

Costco Depot Trailer Yard — Mira Loma (Eastvale), California



Project:

Costco Depot Trailer Yard — Mira Loma (Eastvale), California

Location:

11600 Riverside Dr, Mira Loma / Eastvale, Riverside County, California

Date:

2025-2026

Contractor / Producer:

Black Star Paving

Client:

Costco Wholesale

Surface Tech Product:

ACE XP™ Aramid Fiber (Single Dose)

What We Did

Few pavements work harder than a distribution depot trailer yard. For Costco's Mira Loma depot, Black Star Paving placed 1,200 tons of ACE XP aramid fiber-reinforced asphalt produced at Vulcan Materials' Corona plant — a new-build yard engineered for the constant punishment of fully loaded trailers.

Reinforced Mix: An aramid fiber-reinforced mix at a single ACE XP dose, produced at Vulcan Materials' Corona plant and placed by Black Star Paving.

Heavy-Duty New Build: 1,200 tons placed as new trailer-yard pavement, built to carry sustained static loads and tight-radius turning from loaded distribution trailers.

In Service Immediately: The completed yard went straight into full distribution operations — rows of loaded trailers now stage on the reinforced surface daily.

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Project Scope & Objectives

Distribution trailer yards concentrate the most damaging loading in commercial paving: heavy static wheel loads from parked, fully loaded trailers, landing-gear point loads, and constant low-speed turning and braking that shove and rut conventional asphalt. The project paired Vulcan Corona's production with ACE XP aramid fiber reinforcement to give the depot a new yard surface engineered to resist rutting, shoving, and fatigue under continuous heavy logistics traffic.

Challenges Overcome

Trailer yards fail differently than roads — slow, heavy, repetitive loading concentrates stress rather than spreading it. The three-dimensional aramid reinforcement in every ton of mix adds the tensile capacity conventional asphalt lacks, while the single-dose addition ran through Vulcan Corona's standard production and Black Star's conventional paving operation without process changes.



The reinforced yard surface in full service — loaded trailers staging on the new ACE XP pavement

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Economic & Environmental Advantages

- **Built for Static Loading:** Aramid fibers add three-dimensional tensile reinforcement that resists the rutting and depressions caused by parked, fully loaded trailers.
- **Shoving and Scuff Resistance:** Reinforcement throughout the mat resists the shoving and surface distortion driven by tight-radius trailer and yard-tractor turning.
- **Fatigue Life:** Distributed fiber reinforcement extends the pavement's fatigue life under continuous heavy repetitive loading.
- **No Process Changes:** Single-dose fiber addition ran through Vulcan Materials' standard plant production and conventional paving equipment.
- **Lower Life-Cycle Costs:** Longer-lasting yard pavement means fewer repairs — and less disruption to round-the-clock distribution operations.
- **Sustainable Pavement Design:** Extended service life reduces future reconstruction impacts, material consumption, and greenhouse-gas emissions.

Client Feedback and Results

The completed 1,200-ton yard is now in full service, staging loaded distribution trailers daily on the fiber-reinforced surface — a demanding real-world proving ground for ACE XP in heavy commercial and logistics paving.

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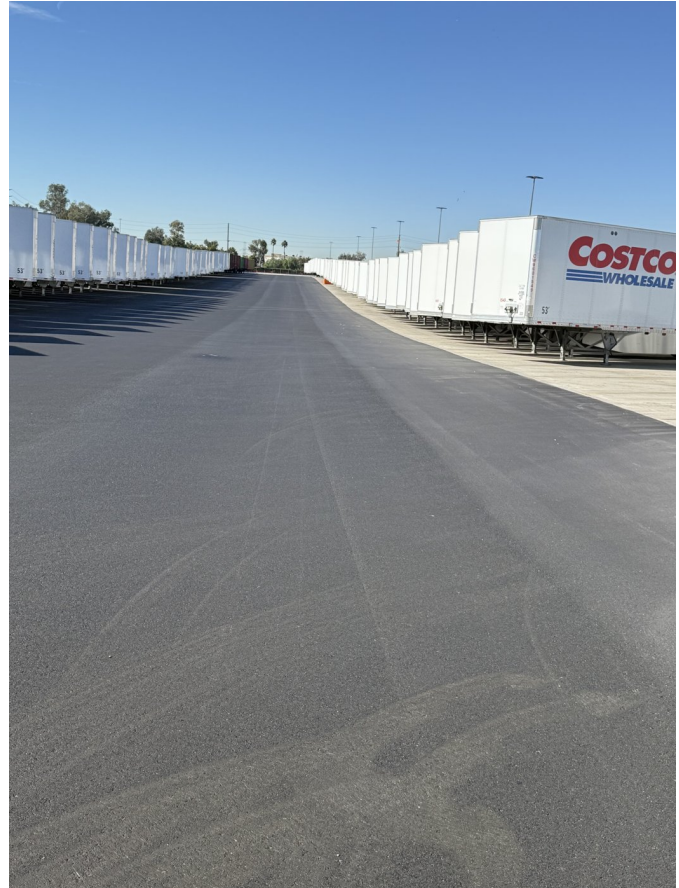


Project Photos

Field documentation from JOB-2026-005 — 1,200 tons of ACE XP-reinforced pavement, Mira Loma depot trailer yard.



The completed trailer yard in service — loaded trailers staged on the new reinforced pavement.



Yard lane between trailer rows — the fiber-reinforced surface under daily distribution traffic.

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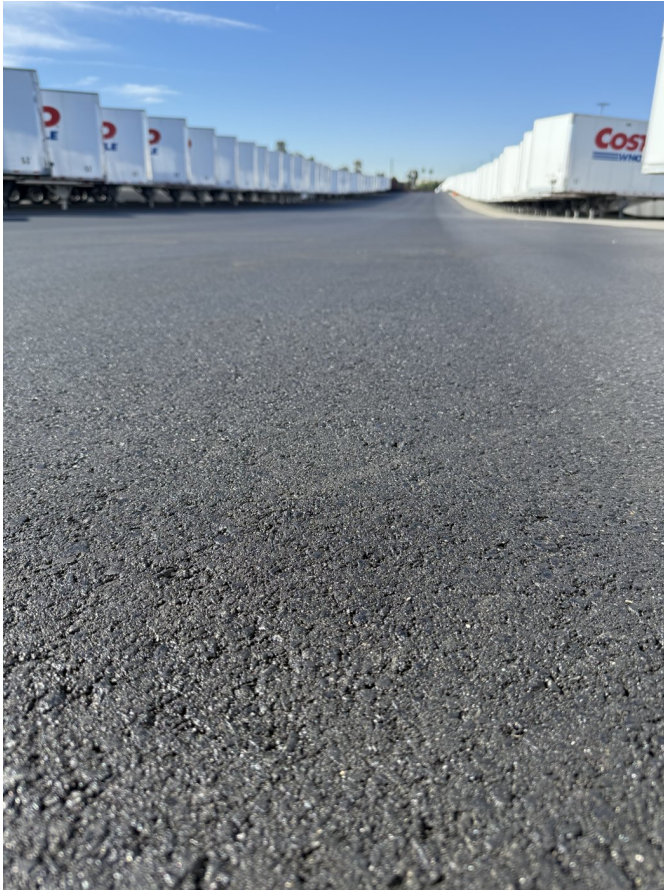
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Case Study



Mat texture detail with the trailer yard in operation beyond.



Pavement transition at the edge of the new reinforced section.

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