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SUCCESS STORY

eFlex ES Premium Slurry Seal Overcomes Bend's Challenging Climate

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CHALLENGE

Need enhanced durability and resistance against power steering burns and raveling in a wet freeze-thaw environment.

SOLUTION

eFlex ES Premium Slurry Seal

LOCATION	DISTRESS	TRAFFIC	AGENCY	CONTRACTOR	SUPPLIER
Bend, Oregon	Raveling	Residential Community	City of Bend, Oregon	Doolittle Construction	Ergon A&E *eFlex ES Premium Slurry Seal*

BACKGROUND: As urbanization progresses, cities are seeking smoother, more uniform road surfaces to meet growing demands. Beyond enhancing the aesthetic of a roadway, smoother surfaces promote safer roads and communities, particularly in residential areas. However, cities like Bend, Oregon, which experience scorching summers, drenching springs and snowy winters, present challenges for traditional pavement preservation methods, as roads endure the impact of extreme seasonal changes combined with heavy utility traffic like snowplows.

SOLUTION: To address these challenges, a representative from Doolittle Construction reached out to Scott Metcalf from Ergon Asphalt & Emulsions (Ergon A&E), as the contractor was familiar with Ergon's commitment to quality. From there, Doolittle Construction and Scott pitched a three-year pilot project to Bend's city officials, opting for highly modified slurry seal over traditional modified slurry seal. Ergon A&E's eFlex ES highly modified emulsion was selected for this project after careful consideration of data and experience gathered from previous projects.

eFLEX ES PREMIUM SLURRY SEAL

Compared to conventional slurry seals, eFlex ES offers increased durability and longer-lasting high-friction surfaces, ideal for Bend's wet climate. Also, its high level of polymer modification provides the road with increased resistance to damage from heavy utility vehicles and extreme temperatures, further enhancing its adaptability to diverse climates such as Bend. Ergon's eFlex ES offers increased durability, extending the service life of roads in good to fair condition by 7 - 9 years or more.

APPLICATION

The project in Bend was performed on May 10, 2021, on over 35,000 square yards of road on various streets and cul-de-sacs. eFlex ES, coupled with a Type II aggregate, was applied at 15 pounds per square yard using truck mounted mix pavers. Traffic was returned to the surface two hours after application. Additionally, Doolittle Construction placed various standard slurry treatments on opposite sides of the streets and cul-de-sacs, allowing the City of Bend to conduct a side-by-side comparison of the effectiveness of eFlex ES. The entire project was completed within five hours.

When evaluated a year later, in 2022, the eFlex ES-treated sections showed an estimated 75% - 80% fewer power steering burns (none of which disrupted the integrity of the mix) compared to the sections that received standard slurry seal treatments. "There's always a risk with a pilot project — especially when you're examining products side-by-side. But it's living up to our expectations," said Paul Neiswonger, Streets and Operations Supervisor for the City of Bend. An even greater performance difference between the treatments is expected as the project ages and the roads continue to experience challenging weather and encounters with snowplows.

FUTURE DIRECTIONS

As the evaluation of the pilot project continues, consistent positive feedback from City Managers suggests a high probability of future projects. Chuck Swann, Street Division Manager for the City of Bend said, "It's definitely something we will add to our toolbox of applications." Use of highly modified slurry seal presents a promising solution for achieving smoother, safer roads while ensuring longevity and sustainability, even in challenging weather conditions.

To learn more about eFlex ES Premium Slurry Seal and how it can enhance your roadways, contact the Ergon A&E representative in your area.

eFlex ES on the left. Standard slurry seal on the right. Photo taken one year after application.