

# VERMONT AGENCY OF TRANSPORTATION DISTRICT MAINTENANCE AND FLEET DIVISION

## OVERVIEW

---

ERNIE PATNOE, DIRECTOR- OPERATIONS

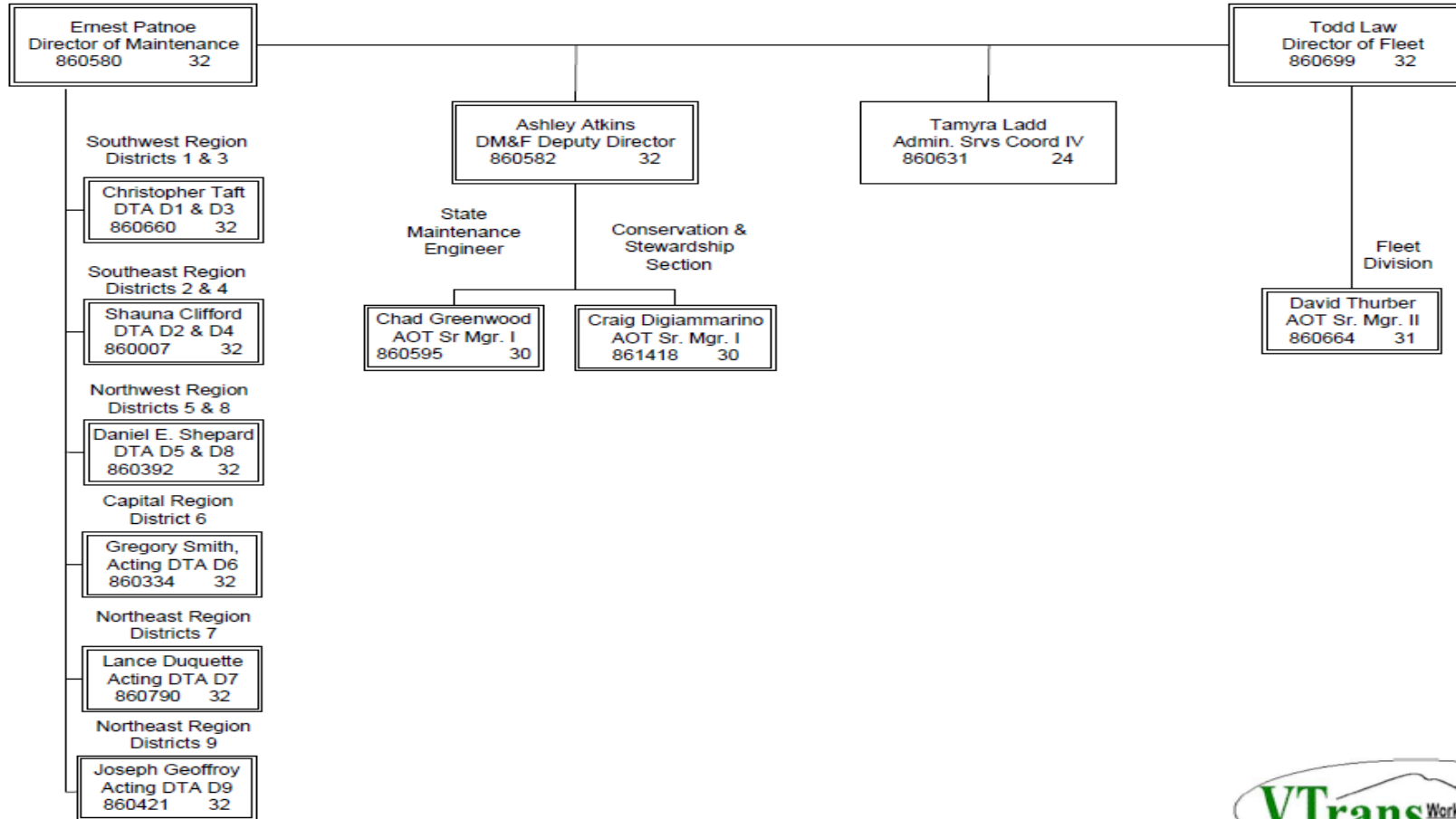
ASHLEY ATKINS, DEPUTY DIRECTOR

TODD LAW, DIRECTOR- FLEET

DAVID THURBER, FLEET MANAGER

# Agency of Transportation

## District Maintenance & Fleet Division Headquarters



FY25  
01/01/2025

# DISTRICT MAINTENANCE AND FLEET DIVISION

The **Agency of Transportation (VTrans)** has significant public investment in its transportation infrastructure. **District Maintenance and Fleet Division** – with over 500 employees – maintains the infrastructure and the vehicles and equipment necessary to perform the repairs and maintenance for the benefit of the traveling public. Our workforce is dedicated, hardworking and proud of what they do.

