Zebulon Cook Out

Zebulon, NC

PREPARED FOR: Cook Out, Inc.

November 9, 2023

PROJECT # 230404

TRANSPORTATION IMPACT ANALYSIS

Celebrating 20 YEARS

DAVENPORT

DAVENPORT

Transportation Impact Analysis

Zebulon Cook Out

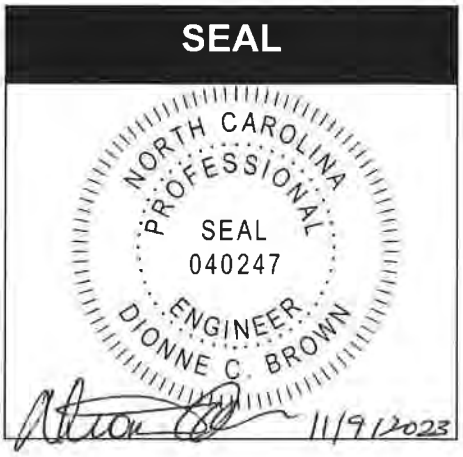
Zebulon, NC

Prepared for
Cook Out, Inc.

November 9, 2023

Analysis and Graphics by: John Davenport, III

Reviewed and Sealed by: Dionne C. Brown, PE



Home Office:
119 Brookstown Ave Suite PH1
Winston-Salem, NC 27101
Main: 336 744 1636; Fax: 336 458 9377

Serving the Southeast since 2002
NC License: C-2522

EXECUTIVE SUMMARY

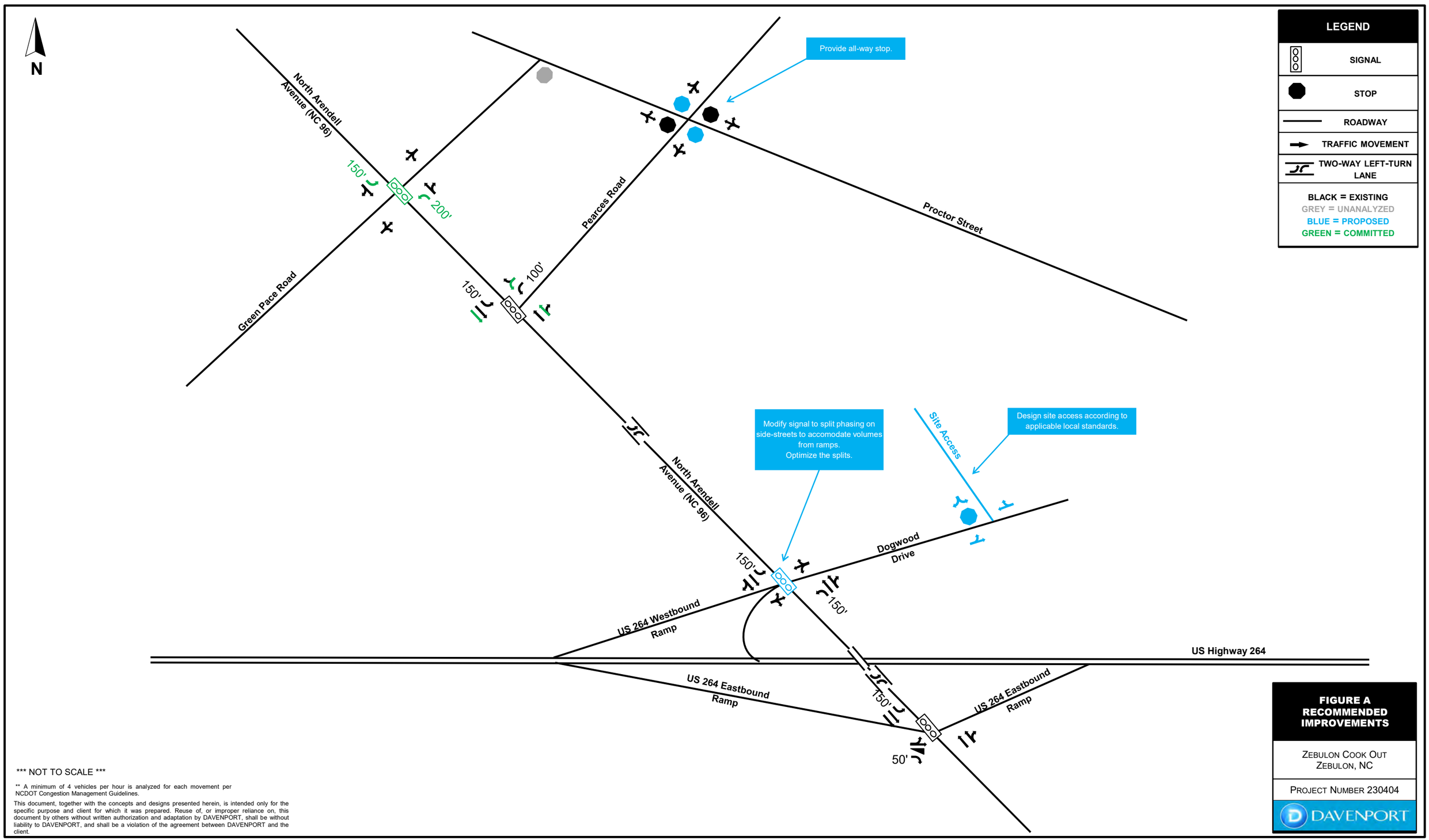
The Zebulon Cook Out proposed development is located east of NC 96 between Dogwood Drive and Jones Street in Zebulon, NC. It will consist of 2,800 square feet of fast food restaurant with drive-thru and 1,825 square feet of party gathering room. One full movement access point is proposed on Dogwood Drive. The expected build-out year for this development is 2024. Information regarding the property was provided by Sambatek.

DAVENPORT was retained to determine the potential traffic impacts of this development and to identify transportation improvements that may be required to accommodate the impacts of the new development traffic.

The Transportation Impact Analysis (TIA) was performed based on the scope agreed upon with Town of Zebulon and the North Carolina Department of Transportation (NCDOT). This site has a trip generation potential of 1,854 daily trips, 238 trips in the Mid-day peak hour, and 218 trips in the PM peak hour.

In conclusion, this study has determined the potential traffic impacts of this development and recommendations have been given where necessary to mitigate the impacts of future traffic. The analysis indicates that with the recommended improvements in place, the proposed site is not expected to have a detrimental effect on transportation capacity and mobility in the study area. The recommendations summarized in Figure A and in Table A should be constructed to comply with applicable NCDOT *Policy on Street and Driveway Access to North Carolina Highways* and local standards.

Table A – Recommended Improvements	
INTERSECTION	**RECOMMENDATIONS**
NC 96 at Dogwood Drive/ US 264 Westbound Ramp	Implemented by others: • Modify signal to split phasing on the side-streets to accommodate the volumes from the ramps. • Optimize the splits.
NC 96 at US 264 Eastbound	• No improvements recommended.
NC 96 at Pearces Road	• No improvements recommended.
Dogwood Drive at Site Access 1	• Design site drive according to applicable local standards.
NC 96 at Green Pace Road	• No improvements recommended.
Pearces Road at Proctor Street	• Provide all-way stop.



*** NOT TO SCALE ***

** A minimum of 4 vehicles per hour is analyzed for each movement per NCDOT Congestion Management Guidelines.

FIGURE A
RECOMMENDED IMPROVEMENTS

ZEBULON COOK OUT
ZEBULON, NC

PROJECT NUMBER 230404

DAVENPORT

DAVENPORT

Table of Contents

1.0 Introduction

The Zebulon Cook Out proposed development is located east of NC 96 between Dogwood Drive and Jones Street in Zebulon, NC. It will consist of 2,800 square feet of fast food restaurant with drive-thru and 1,865 square feet party gathering room. One full movement access point is proposed on Dogwood Drive. The expected build-out year for this development is 2024. Information regarding the property was provided by Sambatek.

A conceptual site plan is shown in Figure 1, and a site location map and a vicinity map are provided in Figures 2A and 2B, respectively.

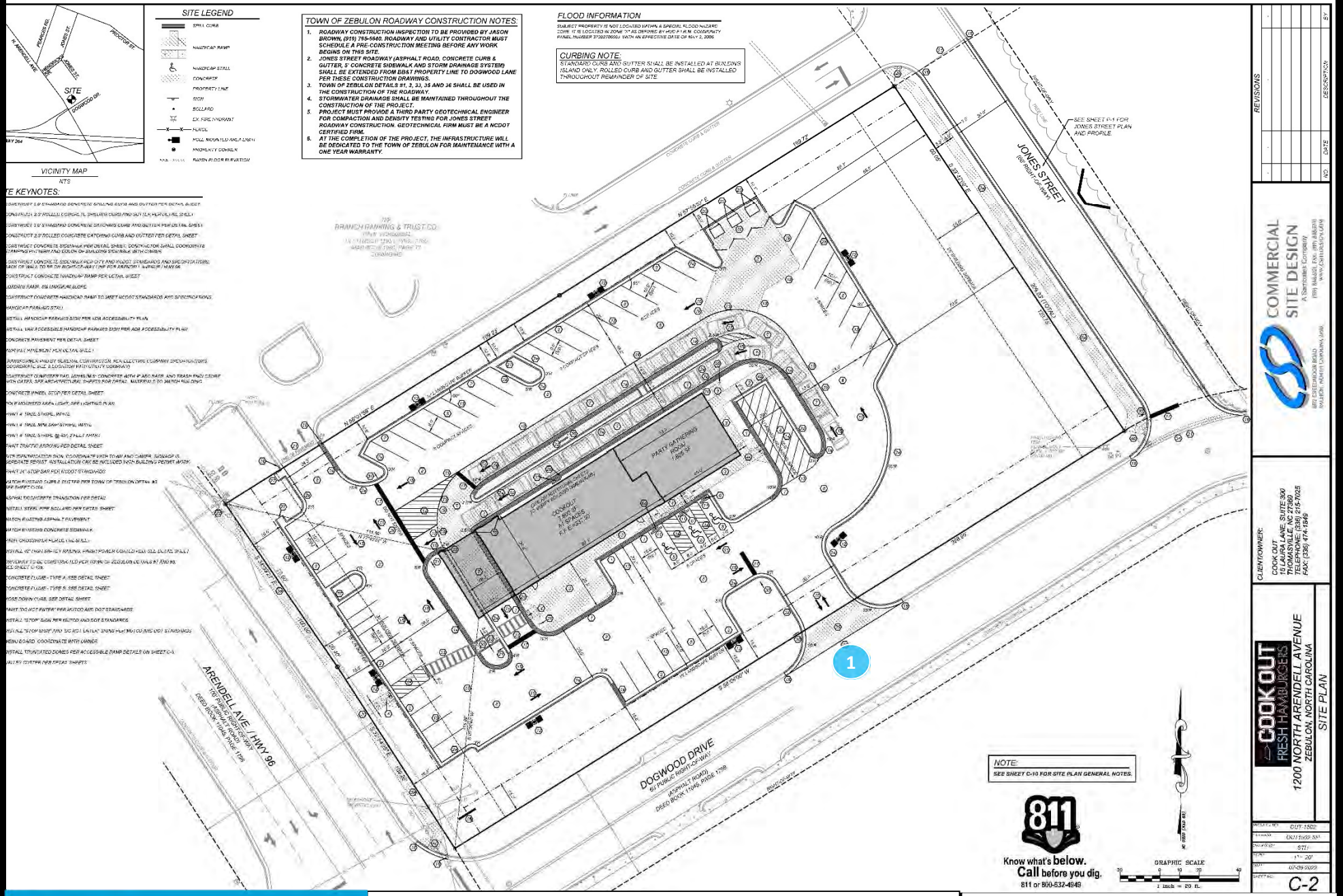
DAVENPORT was retained to determine the potential traffic impacts of this development and to identify transportation improvements that may be required to accommodate the impacts of the new development traffic. The following intersections are included in the study:

1. NC 96 (Arendell Avenue) at Dogwood Drive/ US 264 Eastbound Ramp (signalized)
2. NC 96 (Arendell Avenue) at US 264 Westbound Ramp (signalized)
3. NC 96 (Arendell Avenue) at Pearces Road (signalized)
4. Dogwood Drive at Site Access 1 (unsignalized)
5. NC 96 (Arendell Avenue) at Green Pace Road (unsignalized)
6. Pearces Road at Proctor Street (unsignalized)

These intersections were analyzed during the Mid-day and PM peaks for the following conditions:

- 2023 Existing Conditions
- 2024 Future No Build Conditions
- 2024 Future Build Conditions
- 2024 Future Build Conditions + Improvements

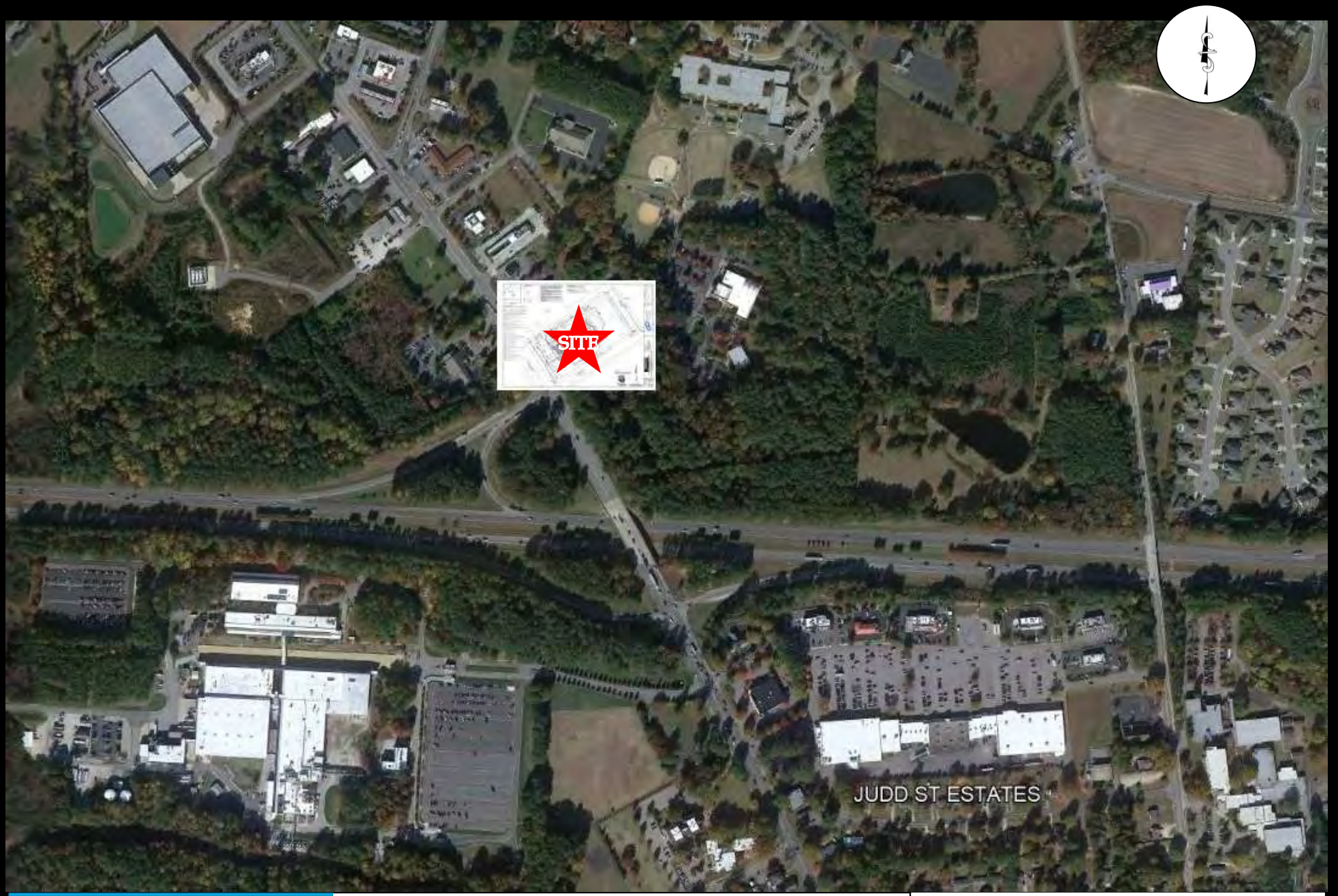
The Transportation Impact Analysis (TIA) was performed based on the scope agreed upon with Town of Zebulon and the North Carolina Department of Transportation (NCDOT). It was conducted according to the standards and best practices of the transportation engineering profession.



DAVENPORT

FIGURE 1
SITE PLAN

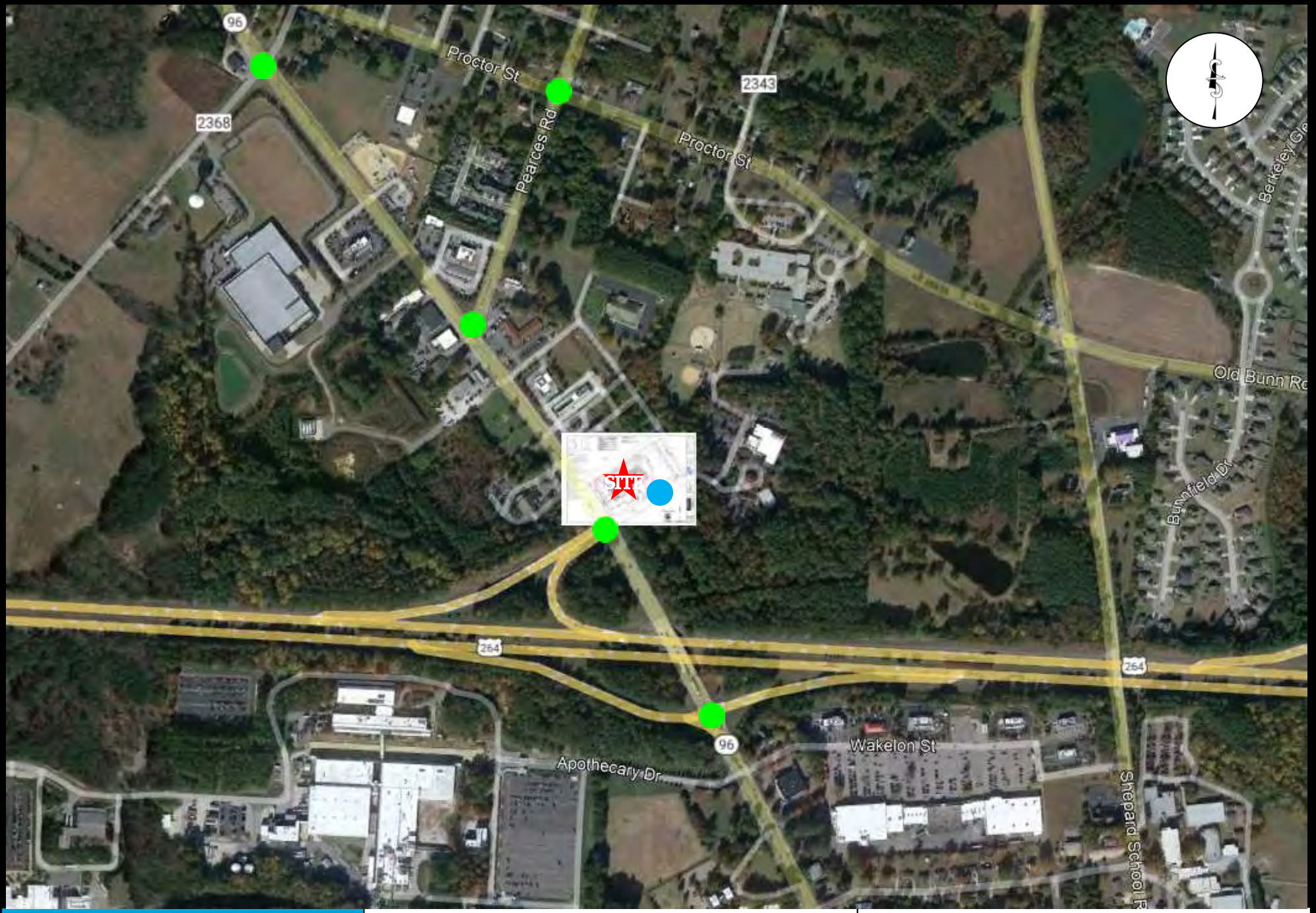
PROPOSED
DRIVEWAY
LOCATIONS



DAVENPORT

FIGURE 2A
SITE LOCATION MAP

SITE INDICATOR



DAVENPORT

FIGURE 2B
VICINITY MAP

STUDY INTERSECTIONS
EXISTING
PROPOSED

2.0 Existing Conditions

2.1 Inventory

Table 2.1 presents a summary of the study area roadway conditions. Figure 3 shows the existing lane geometry.

Table 2.1 - Street Inventory

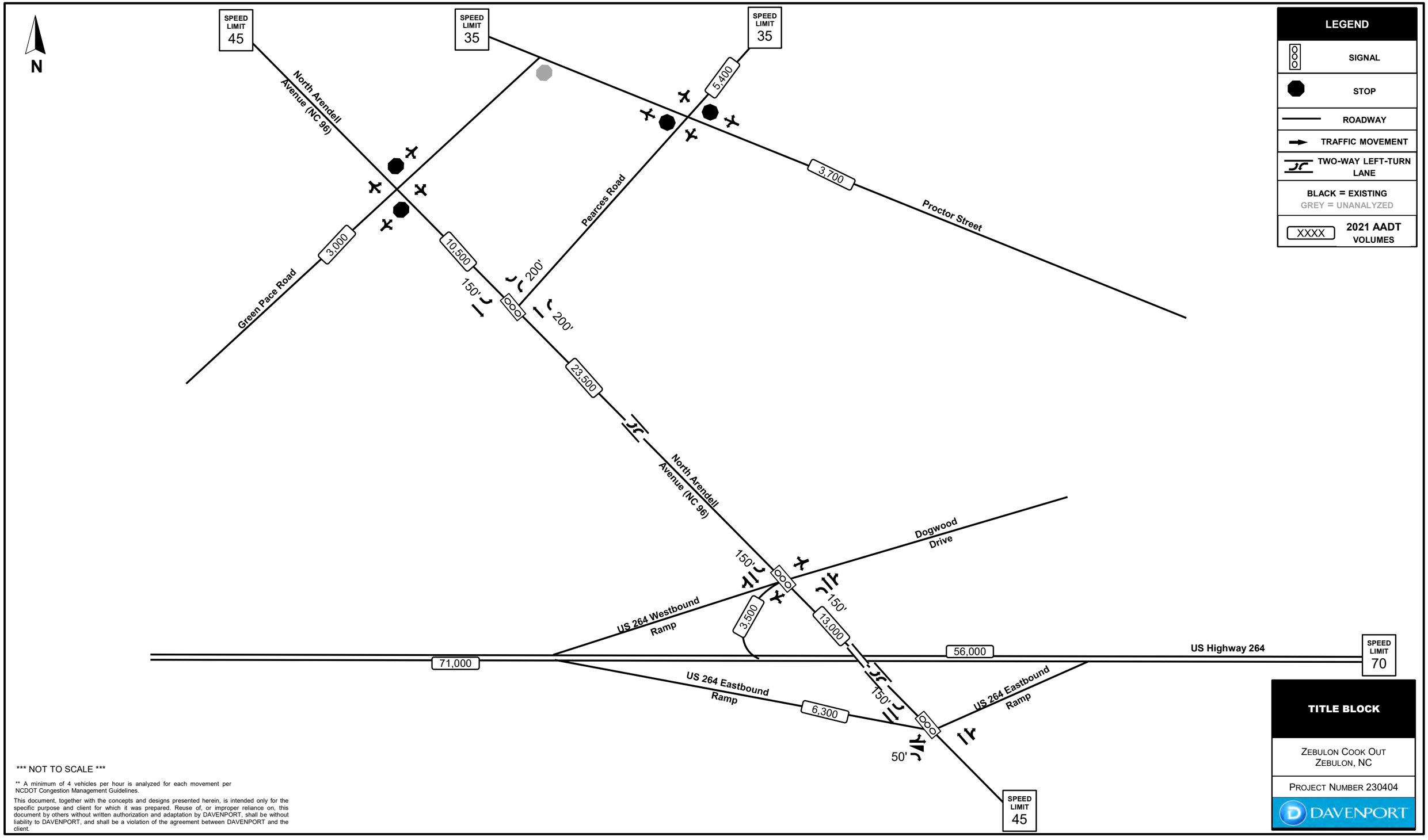
Facility Name	Route #	AADT (vpd)	Typical Cross Section	Pavement Width	Speed Limit (MPH)	Maintained By
I-40 Alt	US 264	71,000	4-lane divided	11-foot lanes	70	NCDOT
Arendell Avenue	NC 96	23,500	4-lane divided with TWLTL	12-foot lanes	45	NCDOT
Dogwood Drive	N/A	Not reported	2-lane undivided	15-foot lanes	Not reported	Town of Zebulon
Pearces Road	SR 1001	5,400	2-lane divided with TWLTL	9-foot lanes	35	NCDOT
Green Pace Road	SR 2368	3,000	2-lane undivided	10-foot lanes	Not reported	NCDOT
Proctor Street	SR 2320	3,700	2-lane undivided	9-foot lanes	35	NCDOT

2.2 Existing Traffic Volumes

Turning movement counts for this project were collected by Burns Services, Incorporated when schools were in session. Table 2.2 contains the location, dates, and times these counts were conducted. The traffic volumes were not balanced between the study intersections since the existing driveways and land uses account for the imbalance. Additionally, a minimum of four vehicles per hour were assigned to all movements, per NCDOT Congestion Management standards. The existing Mid-day and PM peak hour volumes are shown in Figure 4. Traffic count data are provided in the Appendix.

Table 2.2 - Traffic Volume Data

Count Location	Date Taken	Hours
NC 96 at Dogwood Drive/ US 264 Eastbound Ramp (signalized)	Tuesday, May 9, 2023	11 AM – 1 PM, 4-6 PM
NC 96 at US 264 Westbound Ramp (signalized)	Tuesday, May 9, 2023	11 AM – 1 PM, 4-6 PM
NC 96 at Pearces Road (signalized)	Tuesday, May 9, 2023	11 AM – 1 PM, 4-6 PM
NC 96 at Green Pace Road (unsignalized)	Tuesday, May 9, 2023	11 AM – 1 PM, 4-6 PM
Pearces Road at Proctor Street (unsignalized)	Tuesday, May 9, 2023	11 AM – 1 PM, 4-6 PM



*** NOT TO SCALE ***

** A minimum of 4 vehicles per hour is analyzed for each movement per NCDOT Congestion Management Guidelines.

N

North Arendell Avenue (NC 96)

Green Pace Road

Pearces Road

Proctor Street

North Arendell Avenue (NC 96)

Dogwood Drive

US 264 Westbound Ramp

US 264 Eastbound Ramp

US Highway 264

US 264 Eastbound Ramp

1 / 6
17 / 15
4 / 0

2 / 5
375 / 526
41 / 64

18 / 10
393 / 598
72 / 71

38 / 39
27 / 30
80 / 71

29 / 41
68 / 91
42 / 27

22 / 23
202 / 196
23 / 14

29 / 21
45 / 61
62 / 62

27 / 20
168 / 300
70 / 63

20 / 33
324 / 296

56 / 74
458 / 565

278 / 374
506 / 672

8 / 15
5 / 13
13 / 13

6 / 7
535 / 704
253 / 209

164 / 253
0 / 0
91 / 99

12 / 5
674 / 788
187 / 187

150 / 294
488 / 522

198 / 331
1 / 8
244 / 314

136 / 151
675 / 649

LEGEND

- SIGNAL
- STOP
- ROADWAY
- TRAFFIC MOVEMENT
- BLACK = EXISTING
  GREY = UNANALYZED
- AM / PM PEAKS

*** NOT TO SCALE ***

** A minimum of 4 vehicles per hour is analyzed for each movement per NCDOT Congestion Management Guidelines.

FIGURE 4 2023 EXISTING TRAFFIC VOLUMES

ZEBULON COOK OUT
ZEBULON, NC

PROJECT NUMBER 230404

DAVENPORT

3.0 Approved Development and Committed Improvements

3.1 Approved Developments

Approved developments are developments that have been recently approved in the area but are not yet constructed. According to Town of Zebulon, there are approved developments in the area. However, with lack of information a 2% background growth will accommodate the growth in the area.

3.2 Committed Improvements

Committed improvements are improvements that are planned by NCDOT or the Town that are associated with a prior approved development in the area but are not yet constructed. Per the approved scoping document, there are two (2) committed improvements to be included in this study. The existing unsignalized intersection of NC 96 at Green Pace Road, is planned to be signalized in the future. The other committed improvement is widening and restricting access on NC 96 with medians from Dogwood Drive to the proposed Highway 55 Burger driveway. Future no build and future build models reflect these improvements. Relevant information is provided in the Appendix.

4.0 Methodology

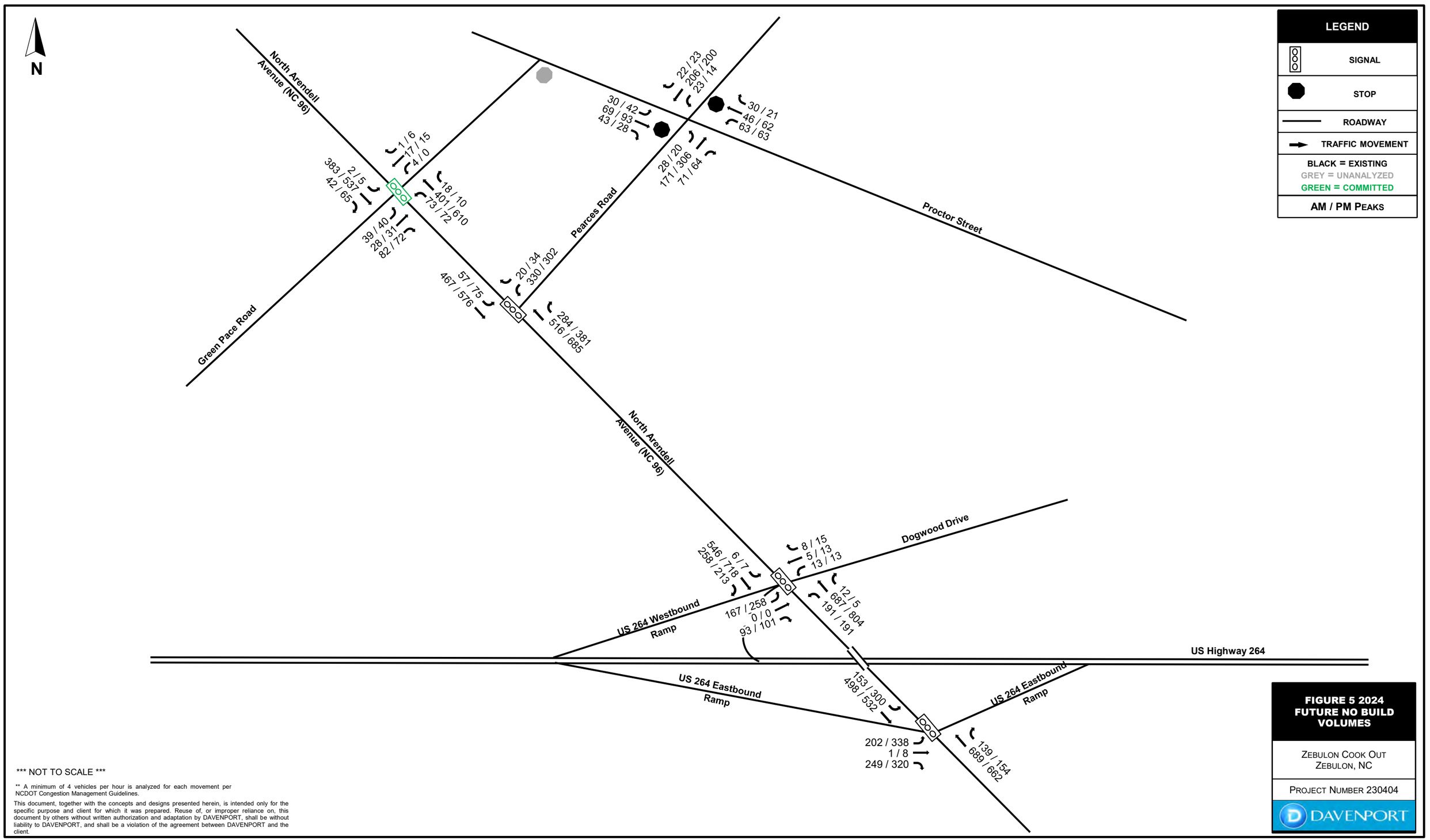
4.1 Base Assumptions and Standards

In general, the analysis for this project was conducted utilizing commonly accepted NCDOT standards. Table 4.1 contains a summary of the base assumptions.

Table 4.1 - Assumptions	
Annual Growth Rate	2%
Analysis Software	Synchro/SimTraffic
Lane Widths	12 feet
Peak Hour Factor	0.90
Truck Percentage	2%

4.2 Future No Build Volumes

The 2024 future no build traffic volumes were computed by applying a two percent (2%) compounded annual growth rate to the 2023 existing traffic volumes. Figure 5 shows 2024 future no build traffic volumes for Mid-day and PM peaks.



*** NOT TO SCALE ***

** A minimum of 4 vehicles per hour is analyzed for each movement per NCDOT Congestion Management Guidelines.

FIGURE 5 2024 FUTURE NO BUILD VOLUMES

ZEBULON COOK OUT
ZEBULON, NC

PROJECT NUMBER 230404

DAVENPORT

4.3 Trip Generation

The proposed development will contain a fast-food restaurant. The trip generation potential of this site was customized by collecting data at an existing Cook Out that is similar in size for three days. This location also had similar population demographics and roadway surroundings. This data was then averaged to determine the daily total, Mid-day peak and PM peak. This methodology was agreed upon and approved by the reviewing agencies. Table 4.2 presents the results.

Pass-by trips are defined as trips already on the adjacent street that will turn into the site, and then exit to continue in the direction they were originally traveling. Pass-by rates were applied to the restaurant land use.

