

# VT Agency of Transportation: Highway Safety & Design Section FY 2022 Paving Program Budget

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House Transportation Committee – January 28, 2021

Presented by: Jesse Devlin, Highway Safety & Design Program Manager





# Paving Program General Overview

JANUARY 28, 2021

VT AGENCY OF TRANSPORTATION – HIGHWAY SAFETY & DESIGN SECTION  
FY2022 PAVING PROGRAM BUDGET



# VTrans' mission is to provide for the safe and efficient movement of people and goods:

- The pavement design group is responsible for the development and delivery of plans, specifications, and estimates for projects that are focused on preserving and improving our roadway surfaces.
- The projects contained within the Paving Program address safety, mobility, and asset condition, which directly contributes to meeting our mission.

The pavement design group consists of seven team members; comprised of project managers, engineers, and technicians.

In addition to the development of projects, the team has a great deal of responsibility including but not limited to:

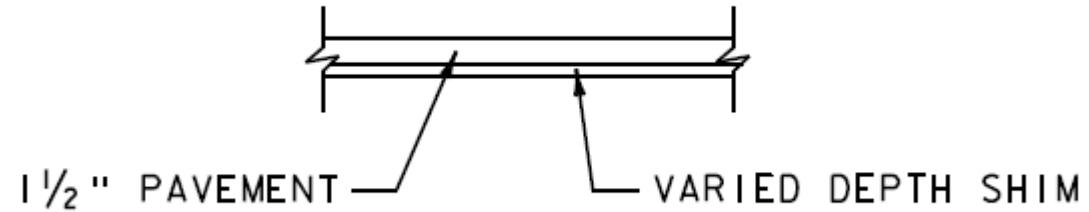
- **Fiscal responsibility:** *oversight of individual project and program budgets*
- **Customer Service:** *point of contact throughout a project's development*
- **Quality:** *ensure that the design meet's the intent of the project*
- **Schedule:** *on time delivery of a project*

# 2020 PAVING PROGRAM ACCOMPLISHMENTS

- The pavement design group advertised 23 projects for construction
- Of the projects anticipated to be advertised in 2020, 92% were advertised within 30 days of their targeted advertisement date.

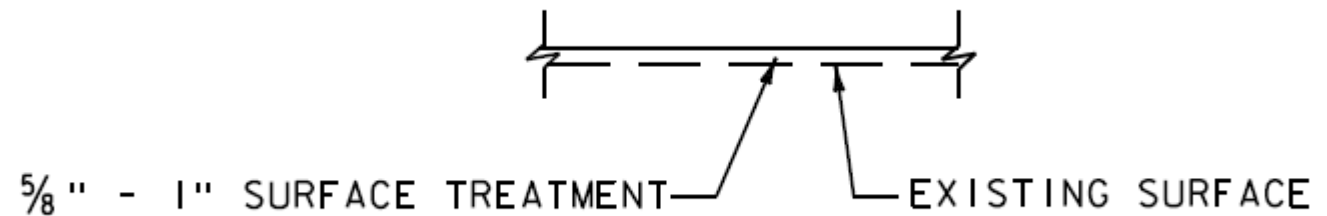


# PAVEMENT TREATMENTS



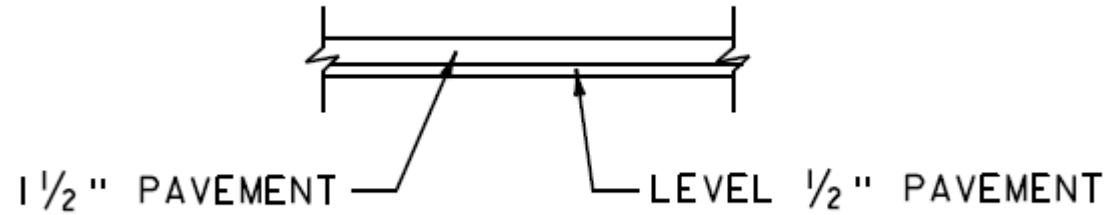
**District Leveling:** \$125,000 - \$175,000 per mile

