

Vermont Agency of Transportation

Statewide Pavement Marking Inventory Manual

PHASE I DATA COLLECTION



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TABLE OF CONTENTS

Contents

<u>INTRODUCTION</u>	2
<u>DATA COLLECTION</u>	3
<u>FEATURE ATTRIBUTES</u>	4
<u>LINE STRIPING</u>	4
LINE TYPE EXAMPLES	6
<u>STENCILS</u>	9

INTRODUCTION

The Agency is responsible for the maintenance of all Pavement Markings statewide to include Stencils and Line Striping on all state maintained routes and only Double Yellow barrier line striping within class I limits. Even though the agency contracts out most of its pavement marking work, it is our responsibility to maintain inventory of all pavement markings along our roadway. This is the first time that the agency has conducted a large scale statewide movement marking inventory and will be considered Phase I of a multi phased approach to maintaining this inventory.

DATA COLLECTION

Desktop Computer Data Collection Using Web Map Application

1. Open ArcGIS Online at www.arcgis.com/home/signin.html
 - a. For new user request please email AOT.GISandDocMgmt@vermont.gov
 - b. For username or password assistance use links below Sign-in button.
2. Once logged in type **"Pavement Marking"** into search bar at top right of page then press **Enter** on keypad.
3. Within Search Results click on **Apps** under content list to left of page.
4. Click on Pavement marking image to open app.
5. Zoom in by scrolling wheel or double clicking on mouse.
6. Click the edit tab  in the top left of screen to start creating features.
7. Within the Edit window, select the Line Type you are interested in collecting.
Note: See Figure's below for Line Type examples.

Recommendations

1. Start with the Line Striping before the stencils. That way when you draw your stencils your polygon will be less likely to overlap a line.
 - a. **Note:** Use your best judgment when using the background imagery as a reference for collecting pavement markings due to fact that imagery quality and image date will differ statewide and pavement markings may be warn.
 - b. When digitizing (drawing or editing) features within the web map app, it is good practice to stick with a minimal amount of map scales (zoom levels) in order to eliminate various accuracy differences in the data. For instance when editing a larger less detailed feature like edgelines on the interstate, a good map scale to be digitizing at is 60ft, which is displayed in lower left corner of window.
 When digitizing more detailed features like Painted Islands and Stencils it may be more logical to zoom in and digitize at 40ft.
2. Class I Highways symbolized in red and MATS District Mileage GIS layers have been added to the map for reference so you can tell when to stop collecting Stencils and Painted Islands and only collect Barrier Line. Use the Maintenance MATS Stencil layer if you believe there should be a stencil in that location but visual references (Google Maps, iVision) do not show any markings.

Reference Layers

Milepoints 1 Mile
Milepoints Half Mile
Milepoints Tenth Mile
State Long Structures
State Short Structures
VTrans Highway Shields
ROW Lines
District Boundaries
Town Boundaries

Additional Reference Layers

Class 1 Highways
District Mileage
LRS 2016 ETE
Maintenance MATS Stencil

FEATURE ATTRIBUTES

This is the information recorded for each Pavement Marking feature inventoried. Feature Attributes are displayed within Pop-up Windows upon creating new features within Web Map, Collector App or by selecting existing features within the map. Many of the pavement markings will be difficult or impossible to inventory due to the lack of updated aerial imagery, video log or marking condition.

Line Striping

Route (Text) –

Records route that line striping is located.

Town (text menu) – Records the Town line striping is located.

Line Type (text menu) - Records the pavement marking line type.

Center Line

Lane Line

Climb Lane Line

Double Yellow Barrier

Channelizing Line

Edgeline

Dotted Extension

Wide Solid White Lane Line

Dashed Suicide Lane Line

Wide Dotted Extension

Stop Bar

RR Stop Bar

Other

Width (text menu) - Records the width of painted line in inches.

4

6

8

12

Color (text menu) - Records the color of painted line.

White

Yellow

Comment (text field) –

230 character text field for any additional notes.

Length_Feet (numeric) -

Automatically records the length of painted line in feet through overnight process.

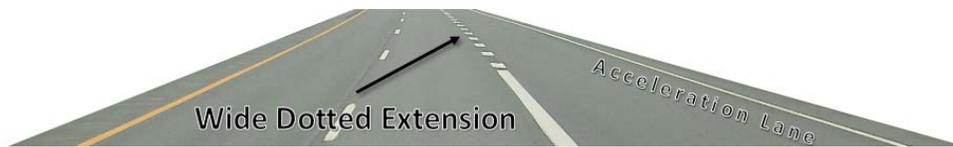
AssetSysID (text field) -

Records the MATS AssetSysID in order to relate GIS features with MATS database records.

LINE TYPE EXAMPLES









Stencils

Route (Text) –	Records route that line striping is located.
Town (text menu) –	Records the Town line striping is located.
Line Type (text menu) -	Records the pavement marking line type.
Crosswalk	
Through Lane-Use Arrow	
Turn and Through Lane-Use Arrow	
Turn Lane-Use Arrow	
Wrong-Way Arrow	
Lane-Reduction Arrow	
YIELD AHEAD Triangle Symbol	
Painted Island	
Do Not Block Painted Island	
STOP Text	
STOP AHEAD Text	
ONLY Text	
Bike Symbol	
SCHOOL Text	

SCHOOL X-ING text

YIELD text

YIELD AHEAD Text

SIGNAL AHEAD Text

PED X-ING text

R X R Text

STATE ROUTE Text

US ROUTE Text

INTERSTATE Text

BIKE Text

Handicap Symbol

THRU TRAFFIC Text

BUS STOP Text

BUS ONLY Text

Two Turn Lane-Use Arrow

U-Turn Arrow

White Chevrons

ALL TURNS Text