." **R&B**