**Federal Leveling:** \$200,000 - \$300,000 per mile

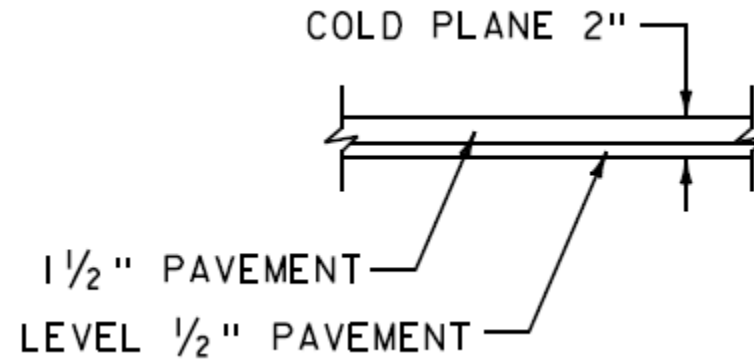


**Preventative Maintenance:** \$150,000 - \$250,000 per mile

# PAVEMENT TREATMENTS



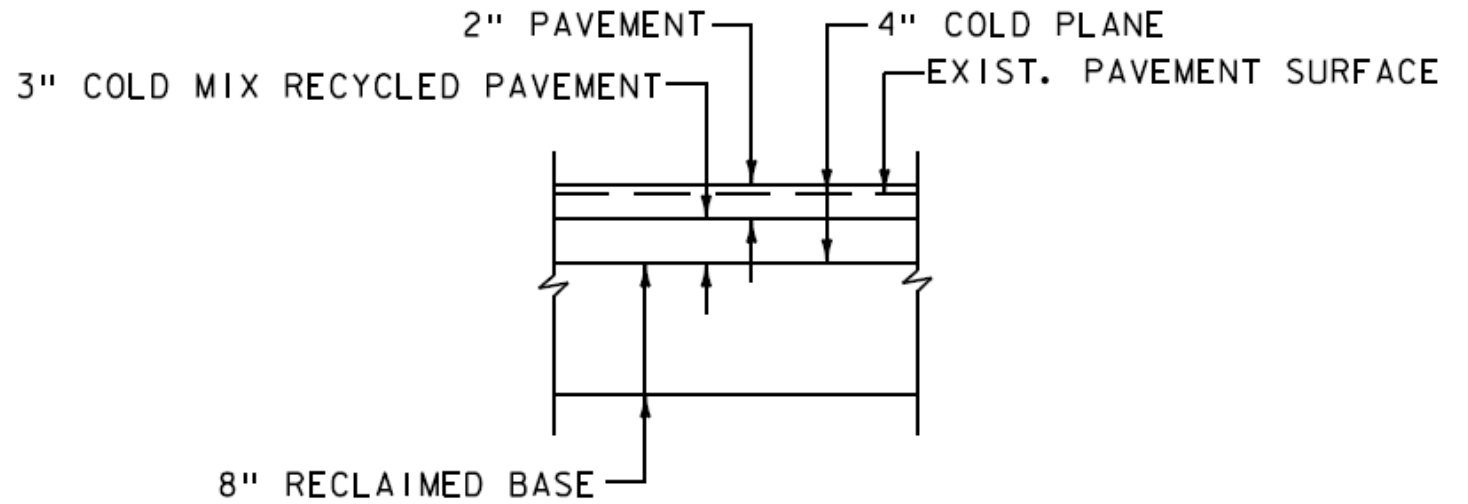
**Level & Overlay:** \$300,000 - \$400,000 per mile



**Mill & Fill (State System):** \$400,000 - \$500,000 per mile

**Mill & Fill (Class I TH):** \$750,000 - \$1,500,000 per mile

# PAVEMENT TREATMENTS



**Reclaim:** \$1,500,000 - \$2,000,000 per mile



Assets are the physical elements of the transportation system, such as pavements, bridges, culverts, guardrail, signs, and traffic signals. The VTrans works to keep assets in a state of good repair, and balancing the costs associated with doing so, across various asset types.

