# 2014
# Virginia Department of Transportation
# Daily Traffic Volume Estimates
# Including Vehicle Classification Estimates

where available

# Special Locality Report
# 304

Town of Stephens City

Information in this report is included in Report

**34**

(Frederick 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.

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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


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
Bypas - Bypass Route
Truck - Truck Route


ALT - Alternate Route
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
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2014
Annual Average Daily Traffic Volume Estimates By Section of Route
Town of Stephens City

| Route | Jurisdiction | Length | AADT | QA | 4Tire | Bus | Truck 2Axle | Truck 3+Axle | Truck 1Trail | Truck 2Trail | QC | K Factor | QK | Dir Factor | AAWDT | QW |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | From: SCL Stephens City | | | | | | | | | | | | | | | |
| 11 Main St | Town of Stephens City (Maint: 34) | 0.32 | **4700** | **N** | 94% | 1% | 1% | 2% | 2% | 0% | N | 0.096 | N | 0.546 | 4900 | N |
| | To: SR 277 Fairfax Pike | | | | | | | | | | | | | | | |
| | From: SR 277 Fairfax Pike | | | | | | | | | | | | | | | |
| 11 Main St | Town of Stephens City (Maint: 34) | 0.71 | **7600** | **F** | 96% | 0% | 1% | 1% | 2% | 0% | C | 0.095 | F | 0.655 | 8100 | F |
| | To: NCL Stephens City | | | | | | | | | | | | | | | |
| | From: SCL Stephens City | | | | | | | | | | | | | | | |
| North 81 | Town of Stephens City (Maint: 34) | 0.10 | **25000** | **A** | 79% | 1% | 1% | 1% | 17% | 1% | F | 0.096 | A | | 26000 | A |
| | Combined Traffic Estimates for 2 Parallel Roadways on this Route: | | **50000** | **A** | 79% | 1% | 1% | 1% | 17% | 1% | F | NA | | | 51000 | A |
| | To: SR 277 Fairfax Pike; NCL Stephens City | | | | | | | | | | | | | | | |
| | From: SCL Stephens City | | | | | | | | | | | | | | | |
| South 81 | Town of Stephens City (Maint: 34) | 0.10 | **25000** | **A** | 80% | 1% | 1% | 1% | 17% | 1% | F | 0.103 | A | | 25000 | A |
| | Combined Traffic Estimates for 2 Parallel Roadways on this Route: | | **50000** | **A** | 79% | 1% | 1% | 1% | 17% | 1% | F | NA | | | 51000 | A |
| | To: NCL Stephens City | | | | | | | | | | | | | | | |
| | From: US 11 Main Street | | | | | | | | | | | | | | | |
| 277 Fairfax Pike | Town of Stephens City (Maint: 34) | 0.15 | **9400** | **F** | 96% | 0% | 1% | 1% | 3% | 0% | F | 0.088 | F | 0.513 | 10000 | F |
| | To: ECL Stephens City | | | | | | | | | | | | | | | |

Virginia Department of Transportation
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Town of Stephens City

