

2020

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

where available

Special Locality Report

280

Town of Pembroke

Information in this report is included in Report

35

(Giles County)

Prepared By

**Virginia Department of Transportation
Traffic Engineering Division**

In Cooperation With

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

The reported 2020 AADTs represent the best estimate of 2020 average daily traffic, however, this year's AADTs do vary from normal traffic in the years prior to 2020 due to COVID-19. The reported AADTs may not represent typical traffic for a given day or period within the year as the drastic seasonal variations were normalized through the factoring process. The 2020 publications are therefore colored to draw users attention to the fact that uses of the 2020 published estimates versus alternative data sources should be determined at users' discretion based on the objectives or nature of the analyses being performed.

The estimated 2020 DVMT for the entire state maintained network total to 208,000,000, which has trended down by 11 percent compared to the 2019 level of 234,000,000. For most traffic links across the state, the estimated 2020 AADTs are also seen to have decreased from their 2019 levels.

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 buses.

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



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



Frontage Road (F precedes frontage route number)



Secondary Route

Special Routes



Bus - Business Route
Bypass - 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
 Traffic Engineering Division
 2020
 Annual Average Daily Traffic Volume Estimates By Section of Route
 Town of Pembroke

Route	Jurisdiction	Length	AADT	QA	4Tire	Bus	-----Truck-----				QC	K Factor	QK	Dir Factor	AAWDT	QW
							2Axle	3+Axle	1Trail	2Trail						
	From: WCL Pembroke															
460 W Main St	Town of Pembroke (Maint: 35)	0.86	13000	F	98%	0%	1%	1%	0%	0%	C	0.092	F	0.65	9100	F
	To: 35-626 Mill Rd															
460 Virginia Ave	Town of Pembroke (Maint: 35)	0.73	13000	F	89%	1%	1%	1%	8%	0%	F	0.094	F	0.647	9000	F
	To: ECL Pembroke															

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						2Axle	3+Axle	1Trail	2Trail								
Town of Pembroke																	
618 35	Collins Ave	0.03	170	R							NA			NA		05/23/2014	
618 35	Collins Ave	0.12	180	R							NA			NA		10/05/2017	
619 35	Mays Hollow Rd	0.29	80	R							NA			NA		05/23/2014	
623 35	River Rd	0.42	750	F	98%	0%	1%	1%	0%	0%	C	0.108	F	0.531	760	F	2020
623 35	Cascade Dr	0.08	810	F	98%	0%	1%	0%	0%	0%	C	0.098	F	0.663	820	F	2020
623 35	Cascade Dr	1.07	1100	F	98%	1%	1%	1%	0%	0%	C	0.105	F	0.607	1100	F	2020
626 35	Castle Rock Rd	0.03	480	R							NA			NA		04/17/2002	
626 35	Castle Rock Rd	0.11	960	R							NA			NA		06/17/2014	
626 35	Castle Rock Rd	0.30	1300	R							NA			NA		06/17/2014	
626 35	Mill St	0.49	500	F	98%	1%	1%	1%	0%	0%	C	0.128	F	0.54	510	F	2020
626 35	Johnson Rd	0.10	100	R							NA			NA		10/05/2017	
631 35	Giles St	0.06	40	R							NA			NA		05/23/2014	
631 35	Giles St	0.12	80	R							NA			NA		05/23/2014	
695 35	Peck St	0.20	140	R							NA			NA		05/23/2014	
701 35	Morrison Ave	0.18	30	R							NA			NA		04/17/2002	
727 35	First St	0.28	100	R							NA			NA		06/15/2014	
742 35	Pembroke St	0.22	470	R							NA			NA		05/23/2014	
742 35	Pembroke St	0.03	370	R							NA			NA		05/23/2014	
742 35	Pembroke St	0.10	150	R							NA			NA		05/23/2014	
742 35	Pembroke St	0.01	100	R							NA			NA		05/23/2014	
742 35	Pembroke St	0.25	100	R							NA			NA		05/23/2014	
742 35	Pembroke St	0.15	50	R							NA			NA		05/23/2014	



