I-26 at I-95 Interchange Improvement SCDOT Project P038677

Technical Memorandum
TRAFFIC FORECAST

Prepared by:



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# **TRAFFIC FORECAST**

# **1.0 PURPOSE**

The purpose of this memorandum is to present the proposed design volumes for the South Carolina Department of Transportation's (SCDOT) I-26 at I-95 Improvement Project Widening Project located in Orangeburg and Dorchester Counties (Exit 86 on I-95, Exit 169 on I-26). The following sections describe the data collected and used for this process, the determination of peak hours, the selection of an appropriate design hour, determination of growth rates and adjustment factors, and the preparation of peak design hour volumes.

# 2.0 STUDY AREA

The study area for this widening project is shown in **Figure 1**. The study area is focused on the I-26 at I-95 intersection and four adjacent interchanges including:

- US 176 (Old State Road) at I-95 to the north
- US 178 (Charleston Highway) at I-95 to the south
- SC 210 (Vance Road) at I-26 to the west
- US 15 at I-26 to the east

I-95 is a north-south Interstate on the east coast that extends from the United States – Canada border in the north to Miami, Florida in the south. In the study area, I-95 is classified as a rural interstate that provides connectivity for local traffic, regional and freight traffic in South Carolina, and interstate traffic along the east coast. In South Carolina, I-95 links Florence in the north to Savannah, Georgia in the south in addition to providing access to multiple municipalities.

I-26 is an east-west Interstate that extends from I-81 in Kingsport, Tennessee south to Charleston. In the study area, I-95 is classified as a rural interstate that provides connectivity for local traffic, regional and freight traffic in South Carolina, and interstate traffic. In South Carolina, I-26 links three major municipalities: Spartanburg in the Upstate, Columbia in the Midlands, and Charleston in the coastal area of the Lowcountry.

# **3.0 PROPOSED DESIGN YEARS**

Project design years were developed using the South Carolina Roadway Design Manual (SCRDM) guidelines. The SCRDM recommends a design year 20 years after the date of the completion of the project's plans, specifications and estimates package. For this project, the anticipated opening year was shifted to 2030 to be conservative, which results in a design year of 2050.

### Figure 1: Study Area Location Map



Source: Google Earth Pro Image, 03/2022, Project Study Area

# **4.0 DATA COLLECTION**

The preparation of volumes for use in this study relied on three key sources of information:

- Interstate and highway volumes from SCDOT's Traffic Monitoring Program and GIS resources
- Interstate, ramp, and surface street volumes collected for this project
- The South Carolina Statewide Model Version 4 (SCSWMv4)

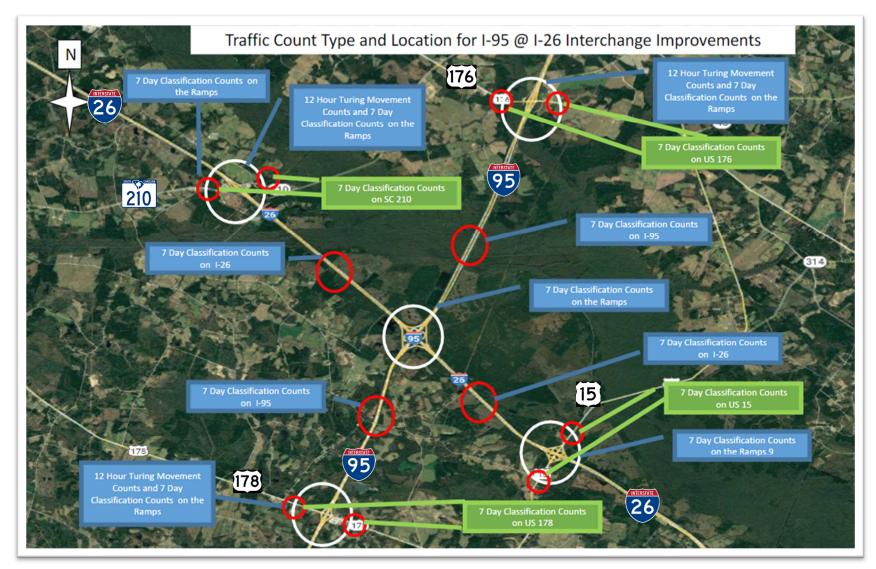
Interstate volumes from SCDOT's Traffic Monitoring Program were obtained via SCDOT's traffic counts website for two permanent ATR count stations: station #0056 on I-95 and station #0020 on I-26. In addition, historic AADT data were utilized for all approaches to the interchanges on I-95 and I-26 as well at the ramps for the I-26 at I-95 interchange and the four adjacent interchanges.

Bi-directional interstate classification counts were also collected by DAD N Associates from Friday, March 1 to Thursday, March 7, 2022, on I-95 and I-26, the four local roads at adjacent interchanges, and ramps at each of the five interchanges. These counts identified the percentages of different vehicle types in the traffic stream. In addition, speed profiles were collected and summarized to be used in calibration of a traffic simulation. As part of the field effort, Intersection turning movement counts were collected at the study intersections on Friday, March 1, 2022. The reports for these counts are provided in **Appendix C**. An illustration of the count locations is shown in **Figure 2**.

The state's South Carolina Statewide Model Version 4 (SCSWMv4) was used to inform the selection of an appropriate growth rate for the study area and to determine distributions of trips on the roadway network. The model also provided insights into existing and future freight requirements and truck volumes in the study area.

The data collected were applied using multiple methods to identify existing 2022, 2030 year of opening and the 2050 design year forecasts. The application of this count data is discussed in more detail in the Growth Rate Development section. The application of the statewide demand model is also discussed in more detail in the Growth Rate Development section.

### Figure 2: Count Locations for Project



Source: Google Earth Pro Image, 03/2022, Project Count Locations

# **5.0 GROWTH RATE DEVELOPMENT**

Multiple sources of information were reviewed to develop an anticipated future traffic growth that could be applied in developing 2030 and 2050 forecasts for this project. The sources include:

- Historic traffic volumes (AADT data) on the Interstates and other local roads. Using this data, the historic annual growth rates for the last 10 years was calculated for all roadway sections and interchanges.
- The South Carolina Statewide Model Version 4 (SCSWMv4) includes traffic models for the 2015 base year and a 2045 future year. The 30-year growth rate was converted to an annual growth rate for key roadway sections.
- Projected annual growth rates utilized in the forecasts for nearby (less than one hour driving distance) projects on I-95 and I-26 were summarized to compare with and to provide consistency between other SCDOT projects.
- Historic and projected population trends for Orangeburg and Dorchester Counties. Although not
  a direct indicator of traffic growth rates, this information can assist in determining longer term
  growth in background traffic. For this study, this data was utilized in examining growth trends at
  the crossroads of the four adjacent interchanges.

The following sections discuss the analysis of each of these sources to determine an appropriate traffic growth rate for the study area.

## 5.1 HISTORIC AADT ANALYSIS (I-95, I-26 & LOCAL CROSSROADS)

Historic volumes recorded at SCDOT continuous and short-term count stations were reviewed to evaluate traffic growth trends over the period of 2009-2019. The count stations were previously displayed in **Figure 2** and are listed below:

Continuous count stations (used for monthly trends and highest hourly volume (HHV) analysis)

- Station 0056: I-95 north adjacent to I-26/I-95 interchange (between I-26 to US 176) permanent counter
- Station 0020: I-26 west of project area (between SC 210 to Homestead Road) permanent counter
- Station 0184 and 0185: US 176 Old State Road (west and east of I-95)

#### Interstate AADT short-term stations (used for historical AADT analysis)

- Station 38-2385: I-95 north of I-26/I-95 interchange
- Station 38-2383: I-95 south of I-26/I-95 interchange
- Station 38-2171: I-26 west of I-26/I-95 interchange
- Station 18-2173: I-26 east of I-26/I-95 interchange

#### Local crossroads AADT short-term count stations

- Station 0184 and 0185: US 176 Old State Road (west and east of I-95)
- Station 18-2041: US 178 Charleston Highway (east of I-95)
- Station 38-0385: SC 210 Vance Road (north of I-26)
- Station 18-0109: US 15 (north of I-26)

#### Interchange ramp AADT short-term count stations

- 8 counters at I-26 at I-95 interchange
- 4 counters at US 176 Old State Road at I-95 interchange (north)
- 4 counters at US 178 Charleston Highway at I-95 interchange (south)
- 4 counters at SC 210 Vance Road at I-26 interchange (west)
- 8 counters at US 15 at I-26 interchange (east)

**Table 1** provides the traffic count history for the critical stations and their associated linear growth rates.Key observations on the historic AADT growth include:

- Relatively high level of annual growth on both I-95, with growth rates of 1.8 percent. Volumes in 2019 are higher south of I-26 (48,600 vpd) than north of I-26 (32,200 vpd).
- I-26 is increasing at a higher annual rate than I-95 with an observed growth rate of 2.4 percent west of I-95 and 3.7% east of I-95. Volumes in 2019 are higher west of I-95 (53,500 vpd) than east of I-95 (42,900 vpd).
- Three of the four crossroads for the adjacent interchanges show very low or stagnant growth in traffic volumes. The one exception is US 15 on the eastern limit of the project which has experienced just under 4 percent annual growth in the last 10 years. In any event, all four crossroads carry low volumes of traffic (under 3,000 vpd in 2019).

Station	Roadway	Location	2009	2011	2013	2015	2017	2019	2009 to 2019
0056 & 38-2835	I-95	North of I-26	26,900	27,200	26,100	29,400	30,900	32,200	1.81%
28-2383	I-95	South of I-26	40,300	40,900	39,600	43,000	43,400	48,600	1.89%
2171	I-26	West of I-95	42,200	42,800	44,300	48,600	52,800	53,500	2.40%
2173	I-26	East of I-95	29,900	29,700	30,900	35,500	39,000	42,900	3.68%
0185	US 176 (Old State Rd)	East of I-95	2,500	2,500	2,400	2,500	2,300	2,500	0.00%
18-0141	US 178 (Charleston Hwy)	East of I-95	2,800	3,100	3,200	2,900	3,000	2,800	0.00%
38-0385	SC 210 (Vance Rd)	North of I-26	1,050	1,050	1,100	1,100	1,150	1,050	0.00%
18-0109	US 15	North of I-26 South of I-26	1,800 NA	1,850 NA	2,400 3,500	<b>1,550</b> 3,100	<b>2,200</b> 3,400	<b>2,500</b> 5,000	3.34% 6.12%

#### Table 1: SCDOT Historical AADT Volumes and Annual Growth Rates

Note: Annual traffic growth rates were computing using compounded rates over 10-year period.

## 5.2 TRAVEL DEMAND MODEL ANALYSIS

The following section documents the use of the South Carolina Statewide Model Version 4 (SCSWMV4) travel demand model data to establish appropriate growth rates for the study area including I-26, I-95 and the adjacent interchange roadway network. Traffic volumes were extracted from the 2015 and 2045 versions of SCSWMv4 to establish growth rates for the study area.

The SCSWMv4 includes the entirety of South Carolina and is built upon existing TDMs from MPOs and Council of Governments (COG) within the state. It has a base year of 2015 and a forecast year of 2045, and it includes existing roadways as well as committed projects, including all planned and programmed improvements in the state that are set to open to traffic from 2016 to 2045. The model was run on the TransCAD Version 6 Release 2 (TC6r2) software.

For the purposes of this analysis, the SCSWMv4 was not re-estimated or re-calibrated for the project study area. The model's forecast volumes for 2015 were compared with 2015 SCDOT AADT volumes as a reasonableness check. **Table 2** shows this comparison and summarizes the 2015 and 2045 forecast traffic volumes from the SCSWMv4 along with associated annual growth rates at selected segments on I-26, I-95 and key crossroads in the study area. Key observations from **Table 2** include:

- Moderate annual growth for I-95 (0.9 to 1.3 percent) and slightly lower annual growth on I-26 (0.3 to 0.6 percent).
- On the adjacent crossroads (except US 15) annual growth rates vary (0.0 to 1.0 percent). In addition, the overall volumes are less than 3,000 vpd in 2022 at the adjacent interchange crossroads.
- The model-estimated volumes for 2015 are reasonably close to the 2015 SCDOT AADT volumes with only one roadway (SC 210) having a 2015 SCSWM volume more than 15 percent different from the 2015 AADT.

Roadway	Location	2015 SCDOT AADT	2015 SCSWM Volume Estimate	Deviation	2045 SCSWM Volume Estimate	Annual Growth Rate (%)
I-95	North of I-26	29,400	28,998	-0.1%	46,387	1.3%
I-95	South of I-26	43,000	39,527	-8.1%	51,274	0.9%
I-26	West of I-95	48,600	42,386	-12.8%	46,387	0.3%
I-26	East of I-95	35,500	38,664	8.9%	46,430	0.6%
US 176 (Old State Rd)	East of I-95	2,500	NA	NA	NA	NA
US 178 (Charleston Hwy)	East of I-95	2,900	3,255	12.2%	4,443	1.0%
SC 210 (Vance Rd)	North of I-26	1,100	826	-24.9%	830	0.01%
US 15	North of I-26 South of I-26	1,550 3,100	1,640 3,052	1.06% -1.48%	1,848 6,748	0.4% 2.7%

### Table 2: Statewide Model (SCSWMv4) Analysis of Growth Rates

## **5.3 OTHER FORECASTS**

Traffic forecasts have previously been developed by SCDOT for improvements on both I-26 and I-95. Projected annual growth rates utilized in the forecasts for nearby (less than one hour driving distance) projects on I-95 and I-26 were summarized to compare and provide consistency between other SCDOT projects. Four SCDOT forecasts were identified for consideration in developing growth rates on I-26 and I-95 on all four sides of the I-26 at I-95 interchange as shown in **Table 3**.

Roadway	Location	Annual Growth Rate	Project Forecast	Distance from I-26 at I-95 Interchange	Forecast Years
I-95	North of I-26	1.6%	I-95 at US 301 Interchange	11 miles north	2010-2035
I-95	South of I-26	2.0%	I-95 Widening from the Georgia border to MM 8	70 miles south	2022-2050
I-26	West of I-95	2.0%	I-26 Widening from MM 125 to MM 136	35 miles west	2019-2045
I-26	East of I-95	1.5%	I-26/SC 27 interchange improvements (Exit 187)	20 miles east	2017-2043

### Table 3: Summary of Other Forecasts

### **5.4 POPULATION PROJECTIONS**

Historic and projected population trends were analyzed for Orangeburg and Dorchester Counties. Census data for 2010 and 2020 were supplemented by 2035 County population projections prepared by the South Carolina Revenue and Fiscal Affairs Office. Although not a direct indicator of traffic growth rates, this information can assist in determining longer term growth in shorter distance background traffic. The 10-year historic growth (2010 – 2020) and future projected growth (2020-2035) are summarized in **Table 4**.

#### **Table 4: Population Growth Rates**

Interstate	Location	Crossroad	County influencing I-95 Traffic	2010 Population	2020 Population	2035 Projection	2010- 2020 Annual Growth	2020- 2035 Forecast Growth	Relative Local Growth
I-95	North of I-26	US 176 (Old State Rd)	Orangeburg	92,475	84,223	71,710	-0.9%	-1.1%	Low
I-95	South of I-26	US 178 (Charleston Hwy)	Dorchester (to south)	120,112	161,540	213,820	3.0%	1.9%	Moderate (1)
I-26	West of I-95	SC 210 (Vance Rd)	Orangeburg	92,475	84,223	71,710	-0.9%	-1.1%	Low
I-26	East of I- 95	US 15	Dorchester (to east)	120,112	161,540	213,820	3.0%	1.9%	High (1)

(1) Dorchester County growth is focused near I-26, especially near the Charleston suburbs. Therefore, the I-26 local growth is considered "high" versus "moderate" on I-95 in Dorchester County.