| Route | Length | AADT | QA | 4Tire | Bus | Truck 2Axle | Truck 3+Axle | Truck 1Trail | Truck 2Trail | QC | K Factor | QK | Dir Factor | AAWDT | QW | Year |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Town of Stephens City** | | | | | | | | | | | | | | | | |
| 631 34 Fairfax St | 0.45 | **3000** | **F** | 97% | 1% | 1% | 1% | 1% | 0% | F | 0.096 | F | 0.671 | 3200 | F | 2014 |
| From: WCL Stephens City | | | | | | | | | | | | | | | | |
| To: US 11; SR 277 | | | | | | | | | | | | | | | | |
| 648 34 Passage Rd | 0.70 | **120** | **R** | | | | | | | | NA | | | NA | | 07/16/2014 |
| From: SCL Stephens City | | | | | | | | | | | | | | | | |
| To: NCL Stephens City | | | | | | | | | | | | | | | | |
| 1001 34 Martin St | 0.27 | **140** | **R** | | | | | | | | NA | | | NA | | 04/15/2008 |
| From: 34-1011 Grove St | | | | | | | | | | | | | | | | |
| To: 34-1002 Mulberry St | | | | | | | | | | | | | | | | |
| 1002 34 Mulberry St | 0.10 | **840** | **R** | | | | | | | | NA | | | NA | | 06/13/2005 |
| From: 34-1005 School St | | | | | | | | | | | | | | | | |
| To: 34-1006 Green St | | | | | | | | | | | | | | | | |
| 1002 34 Mulberry St | 0.30 | **2100** | **R** | | | | | | | | NA | | | NA | | 04/15/2008 |
| From: 34-1006 Green St | | | | | | | | | | | | | | | | |
| To: 34-1007 Locust St | | | | | | | | | | | | | | | | |
| 1002 34 Mulberry St | 0.15 | **430** | **R** | | | | | | | | NA | | | NA | | 06/13/2005 |
| From: 34-1007 Locust St | | | | | | | | | | | | | | | | |
| To: Dead End | | | | | | | | | | | | | | | | |
| 1003 34 Laura Dr | 0.50 | **550** | **R** | | | | | | | | NA | | | NA | | 04/15/2008 |
| From: 34-1005 School St | | | | | | | | | | | | | | | | |
| To: 34-1008 Filbert St | | | | | | | | | | | | | | | | |
| 1003 34 Laura Dr | 0.10 | **270** | **R** | | | | | | | | NA | | | NA | | 06/13/2005 |
| From: 34-1008 Filbert St | | | | | | | | | | | | | | | | |
| To: 34-1009 Gap | | | | | | | | | | | | | | | | |
| 1003 34 Laura Dr | 0.18 | **130** | **R** | | | | | | | | NA | | | NA | | 04/15/2008 |
| From: 34-1016 Gap | | | | | | | | | | | | | | | | |
| To: Dead End | | | | | | | | | | | | | | | | |
| 1004 34 Water St | 0.10 | **100** | **R** | | | | | | | | NA | | | NA | | 06/13/2005 |
| From: 34-631 Fairfax St | | | | | | | | | | | | | | | | |
| To: 34-1001 Martin St | | | | | | | | | | | | | | | | |
| 1004 34 Water St | 0.10 | **40** | **R** | | | | | | | | NA | | | NA | | 04/15/2008 |
| From: 34-1001 Martin St | | | | | | | | | | | | | | | | |
| To: 34-1007 Locust St | | | | | | | | | | | | | | | | |
| 1005 34 School St | 0.10 | **180** | **R** | | | | | | | | NA | | | NA | | 06/13/2005 |
| From: 34-1002 Mulberry St | | | | | | | | | | | | | | | | |
| To: 34-1003 Laura Dr | | | | | | | | | | | | | | | | |
| 1006 34 Green St | 0.05 | **70** | **R** | | | | | | | | NA | | | NA | | 06/13/2005 |
| From: Dead End | | | | | | | | | | | | | | | | |
| To: 34-1003 Laura Dr | | | | | | | | | | | | | | | | |
| 1006 34 Green St | 0.05 | **280** | **R** | | | | | | | | NA | | | NA | | 06/13/2005 |
| From: 34-1003 Laura Dr | | | | | | | | | | | | | | | | |
| To: US 11 Main St | | | | | | | | | | | | | | | | |
| 1006 34 Green St | 0.05 | **740** | **R** | | | | | | | | NA | | | NA | | 06/13/2005 |
| From: 34-1002 Mulberry St | | | | | | | | | | | | | | | | |
| To: Dead End | | | | | | | | | | | | | | | | |
| 1006 34 Green St | 0.07 | **30** | **R** | | | | | | | | NA | | | NA | | 06/13/2005 |
| From: 34-1002 Mulberry St | | | | | | | | | | | | | | | | |
| To: US 11 Main St | | | | | | | | | | | | | | | | |
| 1007 34 Locust St | 0.05 | **2100** | **R** | | | | | | | | NA | | | NA | | 04/15/2008 |
| From: US 11 Main St | | | | | | | | | | | | | | | | |
| To: 34-1003 Laura Dr | | | | | | | | | | | | | | | | |
| 1007 34 Locust St | 0.05 | **580** | **R** | | | | | | | | NA | | | NA | | 04/15/2008 |
| From: 34-1003 Laura Dr | | | | | | | | | | | | | | | | |
| To: 34-1004 Water St | | | | | | | | | | | | | | | | |
| 1007 34 Locust St | 0.05 | **340** | **R** | | | | | | | | NA | | | NA | | 11/13/2014 |
| From: 34-1004 Water St | | | | | | | | | | | | | | | | |
| To: 34-1024 Chestnut Circle | | | | | | | | | | | | | | | | |
| 1007 34 Locust St | 0.03 | **430** | **R** | | | | | | | | NA | | | NA | | 11/13/2014 |
| From: 34-1024 Chestnut Circle | | | | | | | | | | | | | | | | |
| To: 34-1011 Grove St | | | | | | | | | | | | | | | | |
| 1007 34 Locust St | 0.09 | **170** | **R** | | | | | | | | NA | | | NA | | 11/13/2014 |
| From: US 11 Main St | | | | | | | | | | | | | | | | |
| To: 34-1003 Laura Dr | | | | | | | | | | | | | | | | |
| 1008 34 Filbert St | 0.05 | **600** | **R** | | | | | | | | NA | | | NA | | 05/25/2011 |

