Traffic Management System
(Traffic Segment Hourly Volume)

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Contacts

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

**TMS Help Desk:** Any questions pertaining to TMS.

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<thead>
<tr>
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</tr>
</thead>
<tbody>
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Traffic Segment Hourly Volume

Hourly traffic volume may need to be reviewed to determine what level of traffic impact a work zone or restriction may have on a specific travelway. The Traffic Segment Hourly Volume application in TMS can be utilized to forecast hourly traffic volumes for a specific segment of highway.

Reminder: This application was designed to be used as a forecasting resource for hourly traffic volumes; it only shows traffic volumes in the past.

The following procedures explain the navigational process to view the hourly traffic volumes for a specific route.

- Go to the MoDOT SharePoint page and click on the “TMS” button below.

- Click on “Traffic Management System”, and then click on “Traffic Segment Hourly Volume”.

![Image of TMS navigation process]
The “Traffic Segment Hourly Volume” web page displays.

- Click on the sign next to “Traffic”. This will open applications under the Traffic area.
- Click on “Hourly Volume”.

This opens the application web page below.
Location Referencing System (Fuzzy Search)

Many of the maintenance or browsing applications in TMS require a travelway – usually a portion of a travelway or a specific travelway location – to be selected before viewing the information needed. The Travelway Selection Component is used to make this selection.

There are two steps in selecting a travelway. The first step is to enter criteria that will show a list of travelways. The second step is to identify the travelway with begin and end logs.

Rather than list all travelways, the list can be limited to travelways meeting certain criteria (for example, all Missouri numbered routes in Cole County or eastbound travelways in Oregon County).

There is a new way to search for a travelway in the system called the “Fuzzy Search”.
- Type in any part of the travelway designation or any part of the name, and a selection of the travelway will be displayed.
- For example, type “IS 70 E”, and the following results will be displayed.

• The top 50 results will be displayed. The hierarchy will be the entire route, followed by routes within counties, and then within cities.
If unsure of the proper TMS designation for a route, search by prefacing the name with “Route”. By typing “Route 63”, the following listing will be displayed.

- Use the scroll bar on the right-hand side to scroll through the list until the desired travelway is found. The more information that is entered into the search field, the narrower the search will become.

- Notice the log points for Oregon County are listed first.

- If the phrase is followed by a single space, it will try an exact search. If the phrase is not followed by a single space, it will try to do a partial search. For example, “MO 17” will find all routes with “17” in the name. That may not be what you want. If you know the name and how to spell it, follow it with a single trailing space like this: “MO 17 “. There is a single space after the “7”. This will find all routes with the name EXACTLY equal to “17”.

“MO 17*” – This will do a partial name search.

“MO 17” – This will do an exact name search.

- When typing “ROUTE” instead of “IS”, “US”, “MO” and “RT”, will provide the same travelways in which to choose.
**NOTE:** “Route 70 W” will display as “IS 70 W” on the main grid.

**NOTE:** Use the scroll bar to locate “Route 5”, because the travelway is not in the upper hierarchy of the listing.
Notice that “Route AA W” in Perry County is the first travelway listed. The more criteria there are in the search field, the less result there will be to sort through.

NOTE: For more comprehensive information about the Location Referencing System (LRS), check the LRS manual in the Training Manual section on the TMS SharePoint site. The manual is located in the Travelway Location Training Material file. The URL for the manual is:


You can also search by entering the full description or travelway ID, as seen below.

- Click on the “Search” button.
- Choose the travelway section from the list or choose “Travelway” from the “Search By” button.
- Choose the “IS 70 E Boone” record from the top of the list.
- After the page loads, this web page displays IS 70 E through Boone County. It also displays the intersections connected to IS 70 E throughout Boone County.
- To enlarge the information, click on the arrow (↑) to the left of the screen, or click on “Hide Menus” in the upper right-hand corner.
• Period – Is in hour increments of AM and PM from 12 AM to 11 PM.