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						2Axle	3+Axle	1Trail	2Trail							
Town of Pembroke																
742 35 Pembroke St		80	R								NA			NA		05/23/2014
747 35 Hoge St	0.04	60	R								NA			NA		05/23/2014
747 35 Hoge St	0.16	100	R								NA			NA		05/23/2014
747 35 Hilton St	0.05	390	R								NA			NA		05/23/2014
747 35 Hilton St	0.06	50	R								NA			NA		05/23/2014
754 35 Ridge Rd	0.25	30	R								NA			NA		05/23/2014
1401 35 Ellen St	0.06	320	R								NA			NA		10/05/2017
1402 35 Wilson St	0.12	160	R								NA			NA		10/05/2017
1403 35 Hillcrest Ave	0.12	330	R								NA			NA		10/05/2017
1403 35 Hillcrest Ave	0.13	40	R								NA			NA		10/05/2017
1404 35 Snidow St	0.02	250	R								NA			NA		05/24/2014
1404 35 Snidow St	0.05	160	R								NA			NA		10/05/2017
1404 35 Snidow St	0.04	320	R								NA			NA		10/05/2017
1404 35 Snidow St	0.02	390	R								NA			NA		10/05/2017
1404 35 Snidow St	0.16	420	R								NA			NA		10/05/2017
1404 35 Snidow St	0.03	1100	F	99%	0%	1%	0%	0%	0%	F	0.107	F	0.595	1100	F	2020
1404 35 Snidow St	0.17	910	F	97%	1%	1%	1%	0%	0%	C	0.096	F	0.578	910	F	2020
1404 35 Snidow St	0.15	800	F	97%	1%	1%	1%	0%	0%	C	0.112	F	0.6	810	F	2020
1404 35 Snidow St		1200	R								NA			NA		10/05/2017
1405 35 Second St	0.07	90	R								NA			NA		02/28/2017
1405 35 Castle Rock Dr	0.05	70	R								NA			NA		02/28/2017
1405 35 Castle Rock Dr	0.05	20	R								NA			NA		02/28/2017

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						2Axle	3+Axle	1Trail	2Trail							
Town of Pembroke																
1406 35 Third St	0.06	40	R			From 35-626 Castle Rock Rd					NA			NA		02/28/2017
						To 35-1408 College Ave										
1407 35 Fourth St	0.06	40	R			From 35-626 Castle Rock Rd					NA			NA		02/28/2017
						To 35-1408 College Ave										
1408 35 College Ave	0.05	30	R			From 35-1407 Fourth St					NA			NA		02/28/2017
						To 35-1406 Third St										
1408 35 College Ave	0.05	60	R			From 35-1405 Castle Rock Dr					NA			NA		02/28/2017
						To 35-1405 Castle Rock Dr										
1409 35 Lilly Dr	0.20	60	R			From US 460 W Main St					NA			NA		10/05/2017
						To 35-1415 Circle Dr										
1409 35 Circle Dr	0.05	20	R			From 35-742 Pembroke St					NA			NA		10/05/2017
						To 35-742 Pembroke St										
1410 35 Smith Hollow Rd	0.18	60	R			From US 460					NA			NA		10/05/2017
						To Dead End										
1411 35 Pembroke Park Lane	0.12	70	R			From Dead End					NA			NA		10/05/2017
						To 35-626 Castle Rock Rd										
1412 35 Circle Dr	0.20	70	R			From 35-742 S, Pembroke St					NA			NA		10/05/2017
						To 35-742 N, Pembroke St										
1413 35 Riverview St	0.10	30	R			From Dead End					NA			NA		10/05/2017
						To 35-1403; 35-1414										
1413 35 Riverview St	0.15	90	R			From Dead End					NA			NA		10/05/2017
						To 35-1403; 35-1413										
1414 35 Center St	0.04	290	R			From 35-1416 Smith St					NA			NA		10/05/2017
						To 35-1416 Smith St										
1414 35 Center St	0.05	130	R			From 35-1418 High St					NA			NA		10/05/2017
						To 35-1418 High St										
1414 35 Center St	0.16	80	R			From Dead End					NA			NA		10/05/2017
						To Dead End										
1415 35 Circle Dr	0.10	50	R			From 35-742 Pembroke St					NA			NA		10/05/2017
						To 35-1409 Circle Dr; Lilly Dr										
1416 35 Smith St	0.08	40	R			From 0.08 MS 35-1414 Center St					NA			NA		10/05/2017
						To 35-1414 Center St										
1416 35 Smith St	0.43	150	R			From Dead End					NA			NA		10/05/2017
						To Dead End										
1417 35 Orchard St	0.17	30	R			From 35-742 Pembroke St					NA			NA		10/05/2017
						To Dead End										
1418 35 High St	0.04	20	R			From Dead End					NA			NA		10/05/2017
						To 35-1414 Center St										
1418 35 High St	0.03	20	R			From 0.03 MS 35-1414 Center St					NA			NA		10/05/2017
						To 0.03 MS 35-1414 Center St										
1418 35 High St	0.08	20	R			From Dead End					NA			NA		10/05/2017
						To Dead End										

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						2Axle	3+Axle	1Trail	2Trail							
Town of Pembroke																
 Croft Manner	0.10	80	R			From: Cul-de-Sac					NA			NA		10/05/2017
						To: 35-626 Mill St										
 Fisher Dr	0.10	30	R			From: 35-626 Mill St					NA			NA		02/28/2017
						To: Dead End										