

# **The Annual Traffic Report**

**is published by the Nevada Department of Transportation  
Traffic Information Division in cooperation  
with the U.S. Department of Transportation  
Federal Highway Administration.**

*Nevada Department of Transportation  
1263 S. Stewart Street  
Carson City, Nevada 89712*

**Kenny C. Guinn, Governor  
Tom Stephens, P.E., Director**

If you have any comments, questions , or need additional information  
regarding the contents of this report, please contact  
Traffic Information Division at (775) 888-7445  
or E-mail at  
pio@ndot.state.nv.us  
www.nevadadot.com



**table of contents continued**

Humboldt County Maps and Table Three - - - - -	256
Lander County Maps and Table Three - - - - -	272
Lincoln County Maps and Table Three - - - - -	279
Lyon County Maps and Table Three - - - - -	285
Mineral County Maps and Table Three - - - - -	298
Nye County Maps and Table Three - - - - -	302
Pershing County Maps and Table Three - - - - -	309
Storey County Maps and Table Three - - - - -	320
Washoe County Maps and Table Three - - - - -	322
White Pine County Maps and Table Three - - - - -	400

## **INTRODUCTION**

The administration of approximately 5,400 miles of roads in the State of Nevada Highway System involves the expenditure of hundreds of millions of dollars annually for construction, reconstruction and maintenance. Also, it imposes the responsibility of selecting and designing new roads, and the planning of future construction and development.

It is necessary to keep current data on motor vehicle trends for numerous reasons including: Design of new construction to service the volume and type of traffic a roadway will carry. Selection of new routes to serve the greatest area and maximum number of motorists while maintaining cost efficiency. Design of future projects to coincide with expected development. And to schedule maintenance when and where it is most needed.

Perhaps the single most reliable statistics available to guide the highway engineer and the planner are the type and volume of traffic on each section of highway under consideration for future improvement. Responsibility for the collection, tabulation and analysis of these trends is vested in the Traffic Information Division of the Nevada Department of Transportation.

During 1999, hourly traffic volumes were monitored continuously at 56 locations statewide. These sites, commonly referred to as Automatic Traffic Recorders (ATR's) are presented in summary form beginning on page 10 of this report. In addition, traffic volumes were collected in short periods (7days) and factored to Annual Average Daily Traffic (AADT's). These summary statistics including a ten-year history (if available) are presented by county in the Table Three portion of this report, which begins on page 66.

## STATISTICS

The methods used to derive the “Annual Average Daily Traffic” (AADT) for the Automatic Traffic Recorder (ATR) sites in this book are:

1. Each day of the week is averaged for the month.
2. The seven average days (Sunday through Saturday) are averaged which provides “Monthly Average Daily Traffic” (MADT).
3. The twelve MADT’s (January through December) are averaged, which then yields the AADT.

The methods used to derive the “Annual Average Daily Traffic” for Table Three in this report are:

1. The total raw count from a five to seven day short period count is divided by the number of hours sampled and the quotient is then multiplied by 24 (24 hours in a day).
2. The above product is then factored using summary statistics from ATR’s to derive a Monthly Average Daily Traffic (MADT).
3. The MADT is once again factored for seasonality using summary statistics from ATR’s which produces Annual Average Daily Traffic (AADT). The AADT summary statistics in this report represent a composite of both directions.
4. Those locations sampled with an axle sensor are then factored once more using factors developed from vehicle classification statistics. This procedure factors out inflated counts due to extra axle vehicles.

Data is collected in an hourly increment at various count locations statewide. The year the last hourly count was taken at a particular location is noted in the left margin of the Table Three report directly under the station identification number. This data is available upon request from the Traffic Information Division staff by calling at (775) 888-7445.

## TABLE 3 SHORT TERM COUNT STATION NUMBERING SYSTEM

The 1999 Table 3 section of this report contains a ten-year history of Annual Average Daily Traffic at short-term count locations. This data is divided into counties including maps depicting individual count locations. All short-term count locations are listed with a four digit station identifier preceded by a two digit county code and a dash “-” (see example). Short-term count locations are represented on the maps in red and consist of the four digit identification number with all leading zeros removed.

Example of table three:            Churchill county station number    1 is 01-0001  
   Mineral county station number    33 is 21-0033  
   Washoe county station number    114 is 31-0114

Below is a listing of the counties and their prefix numbers in the order they appear in the Table 3.