• This page is divided by travelway segments. Each segment has an AM and PM traffic count.
• The numbers in the columns show the traffic counts for that particular timeframe.
• Each segment contains the name of the segment, type of roadway, date, number of lanes, capacity, cautionary and log miles for that particular segment.
• At the end of each timeframe, AM and PM, it will show the total ADT (Average Daily Traffic).

REMINDER: The roadway type is determined by the majority of number of lanes for a travelway.

Red – Exceeds the traffic count limit for that timeframe
Blue – Close to approaching the capacity
Yellow – Data elements are not found for the timeframe

Menu

The following choices are available when using the “Menu” options: Get Opposing Travelway, Advanced Search, Map Search and Aran Viewer. Map Search by Area is not available.
Get Opposing Travelway

- To get the opposing travelway information, search by “Travelway”. For example, type “IS70E Boone” in the search area. The “Fuzzy Search” displays. The first 50 travelways appear along with all intersecting travelways for IS 70 E. Select “IS 70 E” Boone County.

- Select “Menu” and choose “Get Opposing Travelway”. The IS 70 W travelway information appears along with all intersecting travelways for IS 70 W.
Advance Search

- Click on the “Menu” button and select the “Advanced Search” option. This opens the “Travelway Search” web page.
From the “Travelway Search” web page, you can now search by the following:

- Travelway
- Travelway ID
- Intersection Number
- District/County
- City
- Planning Org

Travelway Search - Search by Travelway

- There are two ways to enter a designation. The first way is to click on the drop-down arrow next to the “Designation” box, and all the designations will be displayed.

- Click on the designation to select it. If the desired designation is not shown, use the scroll bar on the right-hand side to see other designations.

- The second way to enter a designation is to type the first letter of the designation “Code”, and all of the designations with that letter will be displayed. Example: Type the letter “M”, and all of the designations with the letter “M” are displayed. It defaults to the first designation in the list. Click on “MO” to select it.
• The “Name” dialog box is the name of a route you are searching. If you do not know the route number or name, enter the first number or letter of the route, and a listing of all the names for the selected designation will be displayed. Example: Type the number “1”. It defaults to the first numerical route with the number “1”.

• Type “17” in the “Name” field. Using the scroll bar, choose “179” from the drop-down list. Direction is displayed based on the designation and name chosen. Direction is displayed based on the business rule that even numbered routes are east and west, and odd numbered routes are north and south. Example: For MO 179, the direction is north or south. Some travelways cannot be automatically determined, so all directions will display. Select “N” for MO 179.
- To narrow the search, drill down more by using the “District/County” or “City” options. Example: Select “Central” District and “Cole” County.

- Click on “Search”, and the travelway search criteria is displayed. Select the travelway, and click on “Select Travelway Logs”.

- The following screen is displayed to select begin and end logs. Select “0.000”, and click on “Begin Log”; select “3.645”, and click on “End Log”. Then click on “Select”. The logs populate in the “Begin Log” and “End Log” areas.
- Click on the “Select” button. The travelway search criteria appear and list all the intersecting travelways along the selected travelway.
Travelway Search - Search by Travelway ID

- To search by travelway ID, click on the “Travelway ID” tab from the “Advance Search” area. Example: Enter “19” for IS 70 E in the “Travelway ID” tab and “Kansas City” in the “City” tab.

- Click on “Search”, and the travelway search criteria displays. Select the travelway, and click on “Select Travelway Logs”.
• The following screen displays. Select the “Logs” tab.

• This will display begin and end log miles for the travelway selected for each county in the Kansas City District.
- Select the “Intersecting” tab again. Click on the box to the left of “Show Emergency Response Markers” (ERMs).

- The table now displays the ERMs along with intersecting streets, bridges, ramps, etc.
• Scroll down to RP IS70E to IS35S S, log 0.600 and select “RP IS70E to IS35S S” and then “Details”.

• The following pop-up box displays with the intersecting information. Click on “Close” or the red “x” to close the information box.
- Select “RP IS 70E to IS35S S” at log 0.600 and click on “Begin Log”. The “Begin Log” field populates with log 0.600. Select “CST EIGHTH ST E” at log 2.040 and click on “End Log”. The “End Log” field populates with log 2.040.

