

Cynthiana-Harrison County Airport, Kentucky



Project:

Cynthiana-Harrison County Airport, Kentucky

Location:

Harrison County, Kentucky

Date:

2026

Contractor / Producer:

Hinkle Construction - CRH

Client:

Cynthiana-Harrison County Airport

Funding:

Kentucky Department of Aviation

Consultant / Engineer:

Palmer Engineering

Surface Tech Product:

ARMI Interlayer + ACE XP Surface



What We Did

With the runway in a badly cracked condition, the project team specified a full ARCA system — pairing the ARMI aramid-reinforced interlayer with an ACE XP fiber-reinforced surface course — instead of milling and reconstructing.

ARMI Interlayer: An aramid-reinforced interlayer placed directly over the distressed pavement to interrupt reflective crack propagation from below.

ACE XP Surface: A 2" (38 mm) ACE XP fiber-reinforced surface course at a double fiber dose, placed over the interlayer for added tensile strength and crack resistance.

No Reconstruction: Installed as a maintenance overlay, preserving the existing pavement structure and keeping the runway in service.

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Production Compatibility: Both layers integrated with Hinkle Construction – CRH’s standard plant production and paving equipment.

Project Scope & Objectives

Interlayer was placed over badly cracked runway. Palmer Engineering and BATT recommended the intro layer. 2” ACE XP fiber surface was placed over the interlayer. Project funded by Kentucky Department of Aviation, Wayne Simpson contact. Surface Tech collaborated with the project team to deliver an engineered ARCA pavement system designed to arrest reflective cracking and extend pavement life without full-depth reconstruction.

Challenges Overcome

Working over a severely cracked surface, the team combined the ARMI interlayer with a double-dose ACE XP surface to arrest reflective cracking and restore a smooth, FOD-free surface — all without milling or full-depth reconstruction, within a May 15–16 paving window.



New ARMI + ACE XP overlay placed over the existing runway — Cynthiana-Harrison County Airport, KY

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Economic & Environmental Advantages

- **Reduced Capital Costs:** The reinforced overlay avoided a costly full-depth reconstruction of the distressed pavement.
- **Reflective Crack Mitigation:** The interlayer interrupts crack propagation from the pavement below, while the fiber-reinforced surface adds tensile reinforcement on top.
- **Lower Life-Cycle Costs:** A fiber-reinforced system extends pavement life and reduces the frequency of future maintenance interventions.
- **Operational Efficiencies:** The system ran through standard plant production and paving equipment.
- **Material Conservation:** Overlaying rather than reconstructing preserved the existing pavement structure and reduced raw-material usage.
- **Sustainable Pavement Design:** Extending service life with a maintenance overlay reduces future construction impacts and greenhouse-gas emissions.

Client Feedback and Results

Initial results show the ARMI-reinforced overlay delivering a smooth, crack-resistant runway surface and meeting the airport's objective for a long-term, FOD-reducing maintenance fix.

— *Phil Blankenship, PE President Blankenship Asphalt Tech & Training, PLLC*

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Project Photos

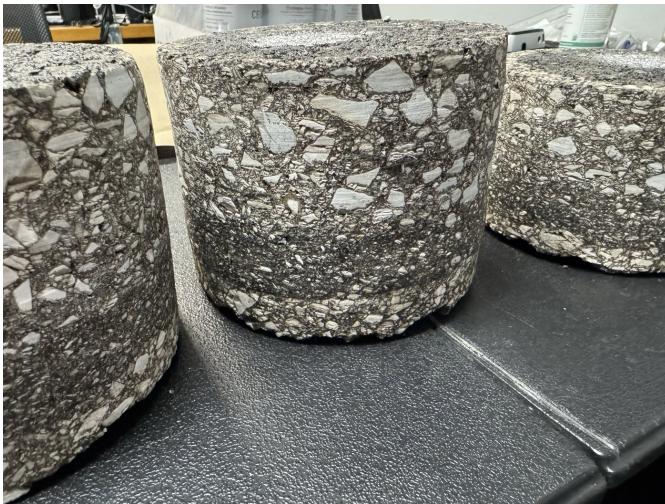
Field documentation from JOB-2026-862 — ARMI interlayer + double-dose ACE XP surface, placed May 15-16, 2026.



Completed ACE XP runway surface looking toward the apron and hangars.



New overlay lift placed over the ARMI interlayer — paving in progress.



Extracted asphalt cores showing the reinforced pavement structure.



Finished, FOD-free ACE XP surface under clear skies.

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Case Study



ACE XP fiber-reinforced mix at the paver (double dose).



Smooth, crack-resistant runway after final placement.



Cynthiana-Harrison County Airport — project site, Kentucky.

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