

The Annual Traffic Report

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*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

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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 2000, hourly traffic volumes were monitored continuously at 59 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 70.

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 2000 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. 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:	Clark county station number	1 is 0001
	Mineral county station number	33 is 0033
	Washoe county station number	114 is 0114

Below is a listing of the counties and their prefix numbers. County code numbers are in bold print and located in the upper right hand corner on all county maps.

<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.

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.

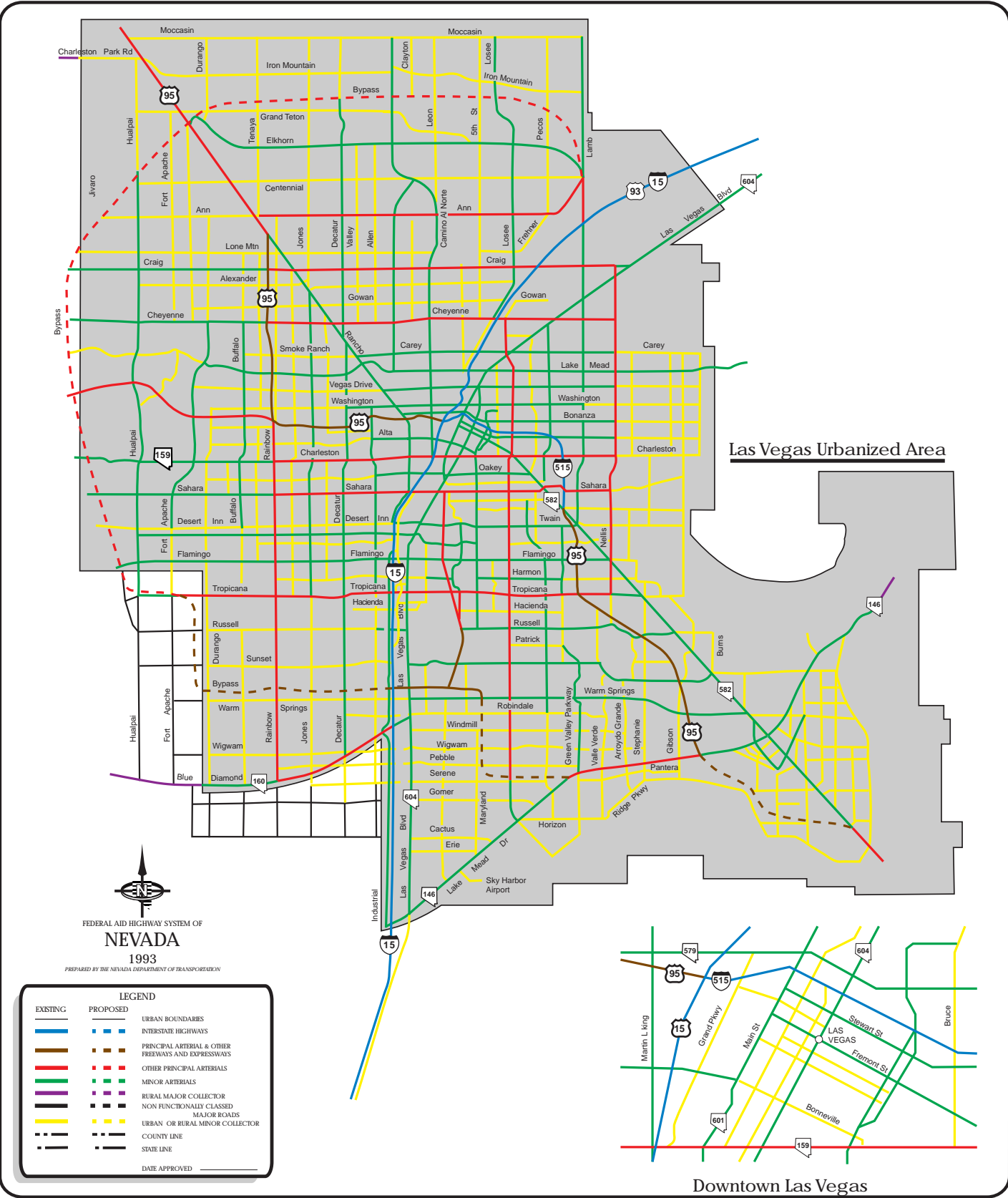
VEHICLE CLASSIFICATION & 18 KIP EQUIVALENT AXLE LOAD TEMPLATES

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.