- With “CST EIGHTH ST E” selected, click on “Distance”. Uncheck the box next to “Set End Equal to Begin”, which activates both begin and end log areas.
- Under the “End Log” area, Type “500” in the “Set Log To” field. Select either “Before” or “After” the current end log mile. I selected “Before”.
- Click in the “Calculated Value” box. The new log is displayed as “1.945”. Click on “Select”.

- On the “Travelway Search” web page, the new end log value is “1.945”. Click on “Select”.

![Image of a travelway search web page with highlighted end log value and selection button]
• The travelway search criteria appear, and the intersecting travelways with the selected travelway will be shown.

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<th>3</th>
<th>4</th>
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<td>1239</td>
<td>993</td>
<td>769</td>
</tr>
</tbody>
</table>

NOTE: The IS 35 N segment, which is a ramp, shows the “Caps” and/or “Cautionary” data is missing. (One or more data elements not found.)

Map Search

• Click on the “Menu” button, and select the “Map Search” option.

• Both the “LRS Map” box and map are displayed.
• Click on the “Search” button at the top of box.
LRS Tools

- Automatically zooms in or enhances the map.
  Other ways to zoom on the map are as follows: Clicking on “Start” and “End” in the “Log Book” tab, using the scroll button on the mouse, pressing the “Shift” key down and drawing a box with the mouse on the map and double clicking on a point on the map to enhance the area.
- To move the map, left click on the mouse and hold and move the cursor to display the correct area of the map.
- Automatically zooms out or minimizes the map.
- Clear – Clears the map of your location choice.
- Submit – Enters the log miles from the map into the “Edit Form”.
- Cancel – Closes the map and returns to the “Edit Form”.
- Changes the view of the map from “Roads” view to “Aerial” view.
LRS Map Search

The LRS Map “Search” tab has several options for selecting and displaying location criteria.

- Display “Emergency Reference Markers”.
- Search by designation, route, direction, county and city.
- Zoom to a city or county.
- Select begin and end log mile locations.
- Select log mile offset.
- Measurement tool.

- To remove or hide the LRS Map box so you can see more of your map, click in the LRS Map section or the arrow next to LRS Map, and it will expand or collapse the box.

Search by Designation, Route, Direction and County

- In the “Search” field, enter “US 50 E Cole”, and the application will start to search for the travelway.
• Click on the “US 50 E Cole 125.22 to 151.86” segment.

• The “Travelway” tab below displays where either “Select” or “Zoom” can be chosen.

• The “Select” link will display the “Log Book” for the travelway selected and highlight the selected travelway on the map. The “Log Book” displays the beginning of the travelway regardless of the county specified in the “Search” field. To view the logs for Cole County, enter “Cole” in the white box above the county and select “Enter”.

• The “Zoom” link will highlight and enlarge the selected travelway only. To navigate back to search, click on “LRS Map” and then “Search”. 
• The log book displays the logs for Cole County.

• To select the start log, find the intersecting log “128.989 CST Shangri-La Rd S” and select “Start” to the left. A green star appears on the map along with the location information.
• To select the end log, scroll down and find the intersecting log “137.35 MO 179 S” and select “End” to the left. A red star appears on the map along with the location information. The selected route appears in yellow between the green and red stars.

• Select the “Search” button at the top of the box, and the LRS Map screen appears.
- If the log miles are good in the “Range” area, click the “Submit” button at the bottom of the “LRS Map” box.
- To adjust the start or end log miles, use the “Offset” section to adjust by miles or feet and before or after the “Start” and/or “End” log miles. When adjusting the log miles, the “Start” and “End” log mile fields will change.
- After adjusting the log miles, click on the “Submit” button.
The hourly volume for the selected travelway appears below.

Search by Route and City

- Search for a route within a city by entering any part of the street name followed by the city name. Click on the “Menu” button and select the “Map Search” option.
- If searching for a travelway, click on the “Clear” button, and this will reset the “Search” field.

In the “Search” field, enter “MO 179” and select “Search”. This brings up travelways with “MO 179” in the name.
The travelways appear based on the search criteria entered. Select “MO 179 Cole”.

