### 2010

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

where available

# Special Locality Report 151

City of Fairfax

Information in this report is included in Report

29

(Fairfax County)

Prepared By

Virginia Department of Transportation Traffic Engineering Division

In Cooperation With

U.S. Department of Transportation Federal Highway Administration

### Virginia Department of Transportation Traffic Engineering 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 of the VDOT Traffic Engineering Division 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 Traffic Engineering Division 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 K Factor 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 Design Hour Factor (K 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

North 81	Interstate Route	Traffic volume data for Interstate Routes and some other routes are reported separately by direction, as well as combined.
29	US Route	
7	Virginia State Rou	te
(F241)	Frontage Road (F	precedes frontage route number)
(600)	Secondary Route	

### **Special Routes**

Bus	Bus - Business Route	
{29}	Bypas - Bypass Route	
	Truck - Truck Route	
ALT	ALT - Alternate Route	
(220)	Wye - Wye 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 Maintainenance Jurisdiction number is displayed below the Secondary Route Number if the Maintenance Jurisdiction is different than the jurisdiction in the title of the report.

		City of Fair					Truck				K		Dir		
Route	Jurisdiction	Length AADT	QA	4Tire	Bus		3+Axle			QC	Factor	QK	Factor	AAWDT	Q۷
~~~	From:	WCL Fairfa	X												
29 Lee Highway	City of Fairfax	0.16 <b>41000</b>	G	99%	0%	0%	0%	0%	0%	F	NA			44000	G
~	Ta: From:	Jermantown 1	Rd												
29 Lee Highway	City of Fairfax	0.44 <b>38000</b>	G	99%	0%	0%	0%	0%	0%	F	NA			40000	G
~	To: From:	US 50; SR 236 M	1ain St			$\Box$ $\vdash$									
29) (50) Lee Highway	City of Fairfax	0.96 <b>39000</b>	G	99%	0%	0%	0%	0%	0%	F	0.076	F		42000	(
$\sim$	To: From:	SR 123 Chain Bri	Semantown Rd												
29 50 Lee Highway	City of Fairfax	0.21 <b>37000</b>	G	99%	0%	0%	0%	0%	0%	F	0.076	F		39000	(
	To:	University [	)r												
29) (50) Lee Highway	City of Fairfax			99%	0%	0%	0%	0%	0%	F	NA			46000	(
	Tay	Plantation Park	way												
29) (50) Lee Hwy	City of Fairfax			99%	0%	0%	0%	0%	0%	F	NA			44000	(
	To														
29 (50) Lee Highway	City of Fairfax			99%	0%	0%	0%	0%	0%	F	NA			44000	
29) (30) (30)	To						-,-		-,-						
29 Lee Highway	City of Fairfax		N	99%	0%	0%	0%	0%	0%	N	NΔ			44000	
Lee Highway	only of Fairfax			3370	070	070	070	070	070	11	INA			44000	
Loo Highway	City of Fairfax			000/	00/	10/	00/	00/	00/	NI	0.005	NI	0.520	21000	
29 237 Lee Highway	City of Fairfax			90%	0%	170	0%	0%	0%	IN	0.065	IN	0.529	31000	
	From:														_
Lee Jackson Hwy	City of Fairfax			98%	1%	1%	1%	0%	0%	F	0.076	F		41000	
30) 200 000.00,	Tol				.,,		. , 0	0,0	0,0	•	0.0.0	•			
29 Lee Highway	City of Fairfax	· · · · · · · · · · · · · · · · · · ·		99%	0%	0%	0%	0%	0%	F	0.076	F		42000	