- **Maintenance Districts-** 9 Districts perform the activities that preserve the highway assets and provide for the safe and efficient movement of the customers who utilize our roadways. Some of the major activities performed by the maintenance district staff are: winter maintenance, pothole patching, leveling paving, tree cutting, technical assistance to the municipalities, and roadside mowing.
- **Fleet Maintenance-** VTrans Fleet purchases, maintains and administers the Agency's fleet of vehicles and equipment, using an internal service fund. Vehicles and equipment are rented to maintenance districts, Department of Motor Vehicles and other VTrans divisions.
- **Technical Services-** Is comprised of sections that perform maintenance of specialty assets such as storm water detention basins and permits, highway bridges, rail trail, temporary bridges for state and municipal use and emergency management for state and federal disasters.

# DISTRICT MAINTENANCE AND FLEET LEADERSHIP TEAM

Ernie Patnoe  
 Director- Operations  
 Tel: [\(802\)461-7840](tel:(802)461-7840)  
 Email: [ernie.patnoe@vermont.gov](mailto:ernie.patnoe@vermont.gov)

Todd Law, PE  
 Director- Fleet  
 Tel: [\(802\)839-0274](tel:(802)839-0274)  
 Email: [todd.law@vermont.gov](mailto:todd.law@vermont.gov)

Fleet Management  
 David Thurber,  
 Fleet Superintendent  
 Tel: [\(802\)793-0282](tel:(802)793-0282)  
 Email: [David.Thurber@vermont.gov](mailto:David.Thurber@vermont.gov)

Northeast Region  
 District 9  
 Joseph Geoffroy  
 Acting District Transportation Administrator  
 Tel: [\(802\)334-7934](tel:(802)334-7934)  
 Email: [joseph.geoffroy@vermont.gov](mailto:joseph.geoffroy@vermont.gov)

Ashley Atkins  
 Deputy Director  
 Tel: [\(802\)363-1182](tel:(802)363-1182)  
 Email: [ashley.atkins@vermont.gov](mailto:ashley.atkins@vermont.gov)