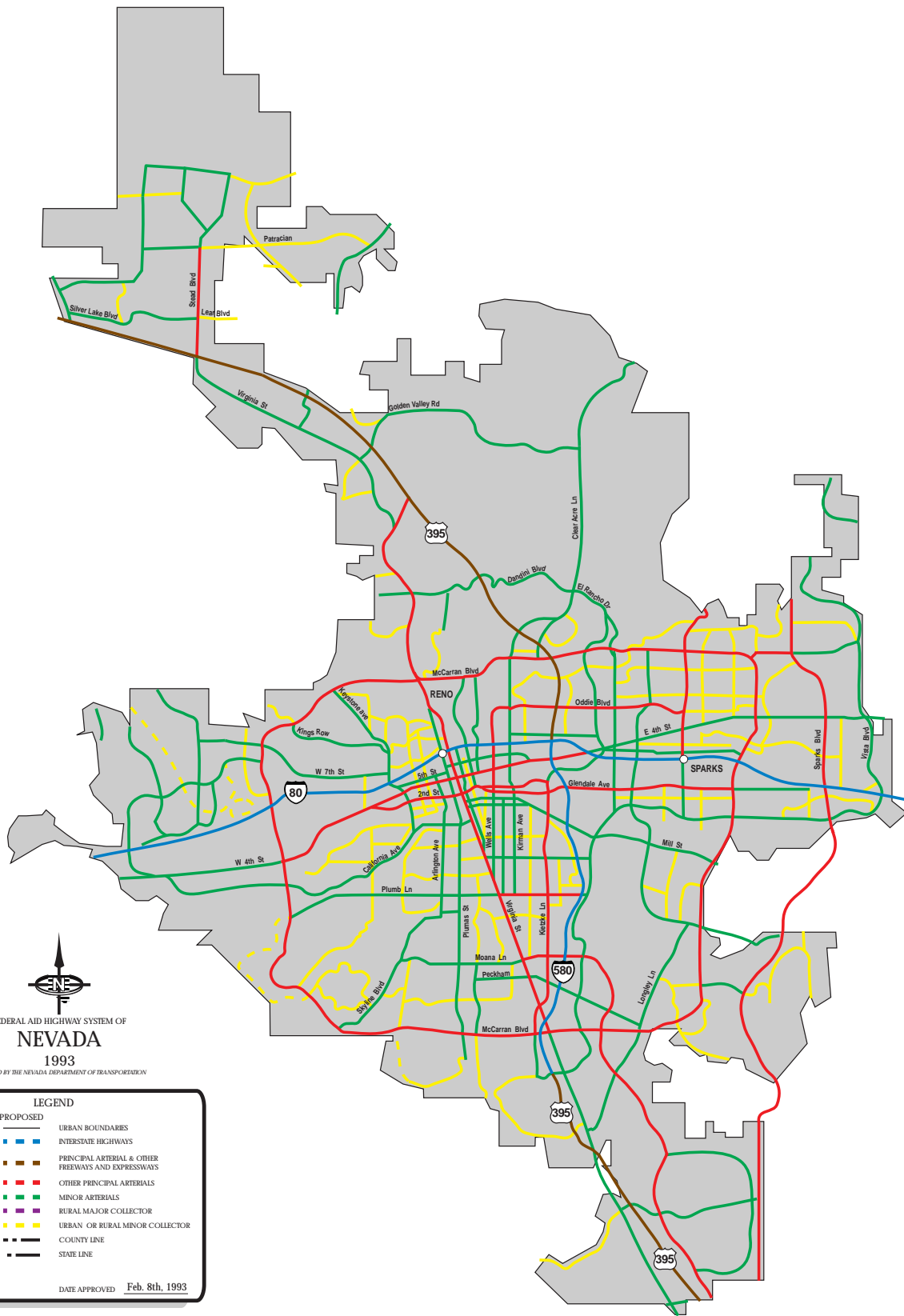
The procedure for calculating a current year daily ESAL value is available upon request by telephoning (775) 888-7444.