<u>County</u>	<u>Prefix Number</u>
Carson City	25
Churchill	01
Clark	03
Douglas	05
Elko	07
Esmeralda	09
Eureka	11
Humboldt	13
Lander	15
Lincoln	17
Lyon	19
Mineral	21
Nye	23
Pershing	27
Storey	29
Washoe	31
White Pine	33

## **AUTOMATIC TRAFFIC RECORDERS (ATR)**

In addition to the short-term locations, Automatic Traffic Recorder (ATR) locations are shown on the maps with seven-digit identification number. AADTs for the ATRs can be found in the table three section for each county.

Summary data for ATR sites can be found in the Automatic Traffic Recorder section of this report. The ATR section provides the user with Monthly Average Daily Traffic (MADT) and a 10-year history of the AADT with the percent of change from the previous year. This section also provides Average Daily Traffic (ADT), Average Weekday Traffic and Average Weekend Traffic. (Please note Friday ADT is not used to calculate Average Weekday or Weekend Traffic).

The 30th highest hour as provided in the ATR summaries is a tool used in the design process. It is the hour used to design a highway as it represents the highest volume the highway will have to accommodate. To a greater extent, the 30th highest hour determines pavement widths and other geometric features.

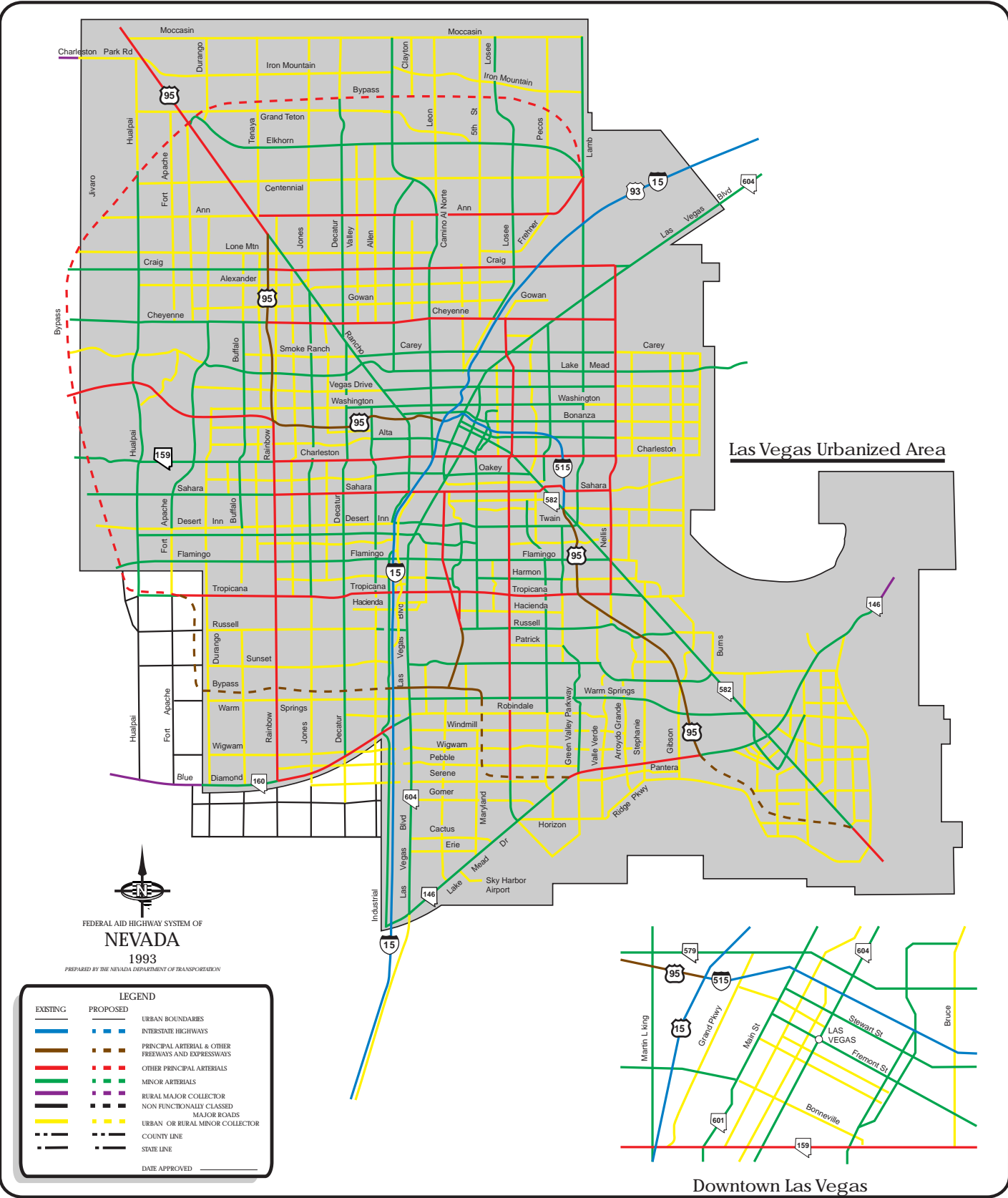
