

2002

**Virginia Department of Transportation
Daily Traffic Volume Estimates
Including Vehicle Classification Estimates**

where available

Special Locality Report

300

Town of Smithfield

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

Peak Hour: The estimate of the traffic volume for the 30th highest traffic volume occurring in a one-year period divided by the AADT for the same one-year period.

QK: Quality of the Peak Hour estimate:

- A Factor based on 30th Highest Hour Observed During 12 Months of Continuous Traffic Data
- B Factor based on 30th Highest Hour Observed During Less than 12 Months 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 30th Highest 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
 2002
 Annual Average Daily Traffic Volume Estimates By Section of Route
 Town of Smithfield

Route	Length	AADT	QA	4Tire	Bus	Truck				QC	Peak Hour	QK	Dir Factor	AAWDT	QW	Year
						2Axle	3+Axle	1Trail	2Trail							
Town of Smithfield																
(10)	0.78	9900	F	94%	1%	From: NCL Smithfield				F	0.089	F	0.72	9900	F	2002
(10)	2.30	15000	F	92%	1%	To: US 258 South Of Smithfield				C	0.09	F	0.557	15000	F	2002
(10) (258)	0.31	27000	F	91%	1%	From: SR 10 Bus East Of Smithfield				F	0.088	F	0.508	27000	F	2002
(10) (258)	0.65	24000	F	91%	1%	To: ECL SMITHFIELD				F	0.087	F	0.546	24000	F	2002
(10) (258)	0.85	16000	F	97%	0%	From: CL Smithfield				F	0.09	F	0.534	16000	F	2002
Bus (10) (258)	0.79	14000	F	97%	0%	To: SR 10 BYPASS				C	0.087	F	0.563	14000	F	2002
Bus (10) (258)	0.79	14000	F	97%	0%	From: BATTERY PARK RD				F	0.092	F	0.568	14000	F	2002
Bus (10) (258)	0.85	10000	F	97%	0%	To: RED POINT DR				C	0.098	F	0.617	10000	F	2002
Bus (10)	0.43	5000	F	97%	0%	From: RT 258 BUS SMITHFIELD Bus US 258 Main St				F	0.098	F	0.527	5000	F	2002
(258)	0.27	10000	F	94%	1%	To: Berry Hill Rd				C	0.094	F	0.618	10000	F	2002
(258)	0.76	13000	F	93%	1%	From: NCL Smithfield				C	0.09	F	0.538	13000	F	2002
(258) (10)	2.30	15000	F	92%	1%	To: 46-709 New WCL Smithfield				C	0.09	F	0.557	15000	F	2002
(258)	0.31	27000	F	91%	1%	From: Old WCL Smithfield				F	0.088	F	0.508	27000	F	2002
(258)	0.65	24000	F	91%	1%	To: SR 10 Bypass				F	0.087	F	0.546	24000	F	2002
Bus (258)	0.20	9600	F	97%	0%	From: RT 10 SOUTH OF SMITHFIELD				F	0.092	F	0.558	9600	F	2002
Bus (258)	0.10	6800	F	97%	0%	To: SR 10 BUS E OF SMITHFIELD				F	0.093	F	0.507	6800	F	2002
Bus (258)	0.34	5900	F	97%	0%	From: Old SCL Smithfield				F	0.095	F	0.606	6000	F	2002
Bus (258)	0.79	14000	F	97%	0%	To: Church Street				F	0.092	F	0.568	14000	F	2002
Bus (258)	0.79	14000	F	97%	0%	From: Red Point Drive				C	0.087	F	0.563	14000	F	2002
Bus (258)	0.85	16000	F	97%	0%	To: Battery Park Road				F	0.09	F	0.534	16000	F	2002
ALT (258)	0.14	3100	F	96%	1%	From: SR 10 Bypass				C	0.097	F	0.633	3100	F	2002
ALT (258)	0.34	2900	F	97%	0%	To: Main St				C	0.094	F	0.724	2900	F	2002
						From: Cary St										
						To: North Church St										

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						2Axle	3+Axle	1Trail	2Trail								
Town of Smithfield																	
(631) Cary St	0.91	1900	F	97%	0%	3%	0%	0%	0%	C	0.101	F	0.704	2000	F	2002	
				From:	Main St												
				To:	Smithfield Corp Limits												
(640) Great Springs Rd	0.22	1300	F	95%	2%	3%	0%	0%	0%	C	0.102	F	0.599	1300	F	2002	
				From:	Smithfield Corp Limits												
				To:	Main St												
(643) Battery Park Rd	0.37	9000	F	96%	1%	2%	1%	0%	0%	C	0.099	F	0.548	9000	F	2002	
				From:	South Church St												
				To:	Smithfield Corp Limits												
Berry Hill Rd		4000	F								0.091	F		4200	F	2002	
				From:	Church St												
				To:	Smithfield Corp Limits												
Cedar St		1700	F								0.113	F		1800	F	2002	
				From:	Underwood St												
				To:	Main St												
Lumar Rd		1900	F								0.098	F		2100	F	2002	
				From:	Red Point Dr												
				To:	Moonfield Dr												
Moonfield Dr		2000	F								0.124	F		2100	F	2002	
				From:	Lumar Rd												
				To:	Cul-de-Sac												
Red Point Dr		340	F								0.120	F		360	F	2002	
				From:	Church St												
				To:	Lumar Rd												
Ridgeland Dr		220	F								0.107	F		230	F	2002	
				From:	Jefferson Dr												
				To:	Pegan Rd												
Underwood St		1800	F								0.116	F		1900	F	2002	
				From:	Cedar St												
				To:	Main St												
Wainwright Dr		640	F								0.112	F		670	F	2002	
				From:	Lumar Rd												
				To:	Jefferson Dr												