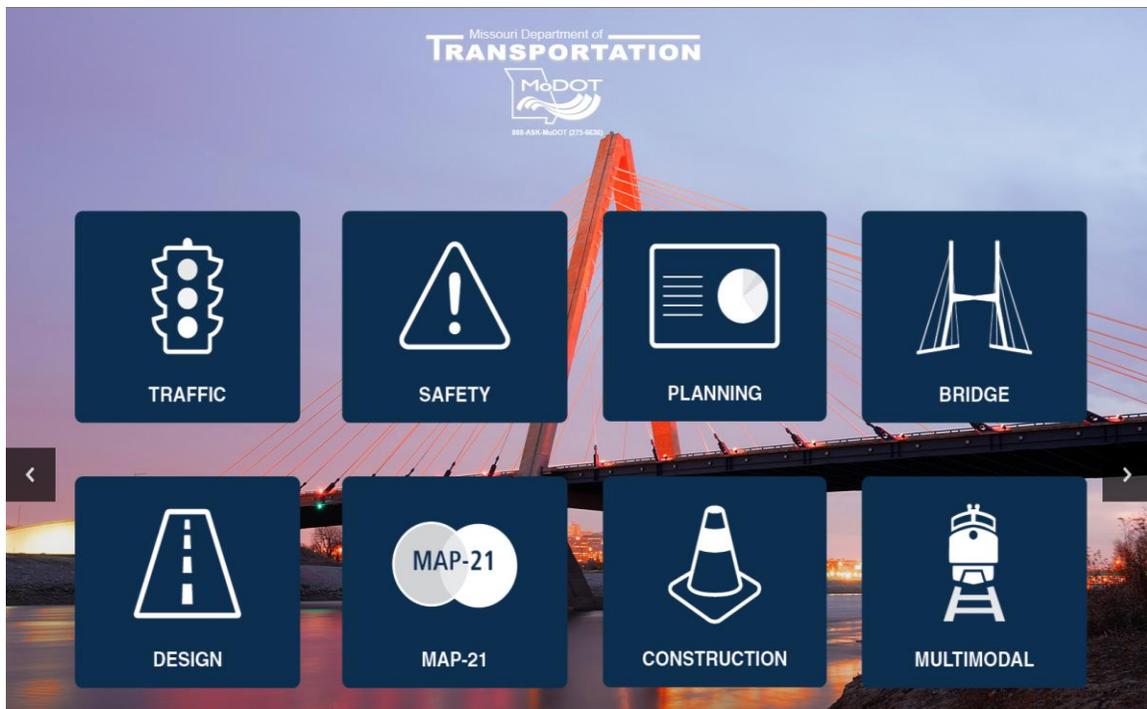


Data Zone Training Manual

Sign Location and Inspection Map



Revised

July 2016

TRANSPORTATION PLANNING

105 West Capitol Avenue
P.O. Box 270
Jefferson City, MO 65102
TMS Help Desk (573) 526-8055
or (573) 522-8464



Contact Numbers

Following is a list of contact numbers if you have questions regarding the material covered in this manual.

TMS HELP DESK:

Jeannemarie LeBeau	(573) 526-8055
Yvonne Wilbers	(573) 522-8464

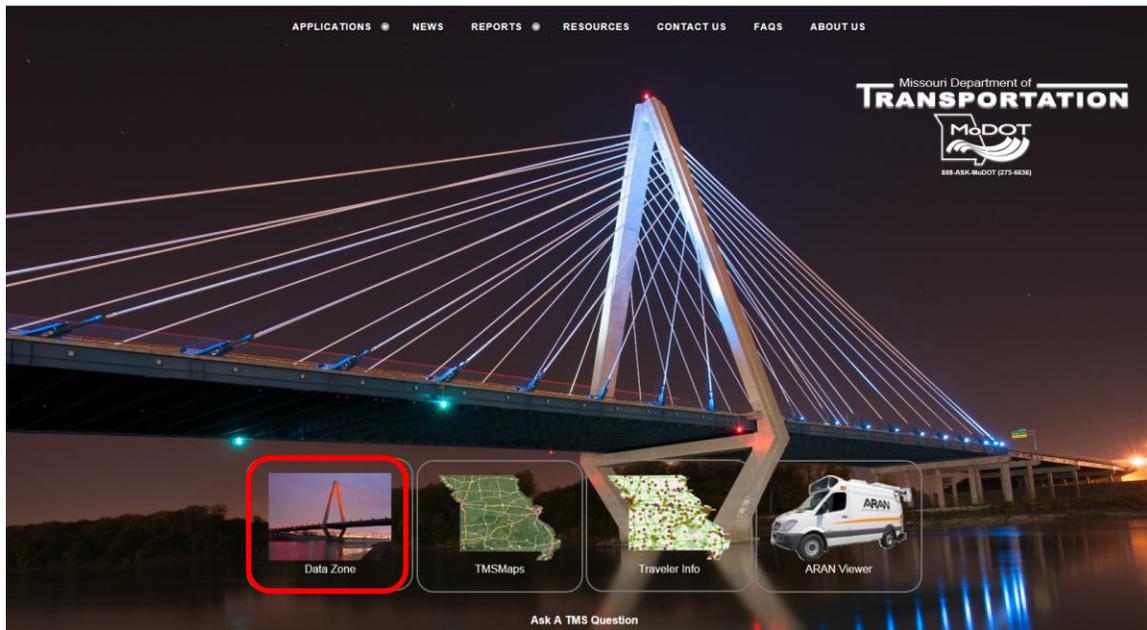
AFTER HOURS CONTACT:

