VERMONT
AGENCY OF TRANSPORTATION

FACT SHEET

2017 Research Symposium & STIC Annual Meeting

Experimental Features

RESEARCH PROJECT TITLE
Experimental Features

STUDY TIMELINE
Pre-1980's -Present

VTRANS CONTACT(S)
Jonathan Razinger, Research Engineer
Emily Parkany, Research Manager

MORE INFORMATION
Many Experimental Feature Field Reports and Final Reports are found here:
http://vtrans.vermont.gov/docs/completed

This fact sheet was prepared for the 2017 VTrans Research Symposium & STIC Annual Meeting held **on September 28, 2017** at National Life in Montpelier, VT. 8:00 am– 12:00 pm.

Fact sheets can be found for additional projects featured at the 2017 Symposium at http://vtrans.vermont.gov/planning/research/2017symposium

Additional information about the **VTrans Research Program** can be found at http://vtrans.vermont.gov/planning/research

Additional information about the **VTrans STIC Program** can be found at http://vtrans.vermont.gov/boards-councils/stic

U.S. Department of Transportation Federal Highway Administration

Introduction

This Research Section activity is used to evaluate experimental features and products on VTrans projects and installations. This includes installation or application, field monitoring and data collection, testing, photographic analysis and preparation of interim and final reports on the methods chosen. Publication or transmittal of experimental results will be sent to interested and participating Federal and State Agency units.

What was done?

In FFY17, the Research Section completed work plans for new projects about Utilization of Shredded Tires for Underdrain Applications and Installation, Maintenance and Performance Study of Porous Asphalt in Northern Climates at the Randolph Park and Ride. We released two field reports, one about using GPR to detect shear bolts in bridges and one on the performance of the Brookfield RAS Gravel road. Other experimental features projects include:

- Pavement marking studies on I-89 Brookfield - Montpelier and in Berlin Route 302
- X-Lite guardrail terminal
- Jahn mortar study on the Taftsville Covered bridge
- Bridge in a Backpack used in Bridge 48 in Farfield
- Three bridge deck membrane projects in St. Johnsbury, Waterford, and Warren
- Fiber Reinforced Polymer (FPR) strips on Bridge 98 in Swanton


Bridge in a Backpack, Fairfield

Conclusion or What are the next steps?

The research section tries to visit each Experimental Feature location once a year and follow the Testing Plan outlined in the Work Plan. Site visits are followed up with a field report. After all the necessary data is gathered from a particular Experimental Feature a final report is written approximately 3-5 years after the project is initiated.

What are potential impacts? What is the benefit to VTrans?

It is important to learn whether these innovative products, technologies, or materials do well in VTrans applications given Vermont's status as a small State and extreme weather conditions. If the product or material is not successful and everything has been appropriately documented, then FHWA will provide funding for a traditional replacement. The experimental feature program allows for innovation with reduced risk to the Agency.