

# TRAFFIC DATA FOR PAVEMENT LOADING

Factors revised February 1999

Report date: 3/25/2016

County 8 BERKELEY

Route I- 26 Route Name: New Volvo Interchange

Beginning termini New Interchange at Volvo

Ending termini:

Beginning mile post: 0.00

1-way  2-way

Number of lanes: 4

Type of pavement  
 Flexible  Rigid

Percent Trucks.: 20

Critical Lane: 80

Rd. Grp. (A-P) - Class 9 %: O - 66

Base year: 2019

Base year ADT: 46,500

Future year 2029

Projected ADT: 66500

Future year 2039

Projected ADT: 80300

66500

## ONE-WAY EQUIVALENT DAILY 18 KIP SINGLE AXLE LOAD APPLICATIONS IN THE CRITICAL LANE

5 YR. DES. = 929.78

10 YR. DES. = 1,979.92

15 YR. DES. = 3,133.63

20 YR. DES. = 4,374.12

YEAR	ADT	AVERAGE ONE-WAY		ADJUSTED	1-WAY EQUIV. 18 KIP	
		ADT	TRUCKS		TRUCKS	TOTAL
2019	46,500					
2024	56,500	25,750	5,150	1,288	1,162.23	929.78
2029	66,500	27,417	5,483	2,742	2,474.90	1,979.92
2034	73,400	28,928	5,786	4,339	3,917.04	3,133.63
2039	80,300	30,285	6,057	6,057	5,467.65	4,374.12

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## ONE-WAY EQUIVALENT DAILY 18 KIP SINGLE AXLE LOAD APPLICATIONS IN THE CRITICAL LANE

5 YR. DES. = 1,361.04

10 YR. DES. = 2,898.27

15 YR. DES. = 4,587.11

20 YR. DES. = 6,402.98

YEAR	ADT	AVERAGE ONE-WAY		ADJUSTED	1-WAY EQUIV. 18 KIP	
		ADT	TRUCKS		TRUCKS	TOTAL
2019	46,500					
2024	56,500	25,750	5,150	1,288	1,701.30	1,361.04
2029	66,500	27,417	5,483	2,742	3,622.84	2,898.27
2034	73,400	28,928	5,786	4,339	5,733.89	4,587.11
2039	80,300	30,285	6,057	6,057	8,003.72	6,402.98

**REQUEST FOR TRAFFIC DATA**

**Route to Road Data Services Engineer**

**1. DATA REQUESTED** \*

- Traffic Loading for Pavement Design
- Classification Count for Pavement Design
- Design Data
- Intersection Two-Way Traffic Flow (ADT)
- Intersection Turning Movement Counts
- Other (Explain)

\* Requestor should complete sections 1, 2, and 4 as well as Base Year and Number of Lanes.

**2. LOCATION** \*

COUNTY Berkeley ROUTE/ROAD I-26 at Volvo Interchange (New Interchange)  
 From MP 188 To MP 190  
 (ATTACH MAP)