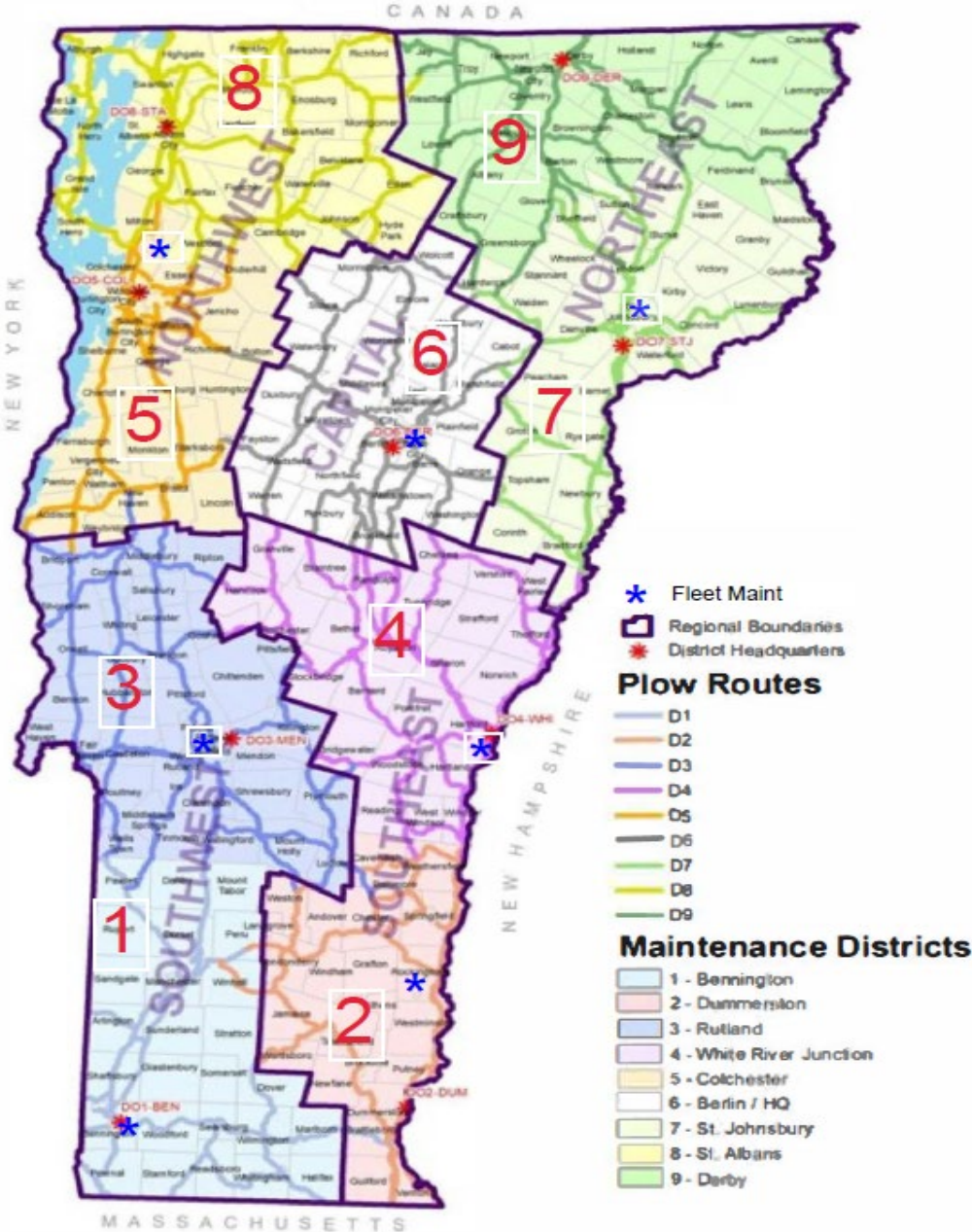
District 7  
 Lance Duquette  
 Acting District Transportation Administrator  
 Tel: [\(802\)748-6670](tel:(802)748-6670)  
 Email: [Lance.Duquette@vermont.gov](mailto:Lance.Duquette@vermont.gov)

Northwest Region  
 Daniel E. Shepherd  
 District Transportation Administrator  
 Tel: [\(802\)655-1580](tel:(802)655-1580)  
 Email: [Daniel.E.Shepard@vermont.gov](mailto:Daniel.E.Shepard@vermont.gov)

Capital Region,  
 Gregory A. Smith,  
 Acting District Transportation Administrator  
 Tel: [\(802\)241-0172](tel:(802)241-0172)  
 Email: [Gregory.A.Smith@vermont.gov](mailto:Gregory.A.Smith@vermont.gov)

Southwest Region,  
 Christopher Taft  
 District Transportation Administrator  
 Tel: [\(802\)447-2790](tel:(802)447-2790)  
 E-mail: [Christopher.Taft@vermont.gov](mailto:Christopher.Taft@vermont.gov)

Southeast Region  
 Shauna Clifford  
 District Transportation Administrator  
 Tel: [\(802\)254-5011](tel:(802)254-5011) / [\(802\)295-8888](tel:(802)295-8888)  
 Email: [Shauna.Clifford@vermont.gov](mailto:Shauna.Clifford@vermont.gov)