The “LRS Map” box displays the logs for that portion of travelway. Click on “LRS Map” to hide the LRS Map information box and to see the map.

Click on the “Select” button.
- To select the start log, click on the location along the highlighted route. The LRS Map information displays. Click on “LRS Map” again to hide it. A green star appears on the map along with the location information.

- To select the end log, click on the location along the highlighted route. The LRS Map information displays. Click on “LRS Map” again to hide it. A red star appears on the map along with the location information.
• Once the start and end logs have been selected and are correct, click on the “Submit” button. The travelway search criteria appears and displays all the intersecting travelways including the selected travelway.

![Hourly volumes - MO 179 S Begin Log: 23,347 End Log: 27,311](image)

**Search by Travelway**

• To search by travelway for a route by city, county or statewide, click on the “Menu” button and select the “Map Search” option. May need to click on the “Clear” button to reset fields.

![Map Search](image)

• In the “Search” field, enter “Sunshine” and select “Search”. This is a broad search.
- All travelways containing “Sunshine” in the name are displayed. Click on “Search” to go back to the search web page.

- For a more narrowed search, enter “Sunshine Greene” in the “Search” field.
- Choose “CST Sunshine ST E Greene”.
- Select “Search”.

- The travelways containing “Sunshine” in the name within Greene County are displayed. Click on “Select” for “CST Sunshine ST E 0 - 6.875”.

35
The logs for that portion of travelway are shown. Click on "Search".

To select the start log, click on the location along the highlighted route. The LRS Map information will display. Click on “LRS Map” again to hide it. A green star appears on the map along with the location information.
- To select the end log, click on the location along the highlighted route. The LRS Map information will display. Click on “LRS Map” again to hide it. A red star appears on the map along with the location information.
Once the start and end logs have been selected, click on the “Submit” button. The travelway search criteria appears and lists all the intersecting travelways along the selected travelway.

Zoom

- Click on the “Menu” button and select the “Map Search” option.
- Open the “LRS Map” and click on the “Search” button.
- Click on the arrow next to the “Zoom” area, and the window expands to display “City” and “County” fields.
• In the “City” field, type “Jeff”. All cities with “Jeff” in the name appear in the list. Select “Jefferson City” and click on “Zoom”.

![City search screenshot](image)

• The map will enhance to Jefferson City.

![Map enhancement screenshot](image)

**Range**

Another way to select log miles is to use the “Range” section of the “LRS Map” box.

• Click on the “Menu” button and select the “Map Search” option.
- Open the LRS Map by clicking on the black arrow beside “LRS Map”.
- Then click on the “Search” button.
- In the “Search” field, enter “US 50 E Cole” and select the below segment.

- The travelways appear based on the search criteria.

- “Select” will display the “Log Book” for the travelway selected. It will highlight and zoom to the selected travelway on the map.
- Click on the “Search” button.
Enter “126.989” in the “Start” field and “137.35” in the “End” field, and then click on “Update Selection”. The map highlights and zooms to the selected logs miles with a green star at the start log mile and a red star at the end log mile.

Offset

There is also an “Offset” section in the “LRS Map” box. Once the start and end log miles are selected, use the “miles” or “feet” options and “before” or “after” options to update the selection.

- Continuing from the example above, click on the “Offset” button to expand the offset section of the LRS Map. Under “Range”, the “Start” radio button is selected.
In the “Offset selected log” field, enter “1” with “miles” and “before”. Make sure a “Start” or “End” radio button is selected. Then select “Update”. Notice the begin log mile changed from 126.989 to 125.989. It also moved and changed the green star and the “Location Information” box.
Measurement

The “Measurement” tool measures locations/distances on the map. It can be turned on or off by clicking on the drop-down arrow and then clicking the “Measure: On or Off” button.

- Continuing from the example above, with “Measure: On”, move the mouse to the map, and a box will pop up with the directions on how to measure distance. While pressing down on the mouse button, draw a line. The line will be red drawing and will turn green and dashed when completed. The measurement results will display next to the “Measure: On” button. See below.
Aran Viewer

When you click on “ARAN Viewer” from the “Menu” option, the view opens. This can be used as another resource for locating the traffic segment volume.