**3. CONTROLS**

For Pavement Loading

	<u>Year</u>	
Base Year	2019 *	
Middle Year	2029	
End Year	2039	
No. of Lanes	4 *	

*I-26 Station 2179 Berkeley (ATR 54)*

<u>ADT</u>
46,500
66,500
80,300

	<u>Year</u>	<u>ADT</u>
Present ADT	(2019)	46,500
Future ADT	(2039)	80,300

Design Speed (V) \_\_\_\_\_  
 K% 12% D% 50/50

Provide ESALs for Flexible and Rigid Pavement Types

Trucks:  
 % ADT 20%  
 % DHV 15%  
 Other \_\_\_\_\_

Road Group 0  
 Lane Distribution 80  
 Trucks (% ADT) 20%

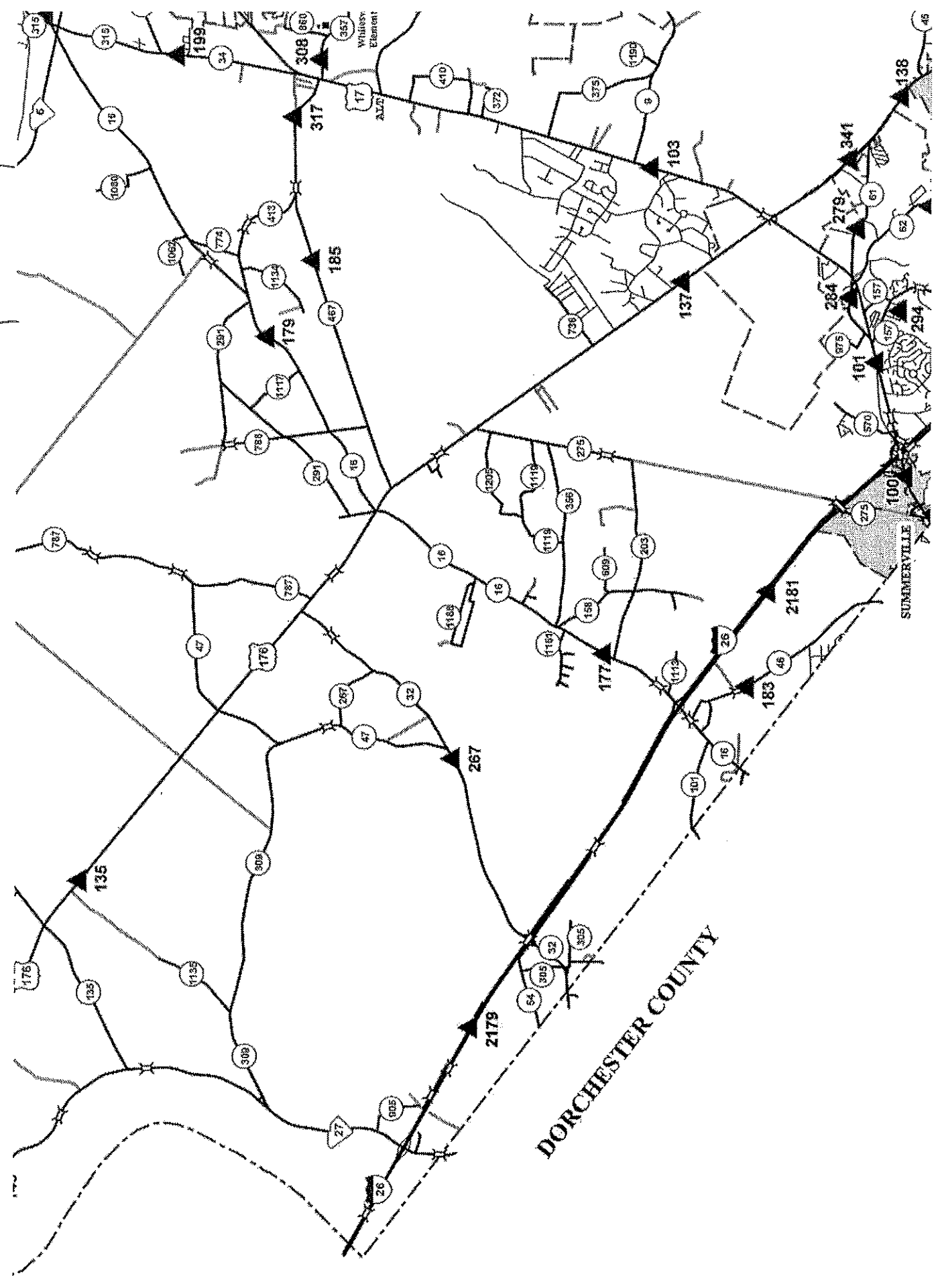
**4. FURNISH COPIES OF TRAFFIC DATA TO** \*

- Lowcounty Regional Production Group Engineer
- Midlands Regional Production Group Engineer
- Pee Dee Regional Production Group Engineer
- Upstate Regional Production Group Engineer
- Material & Research Engineer
- Design Build Engineer (Gaskins)
- Program Manager (Mattox)

Requested By: Tyke Redfearn Section: Design Build

Date: 2/29/2016

Berkeley County



DORCHESTER COUNTY

SUMMERSVILLE

County	Station	Route	Route Location	Est. AADT	AADT Year
8	2179	I- 26	S.C. 27 TO S-16	16000	1989
8	2179	I- 26	S.C. 27 TO S-16	18900	1990
8	2179	I- 26	S.C. 27 TO S-16	20200	1991
8	2179	I- 26	S.C. 27 TO S-16	22700	1992
8	2179	I- 26	S.C. 27 TO S-16	21600	1993
8	2179	I- 26	S.C. 27 TO S-16	21100	1994
8	2179	I- 26	S.C. 27 TO S-16	23900	1995
8	2179	I- 26	S.C. 27 TO S-16	24500	1996
8	2179	I- 26	S.C. 27 TO S-16	25200	1997
8	2179	I- 26	S.C. 27 TO S-16	27300	1998
8	2179	I- 26	S.C. 27 TO S-16	28100	1999
8	2179	I- 26	S.C. 27 TO S-16	30100	2000
8	2179	I- 26	S.C. 27 TO S-16	30900	2001
8	2179	I- 26	S.C. 27 TO S-16	32500	2002
8	2179	I- 26	S.C. 27 TO S-16	34100	2003
8	2179	I- 26	S.C. 27 TO S-16	35600	2004
8	2179	I- 26	S.C. 27 TO S-16	36600	2005
8	2179	I- 26	S.C. 27 TO S-16	37800	2006
8	2179	I- 26	S.C. 27 TO S-16	38900	2007
8	2179	I- 26	S.C. 27 TO S-16	37700	2008
8	2179	I- 26	S.C. 27 TO S-16	37600	2009
8	2179	I- 26	SC 27 TO S- 16	38900	2010
8	2179	I- 26	SC 27 TO S- 16	38300	2011
8	2179	I- 26	SC 27 TO S- 16	37800	2012
8	2179	I- 26	SC 27 TO S- 16	38700	2013
8	2179	I- 26	SC 27 TO S- 16	39900	2014