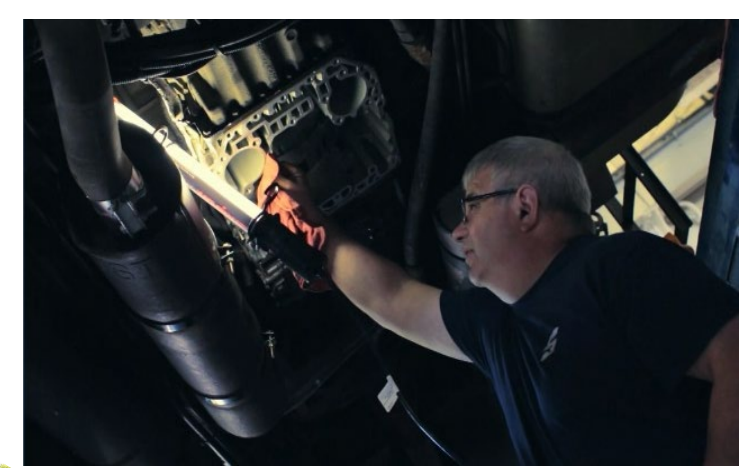
# DISTRICT MAINTENANCE CONTINUED

**Technical Services**-Bridge Maintenance, Pollution Prevention and Compliance, Geographic Information Systems(GIS), Emergency Recovery Programs and Special Projects are all captured in the Technical Services section and provides a great deal of support to the District Maintenance staff to meet the maintenance needs.

- o **Bridge Maintenance**- Provides technical assistance and design of highway structures including bridges and large culverts. Also provide guidance and assistance to municipalities on the municipal owned structures. Oversee the AOT temporary bridge inventory for state and municipal needed temporary bridges.
- o **Conversation & Stewardship Section**- Provides administration over environmental regulatory compliance and natural resource protection for the Agency. The Section ensures compliance under various federal and state environmental regulatory programs including stormwater, rail trail, and vegetation management.
- o **GIS**- Provides asset inventories and disaster tracking by use of geo-spatial means to provide insight into the conditions of our highway assets and to provide timely information to the Agency and Statewide leadership during emergency situations where damages occur on Vermont transportation systems.

# WHAT DO WE DO?

- Winter Maintenance
- Emergency Response/ Mitigation
- Picking Litter
- Sweeping
- Mowing & Vegetation Management
- Pothole Patching
- Ditching
- Sign Installation And Repairs
- Bridge Washing, Repairs, Rehab Projects and Temporary Bridges
- Guardrail Repairs
- Tree And Brush Cutting
- Culvert Maintenance, Repair And Rehabilitation
- Technical Assistance To Towns
- Fleet Management And Maintenance
- Stormwater Compliance
- Rail Trail
- Subsurface Exploration (Drill Crew)



Last Refresh On: 1/23/2025 7:00:57 ...

### Vermont Agency of Transportation Winter Maintenance Activities (Does not include Equipment) Total Cost

# \$18,967,097

District: All

Garage: All

Activity: All

Date: 7/1/2023 - 6/30/2024

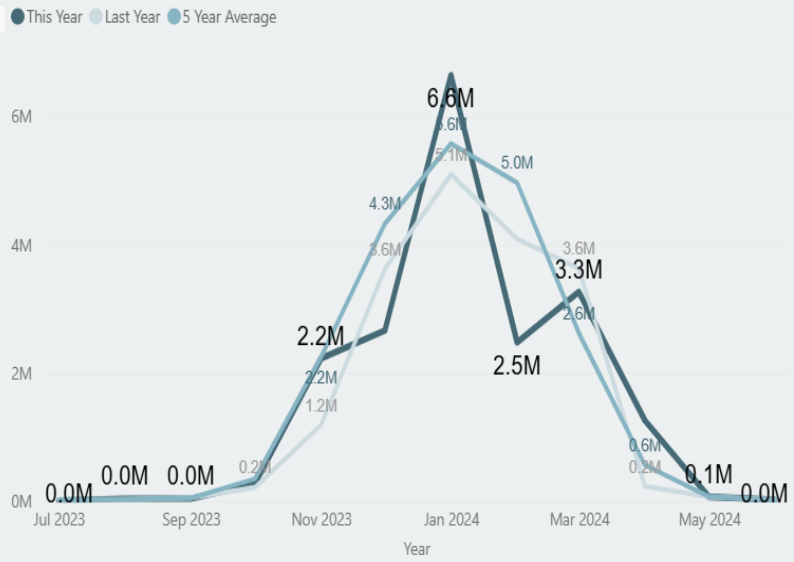
Hover over the date slicer and click the eraser icon to reset.

