#### 2009

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

where available

# Special Locality Report 137

City of Williamsburg

Information in this report is included in Report

**47** 

(James City 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.

#### Virginia Department of Transportation Traffic Engineering Division

### 2009 Annual Average Daily Traffic Volume Estimates By Section of Route City of Williamsburg

		City of Williams	build			T				1/		D:-							
Route	Jurisdiction	Length AADT	QA 4Tir	e Bus		Tru			QC	K	QK	Dir	AAWDT	- QI					
	From	MACA MAIN. 1			ZAXIE	3+Axle	11 rail	21 raii		Factor		Factor	AAWDT  39000  11000  12000  11000  7300  5300  9200  7500  15000  7300  6800  18000  18000  19000						
	City of Williamshurg (Maint: 47)	WCL Williamsbu 0.24 <b>35000</b>	ırg <b>G</b> 97%	5 0%	1%	10/	10/	00/	F	0.089	F	0.529	20000	c					
5 (199)	City of Williamsburg (Maint: 47)	SR 31, SR 199		0 0%	176	1%	1%	0%	Г	0.069	Г	0.529	39000						
	From:	SR 31 Jamestown Rd;																	
5 Jamestown Rd	City of Williamsburg			0%	1%	0%	0%	0%	F	0.088	F	0.680	11000	(					
3)	T-1																		
Lamasatawa Bd	From:			00/	40/	00/	00/	00/	_	0.007	_	0.574	40000	(					
5 Jamestown Rd	City of Williamsburg			0%	1%	0%	0%	0%	C	0.087	F	0.574	12000	,					
	From:																		
5 Boundary St	City of Williamshura			. n%	1%	0%	0%	0%	F	0.082	F	0.505	11000						
5 Boundary St	137-7073 John Tyler Memorial Hwy	0.002	'	0.505	11000	,													
	From:																		
5 Francis St	City of Williamsburg		<b>G</b> 99%	0%	1%	0%	0%	0%	F	0.084	F	0.544	7300	(					
3)	To:								•		-								
	From:																		
5 (132) Henry St	City of Williamsburg	0.38 4900	<b>G</b> 99%	0%	1%	0%	0%	0%	F	0.087	F	0.6	5300						
	To:	SR 162 Lafayette	St																
_	From:	SR 132 Henry S	St																
5 Lafayette St	City of Williamsburg	0.33 <b>8500</b>	<b>G</b> 97%	1%	1%	0%	0%	0%	F	0.097	F	0.549	9200						
$\smile$	To	Canital Landing I	P.A																
5 Lafayette St	City of Williamshurg			1%	1%	0%	0%	0%	C	0.089	F	0.614	7500	(					
5 Lafayette St	City of Williamsburg			170	170	070	070	070	J	0.000	•	0.014	7000						
	To- From:																		
5) (60) Page St	City of Williamsburg	0.25 <b>14000</b>	G							NA			15000	(					
$\bigcirc$	To:	Second St																	
5) (60) Page St			G							0.086	F	0.531	7300	(					
3) (80)																			
One Stall and Sam But	From:		0 070	40/	40/	00/	00/	00/	_	0.004	_	0.504	0000						
5 Capitol Landing Rd	, <u> </u>			1%	1%	0%	0%	0%	C	0.084	F	0.521	6800	(					
<u>~</u>	10.	SR 143 Merrimac	St																
	From:	WCL Williamsbu																	
31 Jamestown Rd	City of Williamsburg	0.04 <b>16000</b>	<b>G</b> 98%	6 0%	1%	0%	0%	0%	F	0.092	F	0.566	18000	(					
$\smile$	To:	State Maintenance Bo	oundary																
31 Jamestown Rd	City of Williamsburg (Maint: 47)	0.02 <b>16000</b>	<b>G</b> 98%	0%	1%	0%	0%	0%	F	0.092	F	0.566	18000	(					
31)	To:	SR 5; SR 199			$\overline{}$				•		-								
	From:	·																	
60 Richmond Rd	City of Williamsburg	WCL Williamsbu	urg <b>G</b> 98%	5 1%	1%	0%	0%	0%	F	0.004	F	0.550	10000						
60 Richmond Rd	City of Williamsburg	1.37 17000	96%	1%	170	U%	U%	υ%	г	0.091	٦	0.550	39000 11000 12000 11000 7300 5300 9200 7500 15000 7300 6800 18000 18000 19000 26000 21000	(					
~	To: From:	Ironbound Rd																	
60 Richmond Rd	City of Williamsburg	0.30 <b>24000</b>	<b>G</b> 98%	1%	1%	0%	0%	0%	С	0.086	F	0.539	26000	(					
$\checkmark$	To:	Bypass Rd																	
~~	From:	Richmond Rd																	
60 Bypass Rd	City of Williamsburg	0.11 <b>20000</b>	<b>G</b> 98%	1%	1%	0%	0%	0%	С	0.083	F	0.520	21000	(					
~	To	NCL Williamsbu	ırg		<u> </u>														
60 Bypass Rd	City of Williamsburg	0.50 <b>12000</b>	<b>G</b> 98%	5 1%	1%	0%	0%	0%	С	0.084	F	0.587	13000	(					
00) = ) = ) = 000 110	To:	Parkway Dr	<del>-</del> 557	. 170	1 /0	370	J / U	5 /0		5.50→	•	0.507	.5000	`					