Information Systems Help Desk	(573) 751-5000
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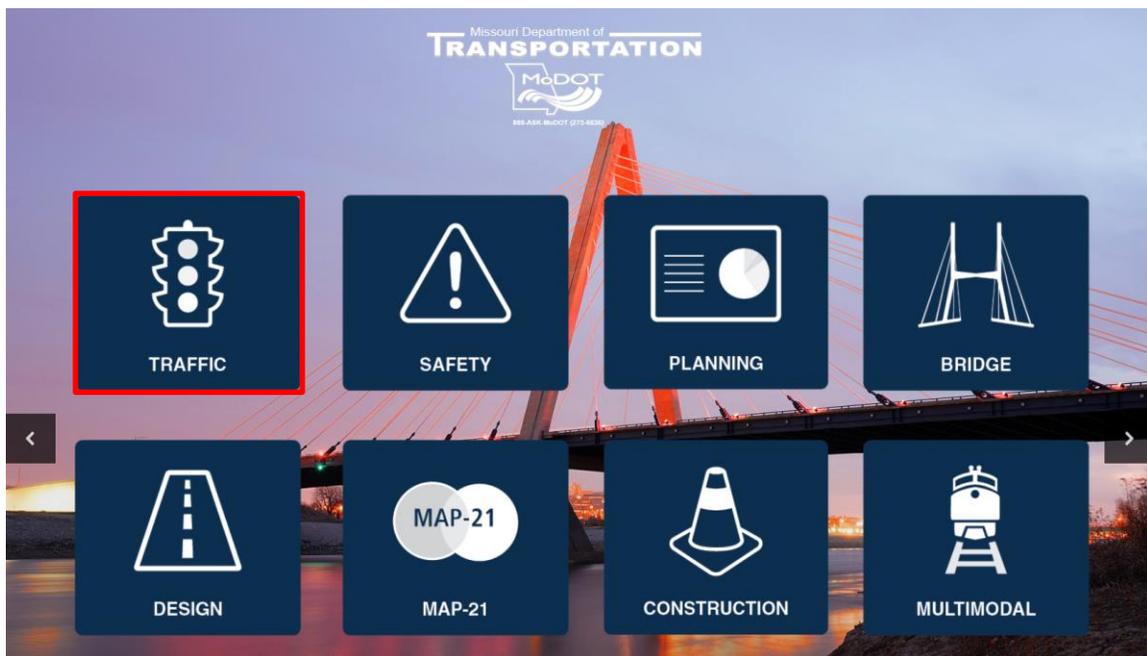
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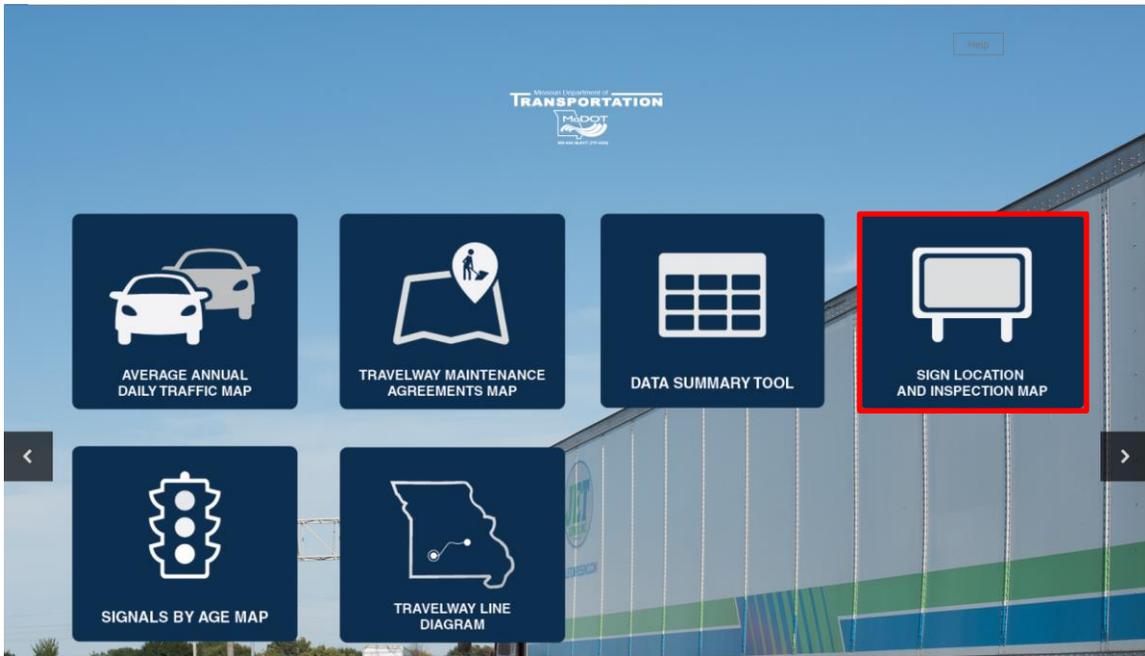
From the TMS Homepage select the DataZone icon.