- Click on the “Menu” button and select the “Aran Viewer” option.

- Click on the “New Location” button at the top of the “Aran Viewer”.

- Click on the button and enter the location. Using the designation, name and direction is a broad search and results in more records.
• Enter “IS 70 E” (designation, name and direction) and click on “Search”.

• The travelway containing the search criteria displays.

• Using designation, name, direction and county will limit the records/search. For this example, use “IS 70 E Boone” and click on the “Search” button.
• Select a record to highlight in blue. Then click on “OK”.

• The box below will appear providing the travelway ID and start log mile for the selected travelway. Click on “OK”.

• The ARAN Video brings you to the starting log mile for IS 70 E Boone County, as seen below.
Click on the buttons to hide the top portion and the right side panel to add more space to see the travelway and right-of-way, if needed. Uncheck the “Fit To Window” box to expand the window for better viewing. Use the scroll bars on the bottom and right side of the screen to adjust the view.

The bottom buttons operate like a DVD player with forward, reverse, stop, etc.
• Use the buttons on the right-hand side of the ARAN Viewer for adjustments. The viewer slide travels every two-hundredths of a mile. The ARAN Video can be used to get a visual of the travelway.
• Set each button’s criteria by using the drop-down arrow and selecting any data type for a particular button. The button will change its name according to the data type selected.
• Move the slides forward or backward to change the information under each button.

To exit the ARAN Video, click on the [X] in the upper right-hand corner.

**Simple Search**

Simple Search is used to search by designation, name, county, etc. It is found in the “Advanced Search” area under “Menu”.

You can search any combination of the search options.
- Click on the “Simple Search” in the upper right-hand corner of the web page.

![Simple Search interface](image1)

- The screen below appears. Toggle back and forth between the “Advanced Search” and the “Simple Search” by clicking on it.

![Advanced Search interface](image2)

- In the “Enter Travelway” field, type “US 50 E” and click on the “Search” button.

![Search results](image3)
- This will bring up the entire US 50 E travelway. To see the travelway segments of US 50 E, click on the “Select Travelway Logs” button.

<table>
<thead>
<tr>
<th>TWAY ID</th>
<th>DESG</th>
<th>NAME</th>
<th>DIR</th>
<th>BEGIN</th>
<th>END</th>
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<tr>
<td>3507</td>
<td>US</td>
<td>50</td>
<td>E</td>
<td>0</td>
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</table>

- To find the traffic volume for a segment(s), select the segment(s) from the web page below. To narrow the search, sort by column.

- For example, type “Cole” in the “County” field and click the “Enter” button.
- Select the segment for the begin log mile by double clicking on the segment or click once to select the segment and click on the “Begin Log” button.

- Do the same process to get the end log. This will populate both “Begin Log” and “End Log” fields.
• Click the “Select” button.

• The hourly volumes will appear below for the selected travelway.
Change Search

- To change the search, click on the “Change Search” button in the lower left corner of the web page.

- This will bring up the “Search Criteria” box.
- Enter the start and end dates (only present and future dates are allowed).

- Fill in the Capacity, Cautionary Capacity, Number of Lanes, and Number of Lanes Open fields. All or some of the fields can be completed.
- Then click the “Update” button.
The web page below appears with the changes to the search criteria.

Export to Excel

The information on the “Hourly Volume” web page can be exported to an Excel spreadsheet.

- Click on the “Export to Excel” button in the lower left-hand corner of the web page.
A message will appear at the bottom of the screen, as seen below.
Click on the “Open” button to see the results, or click on the “Save” button to save the Excel file.

If the “Open” button is clicked, the spreadsheet will appear. Some formatting to the file will need to be done.
Click the “Save” button.

The below message will appear.
Click the “Open folder” button.
• The file will show under your name and the folder “Downloads”.

• If the “View Downloads” is chosen, the file will show in the downloaded list and can be opened from there.