



 **Ergon Asphalt
& Emulsions**

SUCCESS STORY

**Irvine, California,
Chooses Eco-Friendly
Slurry with 100% RAP**

GOAL

Maintain condition and performance of city roads using an environmentally friendly treatment

SOLUTION

Slurry seal with recycled aggregate (micro milling where applicable)



LOCATION

Irvine, California



DISTRESS

Low - Routine Maintenance



TRAFFIC

Road Type: Arterials - High Traffic



AGENCY

City of Irvine



CONTRACTOR

Pavement Coatings Co.



SUPPLIER

Ergon Asphalt & Emulsions (slurry emulsion)

Background: The City of Irvine is a planned community where roads regularly receive slurry seal treatments as part of ongoing preservation and maintenance efforts. Several years ago, the city began using reclaimed asphalt pavement (RAP) aggregate in the design for some of their slurry seal applications.

Goal: Pleased with the appearance and performance of slurry seals using RAP, the city has continued with this solution as part of their maintenance program. They expect the treatment to continue to yield the quality results they have witnessed in a thorough evaluation of this process over time.

2020 CITY OF IRVINE SLURRY SEAL MAINTENANCE

Part of the city's 2020 maintenance included the application of slurry seal treatments using Type II RAP on multi-lane arterial streets. By using 100% RAP in the slurry design, the city was able to skip the aggregate mining/processing phase and reduce landfill waste — all while reducing emissions. *In context, adding just 20% of RAP to new asphalt pavements reduces emissions by 14%, according to Gedeon GRC Consulting.*

TREATMENT PREP

All cracks ¼ inch and greater were sealed with a hot-applied rubberized asphalt crack sealant prior to the slurry seal applications, which began in April 2020. The existing asphalt surface was micro milled to about ¼ of an inch to reveal curb height and make the surface smoother. In addition, there were some sections that were patched, correcting minor base failure. These preliminary steps facilitate long-term performance, proper drainage and a smooth ride.

TRAFFIC MANAGEMENT

Prior to slurry sealing the designated arterial streets, the city discussed ways in which they might help mitigate delays on these heavily trafficked roadways that lead to and from shopping centers and businesses, like Blackberry's U.S. Headquarters and the Ford Motors National Design Center. However, COVID-19 had become widespread and statewide travel restrictions had been put in place just before the project was set to begin. This made it possible for more aggressive daytime applications to be accomplished without inconveniencing drivers.

APPLICATION HIGHLIGHTS

The contractor, Pavement Coatings Co., applied 12,500 tons of RAP slurry seal to 1,784,508 SY of roadway at an application rate of 14 pounds per square yard. The slurry seal cured within two hours and was rolled using a rubber tire roller then returned to cross traffic immediately following. Rolling, a specified requirement of RAP slurry seal, improves cohesion and helps to significantly reduce post sweeping needs. The RAP slurry seal application began during the first week of April and was complete by June 18, 2020.

The City of Irvine is pleased with the RAP slurry seal performance to date, and the environmentally friendly benefits of using the RAP were bonuses for this green community.

If you're interested in applying eco-friendly slurry seals to extend the service life of your roads, contact us today. We'll lead you in the right direction.