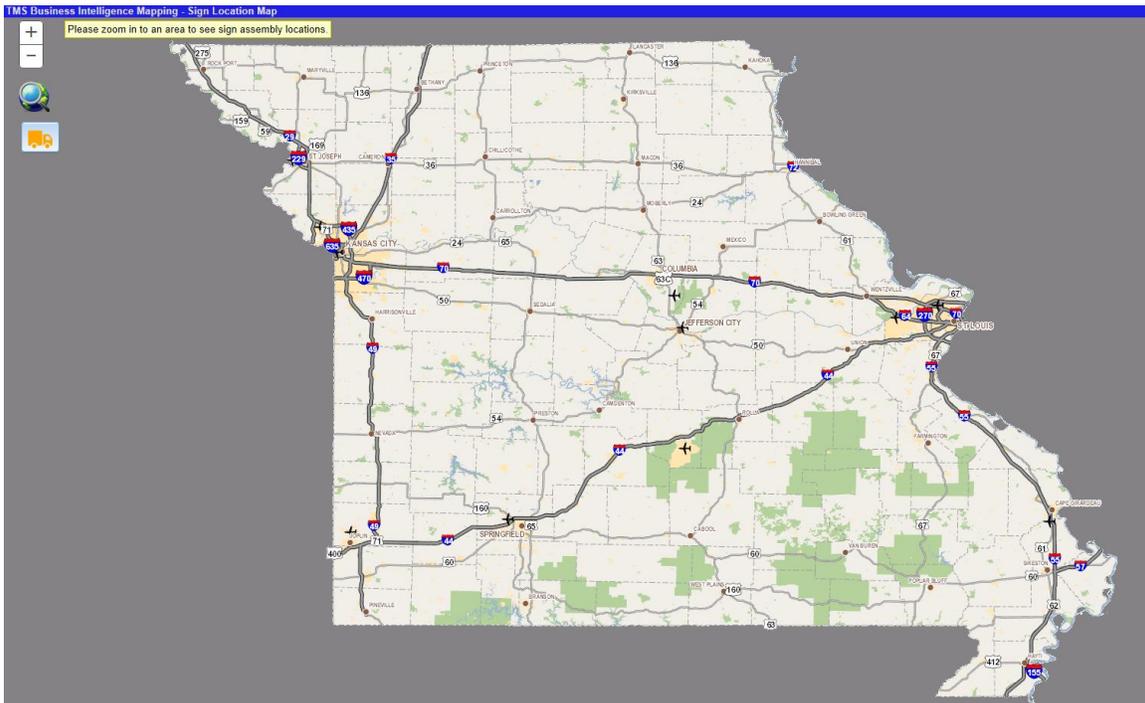
The following page will be displayed.



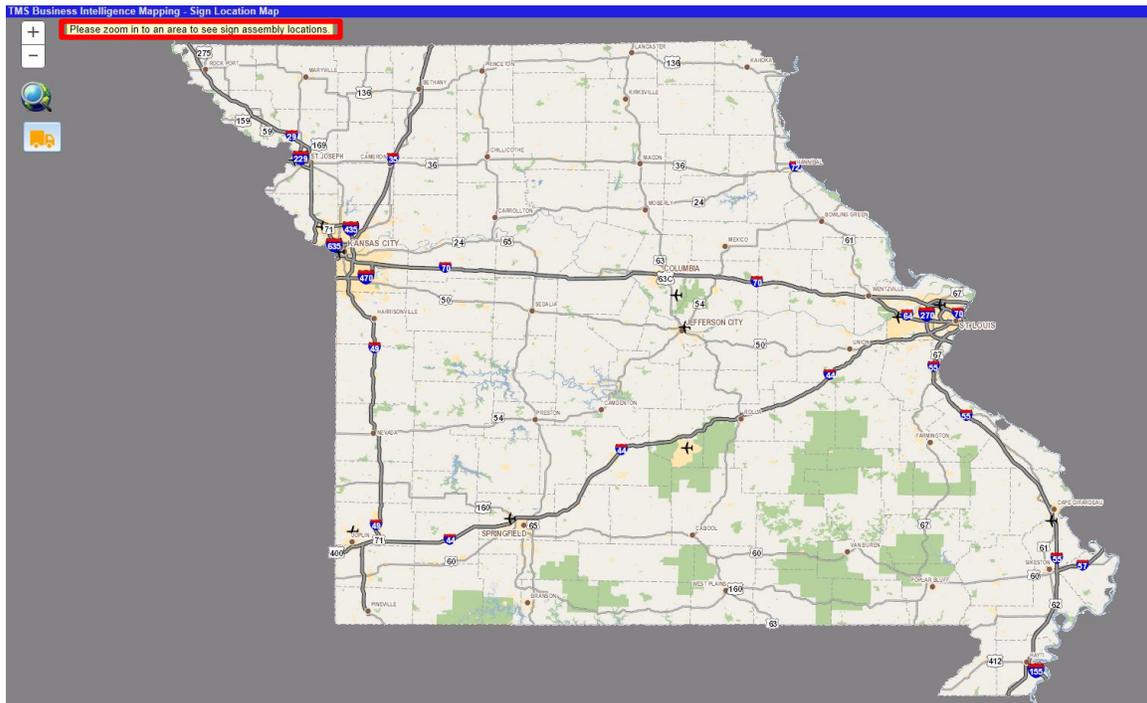
➤ Click the "Traffic" icon.



- Click the "Sign Location and Inspection Map" icon. This will flow to the "Sign Location and Inspection Map".