50) (29) Lee Highway	only of Fairfax			0070	070		070	070	070	•	0.070	•		42000	
Loo Highway	City of Foirfox			000/	00/	00/	00/	00/	00/		0.076			20000	
[29] Lee Highway	City of Fairfax			9970	0%	0%	0%	0%	0%	Г	0.076	Г		39000	,
~	From	University I		000/	00/		00/	00/	00/		NIA			40000	_
Lee Highway	City of Fairfax	0.59 <b>43000</b>	G	99%	0%	0%	0%	0%	0%	F	NA			46000	•
~ ~~	To: From:	Plantation Park													_
50) (29) Lee Hwy	City of Fairfax	0.68 <b>42000</b>	G	99%	0%	0%	0%	0%	0%	F	NA			44000	
~ ~	To: From:	Draper Driv	'e												
(29) Lee Highway	City of Fairfax	0.28 <b>41000</b>	G	99%	0%	0%	0%	0%	0%	F	NA			44000	
<del>&gt; \</del>	To: From:	US 29 N, Lee Hi	ghway												
(237) Arlington Blvd	City of Fairfax	0.28 <b>33000</b>	G	98%	1%	1%	1%	0%	0%	F	80.0	F		36000	
<i></i>	To. From:	SR 237 Picket	t Rd			$\neg$									
Arlington Blvd	City of Fairfax	0.03 49000	G	98%	1%	1%	1%	0%	0%	F	NA			54000	
$\checkmark$	To:	ECL Fairfa	X												
	From:	SCL Fairfa	х												
123 Chain Bridge Rd	City of Fairfax	0.47 <b>31000</b>	G	98%	0%	0%	1%	1%	0%	F	0.078	F		33000	(
$\smile$	То:	Judicial Dr													

			ity Of Faili					Tru	ıck			K		Dir		
Route	Jurisdiction	Length	AADT	QA	4Tire	Bus	2Axle	3+Axle		2Trail	QC	Factor	QK	Factor	AAWDT	QW
	From:		Judicial Dr													
123) Chain Bridge Rd	City of Fairfax	0.26	24000	G	98%	0%	0%	1%	1%	0%	F	NA			26000	G
	To- From:	S	R 236 Main S													
123 Chain Bridge Rd	City of Fairfax	0.19	23000	G	98%	0%	0%	1%	1%	0%	F	NA			24000	G
<u> </u>	To- From:		Whitehead St													
Chain Bridge Rd	City of Fairfax	0.10	23000	G	98%	0%	0%	1%	1%	0%	F	0.073	F		25000	G
	To: From:		Kenmore Dr													
123 Chain Bridge Rd	City of Fairfax	0.58	27000	G	98%	0%	0%	1%	1%	0%	F	0.073	F		29000	G
<u> </u>	To: From:		; US 50 Lee													
123 Chain Bridge Rd	City of Fairfax	0.35	44000	G	98%	1%	1%	0%	1%	0%	С	NA			47000	G
<u> </u>	To:		66 NCL Fairl													
	From:	US 29 Lee High				40/	40/	00/	00/	00/	_	0.077	_		40000	_
Main St	City of Fairfax	0.94	42000	G	99%	1%	1%	0%	0%	0%	F	0.077	F		46000	G
	From:		West St										_			
Main St	City of Fairfax	0.21	13000	G	99%	1%	1%	0%	0%	0%	F	0.075	F		14000	G
	Combined Traffic Estimates for 2 Parallel Roadwa	lys on this Route:	North St E	G	99%	0%	0%	0%	0%	0%	F	NA			38000	G
	From:		Old Lee Hwy	/												
236 Main St	City of Fairfax	1.31	38000	G	99%	1%	1%	0%	0%	0%	С	0.082	F		42000	G
<u> </u>	To- From:		Whitacre Rd													
236 Little River Tpke	City of Fairfax	0.57	42000	G	98%	0%	1%	0%	1%	0%	F	NA			46000	G
$\overline{}$	To:		ECL Fairfax													
	From:		236 W, Maii													_
236)North St	City of Fairfax	0.30	22000	G	99%	0%	0%	0%	0%	0%	C	NA			24000	G
_	Combined Traffic Estimates for 2 Parallel Roadwa		236 E, Main	G	99%	0%	0%	0%	0%	0%	F	NA			38000	G
	From:		R 236 Main S													
Pickett Rd	City of Fairfax	0.49	27000	G G	96%	0%	1%	0%	2%	0%	F	0.082	F		29000	G
231). 10.1011.110	7							0,0	_,,	0,0	•	0.002	•			Ū