Table 4.2 – Custom Cook Out Restaurant Trip Generation

Average Weekday Driveway Volumes				24-Hour Two-Way	Mid-day Peak Hour		PM Peak Hour	
Land Use	ITE Land Code	Size		Volume	Enter	Exit	Enter	Exit
Fast-Food Restaurant with Drive-Through Window	Custom	2.8	1000 Sq. Ft. GFA	1,704	89	88	73	65
Event Space	Custom	100	Seats	150	99	51	71	80
Total Unadjusted Trips				**1,854**	**188**	**139**	**144**	**145**
Custom Pass-By: (50% Midday & PM)				-	-45	-44	-37	-33
Total Pass-By Trips				-	-45	-44	-37	-33
Total Adjusted Trips (External)				**1,854**	**143**	**95**	**107**	**112**

4.4 Trip Distribution and Assignment

Site trips for this proposed development were distributed based on the existing traffic patterns and engineering judgment. The primary trip distribution model is shown in Figure 6A. The directional distribution for new primary site trips is:

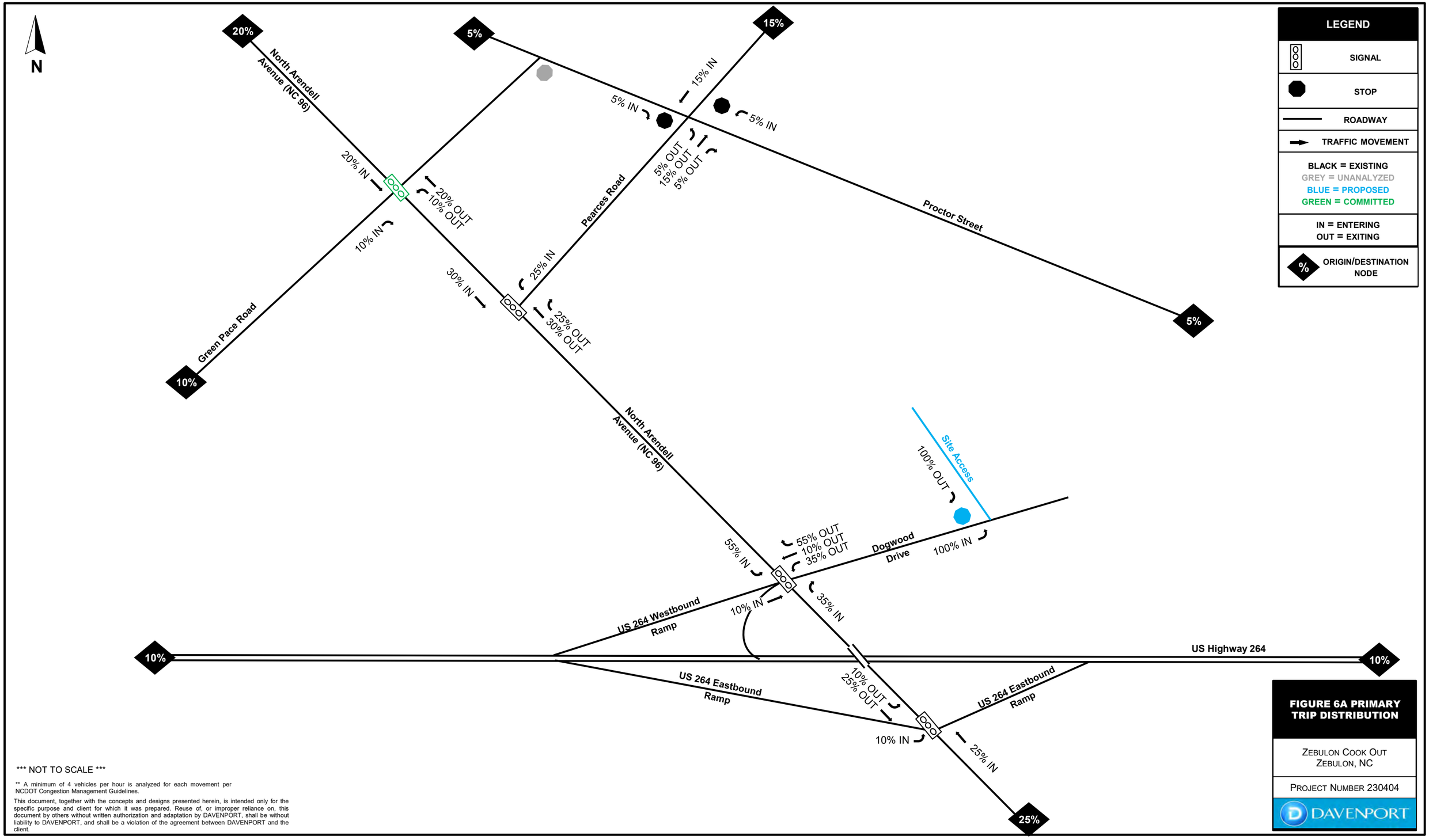
- 25% to/from the south on NC 96 (Arendell Avenue)
- 20% to/from the north on NC 96 (Arendell Avenue)
- 15% to/from the east on Pearces Road
- 10% to/from the west on Green Pace Road
- 10% to/from the west on US 264
- 10% to/from the east on US 264
- 5% to/from the west on Proctor Street
- 5% to/from the east on Proctor Street

The pass-by trip distribution is shown in Figure 6B. The directional distribution for pass-by trips is:

- 50% to/from the north on NC 96 (Arendell Avenue)
- 50% to/from the south on NC 96 (Arendell Avenue)

4.5 Future Build Volumes

Site trip volumes were added to the future no build volumes to compute the 2024 Future Build volumes. For the Mid-day and PM peaks, pass-by reductions were applied. Primary site trips are shown in Figure 7A, and pass-by trips are shown in Figure 7B, and Future Build volumes are shown in Figure 8.



*** NOT TO SCALE ***

** A minimum of 4 vehicles per hour is analyzed for each movement per NCDOT Congestion Management Guidelines.

FIGURE 6A PRIMARY TRIP DISTRIBUTION

ZEBULON COOK OUT
ZEBULON, NC

PROJECT NUMBER 230404

DAVENPORT

N

50%

North Arendell Avenue (NC 96)

Green Pace Road

Pearces Road

Proctor Street

North Arendell Avenue (NC 96)

Site Access

100% OUT

50% IN
-50% IN

50% OUT
50% OUT

Dogwood Drive

100% IN

50% IN
-50% IN

US 264 Westbound Ramp

US Highway 264

US 264 Eastbound Ramp

US 264 Eastbound Ramp

50%

LEGEND

- SIGNAL
- STOP
- ROADWAY
- TRAFFIC MOVEMENT
- BLACK = EXISTING
  GREY = UNANALYZED
  BLUE = PROPOSED
  GREEN = COMMITTED
- IN = ENTERING
  OUT = EXITING
- % ORIGIN/DESTINATION NODE

*** NOT TO SCALE ***

** A minimum of 4 vehicles per hour is analyzed for each movement per NCDOT Congestion Management Guidelines.

FIGURE 6B PASS-BY TRIP DISTRIBUTION

ZEBULON COOK OUT
ZEBULON, NC

PROJECT NUMBER 230404

DAVENPORT

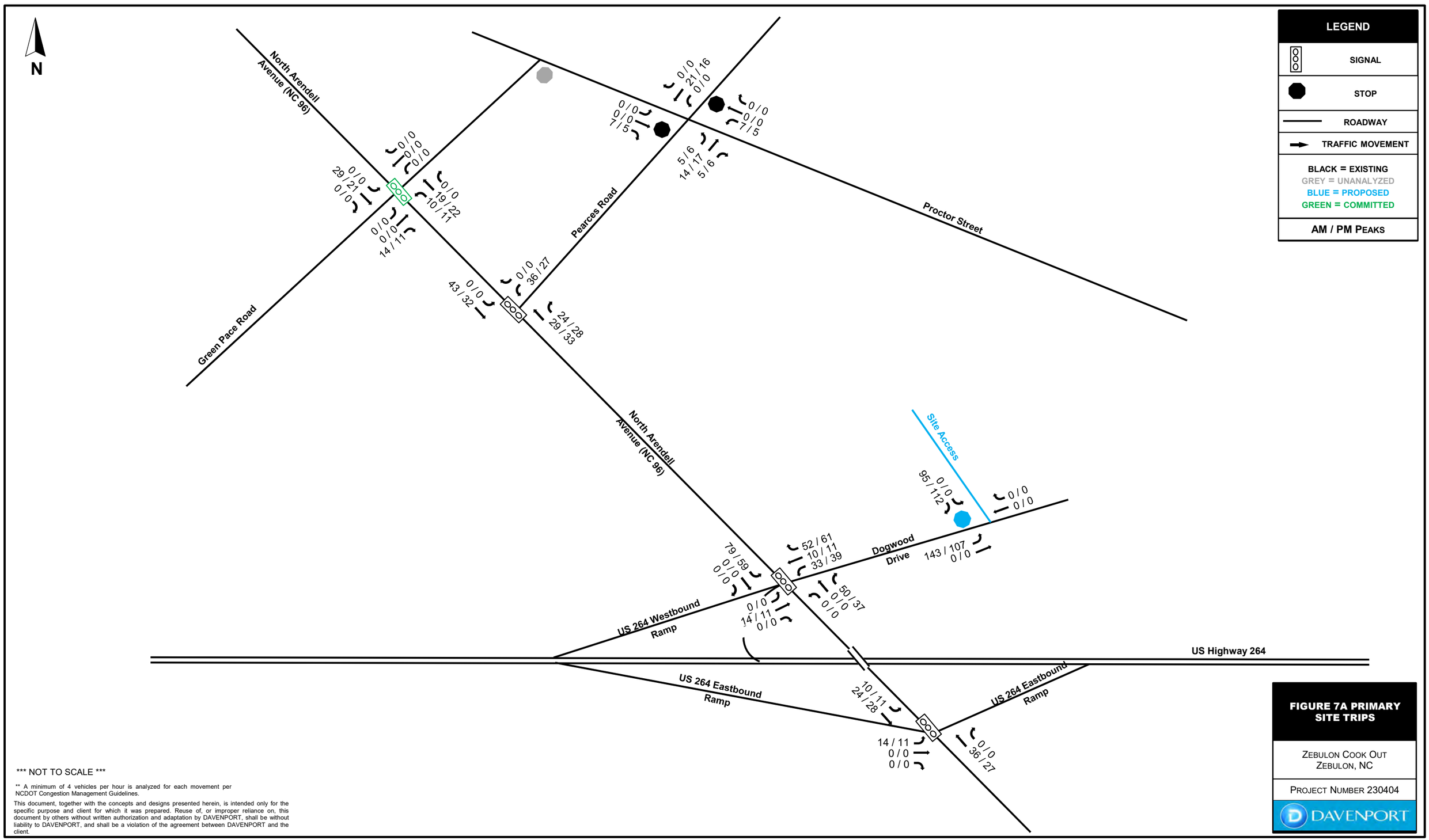


FIGURE 7A PRIMARY SITE TRIPS

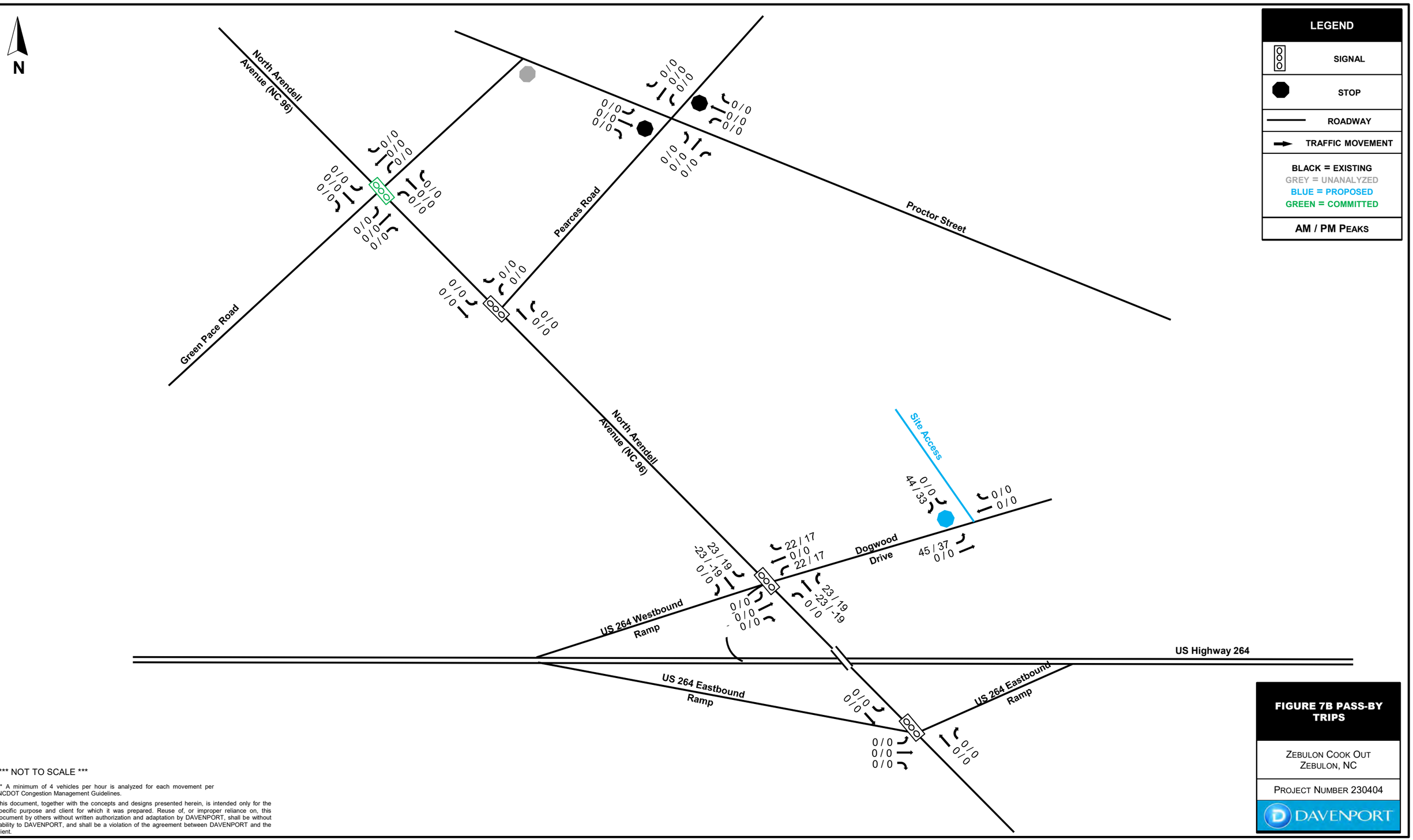
ZEBULON COOK OUT
ZEBULON, NC

PROJECT NUMBER 230404

DAVENPORT

*** NOT TO SCALE ***

** A minimum of 4 vehicles per hour is analyzed for each movement per NCDOT Congestion Management Guidelines.



*** NOT TO SCALE ***

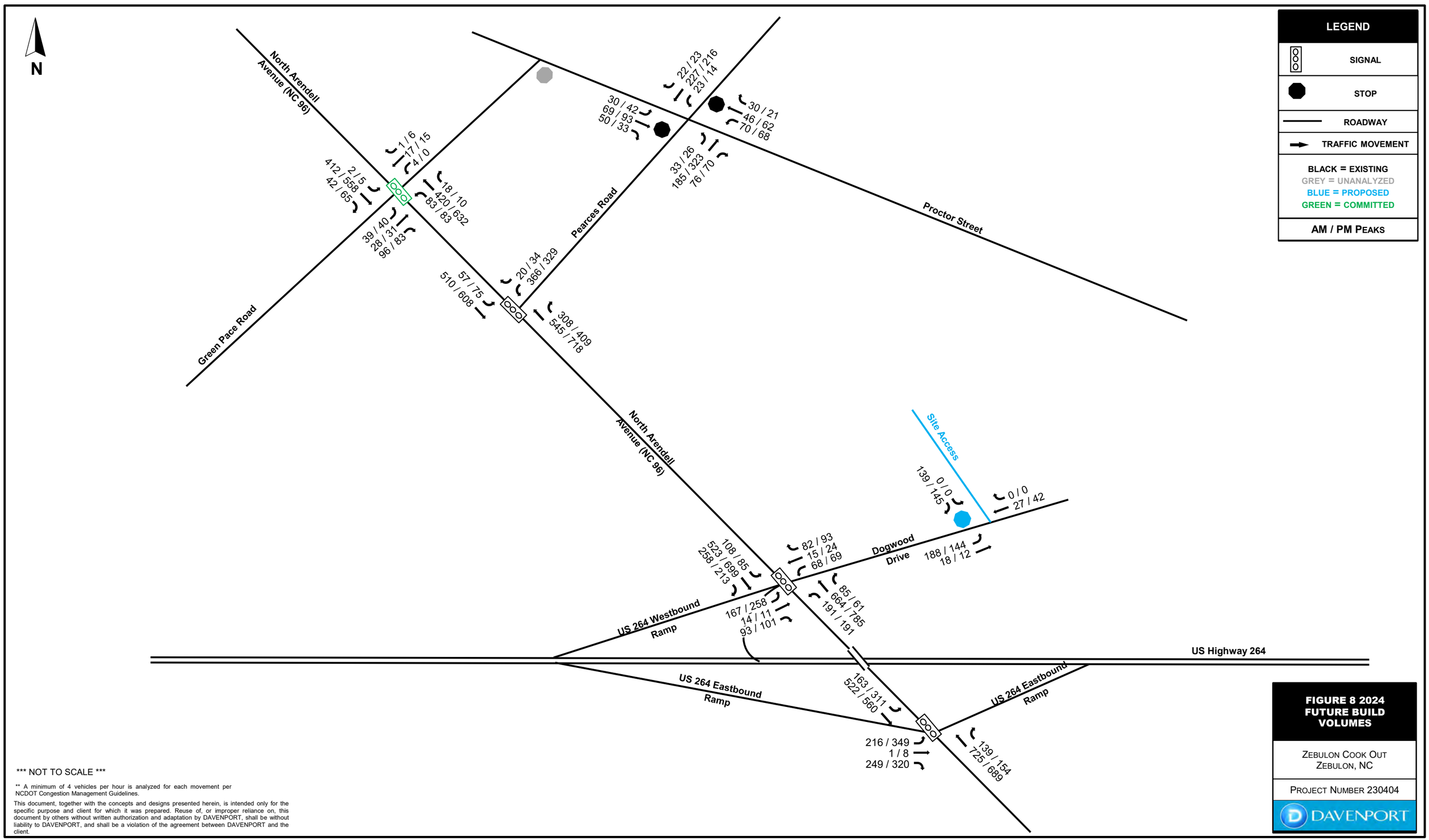
** A minimum of 4 vehicles per hour is analyzed for each movement per NCDOT Congestion Management Guidelines.

FIGURE 7B PASS-BY TRIPS

ZEBULON COOK OUT
ZEBULON, NC

PROJECT NUMBER 230404

DAVENPORT



*** NOT TO SCALE ***

** A minimum of 4 vehicles per hour is analyzed for each movement per NCDOT Congestion Management Guidelines.

FIGURE 8 2024 FUTURE BUILD VOLUMES

ZEBULON COOK OUT
ZEBULON, NC

PROJECT NUMBER 230404

DAVENPORT

5.0 Capacity Analysis

5.1 Level of Service Evaluation Criteria

The Transportation Research Board's *Highway Capacity Manual* (HCM) utilizes a term "level of service" (LOS) to measure how traffic operates in intersections and on roadway segments. There are six levels of service ranging from A to F as shown in Table 5.1. Level of service "A" represents low-volume traffic operations and level of service "F" represents high-volume, oversaturated traffic operations. Synchro traffic modeling software is used to determine the LOS and delay for study intersections. Synchro analysis worksheet reports are provided in the Appendix.

Table 5.1 – Highway Capacity Manual

Levels of Service and Control Delay Criteria			
Signalized Intersection		**Unsignalized Intersection**	
Level of Service	Control Delay Per vehicle (seconds)	Level of Service	Delay Range (seconds)
A	≤ 10	A	≤ 10
B	> 10 and ≤ 20	B	> 10 and ≤ 15
C	> 20 and ≤ 35	C	> 15 and ≤ 25
D	> 35 and ≤ 55	D	> 25 and ≤ 35
E	> 55 and ≤ 80	E	> 35 and ≤ 50
F	> 80	F	> 50

5.2 Queueing Evaluation

A queueing analysis was performed using Synchro and SimTraffic simulation, based on a minimum 10-minute seeding, a 60-minute recording period, and 10 runs. The maximum SimTraffic queues and 95th-percentile Synchro queues are provided, along with the turn lane lengths. Synchro and SimTraffic queue reports are provided in the Appendix.

5.3 Level of Service Results

The results of the capacity analyses are discussed by intersection in the following paragraphs. The LOS and delay results are summarized in Table 5.2. The queues are summarized in Tables 5.3 through 5.8.

NC 96 (Arendell Avenue) at Dogwood Drive/ US 264 Westbound Ramp (signalized)

In existing conditions, the overall intersection operates at LOS D during the Mid-day and LOS F during the PM peak hours. The committed improvements of widening NC 96 were incorporated in the analysis for the future conditions. Under future no build conditions, the intersection is expected to operate at LOS E during the Mid-day and LOS F during the PM peak hours. In future build scenarios, the intersection will operate at LOS F during both peak hours. It should be noted that the signal at this intersection has capacity issues on the side-streets in existing conditions regardless of the proposed development. Therefore, during the planned construction of improvements along NC 96, the Town should consider modifying the signal to split phasing on the site-streets to accommodate the volumes from the ramp. It is also recommended to optimize the split timing.

NC 96 (Arendell Avenue) at US 264 Eastbound Ramp (signalized)

The overall intersection operates at LOS B during the Mid-day and LOS C during the PM peak hours under existing, future no build, and future build conditions. No improvements are recommended.

NC 96 (Arendell Avenue) at Pearces Road (signalized)

The overall intersection operates at LOS B in existing conditions in both peak hours. The committed improvements of widening NC 96 were incorporated in the analysis for the future conditions. Under future no build and future build conditions, the intersection LOS is expected to remain at LOS B. No improvements are recommended.

Dogwood Drive at Site Access 1 (unsignalized)

Under future build conditions, the minor-street approach is expected to operate at LOS A in the Mid-day and PM peak hours. The need for left- and right-turn lanes was reviewed based on the NCDOT *Policy on Street and Driveway Access to North Carolina Highways*. Based on projected volumes, auxiliary lanes were not warranted. The site access should be designed in accordance with applicable Town standards. No other improvements are recommended.

NC 96 (Arendell Avenue) at Green Pace Road (unsignalized)

In existing conditions, the overall intersection operates at LOS D during the Mid-day and LOS F during the PM peak hours. The committed improvements of widening NC 96 were incorporated in the analysis for the future conditions. Under future no build and future build conditions, the signalized intersection is expected to operate at LOS B in both peak hours. No other improvements are recommended.

Pearces Road at Proctor Street (unsignalized)

In existing and future no build conditions, the minor-street approach operates at LOS C during the Mid-day and LOS D during the PM peak hours. Under future build conditions, the intersection is expected to operate at LOS D during the Mid-day and LOS E during the PM peak hours. It is recommended to improve this intersection to an all-way stop.

Table 5.2 - Level of Service Summary

Mid-day Peak	2023 Base	2024 Future No Build	2024 Future Build	2024 Future Build + Improvements
NC 96 (Arendell Avenue) ad Dogwood Drive/ US 264 Westbound Ramp	D (53.2)	E (55.5)	F (89.1)	D (39.1)
NC 96 (Arendell Avenue) and US 264 Eastbound Ramp	B (17.8)	B (18.1)	B (18.6)	
NC 96 (Arendell Avenue) and Pearces Road	B (17)	B (10.5)	B (11.1)	
Dogwood Drive and Site Access 1			A (9.2) SB Approach	A (9.2) SB Approach
NC 96 (Arendell Avenue) and Green Pace Road	D (30.6) EB Approach	B (10.5) (Signalized)	B (11.2) (Signalized)	
Pearces Road and Proctor Street	C (20.3) WB Approach	C (21) WB Approach	D (25.3) WB Approach	B (13) NB Approach
PM Peak	**2023 Base**	**2024 Future No Build**	**2024 Future Build**	**2024 Future Build + Improvements**
NC 96 (Arendell Avenue) ad Dogwood Drive/ US 264 Westbound Ramp	F (104.5)	F (109.8)	F (179.5)	D (53.2)
NC 96 (Arendell Avenue) and US 264 Eastbound Ramp	C (21.9)	C (25.2)	C (26.3)	
NC 96 (Arendell Avenue) and Pearces Road	B (17.4)	B (10.6)	B (11.1)	
Dogwood Drive and Site Access 1			A (9.3) SB Approach	A (9.3) SB Approach
NC 96 (Arendell Avenue) and Green Pace Road	F (131.5) EB Approach	B (10.6) (Signalized)	B (12.2) (Signalized)	
Pearces Road and Proctor Street	D (28.1) WB Approach	D (29.5) WB Approach	E (37.7) WB Approach	C (21.6) NB Approach

LOS (delay in seconds)
Note for unsignalized conditions, LOS and delay indicates only minor street approach with longest delay

Table 5.3 - Queue Results								
Mid-day Peak Hour Queues								
Scenario	**NC 96 (Arendell Avenue) at Dogwood Drive/ US 264 Westbound Ramp**							
2023 Existing	**EBLTR**	**WBLTR**	**NBL**	**NBT**	**NBTR**	**SBL**	**SBT**	**SBTR**
Max Queue (ft)	434	72	132	140	177	26	124	182
95th Percentile Queue (ft)	#359	37	32	205	205	3	171	171
Storage Bay (ft)	FULL	FULL	400	FULL	FULL	100	FULL	FULL
2024 Future No Build	**EBLTR**	**WBLTR**	**NBL**	**NBT**	**NBTR**	**SBL**	**SBT**	**SBTR**
Max Queue (ft)	446	52	140	156	157	26	159	200
95th Percentile Queue (ft)	366	37	32	210	210	3	186	186
Storage Bay (ft)	FULL	FULL	400	FULL	FULL	150	FULL	FULL
2024 Future Build	**EBLTR**	**WBLTR**	**NBL**	**NBT**	**NBTR**	**SBL**	**SBT**	**SBTR**
Max Queue (ft)	457	314	133	174	202	249	261	224
95th Percentile Queue (ft)	#400	#227	30	227	227	24	180	180
Storage Bay (ft)	FULL	FULL	400	FULL	FULL	150	FULL	FULL
2024 Future Build with Improvements	**EBLTR**	**WBLTR**	**NBL**	**NBT**	**NBTR**	**SBL**	**SBT**	**SBTR**
Max Queue (ft)	409	206	161	299	350	115	249	299
95th Percentile Queue (ft)	#303	#207	#178	306	306	73	#366	#366
Storage Bay (ft)	FULL	FULL	400	FULL	FULL	150	FULL	FULL
PM Peak Hour Queues								
Scenario	**NC 96 (Arendell Avenue) at Dogwood Drive/ US 264 Westbound Ramp**							
2023 Existing	**EBLTR**	**WBLTR**	**NBL**	**NBT**	**NBTR**	**SBL**	**SBT**	**SBTR**
Max Queue (ft)	447	93	138	141	155	20	202	245
95th Percentile Queue (ft)	#489	51	m25	198	198	4	217	217
Storage Bay (ft)	FULL	FULL	400	FULL	FULL	100	FULL	FULL
2024 Future No Build	**EBLTR**	**WBLTR**	**NBL**	**NBT**	**NBTR**	**SBL**	**SBT**	**SBTR**
Max Queue (ft)	446	95	137	119	159	26	196	212
95th Percentile Queue (ft)	#505	51	m24	203	203	4	238	238
Storage Bay (ft)	FULL	FULL	400	FULL	FULL	150	FULL	FULL
2024 Future Build	**EBLTR**	**WBLTR**	**NBL**	**NBT**	**NBTR**	**SBL**	**SBT**	**SBTR**
Max Queue (ft)	446	318	161	190	201	85	198	223
95th Percentile Queue (ft)	#541	#249	m22	213	213	20	230	230
Storage Bay (ft)	FULL	FULL	400	FULL	FULL	100	FULL	FULL
2024 Future Build with Improvements	**EBLTR**	**WBLTR**	**NBL**	**NBT**	**NBTR**	**SBL**	**SBT**	**SBTR**
Max Queue (ft)	457	312	240	328	367	250	419	470
95th Percentile Queue (ft)	#430	#266	#200	#364	#364	59	#438	#438
Storage Bay (ft)	FULL	FULL	400	FULL	FULL	100	FULL	FULL

#: 95th percentile volume exceeds capacity, queue may be longer
m: volume for 95th percentile queue is metered by upstream signal

Table 5.4 - Queue Results Mid-day Peak Hour Queues						
Scenario	**NC 96 (Arendell Avenue) at US 264 Eastbound Ramp**					
2023 Existing	**EBLT**	**EBR**	**NBT**	**NBTR**	**SBL**	**SBT**
Max Queue (ft)	334	200	163	205	92	70
95th Percentile Queue (ft)	167	#233	226	226	m21	m34
Storage Bay (ft)	FULL	100	FULL	FULL	275	FULL
2024 Future No Build	**EBLT**	**EBR**	**NBT**	**NBTR**	**SBL**	**SBT**
Max Queue (ft)	259	200	302	331	177	69
95th Percentile Queue (ft)	174	#254	224	224	m9	m14
Storage Bay (ft)	FULL	100	FULL	FULL	275	FULL
2024 Future Build	**EBLT**	**EBR**	**NBT**	**NBTR**	**SBL**	**SBT**
Max Queue (ft)	182	56	228	221	136	137
95th Percentile Queue (ft)	#203	#267	229	229	m8	m12
Storage Bay (ft)	FULL	100	FULL	FULL	275	FULL
2024 Future Build with Improvements	**EBLT**	**EBR**	**NBT**	**NBTR**	**SBL**	**SBT**
Max Queue (ft)	302	200	264	312	154	181
95th Percentile Queue (ft)	#203	#267	229	229	50	72
Storage Bay (ft)	FULL	100	FULL	FULL	275	FULL
PM Peak Hour Queues						
Scenario	**NC 96 (Arendell Avenue) at US 264 Eastbound Ramp**					
2023 Existing	**EBLT**	**EBR**	**NBT**	**NBTR**	**SBL**	**SBT**
Max Queue (ft)	434	200	182	160	150	122
95th Percentile Queue (ft)	#338	#329	224	224	m19	m23
Storage Bay (ft)	FULL	100	FULL	FULL	275	FULL
2024 Future No Build	**EBLT**	**EBR**	**NBT**	**NBTR**	**SBL**	**SBT**
Max Queue (ft)	434	200	230	297	243	137
95th Percentile Queue (ft)	#364	#351	222	222	m#140	m0
Storage Bay (ft)	FULL	100	FULL	FULL	275	FULL
2024 Future Build	**EBLT**	**EBR**	**NBT**	**NBTR**	**SBL**	**SBT**
Max Queue (ft)	434	200	256	258	340	131
95th Percentile Queue (ft)	#391	#362	224	224	m#162	m0
Storage Bay (ft)	FULL	100	FULL	FULL	275	FULL
2024 Future Build with Improvements	**EBLT**	**EBR**	**NBT**	**NBTR**	**SBL**	**SBT**
Max Queue (ft)	434	200	296	243	285	176
95th Percentile Queue (ft)	#391	#362	224	224	#240	78
Storage Bay (ft)	FULL	100	FULL	FULL	275	FULL
#: 95th percentile volume exceeds capacity, queue may be longer m: volume for 95th percentile queue is metered by upstream signal						

Table 5.5 - Queue Results Mid-day Peak Hour Queues						
Scenario	**NC 96 (Arendell Avenue) at Pearces Road**					
2023 Existing	**WBL**	**WBR**	**NBT**	**NBR**	**SBL**	**SBT**
Max Queue (ft)	250	294	255	189	53	216
95th Percentile Queue (ft)	#280	23	201	104	28	176
Storage Bay (ft)	150	FULL	FULL	FULL	175	FULL
2024 Future No Build	**WBL**	**WBR**	**NBT**	**NBR**	**SBL**	**SBT**
Max Queue (ft)	111	153	194	179	94	90
95th Percentile Queue (ft)	100	-	135	-	m27	69
Storage Bay (ft)	150	FULL	FULL	FULL	300	FULL
2024 Future Build	**WBL**	**WBR**	**NBT**	**NBR**	**SBL**	**SBT**
Max Queue (ft)	145	155	159	136	73	190
95th Percentile Queue (ft)	108	-	153	-	m32	87
Storage Bay (ft)	150	FULL	FULL	FULL	300	FULL
2024 Future Build with Improvements	**WBL**	**WBR**	**NBT**	**NBTR**	**SBL**	**SBT**
Max Queue (ft)	129	155	197	162	74	121
95th Percentile Queue (ft)	108	-	153	-	m32	87
Storage Bay (ft)	150	FULL	FULL	FULL	175	FULL
PM Peak Hour Queues						
Scenario	**NC 96 (Arendell Avenue) at Pearces Road**					
2023 Existing	**WBL**	**WBR**	**NBT**	**NBR**	**SBL**	**SBT**
Max Queue (ft)	210	48	230	134	116	163
95th Percentile Queue (ft)	#269	34	290	137	41	218
Storage Bay (ft)	150	FULL	FULL	FULL	175	FULL
2024 Future No Build	**WBL**	**WBR**	**NBT**	**NBR**	**SBL**	**SBT**
Max Queue (ft)	184	199	204	209	92	159
95th Percentile Queue (ft)	103	-	176	-	m39	95
Storage Bay (ft)	150	FULL	FULL	FULL	300	FULL
2024 Future Build	**WBL**	**WBR**	**NBT**	**NBR**	**SBL**	**SBT**
Max Queue (ft)	142	180	264	212	114	160
95th Percentile Queue (ft)	111	-	192	-	m36	101
Storage Bay (ft)	150	FULL	FULL	FULL	300	FULL
2024 Future Build with Improvements	**WBL**	**WBR**	**NBT**	**NBTR**	**SBL**	**SBT**
Max Queue (ft)	179	155	276	234	156	182
95th Percentile Queue (ft)	111	-	192	-	m36	101
Storage Bay (ft)	150	FULL	FULL	FULL	175	FULL
#: 95th percentile volume exceeds capacity, queue may be longer m: volume for 95th percentile queue is metered by upstream signal						

Table 5.6 - Queue Results Mid-day Peak Hour Queues			
Scenario	**Dogwood Drive at Site Access 1**		
2024 Future Build	**EBLT**	**WBTR**	**SBLR**
Max Queue (ft)	53	-	98
95th Percentile Queue (ft)	13	-	15
Storage Bay (ft)	FULL	FULL	FULL
2024 Future Build with Improvements	**EBLT**	**WBTR**	**SBLR**
Max Queue (ft)	54	-	96
95th Percentile Queue (ft)	13	-	15
Storage Bay (ft)	FULL	FULL	FULL
PM Peak Hour Queues			
Scenario	**Dogwood Drive at Site Access 1**		
2024 Future Build	**EBLT**	**WBTR**	**SBLR**
Max Queue (ft)	31	53	66
95th Percentile Queue (ft)	8	-	15
Storage Bay (ft)	FULL	FULL	100
2024 Future Build with Improvements	**EBLT**	**WBTR**	**SBLR**
Max Queue (ft)	32	53	73
95th Percentile Queue (ft)	8	-	15
Storage Bay (ft)	FULL	FULL	100
#: 95th percentile volume exceeds capacity, queue may be longer m: volume for 95th percentile queue is metered by upstream signal			

Table 5.7 - Queue Results						
Mid-day Peak Hour Queues						
Scenario	**NC 96 (Arendell Avenue) at Green Pace Road**					
2023 Existing	**EBLTR**	**WBLTR**	**NBL**	**NBLTR**	**SBL**	**SBLTR**
Max Queue (ft)	143	51		108		20
95th Percentile Queue (ft)	75	75		5		-
Storage Bay (ft)	FULL	FULL		FULL		FULL
2024 Future No Build	**EBLTR**	**WBLTR**	**NBL**	**NBTR**	**SBL**	**SBTR**
Max Queue (ft)	160	50	88	162	19	124
95th Percentile Queue (ft)	102	25	36	138	4	159
Storage Bay (ft)	FULL	FULL	200	FULL	150	FULL
2024 Future Build	**EBLTR**	**WBLTR**	**NBL**	**NBTR**	**SBL**	**SBTR**
Max Queue (ft)	198	50	88	151	24	206
95th Percentile Queue (ft)	109	24	m40	151	4	178
Storage Bay (ft)	FULL	FULL	200	FULL	150	FULL
2024 Future Build with Improvements	**EBLTR**	**WBLTR**	**NBL**	**NBTR**	**SBL**	**SBTR**
Max Queue (ft)	148	50	90	242	18	120
95th Percentile Queue (ft)	109	24	m40	151	4	178
Storage Bay (ft)	FULL	FULL	200	FULL	150	FULL
PM Peak Hour Queues						
Scenario	**NC 96 (Arendell Avenue) at Green Pace Road**					
2023 Existing	**EBLTR**	**WBLTR**	**NBL**	**NBLTR**	**SBL**	**SBLTR**
Max Queue (ft)	115	50		257		37
95th Percentile Queue (ft)	193	15		8		-
Storage Bay (ft)	FULL	FULL		FULL		FULL
2024 Future No Build	**EBLTR**	**WBLTR**	**NBL**	**NBTR**	**SBL**	**SBTR**
Max Queue (ft)	138	48	68	191	24	212
95th Percentile Queue (ft)	105	27	m31	208	5	227
Storage Bay (ft)	FULL	FULL	200	FULL	150	FULL
2024 Future Build	**EBLTR**	**WBLTR**	**NBL**	**NBTR**	**SBL**	**SBTR**
Max Queue (ft)	227	50	106	207	22	231
95th Percentile Queue (ft)	112	27	m35	221	4	241
Storage Bay (ft)	FULL	FULL	200	FULL	150	FULL
2024 Future Build with Improvements	**EBLTR**	**WBLTR**	**NBL**	**NBTR**	**SBL**	**SBTR**
Max Queue (ft)	177	32	105	248	-	252
95th Percentile Queue (ft)	112	27	m35	221	4	241
Storage Bay (ft)	FULL	FULL	200	FULL	150	FULL

#: 95th percentile volume exceeds capacity, queue may be longer
m: volume for 95th percentile queue is metered by upstream signal

Table 5.8 - Queue Results				
Mid-day Peak Hour Queues				
Scenario	**Pearces Road at Proctor Street**			
2023 Existing	**EBLTR**	**WBLTR**	**NBLTR**	**SBLTR**
Max Queue (ft)	73	76	31	49
95th Percentile Queue (ft)	38	45	3	3
Storage Bay (ft)	FULL	FULL	FULL	FULL
2024 Future No Build	**EBLTR**	**WBLTR**	**NBLTR**	**SBLTR**
Max Queue (ft)	92	100	94	31
95th Percentile Queue (ft)	40	48	3	3
Storage Bay (ft)	FULL	FULL	FULL	FULL
2024 Future Build	**EBLTR**	**WBLTR**	**NBLTR**	**SBLTR**
Max Queue (ft)	143	97	52	50
95th Percentile Queue (ft)	45	60	3	3
Storage Bay (ft)	FULL	FULL	FULL	FULL
2024 Future Build with Improvements	**EBLTR**	**WBLTR**	**NBLTR**	**SBLTR**
Max Queue (ft)	76	98	142	89
95th Percentile Queue (ft)	28	28	65	60
Storage Bay (ft)	FULL	FULL	FULL	FULL
PM Peak Hour Queues				
Scenario	**Pearces Road at Proctor Street**			
2023 Existing	**EBLTR**	**WBLTR**	**NBLTR**	**SBLTR**
Max Queue (ft)	162	98	30	56
95th Percentile Queue (ft)	38	45	3	3
Storage Bay (ft)	FULL	FULL	FULL	FULL
2024 Future No Build	**EBLTR**	**WBLTR**	**NBLTR**	**SBLTR**
Max Queue (ft)	104	118	54	54
95th Percentile Queue (ft)	70	73	3	0
Storage Bay (ft)	FULL	FULL	FULL	FULL
2024 Future Build	**EBLTR**	**WBLTR**	**NBLTR**	**SBLTR**
Max Queue (ft)	135	76	54	74
95th Percentile Queue (ft)	85	95	3	0
Storage Bay (ft)	FULL	FULL	FULL	FULL
2024 Future Build with Improvements	**EBLTR**	**WBLTR**	**NBLTR**	**SBLTR**
Max Queue (ft)	77	101	194	81
95th Percentile Queue (ft)	35	33	153	60
Storage Bay (ft)	FULL	FULL	FULL	FULL
#: 95th percentile volume exceeds capacity, queue may be longer m: volume for 95th percentile queue is metered by upstream signal				

6.0 Internal Protected Stem

The NCDOT *Policy on Street and Driveway Access to North Carolina Highways,* or the Driveway Manual, states that the length of the internal protected stem (IPS) will be determined from the maximum vehicle storage required as measured from the right-of-way line to the nearest conflict point with a minimum recommendation of 100 feet. The main purpose of the 100-foot IPS standard is to provide a buffer distance between the adjacent street and any on-site conflict points or queues, to avoid creating a negative impact to adjacent street traffic flow. Due to the limited depth of the site, 100 feet of IPS cannot be provided at either driveway. However, this can be mitigated by reducing internal conflict points. It is recommended that the site be designed to provide a one-way looping traffic pattern, with proper pavement markings and signs to reinforce this. It is also recommended to maximize IPS length to the greatest extent possible.