FEDERAL AID HIGHWAY SYSTEM OF
NEVADA
 1993
 PREPARED BY THE NEVADA DEPARTMENT OF TRANSPORTATION

LEGEND		
EXISTING	PROPOSED	
		URBAN BOUNDARIES
		INTERSTATE HIGHWAYS
		PRINCIPAL ARTERIAL & OTHER FREEWAYS AND EXPRESSWAYS
		OTHER PRINCIPAL ARTERIALS
		MINOR ARTERIALS
		RURAL MAJOR COLLECTOR
		NON FUNCTIONALLY CLASSIFIED MAJOR ROADS
		URBAN OR RURAL MINOR COLLECTOR
		COUNTY LINE
		STATE LINE
		DATE APPROVED _____

**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: NEVADA

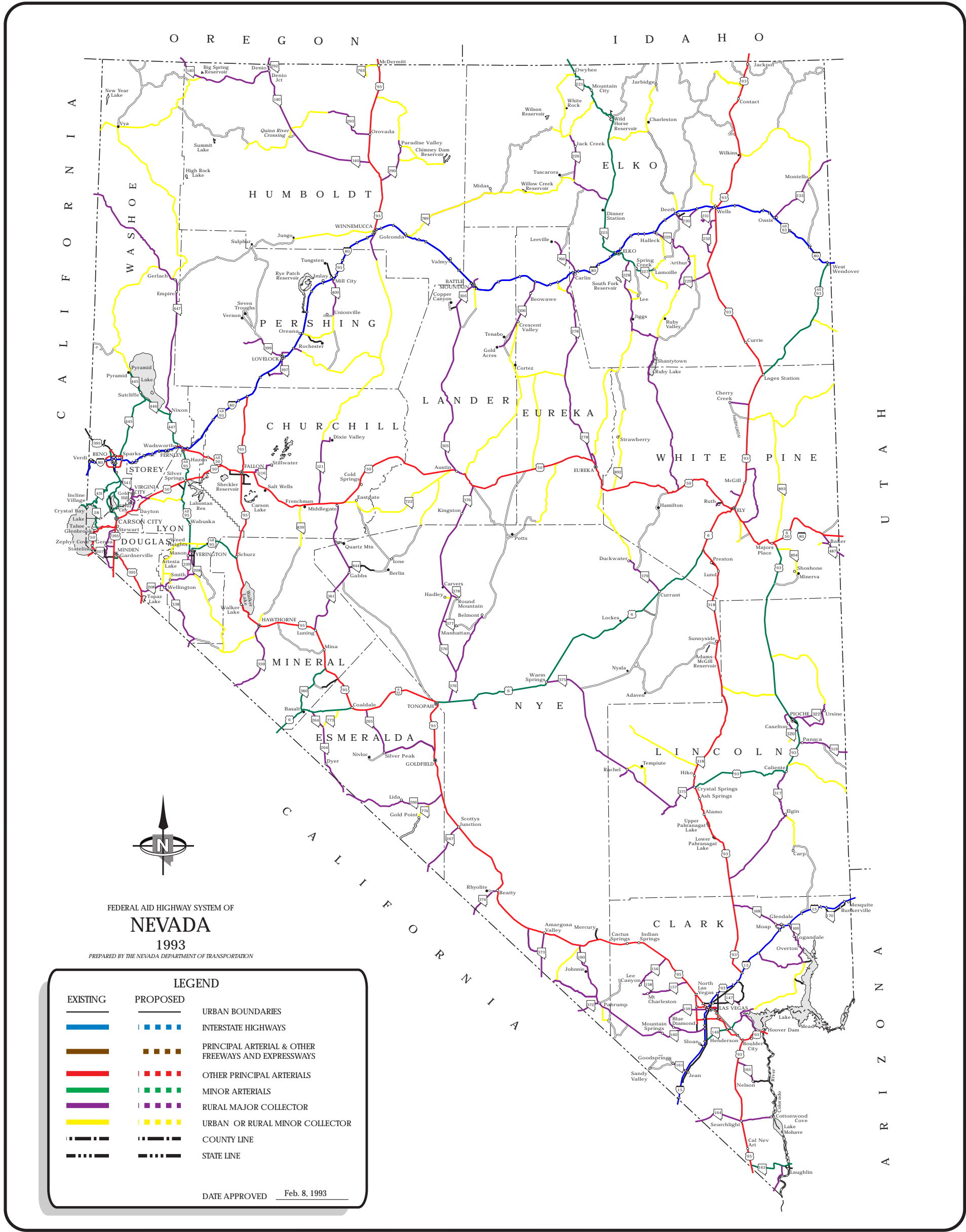
STATE FIPS CODE: 32

DATA YEAR: 2000

DATE: 05/31/2001

FUNCTIONAL CLASSIFICATION	PERCENT OF TRAVEL												AVERAGE ESAL
	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	5 AXLE	6 AXLE OR MORE	5 AXLE OR LESS	6 AXLE	7 AXLE OR MORE		
URBAN													
INTERSTATE	8.96%	91.04%	0.52%	1.94%	0.69%	0.35%	4.52%	0.15%	0.37%	0.07%	0.42%		
FLEXIBLE ESAL by VEHICLE GROUP			0.898	0.268	0.704	0.722	1.361	1.582	2.040	1.220	2.387	1.111	
RIGID ESAL by VEHICLE GROUP			1.017	0.246	1.039	0.753	2.082	2.041	1.956	1.166	2.817	1.528	
OTHER FREEWAY & EXPRESSWAY	6.97%	93.03%	0.49%	2.09%	0.34%	0.31%	2.88%	0.11%	0.21%	0.04%	0.49%		
FLEXIBLE ESAL by VEHICLE GROUP			0.508	0.174	0.466	0.554	1.205	1.488	1.609	1.117	1.186	0.797	
RIGID ESAL by VEHICLE GROUP			0.509	0.153	0.605	0.515	1.741	1.880	1.502	1.052	3.864	1.209	
OTHER PRINCIPAL ARTERIALS	4.00%	96.00%	0.57%	1.39%	0.35%	0.24%	1.16%	0.04%	0.13%	0.04%	0.09%		
FLEXIBLE ESAL by VEHICLE GROUP			0.5767	0.2603	0.7999	0.5755	1.2681	1.7317	2.0392	1.1113	1.5841	0.771	
MINOR ARTERIALS	4.29%	95.71%	0.39%	2.13%	0.39%	0.22%	0.83%	0.05%	0.07%	0.01%	0.20%		
FLEXIBLE ESAL by VEHICLE GROUP			0.8023	0.2276	0.6445	0.6441	1.2653	1.4252	1.8860	1.1264	1.7689	0.654	