Pickett Rd	City of Fairfax	1.17	Colonial Ave 27000	G	96%	0%	1%	0%	2%	0%	С	0.084	F		29000	G
37)1 1011011 110	The state of the s				0070	070		070	270	070	Ü	0.004	•		20000	Ŭ
237) (50) Arlington Blvd	City of Fairfax	0.28	33000 33000	Blvd <b>G</b>	98%	1%	1%	1%	0%	0%	F	0.08	F		36000	G
237 50 Arlington Blvd	City of Faillax				<i>30 /</i> 0	1 /0	1 /0	1 /0	U /0	U /0	Г	0.00	Г		30000	G
l oo Hishway	City of Fourtoy		29 Lee High 28000	_	000/	00/	10/	00/	00/	00/	N.I	0.005	N!	0.520	21000	N.I
237 29 Lee Highway	City of Fairfax	0.13	ECL Fairfax	N	98%	0%	1%	0%	0%	0%	N	0.085	N	0.529	31000	N

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						,	UI Falliax								
Route	Length	AADT	QA	4Tire	Bus		Truck 3+Axle 1Tr		- QC	K Factor	QK	Dir Factor	AAWDT	QW	Year
City of Fairfax		From				Fainfau	Country Line			—					
F <sub>254</sub> ) Phoenix Dr	0.09	NA				Fairiax	County Line			NA			NA		
		To	·			Fairfax	County Line								
		From	:			Fairfax	High School								
9 <sub>128</sub> Rebel Run	0.18	4500	R							NA			NA		03/10/200
		To				US 2	9 Lee Hwy								
	0.00	From	<u> </u>			Eleven O	ak Elem School						NIA		4004
9598	0.06	190 To	R			Fleven O	ak Elem School			NA			NA		1991
		From					36 Main St			$\dashv$					
1 Judicial Dr	0.22	13000	G	99%	1%	1%	0% 0%	6 0%	F	NA			15000	G	2010
		To					age Ave								
1 Judicial Dr	0.43	11000	G	99%	1%	1%	0% 0%	6 0%	С	0.085	F		12000	G	2010
		To	:				hain Bridge Rd								
		From	:			Uni	versity Dr								
2 Kenmore Dr	0.19	4600	G	98%	1%	0%	1% 0%	6 0%	С	0.12	F	0.688	5000	G	2010
<u> </u>		To	c			S	SR 123								
$\sim$		From					Lee Hwy								
(3) Layton Hall Dr	0.29	5100	G	99%	1%	0%	0% 0%	6 0%	С	0.103	F		5500	G	2010
<u> </u>		To					versity Dr			<del></del>					
Durka Station Dd	0.47	From		000/	00/		L Fairfax	00/			_		7200	0	2010
Burke Station Rd	0.17	6600	G	99%	0%	1%	0% 0%	6 0%	С	0.086	F		7200	G	2010
	2.04	From		200/	00/		ra Ann Lane						7000		0040
Burke Station Rd	0.31	6700 To	G	99%	0%	1%	0% 0%	6 0%	F	0.086	F		7300	G	2010
		From	<u> </u>				36 Main St			<del></del>					
Roberts Rd	0.27	8500	G	99%	0%	SC	L Fairfax 0% 0%	6 0%	С	0.099	F		9200	G	2010
Roberts Rd	0.21	-	<u> </u>	3370	070			, 070		——————————————————————————————————————	'		3200	O	2010
Roberts Rd	0.25	3700 From	G	99%	0%	Sa	iger Ave  0% 0%	6 0%	F	0.093	F		4000	G	2010
Roberts Rd	0.23	37 00 To	_	99 /0	0 /6		36 Main St	5 076		0.093	Г		4000	G	2010
		From	:				L Fairfax			$\equiv$					
06627) University Dr	0.39	12000	G	97%	2%	1%	0% 0%	6 0%	С	0.093	F		13000	G	2010
,		To													
6627) University Dr	0.21	14000	G	97%	2%	1%	nstrong St 0% 0%	6 0%	F	NA			15000	G	2010
0021) 01	0.2.	To	_	0.70			outh St			— · · · ·			.0000		20.0
6627) University Dr	0.11	14000	N	97%	2%	s 1%	0% 0%	6 0%	N	NA			16000	N	2010
6627) University Dr	0.11	To To		01.70						— · · ·			10000	.,	2010
6627) University Dr	0.22	14000	G	97%	2%	1%	36 Main St 0% 0%	6 0%	F	NA			16000	G	2010
6627 University Dr	0.22	14000		37 70	270								10000	O	2010
6627) University Dr	0.13	11000	G	97%	2%	1%	itehead St 0% 0%	6 0%	F	NA			12000	G	2010
