PlusRide® Asphalt Concrete Pavement

WA-RD 130.2

Final Evaluation Report
January 1990

Washington State Department of Transportation
Planning, Research and Public Transportation Division

in cooperation with the
United States Department of Transportation
Federal Highway Administration
PLUSRIDE™ ASPHALT CONCRETE PAVEMENT

SR-405, Contract 2768
S Curve/Cedar River Bridge and RR Bridge

by

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Experimental Feature WA-84-01
Final Evaluation Report

Prepared for
WASHINGTON STATE DEPARTMENT OF TRANSPORTATION
and in cooperation with
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The performance of an experimental installation of PlusRide™ ACP as a bridge deck overlay is summarized in this report. Visual inspections, friction tests, noise readings, and rut depth measurements were taken on both the PlusRide™ and a rubberized ACP control section. No evidence of better frictional properties, noise reduction or increased service life could be attributed to the PlusRide™ in comparison with the rubberized ACP control section.
DISCLAIMER

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FINAL REPORT
PLUSRIDE™ ASPHALT CONCRETE PAVEMENT

SUMMARY
An experimental installation of PlusRide™ ACP was placed on 0.30 miles of SR-405, M.P. 3.51 to M.P. 3.81, on the northbound lanes of the S Curve/Cedar River & RR Bridge located in the City of Renton, Washington. A rubberized ACP was placed on the southbound lanes within the same limits for use as a comparative control section. This section of Interstate 405 has an ADT of approximately 110,000 with 10% truck traffic.

The project was placed in September, 1984. All paving operations were done at night with mild temperatures of 60°F to 69°F by Hi-Line Paving Asphalt Co. Inc. of Seattle. Bob Linden of All Seasons Surfacing Corp., Bellevue, Washington, was the technical representative for PlusRide™ and was present for both plant and street operations. The ACP mix designs were as recommended by All Seasons for the PlusRide™ and by Arizona Refining for the rubberized ACP. Both materials were placed in one 0.08' lift. The design density for the PlusRide™, as recommended by the Technical Representative from All Seasons, was 95% to 98% of Rice density (maximum density) as determined by WSDOT Test Method 705. The contractor was only able to obtain 88% density as monitored by Nuclear Densometer. Density was not monitored on the rubberized ACP because it was an open graded mix which does not have a density requirement under WSDOT specifications.
large areas of the PlusRide™ had debonded or raveled throughout the northbound lanes. Rut depth measurements were 3/8 inch. The rubberized ACP showed only one small area of minor raveling and had rut depth measurements of 3/16".

The site was revisited in October, 1989. At that time, the PlusRide™ was almost totally gone in the wheelpaths having been patched back with standard WSDOT Class B ACP. The rubberized ACP is wearing considerably better. There is evidence of minor raveling and flushing, and one small area of debonding, but the pavement appears to be sound.

**CONCLUSIONS**

It appears the PlusRide™ product does not stand up to its' developers claims. There is no evidence of better frictional properties, noise reduction or increased service life on this experimental project.