Regarding pavement condition, VTrans collects updated network level pavement data, the condition of the roadway is rated based on rutting, cracking, and roughness. This information is utilized, considering budget and traffic volumes, to identify projects and pavement treatments that serve to improve the condition of the network as a whole.

## PROJECT SCOPE DEFINITION



- Culvert replacement
- Shoulder widening
- Pavement markings
- Pedestrian crossings
- Slope stabilization
- Guardrail improvements
- Centerline rumble stripe installation
- Intersection layout improvements
- Signage updates and/or improvements

## ASSET & SAFETY IMPROVEMENTS

**Scope:** This project is a 7.7 mile “reclaim” project on VT Route 100 between Stowe and Morrystown. In addition to improving the roadway surface, work will include culvert replacement, centerline rumble stripe installation, and realignment of the Randolph Road intersection.

**Construction Cost Est:** \$11.8 Million

**Project Status:** Construction of this project is ongoing and is anticipated to be completed in Summer of 2021.



# STOWE-MORRISTOWN STP PS19(3) – VT ROUTE 100

**Scope:** This project is a 1.9 mile Class 1 mill and fill project on VT Route 4A and VT 133 in West Rutland. In addition to improving the roadway surface, work included the installation of pedestrian/bicycle features, upgrading signs, and ditching improvements.

**Construction Cost Est:** \$2.04 Million

**Project Status:** Construction of this project was completed in Fall of 2020.



## WEST RUTLAND STP PC19(6) – CLASS 1 –VT ROUTE 4A

# FY 2022 PAVING PROGRAM

- Appropriation of \$120.5 million
- Increase of \$14.7 million compared to the FY 2021 Paving Program budget
- Includes \$16.9 million of COVID Relief FHWA funding
- Includes three primary project phases
  - Preliminary Engineering (design activities)
  - Right-of-Way (acquisition of property and/or easements)
  - Construction
- Budget will fund construction of 43 paving projects and 2 crack sealing projects, and will fund the preliminary engineering and/or right-of-way acquisition on an additional 22 projects

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140 Miles to be paved on the Interstate, State, and Class I system

98 Miles to be paved under Federal and District leveling on the State system

\* Anticipated mileage noted above is associated with calendar year 2021

**Scope:** This project is a 12.6 mile “reclaim” project on VT Route 9 between Wilmington and Brattleboro. In addition to improving the roadway surface, work will include shoulder widening, slope stabilization, centerline rumble stripe installation, installation of pedestrian/bicyclist features, and geometric improvements.

**Construction Cost Est:** \$26.9 Million

**Project Status:** Project is anticipated to be advertised for construction in Spring of 2021, with primary construction activities occurring in calendar years 2021 and 2022.



## WILMINGTON-BRATTLEBORO NH 2971(1) – VT ROUTE 9

# 19 V.S.A. 10g(g)(1) Report compiles projects that have been added to the program subsequent to the FY21 program

These projects were primarily programmed due to the current condition of the asset

- BRIDPORT-CORNWALL STP FPAV(45) – VT 125
- GEORGIA-ST. ALBANS TOWN STP FPAV(40) – US 7
- HALIFAX-WHITINGHAM STP FPAV(47) – VT 112
- LUDLOW NH PC25(4) – VT 103 CLASS 1
- LUDLOW STP PC25(3) – VT 100 CLASS 1
- LUDLOW-BRIDGEWATER STP FPAV(46) – VT 100
- LYNDON-BARTON IM 091-3(55) – I 91
- PLAINFIELD-EAST MONTPELIER STP FPAV(38) – VT 214
- PLYMOUTH-BRIDGEWATER STP FPAV(44) – VT 100A
- SHELDON-FRANKLIN STP FPAV(41) – VT 120
- STOCKBRIDGE-ROCHESTER STP FPAV(42) – VT 100
- TROY-NEWPORT TOWN STP FPAV(43) – VT 100
- WASHINGTON-BARRE TOWN STP FPAV(37) – VT 110
- WESTON STP FPAV(39) – VT 100