7.0 Summary and Conclusion

The Zebulon Cook Out proposed development is located east of NC 96 between Dogwood Drive and Jones Street in Zebulon, NC. It will consist of 2,800 square feet of fast food restaurant with drive-thru and 1,865 square feet party gathering room. One full movement access point is proposed on Dogwood Drive. The expected build-out year for this development is 2024. Information regarding the property was provided by Sambatek.

The Transportation Impact Analysis (TIA) was performed based on the scope agreed upon with the North Carolina Department of Transportation (NCDOT). This site has a trip generation potential of 1,854 daily trips, 238 trips in the Mid-day peak hour, and 218 trips in the PM peak hour.

In conclusion, this study has determined the potential traffic impacts of this development. Improvements are recommended to accommodate the impacts of new development traffic. Table 7.1 summarizes the recommended improvements, which are also reflected in Figure 9. With the recommended improvements in place, the anticipated transportation impacts of the proposed development can be accommodated.

Table 7.1 – Recommended Improvements	
INTERSECTION	**RECOMMENDATIONS**
NC 96 at Dogwood Drive/ US 264 Westbound Ramp	Implemented by others: • Modify signal to split phasing on the side-streets to accommodate the volumes from the ramps. • Optimize the splits.
NC 96 at US 264 Eastbound	• No improvements recommended.
NC 96 at Pearces Road	• No improvements recommended.
Dogwood Drive at Site Access 1	• Design site drive according to applicable local standards.
NC 96 at Green Pace Road	• No improvements recommended.
Pearces Road at Proctor Street	• Provide all-way stop.

N

North Arendell Avenue (NC 96)

Green Pace Road

Pearces Road

Proctor Street

150'

200'

100'

150'

Provide all-way stop.

Modify signal to split phasing on side-streets to accomodate volumes from ramps.
Optimize the splits.

Site Access

Design site access according to applicable local standards.

Dogwood Drive

US 264 Westbound Ramp

US 264 Eastbound Ramp

US Highway 264

150'

150'

50'

LEGEND

- SIGNAL
- STOP
- ROADWAY
- TRAFFIC MOVEMENT
- TWO-WAY LEFT-TURN LANE

BLACK = EXISTING
GREY = UNANALYZED
BLUE = PROPOSED
GREEN = COMMITTED

*** NOT TO SCALE ***

** A minimum of 4 vehicles per hour is analyzed for each movement per NCDOT Congestion Management Guidelines.

FIGURE 9
RECOMMENDED IMPROVEMENTS

ZEBULON COOK OUT
ZEBULON, NC

PROJECT NUMBER 230404

DAVENPORT

Appendix

Approved Scoping Documents

NCDOT Traffic Impact Analysis Need Screening / Scoping Request

TIA Need Screening → TIA Scoping → TIA Submittal

A Traffic Impact Analysis (TIA) may be required for developments based on the site trip generation estimates, site context, or at the discretion of the NCDOT District Engineer. The Applicant or the TIA Consultant shall submit this form along with the site plan to the District Engineer to determine the TIA need and, if a TIA is required, initiate the TIA scoping process. Without an approved scope, the TIA is incomplete and will be rejected until the study is revised to conform to NCDOT's TIA requirements.

Project Name: Zebulon Cook Out Development **Previous Name:** If Applicable

Location: NE Quad. of NC 96 & Dogwood Drive **County:** Wake **Municipality:** Zebulon

Project Description: 4625 sq. ft. of Fast Food Restaurant with Drive-Thru and Party Gathering Room

Project Contact:	Applicant	TIA Consultant
Company Name	Cook Out, Inc.	DAVENPORT
Contact Person	Jeremy Reaves	Dionne Brown
Phone Number	336-215-7025	919-324-1665
Email	jreaves@cookout.com	dbrown@davenportworld.com
Mailing Address	15 Laura Lane, Suite 300 Thomasville, NC 27360	4600 Marriott Drive, Suite 340 Raleigh, NC 27612

Site Plan Prepared By: Commercial Site Design **Site Plan Date:** 07/06/2022

See site plan/vicinity map requirements on page 2.

Parcel Size: 2.12 Acre(s) **Anticipated Build-Out Year:** 2024

Weekday Site Trip Generation - Do NOT adjust for mode split, pass-by, internal capture, or diverted trips.

ITE LUC	Proposed Land Use	Size	Unit	Daily Trips	Peak Hour Type	AM Peak Hour Trips			PM Peak Hour Trips			Data Source
						Enter	Exit	Total	Enter	Exit	Total	
	Fast Food w/DT	2	Th Sq Ft	1704		89	88	177	73	65	138	Local Data**
	Event Space	100	Seats	150		99	51	150	71	80	150	Other Data**
Total				1854		188	139	327	144	145	288	

Refer to the current *NCDOT Congestion Management Capacity Analysis Guidelines* for acceptable trip calculation methods and data sources.

**Explain local or other data sources, if used: Event space not defined in ITE, used LUC 495 for entry/exit

☐ The estimated site trips meet NCDOT's TIA trip threshold of 3,000 daily trips.

☒ The estimated site trips meet the municipal TIA trip threshold of 100 peak hour

☐ This project is located in a known STIP and/ or local CIP project #

☐ This project includes a rezoning request.

☐ The proposed site access is located within 1,000 feet of an interchange.

☐ The Applicant requests for a new or modified control-of-access break.

☐ The Applicant requests for a new or modified median break.

Applicant's Signature	Print Name	Date

Site Plan/Vicinity Map Requirement for TIA Need Screening: While the site plan may not be finalized during the TIA scoping stage, the graphic representation of the proposed development shall provide adequate details on the development scope and context. More specifically, the site plan/map shall clearly show the location and type of each access point, spacing to adjacent and opposing driveways or intersections, internal street network, proposed buildings/parcels with their anticipated uses and sizes at full build-out and, if applicable, any nearby interstate, US, NC or Secondary Roads (SR).

Project Name: Zebulon Cook Out Development **Project Reference Number:** _____

☐ **A TIA is Required by the Local Government.** In addition, the study area is expected to include NCDOT maintained transportation facilities.

☒ **A TIA is Required by NCDOT,** per the *Policy on Street and Driveway Access to North Carolina Highways*.

If either or both of the boxes above are checked, the Applicant/TIA Consultant is hereby requested to fill out as much as possible of the following TIA scoping checklist, and return it along with the supporting documents to NCDOT prior to the scoping meeting.

☐ **A TIA is NOT required**. This decision is based on the development information presented above. Changes in the development plan will require re-evaluation of the TIA need, and may necessitate a TIA. The Applicant should inform the District Engineer of any significant changes in a timely fashion to avoid delays or rejections of the driveway permit / encroachment agreement applications.

Additional Comments:

The TIA need decision is made by the NCDOT Division ____ District____ on _____.

_____ _____

NCDOT District Representative's Signature | Print Name

Email concurrence may be used in lieu of the signature.

NCDOT TIA Scoping Checklist

TIA Need Screening → TIA Scoping → TIA Submittal

Project Name: Zebulon Cook Out Development **TIA Scoping Date:** 4/19/23

☐ **TIA Need Screening Forms are Attached.** Project Reference #: _____ Decision Date: _____

☒ **Site Plan and Access**

☒ Provide a site plan illustrating site access, internal and external roadways, buildings and land uses.
Refer to NCDOT's *Policy on Street and Driveway Access to North Carolina Highways* pages 14 and 15 for site plan requirements.

☒ Identify site access.

New Access	On Road	Access Type		Driveway Spacing		
	Road Name	Permitted Movements	Traffic Control	Distance (ft)	Direction	Nearest Intersection / Access
Access A	Dogwood Drive	Conventional Full-Mvmt	2-Way Stop	275	East	NC 96
Access B						
Access C						
Access D						
Access E						
Access F						
Access G						
Access H						

Existing Access	Existing Intersection of		Access Modification	Proposed Interconnectivity (If Applicable)		
	Road A	Road B		Connector #	Road Connected	Adjacent Development
Access 1			N/A	Connector 1		
Access 2				Connector 2		
Access 3				Connector 3		
Access 4				Connector 4		

☐ Additional access clarifications and provisions (e.g., proposed control-of-access or median breaks, modifications of existing access, loading/unloading area access, bike/pedestrian accommodation).

☐

Proposed K-12 School Site

☐ NCDOT MSTA School Traffic Calculator for Select School Type shall be used.

☐ Peak Hour Factors (PHFs) shall be adjusted/weighted for new school trips (0.5 PHF by default).

☐ Internal school circulation analysis is required, and should be submitted in advance or concurrent with the TIA submittal.

☐ Clarify traffic operation plans (e.g. traffic circulation pattern, pedestrian access, drop-off/pick-up zone location and configuration, queue storage area and, if applicable, staggered start times).

☒ Trip Generation

The TIA Consultant shall prepare trip generation estimates following the current *NCDOT Congestion Management Capacity Analysis Guidelines*, and submit the calculation sheets and supporting information to the District Engineer for approval prior to capacity analysis.

ITE LUC	Proposed Land Use	Size	Unit	Daily Trips	Peak Hour Type	AM Peak Hour Trips			PM Peak Hour Trips			Data Source
						Enter	Exit	Total	Enter	Exit	Total	
	Fast Food w/DT	2	Th Sq Ft	1704		89	88	177	73	65	138	Local Data**
	Event Space	100	Seats	150		99	51	150	71	80	150	Other Data**
Unadjusted Site Trips				1854		188	139	327	144	145	288	
Internal Capture Trips (Attach Calculation Sheets)												Please Select
Internal Capture % of Unadjusted Site Trips				%		%			%			
LUC	Proposed Land Use	Any Internal Trips?		Pass-By % of External Trips								
		Please Select		%		50 %			50 %			Please Select
				%		%			%			
				%		%			%			
				%		%			%			
				%		%			%			
Pass-By Trips (Attach Calculation Sheets)						45	44	89	37	33	70	
Adjacent Street Volumes												Please Select
Non-Pass-By Primary Trips						143	95	238	107	112	218	
Diverted Trips, if Applicable and Justifiable												Please Select

**Explain local or other data sources, if used:

Event space not defined in ITE; therefore, the daily trips are # of seats times 1.5 passengers. The peak hour split is derived from LUC 495 for entry/ exit, which is a similar land use.

☐ Existing Site Trip Information for Redevelopment Projects (Attach separate sheets as needed)

ITE LUC	Existing Land Use	Size	Unit	Daily Trips	Peak Hour Type	AM Peak Hour Trips			PM Peak Hour Trips			Data Source
						Enter	Exit	Total	Enter	Exit	Total	
					Please Select							Please Select
Total Existing Site Trips												

☒ **Trip Distribution**

☒ Trip distribution diagrams are submitted concurrently with this document (attach separate sheets).

☐ Trip distribution diagrams will be submitted separately, along with supporting information, to the District Engineer for review and approval prior to capacity analysis. The trip distribution shall be based on the current and anticipated traffic patterns, as well as instructions noted below.

If required by the District Engineer, the following additional diagrams shall also be submitted:

☐ Mixed-Use Developments (separate diagrams for residential, commercial, and office trips)

☐ Inter-Development Trips (if 'internal" trips cross public streets)

☒ Pass-By Trips

☐ Diverted Trips

☐ Each Analysis Period

☐ **Mode Split**

☐ Provide Data Source and Justification

Mode / Period	Auto		
AM Peak	%	%	%
PM Peak	%	%	%
Daily	%	%	%
	%	%	%

☐ Identify proper infrastructure and accommodation for other modes of travel.

☒ **Analysis Peak Periods:**

☐ Weekday AM Peak _____

☒ Weekday PM Peak 4-6 PM

☒ Weekday Midday Peak 11AM - 1 PM

☐ Weekday PM School Peak _____

☐ Weekend _____ Peak _____

☐ Other _____

☒ Study Area Intersections and Data Collection

The study area shall include the site access intersections (both new and existing) identified under "Site Plan and Access" on page 1, as well as the following external and, if applicable, internal intersections.

External Intersection	Intersection of		Traffic Control	Intersection Turning Movement Counts			Notes
	Road A	Road B		New / Existing	Date of Counts	Growth Adjustment	
#1	NC 96	Dogwood Drive	Signal	Require New Counts			
#2	NC 96	US 264 WB Ramp	Signal	Require New Counts			
#3	NC 96	Pearces Road	Signal	Require New Counts			
#4	Dogwood Drive	Site Access 1	2-Way Stop				Proposed
#5	NC 96	Green Pace Road	2-Way Stop	Require New Counts			
#6	Pearces Road	Proctor Street	2-Way Stop	Require New Counts			
#7							
#8							
#9							
#10							
#11							
#12							

Internal Intersection	Intersection of		Access Type		Intersection Spacing		
	Road A	Road B	Traffic Control	Permitted Movements	Distance (ft)	Direction	Nearest Intersection
#101			Please Select	Please Select		Please Select	
#102							
#103							
#104							
#105							

The following data will be collected:

☒ New traffic turning movement counts in ☒ 15-min intervals ☐ 5-min intervals (near schools)
Unless otherwise noted above, new traffic counts shall be collected at the existing study intersections during the analysis periods. Weekday counts shall avoid Mondays, Fridays, holidays, school breaks, road closures, and major weather events.

☐ To account for the impact of existing and/or proposed school traffic, PHFs will be adjusted for:

intersections numbered: _____

and access points numbered: _____

☐ Traffic Forecast Data for TIP: _____

☒ Roadway/Intersection Configuration & Traffic Control

☒ Traffic Signal Phasing & Timing Data

☐ Crash Data: _____ Period: _____

☐ Other:

☒ Future Year Conditions

☒ Project Build-Out Year: 2024

☐ Future Analysis Year(s): _____

☐ Identify below any funded/committed future transportation improvements, as well as any approved but incomplete developments near the site.

Funded STIP / Local CIP Project	Project Description	Year Complete
	Signalize NC 96 at Green Pace Road (Town of Zebulon)	

Nearby Approved Development	Location	Future Land Use (exclude any completed phases)	Committed Improvements

☒ Annual Growth Factor: 2 %

Justification/Data Source: _____

☐ Local Comprehensive Transportation Plan Compliance

☐ Identify Applicable Local Transportation Planning Documents

☐ Identify Applicable Roadways inside the Study Area

Road Name	Classification	Speed Limit	Proposed Cross-Section	Proposed Right-of-Way	Compliance Requirements	Affect Study Intersection #

File Name : Zebulon(264 EB and NC 96)
Site Code :
Start Date : 5/9/2022
Page No : 1

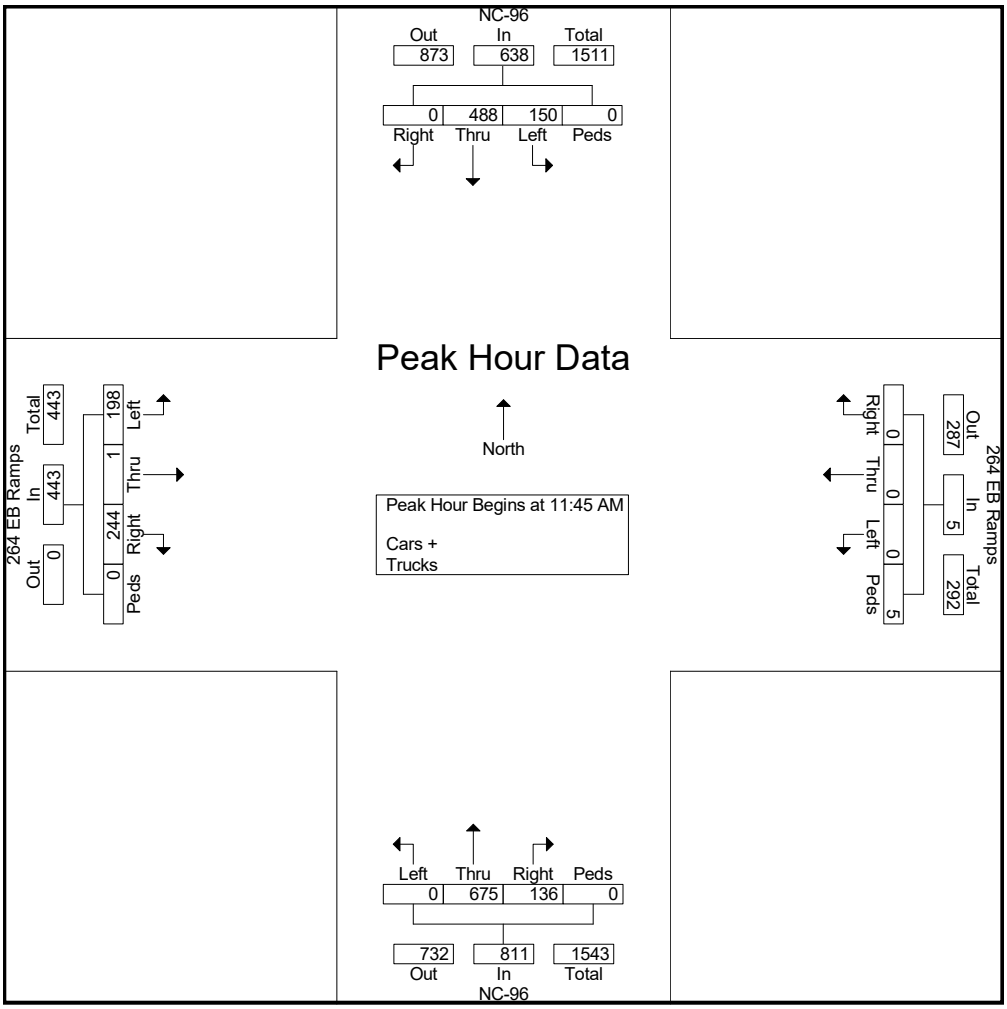
Groups Printed- Cars + - Trucks

	NC-96 Southbound					264 EB Ramps Westbound					NC-96 Northbound					264 EB Ramps Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
11:00 AM	0	117	47	0	164	0	0	0	0	0	19	115	0	0	134	39	1	45	0	85	383
11:15 AM	0	119	38	0	157	0	0	0	2	2	30	99	0	0	129	63	0	39	0	102	390
11:30 AM	0	113	49	0	162	0	0	0	0	0	28	126	0	0	154	56	1	43	0	100	416
11:45 AM	0	118	31	0	149	0	0	0	2	2	26	171	0	0	197	69	0	41	0	110	458
Total	0	467	165	0	632	0	0	0	4	4	103	511	0	0	614	227	2	168	0	397	1647
12:00 PM	0	126	35	0	161	0	0	0	0	0	42	167	0	0	209	73	0	48	0	121	491
12:15 PM	0	120	52	0	172	0	0	0	3	3	41	172	0	0	213	40	1	59	0	100	488
12:30 PM	0	124	32	0	156	0	0	0	0	0	27	165	0	0	192	62	0	50	0	112	460
12:45 PM	0	114	55	1	170	0	0	0	0	0	29	135	0	2	166	74	1	45	0	120	456
Total	0	484	174	1	659	0	0	0	3	3	139	639	0	2	780	249	2	202	0	453	1895
Grand Total	0	951	339	1	1291	0	0	0	7	7	242	1150	0	2	1394	476	4	370	0	850	3542
Apprch %	0	73.7	26.3	0.1		0	0	0	100		17.4	82.5	0	0.1		56	0.5	43.5	0		
Total %	0	26.8	9.6	0	36.4	0	0	0	0.2	0.2	6.8	32.5	0	0.1	39.4	13.4	0.1	10.4	0	24	
Cars +	0	923	317	1	1241	0	0	0	7	7	230	1126	0	2	1358	460	2	353	0	815	3421
% Cars +	0	97.1	93.5	100	96.1	0	0	0	100	100	95	97.9	0	100	97.4	96.6	50	95.4	0	95.9	96.6
Trucks	0	28	22	0	50	0	0	0	0	0	12	24	0	0	36	16	2	17	0	35	121
% Trucks	0	2.9	6.5	0	3.9	0	0	0	0	0	5	2.1	0	0	2.6	3.4	50	4.6	0	4.1	3.4

TRAFFIC DATA COLLECTION

File Name : Zebulon(264 EB and NC 96)
Site Code :
Start Date : 5/9/2022
Page No : 2

	NC-96 Southbound					264 EB Ramps Westbound					NC-96 Northbound					264 EB Ramps Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 12:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 11:45 AM																					
11:45 AM	0	118	31	0	149	0	0	0	2	2	26	171	0	0	197	69	0	41	0	110	458
12:00 PM	0	**126**	35	0	161	0	0	0	0	0	**42**	167	0	0	209	**73**	0	48	0	**121**	**491**
12:15 PM	0	120	**52**	0	**172**	0	0	0	**3**	**3**	41	**172**	0	0	**213**	40	**1**	**59**	0	100	488
12:30 PM	0	124	32	0	156	0	0	0	0	0	27	165	0	0	192	62	0	50	0	112	460
Total Volume	0	488	150	0	638	0	0	0	5	5	136	675	0	0	811	244	1	198	0	443	1897
% App. Total	0	76.5	23.5	0		0	0	0	100		16.8	83.2	0	0		55.1	0.2	44.7	0		
PHF	.000	.968	.721	.000	.927	.000	.000	.000	.417	.417	.810	.981	.000	.000	.952	.836	.250	.839	.000	.915	.966



File Name : Zebulon(264 EB and NC 96)
Site Code :
Start Date : 5/9/2022
Page No : 1

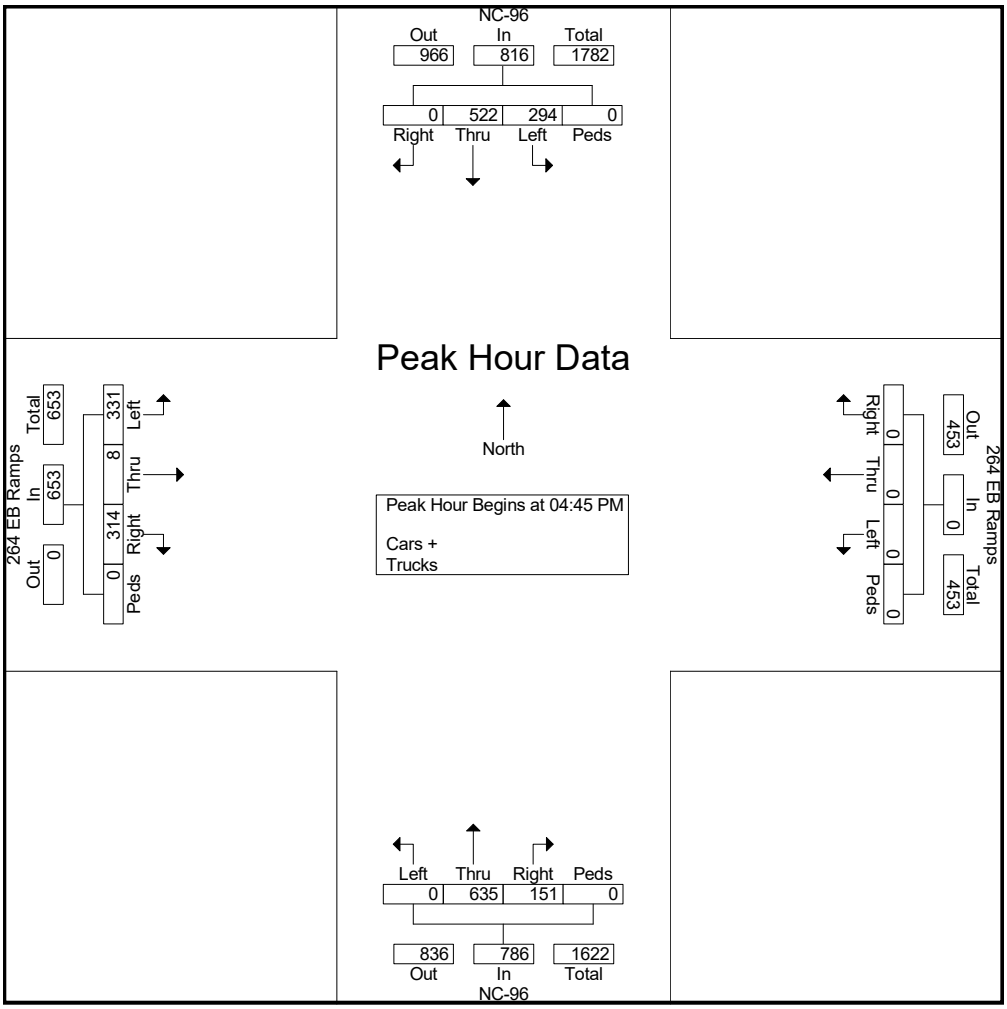
Groups Printed- Cars + - Trucks

	NC-96 Southbound					264 EB Ramps Westbound					NC-96 Northbound					264 EB Ramps Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
04:00 PM	0	109	77	0	186	0	0	0	0	0	41	158	0	0	199	79	0	99	0	178	563
04:15 PM	0	119	65	0	184	0	0	0	0	0	38	172	0	0	210	75	0	79	0	154	548
04:30 PM	0	128	68	0	196	0	0	0	0	0	48	155	0	0	203	98	1	76	0	175	574
04:45 PM	0	114	66	0	180	0	0	0	0	0	33	170	0	0	203	75	1	75	0	151	534
Total	0	470	276	0	746	0	0	0	0	0	160	655	0	0	815	327	2	329	0	658	2219
05:00 PM	0	130	83	0	213	0	0	0	0	0	40	163	0	0	203	76	3	84	0	163	579
05:15 PM	0	143	61	0	204	0	0	0	0	0	43	145	0	0	188	86	0	88	0	174	566
05:30 PM	0	135	84	0	219	0	0	0	0	0	35	157	0	0	192	77	4	84	0	165	576
05:45 PM	0	134	54	0	188	0	0	0	0	0	28	149	0	0	177	82	0	79	0	161	526
Total	0	542	282	0	824	0	0	0	0	0	146	614	0	0	760	321	7	335	0	663	2247
Grand Total	0	1012	558	0	1570	0	0	0	0	0	306	1269	0	0	1575	648	9	664	0	1321	4466
Apprch %	0	64.5	35.5	0		0	0	0	0		19.4	80.6	0	0		49.1	0.7	50.3	0		
Total %	0	22.7	12.5	0	35.2	0	0	0	0	0	6.9	28.4	0	0	35.3	14.5	0.2	14.9	0	29.6	
Cars +	0	1000	534	0	1534	0	0	0	0	0	300	1253	0	0	1553	640	8	655	0	1303	4390
% Cars +	0	98.8	95.7	0	97.7	0	0	0	0	0	98	98.7	0	0	98.6	98.8	88.9	98.6	0	98.6	98.3
Trucks	0	12	24	0	36	0	0	0	0	0	6	16	0	0	22	8	1	9	0	18	76
% Trucks	0	1.2	4.3	0	2.3	0	0	0	0	0	2	1.3	0	0	1.4	1.2	11.1	1.4	0	1.4	1.7

TRAFFIC DATA COLLECTION

File Name : Zebulon(264 EB and NC 96)
Site Code :
Start Date : 5/9/2022
Page No : 2

	NC-96 Southbound					264 EB Ramps Westbound					NC-96 Northbound					264 EB Ramps Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:45 PM																					
04:45 PM	0	114	66	0	180	0	0	0	0	0	33	**170**	0	0	**203**	75	1	75	0	151	534
05:00 PM	0	130	83	0	213	0	0	0	0	0	40	163	0	0	203	76	3	84	0	163	**579**
05:15 PM	0	**143**	61	0	204	0	0	0	0	0	**43**	145	0	0	188	**86**	0	**88**	0	**174**	566
05:30 PM	0	135	**84**	0	**219**	0	0	0	0	0	35	157	0	0	192	77	**4**	84	0	165	576
Total Volume	0	522	294	0	816	0	0	0	0	0	151	635	0	0	786	314	8	331	0	653	2255
% App. Total	0	64	36	0		0	0	0	0		19.2	80.8	0	0		48.1	1.2	50.7	0		
PHF	.000	.913	.875	.000	.932	.000	.000	.000	.000	.000	.878	.934	.000	.000	.968	.913	.500	.940	.000	.938	.974



TRAFFIC DATA COLLECTION

File Name : Zebulon(264 WB and NC 96)
Site Code :
Start Date : 5/9/2022
Page No : 1

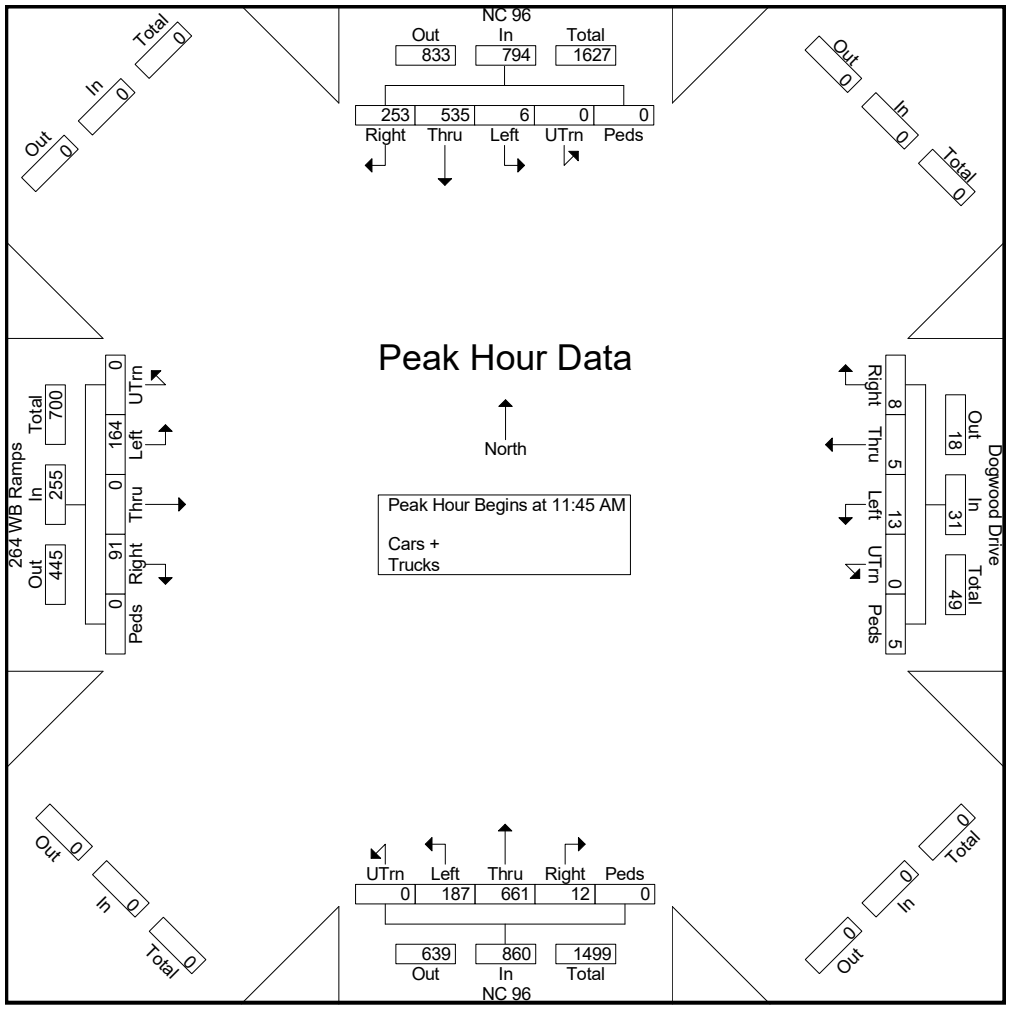
Groups Printed- Cars + - Trucks

	NC 96 Southbound						Dogwood Drive Westbound						NC 96 Northbound						264 WB Ramps Eastbound						
Start Time	Right	Thru	Left	UTrn	Peds	App. Total	Right	Thru	Left	UTrn	Peds	App. Total	Right	Thru	Left	UTrn	Peds	App. Total	Right	Thru	Left	UTrn	Peds	App. Total	Int. Total
11:00 AM	64	127	0	0	0	191	4	0	9	0	0	13	5	122	29	0	0	156	21	0	46	0	0	67	427
11:15 AM	45	135	1	0	0	181	5	0	5	0	1	11	1	109	28	0	0	138	19	0	42	1	0	62	392
11:30 AM	62	141	3	0	0	206	2	3	3	0	0	8	3	137	30	0	0	170	14	0	35	0	0	49	433
11:45 AM	61	133	2	0	0	196	0	1	2	0	2	5	1	158	50	0	0	209	21	0	32	0	0	53	463
Total	232	536	6	0	0	774	11	4	19	0	3	37	10	526	137	0	0	673	75	0	155	1	0	231	1715
12:00 PM	53	130	3	0	0	186	2	2	4	0	0	8	4	170	40	0	0	214	22	0	54	0	0	76	484
12:15 PM	69	143	1	0	0	213	4	0	4	0	3	11	5	168	53	0	0	226	23	0	46	0	0	69	519
12:30 PM	70	129	0	0	0	199	2	2	3	0	0	7	2	165	44	0	0	211	25	0	32	0	0	57	474
12:45 PM	60	148	5	0	0	213	2	2	2	0	0	6	6	144	34	0	0	184	15	1	39	0	0	55	458
Total	252	550	9	0	0	811	10	6	13	0	3	32	17	647	171	0	0	835	85	1	171	0	0	257	1935
Grand Total	484	1086	15	0	0	1585	21	10	32	0	6	69	27	1173	308	0	0	1508	160	1	326	1	0	488	3650
Apprch %	30.5	68.5	0.9	0	0		30.4	14.5	46.4	0	8.7		1.8	77.8	20.4	0	0		32.8	0.2	66.8	0.2	0		
Total %	13.3	29.8	0.4	0	0	43.4	0.6	0.3	0.9	0	0.2	1.9	0.7	32.1	8.4	0	0	41.3	4.4	0	8.9	0	0	13.4	
Cars +	460	1047	15	0	0	1522	21	10	31	0	6	68	27	1145	297	0	0	1469	152	1	299	1	0	453	3512
% Cars +	95	96.4	100	0	0	96	100	100	96.9	0	100	98.6	100	97.6	96.4	0	0	97.4	95	100	91.7	100	0	92.8	96.2
Trucks	24	39	0	0	0	63	0	0	1	0	0	1	0	28	11	0	0	39	8	0	27	0	0	35	138
% Trucks	5	3.6	0	0	0	4	0	0	3.1	0	0	1.4	0	2.4	3.6	0	0	2.6	5	0	8.3	0	0	7.2	3.8