- Cost
- Hours
- Liquid De-Icer
- Liquid Salt
- Miles
- Overtime
- Salt
- Sand

Dimension: Cost | Quantity

Style: Total | Running Total

## 2024 Cost



Lane Miles: 1,529,245

Hours: 346,534

Overtime Hours: 76,220

Salt (Tons): 109,157

Liquid Salt (Gallons): 1,014,848

Liquid De-Icer (Gallons): 57,503

Sand (Cubic Yards): 1663



# Program Highlights:

## Maintenance by the Numbers

- 506 Employees
- 374 Licensed CDL Drivers
- 64 Garages
- Total acres of mowing: 17,327
- Total lane miles plowed: 1,529,245
- Total linear feet of guardrails repair: 15,117
- Total tons of litter picked up: 535
- Total linear feet of ditching: 14,551
- Total bridges washed: 628
- Total linear feet of culvert installed: 5,488

### Salt Usage:

- FY 24 Salt - 109,157 Tons
- FY 23 Salt - 113,852 Tons
- FY 22 Salt - 125,354 Tons
- 5 Year Average Salt - 118,834 Tons

### Salt Price Averages:

- FY 24 - \$86.00
- FY23 - \$84.50
- FY22 - \$60.74

# Bridge Maintenance Program

The Bridge Maintenance Program strives to preserve, maintain, and operate a bridge maintenance program in conjunction with our transportation system in the most cost effective and efficient manner. To have and maintain a successful bridge maintenance program seeking a balanced approach to preservation and rehabilitation/replacement.

22 Bridge Inspection Findings were issued in 2024

5 Bridge Inspection Findings were issued in 2023

13 Bridge Inspection Findings were issued in 2022

10 Bridge Inspection Findings were issued in 2021

The Bridge Maintenance Unit designs, advertises projects and provides construction oversight for projects generated from the Bridge Inspection Findings, District Findings or other assigned projects.

Fiscal Year	Number of Projects	Total Project Cost
2021	37	\$8,617,688
2022	36	\$6,746,997
2023	26	\$5,277,085
2024	29	\$9,418,370
2025	25	\$11,947,042



# Bridge Maintenance Program

- **Currently there are 30 temporary bridges in service totaling 2,430 linear feet**
  - 1670 linear feet of Single Lane deployed
  - 760 linear feet to Two Lane deployed
  - 170 linear feet of Single Lane has been committed for future deployment
- **Many of those have been in service for five or more years and require constant routine maintenance or replacement of parts.**
- **The Agency uses both the Acrow 700XS Modular Bridging System and Mabey Compact 200 Bridge System.**
- **These systems are not interchangeable so they are housed in different locations. The Acrow inventory is located at the District Garage in Dorset and the Mabey inventory is located at the District Garage in Middlesex.**

- Barnet
- Bethel (2)
- Cabot (2)
- Chelsea
- Chester
- Colchester
- Cornwall
- Dorset
- Greensboro
- Hardwick
- Irasburg
- Jamaica
- Lyndon (2)
- Lamoille Valley Rail Trail (2)
- Marshfield (4)
- Plainfield
- Randolph
- St. Johnsbury
- Stowe
- Troy
- Vershire
- Washington
- Wolcott



**Lyndon (Red Village Road)**



**Chelsea (VT110)**

# Northfield BM24602

**Description of Work:** Concrete repairs to the joint headers at Abutment #1

**Contractor:** Engineers Construction, Inc.

**Contact Amount:** \$360,035.00



Before



After

# Newbury BM24703

**Description of Work:** Removal of existing bridge pavement, concrete repairs to the deck, joint replacement at Abutment #2, install membrane and re-paving the bridge deck with associated approach work and other concrete repairs as detailed in the plans.

**Contractor:** Winterset Construction

**Contact Amount:** \$849,000.00



Before



After

# Rockingham NH CULV(66)

**Description of Work:** Rehabilitation of the existing 120 inch diameter CGMMP and channel improvements.

**Contractor:** Cold River Bridges, LLC.

**Contact Amount:** \$1,116,750.00



Before



After

# Brattleboro BM24204

**Description of Work:** Concrete repairs to the curb and fascia so the bridge can be used to maintain traffic during future replacement of BR4N.