## 19 V.S.A. 10g(g)(1) REPORT SUMMARY

## 19 V.S.A. 10g(g)(2) Report compiles projects that have increased by more than \$8,000,000 or by more than 100% from the estimate in the FY21 program

- EAST MONTPELIER-MARSHFIELD NH PS22(1) – US 2 – Increase by more than 100% (\$3.9 million) - The initial estimate in the FY21 budget was a programming level estimate and was underestimated. The current estimate reflects the proposed treatment and design progress.
- HARTFORD NH PS24(3) – US 5 – Increase by more than 100% (\$1.2 million) – The initial estimate in the FY21 budget was a programming level estimate and was underestimated. The current estimate reflects the proposed treatment and design progress.
- MORRISTOWN STP 2920(1) – VT 15A - Increase by more than 100% (\$1.3 million) – The initial estimate in the FY21 budget was a programming level estimate and was underestimated. The current estimate reflects the proposed treatment and design progress.
- RICHFORD-JAY STP 2914(1) – VT 105 - Increase by more than 100% (\$7.3 million) – The project’s development resulted in a refined plan submittal and estimate revision shortly after the FY21 budget. This estimate including the defined treatment as well as the inclusion of a railroad/highway crossing and ledge remediation. These changes are reflected in the estimate included within the FY22 estimate.
- WILMINGTON-BRATTLEBORO NH 2971(1) – VT 9 - Increase by more than 100% (\$13.7 million) - The project’s development resulted in a refined plan submittal and estimate revision shortly after the FY21 budget. This estimate including the defined treatment as well as the inclusion of pedestrian features, geometric modifications, as well as accommodations for the project typical section. These changes are reflected in the estimate included within the FY22 estimate.
- WINOOSKI NH PC21(2) – US 7 - Increase by more than 100% (\$2.9 million) – The initial estimate in the FY21 budget was a programming level estimate and was underestimated. The current estimate reflects the proposed treatment and design progress. The scope of this project is unique, and the Agency has limited recent bid history.

## 19 V.S.A. 10g(g)(2) REPORT SUMMARY



## 19 V.S.A. 10g(g)(3) Report compiles projects that were funded for construction in the FY21 program and are no longer funded for construction in the FY22 program

All projects that are listed on this report have completed construction or will be complete by the end of the current fiscal year.

- BRANDON STP PC19(7) – VT 73 CLASS 1
- BRISTOL STP PC20(2) – VT 116 CLASS 1
- BURLINGTON-SOUTH BURLINGTON IM 189-3(78) – I 189
- FAIR HAVEN STP PC19(2) – VT 22A
- LONDONDERRY-CHESTER STP PS19(10) – VT 11
- MANCHESTER-DORSET STP PS19(9) – VT 30
- MORETOWN STP PS20(1) – VT 100B
- NEW HAVEN-BRISTOL STP PS19(8) – VT 17
- RICHMOND-COLCHESTER IM SURF(63) – I 89
- STOWE STP PC19(5) – VT 100 & VT 108
- UNDERHILL-CAMBRIDGE STP PS19(11) – VT 15
- VERGENNES STP PC20(1) – VT 22A
- WATERBURY STP PC20(5) – VT 100 & US 2
- WATERFORD-ST. JOHNSBURY STP FPAV(15) – VT 18
- WEST RUTLAND STP PC19(6) – VT 4A & VT 133
- WEST RUTLAND-RUTLAND STP FPAV(18) – BR US 4
- WILMINGTON-STRATTON STP PS19(7) – VT 100
- WINDSOR-HARTLAND STP FPAV(31) – US 5

# 19 V.S.A. 10g(g)(3) REPORT SUMMARY