TRAFFIC DATA COLLECTION

File Name : Zebulon(264 WB and NC 96)
Site Code :
Start Date : 5/9/2022
Page No : 2

	NC 96 Southbound						Dogwood Drive Westbound						NC 96 Northbound						264 WB Ramps Eastbound						
Start Time	Right	Thru	Left	UTrn	Peds	App. Total	Right	Thru	Left	UTrn	Peds	App. Total	Right	Thru	Left	UTrn	Peds	App. Total	Right	Thru	Left	UTrn	Peds	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 12:45 PM - Peak 1 of 1																									
Peak Hour for Entire Intersection Begins at 11:45 AM																									
11:45 AM	61	133	2	0	0	196	0	1	2	0	2	5	1	158	50	0	0	209	21	0	32	0	0	53	463
12:00 PM	53	130	**3**	0	0	186	2	**2**	**4**	0	0	8	4	**170**	40	0	0	214	22	0	**54**	0	0	**76**	484
12:15 PM	69	**143**	1	0	0	**213**	**4**	0	4	0	**3**	**11**	**5**	168	**53**	0	0	**226**	23	0	46	0	0	69	**519**
12:30 PM	**70**	129	0	0	0	199	2	2	3	0	0	7	2	165	44	0	0	211	**25**	0	32	0	0	57	474
Total Volume	253	535	6	0	0	794	8	5	13	0	5	31	12	661	187	0	0	860	91	0	164	0	0	255	1940
% App. Total	31.9	67.4	0.8	0	0		25.8	16.1	41.9	0	16.1		1.4	76.9	21.7	0	0		35.7	0	64.3	0	0		
PHF	.904	.935	.500	.000	.000	.932	.500	.625	.813	.000	.417	.705	.600	.972	.882	.000	.000	.951	.910	.000	.759	.000	.000	.839	.934



File Name : Zebulon(264 WB and NC 96)
Site Code :
Start Date : 5/9/2022
Page No : 1

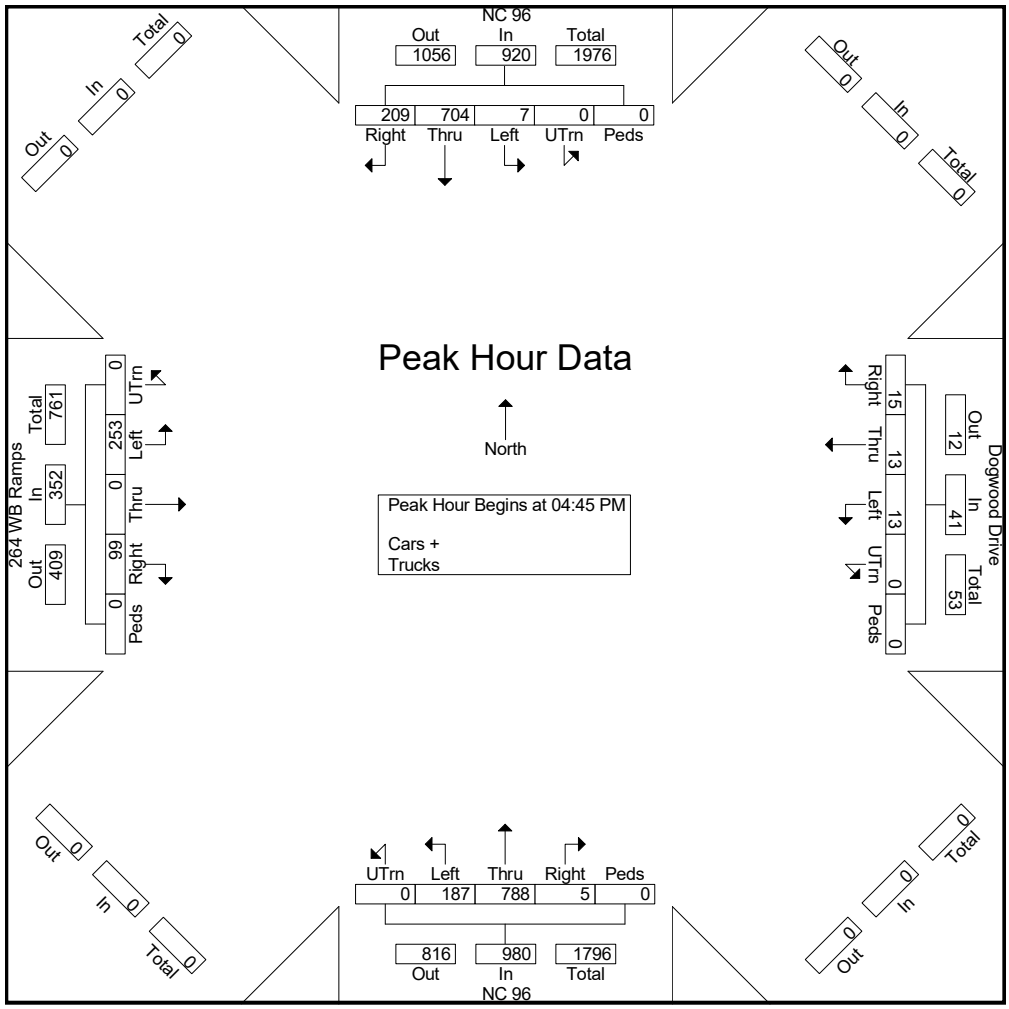
Groups Printed- Cars + - Trucks

	NC 96 Southbound						Dogwood Drive Westbound						NC 96 Northbound						264 WB Ramps Eastbound						
Start Time	Right	Thru	Left	UTrn	Peds	App. Total	Right	Thru	Left	UTrn	Peds	App. Total	Right	Thru	Left	UTrn	Peds	App. Total	Right	Thru	Left	UTrn	Peds	App. Total	Int. Total
04:00 PM	64	159	0	0	0	223	5	2	3	0	0	10	7	199	47	0	0	253	18	1	49	0	0	68	554
04:15 PM	43	165	0	0	0	208	2	2	1	0	0	5	2	196	40	0	0	238	16	0	73	0	0	89	540
04:30 PM	56	167	3	0	0	226	7	1	5	0	0	13	6	181	42	0	0	229	25	1	74	0	0	100	568
04:45 PM	55	173	4	0	0	232	5	3	2	0	0	10	1	209	44	0	0	254	8	0	56	0	0	64	560
Total	218	664	7	0	0	889	19	8	11	0	0	38	16	785	173	0	0	974	67	2	252	0	0	321	2222
05:00 PM	50	168	1	0	0	219	6	3	4	0	0	13	1	204	55	0	0	260	30	0	78	0	0	108	600
05:15 PM	40	174	0	0	0	214	2	6	5	0	0	13	0	187	42	0	0	229	30	0	54	0	0	84	540
05:30 PM	64	189	2	0	0	255	2	1	2	0	0	5	3	188	46	0	0	237	31	0	65	0	0	96	593
05:45 PM	56	147	4	0	0	207	6	2	5	0	0	13	2	176	42	0	0	220	28	0	72	0	0	100	540
Total	210	678	7	0	0	895	16	12	16	0	0	44	6	755	185	0	0	946	119	0	269	0	0	388	2273
Grand Total	428	1342	14	0	0	1784	35	20	27	0	0	82	22	1540	358	0	0	1920	186	2	521	0	0	709	4495
Apprch %	24	75.2	0.8	0	0		42.7	24.4	32.9	0	0		1.1	80.2	18.6	0	0		26.2	0.3	73.5	0	0		
Total %	9.5	29.9	0.3	0	0	39.7	0.8	0.4	0.6	0	0	1.8	0.5	34.3	8	0	0	42.7	4.1	0	11.6	0	0	15.8	
Cars +	417	1312	14	0	0	1743	35	20	27	0	0	82	22	1519	353	0	0	1894	183	2	502	0	0	687	4406
% Cars +	97.4	97.8	100	0	0	97.7	100	100	100	0	0	100	100	98.6	98.6	0	0	98.6	98.4	100	96.4	0	0	96.9	98
Trucks	11	30	0	0	0	41	0	0	0	0	0	0	0	21	5	0	0	26	3	0	19	0	0	22	89
% Trucks	2.6	2.2	0	0	0	2.3	0	0	0	0	0	0	0	1.4	1.4	0	0	1.4	1.6	0	3.6	0	0	3.1	2

TRAFFIC DATA COLLECTION

File Name : Zebulon(264 WB and NC 96)
Site Code :
Start Date : 5/9/2022
Page No : 2

	NC 96 Southbound						Dogwood Drive Westbound						NC 96 Northbound						264 WB Ramps Eastbound						
Start Time	Right	Thru	Left	UTrn	Peds	App. Total	Right	Thru	Left	UTrn	Peds	App. Total	Right	Thru	Left	UTrn	Peds	App. Total	Right	Thru	Left	UTrn	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																									
Peak Hour for Entire Intersection Begins at 04:45 PM																									
04:45 PM	55	173	**4**	0	0	232	5	3	2	0	0	10	1	**209**	44	0	0	254	8	0	56	0	0	64	560
05:00 PM	50	168	1	0	0	219	**6**	3	4	0	0	**13**	1	204	**55**	0	0	**260**	30	0	**78**	0	0	**108**	**600**
05:15 PM	40	174	0	0	0	214	2	**6**	**5**	0	0	13	0	187	42	0	0	229	30	0	54	0	0	84	540
05:30 PM	**64**	**189**	2	0	0	**255**	2	1	2	0	0	5	**3**	188	46	0	0	237	**31**	0	65	0	0	96	593
Total Volume	209	704	7	0	0	920	15	13	13	0	0	41	5	788	187	0	0	980	99	0	253	0	0	352	2293
% App. Total	22.7	76.5	0.8	0	0		36.6	31.7	31.7	0	0		0.5	80.4	19.1	0	0		28.1	0	71.9	0	0		
PHF	.816	.931	.438	.000	.000	.902	.625	.542	.650	.000	.000	.788	.417	.943	.850	.000	.000	.942	.798	.000	.811	.000	.000	.815	.955



TRAFFIC DATA COLLECTION

File Name : Zebulon(Green Pace Rd and NC-96)
Site Code :
Start Date : 5/9/2022
Page No : 1

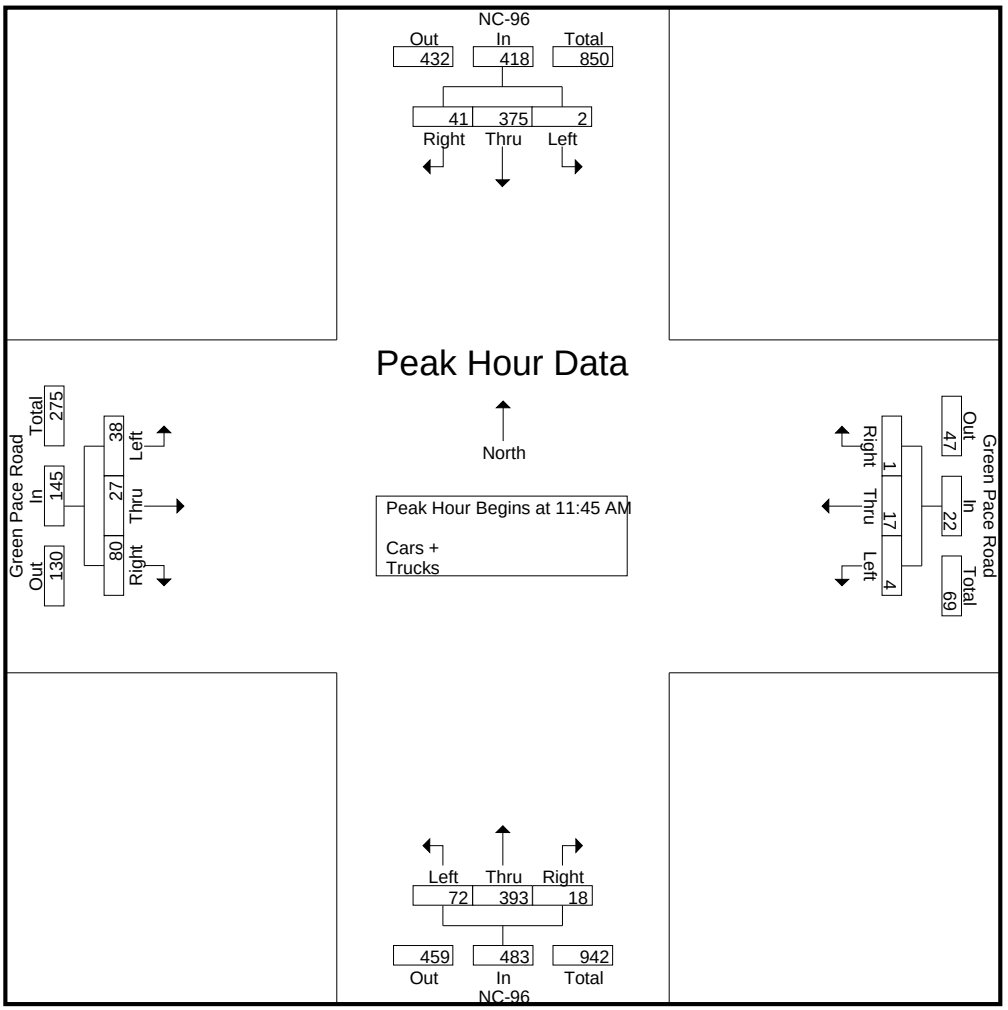
Groups Printed- Cars + - Trucks

	NC-96 Southbound				Green Pace Road Westbound				NC-96 Northbound				Green Pace Road Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
11:00 AM	6	93	0	99	1	2	0	3	2	81	10	93	16	4	9	29	224
11:15 AM	7	87	0	94	0	3	1	4	2	63	12	77	14	5	4	23	198
11:30 AM	9	84	0	93	0	1	0	1	2	77	26	105	18	3	7	28	227
11:45 AM	10	89	2	101	0	4	1	5	4	96	9	109	19	9	10	38	253
Total	32	353	2	387	1	10	2	13	10	317	57	384	67	21	30	118	902
12:00 PM	6	93	0	99	0	6	1	7	2	106	19	127	19	7	9	35	268
12:15 PM	6	100	0	106	0	4	1	5	6	105	20	131	22	4	12	38	280
12:30 PM	19	93	0	112	1	3	1	5	6	86	24	116	20	7	7	34	267
12:45 PM	8	97	0	105	1	1	1	3	2	87	18	107	18	10	8	36	251
Total	39	383	0	422	2	14	4	20	16	384	81	481	79	28	36	143	1066
Grand Total	71	736	2	809	3	24	6	33	26	701	138	865	146	49	66	261	1968
Apprch %	8.8	91	0.2		9.1	72.7	18.2		3	81	16		55.9	18.8	25.3		
Total %	3.6	37.4	0.1	41.1	0.2	1.2	0.3	1.7	1.3	35.6	7	44	7.4	2.5	3.4	13.3	
Cars +	69	688	2	759	3	22	6	31	26	666	134	826	142	46	65	253	1869
% Cars +	97.2	93.5	100	93.8	100	91.7	100	93.9	100	95	97.1	95.5	97.3	93.9	98.5	96.9	95
Trucks	2	48	0	50	0	2	0	2	0	35	4	39	4	3	1	8	99
% Trucks	2.8	6.5	0	6.2	0	8.3	0	6.1	0	5	2.9	4.5	2.7	6.1	1.5	3.1	5

TRAFFIC DATA COLLECTION

File Name : Zebulon(Green Pace Rd and NC-96)
Site Code :
Start Date : 5/9/2022

	NC-96 Southbound				Green Pace Road Westbound				NC-96 Northbound				Green Pace Road Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 12:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 11:45 AM																	
11:45 AM	10	89	**2**	101	0	4	**1**	5	4	96	9	109	19	**9**	10	**38**	253
12:00 PM	6	93	0	99	0	**6**	1	**7**	2	**106**	19	127	19	7	9	35	268
12:15 PM	6	**100**	0	106	0	4	1	5	**6**	105	20	**131**	**22**	4	**12**	38	**280**
12:30 PM	**19**	93	0	**112**	**1**	3	1	5	6	86	**24**	116	20	7	7	34	267
Total Volume	41	375	2	418	1	17	4	22	18	393	72	483	80	27	38	145	1068
% App. Total	9.8	89.7	0.5		4.5	77.3	18.2		3.7	81.4	14.9		55.2	18.6	26.2		
PHF	.539	.938	.250	.933	.250	.708	1.00	.786	.750	.927	.750	.922	.909	.750	.792	.954	.954



TRAFFIC DATA COLLECTION

File Name : Zebulon(Green Pace Rd and NC-96)
Site Code :
Start Date : 5/9/2022
Page No : 1

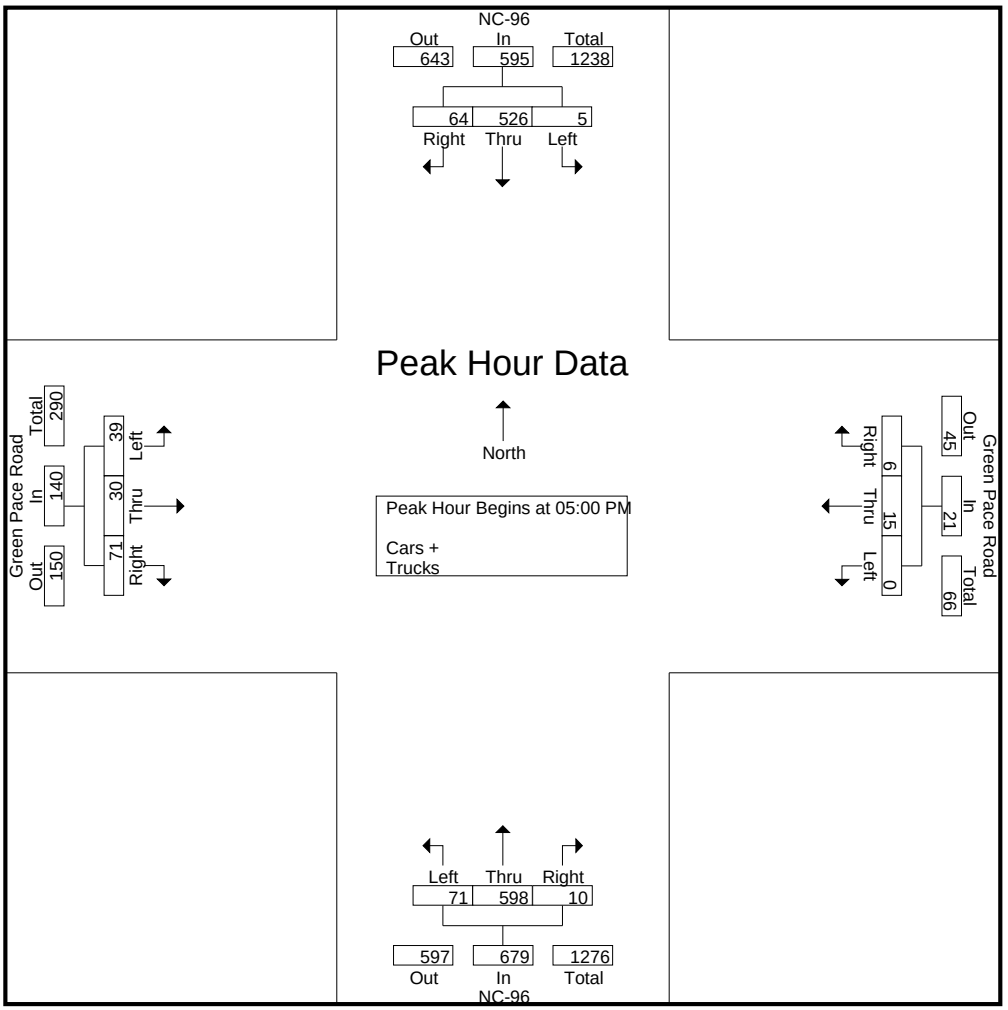
Groups Printed- Cars + - Trucks

	NC-96 Southbound				Green Pace Road Westbound				NC-96 Northbound				Green Pace Road Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
04:00 PM	7	137	0	144	0	3	0	3	2	126	11	139	13	5	9	27	313
04:15 PM	15	128	2	145	2	4	3	9	5	135	22	162	17	6	5	28	344
04:30 PM	17	128	0	145	1	5	1	7	4	159	19	182	15	10	3	28	362
04:45 PM	10	138	2	150	0	3	0	3	5	136	12	153	11	10	6	27	333
Total	49	531	4	584	3	15	4	22	16	556	64	636	56	31	23	110	1352
05:00 PM	15	128	2	145	1	3	0	4	6	152	21	179	13	7	9	29	357
05:15 PM	17	138	0	155	3	5	0	8	2	157	16	175	13	6	9	28	366
05:30 PM	12	126	1	139	1	1	0	2	0	133	26	159	21	9	10	40	340
05:45 PM	20	134	2	156	1	6	0	7	2	156	8	166	24	8	11	43	372
Total	64	526	5	595	6	15	0	21	10	598	71	679	71	30	39	140	1435
Grand Total	113	1057	9	1179	9	30	4	43	26	1154	135	1315	127	61	62	250	2787
Apprch %	9.6	89.7	0.8		20.9	69.8	9.3		2	87.8	10.3		50.8	24.4	24.8		
Total %	4.1	37.9	0.3	42.3	0.3	1.1	0.1	1.5	0.9	41.4	4.8	47.2	4.6	2.2	2.2	9	
Cars +	112	1025	9	1146	9	30	4	43	26	1125	133	1284	125	61	62	248	2721
% Cars +	99.1	97	100	97.2	100	100	100	100	100	97.5	98.5	97.6	98.4	100	100	99.2	97.6
Trucks	1	32	0	33	0	0	0	0	0	29	2	31	2	0	0	2	66
% Trucks	0.9	3	0	2.8	0	0	0	0	0	2.5	1.5	2.4	1.6	0	0	0.8	2.4

TRAFFIC DATA COLLECTION

File Name : Zebulon(Green Pace Rd and NC-96)
Site Code :
Start Date : 5/9/2022
Page No : 2

	NC-96 Southbound				Green Pace Road Westbound				NC-96 Northbound				Green Pace Road Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	15	128	**2**	145	1	3	0	4	**6**	152	21	**179**	13	7	9	29	357
05:15 PM	17	**138**	0	155	**3**	5	0	**8**	2	**157**	16	175	13	6	9	28	366
05:30 PM	12	126	1	139	1	1	0	2	0	133	**26**	159	21	**9**	10	40	340
05:45 PM	**20**	134	2	**156**	1	**6**	0	7	2	156	8	166	**24**	8	**11**	**43**	**372**
Total Volume	64	526	5	595	6	15	0	21	10	598	71	679	71	30	39	140	1435
% App. Total	10.8	88.4	0.8		28.6	71.4	0		1.5	88.1	10.5		50.7	21.4	27.9		
PHF	.800	.953	.625	.954	.500	.625	.000	.656	.417	.952	.683	.948	.740	.833	.886	.814	.964



File Name : Zebulon(NC-96 and Pearces Road)
Site Code :
Start Date : 5/9/2023
Page No : 1

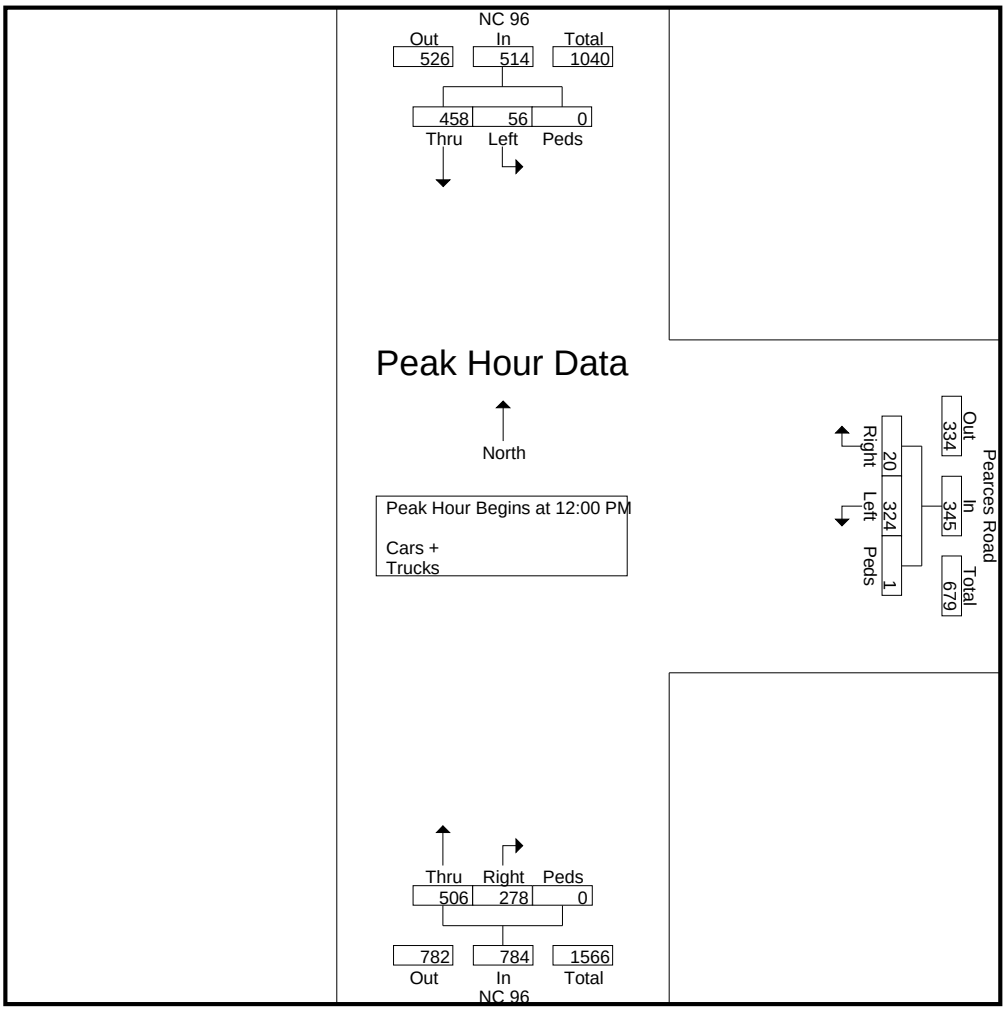
Groups Printed- Cars + - Trucks

	NC 96 Southbound				Pearces Road Westbound				NC 96 Northbound				
Start Time	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	Int. Total
11:00 AM	103	16	0	119	9	66	0	75	51	100	0	151	345
11:15 AM	113	8	0	121	5	53	0	58	47	94	0	141	320
11:30 AM	104	9	0	113	9	75	1	85	48	106	0	154	352
11:45 AM	107	9	0	116	7	73	0	80	62	110	0	172	368
Total	427	42	0	469	30	267	1	298	208	410	0	618	1385
12:00 PM	105	13	0	118	5	73	1	79	70	146	0	216	413
12:15 PM	125	12	0	137	6	82	0	88	67	139	0	206	431
12:30 PM	122	15	0	137	6	89	0	95	67	116	0	183	415
12:45 PM	106	16	0	122	3	80	0	83	74	105	0	179	384
Total	458	56	0	514	20	324	1	345	278	506	0	784	1643
Grand Total	885	98	0	983	50	591	2	643	486	916	0	1402	3028
Apprch %	90	10	0		7.8	91.9	0.3		34.7	65.3	0		
Total %	29.2	3.2	0	32.5	1.7	19.5	0.1	21.2	16.1	30.3	0	46.3	
Cars +	839	96	0	935	48	574	2	624	471	875	0	1346	2905
% Cars +	94.8	98	0	95.1	96	97.1	100	97	96.9	95.5	0	96	95.9
Trucks	46	2	0	48	2	17	0	19	15	41	0	56	123
% Trucks	5.2	2	0	4.9	4	2.9	0	3	3.1	4.5	0	4	4.1

TRAFFIC DATA COLLECTION

File Name : Zebulon(NC-96 and Pearces Road)
Site Code :
Start Date : 5/9/2023

	NC 96 Southbound				Pearces Road Westbound				NC 96 Northbound				
Start Time	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 12:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 12:00 PM													
12:00 PM	105	13	0	118	5	73	**1**	79	70	**146**	0	**216**	413
12:15 PM	**125**	12	0	**137**	**6**	82	0	88	67	139	0	206	**431**
12:30 PM	122	15	0	137	6	**89**	0	**95**	67	116	0	183	415
12:45 PM	106	**16**	0	122	3	80	0	83	**74**	105	0	179	384
Total Volume	458	56	0	514	20	324	1	345	278	506	0	784	1643
% App. Total	89.1	10.9	0		5.8	93.9	0.3		35.5	64.5	0		
PHF	.916	.875	.000	.938	.833	.910	.250	.908	.939	.866	.000	.907	.953



File Name : Zebulon(NC-96 and Pearces Road)
Site Code :
Start Date : 5/9/2023
Page No : 1

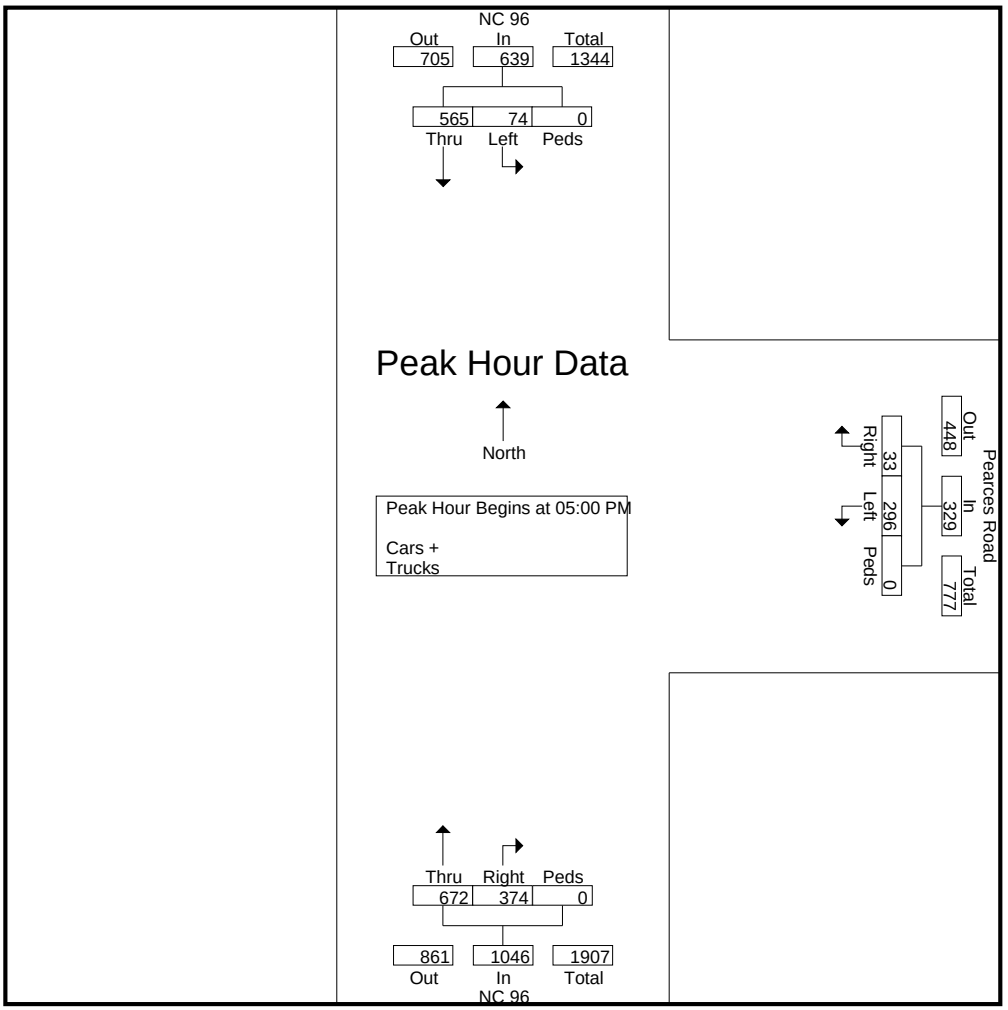
Groups Printed- Cars + - Trucks

	NC 96 Southbound				Pearces Road Westbound				NC 96 Northbound				
Start Time	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	Int. Total
04:00 PM	146	23	0	169	4	70	0	74	97	139	0	236	479
04:15 PM	141	13	0	154	10	70	0	80	101	152	0	253	487
04:30 PM	139	15	0	154	11	73	0	84	83	168	0	251	489
04:45 PM	146	16	0	162	10	69	0	79	96	142	0	238	479
Total	572	67	0	639	35	282	0	317	377	601	0	978	1934
05:00 PM	134	12	0	146	7	66	0	73	95	184	0	279	498
05:15 PM	139	16	0	155	5	67	0	72	104	166	0	270	497
05:30 PM	149	19	0	168	14	84	0	98	89	153	0	242	508
05:45 PM	143	27	0	170	7	79	0	86	86	169	0	255	511
Total	565	74	0	639	33	296	0	329	374	672	0	1046	2014
Grand Total	1137	141	0	1278	68	578	0	646	751	1273	0	2024	3948
Apprch %	89	11	0		10.5	89.5	0		37.1	62.9	0		
Total %	28.8	3.6	0	32.4	1.7	14.6	0	16.4	19	32.2	0	51.3	
Cars +	1105	141	0	1246	66	567	0	633	739	1244	0	1983	3862
% Cars +	97.2	100	0	97.5	97.1	98.1	0	98	98.4	97.7	0	98	97.8
Trucks	32	0	0	32	2	11	0	13	12	29	0	41	86
% Trucks	2.8	0	0	2.5	2.9	1.9	0	2	1.6	2.3	0	2	2.2