#### Virginia Department of Transportation Traffic Engineering Division

## 2009 Annual Average Daily Traffic Volume Estimates By Section of Route City of Williamsburg

							Tru	ıck			K		Dir		
Route	Jurisdiction	Length <b>AADT</b>	QA	4Tire	Bus				2Trail	QC		QK		AAWDT	QW
	From:	Parkway Dr													
60 Bypass Rd	City of Williamsburg	0.16 <b>10000</b>	G	98%	1%	1%	0%	0%	0%	F	0.092	F	0.578	11000	G
	To-	SP 5 Capital Land	ing Dd												
60 5 Page St	City of Williamsburg	•									0.086	F	0.531	7300	G
(00) (3) . ago or											0.000	•	0.00		•
C Dogo St	City of William churc										NΙΛ			15000	G
60 5 Page St	City of Williamsburg		Parkway Dr	15000	G										
	From:														
Sen York St	City of Williamsburg			97%	1%	1%	1%	0%	0%	С	0.092	F	0.528	11000	G
(60)	To:	City of Williamsburg													
	From:														
Henry St South	City of Williamsburg		G	98%	1%	1%	0%	0%	0%	С	0.095	F	0.506	4000	G
132)	City of Williamsburg			0070	170	.,,	070	070	070	Ū	0.000	•	0.000	1000	Ŭ
Llarami Ct Cavith	From:			000/	40/	40/	00/	00/	00/	_	0.000	_	0.000	5000	
132 Henry St South	City of Williamsburg			98%	1%	1%	0%	0%	0%	F	0.082	F	0.609	5200	G
	From:		incis St												
Henry St	City of Williamsburg		G	99%	0%	1%	0%	0%	0%	F	0.087	F	0.6	5300	G
(132) (3), 5.	To:												0.531  0.528  0.506  0.609  0.6  0.555  0.644  0.534  0.542  0.542  0.543  0.543	0000	•
	From:														
(132)Henry St North	City of Williamsburg	0.44 <b>6600</b>	G	97%	1%	1%	0%	0%	0%	С	0.094	F	0.555	7200	G
$\smile$	To	SR 132 Y													
N.Henry St	City of Williamsburg		G	97%	1%	1%	0%	0%	0%	F	0.095	F	0.644	8700	G
132)													0.578  0.531  0.528  0.506  0.609  0.6  0.644  0.642  0.534  0.542  0.542  0.543  0.543		
Wyo	From:														
	City of Williamsburg			98%	1%	1%	0%	0%	0%	С	0.103	F	0.642	5800	G
132)	To:			0070	.,,		0,0	0,0	0,0		000	•	0.0.2	0000	•
	From:		•												
City of Williamsburg   0.60   9900   G   97%   1%   1%   1%   0%   0%   0%   0 0 0 0 0 0 0 0 0 0 0		0.534	7300	G											
143) Werlinae Trail	City of Williamsburg			31 70	170	170	070	070	070	O	0.054	•	0.004	7300	O
	To: From:	<b>.</b>		070/	407		00/	407	00/	_	2 222	_	0.540	2500	_
143 Merrimac I rail	City of Williamsburg			97%	1%	1%	0%	1%	0%	C	0.096	F	0.542	9500	G
	10:	York County L	ine												
															_
(199) (5)	City of Williamsburg (Maint: 47)	0.24 <b>35000</b>	G	97%	0%	1%	1%	1%	0%	F	0.089	F	0.529	39000	G
	To: From:	SR 5; SR 31 Jamest	own Rd			-									
(199)	City of Williamsburg (Maint: 47)			97%	0%	1%	1%	1%	0%	F	0.091	F	0.543	41000	G
$\smile$	To:	Igmes City Count	v Line												
100	City of Williamshurg (Maint: 47)			97%	0%	1%	1%	1%	0%	N	0.091	N	0.543	41000	N
199	To:			J1 /0	070		1 /0	1 /0	0 /0	14	0.001	1 4	0.040	71000	14
	Econol					<u>I</u>									
Monticella Ava	City of Williamsburg (Maint: 47)			000/	00/	10/	10/	00/	00/	_	0.000	_	0.504	10000	G
321 Monticello Ave	City of Williamsburg (Waint: 47)			90%	U%	170	170	U%	υ%	г	0.000		0.304	10000	G
	10.	Compton Dr													

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#### Virginia Department of Transportation Traffic Engineering Division

