

## NCHRP 20-44(26) Demo Project Vermont AOT Asphalt Rubber Chip Seal

### Project Overview

This project involved the application of an asphalt rubber chip seal to 20.04 miles of Vermont Route 12A from Randolph to Northfield. The route has one lane of traffic in each direction with an average daily traffic count of less than 2000 vehicles. Most sections were last previously paved as part of reconstruction work in the 8 to 10 years prior to the placement of the asphalt rubber chip seal and were still in good overall condition.

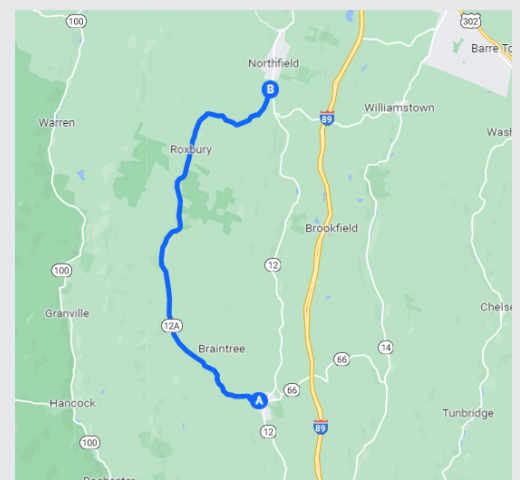
Vermont AOT had not completed a chip seal project in approximately 10 years and did not have an existing specification in place. Working with the ETF and neighboring state DOTs, they developed a specification that incorporated a mix of the new AASHTO specifications and regional best practices. Once the project was bid and awarded, a training session was coordinated with the ETF to provide additional support for the agency during the construction of the project.

The project scope included minor roadway preparation of shim leveling, crack sealing, and pavement marking eradication before the placement of the asphalt rubber chip seal. The chip seal utilized a hot applied asphalt rubber binder (ASTM D6114 Type II) placed at an average of 0.60 gal/sy with a heated and pre-treated 7/16" cover aggregate. Sweeping was completed immediately behind the rolling operation. Overall the project yield excellent results and the agency will be monitoring the project and exploring more projects utilizing the specification in the future.



### Project Details At-a-Glance

<b>Agency:</b>	Vermont AOT
<b>Route/Location:</b>	VT Route 12A
<b>Area/Length:</b>	20.04 Miles (Randolph to Northfield)
<b>Traffic:</b>	1000-2000 AADT
<b>Pre-Condition:</b>	Good Condition (IRI from 50 to 100)
<b>Completion Date:</b>	September 2022
<b>Materials:</b>	ASTM D6114 Type II asphalt binder 7/16" pre-treated cover aggregate
<b>Application Rates:</b>	Asphalt - 0.60 gal/sy Aggregate - 35 lbs/sy
<b>Weather:</b>	60-75° F, overcast to full sun







Pre-existing condition of the roadway



Application of the asphalt rubber binder



Application of the 7/16" cover aggregate



Rollers following directly behind the chip seal application



Close up of the chip seal surface after sweeping



Completed and striped chip seal surface