TRAFFIC DATA COLLECTION

File Name : Zebulon(NC-96 and Pearces Road)
Site Code :
Start Date : 5/9/2023

	NC 96 Southbound				Pearces Road Westbound				NC 96 Northbound				
Start Time	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 05:00 PM													
05:00 PM	134	12	0	146	7	66	0	73	95	**184**	0	**279**	498
05:15 PM	139	16	0	155	5	67	0	72	**104**	166	0	270	497
05:30 PM	**149**	19	0	168	**14**	**84**	0	**98**	89	153	0	242	508
05:45 PM	143	**27**	0	**170**	7	79	0	86	86	169	0	255	**511**
Total Volume	565	74	0	639	33	296	0	329	374	672	0	1046	2014
% App. Total	88.4	11.6	0		10	90	0		35.8	64.2	0		
PHF	.948	.685	.000	.940	.589	.881	.000	.839	.899	.913	.000	.937	.985



File Name : Zebulon(Proctor St and Pearces)
Site Code :
Start Date : 5/9/2022
Page No : 1

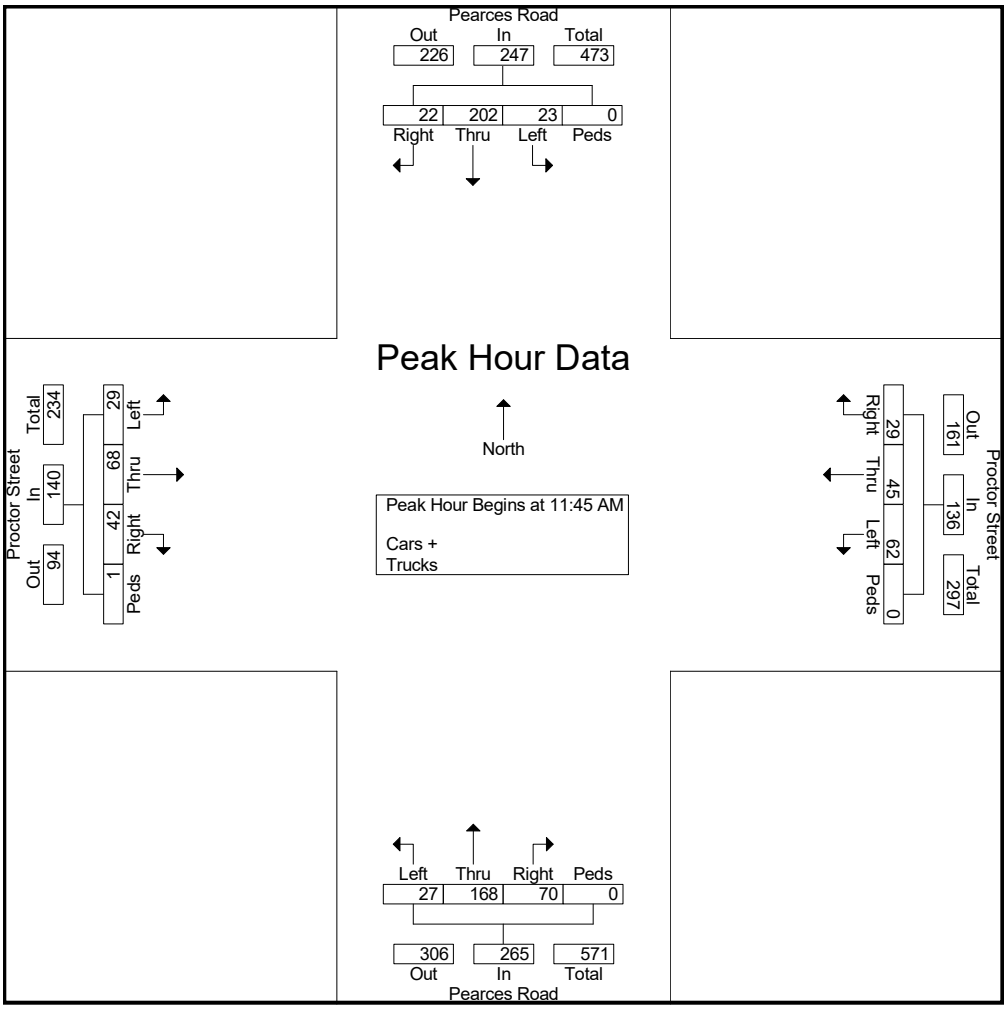
Groups Printed- Cars + - Trucks

	Pearces Road Southbound					Proctor Street Westbound					Pearces Road Northbound					Proctor Street Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
11:00 AM	3	44	4	0	51	3	11	18	0	32	9	35	2	0	46	6	5	4	0	15	144
11:15 AM	8	24	4	0	36	3	9	19	0	31	10	33	4	0	47	5	14	2	0	21	135
11:30 AM	4	50	7	2	63	3	15	22	0	40	15	28	2	0	45	3	10	3	0	16	164
11:45 AM	9	50	3	0	62	15	10	13	0	38	15	39	14	0	68	4	19	8	1	32	200
Total	24	168	18	2	212	24	45	72	0	141	49	135	22	0	206	18	48	17	1	84	643
12:00 PM	4	45	6	0	55	3	10	15	0	28	15	49	6	0	70	20	14	13	0	47	200
12:15 PM	3	46	7	0	56	6	9	23	0	38	20	42	3	0	65	10	14	3	0	27	186
12:30 PM	6	61	7	0	74	5	16	11	0	32	20	38	4	0	62	8	21	5	0	34	202
12:45 PM	4	44	8	0	56	3	11	17	0	31	19	44	2	0	65	7	22	10	0	39	191
Total	17	196	28	0	241	17	46	66	0	129	74	173	15	0	262	45	71	31	0	147	779
Grand Total	41	364	46	2	453	41	91	138	0	270	123	308	37	0	468	63	119	48	1	231	1422
Apprch %	9.1	80.4	10.2	0.4		15.2	33.7	51.1	0		26.3	65.8	7.9	0		27.3	51.5	20.8	0.4		
Total %	2.9	25.6	3.2	0.1	31.9	2.9	6.4	9.7	0	19	8.6	21.7	2.6	0	32.9	4.4	8.4	3.4	0.1	16.2	
Cars +	39	353	45	2	439	40	90	135	0	265	121	297	37	0	455	63	115	46	1	225	1384
% Cars +	95.1	97	97.8	100	96.9	97.6	98.9	97.8	0	98.1	98.4	96.4	100	0	97.2	100	96.6	95.8	100	97.4	97.3
Trucks	2	11	1	0	14	1	1	3	0	5	2	11	0	0	13	0	4	2	0	6	38
% Trucks	4.9	3	2.2	0	3.1	2.4	1.1	2.2	0	1.9	1.6	3.6	0	0	2.8	0	3.4	4.2	0	2.6	2.7

TRAFFIC DATA COLLECTION

File Name : Zebulon(Proctor St and Pearces)
Site Code :
Start Date : 5/9/2022
Page No : 2

	Pearces Road Southbound					Proctor Street Westbound					Pearces Road Northbound					Proctor Street Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 12:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 11:45 AM																					
11:45 AM	**9**	50	3	0	62	**15**	10	13	0	**38**	15	39	**14**	0	68	4	19	8	**1**	32	200
12:00 PM	4	45	6	0	55	3	10	15	0	28	15	**49**	6	0	**70**	**20**	14	**13**	0	**47**	200
12:15 PM	3	46	**7**	0	56	6	9	**23**	0	38	**20**	42	3	0	65	10	14	3	0	27	186
12:30 PM	6	**61**	7	0	**74**	5	**16**	11	0	32	20	38	4	0	62	8	**21**	5	0	34	**202**
Total Volume	22	202	23	0	247	29	45	62	0	136	70	168	27	0	265	42	68	29	1	140	788
% App. Total	8.9	81.8	9.3	0		21.3	33.1	45.6	0		26.4	63.4	10.2	0		30	48.6	20.7	0.7		
PHF	.611	.828	.821	.000	.834	.483	.703	.674	.000	.895	.875	.857	.482	.000	.946	.525	.810	.558	.250	.745	.975



File Name : Zebulon(Proctor St and Pearces)
Site Code :
Start Date : 5/9/2022
Page No : 1

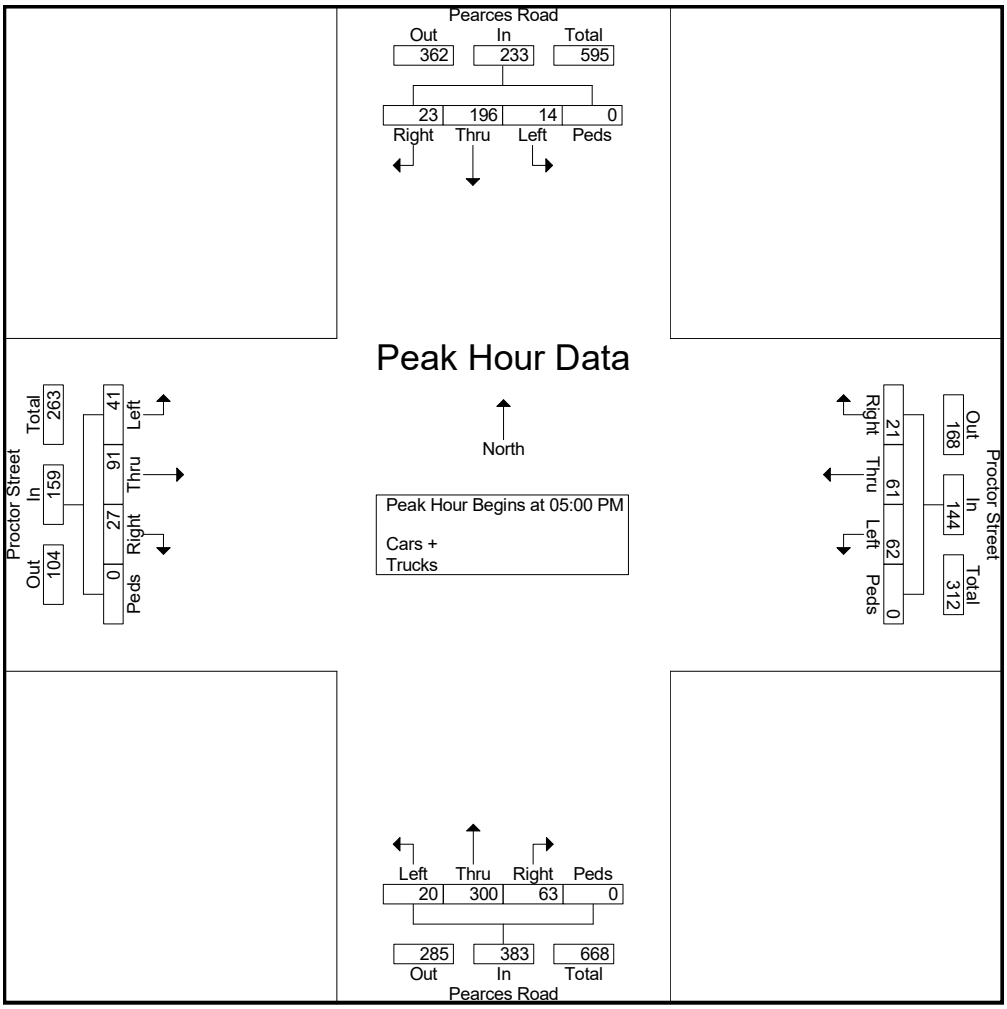
Groups Printed- Cars + - Trucks

	Pearces Road Southbound					Proctor Street Westbound					Pearces Road Northbound					Proctor Street Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
04:00 PM	4	39	3	0	46	7	26	11	0	44	16	71	8	0	95	4	11	10	0	25	210
04:15 PM	6	48	6	0	60	5	17	16	0	38	18	70	7	0	95	5	20	8	0	33	226
04:30 PM	3	52	3	1	59	3	21	21	0	45	19	62	4	0	85	7	25	9	1	42	231
04:45 PM	1	40	2	0	43	5	6	18	0	29	14	86	6	0	106	2	25	7	0	34	212
Total	14	179	14	1	208	20	70	66	0	156	67	289	25	0	381	18	81	34	1	134	879
05:00 PM	5	39	6	0	50	2	17	14	0	33	16	65	7	0	88	4	22	10	0	36	207
05:15 PM	5	46	1	0	52	5	12	11	0	28	21	87	1	0	109	7	16	8	0	31	220
05:30 PM	10	60	5	0	75	7	14	23	0	44	15	73	7	0	95	6	26	15	0	47	261
05:45 PM	3	51	2	0	56	7	18	14	0	39	11	75	5	0	91	10	27	8	0	45	231
Total	23	196	14	0	233	21	61	62	0	144	63	300	20	0	383	27	91	41	0	159	919
Grand Total	37	375	28	1	441	41	131	128	0	300	130	589	45	0	764	45	172	75	1	293	1798
Apprch %	8.4	85	6.3	0.2		13.7	43.7	42.7	0		17	77.1	5.9	0		15.4	58.7	25.6	0.3		
Total %	2.1	20.9	1.6	0.1	24.5	2.3	7.3	7.1	0	16.7	7.2	32.8	2.5	0	42.5	2.5	9.6	4.2	0.1	16.3	
Cars +	37	371	28	1	437	41	131	125	0	297	126	584	45	0	755	45	171	75	1	292	1781
% Cars +	100	98.9	100	100	99.1	100	100	97.7	0	99	96.9	99.2	100	0	98.8	100	99.4	100	100	99.7	99.1
Trucks	0	4	0	0	4	0	0	3	0	3	4	5	0	0	9	0	1	0	0	1	17
% Trucks	0	1.1	0	0	0.9	0	0	2.3	0	1	3.1	0.8	0	0	1.2	0	0.6	0	0	0.3	0.9

TRAFFIC DATA COLLECTION

File Name : Zebulon(Proctor St and Pearces)
Site Code :
Start Date : 5/9/2022
Page No : 2

	Pearces Road Southbound					Proctor Street Westbound					Pearces Road Northbound					Proctor Street Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 05:00 PM																					
05:00 PM	5	39	**6**	0	50	2	17	14	0	33	16	65	**7**	0	88	4	22	10	0	36	207
05:15 PM	5	46	1	0	52	5	12	11	0	28	**21**	**87**	1	0	**109**	7	16	8	0	31	220
05:30 PM	**10**	**60**	5	0	**75**	**7**	14	**23**	0	**44**	15	73	7	0	95	6	26	**15**	0	**47**	**261**
05:45 PM	3	51	2	0	56	7	**18**	14	0	39	11	75	5	0	91	**10**	**27**	8	0	45	231
Total Volume	23	196	14	0	233	21	61	62	0	144	63	300	20	0	383	27	91	41	0	159	919
% App. Total	9.9	84.1	6	0		14.6	42.4	43.1	0		16.4	78.3	5.2	0		17	57.2	25.8	0		
PHF	.575	.817	.583	.000	.777	.750	.847	.674	.000	.818	.750	.862	.714	.000	.878	.675	.843	.683	.000	.846	.880



File Name : Albermarle(Cook Out Driveway)Day 1
Site Code :
Start Date : 5/16/2023
Page No : 1

Groups Printed- Cars + - Trucks

	Cook Out Driveway Out Southbound		Cook Out Driveway In Northbound		
Start Time	Thru	App. Total	Thru	App. Total	Int. Total
12:00 AM	9	9	5	5	14
12:15 AM	8	8	4	4	12
12:30 AM	3	3	1	1	4
12:45 AM	4	4	3	3	7
Total	24	24	13	13	37
01:00 AM	2	2	4	4	6
01:15 AM	4	4	2	2	6
01:30 AM	3	3	5	5	8
01:45 AM	3	3	0	0	3
Total	12	12	11	11	23
02:00 AM	1	1	0	0	1
02:15 AM	0	0	0	0	0
02:30 AM	1	1	1	1	2
02:45 AM	0	0	0	0	0
Total	2	2	1	1	3
03:00 AM	0	0	0	0	0
03:15 AM	0	0	0	0	0
03:30 AM	0	0	0	0	0
03:45 AM	2	2	0	0	2
Total	2	2	0	0	2
04:00 AM	0	0	0	0	0
04:15 AM	0	0	0	0	0
04:30 AM	0	0	0	0	0
04:45 AM	0	0	0	0	0
Total	0	0	0	0	0
05:00 AM	0	0	0	0	0
05:15 AM	0	0	0	0	0
05:30 AM	0	0	0	0	0
05:45 AM	0	0	0	0	0
Total	0	0	0	0	0
06:00 AM	0	0	0	0	0
06:15 AM	0	0	0	0	0
06:30 AM	1	1	1	1	2
06:45 AM	1	1	1	1	2
Total	2	2	2	2	4
07:00 AM	0	0	1	1	1
07:15 AM	1	1	1	1	2
07:30 AM	0	0	2	2	2
07:45 AM	1	1	0	0	1
Total	2	2	4	4	6

TRAFFIC DATA COLLECTION

File Name : Albermarle(Cook Out Driveway)Day 1
Site Code :
Start Date : 5/16/2023

Groups Printed- Cars + - Trucks

	Cook Out Driveway Out Southbound		Cook Out Driveway In Northbound		
Start Time	Thru	App. Total	Thru	App. Total	Int. Total
08:00 AM	1	1	1	1	2
08:15 AM	0	0	0	0	0
08:30 AM	0	0	0	0	0
08:45 AM	1	1	0	0	1
Total	2	2	1	1	3
09:00 AM	2	2	3	3	5
09:15 AM	0	0	0	0	0
09:30 AM	0	0	0	0	0
09:45 AM	1	1	2	2	3
Total	3	3	5	5	8
10:00 AM	0	0	0	0	0
10:15 AM	0	0	1	1	1
10:30 AM	3	3	6	6	9
10:45 AM	6	6	9	9	15
Total	9	9	16	16	25
11:00 AM	11	11	7	7	18
11:15 AM	12	12	16	16	28
11:30 AM	12	12	10	10	22
11:45 AM	14	14	17	17	31
Total	49	49	50	50	99
12:00 PM	25	25	32	32	57
12:15 PM	23	23	24	24	47
12:30 PM	23	23	17	17	40
12:45 PM	20	20	24	24	44
Total	91	91	97	97	188
01:00 PM	19	19	16	16	35
01:15 PM	20	20	18	18	38
01:30 PM	13	13	15	15	28
01:45 PM	11	11	10	10	21
Total	63	63	59	59	122
02:00 PM	22	22	17	17	39
02:15 PM	9	9	7	7	16
02:30 PM	11	11	13	13	24
02:45 PM	12	12	18	18	30
Total	54	54	55	55	109
03:00 PM	15	15	10	10	25
03:15 PM	17	17	18	18	35
03:30 PM	15	15	14	14	29
03:45 PM	18	18	17	17	35
Total	65	65	59	59	124
04:00 PM	9	9	12	12	21

File Name : Albermarle(Cook Out Driveway)Day 1
Site Code :
Start Date : 5/16/2023

Groups Printed- Cars + - Trucks

	Cook Out Driveway Out Southbound		Cook Out Driveway In Northbound		
Start Time	Thru	App. Total	Thru	App. Total	Int. Total
04:15 PM	16	16	16	16	32
04:30 PM	13	13	19	19	32
04:45 PM	12	12	17	17	29
Total	50	50	64	64	114
05:00 PM	21	21	22	22	43
05:15 PM	20	20	23	23	43
05:30 PM	11	11	12	12	23
05:45 PM	15	15	19	19	34
Total	67	67	76	76	143
06:00 PM	23	23	22	22	45
06:15 PM	13	13	7	7	20
06:30 PM	16	16	21	21	37
06:45 PM	15	15	10	10	25
Total	67	67	60	60	127
07:00 PM	23	23	22	22	45
07:15 PM	21	21	19	19	40
07:30 PM	24	24	28	28	52
07:45 PM	17	17	20	20	37
Total	85	85	89	89	174
08:00 PM	23	23	19	19	42
08:15 PM	19	19	15	15	34
08:30 PM	19	19	20	20	39
08:45 PM	16	16	10	10	26
Total	77	77	64	64	141
09:00 PM	14	14	18	18	32
09:15 PM	19	19	16	16	35
09:30 PM	10	10	15	15	25
09:45 PM	16	16	18	18	34
Total	59	59	67	67	126
10:00 PM	19	19	12	12	31
10:15 PM	11	11	13	13	24
10:30 PM	11	11	4	4	15
10:45 PM	7	7	11	11	18
Total	48	48	40	40	88
11:00 PM	11	11	10	10	21
11:15 PM	11	11	10	10	21
11:30 PM	4	4	7	7	11
11:45 PM	10	10	4	4	14
Total	36	36	31	31	67
Grand Total	869	869	864	864	1733
Apprch %	100		100		
Total %	50.1	50.1	49.9	49.9	
Cars +	869	869	864	864	1733
% Cars +	100	100	100	100	100

File Name : Albermarle(Cook Out Driveway)Day 1
Site Code :
Start Date : 5/16/2023

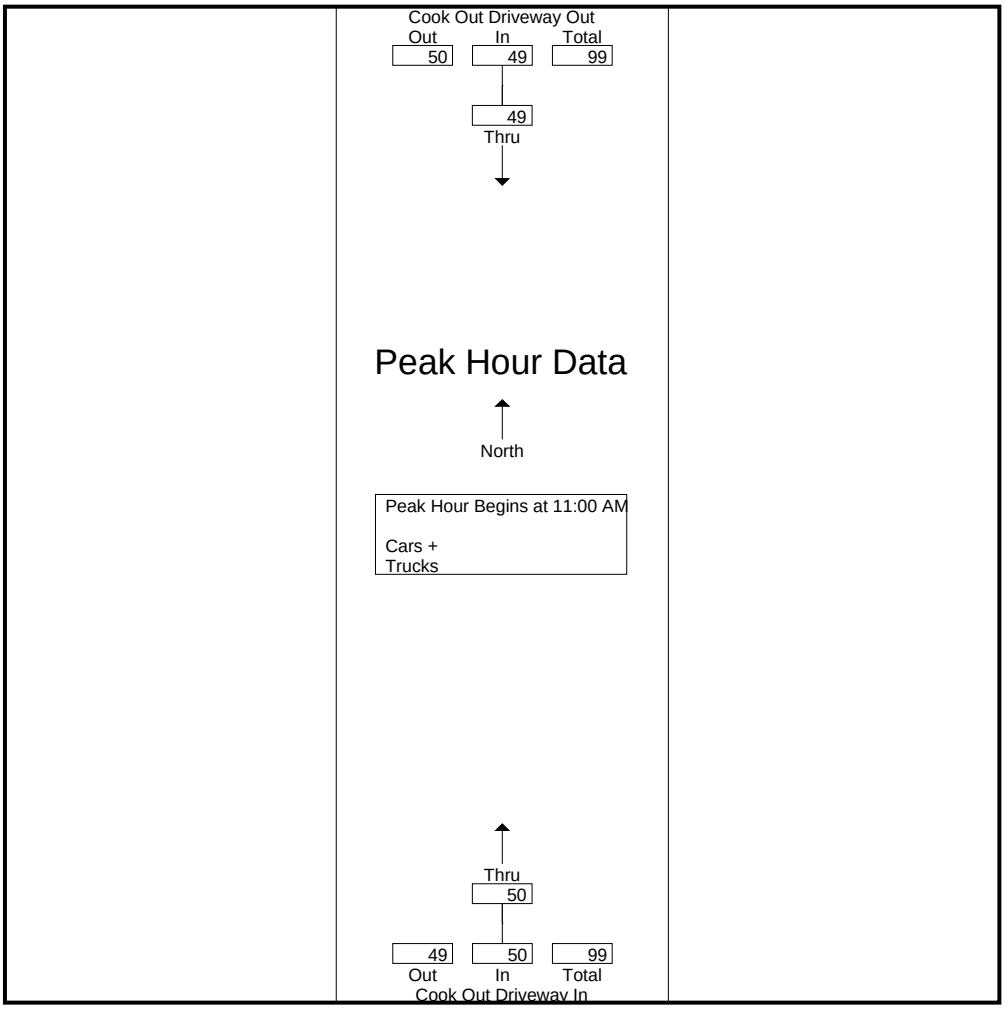
Groups Printed- Cars + - Trucks

	Cook Out Driveway Out Southbound		Cook Out Driveway In Northbound		
	Thru	App. Total	Thru	App. Total	Int. Total
Trucks	0	0	0	0	0
% Trucks	0	0	0	0	0

TRAFFIC DATA COLLECTION

File Name : Albermarle(Cook Out Driveway)Day 1
Site Code :
Start Date : 5/16/2023

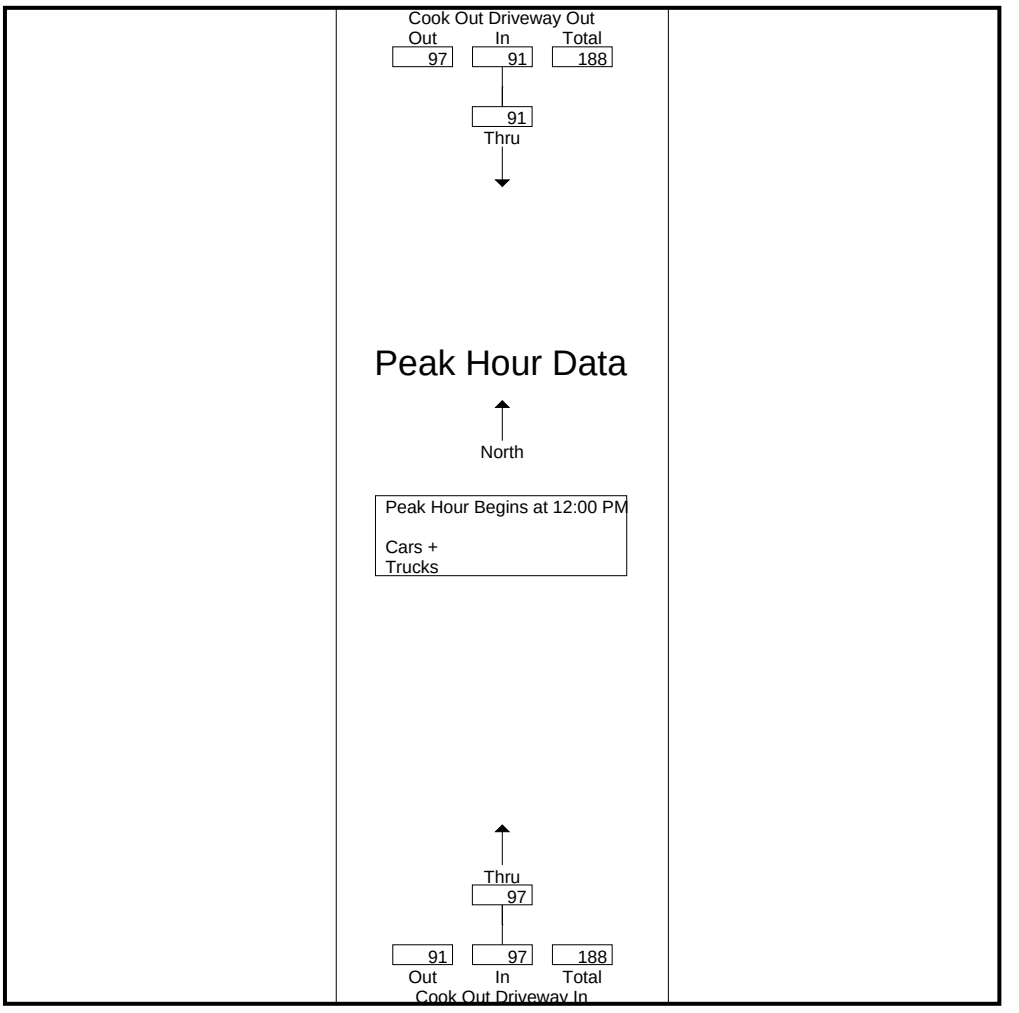
	Cook Out Driveway Out Southbound		Cook Out Driveway In Northbound		
Start Time	Thru	App. Total	Thru	App. Total	Int. Total
Peak Hour Analysis From 12:00 AM to 11:45 AM - Peak 1 of 1					
Peak Hour for Entire Intersection Begins at 11:00 AM					
11:00 AM	11	11	7	7	18
11:15 AM	12	12	16	16	28
11:30 AM	12	12	10	10	22
11:45 AM	**14**	**14**	**17**	**17**	**31**
Total Volume	49	49	50	50	99
% App. Total	100		100		
PHF	.875	.875	.735	.735	.798



TRAFFIC DATA COLLECTION

File Name : Albermarle(Cook Out Driveway)Day 1
Site Code :
Start Date : 5/16/2023

	Cook Out Driveway Out Southbound		Cook Out Driveway In Northbound		
Start Time	Thru	App. Total	Thru	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 11:45 PM - Peak 1 of 1					
Peak Hour for Entire Intersection Begins at 12:00 PM					
12:00 PM	**25**	**25**	**32**	**32**	**57**
12:15 PM	23	23	24	24	47
12:30 PM	23	23	17	17	40
12:45 PM	20	20	24	24	44
Total Volume	91	91	97	97	188
% App. Total	100		100		
PHF	.910	.910	.758	.758	.825



TRAFFIC DATA COLLECTION

File Name : Albermarle(Cook Out Driveway)Day 2
Site Code :
Start Date : 5/17/2023
Page No : 1

Groups Printed- Cars + - Trucks

	Cook Out Driveway In Southbound		Cook Out Driveway Out Northbound		
Start Time	Thru	App. Total	Thru	App. Total	Int. Total
12:00 AM	6	6	3	3	9
12:15 AM	3	3	5	5	8
12:30 AM	9	9	4	4	13
12:45 AM	4	4	3	3	7
Total	22	22	15	15	37
01:00 AM	1	1	4	4	5
01:15 AM	5	5	5	5	10
01:30 AM	6	6	5	5	11
01:45 AM	2	2	2	2	4
Total	14	14	16	16	30
02:00 AM	1	1	1	1	2
02:15 AM	1	1	0	0	1
02:30 AM	0	0	0	0	0
02:45 AM	1	1	1	1	2
Total	3	3	2	2	5
03:00 AM	1	1	0	0	1
03:15 AM	1	1	0	0	1
03:30 AM	0	0	0	0	0
03:45 AM	0	0	0	0	0
Total	2	2	0	0	2
04:00 AM	1	1	0	0	1
04:15 AM	0	0	0	0	0
04:30 AM	0	0	0	0	0
04:45 AM	0	0	0	0	0
Total	1	1	0	0	1
05:00 AM	0	0	0	0	0
05:15 AM	0	0	0	0	0
05:30 AM	0	0	0	0	0
05:45 AM	0	0	0	0	0
Total	0	0	0	0	0
06:00 AM	0	0	0	0	0
06:15 AM	1	1	1	1	2
06:30 AM	0	0	0	0	0
06:45 AM	0	0	0	0	0
Total	1	1	1	1	2
07:00 AM	0	0	1	1	1
07:15 AM	0	0	0	0	0
07:30 AM	2	2	2	2	4
07:45 AM	0	0	0	0	0
Total	2	2	3	3	5

File Name : Albermarle(Cook Out Driveway)Day 2
Site Code :
Start Date : 5/17/2023

Groups Printed- Cars + - Trucks

	Cook Out Driveway In Southbound		Cook Out Driveway Out Northbound		
Start Time	Thru	App. Total	Thru	App. Total	Int. Total
08:00 AM	1	1	0	0	1
08:15 AM	0	0	0	0	0
08:30 AM	0	0	0	0	0
08:45 AM	1	1	0	0	1
Total	2	2	0	0	2
09:00 AM	0	0	2	2	2
09:15 AM	0	0	1	1	1
09:30 AM	0	0	1	1	1
09:45 AM	0	0	2	2	2
Total	0	0	6	6	6
10:00 AM	1	1	2	2	3
10:15 AM	1	1	3	3	4
10:30 AM	5	5	7	7	12
10:45 AM	12	12	11	11	23
Total	19	19	23	23	42
11:00 AM	10	10	16	16	26
11:15 AM	12	12	14	14	26
11:30 AM	15	15	18	18	33
11:45 AM	18	18	19	19	37
Total	55	55	67	67	122
12:00 PM	21	21	23	23	44
12:15 PM	28	28	35	35	63
12:30 PM	29	29	17	17	46
12:45 PM	18	18	22	22	40
Total	96	96	97	97	193
01:00 PM	19	19	16	16	35
01:15 PM	18	18	17	17	35
01:30 PM	23	23	22	22	45
01:45 PM	13	13	16	16	29
Total	73	73	71	71	144
02:00 PM	20	20	15	15	35
02:15 PM	14	14	15	15	29
02:30 PM	15	15	13	13	28
02:45 PM	8	8	7	7	15
Total	57	57	50	50	107
03:00 PM	11	11	8	8	19
03:15 PM	3	3	3	3	6
03:30 PM	10	10	12	12	22
03:45 PM	11	11	11	11	22
Total	35	35	34	34	69
04:00 PM	10	10	12	12	22

File Name : Albermarle(Cook Out Driveway)Day 2
Site Code :
Start Date : 5/17/2023
Page No : 3

Groups Printed- Cars + - Trucks

	Cook Out Driveway In Southbound		Cook Out Driveway Out Northbound		
Start Time	Thru	App. Total	Thru	App. Total	Int. Total
04:15 PM	16	16	11	11	27
04:30 PM	6	6	12	12	18
04:45 PM	14	14	13	13	27
Total	46	46	48	48	94
05:00 PM	13	13	18	18	31
05:15 PM	23	23	16	16	39
05:30 PM	19	19	15	15	34
05:45 PM	13	13	17	17	30
Total	68	68	66	66	134
06:00 PM	16	16	15	15	31
06:15 PM	18	18	12	12	30
06:30 PM	16	16	18	18	34
06:45 PM	14	14	16	16	30
Total	64	64	61	61	125
07:00 PM	16	16	12	12	28
07:15 PM	14	14	16	16	30
07:30 PM	16	16	17	17	33
07:45 PM	9	9	12	12	21
Total	55	55	57	57	112
08:00 PM	20	20	24	24	44
08:15 PM	21	21	24	24	45
08:30 PM	28	28	25	25	53
08:45 PM	14	14	15	15	29
Total	83	83	88	88	171
09:00 PM	19	19	27	27	46
09:15 PM	20	20	9	9	29
09:30 PM	13	13	19	19	32
09:45 PM	13	13	14	14	27
Total	65	65	69	69	134
10:00 PM	18	18	13	13	31
10:15 PM	14	14	14	14	28
10:30 PM	14	14	19	19	33
10:45 PM	15	15	6	6	21
Total	61	61	52	52	113
11:00 PM	10	10	12	12	22
11:15 PM	9	9	15	15	24
11:30 PM	13	13	4	4	17
11:45 PM	3	3	4	4	7
Total	35	35	35	35	70
Grand Total	859	859	861	861	1720
Apprch %	100		100		
Total %	49.9	49.9	50.1	50.1	
Cars +	858	858	860	860	1718
% Cars +	99.9	99.9	99.9	99.9	99.9