## **VEHICLE CLASSIFICATION & 18 KIP EQUIVALENT AXLE LOAD TEMPLATES**

The maps on page 5 & 6 show the Roadway Functional Classification for the majority of Las Vegas and Reno areas. The Template on page 7 provides the percentage of travel and corresponding average 18 KIP Equivalent Single Axle Loadings (ESAL) by vehicle type for Urban Roadway Functional Classifications. Page 8 is the Statewide Roadway Functional Classification map with page 9 depicting the Rural percentage of travel and corresponding average 18 KIP ESAL by vehicle type.

These statistics represent the previous three years of data collection at 420 locations statewide. The statistical sampling procedures found in the Federal Highway Administration's "Traffic Monitoring Guide" were the basis of location selection and monitoring duration.

This data is used in capacity analysis, environmental assessment, pavement management programs and economic development planning. This information is also requested by local entities and engineering consulting firms for determining structural numbers used in pavement design.

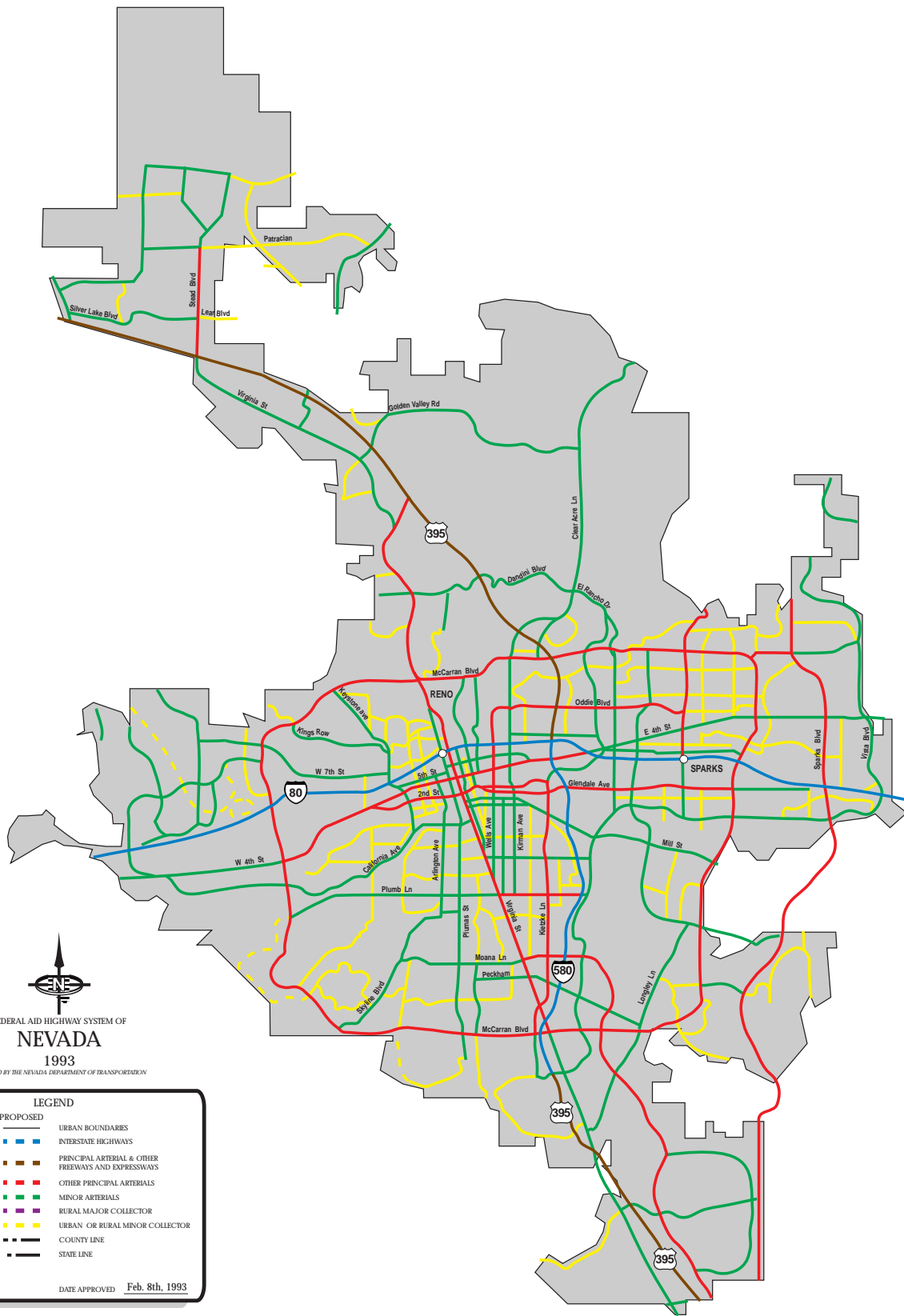
The procedure for calculating a current year daily ESAL value is available upon request by telephoning (775) 888-7444.