The two counties examined in **Table 4** include:

- Orangeburg County: The I-26 at I-95 interchange is located just inside the Orangeburg County limits. The interchanges located to the west and to the north of the I-26 at I-95 interchange are located in Orangeburg County. Overall, Orangeburg is undergoing a reduction in population that is anticipated to continue in the future. Between 2010-2012, Orangeburg County is one of 20 counties that have experienced negative growth in population.
- Dorchester County: Dorchester County is located south and east of Orangeburg County. The
  interchanges located to the east and south of the I-26 at I95 interchange are located in Dorchester
  County. Overall, Dorchester County has been increasing in population and is anticipated to
  continue to increase through 2035. A key driver in the population increase is development in the
  suburban areas of the northern Charleston region. Between 2010-2012, Dorchester County ranks
  as the seventh fastest growing county in South Carolina.

### 5.5 RECOMMENDED GROWTH RATES

The estimated growth rates from the sources discussed in the previous sections are combined and presented for I-26, I-95 and the adjacent interchange crossroads in **Table 5**. In addition, the proposed annual growth rates to be applied in this forecast are shown in the final column. In developing a proposed growth rate, an average of the historic AADT, statewide model, and other forecasts was computed to provide an initial assessment. Population growth trends were considered in terms of low to high local growth, particularly for the adjacent intersections.

Roadway	Location	2009-2019 Historic AADT (Table 1)	2015-2045 Statewide Model (Table 2)	Other Forecasts (Table 3)	Relative Local Population Growth Projections (1) (Table 4)	Average of Historic AADT, Statewide Model, & Other Forecasts	Proposed Annual Growth Rate <i>(2)</i>
I-95	North of I-26	1.8%	1.3%	1.6%	Low	1.6%	1.6%
I-95	South of I-26	1.9%	0.9%	2.0%	Moderate	1.6%	1.6%
I-26	West of I-95	2.4%	0.3%	2.0%	Low	1.6%	1.8%
I-26	East of I-95	3.7%	0.6%	1.5%	High	1.9%	1.8%
US 176 (Old State Rd)	Both sides	0.0%	NA	NA	Low	0.0%	0.5%
US 178 (Charleston Hwy)	Both sides	0.0%	1.0%	NA	Moderate	0.5%	0.5%
SC 210 (Vance Rd)	Both sides	0.0%	0.01%	NA	Low	0.0%	0.5%
US 15	North of I-26 South of I-26	3.3% 6.1%	0.4% 2.7%	NA	High	1.9% 4.4%	2.4%

### Table 5: Annual Growth Rate Comparison & Recommendation

(1) The population projection data is intended for information only to help inform the forecast growth rate. Nevertheless, it should be weighted less heavily than the historic traffic growth, the model forecasts (which reflects land use growth), and other forecasts.

(2) Minimum growth rate assumed to be 0.5% per year.

# **6.0 VOLUME DEVELOPMENT**

### 6.1 METHODOLOGY

The analysis utilized a traditional methodology of initially estimating daily traffic volumes for the existing and future years and then applying a peak hour percentage (k) and directional (d) factors to estimate peak hour volumes. This method was utilized instead of applying growth rates directly to peak period turn movements. The proposed methodology includes the following steps:

- 1. Evaluation of existing daily traffic patterns (See Section 6.2)
- 2. Determination of existing 2022 AADT (See Section 6.3)
- 3. Preparation of 2022 balanced AADT turn movements (See Section 6.4)
- 4. Peak hour data analysis to identify a peak hour percentage (k)
- 5. Application of future growth rates to prepare future balanced AADT turn movements (See Section 6.6)
- 6. Determination of Peak Period Traffic Factors
- 7. Application of growth rates for preparation of future traffic volumes
- 8. Identification of truck percentages

### 6.2 EVALUATION OF EXISTING DAILY TRAFFIC PATTERNS

The existing traffic flows on both I-26 and I-95 exhibit different daily flow patterns than many other high volume Interstate facilities. The majority of higher volume freeways are located in urban areas with very predictable weekday flows dominated by a higher volume AM and PM period controlled by daily commuter patterns. In addition, urban areas typically have higher volumes on weekdays than weekends. While there is some variance in volumes in an urban area by month, the variances are relatively modest.

In contract, both I-26 and I-95 are high volume rural Interstates carrying high volumes of long distance travelers, both within South Carolina and along the entire southeast coast. This includes a substantial volume (more than 20 percent of traffic) of large commercial interstate trucks (more than 20 percent of total traffic). Therefore, the first step in developing forecasts included analyzing both historical patterns and traffic volumes on I-26 and I-95.

A key analysis was examining the daily traffic volumes over a full year. Since the objective was to identify patterns over a typical year, the analysis focused on 2019 in order to eliminate variances in traffic flow related to the Covid pandemic. The 2019 data for both I-26 and I-95 were examined for variances in flow throughout the week (see **Table 6**), throughout the year (see **Table 7**), as well as on a day to day basis (see **Figure 3** and **Figure 4**).

	I-26 Stat	tion #20	I-95 Stat	ion #56
	ADT	Conversion Factor	ADT	Conversion Factor
Monday	49,168	1.08	31,068	1.05
Tuesday	45,035	1.18	27,712	1.18
Wednesday	47,428	1.12	28,208	1.16
Thursday	51,875	1.02	31,477	1.04
Friday	63,888	0.83	37,748	0.87
Saturday	55,914	0.95	37,024	0.89
Sunday	57,459	0.92	35,735	0.92
Weekday	51,479	1.03	31,243	1.05
Weekend	56,687	0.93	36,379	0.90
MTWT Weekday	48,376	1.09	29,616	1.11
FSS Weekend	59,087	0.90	36,836	0.89

### Table 6: Variance of Traffic Volumes by Day of Week (2019)

Note: The conversion factor is used to convert a daily count on a given day of the week to an average daily volume. It is applied by dividing the given count by the conversion factor.

	I-26 St	ation #20	I-95 Station #56		
Month	ADT	Conversion Factor	ADT	Conversion Factor	
January	44,594	1.19	26,837	1.22	
February	47,312	1.12	27,291	1.20	
March	56,125	0.94	33,512	0.98	
April	57,151	0.93	37,485	0.87	
Мау	56,119	0.94	32,854	1.00	
June	59,202	0.89	35,331	0.93	
July	59,772	0.89	36,345	0.90	
August	55,737	0.95	33,910	0.97	
September	45,133	1.17	27,781	1.18	
October	49,793	1.06	29,331	1.12	
November	51,848	1.02	30,471	1.08	
December	52,058	1.02	35,582	0.92	
Annual Average (computed)	52,945	NA	32,774	NA	
Official AADT (other adjustments)	52,900	NA	32,200	NA	

#### Table 7: Variance of Traffic Volumes by Month of Year (2019)

Note: The conversion factor is used to convert a daily count collected in a given month

to an average annualized daily volume. It is applied by multiplying the given count by the conversion factor.

A review of Table 6 indicates:

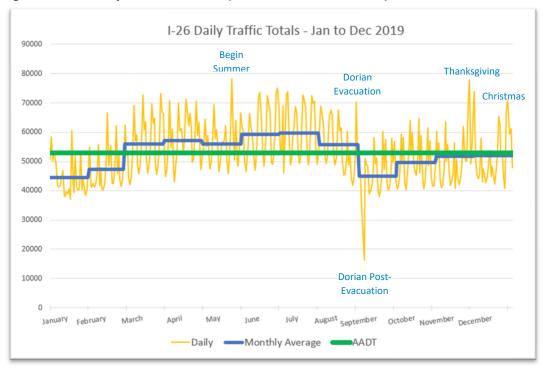
- Friday is the highest volume day throughout the year on both I-26 and I-95. It is particularly high on I-26 where the average Friday is more than 12,000 vpd higher than an average weekday and 4,000 vpd higher than the average weekend.
- The average daily weekend volume is more than 10 percent higher than the average weekday.
- If Friday is counted in the weekend, the difference is even greater with 20 percent higher daily volumes on the weekend than weekday.

### A review of **Table 7** indicates:

- As shown, the official AADT was 52,900 vpd on I-26 and 32,200 vpd on I-95 in 2019.
- Daily volumes are subject to peaking for the summer months as expected. June and July are the highest volumes months with more than 59,000 vpd on I-26 and 35,000 vpd on I-95.
- High volumes are not limited to just June and July, however. A review of the data indicates that higher volumes begin in March through August with over 55,000 vpd.
- The lowest volume months are September to October as well as January to February.
- Although lower volumes than observed in the peak season (March through August), November and December both carry higher average values, primarily due to heavy traffic associated with the Thanksgiving and Christmas holidays.

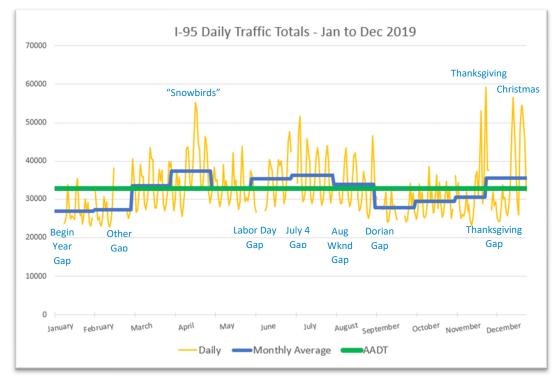
In addition to looking at monthly and weekly patterns, a summary of daily patterns was developed in a graphic format. A review of the 2019 daily volumes is included in **Figure 3** for I-26 and **Figure 4** for I-95. Key patterns noted include:

- The substantial peaking on weekends (including Fridays) is evident not just during the higher volume March through August, but also throughout the year.
- The highest recurring peak volumes are noted on summer weekends for I-26 and I-95. The highest summer-related day was Friday May 24 marking the beginning of the tourist season. Although the traditional summer peak is noted from June through August, higher volumes on I-26 begin in in March and extend through the spring.
- The highest days of the year on I-95 are on the days before and after Thanksgiving and Christmas. Also note that in April there is a sustained peak, most likely caused by "snowbirds" returning from Florida to the northern states with the end of winter.
- A substantial peak followed by a dip was noted in early September on I-26. This dip matches the Governor's ordered evacuation of coastal areas for Hurricane Dorian. There is a peak caused by the evacuation followed by reduced volumes the day of the storm. (This data was not available in the 2019 data set for I-95.)
- A review of the data sets indicated that a full 365 days of data were available on I-26. On I-95, however, the available data sets did not include full holiday data including gaps for Thanksgiving, three summer weekends (including Labor Day and July 4<sup>th</sup>), the Hurricane Dorian evacuation and some other dates. Therefore, the I-95 data likely does not reflect full peaking volumes. This was considered when reviewing the HHV data in the development of the peak hour factor (k).



#### Figure 3: 2019 Daily Volumes on I-26 (SCDOT Count Station #20)

#### Figure 4: 2019 Daily Volumes on I-95 (SCDOT Count Station #56)



## 6.3 DETERMINATION OF EXISTING 2022 AADT

The next step in estimating the project forecasts is the development of a baseline AADT for the 2022 existing conditions. One of the key challenges is the impact of the Covid pandemic on traffic patterns in 2020 and 2021. Therefore, AADT volumes on key roadway links were compared for 2019, 2020 and 2021 in addition to the 24-hour traffic counts collected as part of this project effort. **Table 8** provides an overview of the data considered and the identification of a 2022 forecasted AADT.

Station	Roadway	Location	2019	2020	2021	March 2022 (actual)	March 2022 factored(1)	2022 Forecast Target	2022 Balanced Forecast AADT
0056 & 38-2835	I-95	North of I-26	32,200	28,700	35,700	32,415	31,800	35,700	35,800
28-2383	I-95	South of I-26	48,600	43,100	51,900	45,920	45,000	51,900	52,000
2171	I-26	West of I-95	53,500	47,000	49,600	48,890	45,000	49,600	49,600
2173	I-26	East of I-95	42,900	36,000	41,000	42,065	38,700	41,000	41,000
0184 0185	US 176 Old State Rd	West of I-95 East of I-95	NA 2,500	2,600 2,300	2,300 2,500	3,228 3,170	NA (2)	3,200	3,400 2,800
18-0141	US 178 Charleston Hwy	West of I-95 East of I-95	NA 2,800	NA 2,300	NA 2,500	3,655 4,524	NA (2)	3,500	3,000 4,000
38-0385	SC 210 Vance Rd	North of I-26 South of I-26	1,050	1,150	1,200	2,038 1,651	NA (2)	1,800	1,600 1,800
18-0109	US 15	North of I-26 South of I-26	2,500	2,200	2,400 5,100	2,174 4,204	NA (2)	2,400 5,000	2,800 5,000

### Table 8: Estimation of 2022 AADT at Key Roadway Links

Notes:

1. AADT calculated using March factor shown in

2. Table **7**.

3. Monthly factor not calculated for local crossroads. Given the low volumes on the local roads (less than 5,000 vpd), the balancing methodology required adjustments that limited ability to precisely meet counts.

## 6.4 PREPARATION OF 2022 BALANCED AADT TURN MOVEMENTS

The next step in the forecast procedure was the development of balanced daily turn movements for the I-26 at I-95 interchange and each of the four adjacent interchanges. For each interchange, this process required identifying the existing AADT on each approach as identified in **Table 8**. In addition, the 24-hour turn movement volumes were estimated using a combination of ramp AADT volumes and the counts collected for this study (both the ramp classification counts and the intersection turn movements).

In order to simplify the development of turn movement volumes, a spreadsheet tool was utilized to convert daily traffic volumes into turn movement data. Originally prepared by the North Carolina Department of Transportation (NCDOT), the tool verifies whether the turn movements are balanced at the interchange while also providing a simplified iterative method to balance the AADT turn movements.

As a final step, the spreadsheet converts the AADT turn movement information into peak hour turn movements utilizing the k and d factors. The volumes are computed for the overall interchange and can be assigned to multiple interchange types.

The basic theory utilized in the NCDOT spreadsheet is that traffic volumes are balanced daily with trips returning on the same roads, but in an opposite direction. As an example, the number of northbound right turns are offset by a similar number of westbound left turns over a full day. At each intersection, the turns must be balanced between the four quadrants with the daily volumes on each of the four approaches. An initial estimate of traffic flows in each quadrant is made based on existing data (for this project the SCDOT daily ramp counts as well as the ramp counts collected for the project were utilized).

Once a balanced daily solution for the quadrant turns is identified, the applicable peak hour percentages (k) and directional splits (d) can be applied to estimate peak period turn movements. Due to challenges matching peak hour turn movements for movements with differing k and d factors, the spreadsheet applies an iterative balancing to smooth out differences between approaches.

Note that the method is applied for the overall interchange without needing to take into account the type of interchange. For each individual interchange, the turn movements are iteratively adjusted to balance from east to west and from north to south (as well as the reverse movements). Once a given interchange is balanced, the applicable turn movements were compared to the existing traffic counts for reasonableness.

For this project, additional evaluation was focused on the I-95 northbound left onto I-26 west and the returning message. Although the daily counts on the loop in the northeast quadrant and the opposite ramp in the southwest quadrant did not match, the higher of the two volumes observed was closely matched to prevent an overestimate of the assumed 2022 existing movements. As a final step, the volumes between adjacent interchanges were checked to verify that total through traffic volumes are consistent between interchanges.

The 2022 balanced AADT turn movements for each of the five interchanges are in Appendix D. The output is from the NCDOT spreadsheet tool.

### 6.5 PEAK HOUR DATA ANALYSIS

The 7th Edition of the American Association of State Highway and Transportation Officials (AASHTO) *A Policy on Design Standards Interstate System* notes that traffic volumes vary during the day as well as at different times in the year, and that a key design decision is to determine which of these hourly volumes should be used as the basis of design in order to adequately manage the expected volume of traffic without overdesigning for extremes. AASHTO-recommended practice is to select an hour between the 30th and 100th highest hour of the year for roadway design, which is similar to the method prescribed by the Institute of Transportation Engineers (ITE) and the Transportation Research Board (TRB).

In order to reflect "normal" traffic conditions, the analysis proceeded with the selection of a design hour volume using the 2019 data sets illustrated in **Figure 3** and **Figure 4**. A detailed analysis of the hourly volumes on both I-26 and I-95 was conducted to identify an applicable peak hour period and the corresponding peak hour period, design hour percentage (k), and directional splits.