File Name : Albermarle(Cook Out Driveway)Day 2
Site Code :
Start Date : 5/17/2023

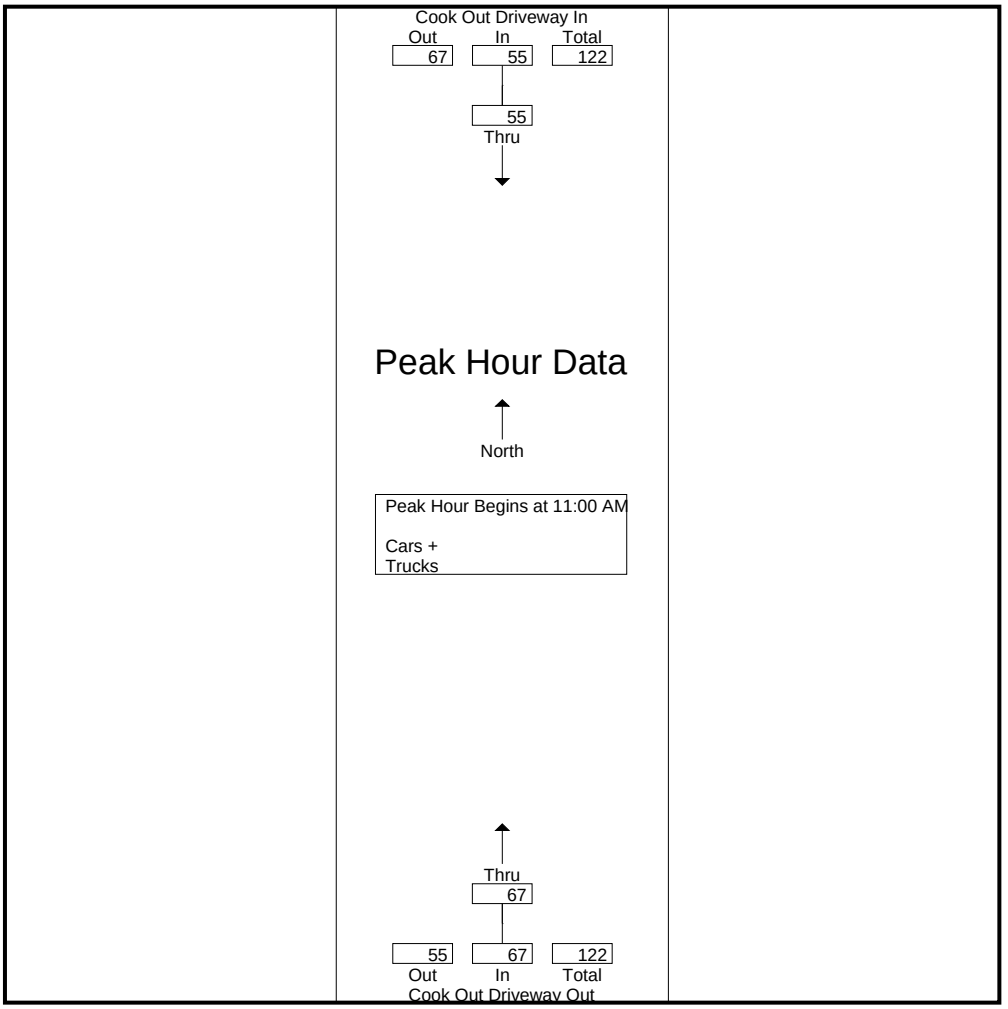
Groups Printed- Cars + - Trucks

	Cook Out Driveway In Southbound		Cook Out Driveway Out Northbound		
	Thru	App. Total	Thru	App. Total	Int. Total
Trucks	1	1	1	1	2
% Trucks	0.1	0.1	0.1	0.1	0.1

TRAFFIC DATA COLLECTION

File Name : Albermarle(Cook Out Driveway)Day 2
Site Code :
Start Date : 5/17/2023
Page No : 5

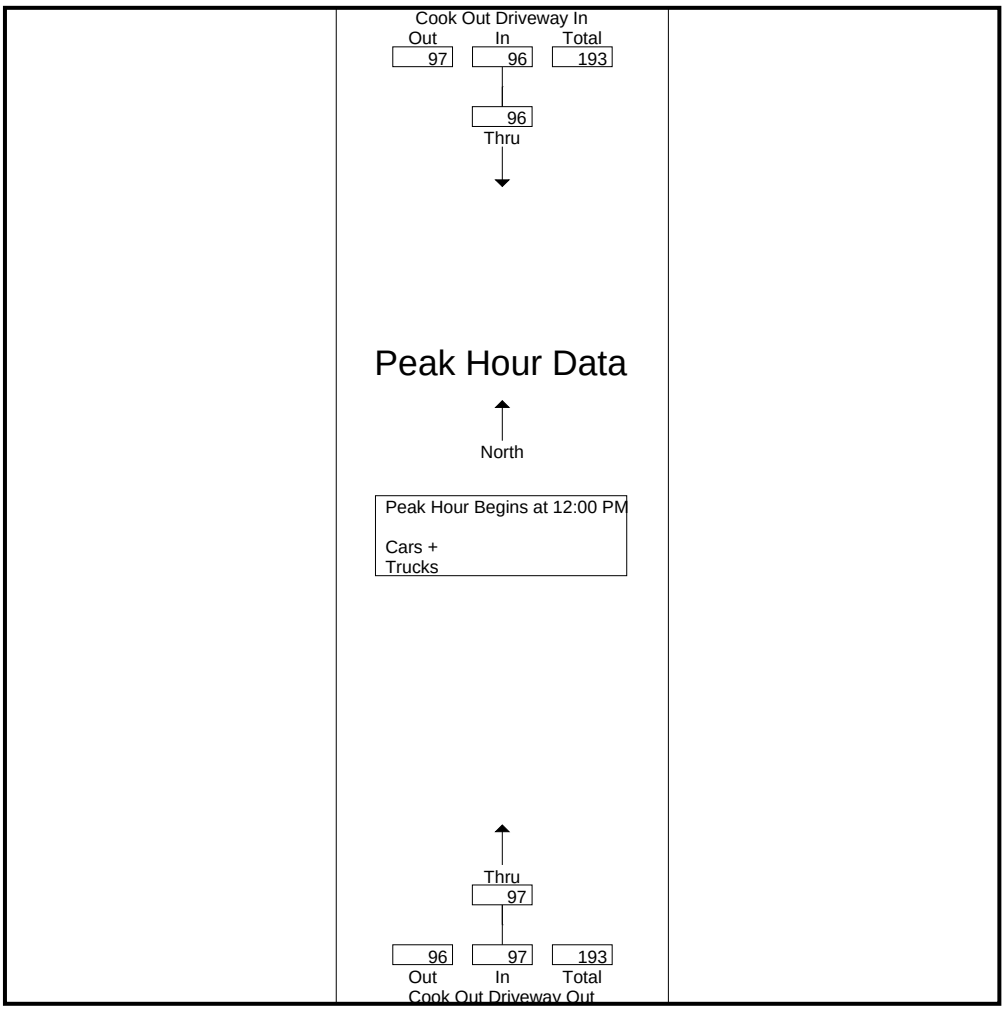
	Cook Out Driveway In Southbound		Cook Out Driveway Out Northbound		
Start Time	Thru	App. Total	Thru	App. Total	Int. Total
Peak Hour Analysis From 12:00 AM to 11:45 AM - Peak 1 of 1					
Peak Hour for Entire Intersection Begins at 11:00 AM					
11:00 AM	10	10	16	16	26
11:15 AM	12	12	14	14	26
11:30 AM	15	15	18	18	33
11:45 AM	**18**	**18**	**19**	**19**	**37**
Total Volume	55	55	67	67	122
% App. Total	100		100		
PHF	.764	.764	.882	.882	.824



TRAFFIC DATA COLLECTION

File Name : Albermarle(Cook Out Driveway)Day 2
Site Code :
Start Date : 5/17/2023

	Cook Out Driveway In Southbound		Cook Out Driveway Out Northbound		
Start Time	Thru	App. Total	Thru	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 11:45 PM - Peak 1 of 1					
Peak Hour for Entire Intersection Begins at 12:00 PM					
12:00 PM	21	21	23	23	44
12:15 PM	28	28	**35**	**35**	**63**
12:30 PM	**29**	**29**	17	17	46
12:45 PM	18	18	22	22	40
Total Volume	96	96	97	97	193
% App. Total	100		100		
PHF	.828	.828	.693	.693	.766



File Name : Albermarle(Cook Out Driveway)Day 3
Site Code :
Start Date : 5/18/2023
Page No : 1

Groups Printed- Cars + - Trucks

	Cook Out Driveway Out Southbound		Cook Out Driveway In Northbound		
Start Time	Thru	App. Total	Thru	App. Total	Int. Total
12:00 AM	5	5	3	3	8
12:15 AM	4	4	2	2	6
12:30 AM	3	3	6	6	9
12:45 AM	9	9	6	6	15
Total	21	21	17	17	38
01:00 AM	11	11	7	7	18
01:15 AM	2	2	6	6	8
01:30 AM	8	8	6	6	14
01:45 AM	6	6	4	4	10
Total	27	27	23	23	50
02:00 AM	5	5	1	1	6
02:15 AM	1	1	1	1	2
02:30 AM	0	0	0	0	0
02:45 AM	0	0	0	0	0
Total	6	6	2	2	8
03:00 AM	0	0	0	0	0
03:15 AM	0	0	0	0	0
03:30 AM	1	1	0	0	1
03:45 AM	0	0	0	0	0
Total	1	1	0	0	1
04:00 AM	0	0	0	0	0
04:15 AM	0	0	0	0	0
04:30 AM	0	0	0	0	0
04:45 AM	0	0	0	0	0
Total	0	0	0	0	0
05:00 AM	0	0	0	0	0
05:15 AM	0	0	0	0	0
05:30 AM	0	0	0	0	0
05:45 AM	1	1	0	0	1
Total	1	1	0	0	1
06:00 AM	0	0	0	0	0
06:15 AM	0	0	0	0	0
06:30 AM	1	1	0	0	1
06:45 AM	0	0	0	0	0
Total	1	1	0	0	1
07:00 AM	0	0	0	0	0
07:15 AM	1	1	2	2	3
07:30 AM	0	0	0	0	0
07:45 AM	0	0	0	0	0
Total	1	1	2	2	3

File Name : Albermarle(Cook Out Driveway)Day 3
Site Code :
Start Date : 5/18/2023

Groups Printed- Cars + - Trucks

	Cook Out Driveway Out Southbound		Cook Out Driveway In Northbound		
Start Time	Thru	App. Total	Thru	App. Total	Int. Total
08:00 AM	0	0	0	0	0
08:15 AM	1	1	1	1	2
08:30 AM	0	0	0	0	0
08:45 AM	0	0	0	0	0
Total	1	1	1	1	2
09:00 AM	1	1	1	1	2
09:15 AM	0	0	0	0	0
09:30 AM	1	1	1	1	2
09:45 AM	0	0	1	1	1
Total	2	2	3	3	5
10:00 AM	0	0	0	0	0
10:15 AM	0	0	2	2	2
10:30 AM	6	6	8	8	14
10:45 AM	7	7	11	11	18
Total	13	13	21	21	34
11:00 AM	10	10	14	14	24
11:15 AM	8	8	7	7	15
11:30 AM	18	18	15	15	33
11:45 AM	22	22	21	21	43
Total	58	58	57	57	115
12:00 PM	16	16	12	12	28
12:15 PM	19	19	20	20	39
12:30 PM	20	20	20	20	40
12:45 PM	16	16	14	14	30
Total	71	71	66	66	137
01:00 PM	15	15	21	21	36
01:15 PM	13	13	7	7	20
01:30 PM	13	13	9	9	22
01:45 PM	16	16	10	10	26
Total	57	57	47	47	104
02:00 PM	9	9	13	13	22
02:15 PM	14	14	16	16	30
02:30 PM	13	13	9	9	22
02:45 PM	14	14	10	10	24
Total	50	50	48	48	98
03:00 PM	13	13	12	12	25
03:15 PM	13	13	15	15	28
03:30 PM	12	12	6	6	18
03:45 PM	10	10	9	9	19
Total	48	48	42	42	90
04:00 PM	9	9	11	11	20

File Name : Albermarle(Cook Out Driveway)Day 3
Site Code :
Start Date : 5/18/2023

Groups Printed- Cars + - Trucks

	Cook Out Driveway Out Southbound		Cook Out Driveway In Northbound		
Start Time	Thru	App. Total	Thru	App. Total	Int. Total
04:15 PM	11	11	15	15	26
04:30 PM	15	15	18	18	33
04:45 PM	19	19	8	8	27
Total	54	54	52	52	106
05:00 PM	18	18	23	23	41
05:15 PM	13	13	11	11	24
05:30 PM	15	15	13	13	28
05:45 PM	17	17	22	22	39
Total	63	63	69	69	132
06:00 PM	20	20	18	18	38
06:15 PM	17	17	16	16	33
06:30 PM	24	24	20	20	44
06:45 PM	16	16	19	19	35
Total	77	77	73	73	150
07:00 PM	18	18	24	24	42
07:15 PM	27	27	22	22	49
07:30 PM	22	22	23	23	45
07:45 PM	15	15	11	11	26
Total	82	82	80	80	162
08:00 PM	19	19	16	16	35
08:15 PM	20	20	13	13	33
08:30 PM	16	16	17	17	33
08:45 PM	10	10	15	15	25
Total	65	65	61	61	126
09:00 PM	17	17	13	13	30
09:15 PM	24	24	14	14	38
09:30 PM	7	7	8	8	15
09:45 PM	16	16	13	13	29
Total	64	64	48	48	112
10:00 PM	15	15	13	13	28
10:15 PM	11	11	12	12	23
10:30 PM	15	15	11	11	26
10:45 PM	13	13	10	10	23
Total	54	54	46	46	100
11:00 PM	12	12	13	13	25
11:15 PM	10	10	15	15	25
11:30 PM	9	9	7	7	16
11:45 PM	11	11	8	8	19
Total	42	42	43	43	85
Grand Total	859	859	801	801	1660
Apprch %	100		100		
Total %	51.7	51.7	48.3	48.3	
Cars +	859	859	801	801	1660
% Cars +	100	100	100	100	100

File Name : Albermarle(Cook Out Driveway)Day 3
Site Code :
Start Date : 5/18/2023

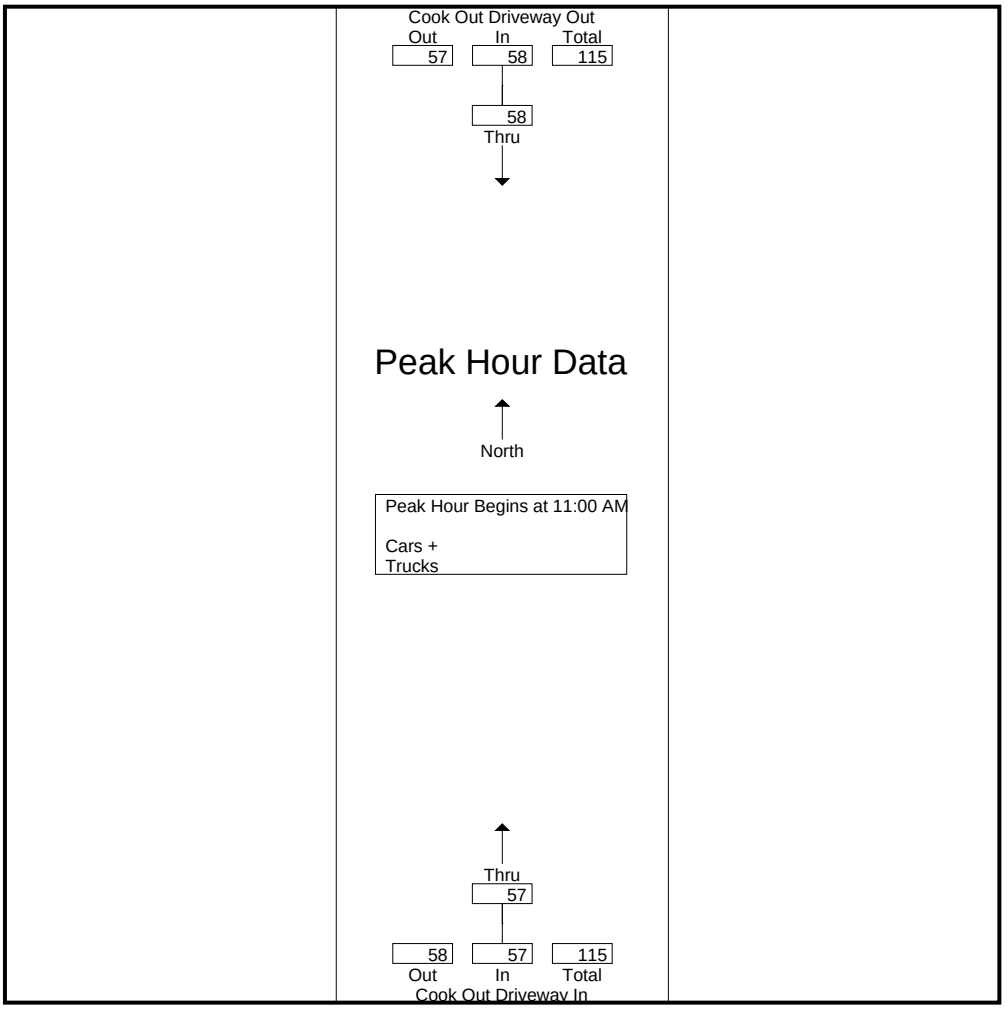
Groups Printed- Cars + - Trucks

	Cook Out Driveway Out Southbound		Cook Out Driveway In Northbound		
	Thru	App. Total	Thru	App. Total	Int. Total
Trucks	0	0	0	0	0
% Trucks	0	0	0	0	0

TRAFFIC DATA COLLECTION

File Name : Albermarle(Cook Out Driveway)Day 3
Site Code :
Start Date : 5/18/2023

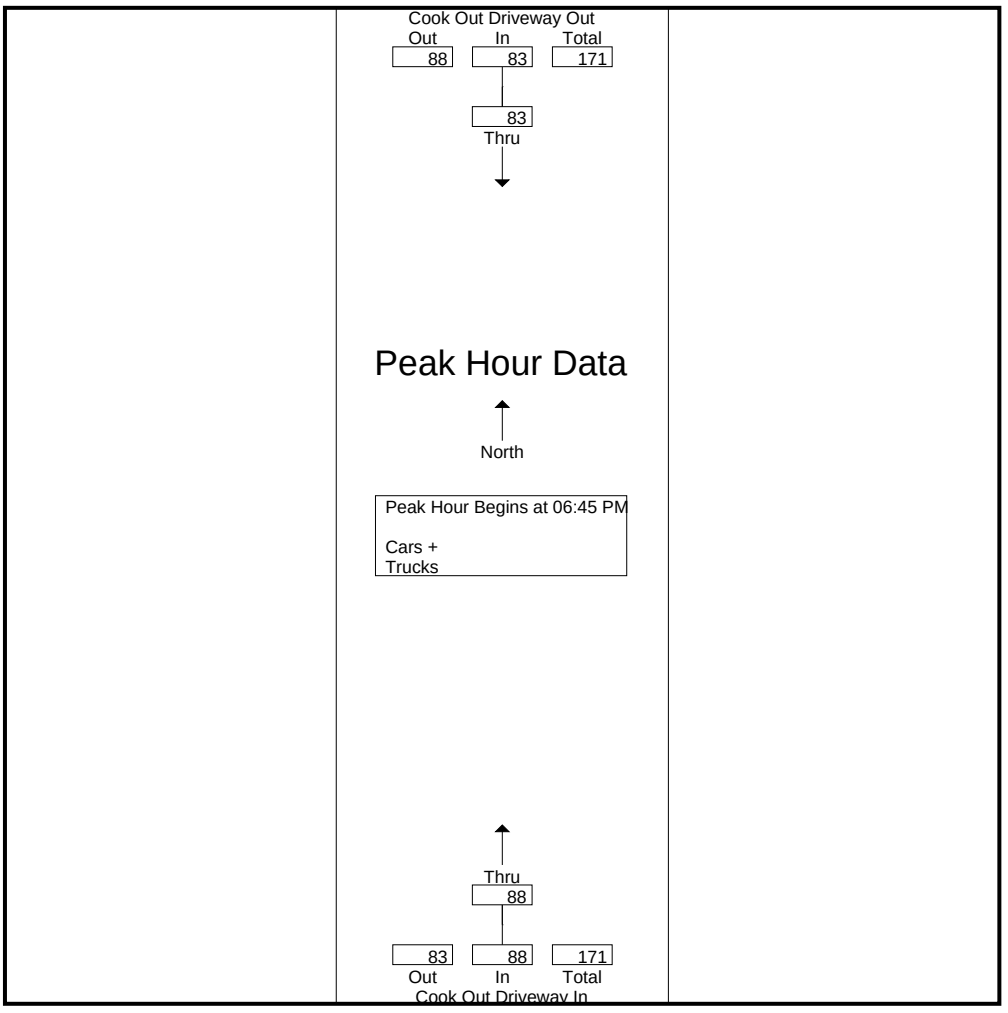
	Cook Out Driveway Out Southbound		Cook Out Driveway In Northbound		
Start Time	Thru	App. Total	Thru	App. Total	Int. Total
Peak Hour Analysis From 12:00 AM to 11:45 AM - Peak 1 of 1					
Peak Hour for Entire Intersection Begins at 11:00 AM					
11:00 AM	10	10	14	14	24
11:15 AM	8	8	7	7	15
11:30 AM	18	18	15	15	33
11:45 AM	**22**	**22**	**21**	**21**	**43**
Total Volume	58	58	57	57	115
% App. Total	100		100		
PHF	.659	.659	.679	.679	.669



TRAFFIC DATA COLLECTION

File Name : Albermarle(Cook Out Driveway)Day 3
Site Code :
Start Date : 5/18/2023

	Cook Out Driveway Out Southbound		Cook Out Driveway In Northbound		
Start Time	Thru	App. Total	Thru	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 11:45 PM - Peak 1 of 1					
Peak Hour for Entire Intersection Begins at 06:45 PM					
06:45 PM	16	16	19	19	35
07:00 PM	18	18	**24**	**24**	42
07:15 PM	**27**	**27**	22	22	**49**
07:30 PM	22	22	23	23	45
Total Volume	83	83	88	88	171
% App. Total	100		100		
PHF	.769	.769	.917	.917	.872



Time	IN	OUT	TOTAL
12:00 AM	5	9	14
12:15 AM	4	8	12
12:30 AM	1	3	4
12:45 AM	3	4	7
1:00 AM	4	2	6
1:15 AM	2	4	6
1:30 AM	5	3	8
1:45 AM	0	3	3
2:00 AM	0	1	1
2:15 AM	0	0	0
2:30 AM	1	1	2
2:45 AM	0	0	0
3:00 AM	0	0	0
3:15 AM	0	0	0
3:30 AM	0	0	0
3:45 AM	0	2	2
4:00 AM	0	0	0
4:15 AM	0	0	0
4:30 AM	0	0	0
4:45 AM	0	0	0
5:00 AM	0	0	0
5:15 AM	0	0	0
5:30 AM	0	0	0
5:45 AM	0	0	0
6:00 AM	0	0	0
6:15 AM	0	0	0
6:30 AM	1	1	2
6:45 AM	1	1	2
7:00 AM	1	0	1
7:15 AM	1	1	2
7:30 AM	2	0	2
7:45 AM	0	1	1
8:00 AM	1	1	2
8:15 AM	0	0	0
8:30 AM	0	0	0
8:45 AM	0	1	1
9:00 AM	3	2	5
9:15 AM	0	0	0
9:30 AM	0	0	0
9:45 AM	2	1	3
10:00 AM	0	0	0
10:15 AM	1	0	1
10:30 AM	6	3	9
10:45 AM	9	6	15
11:00 AM	7	11	18
11:15 AM	16	12	28
11:30 AM	10	12	22
11:45 AM	17	14	31
12:00 PM	32	25	57
12:15 PM	24	23	47
12:30 PM	17	23	40
12:45 PM	24	20	44
1:00 PM	16	19	35
1:15 PM	18	20	38
1:30 PM	15	13	28
1:45 PM	10	11	21
2:00 PM	17	22	39

Peak IN	Peak OUT	Total
97	91	188

	2:15 PM	7	9	16		
	2:30 PM	13	11	24		
	2:45 PM	18	12	30		
	3:00 PM	10	15	25		
	3:15 PM	18	17	35		
	3:30 PM	14	15	29		
	3:45 PM	17	18	35		
	4:00 PM	12	9	21		
	4:15 PM	16	16	32	Peak IN	Peak OUT Total
	4:30 PM	19	13	32	81	66 147
	4:45 PM	17	12	29		
	5:00 PM	22	21	43		
	5:15 PM	23	20	43		
	5:30 PM	12	11	23		
	5:45 PM	19	15	34		
	6:00 PM	22	23	45		
	6:15 PM	7	13	20		
	6:30 PM	21	16	37		
	6:45 PM	10	15	25		
	7:00 PM	22	23	45		
	7:15 PM	19	21	40		
	7:30 PM	28	24	52		
	7:45 PM	20	17	37		
	8:00 PM	19	23	42		
	8:15 PM	15	19	34		
	8:30 PM	20	19	39		
	8:45 PM	10	16	26		
	9:00 PM	18	14	32		
	9:15 PM	16	19	35		
	9:30 PM	15	10	25		
	9:45 PM	18	16	34		
	10:00 PM	12	19	31		
	10:15 PM	13	11	24		
	10:30 PM	4	11	15		
	10:45 PM	11	7	18		
	11:00 PM	10	11	21		
	11:15 PM	10	11	21		
	11:30 PM	7	4	11		
	11:45 PM	4	10	14		
TOTAL		864	869	1733		

Time	IN	OUT	TOTAL
12:00 AM	3	6	9
12:15 AM	5	3	8
12:30 AM	4	9	13
12:45 AM	3	4	7
1:00 AM	4	1	5
1:15 AM	5	5	10
1:30 AM	5	6	11
1:45 AM	2	2	4
2:00 AM	1	1	2
2:15 AM	0	1	1
2:30 AM	0	0	0
2:45 AM	1	1	2
3:00 AM	0	1	1
3:15 AM	0	1	1
3:30 AM	0	0	0
3:45 AM	0	0	0
4:00 AM	0	1	1
4:15 AM	0	0	0
4:30 AM	0	0	0
4:45 AM	0	0	0
5:00 AM	0	0	0
5:15 AM	0	0	0
5:30 AM	0	0	0
5:45 AM	0	0	0
6:00 AM	0	0	0
6:15 AM	1	1	2
6:30 AM	0	0	0
6:45 AM	0	0	0
7:00 AM	1	0	1
7:15 AM	0	0	0
7:30 AM	2	2	4
7:45 AM	0	0	0
8:00 AM	0	1	1
8:15 AM	0	0	0
8:30 AM	0	0	0
8:45 AM	0	1	1
9:00 AM	2	0	2
9:15 AM	1	0	1
9:30 AM	1	0	1
9:45 AM	2	0	2
10:00 AM	2	1	3
10:15 AM	3	1	4
10:30 AM	7	5	12
10:45 AM	11	12	23
11:00 AM	16	10	26
11:15 AM	14	12	26
11:30 AM	18	15	33
11:45 AM	19	18	37
12:00 PM	23	21	44
12:15 PM	35	28	63
12:30 PM	17	29	46
12:45 PM	22	18	40
1:00 PM	16	19	35
1:15 PM	17	18	35
1:30 PM	22	23	45
1:45 PM	16	13	29
2:00 PM	15	20	35
2:15 PM	15	14	29
2:30 PM	13	15	28
2:45 PM	7	8	15
3:00 PM	8	11	19

Peak IN	Peak OUT	Total
96	97	193

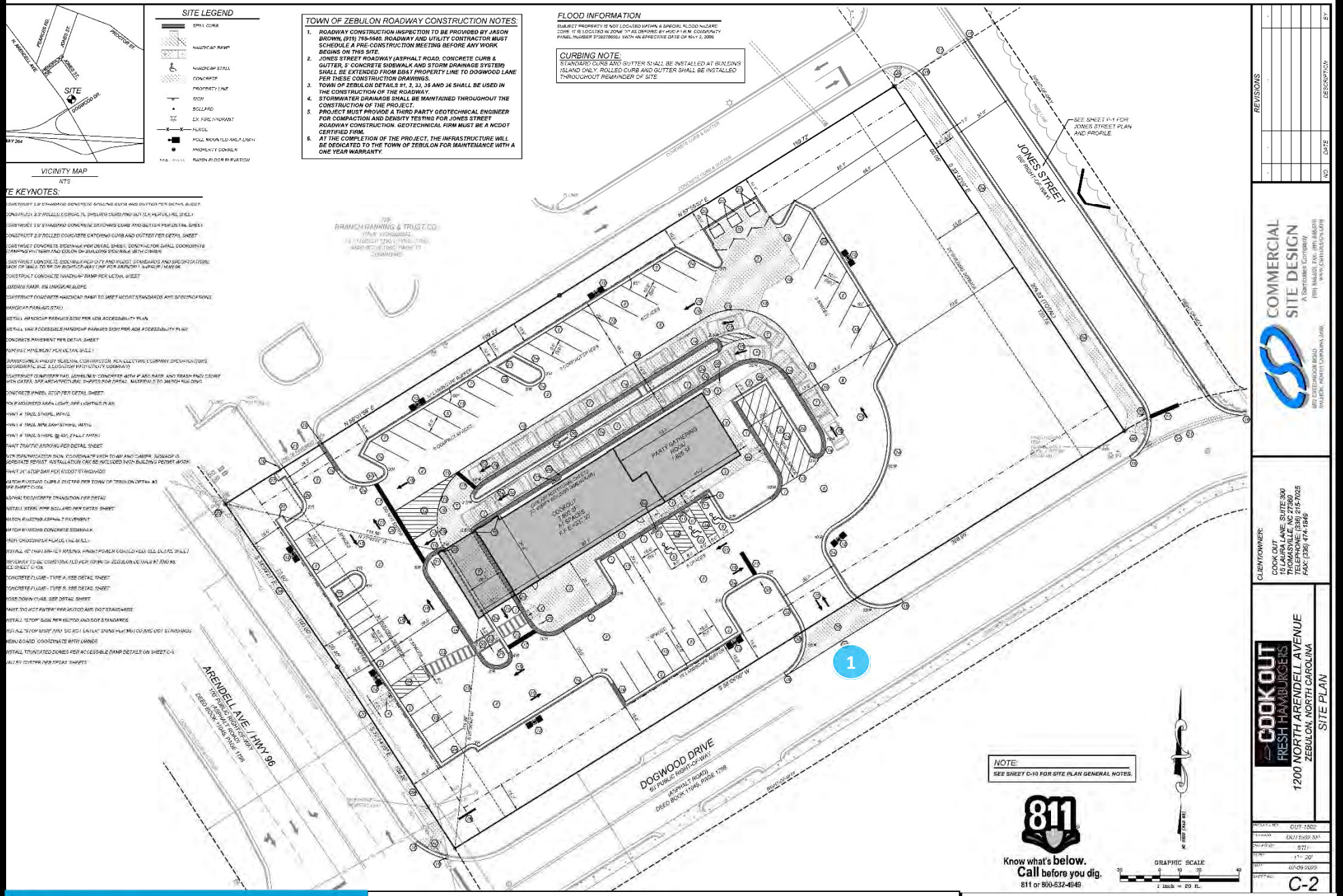
	3:15 PM	3	3	6		
	3:30 PM	12	10	22		
	3:45 PM	11	11	22		
	4:00 PM	12	10	22		
	4:15 PM	11	16	27		
	4:30 PM	12	6	18		
	4:45 PM	13	14	27	Peak IN	Peak OUT Total
	5:00 PM	18	13	31	68	66 134
	5:15 PM	16	23	39		
	5:30 PM	15	19	34		
	5:45 PM	17	13	30		
	6:00 PM	15	16	31		
	6:15 PM	12	18	30		
	6:30 PM	18	16	34		
	6:45 PM	16	14	30		
	7:00 PM	12	16	28		
	7:15 PM	16	14	30		
	7:30 PM	17	16	33		
	7:45 PM	12	9	21		
	8:00 PM	24	20	44		
	8:15 PM	24	21	45		
	8:30 PM	25	28	53		
	8:45 PM	15	14	29		
	9:00 PM	27	19	46		
	9:15 PM	9	20	29		
	9:30 PM	19	13	32		
	9:45 PM	14	13	27		
	10:00 PM	13	18	31		
	10:15 PM	14	14	28		
	10:30 PM	19	14	33		
	10:45 PM	6	15	21		
	11:00 PM	12	10	22		
	11:15 PM	15	9	24		
	11:30 PM	4	13	17		
	11:45 PM	4	3	7		
TOTAL		861	859	1720		

Time	IN	OUT	TOTAL
12:00 AM	3	5	8
12:15 AM	2	4	6
12:30 AM	6	3	9
12:45 AM	6	9	15
1:00 AM	7	11	18
1:15 AM	6	2	8
1:30 AM	6	8	14
1:45 AM	4	6	10
2:00 AM	1	5	6
2:15 AM	1	1	2
2:30 AM	0	0	0
2:45 AM	0	0	0
3:00 AM	0	0	0
3:15 AM	0	0	0
3:30 AM	0	1	1
3:45 AM	0	0	0
4:00 AM	0	0	0
4:15 AM	0	0	0
4:30 AM	0	0	0
4:45 AM	0	0	0
5:00 AM	0	0	0
5:15 AM	0	0	0
5:30 AM	0	0	0
5:45 AM	0	1	1
6:00 AM	0	0	0
6:15 AM	0	0	0
6:30 AM	0	1	1
6:45 AM	0	0	0
7:00 AM	0	0	0
7:15 AM	2	1	3
7:30 AM	0	0	0
7:45 AM	0	0	0
8:00 AM	0	0	0
8:15 AM	1	1	2
8:30 AM	0	0	0
8:45 AM	0	0	0
9:00 AM	1	1	2
9:15 AM	0	0	0
9:30 AM	1	1	2
9:45 AM	1	0	1
10:00 AM	0	0	0
10:15 AM	2	0	2
10:30 AM	8	6	14
10:45 AM	11	7	18
11:00 AM	14	10	24
11:15 AM	7	8	15
11:30 AM	15	18	33
11:45 AM	21	22	43
12:00 PM	12	16	28
12:15 PM	20	19	39
12:30 PM	20	20	40
12:45 PM	14	16	30
1:00 PM	21	15	36
1:15 PM	7	13	20
1:30 PM	9	13	22
1:45 PM	10	16	26
2:00 PM	13	9	22
2:15 PM	16	14	30
2:30 PM	9	13	22
2:45 PM	10	14	24
3:00 PM	12	13	25

Peak IN	Peak OUT	Total
73	77	150

	3:15 PM	15	13	28		
	3:30 PM	6	12	18		
	3:45 PM	9	10	19		
	4:00 PM	11	9	20		
	4:15 PM	15	11	26		
	4:30 PM	18	15	33		
	4:45 PM	8	19	27	Peak IN	Peak OUT Total
	5:00 PM	23	18	41	69	63 132
	5:15 PM	11	13	24		
	5:30 PM	13	15	28		
	5:45 PM	22	17	39		
	6:00 PM	18	20	38		
	6:15 PM	16	17	33		
	6:30 PM	20	24	44		
	6:45 PM	19	16	35		
	7:00 PM	24	18	42		
	7:15 PM	22	27	49		
	7:30 PM	23	22	45		
	7:45 PM	11	15	26		
	8:00 PM	16	19	35		
	8:15 PM	13	20	33		
	8:30 PM	17	16	33		
	8:45 PM	15	10	25		
	9:00 PM	13	17	30		
	9:15 PM	14	24	38		
	9:30 PM	8	7	15		
	9:45 PM	13	16	29		
	10:00 PM	13	15	28		
	10:15 PM	12	11	23		
	10:30 PM	11	15	26		
	10:45 PM	10	13	23		
	11:00 PM	13	12	25		
	11:15 PM	15	10	25		
	11:30 PM	7	9	16		
	11:45 PM	8	11	19		
TOTAL		801	859	1660		

