

Title: Correlating Laboratory Behavior of Porous Concrete to Field Performance

SPR No: 717

Project Description: The intent of this research initiative is to extend current porous pavement research by monitoring new porous concrete parking lots that have been installed in Vermont (e.g. one near ECHO in Burlington and one near Burlington International Airport). Infiltration capacity of these parking lots will be monitored similar to the Randolph facility. Additional hydraulic and freeze-thaw durability laboratory tests will be performed using mix designs from these parking lots. The mix design for the airport parking lot used fly ash, and hence, is quite different than the one used for Randolph. Additionally, a study will be conducted to correlate results from falling head permeability tests on porous concrete cores to the results of single and double ring infiltrometers used to measure infiltration on porous concrete slabs. This correlation will be very useful in porous concrete design process because it will correlate laboratory hydraulic conductivity measurements to field infiltration measurements.

Start date: 2010

End date: 2011

Status: ☒ Active ☐ Inactive ☐ Completed

Total Dollars: \$50000

Index Terms: ☐ Administration ☐ Bridges ☐ Construction ☒ Environment
☐ Geotechnical ☐ Maintenance ☒ Materials ☒ Pavements ☐ Safety ☐ Traffic ☐ Transit

Sponsor Organization

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Subjects: Porous Concrete, Pavement,
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