### 6.5.1 Design Hour Selection

As noted in Section 6.2, daily traffic volumes on both I-26 and I-95 vary substantially depending upon the month of the year and the day of the week. The variations in daily flow are also reflected in peak hour patterns and volumes. The following is noted about the pattern of peak hour volumes to determine a peak hour of the day on both I-26 and I-95.

- Daily traffic flows are different than typical travel patterns in urban areas.
- There is no distinct AM or PM peak period. Instead, traffic volumes are relatively high from 7 AM to 9 PM. The highest volumes occur between 12 noon and 5 PM with peaking occurring near 3 PM on both I-26 and I-95. (See **Figure 5** and **Figure 6**)
- In the peak hour each day, traffic flows peak in both directions on I-26 and I-95. (See Figure 7)

Based on these observations, this forecast has been developed assuming a single mid-day peak period (approx. 3 PM to 4 PM) with peak flows in both directions on I-95 and I-26.

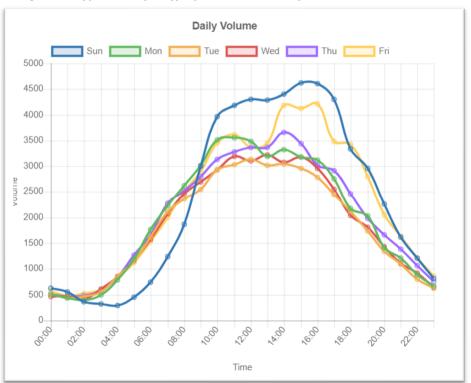


Figure 5: Typical daily traffic patterns on I-26 (from Station 0020 Site Dashboard)

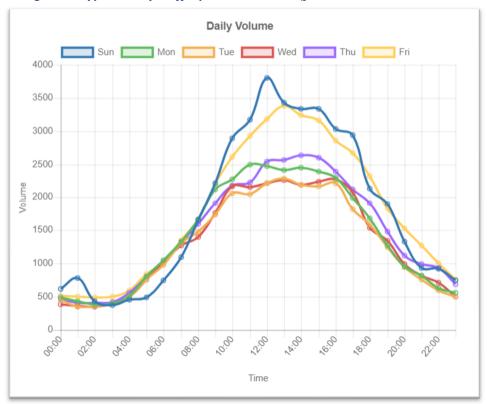


Figure 6: Typical daily traffic patterns on I-95 (from Station 0056 Site Dashboard)

Figure 7: Hourly Directional Flow on I-95 (SCDOT Count Station #56)



Note: Box illustrates range between 10 AM to 6 PM illustrating the long daily peak on I-95 at ATR #56.

### 6.5.2 Review of Highest Hourly Volumes to Calibrate K-factor

Typical practice is to choose an hourly volume between the 30<sup>th</sup> and 100<sup>th</sup> highest hour volume (HHV) in order to balance economic efficiency with congestion alleviation. Therefore, a review of the highest hourly volume was undertaken to identify an appropriate highest hourly volume and the respective k percentage. For this project, average K is not appropriate for multiple reasons including high variations in demand throughout the year as well as on a weekly basis. On I-26 and I-95, the relatively flat demand that occurs over multiple hours of each day also serves to diminish the average K. Therefore, a more detailed analysis of the highest hourly volume curves was undertaken to identify an appropriate peak hour volume.

Key items considered include:

- The I-95 data set used in developing the AADT has already eliminated the highest volume days of the year (before and after Thanksgiving, Christmas and New Years as well as 3 peak beach weekends). As a result, it is estimated that approximately 20 of the top 50 HHV peak hours may have been eliminated from the analysis data set.
- In analyzing the data for each day (independent of the daily volume), an average peak hour percentage (k) of 8 percent was identified. Using the average k of 8 percent, results in a peak hour volume of 2,576 vph (using the 2019 AADT) which is near the 700th HHV on I-95. Similarly, on I-26 an 8 percent k-factor equates to a volume near the 900th HHV. Designing for these volumes will result in many more hours of congestion than desirable.

Standard practice is to base highway design volumes on an hour between the 30th and 100th highest hour of the year by evaluating a curve of the highest hourly volumes over a given year. When this curve is produced, a key feature is the "knee" of the curve which typically occurs near the 30<sup>th</sup> highest hourly volume but can vary depending upon the characteristics of the highway being examined. The "knee" is that portion if the curve between the initial steep descent and the more gradually declining slope reflecting lower and more frequently occurring volumes. Using this point to select an appropriate hour for planning, design, and operational purposes provides a compromise between providing an adequate level of service (LOS) for most hours of the year while also providing an economically efficient design. Simply put, building a highway to accommodate traffic volumes on the initial steep slope of the volume curve can be very expensive and provide excess capacity that is only used during a few peak hours of each year.

For this more detailed analysis, 2019 peak hour volumes for both I-26 and I-95 were combined and sorted from highest to lowest for all hours of the year to create the highest hourly volume curves. The resulting curve (both an extended and then zoomed in version) were reviewed for both I-26 and I-95. (as illustrated in **Figure 8**). This analysis focused on identifying an appropriate k percentage that could be applied to existing 2022 volumes as well as 2030 and 2050 future AADTs. The focus was to identify the K value corresponding with the knee in the curve.

In addition to reviewing the HHV curve data, the list of 200 highest hourly volumes was examined. In addition to the volumes, a k percentage was computed for each hour based on the calculated AADT for

the entire year of 2019. 2019 was specifically targeted since the entire annual pattern (even if applied to a different AADT or year) reflected a full year without variations and dips resulting from Covid effects of vehicle trips – both in-state and out of state.

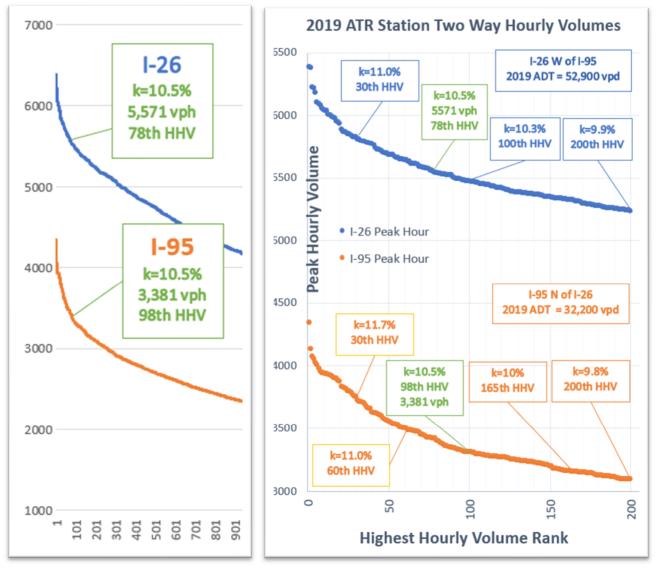


Figure 8: Top 200 Highest Hourly Volumes on I-26 (Sta #20) and I-95 (Sta #56) for 2019

Notes:

1. The SCDOT 2019 automatic counter data for I-95 north of I-26 did not include weeks of Thanksgiving, Christmas, New Years as well as 3 summer weekends in 2019. After comparison to the complete I-26 data set, it is estimated that approx. 20 of top 150 HHV are missing on I-95.

2. To examine the highest hourly volume, 2019 data was used to get a clean data set without impacts of Covid. The data was then used in order to develop k percentages for application to 2022 data and future forecasts.

Understanding the differences in flow patterns on I-26 and I-95 as well as throughout the year is important to identifying an appropriate highest hourly volume for design and the applicable k percentage for both I-26 and I-95. The key items affecting the selection of a k percentage related in both I-26 and I-95 include:

### Interstate 26 (selected k = 10.5 percent)

- On I-26, in contrast with I-95, the highest hourly volumes were focused in summer with over 60 percent of the peak 100 hours. Despite a full set of data, November and December peak hours accounted for less than 10 percent of the 100 highest hours of 2019 (compared with 50 percent of the I-95 peak 100 hours occurring in November and December).
- On I-26, the 30<sup>th</sup> highest hourly volume and most of the similar hourly volumes occurred on a summer weekend and reflected a peak hour (k) percentage of 11.0 percent. It was recognized, however, that the intent of the project is not focused on the highest peak summer traffic volumes which would likely result in an over design of the facility.
- In observing the top 200 data set, it was noted that there were multiple counts reflecting spring (March and April) on a Friday afternoon. These all occurred between the 65<sup>th</sup> and 92<sup>nd</sup> highest hourly volumes with a k percentage ranging from 10.4 percent to 10.6 percent.
- The observed spring Friday data matches well the k percentage of 10.5 percent shown in **Figure 8** for I-26 and confirmed the selection.

### Interstate 95 (selected k =10.5 percent)

- I-95 has a different traffic pattern than is observed on I-26 despite both being high volume rural Interstates with heavy volumes of trucks.
- On I-95, half of the 100 highest hourly volumes occurred in the months of November and December. Of these, 40 hours were near Christmas while only 11 hours in the data set were near Thanksgiving. As noted previously, however, there was a gap in data for Thanksgiving (specifically Monday through Friday of Thanksgiving week). If this data were available, it is likely that most of the 100 highest hourly volumes on I-95 would have been during the two holidays.
- Of the data in the top 200 HHV it is also suspected that the summer peaks were also under reported with Labor Day week, July 4<sup>th</sup> weekend, and another weekend in August not included in the data set. It is recognized, however, that these periods are typically considered as not appropriate for identification of a design period.
- Applying the same approach used for I-26 (i.e., identifying a typical peak Friday in the spring) was reviewed. Multiple data points fitting the desired time period were identified ranging between the 103<sup>rd</sup> HHV (k = 10.3 percent) through the 225<sup>th</sup> HHV (k = 9.6 percent). Using this result, a k value of 10.0 percent was considered.
- Reviewing a k value of 10 percent, it was determined that this volume correlated with the 160<sup>th</sup> HHV of the available data. This is further from the typical 30<sup>th</sup> HHV than desired. In addition, if the missing data were to be considered, it was estimated that at least 50 additional hourly volumes higher than this point were not counted. Therefore, a k of 10 percent was not utilized.
- A k value of 11 percent was also considered which matched the 60<sup>th</sup> HHV on I-95. A review of the data, however, indicated that the vast majority of the data points near this level were either

winter holiday related or during peak summer weekends. Therefore, this was deemed as giving too high of design volume.

• A k value of 10.5 percent was examined and correlated with the 98<sup>th</sup> HHV using the 2019 data for I-95. Although this It is recognized that this is lower than is typically applied, it seemed a reasonable balance between 10 and 11 percent. The volume also matched near the point where the peak spring Friday afternoon hours were observed. This point is highlighted on the I-95 curve shown in **Figure 8**.

Note that the above data sets are included in Appendix B for both I-26 and I-95. To simplify reviewing the data, highlighting has been used. For I-95, gold highlight reflects the winter holidays and green highlight reflects the peak data for primarily Fridays in March and April. For I-26 only the green highlight is used. For both facilities the 30<sup>th</sup> and 100<sup>th</sup> HHV is highlighted in yellow.

In summary, a peak hour factor was determined for both I-26 and I-95. On I-26, a k-factor of 10.5 percent was selected reflecting the 78<sup>th</sup> HHV. On I-95, a k-factor of 10.5 percent was also selected reflecting the 98<sup>th</sup> HHV on I-95 (although the I-95 HHV is likely closer to the 150<sup>th</sup> HHV if all data for 2019 were available). In determining these percentages, a review of the highest hourly volume data was conducted, focused on identifying the "knee of the curve". The use of this methodology results in a lower K-value and lower design volume than would be accommodated if the typical 30<sup>th</sup> HHV were selected. Nevertheless, this method of identifying the knee in the curve allows for a balancing of construction costs for economic efficiency by avoiding over-designing for holidays and other events. Although there is variation in actual counts, the design period reasonably approximates a typical Friday afternoon in the spring for I-26 and a higher volume Friday afternoon in the spring for I-95.

## 6.6 APPLICATION OF GROWTH RATES FOR PREPARATION OF FUTURE BALANCED AADT TURN MOVEMENTS

Section 5.0 documents the analysis for determining the traffic growth rate to be applied for this project. Specific annual growth rates were identified in **Table 5** for both I-26 (1.8 percent) and I-95 (1.6 percent) as well as the four crossroads at each of the adjacent interchanges (2.4 percent for US 15 and 0.5 percent for the other three crossroads).

For the balancing of turn movements, a growth rate is also applied to the turns. For the system interchange, I-26 at I-95 interchange, the turn movements were increased by the I-26 growth rate of 1.8 percent per year. For each of the four service interchanges, turn movements were assumed to grow based upon the growth rate of the local road. As with the 2022 balanced intersections, a final step required balancing of the outgoing traffic volume was taken.

The 2030 and 2050 balanced AADT turn movements for each of the five interchanges are in Appendix D. The output is from the NCDOT spreadsheet tool.

## 6.7 IDENTIFICATION OF TRUCK PERCENTAGES

Truck percentages are high on both I-26 and I-95 serving freight along I-95 linking the eastern seaboard and with I-26 serving a critical link to the SC Port facilities in Charleston. Each of the SCDOT permanent traffic counters on I-26 and I-95 summarizes the truck percentages based on FHWA's breakdown of 13 vehicle types. Multiple sources of truck counts were reviewed including the 2019 hourly counts, additional online data, project specific classification counts, as well as the Statewide demand model. The data sets and forecasted truck percentages are summarized in **Table 9**.

Location	Site Summary from SCDOT	Site Dashboard	Statewide Model	Project Counts	Forecast Truck Percentages		
	Website	(Class 5-13)	2015 & 2045	(3/1-3/7)	2030	2050	
l-95 North	12%	23.1%	26.3% 2015 27.5% 2045	35% weekday 29% weekend 33% overall	22%	22%	
I-95 South	21%	24.5%	27.7% 2015 29.7% 2045	31% weekday 19% weekend 29% overall	22%	22%	
I-26 West	24%	21.0%	30.8% 2015 41.3% 2045	31% weekday 16% weekend 28% overall	22%	28%	
I-26 East	21%	21.0%	29.2% 2015 45.6% 2045	23% weekday 17% weekend 22% overall	22%	28%	

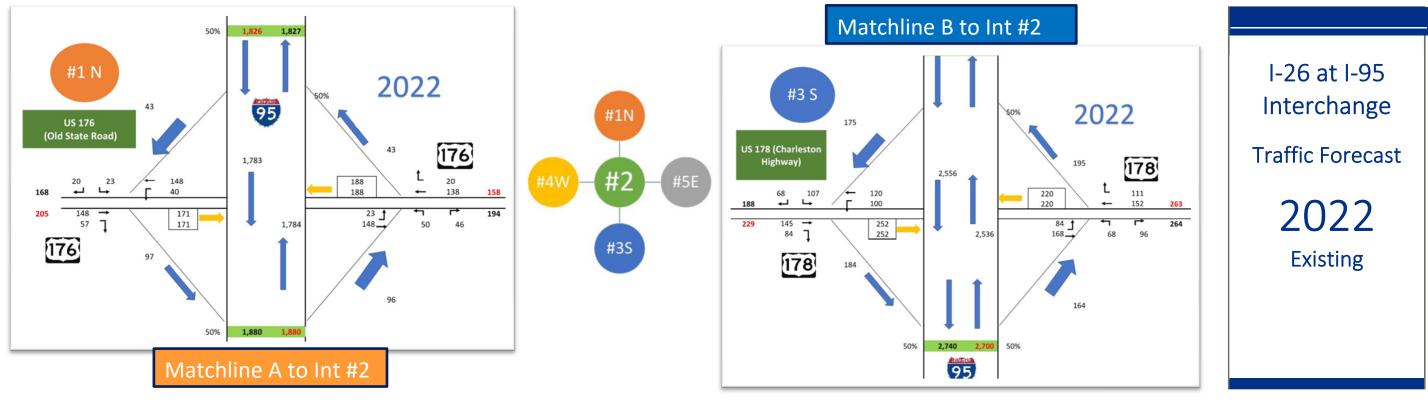
### Table 9: Truck Percentages for I-26 and I-95