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SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION  
CLASSIFICATION OF TRUCKS BY TYPE  
WEEKLY REPORT

From Friday, May 01, 2015 To Thursday, May 07, 2015  
I-26 From S.C. 27 To S-16  
Direction Is East & West

Station-2179 County-08 Berkeley  
FC-01 HPMS-0007

HOUR	MEDIUM-TRUCKS				HEAVY-TRUCKS				4-DAY MONDAY-THURSDAY STATISTICS				3-DAY FRIDAY-SUNDAY STATISTICS			
	OTHER 2 AXLE 4 TIRE	2 AXLE 6 TIRE	SINGLE-UNIT-TRUCKS 3 OR 4 OR 5 OR 6 OR 7 OR 8 OR 9 OR 10 OR 11 OR 12 OR 13 OR 14 OR 15 OR 16 OR 17 OR 18 OR 19 OR 20 OR 21 OR 22 OR 23 OR 24 OR	SINGLE-TRAILER-TRUCKS 4 OR 5 OR 6 OR 7 OR 8 OR 9 OR 10 OR 11 OR 12 OR 13 OR 14 OR 15 OR 16 OR 17 OR 18 OR 19 OR 20 OR 21 OR 22 OR 23 OR 24 OR	5 OR 6 OR 7 OR 8 OR 9 OR 10 OR 11 OR 12 OR 13 OR 14 OR 15 OR 16 OR 17 OR 18 OR 19 OR 20 OR 21 OR 22 OR 23 OR 24 OR	MULTI-TRAILER-TRUCKS FEMER -11-	AXLE -12-	MORE -13-	NONE -14-	OTHER -15-	TOTAL 1-15	TOTAL 16-18	TOTAL 19-21	TOTAL 22-24	TOTAL 25-27	TOTAL 28-30
1:00	2142	431	35	54	187	345	2	0	0	356	43	18	0	0	0	465
2:00	1448	310	30	38	167	345	2	0	0	356	43	18	0	0	0	465
3:00	1	945	33	50	188	409	16	0	0	205	27	11	0	0	0	232
4:00	1	372	44	46	327	575	19	0	0	232	31	11	0	0	0	263
5:00	8	172	72	167	327	575	22	0	0	337	37	20	0	0	0	357
6:00	8	3732	1371	167	327	575	22	0	0	337	37	20	0	0	0	357
7:00	13	7399	2562	433	2390	1667	59	0	0	1137	68	38	0	0	0	1243
8:00	19	10269	2544	477	177	734	1205	50	0	1417	105	25	0	0	0	1547
9:00	12	8234	2776	498	174	837	1198	54	0	1605	113	13	0	0	0	1731
10:00	32	13403	3123	429	174	885	1266	62	0	1827	116	6	0	0	0	1943
11:00	35	13873	3110	447	187	1060	1207	62	0	2002	119	2	0	0	0	2121
12:00	45	13968	3277	459	205	1063	1252	60	0	2087	124	4	0	0	0	2211
13:00	37	15017	3270	473	192	1067	1260	78	0	2102	124	4	0	0	0	2226
14:00	28	13694	3803	513	167	980	1167	49	0	2302	124	4	0	0	0	2426
15:00	28	17399	4647	513	167	980	1167	49	0	2302	124	4	0	0	0	2426
16:00	33	17399	4647	513	167	980	1167	49	0	2302	124	4	0	0	0	2426
17:00	33	17399	4647	513	167	980	1167	49	0	2302	124	4	0	0	0	2426
18:00	34	16566	3670	513	167	980	1167	49	0	2302	124	4	0	0	0	2426
19:00	24	13320	2951	466	154	835	1100	41	0	1838	114	6	0	0	0	1952
20:00	16	10372	2716	311	260	669	835	14	0	1417	21	20	0	0	0	1457
21:00	15	8671	1760	241	239	569	724	9	0	1138	21	5	0	0	0	1159
22:00	15	6671	1360	241	239	569	724	9	0	973	30	11	0	0	0	994
23:00	3	4820	965	124	90	385	424	4	0	623	33	13	0	0	0	636
24:00	2	3240	626	75	98	319	4	0	0	465	33	24	0	0	0	499
RATE	0.001	23.472	0.160	0.007	0.023	3.030	0.021	0.044	0.071	0.005	0.001	0.001	0.000	0.000	0.26	32.4626
7-DAY SUNDAY-SATURDAY STATISTICS	13 CLASS-TOTALS--%	10671	13.72	3769	3.55	7013	10.18	2664	2.93	8268	11.02	11.02	11.02	11.02	11.02	11.02
PEAK	77753	23.95	39807	16.13	6685	3.51	31142	11.03	2180	2.93	3268	11.02	11.02	11.02	11.02	11.02
OFF PEAK	246848	76.05	50478	15.35	11434	3.52	39054	12.03	9844	5.03	43083	13.26	13.26	13.26	13.26	13.26
TOTAL	324600															
AXLE FACTOR	= 0.856															
K-FACTOR	= 7.56%, Hour = 17:00, Count = 24524 *** D-FACTORS = 48.59% East, 51.41% West															
4-DAY MONDAY-THURSDAY STATISTICS	TOTAL	144157	17.32	44157	4.00	88314	12.03	26488	2.93	32688	11.02	11.02	11.02	11.02	11.02	11.02
3-DAY FRIDAY-SUNDAY STATISTICS	TOTAL	148268	17.32	44157	4.00	88314	12.03	26488	2.93	32688	11.02	11.02	11.02	11.02	11.02	11.02
PK	33395	8.74	10760	3.30	21698	2.93	43083	13.26	13.26	13.26	13.26	13.26	13.26	13.26	13.26	13.26
TOT	148268															
AXLE FACTOR	= 0.914															