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| Route | Length | AADT | QA | 4Tire | Bus | Truck 2Axle | Truck 3+Axle | Truck 1Trail | Truck 2Trail | QC | K Factor | QK | Dir Factor | AAWDT | QW | Year |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Town of Stephens City** | | | | | | | | | | | | | | | | |
| 1008 34 Filbert St | 0.15 | **450** | **R** | | | | | | | | NA | | | NA | | 05/25/2011 |
| From: 34-1003 Laura Dr<br>To: 34-1028 Ravenwood Rd | | | | | | | | | | | | | | | | |
| 1008 34 Filbert St | 0.03 | **5** | **R** | | | | | | | | NA | | | NA | | 05/25/2011 |
| From: 34-1028 Ravenwood Rd<br>To: Dead End | | | | | | | | | | | | | | | | |
| 1009 34 Bell Air St | 0.05 | **230** | **R** | | | | | | | | NA | | | NA | | 11/13/2014 |
| From: 34-1003 Laura Dr<br>To: 34-1017 Barley Dr | | | | | | | | | | | | | | | | |
| 1009 34 Bell Air St | 0.09 | **100** | **R** | | | | | | | | NA | | | NA | | 11/13/2014 |
| From: 34-1017 Barley Dr<br>To: 34-1023 Highview Ave | | | | | | | | | | | | | | | | |
| 1010 34 Plymouth St | 0.15 | **530** | **R** | | | | | | | | NA | | | NA | | 11/13/2014 |
| From: Dead End<br>To: US 11 Main St | | | | | | | | | | | | | | | | |
| 1011 34 Grove St | 0.10 | **160** | **R** | | | | | | | | NA | | | NA | | 06/13/2005 |
| From: 34-631 Fairfax St<br>To: 34-1001 Martin St | | | | | | | | | | | | | | | | |
| 1011 34 Grove St | 0.10 | **170** | **R** | | | | | | | | NA | | | NA | | 06/13/2005 |
| From: 34-1001 Martin St<br>To: 34-1007 Locust St | | | | | | | | | | | | | | | | |
| 1011 34 Grove St | 0.14 | **140** | **R** | | | | | | | | NA | | | NA | | 06/13/2005 |
| From: 34-1007 Locust St<br>To: Dead End | | | | | | | | | | | | | | | | |
| 1013 34 Crooked Lane | 0.15 | **200** | **R** | | | | | | | | NA | | | NA | | 11/13/2014 |
| From: 34-631 Fairfax St<br>To: Dead End | | | | | | | | | | | | | | | | |
| 1016 34 Farmview Dr | 0.06 | **160** | **R** | | | | | | | | NA | | | NA | | 11/13/2014 |
| From: US 11 Main St<br>To: 34-1003 Laura Dr | | | | | | | | | | | | | | | | |
| 1016 34 Farmview Dr | 0.06 | **120** | **R** | | | | | | | | NA | | | NA | | 11/13/2014 |
| From: 34-1003 Laura Dr<br>To: 34-1017 Barley Dr | | | | | | | | | | | | | | | | |
| 1016 34 Farmview Dr | 0.08 | **80** | **R** | | | | | | | | NA | | | NA | | 11/13/2014 |
| From: 34-1017 Barley Dr<br>To: 34-1023 Highview Ave | | | | | | | | | | | | | | | | |
| 1017 34 Barley Dr | 0.14 | **150** | **R** | | | | | | | | NA | | | NA | | 11/13/2014 |
| From: 34-1009 Bell Air St<br>To: 34-1016 Farmview Dr | | | | | | | | | | | | | | | | |
| 1017 34 Barley Dr | 0.28 | **200** | **R** | | | | | | | | NA | | | NA | | 11/13/2014 |
| From: 34-1016 Farmview Dr<br>To: NCL Stephens City | | | | | | | | | | | | | | | | |
| 1019 34 Stephens Court | 0.07 | **100** | **R** | | | | | | | | NA | | | NA | | 11/13/2014 |
| From: Dead End<br>To: 34-1014 Massie Lane | | | | | | | | | | | | | | | | |
| 1019 34 Stephens Court | 0.07 | **180** | **R** | | | | | | | | NA | | | NA | | 11/13/2014 |
| From: 34-1014 Massie Lane<br>To: US 11 Main St | | | | | | | | | | | | | | | | |
| 1023 34 Highview Ave | 0.16 | **90** | **R** | | | | | | | | NA | | | NA | | 11/13/2014 |
| From: 34-1009 Bell Air St<br>To: 34-1016 Farmview Dr | | | | | | | | | | | | | | | | |
| 1024 34 Chestnut Circle | 0.04 | **60** | **R** | | | | | | | | NA | | | NA | | 05/25/2011 |
| From: 34-1007 Locust St<br>To: Cul-de-Sac | | | | | | | | | | | | | | | | |
| 1028 34 Ravenwood Rd | 0.10 | **220** | **R** | | | | | | | | NA | | | NA | | 05/25/2011 |
| From: 34-1008 Filbert St<br>To: Cul-de-Sac | | | | | | | | | | | | | | | | |
| 1149 34 Rowe Lane | 0.09 | **70** | **R** | | | | | | | | NA | | | NA | | 06/13/2005 |
| From: 34-1013 Crooked Lane<br>To: 34-1011 Grove St | | | | | | | | | | | | | | | | |
| 1449 34 | 0.08 | **60** | **R** | | | | | | | | NA | | | NA | | 05/25/2011 |
| From: 34-1010 Plymouth St<br>To: 34-1019 Stephens Court | | | | | | | | | | | | | | | | |