

CASE STUDY

PaveScan® RDM 2.0



Using PaveScan Technology to Measure New Pavement Uniformity

PROJECT:

The State of Maine Department of Transportation is at the forefront of research on how to improve road pavement quality and extend service life. They focus on improving both the material mixes used and how they are put down in the field.

Dale Peabody, Director of the Transportation Research Division at Maine DOT, explains that there is never enough funding to keep up with all the road pavement work needed. That's why his team is constantly looking for ways to improve both the material mixes used and how they are laid in the field.

SURVEY:

During a recent project along Route 1 Southbound in Bath, Maine, the team deployed GSSI's PaveScan RDM 2.0 system to survey newly laid pavement immediately after compaction to quickly identify and investigate non-uniformity (i.e., low density) areas.

The PaveScan RDM technology has been proven to have a strong correlation between the dielectric value and the air void content. Each sensor on the system collects a continuous line of dielectric values displayed as a contour map. In this project, the data clearly identifies areas of poor uniformity along the shoulder and middle joints. Maine DOT was also able to output the statistics of the survey and export the .csv file and .kml files for further evaluation.



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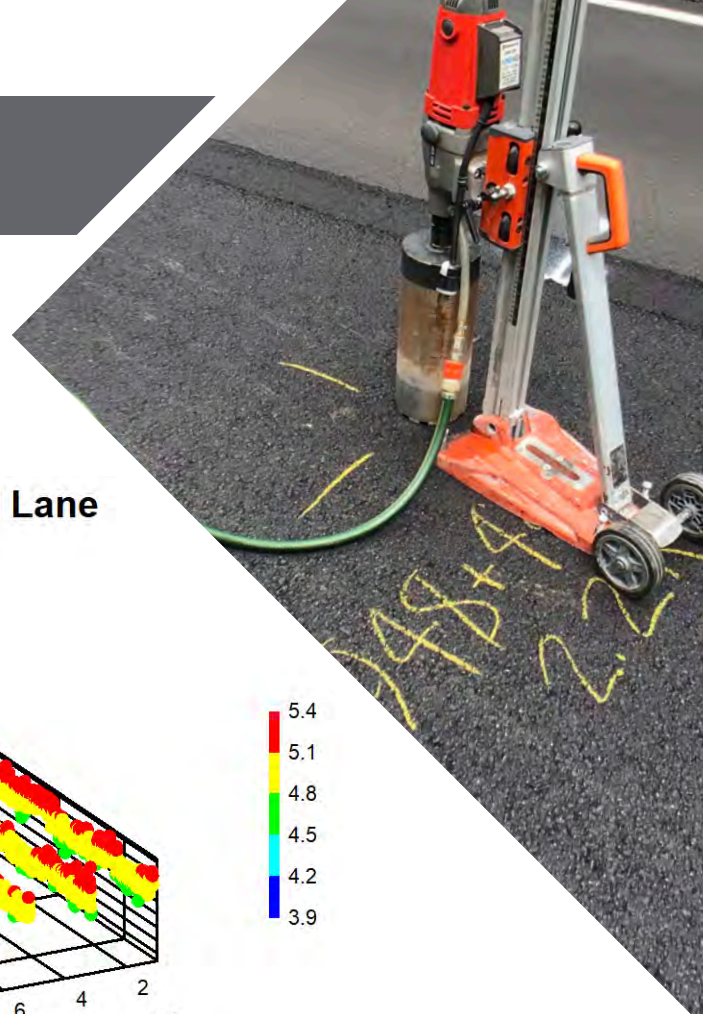
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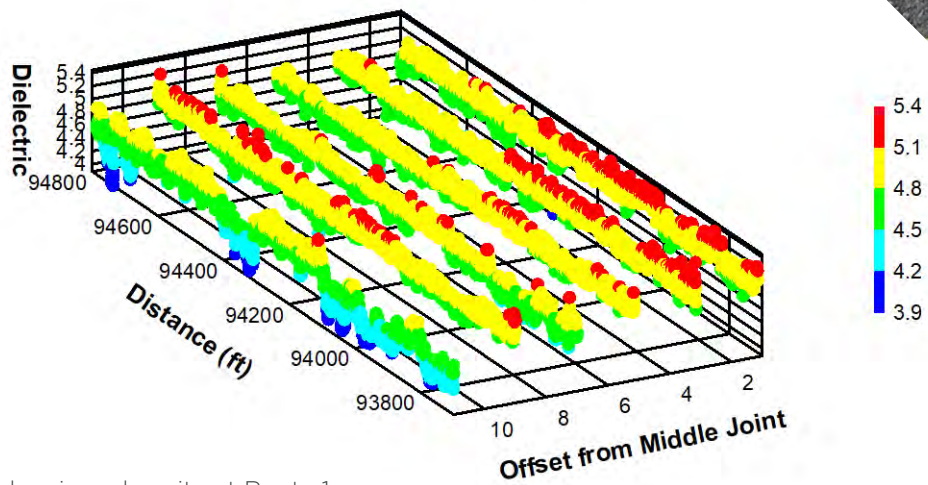
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RESULT:

Using the PaveScan results, Maine DOT was able to identify a possible roller issue with the pavement contractor.



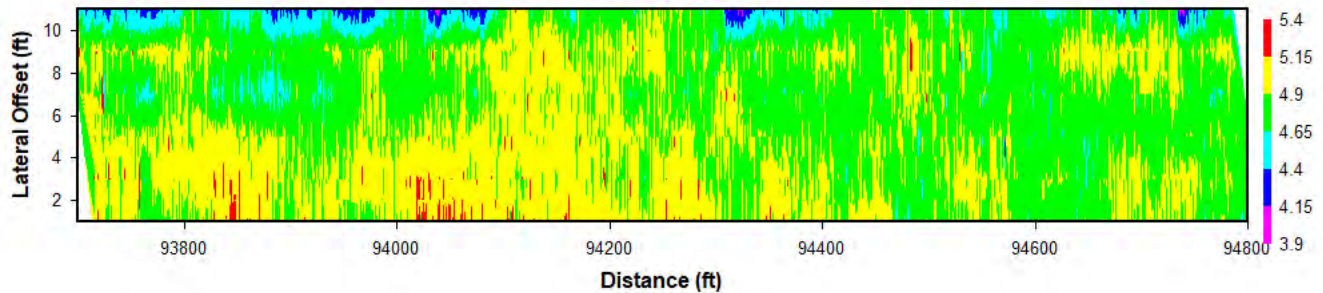
Rt 1 South Bound, Travel Lane
Station 937+00 - 948+00



Data collected and reviewed onsite at Route 1, South Bound, Travel Lane. Station 937+00 - 948+00.

Note the lower dielectrics near the shoulder joint, displayed in blue, and higher dielectrics along the middle joint, in red.

Rt1SB_Station 937 - 948
Passing Lane



Data collected and exported to excel to determine the range and average dielectric values of each sensor along Route 1, South Bound, Travel Lane. Station 937+00 - 948+00.

Lower dielectrics near the shoulder joint are displayed in blue.

