

2003

**Virginia Department of Transportation
Daily Traffic Volume Estimates**

Special Locality Report

304

Town of Stephens City

Prepared By

**Virginia Department of Transportation
Mobility Management Division**

In Cooperation With

**U.S. Department of Transportation
Federal Highway Administration**

Virginia Department of Transportation
Mobility Management Division
Traffic Monitoring Section

The Virginia Department of Transportation (VDOT) conducts a program where traffic count data are gathered from sensors in or along streets and highways and other sources. From these data, estimates of the average number of vehicles that traveled each segment of road are calculated. VDOT periodically publishes booklets listing these estimates.

One of these booklets, titled “Average Daily Traffic Volumes with Vehicle Classification Data, on Interstate, Arterial and Primary Routes” includes a list of each Interstate and Primary highway segment with the estimated Annual Average Daily Traffic (AADT) for that segment. AADT is the total annual traffic estimate divided by the number of days in the year. This booklet also includes information such as estimates of the percentage of the AADT made up by 6 different vehicle types, ranging from cars to double trailer trucks; estimated Annual Average Weekday Traffic (AAWDT), which is the number of vehicles estimated to have traveled the segment of highway during a 24 hour weekday averaged over the year; as well as Peak Hour and Peak Direction factors used by planners to formulate design criteria.

In addition to the Primary and Interstate publication, one hundred books are published periodically, one for each of 100 areas across the state defined by VDOT for record-keeping purposes. These books include traffic volume estimates for roads within the county, cities, and towns within the area. These books are titled “Daily Traffic Volumes Including Vehicle Classification Estimates, where available; Jurisdiction Report numbers 00 through 99”.

Also available are a number of reports summarizing the average Vehicle Miles Traveled (VMT) in selected jurisdictions and other categories of highways. There are many different ways to present traffic volume summary information. Because the user determines the value of each presentation, the reports have been redesigned based on user requests and feedback. The people at VDOT Mobility Management’s Traffic Monitoring Section who produce these books welcome requests for other helpful ways of presenting the summary information.

A compact disc (CD) is available that includes files in the Adobe® Portable Document Format (PDF) that can be displayed, searched, and printed using common desktop computer equipment. The CD includes the publications described above as well as a number of other reports, including specialized VMT summaries and smaller AADT reports for each city and town separately.

Publication Notes

Parallel Roads

For road inventory and management purposes, some roadways are counted separately by direction and have separately published traffic estimates for each direction of travel. Examples of such roadways are the interstate system and routes with separated facilities and (usually) one-way traffic facilities in urban areas. In these publications, they are referred to as parallel roads. As a convenience for the users of the publication, the listing for segments of roads with parallel segments are published with both the traffic estimates for their own direction of travel (e.g. I-95 Northbound) as well as the estimate of the total of all traffic on the same route including parallel roadways (all directions of I-95). The publication will have a “Combined Traffic Estimates for Parallel Roadways on this Route” or “Combined Traffic” identifiers for the combined direction of travel estimates.

Roadways such as I-395 with a North segment, a South segment and a separate Reversible lane segment will have the estimate for more than two parallel roadways included in the entire combined traffic estimate.

Some routes have very complicated paths through cities and towns. These parallel paths may be too complex to allow a relationship between nearby sections of the opposite direction on the same route. In this case, to indicate that the traffic estimates for such a road segment may not include all directions of traffic on that route, the line that would list the combined values will indicate “NA” for not available.

VDOT’s traffic monitoring program includes more than 100,000 segments of roads and highways ranging from several mile sections of Interstate highways to very short sections of city streets. Due to problems experienced obtaining some traffic count data, and the level of quality necessary to maintain confidence in the data, no estimate is currently available for some segments of roadway. These segments are included in the publications indicating “NA” for not available. It is the intention of the VDOT’s Mobility Management Traffic Monitoring group to obtain the data necessary and to report traffic volume estimates on all road segments included in these publications.

Many of the road segments in this program are local secondary roads. The amount and detail of data collected on these roads are not as great as the data collected on higher volume roads. The vehicle classification, average weekday traffic volumes, and the theoretical design hour traffic volumes are not calculated for these roads. The publications indicate “NA” for the information that is not available.