Las Vegas Urbanized Area

Downtown Las Vegas

ROADWAY FUNCTIONAL CLASSIFICATION  
LAS VEGAS URBANIZED AREA



FEDERAL AID HIGHWAY SYSTEM OF  
**NEVADA**

1993

PREPARED BY THE NEVADA DEPARTMENT OF TRANSPORTATION

LEGEND	
EXISTING	PROPOSED

DATE APPROVED Feb. 8th, 1993

ROADWAY FUNCTIONAL CLASSIFICATION  
**RENO URBAN AREA**

# URBAN

## VEHICLE DISTRIBUTION and AVERAGE ESAL's

by ROADWAY FUNCTIONAL CLASSIFICATION

STATE: NEVADASTATE FIPS CODE: 32DATA YEAR: 1999DATE: 07/28/2000

FUNCTIONAL CLASSIFICATION	PERCENT OF TRAVEL												(T%)
	TRUCK PERCENT (T%)	PASS-ENGER CARS [2 AXLE, 4 TIRE]	BUSSES	SINGLE-UNIT TRUCKS		SINGLE-TRAILER UNITS			MULTI-TRAILER TRUCKS				
				2 AXLE, 6 TIRE	3 AXLE OR MORE	4 AXLE OR LESS	5AXLE	6 AXLE OR MORE	5 AXLE OR LESS	6 AXLE	7 AXLE OR MORE		
<b>URBAN</b>													
INTERSTATE	10.55%	89.45%		0.49%	2.45%	0.81%	0.61%	4.97%	0.11%	0.35%	0.12%	0.63%	10.55%
FLEXIBLE ESAL by VEHICLE GROUP				0.9262	0.2747	0.7074	0.6762	1.3158	1.3016	2.0458	1.1999	2.3654	
RIGID ESAL by VEHICLE GROUP				1.2637	0.2522	1.0451	0.6743	2.0055	1.9640	1.9662	1.1446	2.8531	
OTHER PRINCIPAL ARTERIAL	7.16%	92.84%		0.51%	2.15%	0.36%	0.30%	2.95%	0.10%	0.21%	0.04%	0.52%	7.16%
FLEXIBLE ESAL by VEHICLE GROUP				0.5267	0.1765	0.4663	0.5176	1.2049	1.4148	1.6088	1.1173	1.1855	
RIGID ESAL by VEHICLE GROUP				0.5041	0.1548	0.6052	0.4659	1.7406	1.8381	1.5023	1.0518	3.8642	
MINOR ARTERIAL	4.36%	95.65%		0.56%	1.53%	0.36%	0.30%	1.27%	0.06%	0.14%	0.04%	0.09%	4.36%
FLEXIBLE ESAL by VEHICLE GROUP				0.6390	0.2591	0.7866	0.5315	1.2655	1.6611	2.0304	1.1113	1.7020	
MAJOR COLECTOR	4.20%	95.80%		0.40%	2.11%	0.36%	0.24%	0.79%	0.04%	0.07%	0.01%	0.18%	4.20%
FLEXIBLE ESAL by VEHICLE GROUP				0.8422	0.2352	0.5400	0.5873	1.2698	1.3554	2.0070	1.0754	1.6757	
MINOR COLLECTOR	2.27%	97.73%		0.48%	1.08%	0.16%	0.24%	0.18%	0.01%	0.06%	0.01%	0.04%	2.27%
FLEXIBLE ESAL by VEHICLE GROUP				0.8422	0.2352	0.5400	0.5873	1.2698	1.3554	2.0070	1.0754	1.6757	
LOCAL	4.51%	95.49%		0.38%	2.93%	0.55%	0.04%	0.46%	0.03%	0.01%	0.01%	0.10%	4.51%
FLEXIBLE ESAL by VEHICLE GROUP				*	*	*	*	*	*	*	*	*	