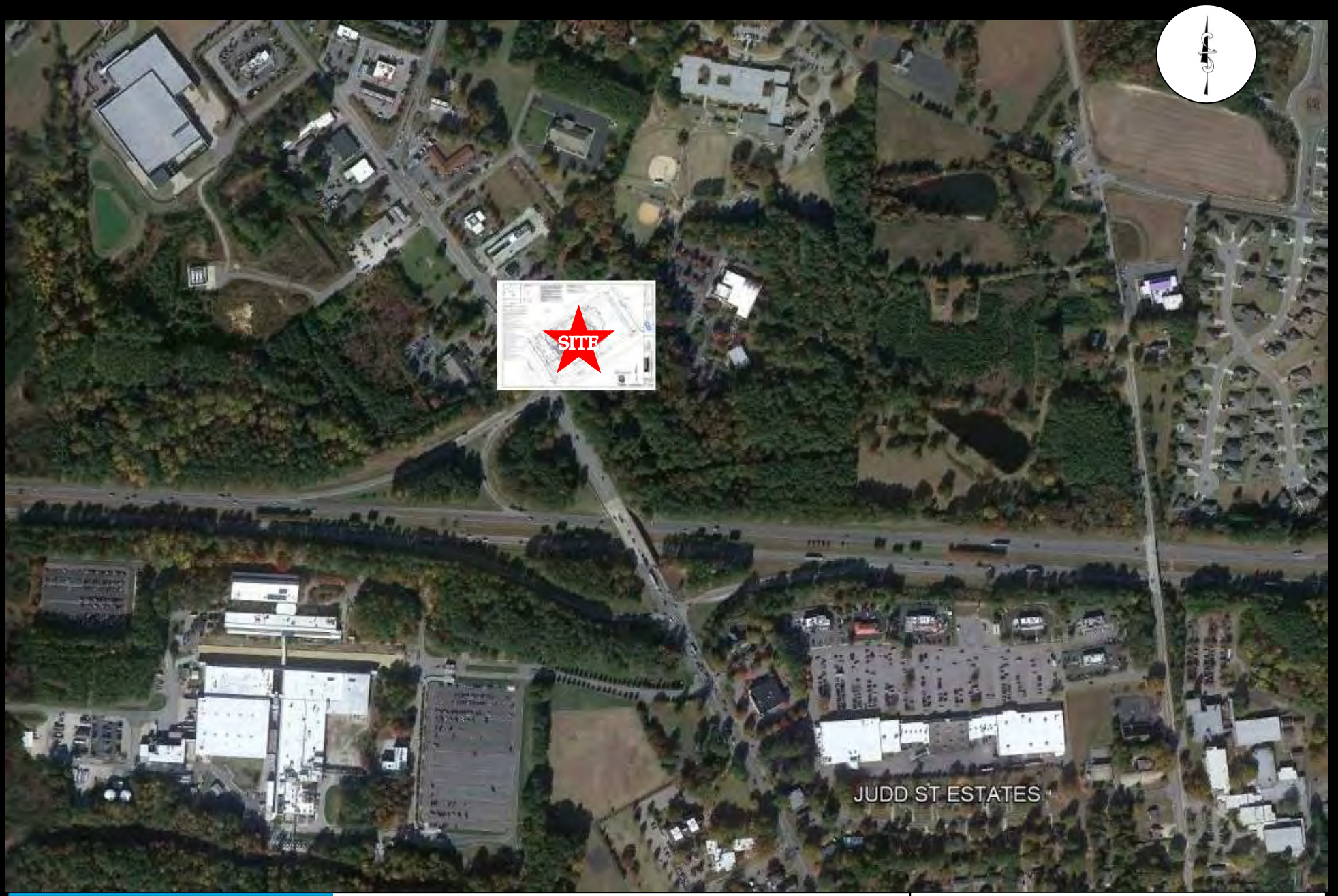
Total Average:	1704	
Mid-Day Peak Average:	89	IN
	88	OUT
PM Peak Average:	73	IN
	65	OUT



DAVENPORT

FIGURE 1
SITE PLAN

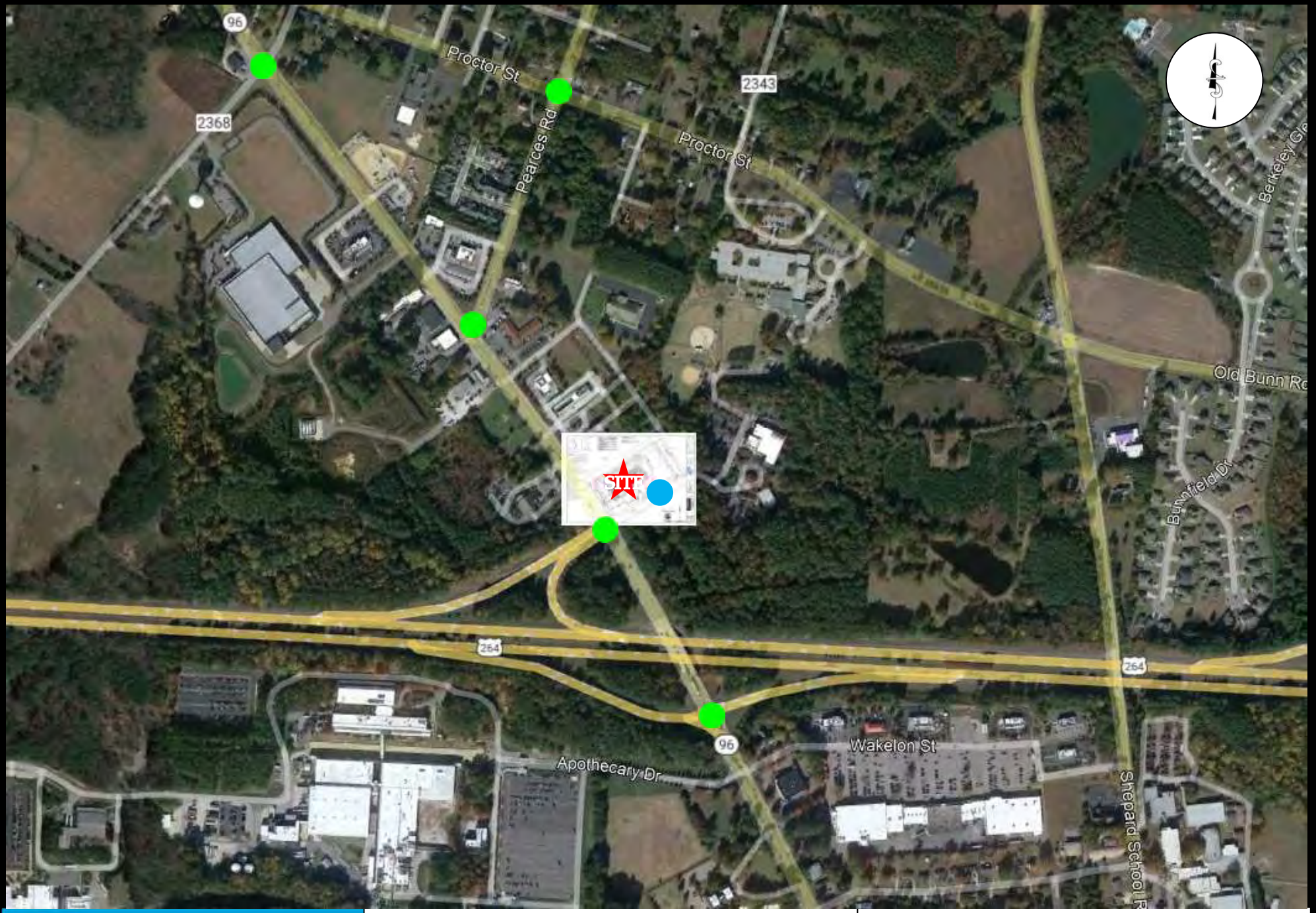
PROPOSED
DRIVEWAY
LOCATIONS



DAVENPORT

FIGURE 2A
SITE LOCATION MAP

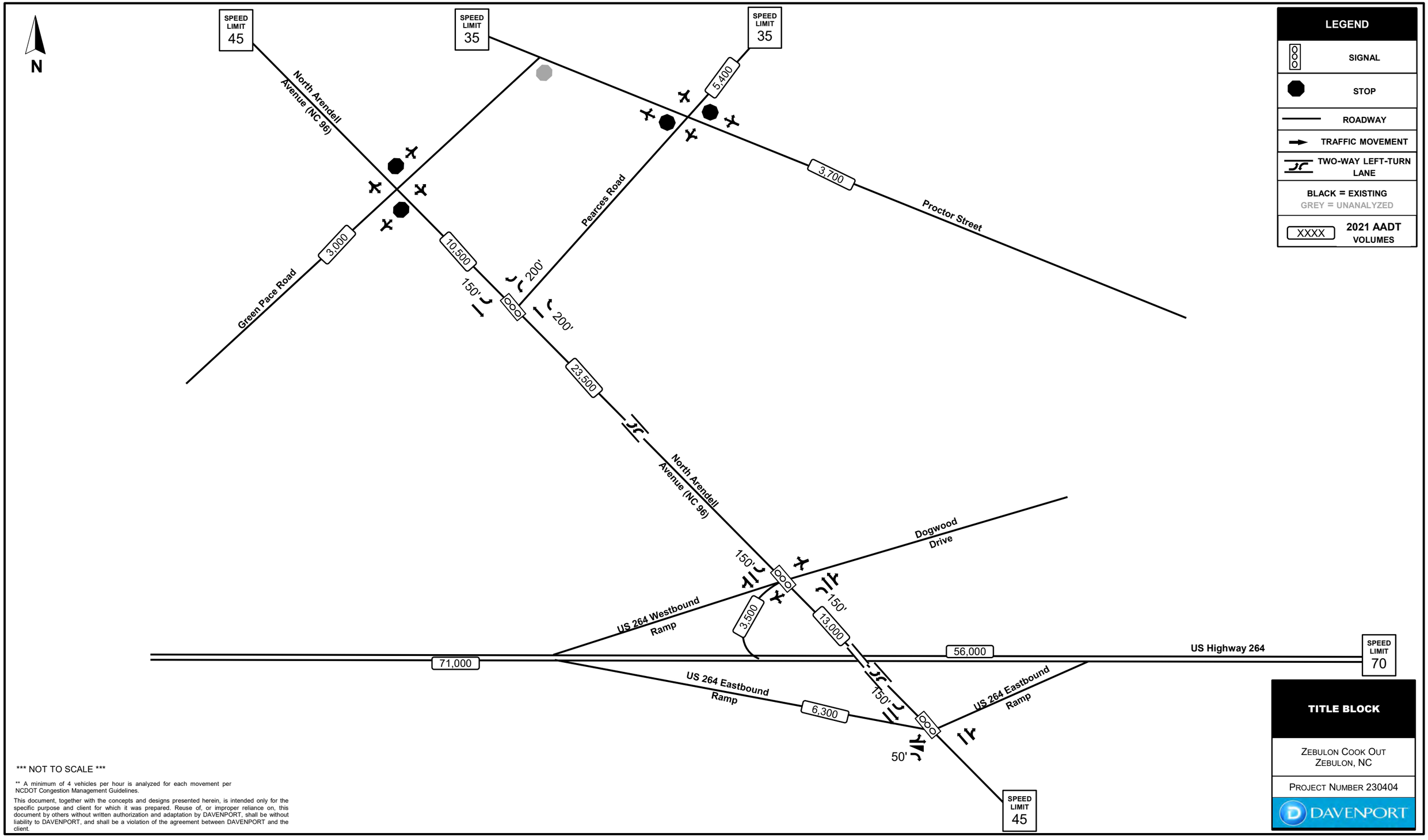
SITE INDICATOR



DAVENPORT

FIGURE 2B
VICINITY MAP

STUDY INTERSECTIONS
EXISTING
PROPOSED



*** NOT TO SCALE ***

** A minimum of 4 vehicles per hour is analyzed for each movement per NCDOT Congestion Management Guidelines.

N

North Arendell Avenue (NC 96)

Green Pace Road

Pearces Road

Proctor Street

North Arendell Avenue (NC 96)

Dogwood Drive

US 264 Westbound Ramp

US 264 Eastbound Ramp

US Highway 264

US 264 Eastbound Ramp

1 / 6
17 / 15
4 / 0

2 / 5
375 / 526
41 / 64

18 / 10
393 / 598
72 / 71

38 / 39
27 / 30
80 / 71

29 / 41
68 / 91
42 / 27

22 / 23
202 / 196
23 / 14

29 / 21
45 / 61
62 / 62

27 / 20
168 / 300
70 / 63

20 / 33
324 / 296

56 / 74
458 / 565

278 / 374
506 / 672

8 / 15
5 / 13
13 / 13

6 / 7
535 / 704
253 / 209

164 / 253
0 / 0
91 / 99

12 / 5
674 / 788
187 / 187

150 / 294
488 / 522

198 / 331
1 / 8
244 / 314

136 / 151
675 / 649

LEGEND

- SIGNAL
- STOP
- ROADWAY
- TRAFFIC MOVEMENT
- BLACK = EXISTING
  GREY = UNANALYZED
- AM / PM PEAKS

*** NOT TO SCALE ***

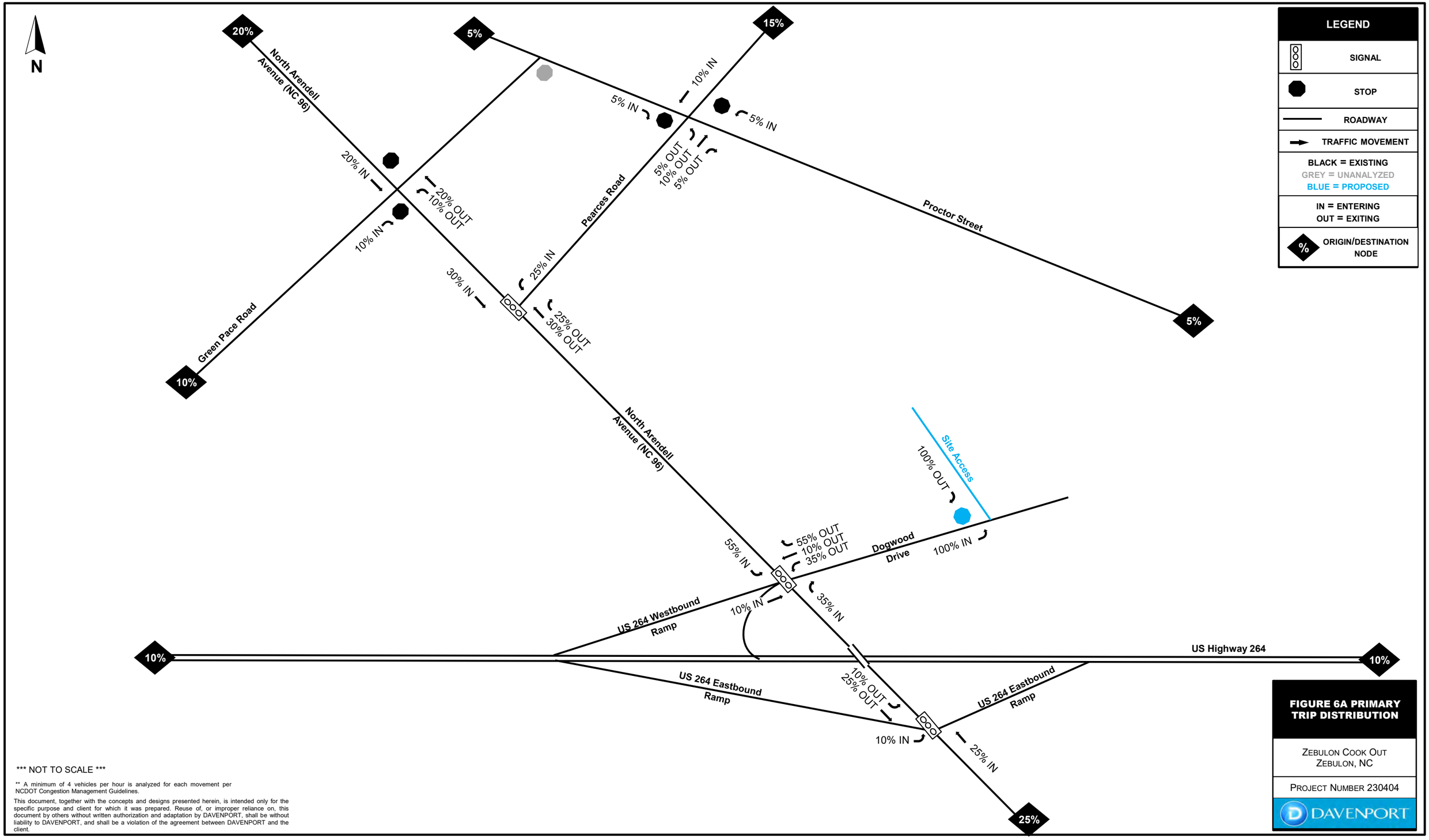
** A minimum of 4 vehicles per hour is analyzed for each movement per NCDOT Congestion Management Guidelines.

FIGURE 4 2023 EXISTING TRAFFIC VOLUMES

ZEBULON COOK OUT
ZEBULON, NC

PROJECT NUMBER 230404

DAVENPORT



*** NOT TO SCALE ***

** A minimum of 4 vehicles per hour is analyzed for each movement per NCDOT Congestion Management Guidelines.

FIGURE 6A PRIMARY TRIP DISTRIBUTION

ZEBULON COOK OUT
ZEBULON, NC

PROJECT NUMBER 230404

DAVENPORT

N

50%

North Arendell Avenue (NC 96)

Green Pace Road

Pearces Road

Proctor Street

North Arendell Avenue (NC 96)

Site Access

100% OUT

50% IN
-50% IN

50% OUT
50% OUT

Dogwood Drive

100% IN

50% IN
-50% IN

US 264 Westbound Ramp

US Highway 264

US 264 Eastbound Ramp

US 264 Eastbound Ramp

50%

LEGEND

- SIGNAL
- STOP
- ROADWAY
- TRAFFIC MOVEMENT
- BLACK = EXISTING
  GREY = UNANALYZED
  BLUE = PROPOSED
- IN = ENTERING
  OUT = EXITING
- % ORIGIN/DESTINATION NODE

FIGURE 6B PASS-BY TRIP DISTRIBUTION

ZEBULON COOK OUT
ZEBULON, NC

PROJECT NUMBER 230404

DAVENPORT

*** NOT TO SCALE ***

** A minimum of 4 vehicles per hour is analyzed for each movement per NCDOT Congestion Management Guidelines.

☒ Study Method

The traffic analysis shall follow the current *NCDOT Congestion Management Capacity Analysis Guidelines*, *Policy on Street and Driveway Access to North Carolina Highways*, and use the current approved version of analysis software (e.g. Synchro/SimTraffic, HCS, Sidra Intersection, TransModeler).

The study shall include the following analysis scenarios for each analysis period.

1. Existing Conditions
2. Future No-Build Conditions (existing + background growth + approved developments + committed or funded improvements)
3. Future Build Conditions (future no-build + site trips)
4. Future Build with Improvements Conditions (future build traffic with improvements to mitigate the proposed development's impacts) and, if applicable:

☐ 5. TIP Design Year Analysis _____

☐ 6. Alternative Access Scenario (without proposed control-of-access or median break / modification)

The following additional analysis/outputs should be provided as warranted:

☐ Signal Warrant Analysis for accesses/intersections _____

☐ Multi-Modal Level of Service Analysis

☐ School Loading Zone Traffic Simulation

☐ Phasing Analysis (scope separately as needed)

☐ Safety/Crash Analysis

☐ Control-of-Access Modification Justification

☐ Median Break / Modification Justification

☐ Other _____

☒ Submittals

In addition to the hardcopies required below, the TIA Consultant shall provide the District Engineer and, if required, the local government an electronic copy of the study documents, including the latest site plan, figures and appendices, in searchable PDF files and the original traffic analysis files (e.g., Synchro, HCS). To expedite review, the NCDOT electronic submittals shall also be delivered concurrently to:

☐ Div. Traffic Engr ☐ Regional Traffic Engr ☐ Congestion Management ☐ Other _____

Submittals	NCDOT		Local Government	
	Electronic	Hardcopy	Electronic	Hardcopy
Trip Generation & Distribution	Required		Required	
Draft TIA Report	Required		Required	
Final Sealed TIA Report	Required		Required	

☐ **Additional Comments** (municipal TIA requirements, approved variations from NCDOT guidelines)

Agreement by All Parties

The undersigned agree to the contents and methodology described above for completing the required traffic impact analysis for the proposed development identified herein. Any changes to the above methodology contemplated by the Applicant or the TIA Consultant must be submitted to the District Engineer in writing. If approved by NCDOT, then such changes may be accepted for the TIA report. Subsequent revisions to the development plan (e.g. land use, density, site access, or schedule) may require additional scoping and analysis, and may modify the TIA requirements.

This agreement shall become effective on the date approved by NCDOT, and shall expire____ months after the effective date or upon significant changes to the roadway network and/or development assumptions, whichever occurs first. Once expired, renewal or re-scoping will be required for subsequent TIA submittals.

APPLICANT

_____	_____	_____
Signature	Print Name	Date

TIA CONSULTANT

_____	_____	_____
Signature	Print Name	Date

LOCAL GOVERNMENT REPRESENTATIVE (If Applicable)

_____	_____	_____
Signature	Print Name	Date

Email concurrence may be used in lieu of the signature.

NCDOT DISTRICT REPRESENTATIVE

Reviewed and approved by the NCDOT Division ____District____ on _____.

_____	_____
Signature	Print Name

Email concurrence may be used in lieu of the signature.

NCDOT TIA Submittal Checklist

TIA Need Screening → TIA Scoping → TIA Submittal

Submittal: Please Select **Document Date:** _____

Project Name: _____ **Previous Name:** If Applicable _____

NCDOT Division: _____ **District:** _____ **County:** _____ **Municipality:** _____

TIA Consultant: _____ Submitted By: _____

Phone Number: _____ Email: _____

TIA Scoping Checklist Approval Date: _____ **Unadjusted Daily Site Trips:** _____

☒ The approved TIA Scoping Checklist is included in this submittal.

☒ LOS D or better is expected at all study intersections after proposed mitigations.

☒ The study report is sealed by a NC Professional Engineer with expertise in traffic engineering.

☒ This study has identified all known deficiencies with and without the proposed development.

☒ This study has identified mitigation measures to adequately accommodate the site trips.

Explain here if any of the boxes above are unchecked:

The undersigned affirms that, except for the deviations noted below, the TIA submittal conforms to the current *NCDOT Congestion Management Capacity Analysis Guidelines*, *Policy on Street and Driveway Access to North Carolina Highways*, and the TIA Scoping Checklist approved by the NCDOT District Office. The undersigned also acknowledges that the TIA will be rejected if the deviations and justifications are not properly documented and approved by NCDOT.

Deviations and Justifications (e.g., changes in site plan, development schedule, site trip and off-site trip estimates, study area, data collection, analysis period and method. Attached separate sheets if needed.)

NCDOT TIA Submittal Checklist

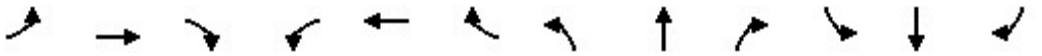
TIA Consultant's Signature (Professional Engineer of TIA Record)	Print Name	Date

DAVENPORT

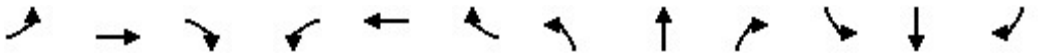
Capacity Analysis
Synchro Worksheets

DAVENPORT

Existing Conditions



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	164	4	91	13	5	8	187	674	12	6	535	253
Future Volume (vph)	164	4	91	13	5	8	187	674	12	6	535	253
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	400		0	100		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	25			25			100			100		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Frt		0.952			0.958			0.997			0.952	
Flt Protected		0.969			0.976		0.950			0.950		
Satd. Flow (prot)	0	1718	0	0	1742	0	1770	3529	0	1770	3369	0
Flt Permitted		0.790			0.817		0.278			0.344		
Satd. Flow (perm)	0	1401	0	0	1458	0	518	3529	0	641	3369	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		445			513			1027			846	
Travel Time (s)		10.1			11.7			15.6			12.8	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	182	4	101	14	6	9	208	749	13	7	594	281
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	287	0	0	29	0	208	762	0	7	875	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane											Yes	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100		20	100	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		D.P+P	NA		D.P+P	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			6			2		



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	4	4		8	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		7.0	10.0		7.0	10.0	
Minimum Split (s)	12.9	12.9		14.4	14.4		12.3	28.7		12.4	15.7	
Total Split (s)	15.0	15.0		15.0	15.0		20.0	45.0		20.0	45.0	
Total Split (%)	18.8%	18.8%		18.8%	18.8%		25.0%	56.3%		25.0%	56.3%	
Maximum Green (s)	9.1	9.1		9.6	9.6		14.7	39.3		14.6	39.3	
Yellow Time (s)	3.7	3.7		3.8	3.8		3.0	4.1		3.0	4.1	
All-Red Time (s)	2.2	2.2		1.6	1.6		2.3	1.6		2.4	1.6	
Lost Time Adjust (s)		-0.9			-0.4		-0.3	-0.7		-0.4	-0.7	
Total Lost Time (s)		5.0			5.0		5.0	5.0		5.0	5.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		None	C-Max		None	C-Max	
Walk Time (s)				7.0	7.0			7.0				
Flash Dont Walk (s)				2.0	2.0			16.0				
Pedestrian Calls (#/hr)				0	0			0				
Act Effct Green (s)		10.0			10.0		55.0	57.5		59.0	46.4	
Actuated g/C Ratio		0.12			0.12		0.69	0.72		0.74	0.58	
v/c Ratio		1.64			0.16		0.42	0.30		0.01	0.45	
Control Delay		339.9			33.7		6.7	8.0		2.7	10.6	
Queue Delay		0.0			0.0		0.0	0.0		0.0	0.0	
Total Delay		339.9			33.7		6.7	8.0		2.7	10.6	
LOS		F			C		A	A		A	B	
Approach Delay		339.9			33.7			7.7			10.6	
Approach LOS		F			C			A			B	
Queue Length 50th (ft)		~211			13		69	147		1	118	
Queue Length 95th (ft)		#359			37		32	205		3	171	
Internal Link Dist (ft)		365			433			947			766	
Turn Bay Length (ft)							400			100		
Base Capacity (vph)		175			182		622	2537		692	1953	
Starvation Cap Reductn		0			0		0	0		0	0	
Spillback Cap Reductn		0			0		0	0		0	0	
Storage Cap Reductn		0			0		0	0		0	0	
Reduced v/c Ratio		1.64			0.16		0.33	0.30		0.01	0.45	

Intersection Summary			
Area Type:	Other		
Cycle Length: 80			
Actuated Cycle Length: 80			
Offset: 45 (56%), Referenced to phase 2:NBSB and 6:NBSB, Start of Green			
Natural Cycle: 60			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.64			
Intersection Signal Delay: 53.2		Intersection LOS: D	
Intersection Capacity Utilization 66.2%		ICU Level of Service C	
Analysis Period (min) 15			

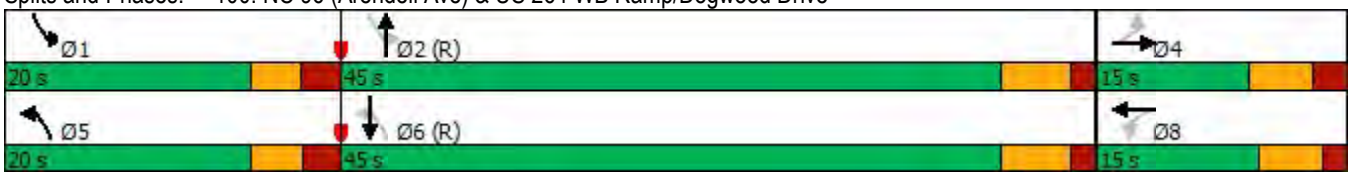
~ Volume exceeds capacity, queue is theoretically infinite.

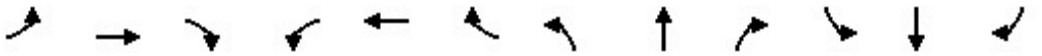
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

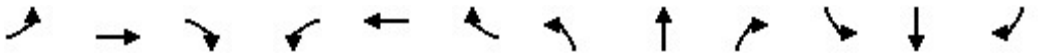
Queue shown is maximum after two cycles.

Splits and Phases: 100: NC 96 (Arendell Ave) & US 264 WB Ramp/Dogwood Drive





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	198	4	244	0	0	0	0	675	136	150	488	0
Future Volume (vph)	198	4	244	0	0	0	0	675	136	150	488	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		100	0		0	0		0	275		0
Storage Lanes	0		1	0		0	0		0	1		0
Taper Length (ft)	25			25			25			100		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	1.00
Frt			0.850					0.975				
Flt Protected		0.953								0.950		
Satd. Flow (prot)	0	1775	1583	0	0	0	0	3451	0	1770	3539	0
Flt Permitted		0.953								0.221		
Satd. Flow (perm)	0	1775	1583	0	0	0	0	3451	0	412	3539	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		468			613			651			1027	
Travel Time (s)		10.6			13.9			9.9			15.6	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	220	4	271	0	0	0	0	750	151	167	542	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	224	271	0	0	0	0	901	0	167	542	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1					2		1	2	
Detector Template	Left	Thru	Right					Thru		Left	Thru	
Leading Detector (ft)	20	100	20					100		20	100	
Trailing Detector (ft)	0	0	0					0		0	0	
Detector 1 Position(ft)	0	0	0					0		0	0	
Detector 1 Size(ft)	20	6	20					6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex					Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0					0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0					0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0					0.0		0.0	0.0	
Detector 2 Position(ft)		94						94			94	
Detector 2 Size(ft)		6						6			6	
Detector 2 Type		Cl+Ex						Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0						0.0			0.0	
Turn Type	Perm	NA	Perm					NA		D.P+P	NA	
Protected Phases		4						2		1	6	
Permitted Phases	4		4							2		



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	4	4	4					2		1	6	
Switch Phase												
Minimum Initial (s)	7.0	7.0	7.0					10.0		7.0	10.0	
Minimum Split (s)	12.6	12.6	12.6					27.8		12.8	15.8	
Total Split (s)	20.0	20.0	20.0					45.0		15.0	45.0	
Total Split (%)	25.0%	25.0%	25.0%					56.3%		18.8%	56.3%	
Maximum Green (s)	14.4	14.4	14.4					39.2		9.2	39.2	
Yellow Time (s)	3.7	3.7	3.7					3.9		3.0	3.9	
All-Red Time (s)	1.9	1.9	1.9					1.9		2.8	1.9	
Lost Time Adjust (s)		-0.6	-0.6					-0.8		-0.8	-0.8	
Total Lost Time (s)		5.0	5.0					5.0		5.0	5.0	
Lead/Lag								Lag		Lead		
Lead-Lag Optimize?								Yes		Yes		
Vehicle Extension (s)	3.0	3.0	3.0					3.0		3.0	3.0	
Recall Mode	None	None	None					C-Min		None	C-Min	
Walk Time (s)								7.0				
Flash Dont Walk (s)								15.0				
Pedestrian Calls (#/hr)								0				
Act Effct Green (s)		19.9	19.9					35.9		45.1	50.1	
Actuated g/C Ratio		0.25	0.25					0.45		0.56	0.63	
v/c Ratio		0.51	0.69					0.58		0.43	0.24	
Control Delay		30.1	37.7					18.8		6.8	4.4	
Queue Delay		0.0	0.0					0.0		0.0	0.0	
Total Delay		30.1	37.7					18.8		6.8	4.4	
LOS		C	D					B		A	A	
Approach Delay		34.3						18.8			5.0	
Approach LOS		C						B			A	
Queue Length 50th (ft)		92	118					182		14	26	
Queue Length 95th (ft)		167	#233					226		m21	m34	
Internal Link Dist (ft)		388			533			571			947	
Turn Bay Length (ft)			100							275		
Base Capacity (vph)		441	393					1740		406	2433	
Starvation Cap Reductn		0	0					0		0	0	
Spillback Cap Reductn		0	0					0		0	0	
Storage Cap Reductn		0	0					0		0	0	
Reduced v/c Ratio		0.51	0.69					0.52		0.41	0.22	

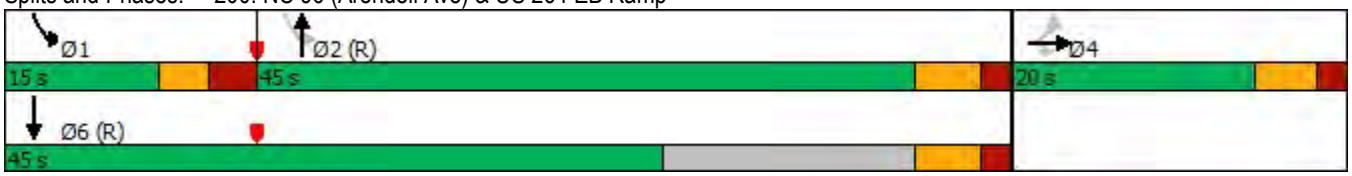
Intersection Summary			
Area Type:	Other		
Cycle Length: 80			
Actuated Cycle Length: 80			
Offset: 0 (0%), Referenced to phase 2:NBSB and 6:SBT, Start of Green			
Natural Cycle: 60			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.69			
Intersection Signal Delay: 17.8		Intersection LOS: B	
Intersection Capacity Utilization 55.0%		ICU Level of Service A	
Analysis Period (min) 15			

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 200: NC 96 (Arendell Ave) & US 264 EB Ramp



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	324	20	506	278	56	458
Future Volume (vph)	324	20	506	278	56	458
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150	0		0	175	
Storage Lanes	1	1		1	1	
Taper Length (ft)	100				100	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.850		0.850		
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1770	1583	1863	1583	1770	1863
Flt Permitted	0.950				0.338	
Satd. Flow (perm)	1770	1583	1863	1583	630	1863
Right Turn on Red		No		No		
Satd. Flow (RTOR)						
Link Speed (mph)	35		45			45
Link Distance (ft)	1185		334			1658
Travel Time (s)	23.1		5.1			25.1
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	360	22	562	309	62	509
Shared Lane Traffic (%)						
Lane Group Flow (vph)	360	22	562	309	62	509
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		12			12
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane			Yes			
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Number of Detectors	1	1	2	1	1	2
Detector Template	Left	Right	Thru	Right	Left	Thru
Leading Detector (ft)	20	20	100	20	20	100
Trailing Detector (ft)	0	0	0	0	0	0
Detector 1 Position(ft)	0	0	0	0	0	0
Detector 1 Size(ft)	20	20	6	20	20	6
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)			94			94
Detector 2 Size(ft)			6			6
Detector 2 Type			Cl+Ex			Cl+Ex
Detector 2 Channel						
Detector 2 Extend (s)			0.0			0.0
Turn Type	Perm	Perm	NA	Perm	Perm	NA
Protected Phases			2			6
Permitted Phases	8	8		2	6	