Sign Location and Inspection Map

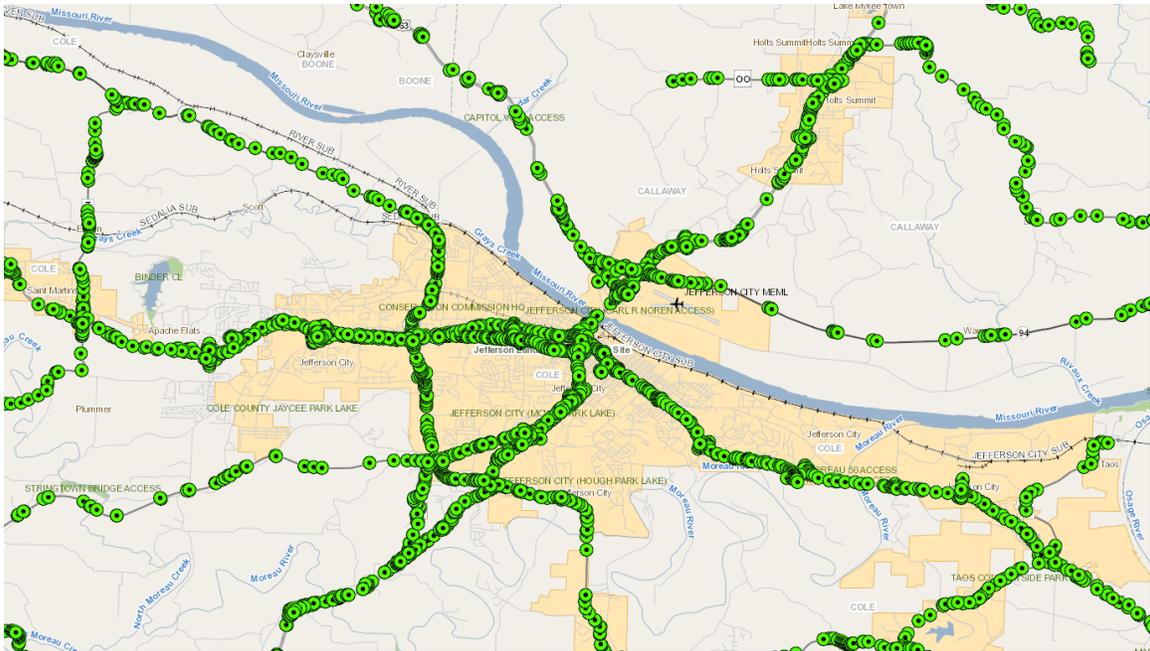


As indicated at the top left, zoom in to an area so the data will be displayed. Then click on the route to display the sign locations for the specific area chosen.

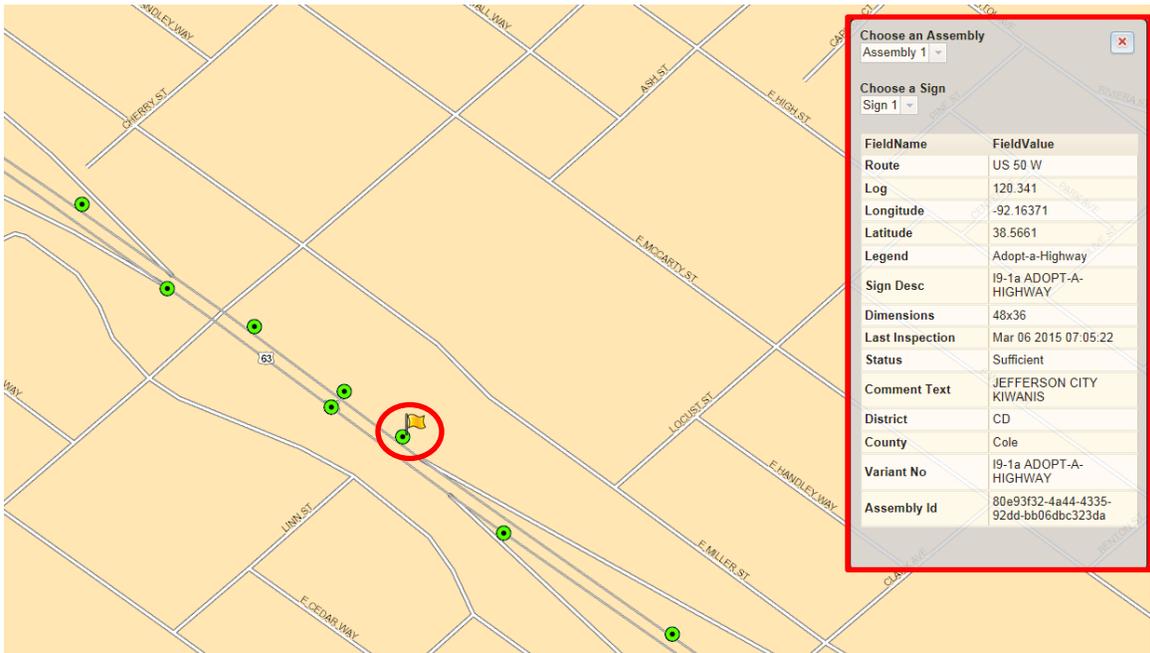
Zoom Methods

There are several methods to use when zooming in to a particular area. The methods are as follows:

- Shift key – click and drag a box around the area
- Mouse roller
-  - zoom in
-  - zoom out



➤ Click on any of the green dots.



A flag will show the sign's location, and a dialog box will display all the information on the sign. The information is as follows:

Route

Indicates where the sign is located and includes route designation, name and direction.

Log

The continuous log point where the sign is located. The log mile used to record the location of a sign should be the same as the log mile system established for crash data.

Longitude

This represents the longitude of the sign location in decimal degrees.

Latitude

This represents the latitude of the sign location in the decimal degrees.

Legend

What the sign actually reads. For example, Speed Limit 20.

Sign Desc

The description of the feature on the sign.

Dimensions

The size of the sign regulated by the state and federal government.

Last Inspection

The date and time the sign was last inspected.

Status

The condition of the sign.

Comment Text

Comment text is us available for various application tools in Sign Management System (SMS) and is used to provide supplemental information.

District

The district where the sign is located. Valid values are NW, NE, KC, CD, SL, SW and SE.

County

The county where the sign is located.

Variant No

The primary sign is a template which may have multiple variants. For example, could be speed, designations, distance and etc.

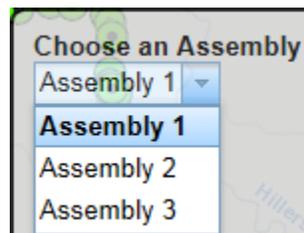
Assembly ID

A sign or signs at a specific location that is installed and tied to the latitude, longitude or log mile. Tied to the travelway.