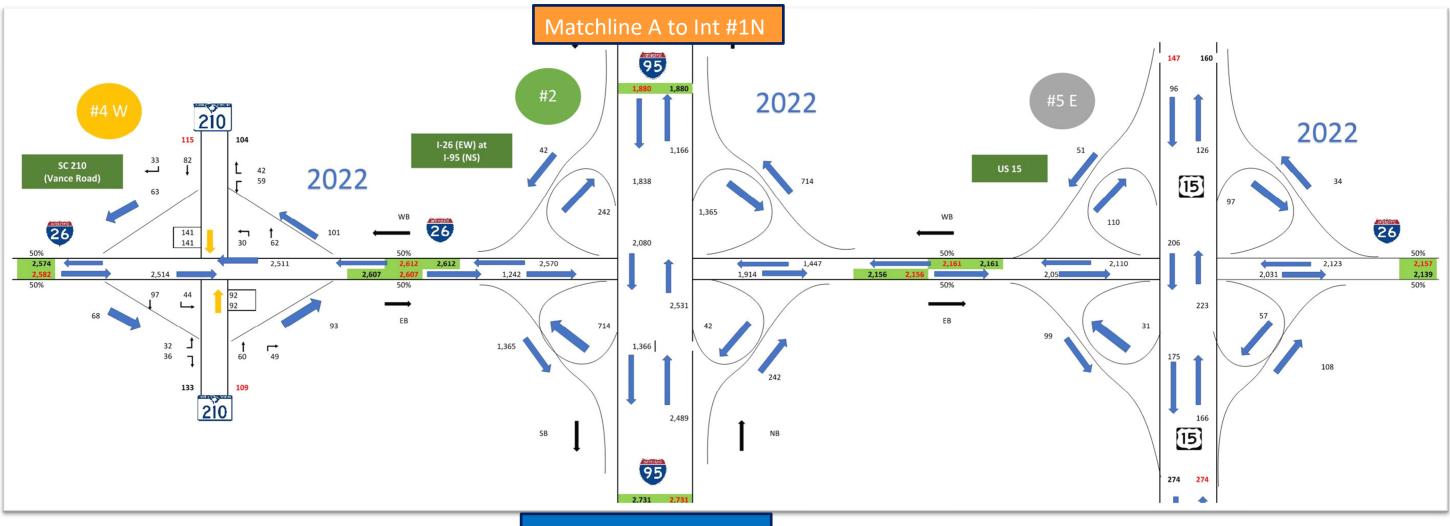
Note that higher truck percentages are forecast for I-26 in 2050 (28 percent) than 2030 (22 percent). This increase is based on input from the official 2045 Statewide Model Version 4 (SCSWMv4) model volumes and existing counts. The Statewide model is used by SCDOT for freight planning purposes and includes anticipated increases in freight volumes related to the SC Ports facilities in Charleston as well as other shipping and truck focused industries along the corridor. Note that the forecasted 28 percent trucks for 2050 is still substantially lower than the more than 40 percent identified by the 2045 Statewide model. The future 28 percent truck percentage for 2050 was based on coordination with SCDOT as a balance between the Statewide model and existing conditions.

# 7.0 PROPOSED DESIGN VOLUMES

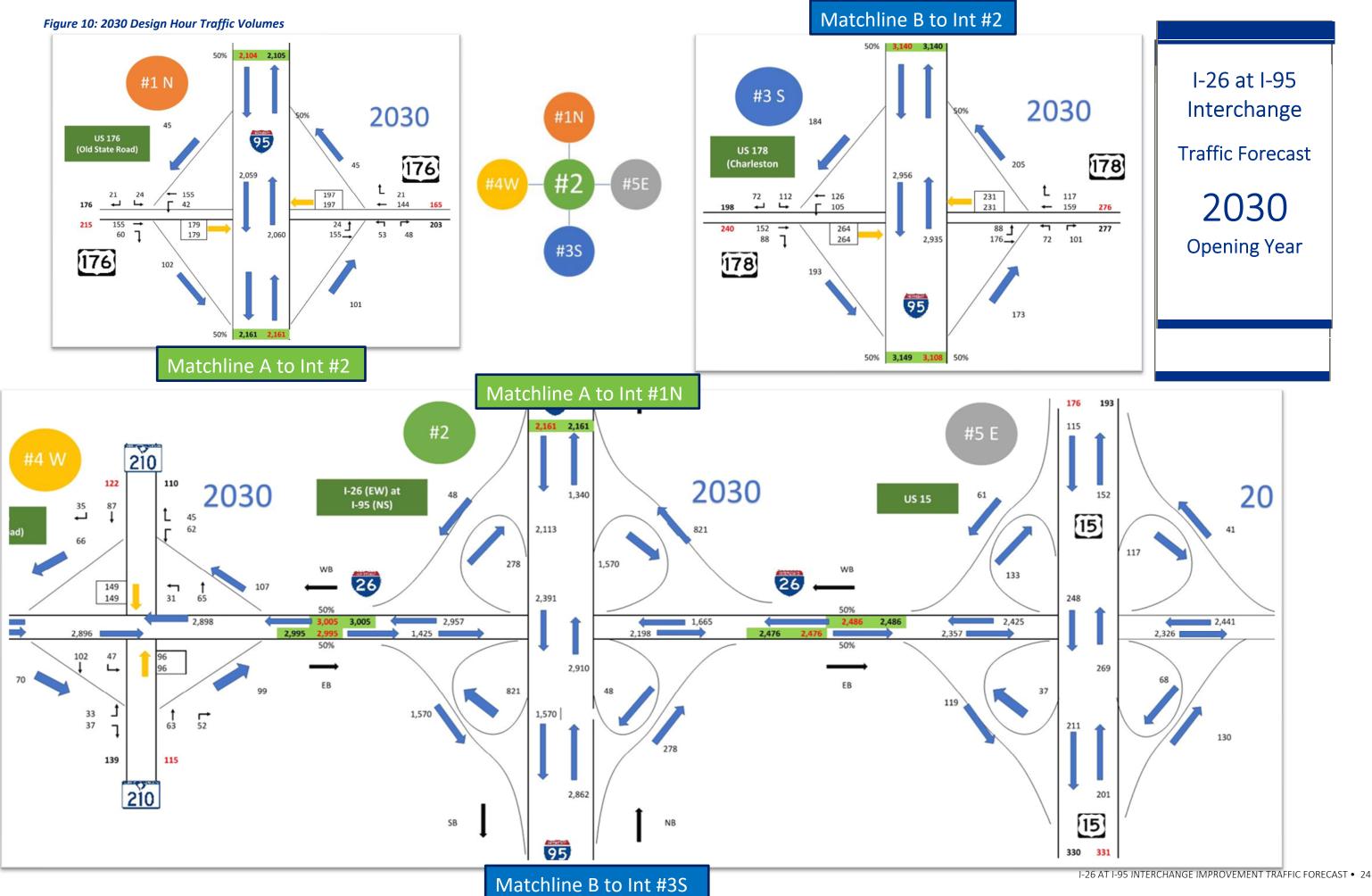
Based on the analysis presented in this memorandum, the following volumes are proposed for the 2022 Base Year (**Figure 9**), 2030 Opening Year (**Figure 10**), and 2050 Design Year(**Figure 11**). In addition to the figures, Appendix E provides a continuous graphic of the traffic forecasts that can be printed on a larger scale.

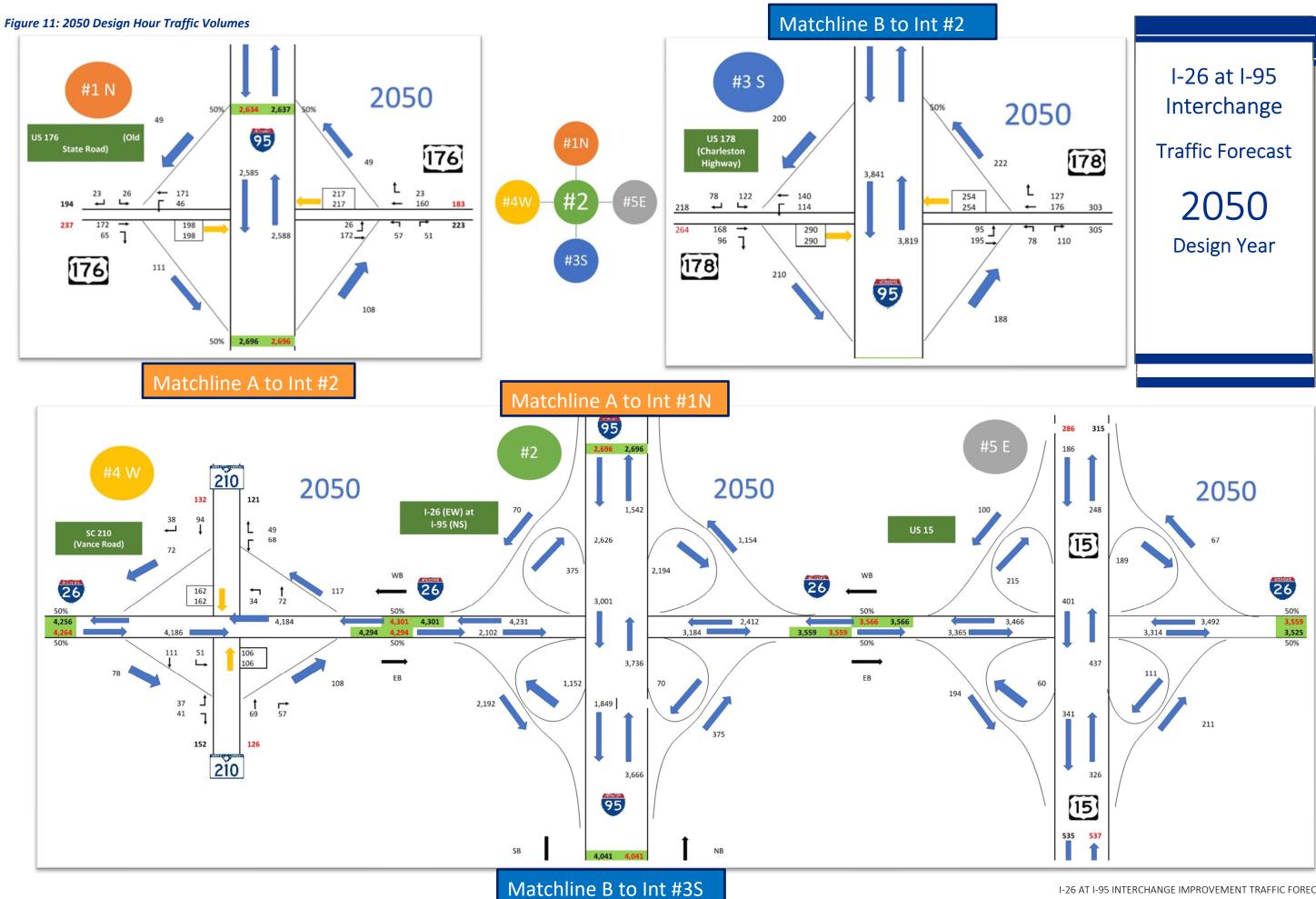
Figure 9: 2022 Design Hour Traffic Volumes





Matchline B to Int #3S





# **Appendix A HISTORICAL AADT GROWTH ANALYSIS**

Station	Roadway	Location	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2009 to 2019 Growth Rate
0056 & 38-2835	I-95	North of I-26	26,900	27,200	27,200	27,200	26,100	26,800	29,400	30,900	30,900	31,400	32,200	1.81%
28-2383	I-95	South of I-26	40,300	40,700	40,900	39,500	39,600	40,700	43,000	43,700	43,400	44,800	48,600	1.89%
2171	I-26	West of I-95	42,200	44,100	42,800	43,200	44,300	45,600	48,600	50,900	52,800	52,800	53,500	2.40%
2173	I-26	East of I-95	29,900	30,700	29,700	30,200	30,900	32,800	35,500	38,300	39,000	42,500	42,900	3.68%
0185	US 176 (Old State Rd)	East of I-95	2,500	2,600	2,500	2,400	2,400	2,400	2,500	2,400	2,300	2,400	2,500	0.00%
18-0141	US 178 (Charleston Hwy)	East of I-95	2,800	2,900	3,100	3,100	3,200	2,900	2,900	2,800	3,000	2,600	2,800	0.00%
38-0385	SC 210 (Vance Rd)	North of I-26	1,050	1,050	1,050	1,100	1,100	1,000	1,100	1,050	1,150	1,050	1,050	0.00%
18-0109	US 15	North of I-26	1,800	1,850	1,850	2,100	2,400	1,650	1,550	1,900	2,200	2,300	2,500	3.34%

# **Appendix B** 2019 HIGHEST HOURLY VOLUMES

## I-26 WEST OF I-95 STA. #20

## I-95 NORTH OF I-26 STA. #56

HIGHLIGHTING LEGEND:

30<sup>th</sup> & 100<sup>th</sup> Highest Hourly Volume

THANKSGIVING & CHRISTMAS HOLIDAYS

FRIDAY AFTERNOONS IN SPRING

26 Coun	t Station #0020			2019				ADT = 52,945 vpd		
нну	Day of Week	Date	Month	Year	Time	Hourly Volume	EB	WB	k	
1	Saturday	29	June	2019	10:00	6383	2980	3403	12.1%	
2	Saturday	15	June	2019	10:00	6377	3134	3243	12.0%	
3	Saturday	27	July	2019	10:00	6220	2907	3313	11.7%	
4	Sunday	28	July	2019	14:00	6217	3073	3144	11.7%	
5	Saturday	6	July	2019	11:00	6182	2926	3256	11.7%	
6	Sunday	21	July	2019	13:00	6103	2881	3222	11.5%	
7	Saturday	20	July	2019	10:00	6091	2847	3244	11.5%	
8	Saturday	10	August	2019	11:00	6077	2970	3107	11.5%	
9	Sunday	28	July	2019	13:00	6057	2886	3171	11.4%	
10	Saturday	3	August	2019	11:00	6045	2979	3066	11.4%	
11	Saturday	13	July	2019	10:00	6039	2857	3182	11.4%	
12	Sunday	28	July	2019	12:00	6037	2653	3384	11.4%	
13	Sunday	7	July	2019	17:00	6005	3172	2833	11.3%	
14	Saturday	6	July	2019	10:00	6001	2575	3426	11.3%	
15	Sunday	28	July	2019	15:00	5989	2935	3054	11.3%	
16	Sunday	30	June	2019	13:00	5983	2928	3055	11.3%	
17	Wednesday	27	November	2019	13:00	5979	2940	3039	11.3%	
18	Friday	24	May	2019	15:00	5950	3228	2722	11.2%	
19	Sunday	28	July	2019	16:00	5945	3037	2908	11.2%	
20	Saturday	13	July	2019	11:00	5935	3073	2862	11.2%	
21	Sunday	21	July	2019	14:00	5890	2959	2931	11.1%	
22	Friday	26	July	2019	14:00	5870	3140	2730	11.1%	
23	Sunday	1	December	2019	16:00	5870	3267	2603	11.1%	
24	Sunday	23	June	2019	16:00	5865	3057	2808	11.1%	
26	Sunday	11	August	2019	14:00	5854	2774	3080	11.1%	
27	Sunday	30	June	2019	14:00	5853	2830	3023	11.1%	
28	Saturday	15	June	2019	11:00	5838	2820	3018	11.0%	
29	Sunday	23	June	2019	15:00	5827	2797	3030	11.0%	
30	Sunday	28	July	2019	11:00	5827	2533	3294	11.0%	
31	Friday	29	March	2019	15:00	5825	2934	2891	11.0%	
32	Sunday	23	June	2019	13:00	5811	2710	3101	11.0%	
33	Saturday	29	June	2019	11:00	5807	2795	3012	11.0%	
34	Sunday	21	July	2019	11:00	5799	2515	3284	11.0%	
35	Sunday	23	June	2019	12:00	5792	2592	3200	10.9%	
36	Friday	29	March	2019	16:00	5789	2858	2931	10.9%	
37	Sunday	7	July	2019	11:00	5783	2529	3254	10.9%	
38	Saturday	15	June	2019	12:00	5780	2904	2876	10.9%	
39	Saturday	3	August	2019	12:00	5777	2996	2781	10.9%	
40	Wednesday	27	November	2019	12:00	5772	2798	2974	10.9%	
41	Sunday	14	July	2019	15:00	5771	2848	2923	10.9%	
42	Saturday	30	November	2019	11:00	5764	2698	3066	10.9%	
43	Sunday	30	June	2019	15:00	5737	2937	2800	10.8%	
44	Sunday	11	August	2019	12:00	5728	2437	3291	10.8%	
45	Sunday	31	March	2019	16:00	5725	2763	2962	10.8%	
46	Sunday	16	June	2019	16:00	5722	3163	2559	10.8%	
47	Saturday	29	June	2019	09:00	5715	2551	3164	10.8%	
48	Sunday	21	July	2019	12:00	5702	2497	3205	10.8%	
49	Friday	22	February	2019	15:00	5697	2632	3065	10.8%	
51	Sunday	14	April	2019	12:00	5694	2749	2945	10.8%	