**Contractor:** Daniels Construction

**Contact Amount:** \$830,773.00



Before



After

# CONSERVATION & STEWARDSHIP SECTION

Promotes natural resource protection and compliance with environmental regulations applicable to transportation projects, facilities, and infrastructure while encouraging sustainable means to managing long-term maintenance and stewardship of transportation assets and environmental commitments. Programs under [Conservation & Stewardship Section](#) include:

---



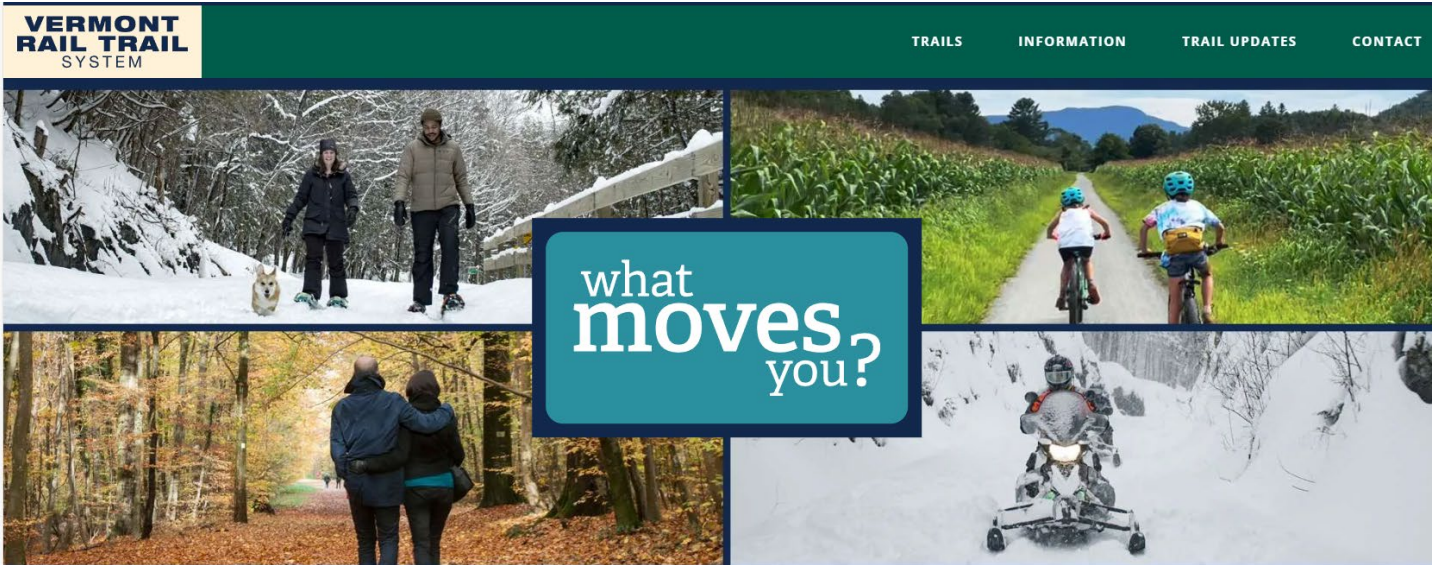
- [Pollution Prevention & Compliance Program](#)

- [Water Quality – Stormwater Unit](#)

Provides regulatory oversight and technical assistance associated with stormwater permitting and management on VTrans facilities, striving to ensure proper design, construction, operation, maintenance, and regulatory compliance with Federal and State Water Quality Standards and Stormwater Management Rules, Regulations, and Laws.

- [Roadside Vegetation Management Unit](#)

Oversees management and implementation of the pesticide program and advising District maintenance staff on state roadside vegetation management activities including, tree and brush, mowing, terrestrial invasive species, riparian buffer, promoting wildlife connectivity, reducing vehicle-wildlife conflict, protecting threatened and endangered species and their habitat(s), promoting pollinator habitat and addressing other vegetation management related operations along and within state-owned Rights-of-Way (ROW) and at Maintenance Facilities.



# Rail Trail Program

---

Vermont's Rail Trails are four-season, multi-purpose recreation and transportation corridors across all parts of Vermont, connecting historic towns and villages with the treasures of the vast Vermont landscape by way of gently rolling, smooth ribbons of gravel pathways. Easy to access, use, and enjoy, Vermont's Rail Trails have something for everyone.