\* Data not available for these Roadway Functional Classifications



## RURAL VEHICLE DISTRIBUTION and AVERAGE ESAL's by ROADWAY FUNCTIONAL CLASSIFICATION

STATE: NEVADASTATE FIPS CODE: 32DATA YEAR: 1999DATE: 07/28/2000

FUNCTIONAL CLASSIFICATION	PERCENT OF TRAVEL												
	TRUCK PERCENT (T%)	PASS- ENGER CARS [2 AXLE, 4 TIRE]		BUSSES	SINGLE-UNIT TRUCKS		SINGLE-TRAILER UNITS			MULTI-TRAILER TRUCKS			(T%)
					2 AXLE, 6 TIRE	3 AXLE OR MORE	4 AXLE OR LESS	5AXLE	6 AXLE OR MORE	5 AXLE OR LESS	6 AXLE	7 AXLE OR MORE	
<b>RURAL</b>													
INTERSTATE	28.90%	71.10%		0.59%	3.51%	0.39%	1.23%	19.67%	0.40%	0.87%	0.35%	1.90%	28.90%
FLEXIBLE ESAL by VEHICLE GROUP				0.6258	0.1642	0.4578	0.7094	1.3426	1.2597	1.7804	1.0367	2.0081	
RIGID ESAL by VEHICLE GROUP				0.6878	0.1405	0.6127	0.7191	2.0103	1.6959	1.6336	0.9390	2.2773	
OTHER PRINCIPAL ARTERIAL	18.48%	81.52%		0.41%	4.03%	0.52%	0.97%	9.89%	0.39%	0.61%	0.21%	1.46%	18.48%
FLEXIBLE ESAL by VEHICLE GROUP				0.8637	0.1750	0.6177	0.7341	1.5103	1.4811	2.0523	0.8842	2.0011	
MINOR ARTERIAL	12.88%	87.12%		0.35%	3.17%	0.73%	0.77%	5.95%	0.26%	0.37%	0.13%	1.16%	12.88%
FLEXIBLE ESAL by VEHICLE GROUP				0.6065	0.1678	0.6998	0.4818	0.9645	1.3019	1.5265	1.6295	1.5619	
MAJOR COLECTOR	11.75%	88.25%		0.29%	2.77%	0.53%	0.57%	5.59%	0.24%	0.78%	0.21%	0.80%	11.75%
FLEXIBLE ESAL by VEHICLE GROUP				0.7204	0.3297	1.3876	0.8516	1.6602	0.9752	1.5619	1.1698	2.9028	
MINOR COLLECTOR	2.75%	97.25%		0.03%	0.97%	0.16%	0.08%	0.85%	0.01%	0.04%	0.02%	0.60%	2.75%
FLEXIBLE ESAL by VEHICLE GROUP				0.7204	0.3297	1.3876	0.8516	1.6602	0.9752	1.5619	1.1698	2.9028	
LOCAL	6.47%	93.53%		0.77%	3.45%	0.16%	0.11%	1.42%	0.00%	0.08%	0.03%	0.45%	6.47%
FLEXIBLE ESAL by VEHICLE GROUP				*	*	*	*	*	*	*	*	*	