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26 Cour	nt Station #0020			2019				ADT = 52,9	45 vpd
нну	Day of Week	Date	Month	Year	Time	Hourly Volume	EB	WB	k
52	Friday	24	May	2019	16:00	5686	3126	2560	10.7%
53	Sunday	11	August	2019	13:00	5686	2672	3014	10.79
54	Sunday	24	March	2019	14:00	5684	2735	2949	10.79
55	Sunday	30	June	2019	12:00	5681	2569	3112	10.79
56	Friday	5	April	2019	14:00	5664	2948	2716	10.79
57	Saturday	6	July	2019	12:00	5659	2611	3048	10.7%
58	Sunday	21	April	2019	17:00	5657	2542	3115	10.79
59	Sunday	14	July	2019	13:00	5650	2698	2952	10.79
60	Thursday	26	December	2019	11:00	5649	2841	2808	10.79
61	Sunday	7	July	2019	12:00	5648	2789	2859	10.79
62	Friday	26	July	2019	13:00	5640	2843	2797	10.79
63	Friday	24	May	2019	14:00	5639	2954	2685	10.79
64	Saturday	10	August	2019	12:00	5631	2783	2848	10.6%
65	Friday	15	March	2019	15:00	5627	2904	2723	10.6%
66	Sunday	21	July	2019	15:00	5614	2789	2825	10.6%
67	Sunday	11	August	2019	15:00	5614	2691	2923	10.6%
68	Sunday	23	June	2019	11:00	5609	2373	3236	10.69
69	Friday	26	July	2019	15:00	5609	2921	2688	10.6%
70	Friday	28	June	2019	13:00	5603	2784	2819	10.69
71	Saturday	10	August	2019	13:00	5589	3023	2566	10.69
72	Friday	15	March	2019	13:00	5587	2772	2815	10.6%
73	Friday	26	April	2019	15:00	5584	2956		
74	Saturday	10		2019	10:00	5581	2956	2628 2915	10.5%
76	Saturday	15	August June	2019	13:00	5576	2000	2915	10.5% 10.5%
77		31	March	2019	15:00	5574	2536	3038	
78	Sunday Friday	19		2019		5574	2336		10.59
78		1000	April	100123360	12:00 11:00	100 B 100	State And State State	2827	10.5%
80	Monday	27	May	2019		5556	2063	3493	10.5%
	Saturday	1	June	2019	11:00	5555	2678	2877	10.5%
81	Friday	22	March	2019	16:00	5543	2919	2624	10.59
82	Friday	29	March	2019	14:00	5538	2750	2788	10.5%
83	Saturday	29	June	2019	12:00	5538	2806	2732	10.5%
84	Friday	15	March	2019	14:00	5533	2683	2850	10.59
85	Friday	12	April	2019	15:00	5533	3029	2504	10.5%
86	Saturday	8	June	2019	11:00	5527	2684	2843	10.49
87	Friday	8	March	2019	15:00	5526	3022	2504	10.49
88	Sunday	31	March	2019	14:00	5525	2675	2850	10.49
89	Friday	15	March	2019	16:00	5524	2768	2756	10.49
90	Friday	19	July	2019	15:00	5521	2775	2746	10.49
91	Sunday	16	June	2019	13:00	5520	2679	2841	10.49
92	Friday	19	April	2019	13:00	5519	2742	2777	10.49
93	Sunday	1	December	2019	10:00	5502	2574	2928	10.49
94	Sunday	16	June	2019	12:00	5500	2479	3021	10.49
95	Saturday	15	June	2019	09:00	5492	2501	2991	10.49
96	Friday	19	July	2019	14:00	5491	2724	2767	10.49
97	Saturday	30	March	2019	11:00	5490	2686	2804	10.49
98	Sunday	12	May	2019	16:00	5486	2521	2965	10.49
99	Wednesday	27	November	2019	16:00	5480	2747	2733	10.49
100	Sunday	24	March	2019	16:00	5479	2685	2794	10.39
101	Saturday	22	June	2019	12:00	5475	2549	2926	10.39

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6 Cour	nt Station #0020			2019				ADT = 52,9	45 vpd
нну	Day of Week	Date	Month	Year	Time	Hourly Volume	EB	WB	k
102	Sunday	28	April	2019	13:00	5472	2247	3225	10.39
103	Wednesday	27	November	2019	11:00	5472	2526	2946	10.39
104	Sunday	14	July	2019	12:00	5470	2525	2945	10.39
105	Friday	21	June	2019	13:00	5466	2587	2879	10.39
106	Friday	5	April	2019	13:00	5465	2671	2794	10.39
107	Sunday	31	March	2019	12:00	5464	2360	3104	10.39
108	Sunday	30	June	2019	11:00	5461	2435	3026	10.39
109	Friday	21	June	2019	15:00	5456	2862	2594	10.39
110	Friday	5	April	2019	15:00	5452	2944	2508	10.39
111	Sunday	14	July	2019	16:00	5449	2733	2716	10.39
112	Sunday	21	July	2019	16:00	5449	2745	2704	10.39
113	Saturday	30	November	2019	14:00	5445	3041	2404	10.39
114	Sunday	1	December	2019	17:00	5443	3038	2404	10.39
114	Friday	28	June	2019	16:00	5445	2790	2652	10.37
115		28 25		2019		5442		2652	
	Saturday		May		11:00		3057		10.39
117	Friday	21	June	2019	14:00	5434	2689	2745	10.3%
118	Sunday	11	August	2019	11:00	5434	2293	3141	10.39
119	Wednesday	27	November	2019	15:00	5424	2569	2855	10.29
120	Friday	10	May	2019	14:00	5422	2753	2669	10.29
121	Sunday	18	August	2019	14:00	5422	2443	2979	10.29
122	Friday	19	July	2019	13:00	5420	2705	2715	10.29
123	Sunday	17	March	2019	15:00	5418	2516	2902	10.29
126	Friday	26	April	2019	14:00	5413	2577	2836	10.29
127	Sunday	14	July	2019	11:00	5406	2404	3002	10.29
128	Sunday	17	March	2019	14:00	5401	2318	3083	10.29
129	Sunday	28	April	2019	14:00	5401	2371	3030	10.29
130	Sunday	7	July	2019	10:00	5396	2232	3164	10.29
131	Saturday	1	June	2019	10:00	5389	2520	2869	10.29
132	Friday	5	April	2019	16:00	5388	2910	2478	10.29
133	Saturday	30	March	2019	10:00	5383	2473	2910	10.29
134	Friday	24	May	2019	17:00	5383	2908	2475	10.29
135	Saturday	30	November	2019	10:00	5383	2307	3076	10.29
136	Sunday	4	August	2019	15:00	5382	2930	2452	10.29
137	Sunday	11	August	2019	16:00	5382	2664	2718	10.29
138	Saturday	17	August	2019	11:00	5379	2289	3090	10.29
139	Friday	15	February	2019	17:00	5376	3181	2195	10.29
140	Friday	21	June	2019	16:00	5376	2747	2629	10.29
141	Friday	19	April	2019	11:00	5373	2694	2679	10.19
142	Sunday	19	May	2019	14:00	5372	2570	2802	10.19
143	Friday	22	March	2019	15:00	5369	2663	2706	10.19
144	Saturday	6	July	2019	13:00	5369	2598	2771	10.19
144	Saturday	28	December	2019	10:00	5365	2700	2667	10.17
145	Sunday	31	March	2019	13:00	5365	2580	2785	10.17
146	Friday	28	June	2019	15:00	5364	3024	2785	10.19
	16								
148	Sunday	19	May	2019	13:00	5363	2456	2907	10.19
149	Saturday	20	April	2019	11:00	5360	2645	2715	10.19
152	Sunday	1	December	2019	12:00	5359	2608	2751	10.19
153	Sunday	9	June	2019	13:00	5356	2751	2605	10.19
154	Sunday	5	May	2019	14:00	5349	2423	2926	10.19

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26 Coun	t Station #0020			2019				ADT = 52,9	45 vpd
HHV	Day of Week	Date	Month	Year	Time	Hourly Volume	EB	WB	k
155	Saturday	22	June	2019	10:00	5348	2953	2395	10.1%
156	Friday	27	December	2019	12:00	5347	2552	2795	10.1%
157	Wednesday	27	November	2019	14:00	5345	2518	2827	10.1%
158	Sunday	21	April	2019	15:00	5341	2185	3156	10.1%
159	Friday	8	March	2019	14:00	5339	2759	2580	10.1%
160	Sunday	19	May	2019	15:00	5336	2566	2770	10.1%
161	Friday	26	July	2019	16:00	5336	2780	2556	10.1%
162	Sunday	17	March	2019	16:00	5335	2524	2811	10.1%
163	Friday	12	April	2019	14:00	5335	2880	2455	10.1%
164	Sunday	12	May	2019	14:00	5333	2579	2754	10.1%
165	Sunday	7	July	2019	16:00	5330	2603	2727	10.1%
166	Saturday	25	May	2019	10:00	5329	2964	2365	10.1%
167	Thursday	18	April	2019	15:00	5327	2642	2685	10.1%
168	Saturday	15	June	2019	15:00	5326	3015	2311	10.1%
169	Sunday	21	April	2019	18:00	5325	2435	2890	10.1%
170	Sunday	10	March	2019	14:00	5323	2524	2799	10.1%
171	Sunday	7	July	2019	13:00	5321	2441	2880	10.1%
172	Saturday	29	June	2019	14:00	5319	3098	2221	10.0%
173	Friday	27	December	2019	11:00	5314	2447	2867	10.0%
174	Sunday	24	March	2019	11:00	5313	2258	3055	10.0%
175	Friday	27	December	2019	14:00	5310	2744	2566	10.0%
176	Saturday	22	June	2019	13:00	5308	2792	2516	10.0%
177	Saturday	29	June	2019	15:00	5296	3093	2203	10.0%
178	Thursday	26	December	2019	10:00	5293	2765	2528	10.0%
179	Friday	3	May	2019	17:00	5292	2913	2379	10.0%
180	Friday	28	June	2019	12:00	5288	2485	2803	10.0%
181	Sunday	30	June	2019	16:00	5288	2633	2655	10.0%
182	Saturday	27	July	2019	09:00	5286	2257	3029	10.0%
183	Tuesday	26	November	2019	16:00	5282	2802	2480	10.0%
184	Monday	27	May	2019	13:00	5279	2358	2921	10.0%
185	Friday	19	July	2019	12:00	5277	2627	2650	10.0%
186	Sunday	28	April	2019	15:00	5275	2293	2982	10.0%
187	Sunday	7	April	2019	16:00	5273	2254	3019	10.0%
188	Thursday	26	December	2019	13:00	5273	2762	2511	10.0%
189	Thursday	18	April	2019	14:00	5272	2520	2752	10.0%
190	Saturday	8	June	2019	10:00	5264	2515	2749	9.9%
191	Saturday	22	June	2019	16:00	5261	3060	2201	9.9%
192	Monday	27	May	2019	14:00	5260	2291	2969	9.9%
193	Saturday	27	July	2019	13:00	5259	2961	2298	9.9%
194	Sunday	31	March	2019	11:00	5258	2050	3208	9.9%
195	Friday	10	May	2019	15:00	5257	2751	2506	9.9%
196	Friday	16	August	2019	14:00	5255	2661	2594	9.9%
197	Saturday	3	August	2019	10:00	5254	2532	2722	9.9%
198	Sunday	9	June	2019	12:00	5251	2458	2793	9.9%
199	Friday	19	July	2019	16:00	5251	2722	2529	9.9%
200	Friday	21	June	2019	12:00	5248	2484	2764	9.9%

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5 Coun	nt Station #00	56		2019				ADT = 32,2	
нну	Day of	Date	Month	Year	Time	Hourly	NB	SB	k f
ппт	Week	Date	Month	real	mile	Volume	ND	30	32,2
1	Sunday	7	July	2019	16:00	4343	2691	1652	13.
2	Saturday	30	November	2019	15:00	4132	1783	2349	12.
3	Sunday	1	December	2019	13:00	4071	2208	1863	12.
4	Saturday	30	November	2019	12:00	4056	2246	1810	12.
5	Saturday	30	November	2019	13:00	4025	2160	1865	12.
6	Sunday	7	July	2019	13:00	4007	1930	2077	12.
7	Saturday	30	November	2019	11:00	3974	2242	1732	12.
8	Saturday	21	December	2019	15:00	3953	1851	2102	12.
9	Sunday	7	July	2019	17:00	3940	2163	1777	12.
10	Saturday	30	November	2019	16:00	3939	1773	2166	12.
11	Friday	19	April	2019	15:00	3934	1941	1993	12.
12	Saturday	20	April	2019	11:00	3932	2229	1703	12.
13	Saturday	27	July	2019	12:00	3930	2433	1497	12.
14	Saturday	21	December	2019	10:00	3919	1923	1996	12.
15	Sunday	1	December	2019	15:00	3918	2250	1668	12.
16	Saturday	21	December	2019	14:00	3903	1823	2080	12.
17	Friday	19	April	2019	16:00	3900	2059	1841	12.
18	Saturday	30	November	2019	14:00	3898	1885	2013	12.
19	Sunday	1	December	2019	16:00	3878	2082	1796	12.
20	Sunday	1	December	2019	17:00	3876	1938	1938	12.
21	Friday	27	December	2019	15:00	3844	1774	2070	11.
22	Friday	27	December	2019	10:00	3832	1623	2209	11.
23	Saturday	28	December	2019	10:00	3832	1946	1886	11.
24	Saturday	28	December	2019	16:00	3828	2027	1801	11.
25	Sunday	29	December	2019	11:00	3819	1933	1886	11.
26	Saturday	20	April	2019	10:00	3812	2039	1773	11.
27	Saturday	29	June	2019	12:00	3796	2224	1572	11.
28	Sunday	22	December	2019	11:00	3795	1487	2308	11.
29	Friday	27	December	2019	14:00	3794	1768	2026	11.
30	Saturday	6	July	2019	12:00	3782	1994	1788	11.
31	Wednesday	27	November	2019	15:00	3773	2145	1628	11.
32	Sunday	22	December	2019	10:00	3767	1351	2416	11.
33	Saturday	21	December	2019	16:00	3752	1813	1939	11.
34	Saturday	27	July	2019	11:00	3752	2271	1481	11.
35	Friday	12	July	2019	15:00	3723	2030	1693	11.
36	Saturday	20	April	2019	12:00	3710	2016	1694	11.
37	Saturday	28	December	2019	11:00	3710	1806	1904	11.
38	Saturday	29	June	2019	13:00	3705	2115	1590	11.
39	Saturday	20	April	2019	13:00	3702	2117	1585	11.
40	Friday	27	December	2019	16:00	3687	1734	1953	11.
41	Saturday	28	December	2019	15:00	3680	1852	1828	11.
42	Friday	12	July	2019	14:00	3663	1964	1699	11.4
43	Friday	17	May	2019	15:00	3661	2333	1328	11.4