Choose an Assembly

FieldName	FieldValue
Route	MO 94 W
Log	133.894
Legend	None
Sign Desc	Field collected E1-1 Guide Sign
Dimensions	Var x Var
Last Inspection	Mar 07 2016 10:32:08
Status	Sufficient
Comment Text	US 54/US 63 Fulton Jefferson City Columbia Exit 1 Mile
District	CD
County	Callaway
Variant No	E1-1_83311
Assembly Id	280aca4a-68ce-454d-b564-6a40f784952f

Choosing an assembly will display different types of sign options for that location. For example, on this sign there are three options.



Clicking on each assembly will display different types of information. For example, on "Assembly 2" the "Legend" is different than what is listed on "Assembly 1" (see page 8).

The screenshot shows a mobile application interface with a map in the background. At the top, there are two dropdown menus: "Choose an Assembly" set to "Assembly 2" and "Choose a Sign" set to "Sign 1". Below these is a table with the following data:

FieldName	FieldValue
Route	MO 94 W
Log	133.848
Legend	SPEED LIMIT 30 EXCEPT WHERE POSTED
Sign Desc	R2-5d SPEED 30 EXCEPT
Dimensions	30x42
Last Inspection	Mar 07 2016 10:32:08
Status	Sufficient
Comment Text	
District	CD
County	Callaway
Variant No	R2-5d SPEED 30 EXCEPT
Assembly Id	b97ae309-3902-4f5f- 928d-dcc352f4a450

Icons



- Full extent



- ARAN Viewer

ARAN Viewer

The ARAN Viewer can be opened from the menu or any of the TMS applications. On the modernized TMS applications, there is a button located on the bottom of the screen that points to the ARAN Viewer.

For example, pull up a travelway in the Traffic Management System, Signal application, and a listing of signals will be displayed. Select a signal, and the "ARAN Viewer" button will become activated.

The screenshot shows the TMS Signal Inventory application interface. At the top, there are filters for "Data Type" (set to SIGNAL INVENTORY) and radio buttons for "Active Data Only", "Inactive Data Only", and "All Data". Below this is a search bar with "Search By" and "Menu" dropdowns. A "Travelway Information" box shows "Selection Criteria is BU 50 E From: 0 To: 3.184". The main area is a table with columns: SIGNAL NUMBER, TRAVELWAY ID, ROUTE, CROSS STREET, COUNTY NAME, LOG, CNTY LOG, OBSERVED DATE, RETIMED DATE, ACCOUNT NUMB, MASTER ACCOUN, YEAR SIGNALIZE, DISTRICT NUMB, DATE TURNED OF, and DAT. The table contains five rows of signal data. At the bottom, there is a navigation bar with buttons: Add, Update, Detail, Delete, View Image, View on Map, ARAN Viewer (highlighted in red), Export to PDF, and Export to XLSX. The page number is 1 of 2 (14 items) and the page size is 10.

SIGNAL NUMBER	TRAVELWAY ID	ROUTE	CROSS STREET	COUNTY NAME	LOG	CNTY LOG	OBSERVED DATE	RETIMED DATE	ACCOUNT NUMB	MASTER ACCOUN	YEAR SIGNALIZE	DISTRICT NUMB	DATE TURNED OF	DAT
659	7744	BU 50 E	50 WEST RAMP	COLE	0.000	0.000	1/8/2014	5/20/2014	54639605117		1996	4	10/7/2010	10/7/2010
2698	7744	BU 50 E	50 EAST RAMP	COLE	0.094	0.094	6/3/2014	5/20/2014	58413608110		1996	4	10/4/2010	10/4/2010
657	7744	BU 50 E	BU 50 (MO BLVD)	COLE	0.149	0.149	11/8/2013	5/20/2014	52513608113		1993	4	10/6/2010	10/6/2010
13605	7744	BU 50 E	MISSOURI BLVD TO MO179	COLE	0.254	0.254	1/28/2014	5/20/2014	51899128065		2010	4	10/19/2010	10/19/2010
6995	7744	BU 50 E	STONERIDGE	COLE	0.721	0.721	11/8/2013	5/20/2014	53459095010		2007	4	10/9/2007	10/9/2007

When opening the ARAN Viewer from another application, it will open to the selected location in the previous application. If opening the ARAN Viewer directly from the TMS Homepage, please see "Selecting a New Location" at the end of this document.

ARAN Viewer

Ex: IS 70 E BOONE

Export Print Hide Other Years/Dirs Hide Data

FE To Window Inset Map IRI Graph Use Current SS Pavement Job Number: J512169

Year	Desg	Name	Dir	Tway Id	% Cov	Min Log	Max Log
2015	IS	70	E	19	100	99.961	104.943
2015	IS	70	W	3506	100	145.053	150.03
2014	IS	70	E	19	100	99.973	104.956
2014	IS	70	W	3506	100	145.054	150.031
2013	IS	70	F	19	100	99.975	104.955

LOG: 100.001

100.001 104.984 Fast Slow

5 mi

2015

Reset to Default

Play/Pause Buttons

ARAN Viewer

Ex: IS 70 E BOONE

Export Print Hide Other Years/Dirs Hide Data

FE To Window Inset Map IRI Graph Use Current SS Pavement

Year	Desg	Name	Dir	Tway Id	% Cov	Min Log	Max Log
2015	RT	M	E	3976	1	5.923	5.963
2014	RT	M	W	3977	1	0.036	0.076
2013	RT	M	E	3976	1	5.917	5.977
2012	RT	M	E	3976	1	5.917	5.964
2011	RT	M	F	3976	1	5.922	5.965

LOG: 5.963

5.963 5.963 Fast Slow

5 mi

2015

Reset to Default

The bottom buttons operate just like a DVD with forward, reverse and stop.