University Dr	0.13	To To	_	9176	270		on Hall Dr	0%					12000	G	2010
		From					on Hall Rd								
6627 University Dr	0.70	7200	G	97%	2%	1%	0% 0%	6 0%	F	0.11	F		7800	G	2010
		To				US 29 &	ε 50; Lee Hwy			<u> Ш</u>					
O		From					36 Main St								
Old Lee Hwy	0.41	13000 <sub>To</sub>	G	98%	1%	1%	0% 0%	6 0%	F	0.094	F		14000	G	2010
		From					on Hall Rd on Hall Dr			$+\!-$					
6628) Old Lee Hwy	0.49	15000	G	98%	1%	1%	0% 0%	6 0%	F	0.102	F		17000	G	2010
,		To					itage Lane			<b>—</b> —					
6628) Old Lee Hwy	0.19	14000	G	98%	1%	1%	0% 0%	6 0%	F	NA	_		15000	G	2010
0020)		т.													
							Jarrage of D 4								
(6628) Old Lee Hwy	0.25	15000	G	98%	1%	1%	0% 0%	6 0%	С	0.095	F		16000	G	2010

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						City	or Fairtax	`								
Route	Length	AADT	QA	4Tire	Bus		Tru 3+Axle			QC	K Factor	QK	Dir Factor	AAWDT	QW	Year
ity of Fairfax		From:														
Old Lee Hwy	0.15	15000	G	98%	1%	1%	ornell Rd 0%	0%	0%	F	0.092	F		17000	G	2010
Old Lee Hwy	0.55	14000	G	98%	1%	1%	ebel Run 0%	0%	0%	F	0.086	F		16000	G	2010
		In					50 Lee Hwy									
		From:					Lee Highwa									
<sub>634</sub> ) Jermantown Rd	0.30	11000	G	98%	1%	1%	0%	0%	0%	С	0.088	F		12000	G	2010
		To: From:				US 50 Le	ee Jackson I	łwy								
Jermantown Rd	0.50	14000	G	98%	1%	1%	0%	0%	0%	С	0.089	F		15000	G	2010
O James dama Dal	0.40	From:	ᄂ	000/	40/		sborough Ct		00/					4.4000		0046
Jermantown Rd	0.40	13000 <sub>To:</sub>	G	98%	1%	1%	0%	0%	0%	F	0.090	F		14000	G	2010
			l				L Fairfax				<u></u>					
A delice on D. I		From:	<u> </u>			Co	llier Road				0.007	_		000	_	004
Addison Rd		290 To:	G								0.097	F		290	G	2010
						Sag	er Avenue									
		From:				Atla	anta Street									
Confederate Lane		260	G								0.124	F	0.672	260	G	2010
		To:				Re	eb Street									
		From:				Old	Post Road									
Cornwall Rd		580	G								0.101	F		580	G	201
		To:				Park	Hill Place									
		From:				Wh	itehead St									
Democracy Ln		840	G								NA			840	G	2010
		To:				Layt	ton Hall Dr									
		From:				US	29, US 50									
Draper Dr		4100	G								NA			4100	G	2010
		To:				King	gsbridge Dr									
		From:				Jerm	nantown Rd									
Orchard St		2900	G								NA			2900	G	2010
		To:				Мс	Lean Ave									
		From:					US 50									
Pickett Rd		19000	G								NA			19000	G	2010
		To:				NC	L Fairfax									
		From:				Chair	n Bridge Rd									
Sager Ave		2700	G								NA			2700	G	2010
9		To:				Dv	vight Ave									
		From:					n Bridge Rd				l					
School St		1500	G			Ciidli	n Dringe Ku				0.113	F	0.747	1500	G	201
5011001 01		To:	Ť			Tro	wbridge St				<u> </u>	•	J., 41	1500	9	_01
		From:	 I								<u>.</u> 					
Whitacre Rd			<u> </u>				SR 236				NA.			4400	C	204
willacre Ko		4400 To:	G			D-	aggreet D.				NA			4400	G	201
			l				ecarat Dr									
		From:	<u> </u>			Howe	rton Avenu	e				_			_	
Wilson St		70	G								0.125	F		70	G	2010
		To:				Norn	nan Avenue									

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