#### I-95 north of I-26 (Station #56) 2019 Highest Hourly Volumes

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5 Coun	t Station #00	56		2019				ADT = 32,2	00 vpd
	Day of					Hourly			k for
нну	Week	Date	Month	Year	Time	Volume	NB	SB	AAD
									32,20
44	Saturday	13	July	2019	11:00	3656	2058	1598	11.49
45	Thursday	26	December	2019	11:00	3639	1526	2113	11.39
46	Sunday	1	December	2019	10:00	3629	1968	1661	11.39
47	Friday	19	April	2019	17:00	3625	2040	1585	11.3
48	Friday	17	May	2019	14:00	3620	2331	1289	11.2
49	Sunday	14	April	2019	12:00	3617	1926	1691	11.2
50	Saturday	6	July	2019	13:00	3610	1765	1845	11.2
51	Sunday	1	December	2019	12:00	3603	1761	1842	11.2
52	Thursday	26	December	2019	13:00	3598	1619	1979	11.2
53	Sunday	1	December	2019	18:00	3597	1643	1954	11.2
54	Sunday	24	March	2019	13:00	3581	2226	1355	11.1
55	Friday	27	December	2019	11:00	3569	1804	1765	11.1
56	Friday	19	April	2019	13:00	3568	2008	1560	11.1
57	Friday	12	July	2019	13:00	3560	2025	1535	11.1
58	Sunday	1	December	2019	14:00	3559	2006	1553	11.1
59	Sunday	1	December	2019	11:00	3553	1858	1695	11.0
60	Friday	19	April	2019	10:00	3543	1809	1734	11.0
61	Saturday	30	November	2019	10:00	3535	2004	1531	11.0
62	Sunday	7	July	2019	14:00	3534	2083	1451	11.0
63	Thursday	26	December	2019	14:00	3532	1623	1909	11.0
64	Sunday	7	July	2019	12:00	3527	1763	1764	11.0
65	Wednesday	27	November	2019	13:00	3525	1815	1710	10.9
66	Saturday	10	August	2019	12:00	3524	1834	1690	10.9
67	Wednesday	27	November	2019	12:00	3523	1814	1709	10.9
68	Monday	30	December	2019	13:00	3513	1813	1700	10.9
69	Saturday	20	April	2019	14:00	3511	2102	1409	10.9
70	Sunday	29	December	2019	12:00	3507	1681	1826	10.9
71	Friday	12	July	2019	16:00	3505	2088	1417	10.9
72	Sunday	1	December	2019	09:00	3500	1945	1555	10.9
73	Thursday	26	December	2019	12:00	3496	1512	1984	10.9
74	Saturday	10	August	2019	13:00	3495	1806	1689	10.9
75	Sunday	21	April	2019	17:00	3485	2222	1263	10.8
76	Friday	19	April	2019	12:00	3483	1901	1582	10.8
77	Friday	17	May	2019	13:00	3482	2283	1199	10.8
78	Saturday	6	July	2019	14:00	3481	1751	1730	10.8
79	Saturday	20	July	2019	11:00	3478	1706	1772	10.8
80	Saturday	10	August	2019	11:00	3474	1713	1761	10.8
81	Saturday	13	July	2019	13:00	3472	1736	1736	10.8
82	Friday	12	July	2019	12:00	3468	1879	1589	10.8
83	Friday	27	December	2019	17:00	3458	1698	1760	10.7
84	Friday	30	August	2019	16:00	3450	2107	1343	10.7
85	Sunday	23	June	2019	15:00	3449	1662	1787	10.7
86	Saturday	28	December	2019	17:00	3443	1857	1586	10.7

#### I-95 north of I-26 (Station #56) 2019 Highest Hourly Volumes

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5 Coun	t Station #00	56				ADT = 32,2			
нну	Day of Week	Date	Month	Year	Time	Hourly Volume	NB	SB	k fe AAI 32,2
87	Saturday	21	December	2019	09:00	3436	1595	1841	10.
88	Saturday	21	December	2019	11:00	3427	1761	1666	10.0
89	Friday	28	June	2019	15:00	3427	1904	1523	10.
90	Wednesday	27	November	2019	11:00	3426	1872	1554	10.
91	Sunday	29	December	2019	10:00	3424	1766	1658	10.0
92	Friday	19	April	2019	09:00	3419	1622	1797	10.
93	Monday	30	December	2019	14:00	3419	1827	1592	10.
94	Sunday	22	December	2019	14:00	3418	1462	1956	10.
95	Sunday	22	December	2019	15:00	3418	1444	1974	10.0
96	Saturday	28	December	2019	13:00	3401	1983	1418	10.0
97	Saturday	20	April	2019	09:00	3396	1864	1532	10.
98	Saturday	29	June	2019	15:00	3383	1648	1735	10.
99	Saturday	20	July	2019	12:00	3376	1701	1675	10.
100	Saturday	17	August	2019	11:00	3372	1804	1568	10.
101	Saturday	28	December	2019	14:00	3361	1709	1652	10.4
102	Sunday	17	March	2019	16:00	3357	2118	1239	10.4
103	Friday	15	March	2019	16:00	3354	1860	1494	10.4
104	Saturday	29	June	2019	14:00	3347	1758	1589	10.4
105	Friday	27	December	2019	13:00	3345	1495	1850	10.4
106	Friday	28	June	2019	14:00	3345	1886	1459	10.4
107	Saturday	13	April	2019	10:00	3340	1472	1868	10.4
108	Sunday	21	July	2019	15:00	3340	1666	1674	10.4
109	Thursday	26	December	2019	16:00	3337	1440	1897	10.4
110	Saturday	20	July	2019	14:00	3335	1401	1934	10.4
111	Sunday	29	December	2019	14:00	3330	1991	1339	10.3
112	Sunday	30	June	2019	14:00	3329	1703	1626	10.3
113	Wednesday	27	November	2019	14:00	3326	1731	1595	10.3
114	Saturday	28	December	2019	12:00	3320	1949	1371	10.3
115	Thursday	26	December	2019	15:00	3318	1511	1807	10.3
116	Sunday	30	June	2019	15:00	3316	1625	1691	10.3
117	Monday	30	December	2019	12:00	3313	1721	1592	10.3
118	Friday	12	July	2019	11:00	3313	1802	1511	10.3
119	Saturday	20	April	2019	15:00	3312	1981	1331	10.3
120	Sunday	22	December	2019	09:00	3312	1178	2134	10.
121	Friday	26	April	2019	15:00	3310	2148	1162	10.
122	Saturday	27	July	2019	13:00	3310	1853	1457	10.
123	Saturday	20	July	2019	13:00	3305	1561	1744	10.3
124	Sunday	21	April	2019	18:00	3303	2187	1116	10.
125	Sunday	21	July	2019	13:00	3293	1714	1579	10.
126	Friday	17	May	2019	16:00	3293	2103	1190	10.
128	Friday	26	April	2019	14:00	3290	2113	1177	10.
129	Sunday	31	March	2019	15:00	3290	1983	1307	10.
130	Friday	30	August	2019	15:00	3286	1952	1334	10.2

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-			201	-5	Hourly Vo	lumes			
I-95 Coun	t Station #00		2019			ADT = 32,200 vpd			
	Day of					Hourly			k for
HHV	Week	Date	Month	Year	Time	Volume	NB	SB	AADT
									32,200
131	Sunday	18	August	2019	14:00	3285	1910	1375	10.2%
132	Friday	15	March	2019	13:00	3283	1806	1477	10.2%
133	Sunday	14	April	2019	16:00	3281	1779	1502	10.2%
134	Sunday	21	July	2019	14:00	3279	1647	1632	10.2%
135	Sunday	21	April	2019	14:00	3276	2130	1146	10.2%
136	Saturday	17	August	2019	12:00	3275	1796	1479	10.2%
137	Saturday	29	June	2019	11:00	3275	1695	1580	10.2%
138	Saturday	13	July	2019	10:00	3273	1791	1482	10.2%
139	Sunday	30	June	2019	12:00	3273	1774	1499	10.2%
140	Sunday	21	April	2019	13:00	3270	2064	1206	10.2%
141	Friday	20	December	2019	15:00	3270	1742	1528	10.2%
142	Sunday	21	July	2019	12:00	3270	1699	1571	10.2%
143	Sunday	29	December	2019	13:00	3269	1853	1416	10.2%
144	Friday	11	October	2019	14:00	3268	1972	1296	10.1%
145	Saturday	28	December	2019	09:00	3263	1615	1648	10.1%
146	Saturday	6	July	2019	11:00	3263	1727	1536	10.1%
147	Sunday	10	March	2019	13:00	3259	1975	1284	10.1%
148	Sunday	7	July	2019	11:00	3253	1667	1586	10.1%
149	Sunday	14	April	2019	13:00	3251	1636	1615	10.1%
150	Saturday	20	July	2019	15:00	3249	1559	1690	10.1%
151 152	Sunday	22	December		12:00	3247 3244	1318	1929	10.1%
A NOT A STORE	Friday	26	April	2019	16:00		2115	1129	10.1%
152	Saturday	13	July	2019	12:00	3243	1635	1608	10.1%
153 154	Sunday	30	June	2019 2019	13:00	3241	1722 1753	1519	10.1%
154	Monday Saturday	30 21	December December	2019	15:00	3239 3237	1755	1486 1796	10.1%
155	Sunday			2019	17:00 14:00	3237	2049	1187	10.1%
	Contraction of the second second	28	April						10.0%
157 158	Saturday	29 16	June	2019	10:00	3236 3235	1720	1516	10.0%
158	Sunday Friday	3	June May	2019 2019	11:00 16:00	3235	1911 1822	1324 1413	10.0% 10.0%
160	Monday	22	April	2019	14:00	3233	2039	1193	10.0%
161	Sunday	11	August	2019	14:00	3232	1645	1587	10.0%
161	Friday	30	-	2019			1796	1430	
162	Saturday	6	August July	2019	14:00 15:00	3226 3225	1673	1450	10.0% 10.0%
163	,	19			11:00		1673		
164	Friday Sunday	21	April April	2019 2019	15:00	3223 3220	1968	1601 1252	10.0% 10.0%
165	Friday	20	December	2019	14:00	3220	1968	1252	10.0%
167	Sunday	28	July	2019	14:00	3218	1686	1530	10.0%
167	Friday	28	December	2019	12:00	3210	1676	1538	10.0%
169	Wednesday	27	November	2019	17:00	3214	1569	1645	10.0%
170	Sunday	21	April	2019	16:00	3214	1766	1645	10.0%
170	Sunday	11	August	2019	12:00	3213	1683	1528	10.0%
171	Sunday	14	July	2019	12:00	3211	1625	1528	10.0%
1/2	Sunday	14	July	2013	15.00	2211	1023	1200	10.0%

Page 4 of 6

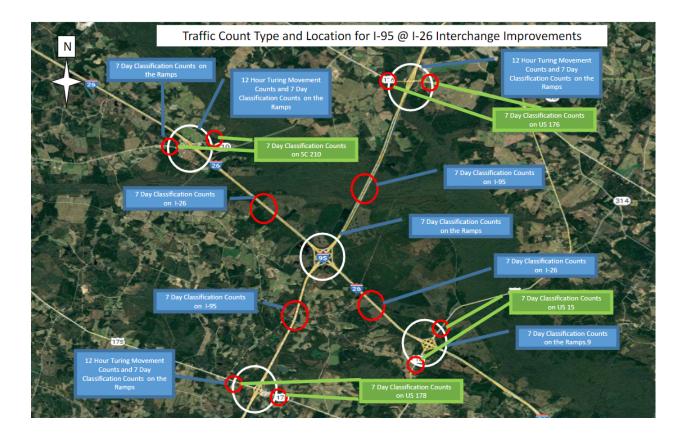
5 Coun	t Station #00	56		2019			ADT = 32,200 vpd			
	Day of					Hourly			k for	
HHV	Week	Date	Month	Year	Time	Volume	NB	SB	AADT 32,200	
173	Sunday	29	December	2019	17:00	3205	1468	1737	10.0%	
174	Saturday	17	August	2019	13:00	3199	1701	1498	9.9%	
175	Sunday	28	April	2019	15:00	3198	1916	1282	9.9%	
176	Friday	28	June	2019	13:00	3180	1536	1644	9.9%	
177	Sunday	29	December	2019	15:00	3178	1814	1364	9.9%	
178	Sunday	7	July	2019	10:00	3178	1765	1413	9.9%	
179	Sunday	14	July	2019	13:00	3174	1626	1548	9.9%	
180	Sunday	29	December	2019	16:00	3171	1560	1611	9.8%	
181	Saturday	20	April	2019	16:00	3168	2044	1124	9.8%	
182	Thursday	18	April	2019	16:00	3166	1858	1308	9.8%	
183	Sunday	10	March	2019	12:00	3163	1927	1236	9.8%	
184	Sunday	7	July	2019	15:00	3161	1842	1319	9.8%	
185	Saturday	13	July	2019	14:00	3161	1584	1577	9.8%	
186	Friday	12	April	2019	15:00	3160	1556	1604	9.8%	
187	Thursday	26	December	2019	10:00	3156	1408	1748	9.8%	
188	Sunday	14	July	2019	12:00	3155	1737	1418	9.8%	
189	Friday	15	March	2019	14:00	3155	1722	1433	9.8%	
190	Friday	20	December	2019	13:00	3153	1741	1412	9.8%	
191	Sunday	28	July	2019	12:00	3153	1741	1412	9.8%	
192	Friday	14	June	2019	16:00	3153	1860	1293	9.8%	
193	Friday	28	June	2019	16:00	3152	1877	1275	9.8%	
194	Sunday	24	March	2019	15:00	3152	1767	1385	9.8%	
195	Sunday	17	March	2019	14:00	3151	1809	1342	9.8%	
196	Saturday	27	April	2019	11:00	3150	2032	1118	9.8%	
197	Wednesday	27	November	2019	16:00	3149	1745	1404	9.8%	
198	Thursday	18	April	2019	17:00	3148	1829	1319	9.8%	
199	Sunday	14	April	2019	11:00	3145	1601	1544	9.8%	
200	Saturday	6	July	2019	10:00	3144	1780	1364	9.8%	
201	Sunday	20	October	2019	14:00	3143	1404	1739	9.8%	
202	Sunday	14	July	2019	14:00	3141	1546	1595	9.8%	
203	Friday	1	March	2019	15:00	3137	1843	1294	9.7%	
204	Saturday	22	June	2019	12:00	3130	1696	1434	9.7%	
205	Friday	27	December	2019	09:00	3129	1299	1830	9.7%	
206	Sunday	7	April	2019	15:00	3128	1975	1153	9.7%	
207	Sunday	7	July	2019	18:00	3128	1723	1405	9.7%	
208	Thursday	18	April	2019	14:00	3124	1940	1184	9.7%	
209	Saturday	22	June	2019	11:00	3123	1729	1394	9.7%	
210	Thursday	18	April	2019	15:00	3122	1917	1205	9.7%	
211	Friday	24	May	2019	17:00	3121	1559	1562	9.7%	
212	Sunday	31	March	2019	16:00	3120	1920	1200	9.7%	
213	Sunday	5	May	2019	14:00	3118	1749	1369	9.7%	
214	Friday	9	August	2019	14:00	3117	1454	1663	9.7%	
215	Friday	19	April	2019	14:00	3116	1363	1753	9.7%	