MINOR COLLECTORS	2.04%	97.96%	0.51%	1.17%	0.12%	0.11%	0.07%	0.00%	0.05%	0.01%	0.01%		
FLEXIBLE ESAL by VEHICLE GROUP			*	*	*	*	*	*	*	*	*		
LOCAL ROADS	4.51%	95.49%	0.38%	2.93%	0.55%	0.04%	0.46%	0.03%	0.01%	0.01%	0.10%		
FLEXIBLE ESAL by VEHICLE GROUP			*	*	*	*	*	*	*	*	*		

* Data not available for these Roadway Functional Classifications



**ROADWAY FUNCTIONAL CLASSIFICATION
NEVADA**

RURAL

VEHICLE DISTRIBUTION and AVERAGE ESAL's

by ROADWAY FUNCTIONAL CLASSIFICATION

STATE: NEVADA

STATE FIPS CODE: 32

DATA YEAR: 2000

DATE: 05/31/2001

FUNCTIONAL CLASSIFICATION	PERCENT OF TRAVEL												AVERAGE ESAL
	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		
RURAL													
INTERSTATE	28.77%	71.23%	0.58%	3.29%	0.36%	1.04%	20.06%	0.33%	0.92%	0.34%	1.85%		
FLEXIBLE ESAL by VEHICLE GROUP			0.624	0.151	0.415	0.593	1.253	1.456	1.763	0.978	1.807	1.131	
RIGID ESAL by VEHICLE GROUP			0.665	0.128	0.540	0.585	1.844	1.734	1.614	0.878	2.109	1.559	
OTHER PRINCIPAL ARTERIAL	19.92%	80.08%	0.49%	4.13%	0.48%	1.07%	11.07%	0.40%	0.57%	0.19%	1.53%		
FLEXIBLE ESAL by VEHICLE GROUP			0.686	0.181	0.555	0.664	1.356	1.724	1.720	1.129	1.819	1.091	
MINOR ARTERIAL	13.67%	86.33%	0.38%	3.36%	0.89%	0.77%	6.26%	0.28%	0.44%	0.12%	1.18%		
FLEXIBLE ESAL by VEHICLE GROUP			0.621	0.175	0.624	0.560	0.933	1.342	1.599	1.630	1.538	0.786	
MAJOR COLECTOR	12.65%	87.35%	0.35%	2.97%	0.58%	0.53%	5.94%	0.26%	0.64%	0.18%	1.20%		
FLEXIBLE ESAL by VEHICLE GROUP			0.399	0.243	0.551	0.222	0.801	0.668	0.982	1.170	1.125	0.666	
MINOR COLLECTOR	5.29%	94.71%	0.08%	0.99%	0.21%	0.15%	1.07%	0.01%	0.12%	0.25%	2.40%		
FLEXIBLE ESAL by VEHICLE GROUP			*	*	*	*	*	*	*	*	*		
LOCAL ROADS	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			*	*	*	*	*	*	*	*	*		

* Data not available for these Roadway Functional Classifications