



ERGON

Asphalt & Emulsions

SUCCESS STORY

Full Depth Reclamation Strengthens Texas Runway

GOAL

Rehabilitate Aging Airport Runway

SOLUTION

Full Depth Reclamation (FDR)



LOCATION

Lamesa
Municipal Airport
Runway 7-25



DISTRESS

Aged, oxidized
pavement;
cracking



TRAFFIC

Moderate
aircraft traffic



AGENCY

City of Lamesa
and Dawson
County



CONTRACTOR

Duininck Inc.



SUPPLIER

Texas Road
Recyclers/
Ergon A&E

BACKGROUND: The aging Runway 7-25 at Lamesa Municipal Airport (LUV) was experiencing oxidation and shrinkage cracking.

GOAL: The City of Lamesa and Dawson County needed a treatment that would rehabilitate the runway and allow for a fast return to traffic.

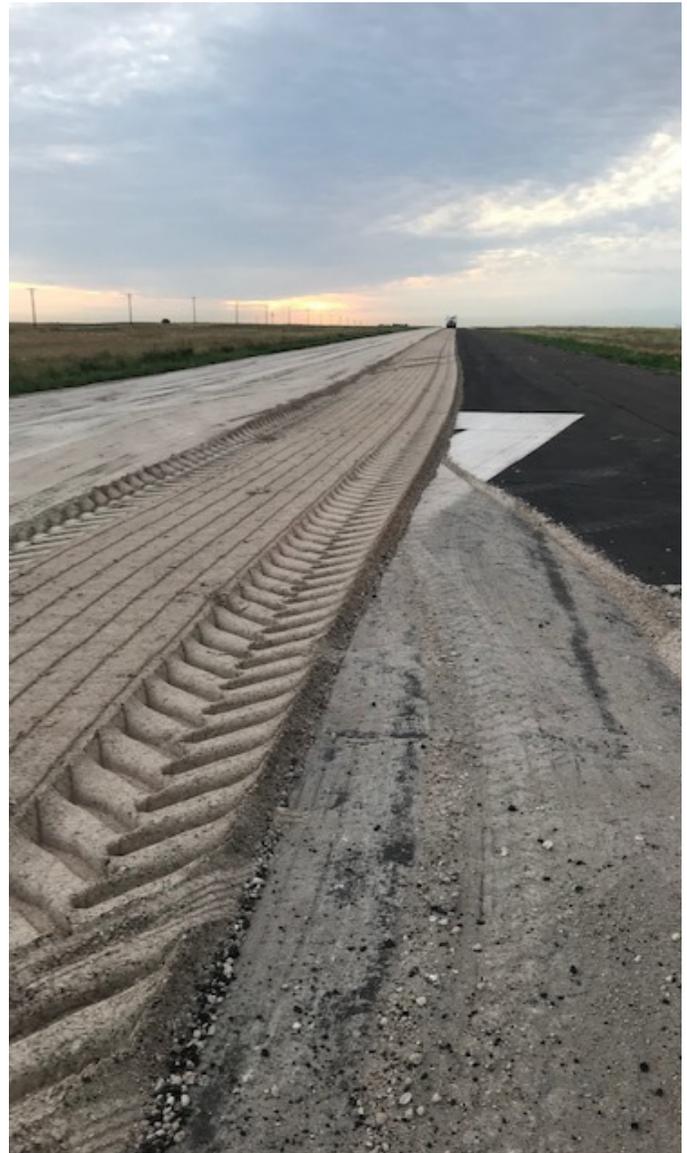
SELECTING FULL DEPTH RECLAMATION

When faced with the task of deciding which rehabilitation method was best for the City of Lamesa and Dawson County, Garver, the lead engineering/design firm for this project, identified full depth reclamation (FDR) as a cost-efficient method that would help strengthen LUV Runway 7-25 at the structural level while also improving durability and extending its service life.

Garver discovered the FDR process while attending a workshop coordinated by representatives from Ergon Asphalt & Emulsions along with other industry partners. The firm compared the FDR benefits they learned during the workshop to the structural needs of Runway 7-25 and determined the treatment would be a good candidate for roadway rehabilitation.

FIRST AIRPORT FDR IN TEXAS

The \$1.8 million Runway 7-25 project marked the first time FDR was applied at an airport in Texas following the addition of liquid asphalt FDR to the Federal Aviation Administration's airport construction specifications in December 2018 under item P-207. "Adding liquid AC to the construction specifications opened the door for a wider range of treatment options with fast return-to-traffic times that are also cost effective and better for the environment," said Tom Flowers, Technical Marketing Manager for Ergon Asphalt & Emulsions.



BENEFITS OF FDR

During the FDR process, a typical depth of 6"-12" of existing pavement and aggregate base are typically reclaimed, mixed with a binder and compacted, resulting in a strong, durable road base.

Cuts Cost: With FDR, agencies can save up to 40% when compared to the alternative method of total reconstruction.

Eco-Friendly: Additionally, because FDR is a recycled asphalt treatment, truck traffic and resulting emissions are significantly reduced, as the existing road material does not have to be processed, hauled to a hot mix plant and mixed with a binder and then hauled back to the project site. Everything is done on-site.

Quick Return to Traffic: One of the most important benefits of FDR for airport roadways in particular is its fast return to traffic. With FDR, airport traffic can be returned to the surface just weeks following application. Using standard reconstruction methods, traffic is typically not returned for months.

APPLICATION HIGHLIGHTS

From mid-June 2019 to early August 2019, the contractor, Duinick Inc., performed the FDR application at a depth of eight inches to 4,006' x 60' of Runway 7-25, or nearly four lane miles. A high-yield emulsion was chosen as the binder for this application due to its proven effectiveness in the West Texas region for restoring highway pavement sections long term, resulting in reduced maintenance costs over time.

Aircraft traffic was returned to the runway 57 calendar days following the FDR application and placement of a new asphalt surface course. The project was phased such that the adjacent runway was not impacted during construction, which helped keep the airport operational.

POST APPLICATION

The City of Lamesa and Dawson County were pleased with the application and fast return to traffic. Since 2019, there have been two more airport FDR projects in Texas utilizing this same method, with more expected in the future. "Airport runway rehabilitation is a growing market," said Tom Flowers. "We're excited for agencies to see the benefits of this treatment on runways in Texas, and we look forward to being a resource in best practices for runway maintenance."



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FDR BENEFITS

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Contact one of Ergon A&E's expert Technical Marketing Managers to find out if FDR or other rehabilitation solutions are the right fit for your airport runways today.

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