- The previous five miles



- Move to the start of the video



- Step backward one frame at a time



- Play backward



- Stop



- Play forward



- Step forward one frame at a time



- Move to the end of the video



- The next five miles



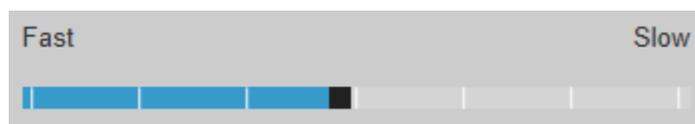
- Calendar year that data is available for the travelway selected

Scrub Bar

The scrub bar will move along the track as the ARAN truck moves down the road. Alternately, you can drag the scrub bar to the location you want to view in the selected section of roadway.



The bar next to the scrub bar is used to set how fast you want the frames to change when playing the video.



Data

On the right-hand side of the video screen, there are 12 drop-down selection boxes that allow you to choose which data elements you want to view. These will display data from either or both of two sources: the ARAN table and the State of the System pavement table.

It is important to note that there are two options regarding the SS_PAVEMENT data. One option is to view the state of the system data from the same year as the video selected. The other is to view everything using the current state of the system data. This is accomplished by activating the "Use Current SS Pavement" button.



Change the Data Elements

- Select a data type from the drop-down arrow. Multiple changes can be made at one time.

The image displays two screenshots of a data entry interface. The left screenshot shows a vertical list of dropdown menus for various fields. The 'FED_CLS_NHS' dropdown is open, showing a list of data elements. The 'FED_CLS_STRAHNET' option is highlighted in red. The right screenshot shows the same interface, but the 'FED_CLS_STRAHNET' dropdown is now selected, and the 'STRAHNET' option is visible in the dropdown menu.

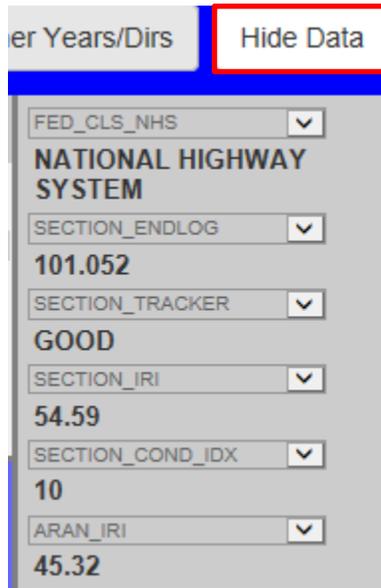
Field	Value
FED_CLS_NHS	NATIONAL HIGHWAY SYSTEM
SECTION_ENDLOG	101.052
SECTION_TRACKER	GOOD
SECTION_IRI	54.59
SECTION_COND_IDX	10
ARAN_IRI	45.32
ARAN_COND_IDX	10
AADT	14513
FED_CLS_NHS	NATIONAL HIGHWAY SYSTEM
SECTION_ENDLOG	101.052
SECTION_TRACKER	GOOD
SECTION_IRI	54.59
SECTION_COND_IDX	10
ARAN_IRI	45.32
ARAN_COND_IDX	10
AADT	14513
FED_CLS_STRAHNET	STRAHNET
AADT	14513

The ARAN data will change with every image, approximately every 0.02 mile.

Hide Data

If no data is needed, it can be hidden to expand the image window.

- Click the "Hide Data" button.



This will remove the data from the screen. If the data is needed, click the "Show Data" button.

Change Years/Directions

You may want to see previous years' ARAN data; this can be done two ways: (1) by using the year drop-down box next to the pause and play buttons or (2) using the year selection at the top of the screen.

Year	Desg	Name	Dir	Tway Id	% Cov	Min Log	Max Log
2015	IS	70	E	19	100	100.041	105.024
2015	IS	70	W	3506	100	144.973	149.97
2014	IS	70	E	19	100	100.033	105.016

Use the scroll bar located on the right-hand side to find the year or direction of data to view. Divided routes have video in both directions, and all other routes have video in at least one direction.

Job Number

The job number is a set of alphanumeric digits assigned to represent a construction project. The job number shown will be the most recent project completed at that location for the year selected. If a job number is listed, click on it to display the plans for that project.

Year	Desg	Name	Dir	Tway Id	% Cov	Min Log	Max Log
2015	IS	70	E	19	100	99.961	104.943
2015	IS	70	W	3506	100	145.053	150.03
2014	IS	70	E	19	100	99.973	104.956
2014	IS	70	W	3506	100	145.054	150.031
2013	IS	70	F	19	100	99.975	104.955

Fit to Window

By default, the "Fit to Window" button is active. Click the button to deactivate and the image will display full size. Use the scroll bars located on the bottom and right side to adjust the view.

Year	Desg	Name	Dir	Tway Id	% Cov	Min Log	Max Log
2013	IS	70	E	19	100	99.935	104.915
2013	IS	70	W	3506	100	145.077	150.057
2012	IS	70	E	19	100	99.935	104.911
2012	IS	70	W	3506	100	145.077	150.058
2011	IS	70	E	19	100	99.921	104.906
2011	IS	70	W	3506	100	145.084	150.067

LOG: 99.961



Fit To Window	Inset Map	IRI Graph	Use Current SS Pavement	Job Number: J5D0500A			
2013	IS	70	E	19	100	99.935	104.915
2013	IS	70	W	3506	100	145.077	150.057
2012	IS	70	E	19	100	99.935	104.911
2012	IS	70	W	3506	100	145.077	150.058
2011	IS	70	E	19	100	99.921	104.906
2011	IS	70	W	3506	100	145.084	150.062

LOG: 99.961 4:22:17 PM 1AD0E000.1M0

To return the screen to normal, click the "Fit to Window" tab again.

Inset Map

Click the "Inset Map" button, and a map will be displayed to the right of the video. This map will show the location of the image and will follow the path of the images while you are driving.