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				SBcst					
-95 Count Station #0056				2019			ADT = 32,200 vpd		
нну	Day of Week	Date	Month	Year	Time	Hourly Volume	NB	SB	k for AADT 32,200
216	Friday	16	August	2019	13:00	3116	1624	1492	9.7%
217	Sunday	22	December	2019	13:00	3116	1308	1808	9.7%
218	Monday	30	December	2019	16:00	3110	1733	1377	9.7%
219	Friday	17	May	2019	12:00	3107	1907	1200	9.6%
220	Sunday	14	April	2019	14:00	3102	1551	1551	9.6%
221	Friday	5	April	2019	14:00	3100	1697	1403	9.6%
222	Friday	30	August	2019	13:00	3097	1757	1340	9.6%
223	Sunday	22	December	2019	16:00	3097	1364	1733	9.6%
224	Sunday	23	June	2019	14:00	3097	1617	1480	9.6%
225	Friday	12	April	2019	17:00	3097	1578	1519	9.6%
	and the second se					and the second			and the second sec

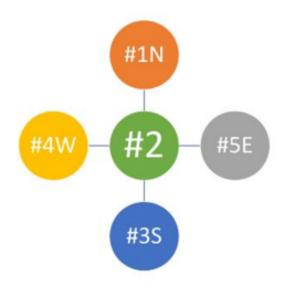
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# Appendix C TRAFFIC COUNTS

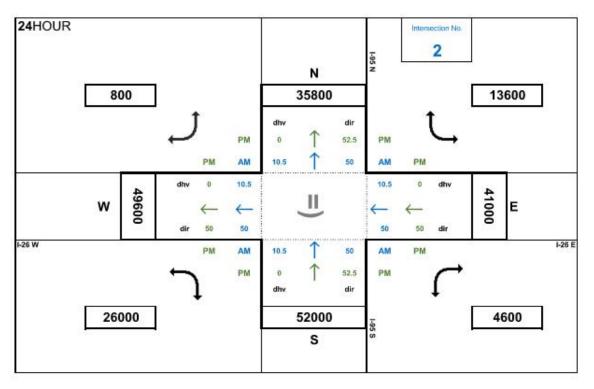


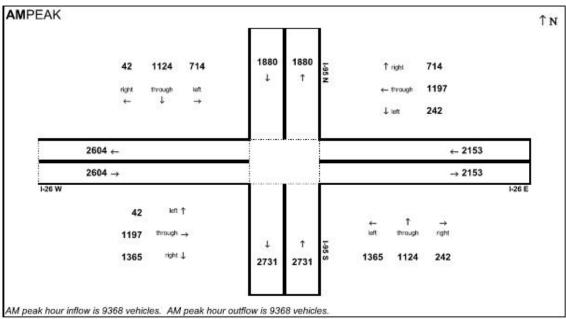
# Appendix D BALANCED AADT INTERCHANGE TURNING MOVEMENTS: 2022, 2030 & 2050

# BALANCED AADT INTERCHANGE TURNING MOVEMENTS: 2022

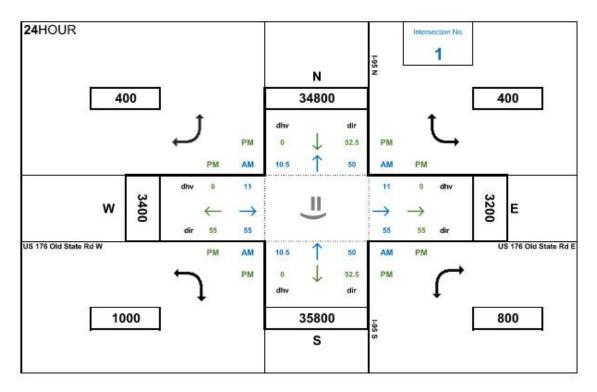


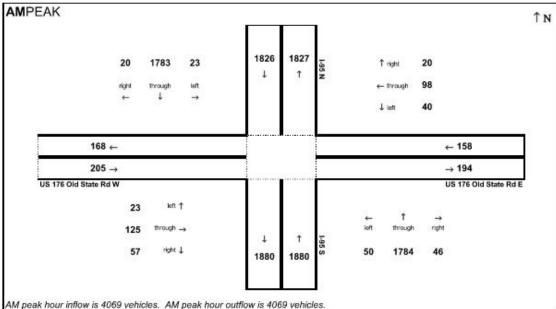
# I-26 AT I-95 (#2)





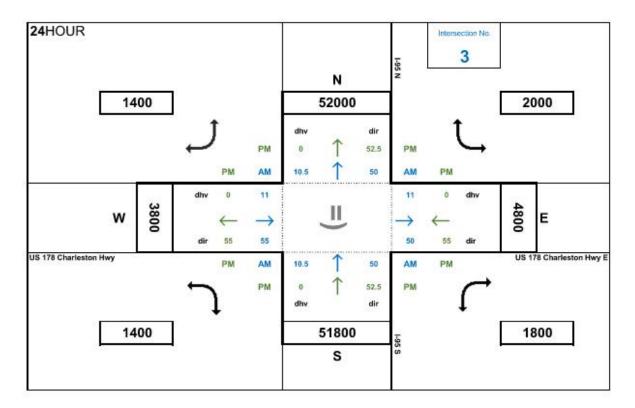
# US 176 OLD STATE ROAD AT I-95 N (#1N)

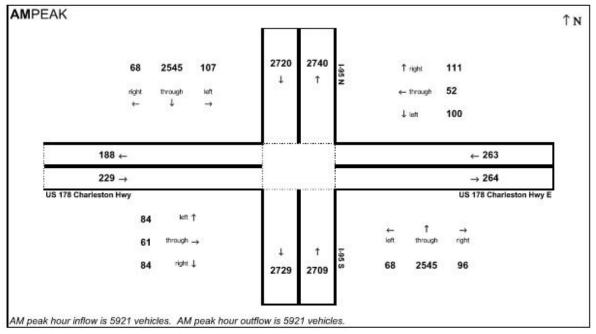




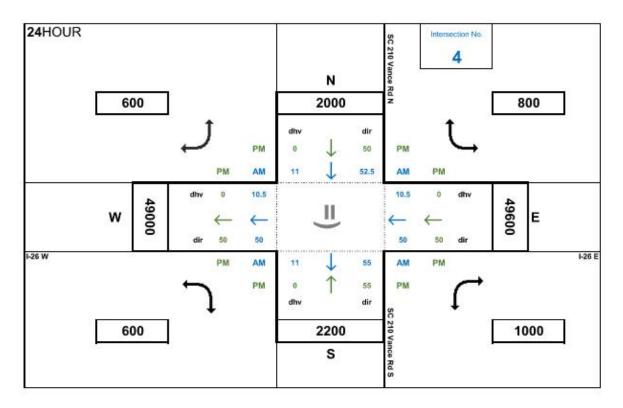
### INTERCHANGE TURNING MOVEMENTS: 2022

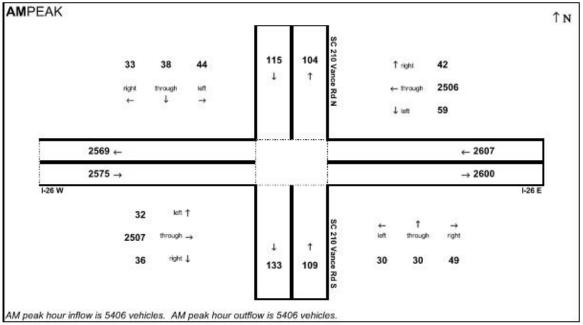
# US 178 CHARLESTON HIGHWAY AT I-95 S (#3S)



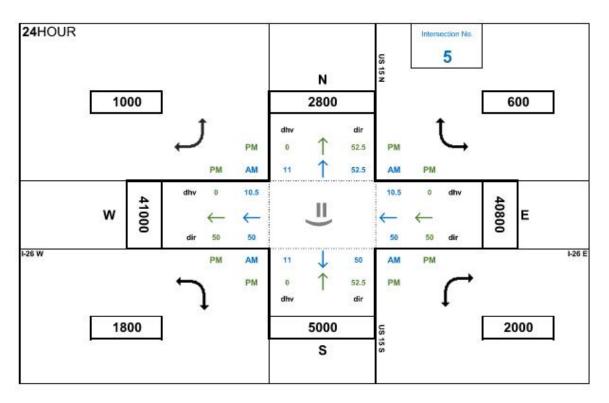


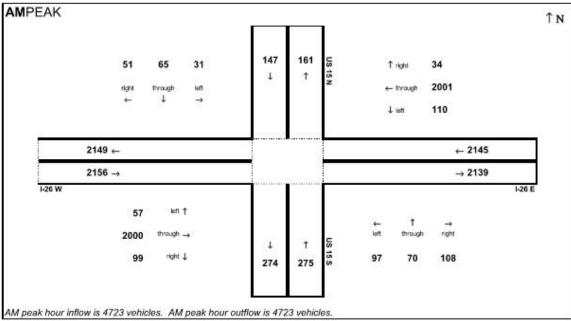
# SC 210 VANCE ROAD AT I-26 W (#4W)



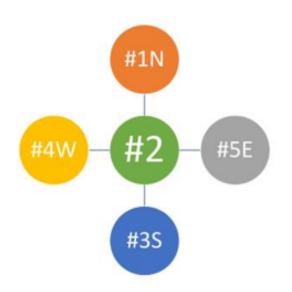


# US 15 AT I-26 E (#5E)

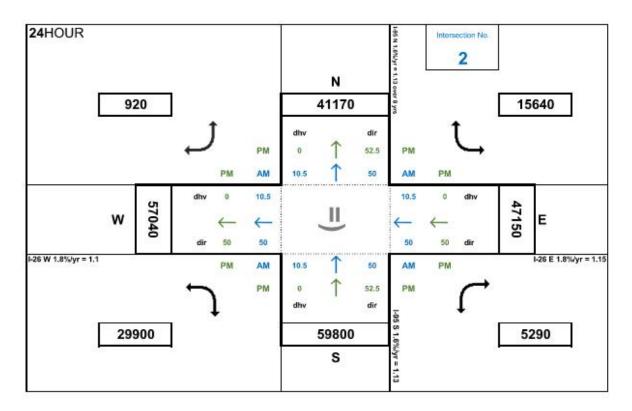


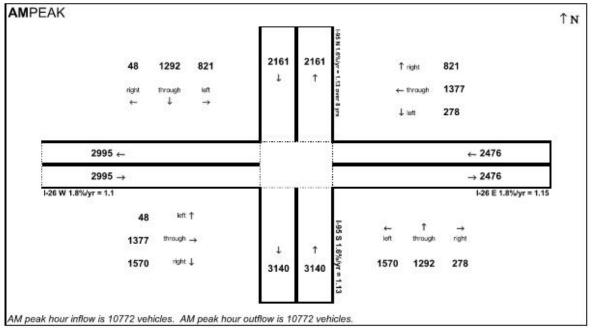


# **BALANCED AADT INTERCHANGE TURNING MOVEMENTS: 2030**

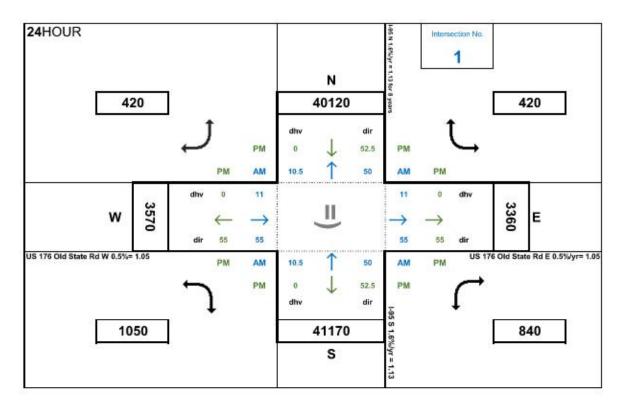


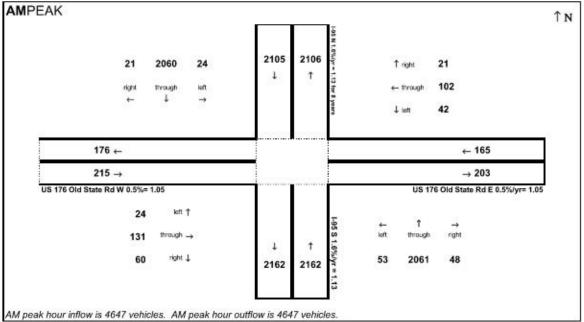
# I-26 AT I-95 (#2)



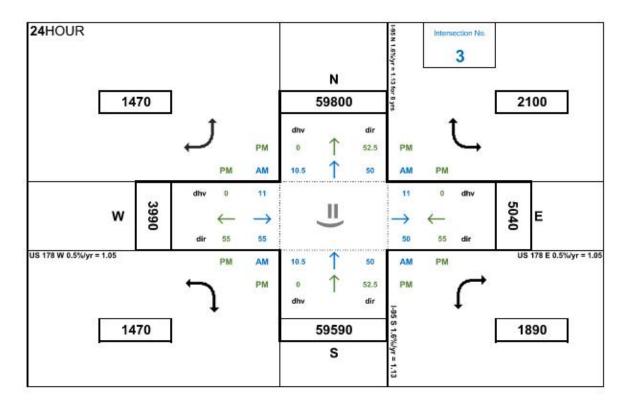


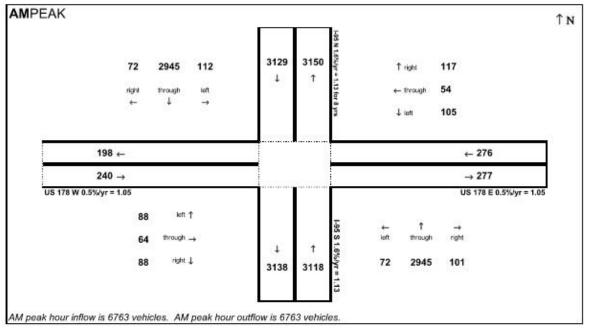
# US 176 OLD STATE ROAD AT I-95 N (#1N)



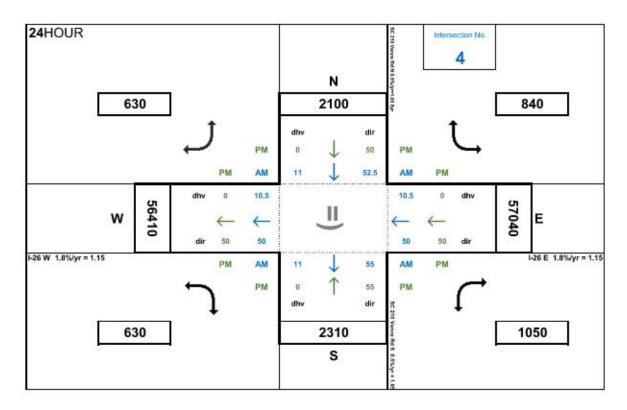


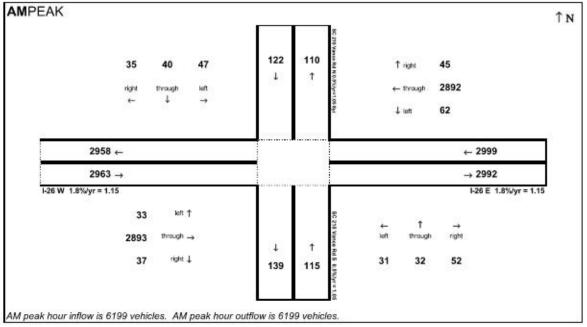
# US 178 CHARLESTON HIGHWAY AT I-95 S (#3S)



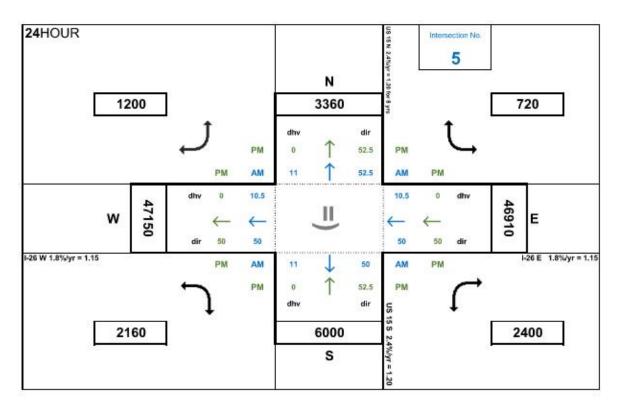


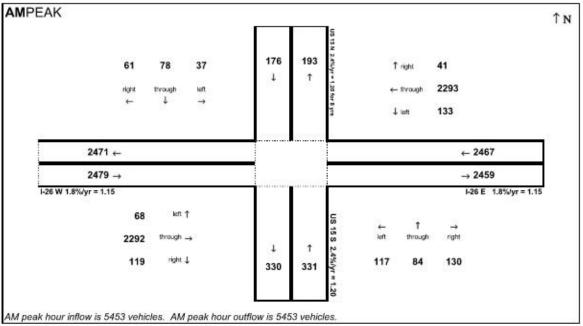
# SC 210 VANCE ROAD AT I-26 W (#4W)