## 2009 Annual Average Daily Traffic Volume Estimates By Section of Route City of Williamsburg

Route	Jurisdiction	Length	AADT	QA	4Tire	Bus	Truck2Axle 3+Axle 1Trail 2Trail	QC	K Factor	QK Dir Factor	AAWDT	QW
	From:	James	City Count	y Line								
(90003)Colonial Parkway	City of Williamsburg (Maint: US)	3.20	4700	0					NA		NA	
	To:	You	rk County L	ine								

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# Virginia Department of Transportation Traffic Engineering Division 2009 Annual Average Daily Traffic Volume Estimates By Section of Route City of Williamsburg

						Oity Oi V	vviillaitisu	uig								
Route	Length	AADT	QA	4Tire	Bus		Tru 3+Axle			QC	K Factor	QK	Dir Factor	AAWDT	QW	Year
City of Williamsburg		From	1			D	D.I				1					
7075 Richmond Rd	0.37	17000	G	99%	0%	1%	ypass Rd 0%	0%	0%	С	0.086	F	0.569	18000	G	2009
<u> </u>		To From					ticello Ave									
(7075) Richmond Rd	0.95	11000	G	99%	0%	1%	0%	0%	0%	С	0.085	F	0.587	12000	G	2009
		From					ry St South									
7075) Francis St	0.91	6200	G	98%	1%	1%	0%	0%	0%	С	0.09	F	0.519	6800	G	2009
		To				W	Valler St									
		From				Ricl	hmond Rd									
7077) Lafayette St	0.12	7300	G	98%	1%	1%	0%	0%	0%	F	0.095	F	0.555	8000	G	2009
<u> </u>		To					acon Ave									
L ofquetto Ct	0.82	From <b>8600</b>	G	98%	1%	B 1%	Bacon St	0%	0%	F	0.095	F	0.52	9400	G	2009
Lafayette St	0.62	To		90%	170		0% Henry St	0%	0%	Г	0.095	Г	0.53	9400	G	2009
		From	I													
Second St	0.19	13000	G	98%	0%	1%	Page St 0%	0%	0%	F	0.089	F	0.574	14000	G	2009
g Gecoria St	0.18	13000		JU /0	J /0			J /0	U /0	- 1	0.008	-	0.074	14000	J	2009
0	0.00	From	<u> </u>	000/	00/		rkway Dr	00/	00/			_	0.574	4.4000	_	0000
Second St	0.22	13000	G	98%	0%	1%	0%	0%	0%	С	0.091	F	0.571	14000	G	2009
		10	1				County Line									
○ I P I.P.I	0.57	From	<u> </u>	000/	40/		ity County I		00/			_	0.570	0700	_	0000
r <sub>081</sub> Iron Bound Rd	0.57	8900	G	98%	1%	1%	0%	0%	0%	С	0.087	F	0.578	9700	G	2009
<u> </u>		To From					nghill Rd									
r <sub>081</sub> ) Iron Bound Rd	0.05	12000	G	98%	1%	1%	0%	0%	0%	F	0.086	F	0.542	13000	G	2009
<u> </u>		То				Ricl	hmond Rd									
<u> </u>		From					nbound Rd									
(7082) Longhill Rd	0.63	3700	G	98%	1%	1%	0%	0%	0%	С	0.109	F	0.636	4000	G	2009
		10					Williamsbu	rg								
<b>○ 14</b>	0.05	From	<u> </u>			Co	mpton Dr					_	0.504	45000	_	0000
Monticello Ave	0.35	14000	G			D: -1	L 1 D.1				0.086	F	0.501	15000	G	2009
		10	1				hmond Rd									
O D D. I	0.40	From	Ļ_	000/	00/		Page St	00/	00/			_	0.074	0000	_	0000
Penniman Rd	0.49	2100 <sub>To</sub>	G	99%	0%	0%	0%	0%	0%	С	0.103	F	0.671	2300	G	2009
							County Line									
Contara Crovo Coventro		From	<u> </u>			Golf Co	ourse Entrar	nce						200	0	2000
Carters Grove Country		390 <sub>To</sub>	G			William	nsburg Aver	NII 0			NA			390	G	2009
		From														
Holly Hills Dr		680	G			Jones	s Mill Lane				 NA			680	G	2009
попу піпь ді		To				Sir Thor	nas Lunsford	d Dr						000	G	2009
		From														
Matoaka Court		730	G			Mount V	Vernon Ave	nue			0.087	F	0.566	730	G	2009
Maloaka Court		730 To				Rich	mond Road				0.007		0.500	730	G	2009
		From									_					
Patrick Henry Dr		590	G			Pine	y Creek Dr				NA			590	G	2009
I alliek Helliy Di		J <b>JU</b> To				V	Valtz Dr				11/7			330	J	2009
		From									+					
Quarterpath Rd		600	G				SR 199				 NA			660	G	2009
σααποιραπ Να		To	<u> </u>			,	York St							000	J	2003
		From														
S England St		2300	G			William	nsburg Aver	iue			0.097	F		2300	G	2009
S Eligiana St		<b>2300</b> To	<u> </u>			Eros	ncis Street				0.097	Г		2300	G	2009
			1			rrai	icis street									

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