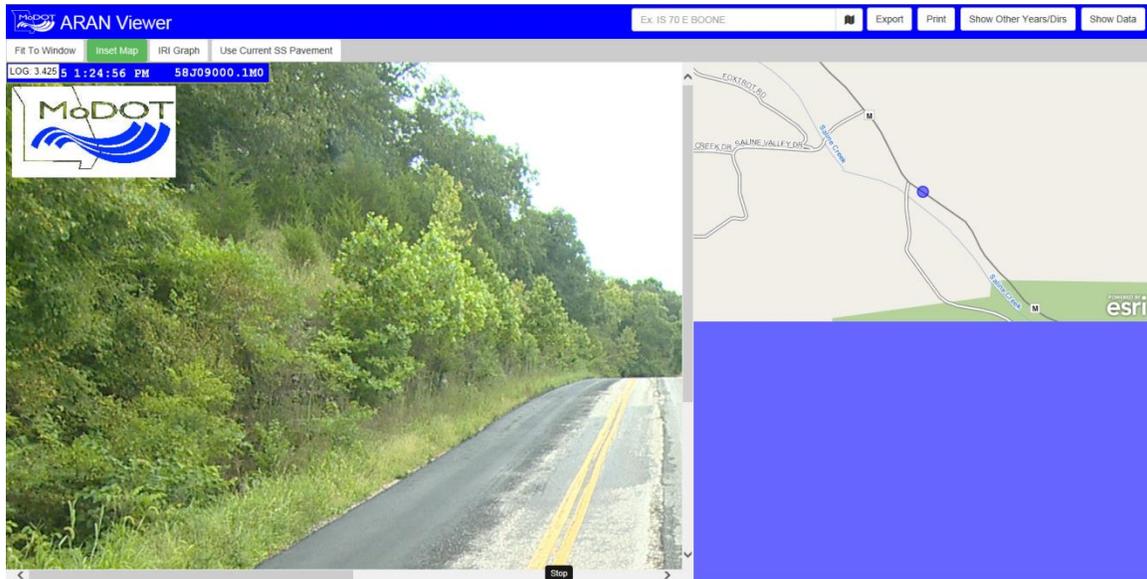
ARAN Viewer

Fit To Window **Inset Map** IRI Graph Use Current SS Pavement

LOG: 3.025 5 1:24:22 PM 58J09000.1M0

Esri

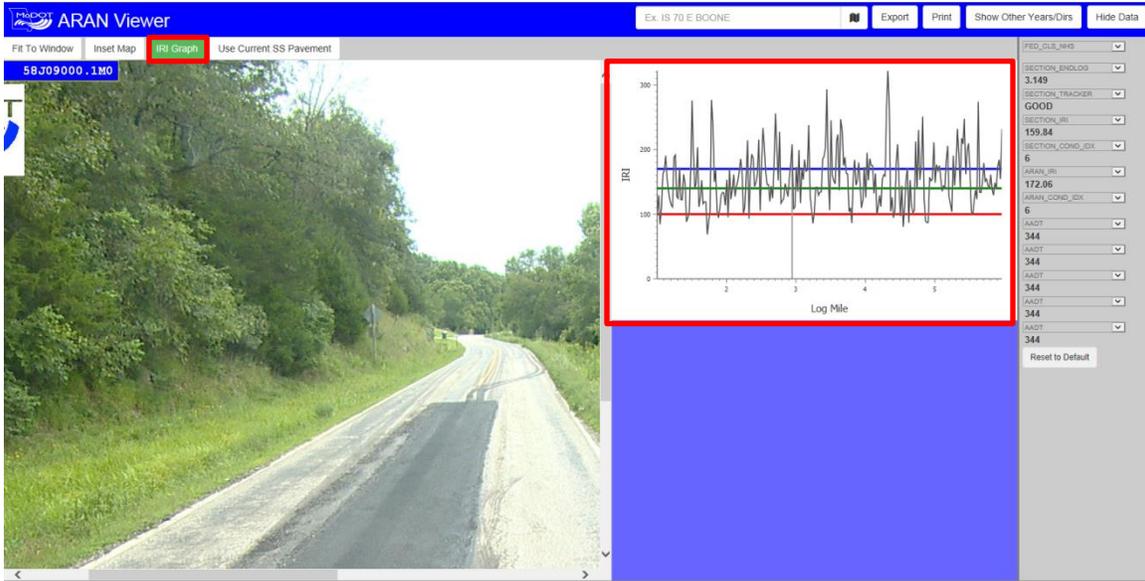
If you are not familiar with the area, use this tool. The map can be used as a secondary tool to follow the ARAN video. As the vehicle is driving down the roadway, the blue dot will follow the same path along the map.



IRI Graph

The IRI (International Roughness Index) Graph is used to tell the smoothness of the road over a tenth of a mile.

- Click the "IRI Graph" tab. The graph will be displayed to the right of the video. This graph represents the tenth-mile average of IRI for the section and year selected.



Export Data

There is the ability to export data to either a "movie" or "JPG". The default will be an output type of movie.

Export ✕

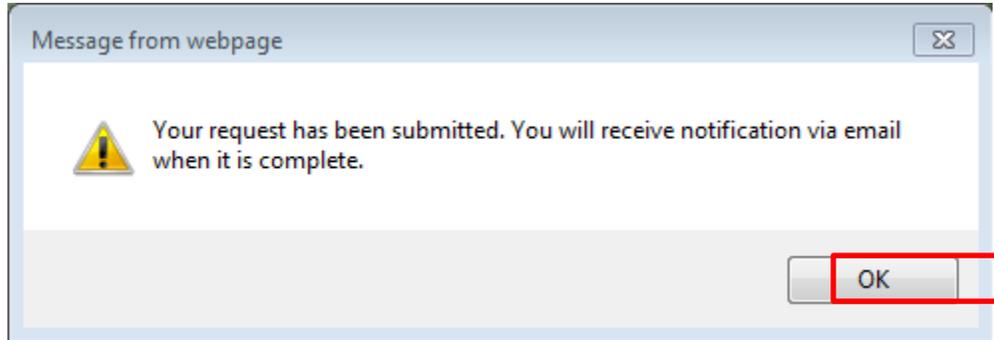
You are exporting RT M E from log mile 1.005 to log mile 5.963 for the year 2015.