The Rail Trail Program manages Rail Trails to complement economic development efforts, improve user experience, provide connections to other existing and planned facilities, connect to communities along its length, and offer a range of transportation options, while establishing necessary asset maintenance and operational procedures to ensure Rail Trail continued functionality and enjoyment. [Rail Trail](#)

# Central Garage



Central garage is the fleet management section for the Agency of Transportation. Central Garage is AOT's advocate, caretaker and technical resource for mid-size and heavy-duty highway and bridge maintenance fleet assets, including multi-use plow and dump trucks and specialized heavy and construction equipment. Among these assets include 250 dump trucks, 96 pickups with plows, 35 medium duty trucks with plows, 55 loaders, and 5 graders. Central Garage also supports other Agency Divisions including Highway, DMV Commercial Vehicle Enforcement Section, Aviation and Rail, and Bridge Inspection equipment through intra-agency service agreements.



<b>Fund Source</b>	<b>FY 2025 AS PASSED</b>	<b>FY 2026 GOV REC</b>	<b>Increase (Decrease)</b>	<b>Percent Change</b>
<b>CENTRAL GARAGE FUND</b>	<b>23,551,235.00</b>	<b>24,931,564.00</b>	<b>1,380,329.00</b>	<b>6.4%</b>

	<b>FY2026 Equipment Budget</b>
<b>Transfer from TF</b>	\$1,668,551.00
<b>Depreciation</b>	\$6,786,275.00
<b>Surplus sales</b>	\$624,330.00
<b>Formula total</b>	\$9,079,156.00
<b>Less Rescission</b>	0
<b>FY2025 Equipment Budget</b>	\$9,335,623.52
<b>FY2026 Equipment Budget</b>	\$9,202,915.00
<b>FY2024 to FY2025 Increase (Decrease)</b>	(\$132,708.52)

<b>FY2026 Governor's Recommended Budget</b>		
Personal Services	\$5,783,146.00	
Operating Costs	\$10,668,492.00	
Equipment Costs	\$9,079,156.00	
<b>Total FY2026 Budget</b>	<b>\$25,530,794.00</b>	

Equipment Purchase Value:	\$53,528,964
Capital Improvements (upfitting):	<u>\$22,164,370</u>
<b>Total Replacement Cost:</b>	<b>\$75,693,334</b>
Depreciated Value:	\$29,873,134

# Fleet/ Equipment Value

# Typical Tandem Axle Plow Truck Cost

---

Based on FY2021 and FY2025 Purchase:

	FY21	FY25
Chassis Purchase Price:	\$113,583	\$146,000
Upfit Cost	\$ 81,030	\$140,000
Total Cost per Unit:	<b>\$194,613</b>	<b>\$286,000</b>

*47% increase in cost over 4-year period*

# AOT EV Fleet

- In 2005 the Agency added its first hybrid electric vehicle, a Honda Civic hybrid (HEV). The Agency's first plug-in hybrid (PHEV) a Chevy Volt, arrived in 2013. In 2017, AOT received the State's first fully electric (BEV) fleet vehicle and in 2022 introduced an electric motorcycle to the DMV Enforcement fleet, the first of it's kind in the nation.
- Today, the Agency's light-duty fleet, which consists primarily of trucks, sedans and utility vehicles includes (11) Ford F150 Hybrids , (6) Ford F150 Lightnings, (1) Ford Mach-E, (1) Volvo JL20 Compact Electric Wheeled Loader and (1) Volvo ECR25 Electric Mini-Excavator
- Ordered/ planned: (4) Ford F150 Hybrids, (1) Volvo JL25 Compact Electric Wheeled Loader, (1) Case 580EV Electric Backhoe, (1) Chevy Blazer EV and (7) Hyundai Sante Fe Hybrids
- The mini-excavator and compact loaders are much smaller than our normal equipment. (ie – loaders are used in satellite garages due to smaller bucket capacity and limited lift capabilities of the compact loader).





# AOT EV Fleet (CONT)

- Vermont Energy Investment Corporation was contracted to review the VTrans fleet to determine what vehicles could be transitioned to electric powered. Only 3 pick up trucks were identified as possible to be converted.
- In researching electric vehicle/ equipment availability for replacement of internal combustion models, we have quickly realized that the industry has not produced like-size equivalents that are electric models.
- We have also noted that we cannot obtain suitable replacements for trucks with plows at this time including light, medium and heavy-duty trucks.



Ernie Patnoe, Director of Maintenance  
[Ernie.patnoe@vermont.gov](mailto:Ernie.patnoe@vermont.gov) or 802-461-7840

Todd Law, Director of Fleet  
[Todd.Law@vermont.gov](mailto:Todd.Law@vermont.gov) or 802-839-0274