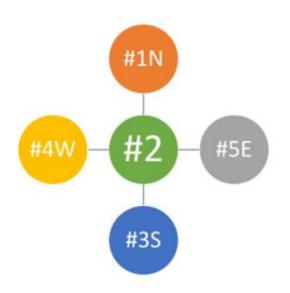


# US 15 AT I-26 E (#5E)

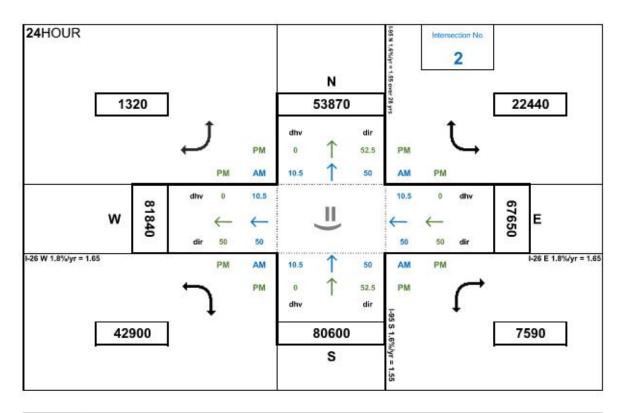


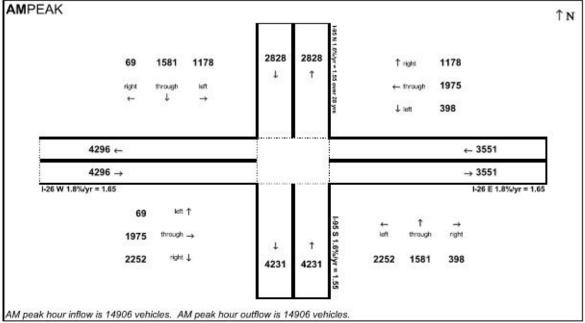


# **BALANCED AADT INTERCHANGE TURNING MOVEMENTS: 2050**

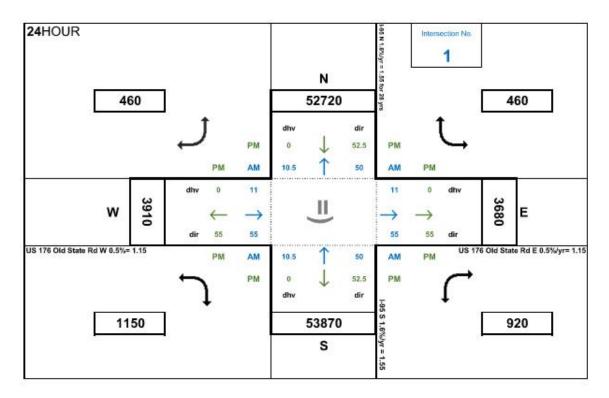


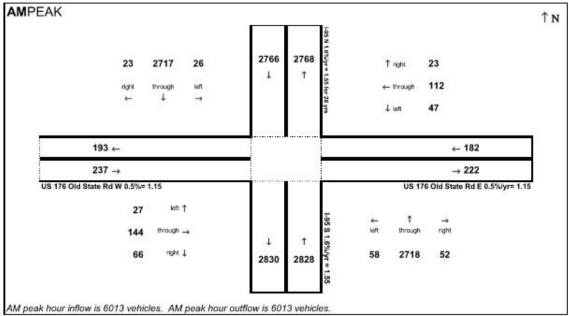
# I-26 AT I-95 (#2)



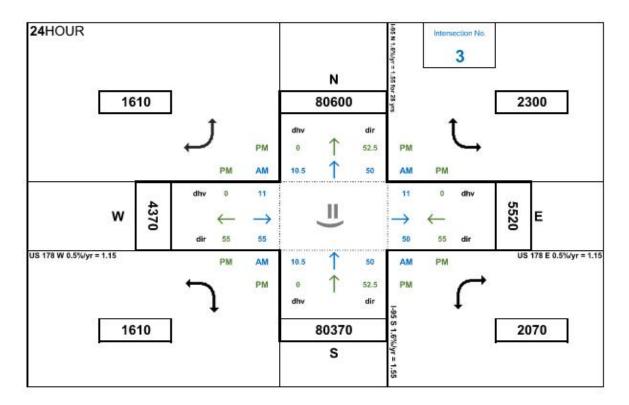


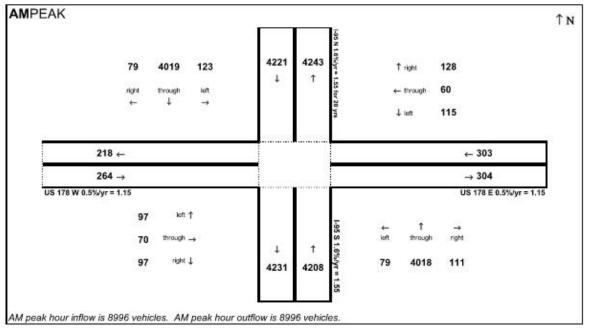
# US 176 OLD STATE ROAD AT I-95 N (#1N)



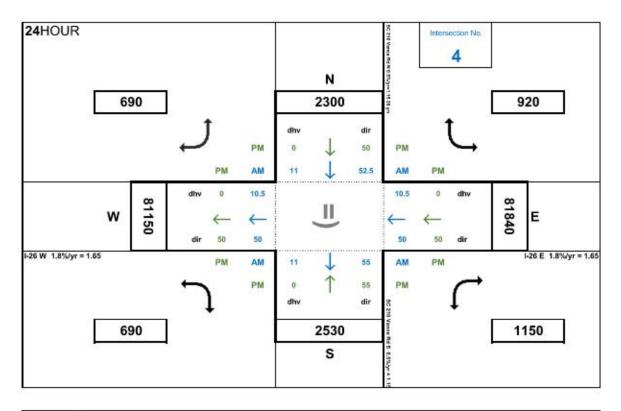


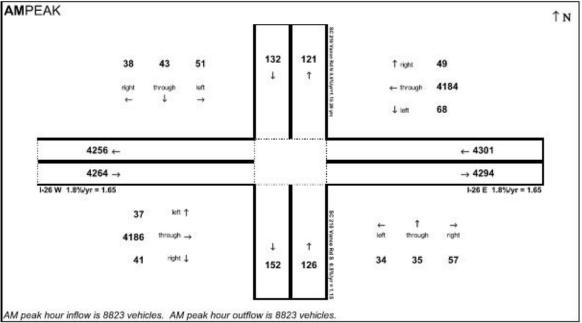
# US 178 CHARLESTON HIGHWAY AT I-95 S (#3S)



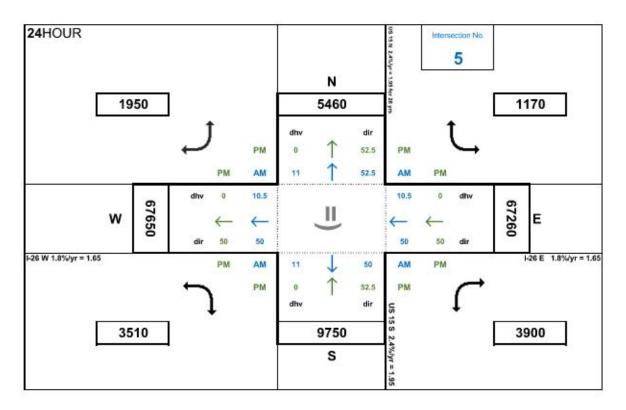


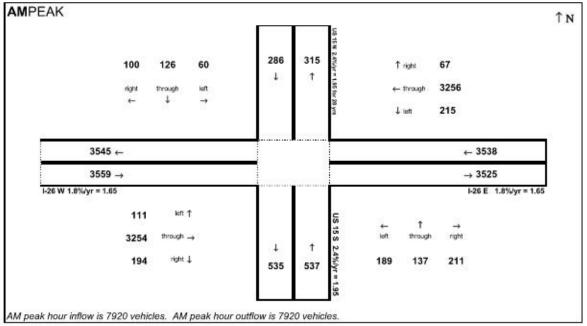
# SC 210 VANCE ROAD AT I-26 W (#4W)





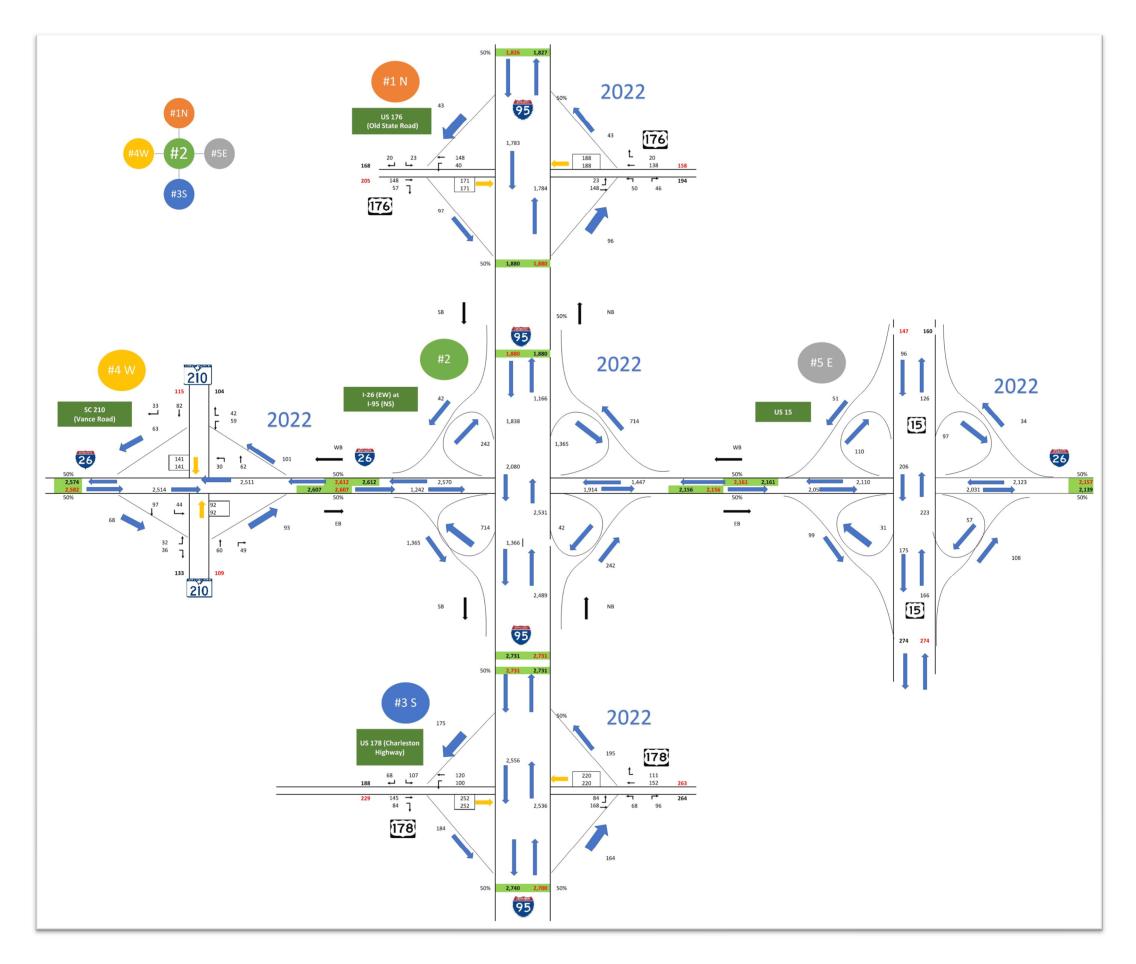
# US 15 AT I-26 E (#5E)



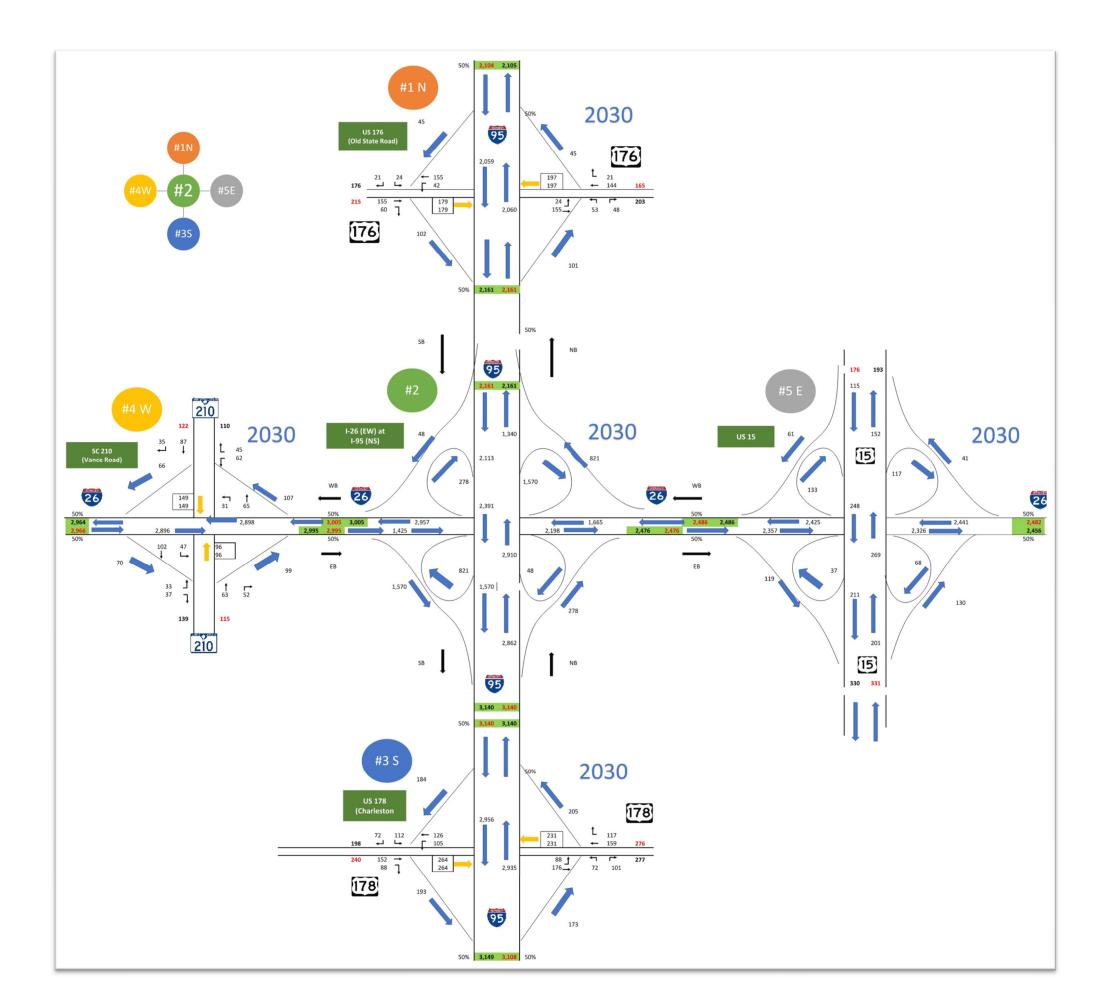


# **Appendix E**

**TRAFFIC FORECASTS FOR 2022, 2030 & 2050** 







I-26 at I-95 Interchange

Traffic Forecast

# 2030 Opening Year