This publication is based on a traffic monitoring program initiated in 1997. Because the data collection techniques and statistical evaluation processes are different than those used in previous years, comparison with previous publications may be misleading.

Glossary of Terms:

Route: The Route Number assigned to this segment of roadway with the master inventory route number if this is an overlapping route, with official street or highway name if available.

Length: Length of the traffic segment in miles.

AADT: Annual Average Daily Traffic. The estimate of typical daily traffic on a road segment for all days of the week, Sunday through Saturday, over the period of one year.

QA: Quality of AADT:

- A Average of Complete Continuous Count Data
- B Average of Selected Continuous Count Data
- F Factored Short Term Traffic Count Data
- G Factored Short Term Traffic Count Data with Growth Element
- H Historical Estimate
- M Manual Uncounted Estimate
- N AADT of Similar Neighboring Traffic Link
- O Provided By External Source
- R Raw Traffic Count, Unfactored

4Tire: Percentage of the traffic volume made up of motorcycles, passenger cars, vans and pickup trucks.

Bus: Percentage of the traffic volume made up of busses.

2Axle Truck: Percentage of the traffic volume made up of 2 axle single unit trucks (not including pickups and vans).

3+Axle Truck: Percentage of the traffic volume made up of single unit trucks with three or more axles.

1Trail Truck: Percentage of the traffic volume made up of units with a single trailer.

2Trail Truck: Percentage of the traffic volume made up of units with more than one trailer.

QC: Quality of Classification Data:

- A Average of Complete Continuous Count Data
- B Average of Selected Continuous Count Data
- C Short Term Classified Traffic Count Data
- F Factored Short Term Traffic Count Data
- H Historical Estimate
- M Mass Collective Average
- N Classification Estimates of Similar Neighboring Traffic Link

K Factor: The estimate of the portion of the traffic volume traveling during the peak hour or design hour.

QK: Quality of the Peak Hour estimate:

- A Factor based on 30th Highest Hour Observed During at least 250 days of Continuous Traffic Data
- B Factor based on other Hour Observed During Less than 250 days of Continuous Traffic Data
- F Factor based on Highest Hour Collected at in a 48 Hour Weekday Period
- M Factor based on Manual Estimate of design hour
- N Peak Hour Factor of Similar Neighboring Traffic Link
- O Provided by External Source

Dir Factor: The estimate of the portion of the traffic volume traveling in the peak direction during the peak hour..

AAWDT: Average Annual Weekday Traffic. The estimate of typical traffic over the period of one year for the days between Monday through Thursday inclusive.

QW: Quality of AAWDT:

- A Average of Complete Continuous Count Data
- B Average of Selected Continuous Count Data
- F Factored Short Term Traffic Count Data
- G Factored Short Term Traffic Count Data with Growth Element
- M Manual Uncounted Estimate
- N AAWDT of Similar Neighboring Traffic Link
- O Provided by External Source

Year: Year for which the published values are appropriate. If the Quality of AADT (QA) is "R", the year is the year that the raw traffic count was collected, and if available,

Route Shield Legend

Route Systems



Interstate Route

Traffic volume data for Interstate Routes and some other routes are reported separately by direction, as well as combined.



US Route



Virginia State Route



Secondary Route

Special Routes



Bus - Business Route
Bypas - Bypass Route
Truck - Truck Route



ALT - Alternate Route
Wve - Wve Route connector



P - Parallel Route; Southbound or Westbound direction lanes of a numbered route where they are on a different road facility than the other direction.



The VDOT Maintenance Jurisdiction number is displayed below the Secondary Route Number if the Maintenance Jurisdiction is different than the jurisdiction in the title of the report.

Virginia Department of Transportation
 Mobility Management Division
 2003
 Annual Average Daily Traffic Volume Estimates By Section of Route
 Town of Stephens City