Name	<input type="text" value="RT_M_E_2015_1_005_to_5_963"/>
Email Address	<input type="text" value="jeannemarie.lebeau@modot.mo.gov"/>
Output Type	<input type="text" value="Movie (WMV)"/>
Movie Size*	<input type="text" value="Small (Quarter Size)"/>
Frame Rate*	<input type="text" value="1 fps (74 mph)"/>

*These settings only apply to an output type of Movie (WMV). If you choose Files (JPG), these settings are ignored.

“Movie Size” and “Frame Rate” are mandatory fields. These fields can be changed with data from the drop-down lists.

- Click the “Submit” button. A notification message will be displayed.



- Click the “OK” button.

Print

In order to print the data that is displayed, do the following:

- Select the location.
- Click the “Print” button.

The picture of the selected roadway will be printed.

Hide Other Years/Dirs

The “Hide Other Years/Dirs” button is used to hide the upper part of the screen which displays the years, designation, name and direction information.

- Click on the “Hide Other Years/Dirs” button.



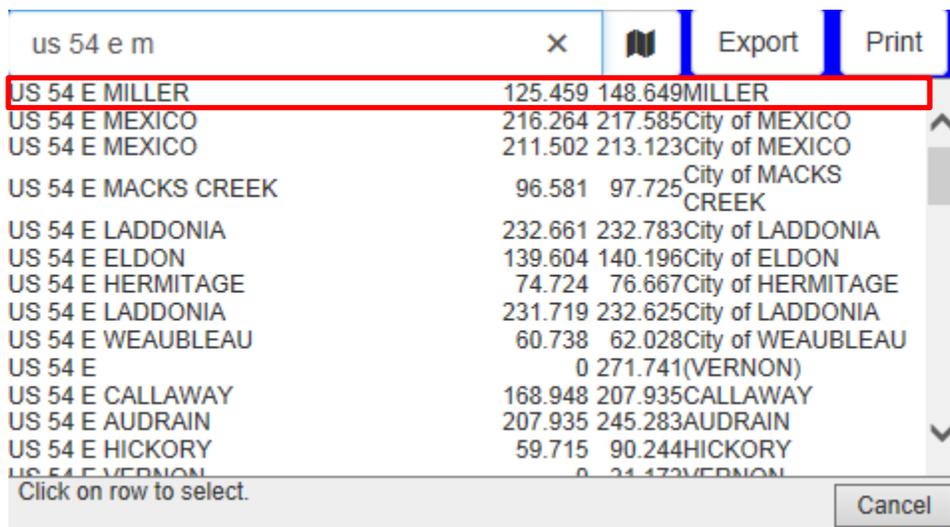
Notice that the upper part of the screen is now hidden. To make data reappear, click the "Show Other Years/Dirs" button.



There are two ways to select a location: (1) free form typing or (2) from the map.

Free Form

- In the text box, type the name of the location or the partial name.



- Click the "Enter" button.

ARAN Viewer us 54 e m Export Print Hide Other Years/Cls Hide Data

Fit To Window Inset Map IRI Graph Use Current SS Pavement Job Number: J5P0645D

Year	Desg	Name	Dir	Tway Id	% Cov	Min Log	Max Log
2015	US	54	W	1986	100	141.526	146.507
2015	US	54	E	1985	99	125.428	130.405
2014	US	54	W	1986	100	141.512	146.494
2014	US	54	E	1985	100	125.435	130.41
2013	US	54	F	1985	100	125.423	130.403

LOG: 125.461 05/06/2015 11:08:44 AM 5568200 1M0

125.461 5 m 2015 Fast Slow

125.461 130.436

FED. CLS. NHS NATIONAL HIGHWAY SYSTEM SECTION ENCL005 125.462 SECTION TRACKER NOT GOOD SECTION IRI 119.45 SECTION_COND_IDX 10 ARAN_IRI 119.45 ARAN_COND_IDX 10 RANDT 7442 RANDT 7442 RANDT 7442 RANDT 7442 RANDT 7442 Reset to Default

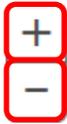
Map Button

To the right of the free form text box, there is an icon that resembles a flag



- Click the icon. A map will be displayed.
- Click on a roadway. If the roadway is not visible, use the "plus" or "minus" button to zoom in or out on the map.
- A listing of the travelways in the area that were selected will be displayed.

Map



None Selected

Cancel

Select

Map ×

RT M W (3977) Log: 0.043
RT MM N (3549) Log: 0.999
RT MM S (3548) Log: 2.781
RT M E (3976) Log: 5.957
CRD GAGEVILLE RD S (53184) Log: 3.263
CRD ROSS DR W (177035) Log: 0.848
CRD CROSS COUNTRY RD W (177071) Log: 0.235
CRD GAGEVILLE RD N (177069) Log: 2.463
CRD CENTRAL HILL RD S (53148) Log: 0.131
CRD ROSS DR E (53149) Log: 0.369
CRD CROSS COUNTRY RD E (53185) Log: 1.324
CRD CENTRAL HILL RD N (177034) Log: 2.003
PVT UNKNOWN N (966696) Log: 0
PVT UNKNOWN S (966451) Log: 0.19

None Selected

- Select a location.
- Click the "Select" button. This will flow to the new location on the ARAN Viewer.