**SCDOT Project Screening Tool**



Logged in as NTS\StoneburTH (Viewer)

**Traffic Projection Request  
for BERKELEY I-26 E Main Line (08010002600E)  
from Milepost 188.00 to 190.00**

Home      Request a New Traffic Projection      Find Traffic Projections      View Open Requests

**General**

Created by NTS\StoneburTH on 3/1/2016 10:17 AM  
**Base Year:** 2019  
**Future Year:** 2039  
**Roadwork Type:** New Construction  
**Comments:**  
 New Interchange - I-26 Volvo Interchange Covered by Berkeley Count Station 2179 (ATR 54)

**Traffic Projections**

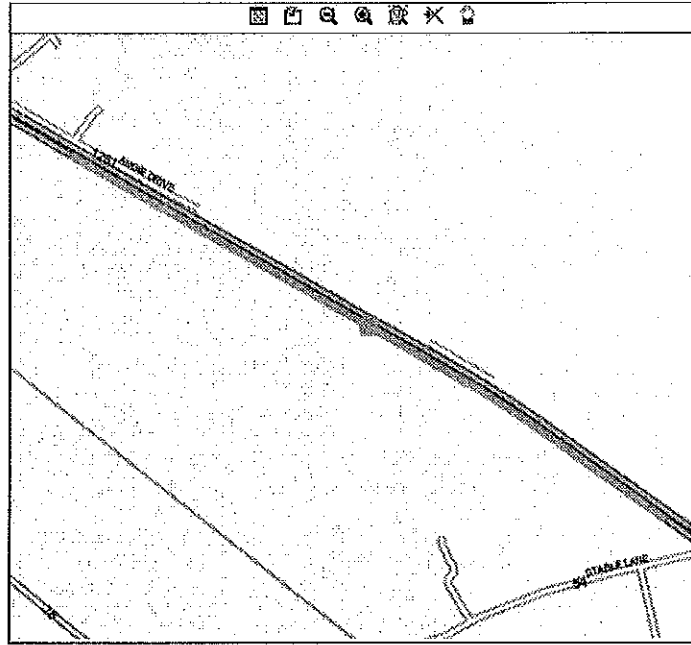
**Station Number:** 2179  
**MilePost:** 188.99 **Termini:** SC 27 TO S- 16 (JEDBURG ROAD)

	Year	ADT	LOS
<b>Present</b>	2015	43,600	
<b>Base</b>	2019	46,500	
<b>Mid</b>	2029	66,500	
<b>Design</b>	2039	80,300	

**Number of Lanes:** 0

**Comments:**

Projections developed using historical data coupled w/ 2025 SC Statewide Model including new Volvo Interchange and projected traffic. Volume listed is for traffic below (b/w IC and Charleston) Volvo I/C. Traffic above was about 20% less on the model.



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