Route	Length	AADT	QA	Year
Town of Stephens City				
From: SCL Stephens City				
11 Main Street	0.32	4800	N	2003
To: SR 277 Fairfax Pike				
From: SR 277 Fairfax Pike				
11 Main Street	0.71	9500	G	2003
To: NCL Stephens City				
North				
From: SCL Stephens City				
81	0.10	22000	G	2003
To: SR 277; NCL Stephens City		43000	G	
South				
From: SCL Stephens City				
81	0.10	20000	G	2003
To: NCL Stephens City		43000	G	
From: US11 Stephens City				
277 Fairfax St	0.15	15000	G	2003
To: ECL Stephens City				
From: WCL Stephens City				
631	0.45	3200	G	2003
To: US 11; SR 277				
From: SCL Stephens City				
648 Passage Road	0.70	150	R	10/02/2002
To: NCL Stephens City				
From: 34-1011				
1001	0.27	120	R	10/23/2002
To: 34-1002				
From: 34-1005				
1002	0.10	780	R	1999
To: 34-1006 Green Street				
From: 34-1006 Green Street				
1002	0.30	2000	R	10/02/2002
To: 34-1007				
From: 34-1007				
1002	0.15	370	R	1999
To: Dead End				
From: 34-1005				
1003	0.50	490	R	10/02/2002
To: 34-1008				
From: 34-1008				
1003	0.10	280	R	1999
To: 34-1009 Gap Terminus				
From: 34-1016 Gap Terminus				
1003	0.18	90	R	10/02/2002
To: Dead End				
From: 34-631				
1004	0.10	130	R	1999
To: 34-1001				
From: 34-1001				
1004	0.10	60	R	10/02/2002
To: 34-1007				
From: 34-1002				
1005	0.10	630	R	1999
To: 34-1003 Laura Drive				
From: Dead End				
1006	0.05	90	R	10/02/2002
To: 34-1003 Laura Drive				
From: 34-1003 Laura Drive				
1006	0.05	320	R	1999
To: US 11				
From: US 11				
1006	0.05	890	R	1999
To: 34-1002				

Route	Length	AADT	QA	Year
Town of Stephens City				
From: 34-1002				
1006	0.07	40	R	1999
To: Dead End				
From: 34-1002				
1007	0.05	1800	R	10/02/2002
To: US 11				
From: US 11				
1007	0.05	680	R	10/02/2002
To: 34-1003 Laura Drive				
From: 34-1003 Laura Drive				
1007	0.05	440	R	10/02/2002
To: 34-1004				
From: 34-1004				
1007	0.03	460	R	10/02/2002
To: 34-1024				
From: 34-1024				
1007	0.09	200	R	10/02/2002
To: 34-1011				
From: US 11				
1008	0.05	650	R	1999
To: 34-1003 Laura Drive				
From: 34-1003 Laura Drive				
1008	0.15	430	R	1999
To: 34-1028				
From: 34-1028				
1008	0.03	5	R	1999
To: Dead End				
From: 34-1003 Laura Drive				
1009	0.05	240	R	10/02/2002
To: 34-1017				
From: 34-1017				
1009	0.09	110	R	10/02/2002
To: 34-1023				
From: Dead End				
1010	0.15	490	R	10/02/2002
To: US 11				
From: US 11				
1011	0.10	200	R	1999
To: 34-631				
From: 34-631				
1011	0.10	220	R	1999
To: 34-1001				
From: 34-1001				
1011	0.14	150	R	1999
To: 34-1007				
From: 34-1007				
1011	0.14	150	R	1999
To: Dead End				
From: 34-631				
1013	0.15	290	R	10/02/2002
To: Dead End				
From: US 11				
1016	0.06	220	R	10/02/2002
To: 34-1003 Laura Drive				
From: 34-1003 Laura Drive				
1016	0.06	160	R	10/02/2002
To: 34-1017				
From: 34-1017				
1016	0.08	100	R	10/02/2002
To: 34-1023				
From: 34-1023				
1017	0.14	190	R	10/02/2002
To: 34-1009				
From: 34-1009				
1017	0.28	230	R	10/02/2002
To: 34-1016				
From: 34-1016				
1017	0.28	230	R	10/02/2002
To: NCL Stephens City				
From: NCL Stephens City				
1023	0.16	90	R	10/02/2002
To: 34-1009				
From: 34-1009				
1023	0.16	90	R	10/02/2002
To: 34-1016				

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Route	Length	AADT	QA	Year
Town of Stephens City				
From: 34-1007				
1024 34	0.04	50	R	1999
To: Cul-de-Sac				
From: 34-1008				
1028 34	0.10	270	R	1999
To: Cul-de-Sac				
From: 34-1013				
1149 34	0.09	60	R	1999
To: 34-1011				