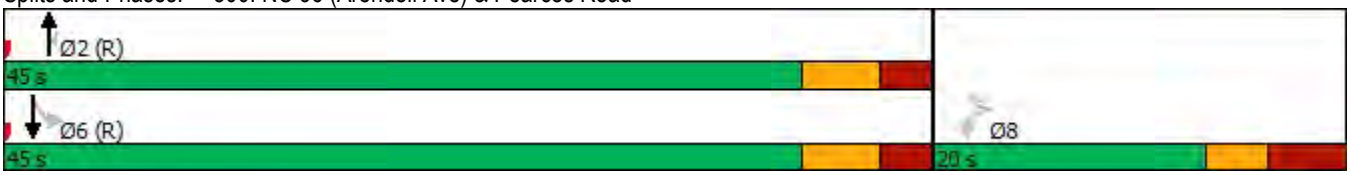
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Detector Phase	8	8	2	2	6	6
Switch Phase						
Minimum Initial (s)	7.0	7.0	10.0	10.0	10.0	10.0
Minimum Split (s)	19.9	19.9	31.4	31.4	16.4	16.4
Total Split (s)	20.0	20.0	45.0	45.0	45.0	45.0
Total Split (%)	30.8%	30.8%	69.2%	69.2%	69.2%	69.2%
Maximum Green (s)	13.1	13.1	38.6	38.6	38.6	38.6
Yellow Time (s)	3.0	3.0	3.8	3.8	3.8	3.8
All-Red Time (s)	3.9	3.9	2.6	2.6	2.6	2.6
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.9	6.9	6.4	6.4	6.4	6.4
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None	C-Min	C-Min	C-Min	C-Min
Walk Time (s)	7.0	7.0	7.0	7.0		
Flash Dont Walk (s)	6.0	6.0	18.0	18.0		
Pedestrian Calls (#/hr)	0	0	0	0		
Act Effct Green (s)	19.1	19.1	32.6	32.6	32.6	32.6
Actuated g/C Ratio	0.29	0.29	0.50	0.50	0.50	0.50
v/c Ratio	0.69	0.05	0.60	0.39	0.20	0.55
Control Delay	30.8	17.9	14.7	11.6	10.5	13.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	30.8	17.9	14.7	11.6	10.5	13.6
LOS	C	B	B	B	B	B
Approach Delay	30.1		13.6			13.3
Approach LOS	C		B			B
Queue Length 50th (ft)	120	6	157	75	13	137
Queue Length 95th (ft)	#280	23	201	104	28	176
Internal Link Dist (ft)	1105		254			1578
Turn Bay Length (ft)	150				175	
Base Capacity (vph)	520	465	1106	940	374	1106
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.69	0.05	0.51	0.33	0.17	0.46

Intersection Summary			
Area Type:	Other		
Cycle Length: 65			
Actuated Cycle Length: 65			
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green			
Natural Cycle: 55			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.69			
Intersection Signal Delay: 17.0		Intersection LOS: B	
Intersection Capacity Utilization 69.3%		ICU Level of Service C	
Analysis Period (min) 15			

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 300: NC 96 (Arendell Ave) & Pearces Road



Intersection	
Int Delay, s/veh	5.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	38	27	80	4	17	4	72	393	18	4	375	41
Future Vol, veh/h	38	27	80	4	17	4	72	393	18	4	375	41
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	42	30	89	4	19	4	80	437	20	4	417	46

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1067	1065	440	1115	1078	447	463	0	0	457	0	0
Stage 1	448	448	-	607	607	-	-	-	-	-	-	-
Stage 2	619	617	-	508	471	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	200	223	617	185	219	612	1098	-	-	1104	-	-
Stage 1	590	573	-	483	486	-	-	-	-	-	-	-
Stage 2	476	481	-	547	560	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	170	200	617	129	196	612	1098	-	-	1104	-	-
Mov Cap-2 Maneuver	170	200	-	129	196	-	-	-	-	-	-	-
Stage 1	532	570	-	436	438	-	-	-	-	-	-	-
Stage 2	408	434	-	441	557	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	30.6	25.8	1.3	0.1
HCM LOS	D	D		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1098	-	-	297	201	1104	-	-
HCM Lane V/C Ratio	0.073	-	-	0.542	0.138	0.004	-	-
HCM Control Delay (s)	8.5	0	-	30.6	25.8	8.3	0	-
HCM Lane LOS	A	A	-	D	D	A	A	-
HCM 95th %tile Q(veh)	0.2	-	-	3	0.5	0	-	-

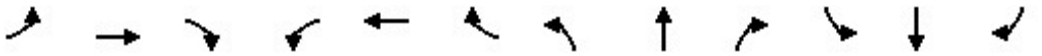
Intersection	
Int Delay, s/veh	7.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	29	68	42	62	45	29	27	168	70	23	202	22
Future Vol, veh/h	29	68	42	62	45	29	27	168	70	23	202	22
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	32	76	47	69	50	32	30	187	78	26	224	24

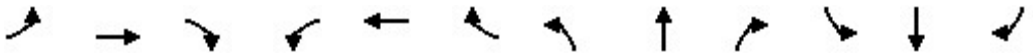
Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	615	613	236	636	586	226	248	0	0	265	0	0
Stage 1	288	288	-	286	286	-	-	-	-	-	-	-
Stage 2	327	325	-	350	300	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	403	408	803	391	422	813	1318	-	-	1299	-	-
Stage 1	720	674	-	721	675	-	-	-	-	-	-	-
Stage 2	686	649	-	666	666	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	337	388	803	302	401	813	1318	-	-	1299	-	-
Mov Cap-2 Maneuver	337	388	-	302	401	-	-	-	-	-	-	-
Stage 1	701	658	-	702	657	-	-	-	-	-	-	-
Stage 2	592	631	-	542	651	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	17.4	20.3	0.8	0.7
HCM LOS	C	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1318	-	-	443	385	1299	-	-
HCM Lane V/C Ratio	0.023	-	-	0.349	0.392	0.02	-	-
HCM Control Delay (s)	7.8	0	-	17.4	20.3	7.8	0	-
HCM Lane LOS	A	A	-	C	C	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	1.5	1.8	0.1	-	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	253	0	99	13	13	15	187	788	5	7	704	209
Future Volume (vph)	253	0	99	13	13	15	187	788	5	7	704	209
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	400		0	100		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	25			25			100			100		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Frt		0.962			0.949			0.999			0.966	
Flt Protected		0.965			0.985		0.950			0.950		
Satd. Flow (prot)	0	1729	0	0	1741	0	1770	3536	0	1770	3419	0
Flt Permitted		0.758			0.907		0.225			0.296		
Satd. Flow (perm)	0	1358	0	0	1603	0	419	3536	0	551	3419	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		445			513			1027			846	
Travel Time (s)		10.1			11.7			15.6			12.8	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	281	0	110	14	14	17	208	876	6	8	782	232
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	391	0	0	45	0	208	882	0	8	1014	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane											Yes	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100		20	100	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		D.P+P	NA		D.P+P	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			6			2		



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	4	4		8	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		7.0	10.0		7.0	10.0	
Minimum Split (s)	12.9	12.9		14.4	14.4		12.3	28.7		12.4	15.7	
Total Split (s)	15.0	15.0		15.0	15.0		20.0	45.0		20.0	45.0	
Total Split (%)	18.8%	18.8%		18.8%	18.8%		25.0%	56.3%		25.0%	56.3%	
Maximum Green (s)	9.1	9.1		9.6	9.6		14.7	39.3		14.6	39.3	
Yellow Time (s)	3.7	3.7		3.8	3.8		3.0	4.1		3.0	4.1	
All-Red Time (s)	2.2	2.2		1.6	1.6		2.3	1.6		2.4	1.6	
Lost Time Adjust (s)		-0.9			-0.4		-0.3	-0.7		-0.4	-0.7	
Total Lost Time (s)		5.0			5.0		5.0	5.0		5.0	5.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		None	C-Max		None	C-Max	
Walk Time (s)				7.0	7.0			7.0				
Flash Dont Walk (s)				2.0	2.0			16.0				
Pedestrian Calls (#/hr)				0	0			0				
Act Effct Green (s)		10.0			10.0		55.0	57.5		59.0	46.1	
Actuated g/C Ratio		0.12			0.12		0.69	0.72		0.74	0.58	
v/c Ratio		2.31			0.23		0.47	0.35		0.02	0.51	
Control Delay		630.6			34.7		5.4	5.9		2.7	11.7	
Queue Delay		0.0			0.0		0.0	0.0		0.0	0.0	
Total Delay		630.6			34.7		5.4	5.9		2.7	11.7	
LOS		F			C		A	A		A	B	
Approach Delay		630.6			34.7			5.8			11.6	
Approach LOS		F			C			A			B	
Queue Length 50th (ft)		~323			21		18	78		1	144	
Queue Length 95th (ft)		#489			51		m25	198		4	217	
Internal Link Dist (ft)		365			433			947			766	
Turn Bay Length (ft)							400			100		
Base Capacity (vph)		169			200		565	2542		641	1969	
Starvation Cap Reductn		0			0		0	0		0	0	
Spillback Cap Reductn		0			0		0	0		0	0	
Storage Cap Reductn		0			0		0	0		0	0	
Reduced v/c Ratio		2.31			0.23		0.37	0.35		0.01	0.51	

Intersection Summary			
Area Type:	Other		
Cycle Length: 80			
Actuated Cycle Length: 80			
Offset: 45 (56%), Referenced to phase 2:NBSB and 6:NBSB, Start of Green			
Natural Cycle: 70			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 2.31			
Intersection Signal Delay: 104.5		Intersection LOS: F	
Intersection Capacity Utilization 75.7%		ICU Level of Service D	
Analysis Period (min) 15			

~ Volume exceeds capacity, queue is theoretically infinite.

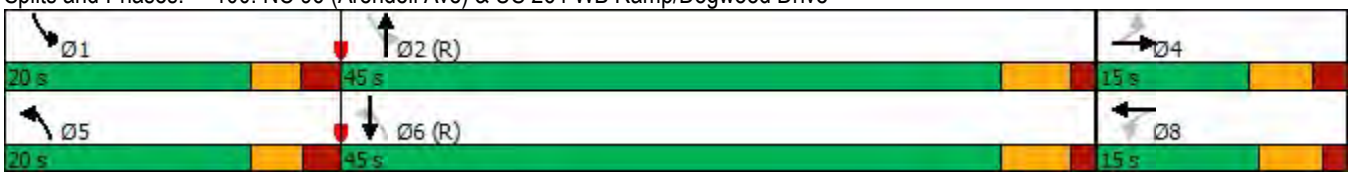
Queue shown is maximum after two cycles.

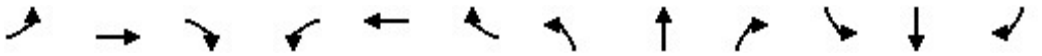
95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

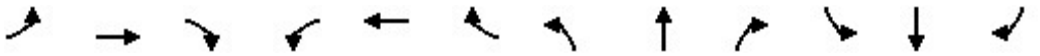
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 100: NC 96 (Arendell Ave) & US 264 WB Ramp/Dogwood Drive





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	331	8	314	0	0	0	0	649	151	294	522	0
Future Volume (vph)	331	8	314	0	0	0	0	649	151	294	522	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		100	0		0	0		0	275		0
Storage Lanes	0		1	0		0	0		0	1		0
Taper Length (ft)	25			25			25			100		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.91	0.91	1.00
Frt			0.850					0.972				
Flt Protected		0.953								0.950	0.992	
Satd. Flow (prot)	0	1775	1583	0	0	0	0	3440	0	1610	3363	0
Flt Permitted		0.953								0.179	0.599	
Satd. Flow (perm)	0	1775	1583	0	0	0	0	3440	0	303	2031	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		468			613			651			1027	
Travel Time (s)		10.6			13.9			9.9			15.6	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	368	9	349	0	0	0	0	721	168	327	580	0
Shared Lane Traffic (%)										33%		
Lane Group Flow (vph)	0	377	349	0	0	0	0	889	0	219	688	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1					2		1	2	
Detector Template	Left	Thru	Right					Thru		Left	Thru	
Leading Detector (ft)	20	100	20					100		20	100	
Trailing Detector (ft)	0	0	0					0		0	0	
Detector 1 Position(ft)	0	0	0					0		0	0	
Detector 1 Size(ft)	20	6	20					6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex					Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0					0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0					0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0					0.0		0.0	0.0	
Detector 2 Position(ft)		94						94			94	
Detector 2 Size(ft)		6						6			6	
Detector 2 Type		Cl+Ex						Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0						0.0			0.0	
Turn Type	Perm	NA	Perm					NA		D.P+P	NA	
Protected Phases		4						2		1	6	
Permitted Phases	4		4							2		



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	4	4	4					2		1	6	
Switch Phase												
Minimum Initial (s)	7.0	7.0	7.0					10.0		7.0	10.0	
Minimum Split (s)	12.6	12.6	12.6					27.8		12.8	15.8	
Total Split (s)	20.0	20.0	20.0					45.0		15.0	45.0	
Total Split (%)	25.0%	25.0%	25.0%					56.3%		18.8%	56.3%	
Maximum Green (s)	14.4	14.4	14.4					39.2		9.2	39.2	
Yellow Time (s)	3.7	3.7	3.7					3.9		3.0	3.9	
All-Red Time (s)	1.9	1.9	1.9					1.9		2.8	1.9	
Lost Time Adjust (s)		-0.6	-0.6					-0.8		-0.8	-0.8	
Total Lost Time (s)		5.0	5.0					5.0		5.0	5.0	
Lead/Lag								Lag		Lead		
Lead-Lag Optimize?								Yes		Yes		
Vehicle Extension (s)	3.0	3.0	3.0					3.0		3.0	3.0	
Recall Mode	None	None	None					C-Min		None	C-Min	
Walk Time (s)								7.0				
Flash Dont Walk (s)								15.0				
Pedestrian Calls (#/hr)								0				
Act Effct Green (s)		26.0	26.0					29.2		39.0	44.0	
Actuated g/C Ratio		0.32	0.32					0.36		0.49	0.55	
v/c Ratio		0.65	0.68					0.71		0.71	0.54	
Control Delay		32.4	34.4					24.6		17.5	7.6	
Queue Delay		0.0	0.0					0.0		0.0	0.0	
Total Delay		32.4	34.4					24.6		17.5	7.6	
LOS		C	C					C		B	A	
Approach Delay		33.4						24.6			10.0	
Approach LOS		C						C			B	
Queue Length 50th (ft)		160	150					196		58	125	
Queue Length 95th (ft)		#338	#329					224		m19	m23	
Internal Link Dist (ft)		388			533			571			947	
Turn Bay Length (ft)			100							275		
Base Capacity (vph)		576	514					1720		311	1558	
Starvation Cap Reductn		0	0					0		0	0	
Spillback Cap Reductn		0	0					0		0	0	
Storage Cap Reductn		0	0					0		0	0	
Reduced v/c Ratio		0.65	0.68					0.52		0.70	0.44	

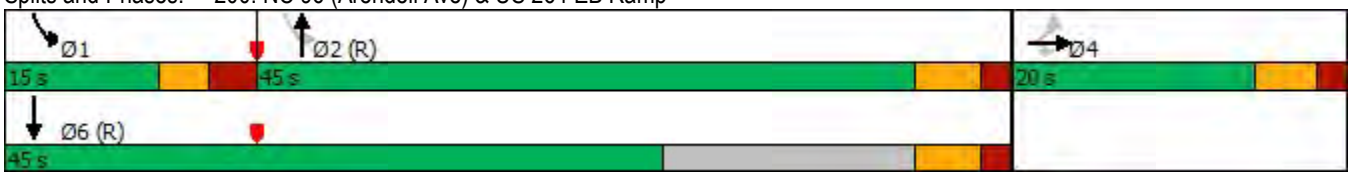
Intersection Summary			
Area Type:	Other		
Cycle Length: 80			
Actuated Cycle Length: 80			
Offset: 0 (0%), Referenced to phase 2:NBSB and 6:SBT, Start of Green			
Natural Cycle: 65			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.71			
Intersection Signal Delay: 21.9		Intersection LOS: C	
Intersection Capacity Utilization 69.3%		ICU Level of Service C	
Analysis Period (min) 15			

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 200: NC 96 (Arendell Ave) & US 264 EB Ramp



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	296	33	672	374	74	565
Future Volume (vph)	296	33	672	374	74	565
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150	0		0	175	
Storage Lanes	1	1		1	1	
Taper Length (ft)	100				100	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.850		0.850		
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1770	1583	1863	1583	1770	1863
Flt Permitted	0.950				0.238	
Satd. Flow (perm)	1770	1583	1863	1583	443	1863
Right Turn on Red		No		No		
Satd. Flow (RTOR)						
Link Speed (mph)	35		45			45
Link Distance (ft)	1185		334			1658
Travel Time (s)	23.1		5.1			25.1
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	329	37	747	416	82	628
Shared Lane Traffic (%)						
Lane Group Flow (vph)	329	37	747	416	82	628
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		12			12
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane			Yes			
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Number of Detectors	1	1	2	1	1	2
Detector Template	Left	Right	Thru	Right	Left	Thru
Leading Detector (ft)	20	20	100	20	20	100
Trailing Detector (ft)	0	0	0	0	0	0
Detector 1 Position(ft)	0	0	0	0	0	0
Detector 1 Size(ft)	20	20	6	20	20	6
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)			94			94
Detector 2 Size(ft)			6			6
Detector 2 Type			Cl+Ex			Cl+Ex
Detector 2 Channel						
Detector 2 Extend (s)			0.0			0.0
Turn Type	Perm	Perm	NA	Perm	Perm	NA
Protected Phases			2			6
Permitted Phases	8	8		2	6	

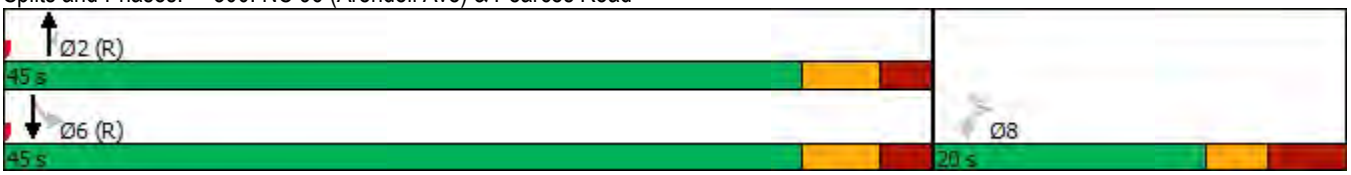
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Detector Phase	8	8	2	2	6	6
Switch Phase						
Minimum Initial (s)	7.0	7.0	10.0	10.0	10.0	10.0
Minimum Split (s)	19.9	19.9	31.4	31.4	16.4	16.4
Total Split (s)	20.0	20.0	45.0	45.0	45.0	45.0
Total Split (%)	30.8%	30.8%	69.2%	69.2%	69.2%	69.2%
Maximum Green (s)	13.1	13.1	38.6	38.6	38.6	38.6
Yellow Time (s)	3.0	3.0	3.8	3.8	3.8	3.8
All-Red Time (s)	3.9	3.9	2.6	2.6	2.6	2.6
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.9	6.9	6.4	6.4	6.4	6.4
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None	C-Min	C-Min	C-Min	C-Min
Walk Time (s)	7.0	7.0	7.0	7.0		
Flash Dont Walk (s)	6.0	6.0	18.0	18.0		
Pedestrian Calls (#/hr)	0	0	0	0		
Act Effct Green (s)	15.1	15.1	36.6	36.6	36.6	36.6
Actuated g/C Ratio	0.23	0.23	0.56	0.56	0.56	0.56
v/c Ratio	0.80	0.10	0.71	0.47	0.33	0.60
Control Delay	42.3	21.2	15.0	10.4	11.9	12.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	42.3	21.2	15.0	10.4	11.9	12.2
LOS	D	C	B	B	B	B
Approach Delay	40.2		13.4			12.2
Approach LOS	D		B			B
Queue Length 50th (ft)	116	11	218	98	18	166
Queue Length 95th (ft)	#269	34	290	137	41	218
Internal Link Dist (ft)	1105		254			1578
Turn Bay Length (ft)	150				175	
Base Capacity (vph)	412	368	1106	940	263	1106
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.80	0.10	0.68	0.44	0.31	0.57

Intersection Summary			
Area Type:	Other		
Cycle Length: 65			
Actuated Cycle Length: 65			
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green			
Natural Cycle: 60			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.80			
Intersection Signal Delay: 17.4		Intersection LOS: B	
Intersection Capacity Utilization 76.5%		ICU Level of Service D	
Analysis Period (min) 15			

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 300: NC 96 (Arendell Ave) & Pearces Road



Intersection	
Int Delay, s/veh	13.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	39	30	71	0	15	6	71	598	10	5	526	64
Future Vol, veh/h	39	30	71	0	15	6	71	598	10	5	526	64
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	43	33	79	0	17	7	79	664	11	6	584	71

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1472	1465	620	1516	1495	670	655	0	0	675	0	0
Stage 1	632	632	-	828	828	-	-	-	-	-	-	-
Stage 2	840	833	-	688	667	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	105	128	488	98	123	457	932	-	-	916	-	-
Stage 1	468	474	-	365	386	-	-	-	-	-	-	-
Stage 2	360	384	-	436	457	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	81	109	488	56	105	457	932	-	-	916	-	-
Mov Cap-2 Maneuver	81	109	-	56	105	-	-	-	-	-	-	-
Stage 1	404	469	-	315	334	-	-	-	-	-	-	-
Stage 2	291	332	-	336	452	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	131.5	37.2	1	0.1
HCM LOS	F	E		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	932	-	-	155	135	916	-	-
HCM Lane V/C Ratio	0.085	-	-	1.004	0.173	0.006	-	-
HCM Control Delay (s)	9.2	0	-	131.5	37.2	9	0	-
HCM Lane LOS	A	A	-	F	E	A	A	-
HCM 95th %tile Q(veh)	0.3	-	-	7.7	0.6	0	-	-

Intersection	
Int Delay, s/veh	9

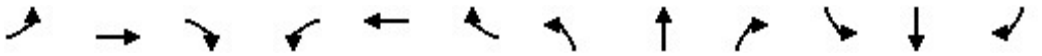
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	41	91	27	62	61	21	20	300	63	14	196	23
Future Vol, veh/h	41	91	27	62	61	21	20	300	63	14	196	23
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	46	101	30	69	68	23	22	333	70	16	218	26

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	721	710	231	741	688	368	244	0	0	403	0	0
Stage 1	263	263	-	412	412	-	-	-	-	-	-	-
Stage 2	458	447	-	329	276	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	343	359	808	332	369	677	1322	-	-	1156	-	-
Stage 1	742	691	-	617	594	-	-	-	-	-	-	-
Stage 2	583	573	-	684	682	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	275	345	808	240	355	677	1322	-	-	1156	-	-
Mov Cap-2 Maneuver	275	345	-	240	355	-	-	-	-	-	-	-
Stage 1	726	680	-	603	581	-	-	-	-	-	-	-
Stage 2	486	560	-	552	671	-	-	-	-	-	-	-

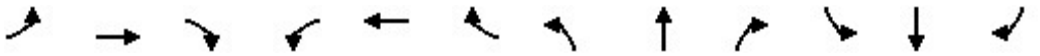
Approach	EB	WB	NB	SB
HCM Control Delay, s	24.7	28.1	0.4	0.5
HCM LOS	C	D		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1322	-	-	356	312	1156	-	-
HCM Lane V/C Ratio	0.017	-	-	0.496	0.513	0.013	-	-
HCM Control Delay (s)	7.8	0	-	24.7	28.1	8.2	0	-
HCM Lane LOS	A	A	-	C	D	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	2.6	2.8	0	-	-

Future No Build Conditions



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	167	4	93	13	5	8	191	687	12	6	546	258
Future Volume (vph)	167	4	93	13	5	8	191	687	12	6	546	258
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	400		0	150		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	25			25			100			100		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Frt		0.953			0.958			0.997			0.952	
Flt Protected		0.969			0.976		0.950			0.950		
Satd. Flow (prot)	0	1720	0	0	1742	0	1770	3529	0	1770	3369	0
Flt Permitted		0.790			0.792		0.265			0.335		
Satd. Flow (perm)	0	1402	0	0	1413	0	494	3529	0	624	3369	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		445			513			1027			1180	
Travel Time (s)		10.1			11.7			15.6			17.9	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	186	4	103	14	6	9	212	763	13	7	607	287
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	293	0	0	29	0	212	776	0	7	894	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100		20	100	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		D.P+P	NA		D.P+P	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			6			2		



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	4	4		8	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		7.0	10.0		7.0	10.0	
Minimum Split (s)	14.2	14.2		15.0	15.0		14.3	30.0		14.4	17.0	
Total Split (s)	15.0	15.0		15.0	15.0		20.0	45.0		20.0	45.0	
Total Split (%)	18.8%	18.8%		18.8%	18.8%		25.0%	56.3%		25.0%	56.3%	
Maximum Green (s)	8.0	8.0		8.0	8.0		13.0	38.0		13.0	38.0	
Yellow Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)		-2.0			-2.0		-2.0	-2.0		-2.0	-2.0	
Total Lost Time (s)		5.0			5.0		5.0	5.0		5.0	5.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		None	C-Max		None	C-Max	
Walk Time (s)				7.0	7.0			7.0				
Flash Dont Walk (s)				1.0	1.0			16.0				
Pedestrian Calls (#/hr)				0	0			0				
Act Effct Green (s)		10.0			10.0		55.0	57.2		59.0	44.6	
Actuated g/C Ratio		0.12			0.12		0.69	0.72		0.74	0.56	
v/c Ratio		1.67			0.16		0.42	0.31		0.01	0.48	
Control Delay		354.3			33.8		5.7	7.7		2.7	11.9	
Queue Delay		0.0			0.0		0.0	0.0		0.0	0.0	
Total Delay		354.3			33.8		5.7	7.7		2.7	11.9	
LOS		F			C		A	A		A	B	
Approach Delay		354.3			33.8			7.3			11.8	
Approach LOS		F			C			A			B	
Queue Length 50th (ft)		~217			13		23	81		1	130	
Queue Length 95th (ft)		#366			37		32	210		3	186	
Internal Link Dist (ft)		365			433			947			1100	
Turn Bay Length (ft)							400			150		
Base Capacity (vph)		175			176		605	2523		682	1880	
Starvation Cap Reductn		0			0		0	0		0	0	
Spillback Cap Reductn		0			0		0	0		0	0	
Storage Cap Reductn		0			0		0	0		0	0	
Reduced v/c Ratio		1.67			0.16		0.35	0.31		0.01	0.48	

Intersection Summary			
Area Type:	Other		
Cycle Length: 80			
Actuated Cycle Length: 80			
Offset: 45 (56%), Referenced to phase 2:NBSB and 6:NBSB, Start of Green			
Natural Cycle: 65			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.67			
Intersection Signal Delay: 55.5		Intersection LOS: E	
Intersection Capacity Utilization 67.3%		ICU Level of Service C	
Analysis Period (min) 15			

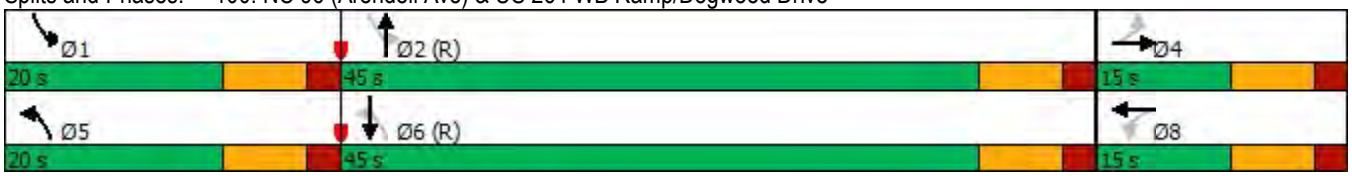
~ Volume exceeds capacity, queue is theoretically infinite.

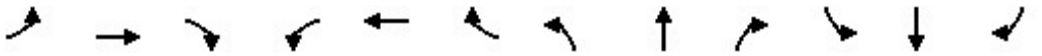
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

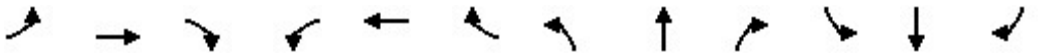
Queue shown is maximum after two cycles.

Splits and Phases: 100: NC 96 (Arendell Ave) & US 264 WB Ramp/Dogwood Drive





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	202	4	249	0	0	0	0	689	139	153	498	0
Future Volume (vph)	202	4	249	0	0	0	0	689	139	153	498	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		100	0		0	0		0	275		0
Storage Lanes	0		1	0		0	0		0	1		0
Taper Length (ft)	25			25			25			100		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	1.00
Frt			0.850					0.975				
Flt Protected		0.953								0.950		
Satd. Flow (prot)	0	1775	1583	0	0	0	0	3451	0	1770	3539	0
Flt Permitted		0.953								0.205		
Satd. Flow (perm)	0	1775	1583	0	0	0	0	3451	0	382	3539	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		468			613			651			1027	
Travel Time (s)		10.6			13.9			9.9			15.6	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	224	4	277	0	0	0	0	766	154	170	553	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	228	277	0	0	0	0	920	0	170	553	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1					2		1	2	
Detector Template	Left	Thru	Right					Thru		Left	Thru	
Leading Detector (ft)	20	100	20					100		20	100	
Trailing Detector (ft)	0	0	0					0		0	0	
Detector 1 Position(ft)	0	0	0					0		0	0	
Detector 1 Size(ft)	20	6	20					6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex					Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0					0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0					0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0					0.0		0.0	0.0	
Detector 2 Position(ft)		94						94			94	
Detector 2 Size(ft)		6						6			6	
Detector 2 Type		Cl+Ex						Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0						0.0			0.0	
Turn Type	Perm	NA	Perm					NA		D.P+P	NA	
Protected Phases		4						2		1	6	
Permitted Phases	4		4							2		



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	4	4	4					2		1	6	
Switch Phase												
Minimum Initial (s)	7.0	7.0	7.0					10.0		7.0	10.0	
Minimum Split (s)	14.0	14.0	14.0					29.0		14.8	17.0	
Total Split (s)	20.0	20.0	20.0					45.0		15.0	60.0	
Total Split (%)	25.0%	25.0%	25.0%					56.3%		18.8%	75.0%	
Maximum Green (s)	13.0	13.0	13.0					38.0		8.0	53.0	
Yellow Time (s)	5.0	5.0	5.0					5.0		5.0	5.0	
All-Red Time (s)	2.0	2.0	2.0					2.0		2.0	2.0	
Lost Time Adjust (s)		-2.0	-2.0					-2.0		-2.0	-2.0	
Total Lost Time (s)		5.0	5.0					5.0		5.0	5.0	
Lead/Lag								Lag		Lead		
Lead-Lag Optimize?								Yes		Yes		
Vehicle Extension (s)	3.0	3.0	3.0					3.0		3.0	3.0	
Recall Mode	None	None	None					C-Min		None	C-Min	
Walk Time (s)								7.0				
Flash Dont Walk (s)								15.0				
Pedestrian Calls (#/hr)								0				
Act Effct Green (s)		20.4	20.4					34.6		44.6	49.6	
Actuated g/C Ratio		0.26	0.26					0.43		0.56	0.62	
v/c Ratio		0.50	0.69					0.62		0.44	0.25	
Control Delay		30.2	38.0					19.9		6.4	3.8	
Queue Delay		0.0	0.0					0.0		0.0	0.0	
Total Delay		30.2	38.0					19.9		6.4	3.8	
LOS		C	D					B		A	A	
Approach Delay		34.4						19.9			4.4	
Approach LOS		C						B			A	
Queue Length 50th (ft)		91	116					202		23	52	
Queue Length 95th (ft)		174	#254					224		m9	m14	
Internal Link Dist (ft)		388			533			571			947	
Turn Bay Length (ft)			100							275		
Base Capacity (vph)		453	404					1725		391	2433	
Starvation Cap Reductn		0	0					0		0	0	
Spillback Cap Reductn		0	0					0		0	0	
Storage Cap Reductn		0	0					0		0	0	
Reduced v/c Ratio		0.50	0.69					0.53		0.43	0.23	

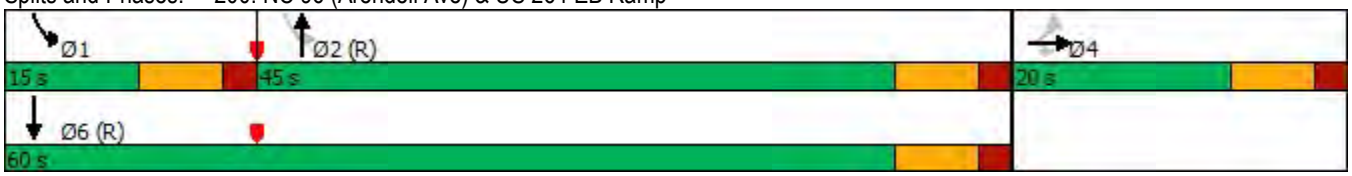
Intersection Summary			
Area Type:	Other		
Cycle Length: 80			
Actuated Cycle Length: 80			
Offset: 0 (0%), Referenced to phase 2:NBSB and 6:SBT, Start of Green			
Natural Cycle: 60			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.69			
Intersection Signal Delay: 18.1		Intersection LOS: B	
Intersection Capacity Utilization 55.9%		ICU Level of Service B	
Analysis Period (min) 15			

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 200: NC 96 (Arendell Ave) & US 264 EB Ramp



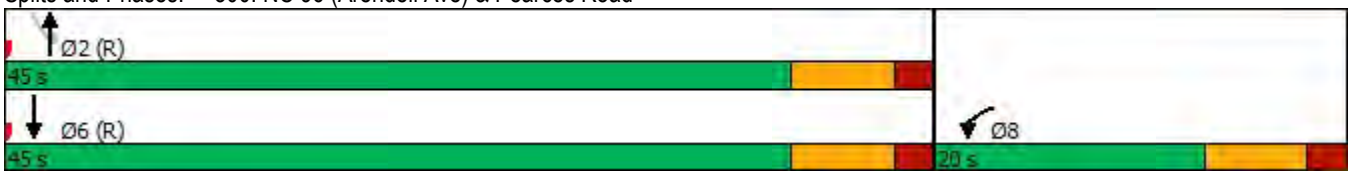
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	330	20	516	284	57	467
Future Volume (vph)	330	20	516	284	57	467
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150	0		0	300	
Storage Lanes	1	0		0	1	
Taper Length (ft)	100				100	
Lane Util. Factor	0.97	0.95	0.95	0.95	1.00	0.95
Frt	0.992		0.947			
Flt Protected	0.955				0.950	
Satd. Flow (prot)	3423	0	3352	0	1770	3539
Flt Permitted	0.955				0.291	
Satd. Flow (perm)	3423	0	3352	0	542	3539
Right Turn on Red		No		No		
Satd. Flow (RTOR)						
Link Speed (mph)	35		45			45
Link Distance (ft)	1185		1180			767
Travel Time (s)	23.1		17.9			11.6
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	367	22	573	316	63	519
Shared Lane Traffic (%)						
Lane Group Flow (vph)	389	0	889	0	63	519
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	24		12			12
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Number of Detectors	1		2		1	2
Detector Template	Left		Thru		Left	Thru
Leading Detector (ft)	20		100		20	100
Trailing Detector (ft)	0		0		0	0
Detector 1 Position(ft)	0		0		0	0
Detector 1 Size(ft)	20		6		20	6
Detector 1 Type	Cl+Ex		Cl+Ex		Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0		0.0		0.0	0.0
Detector 1 Queue (s)	0.0		0.0		0.0	0.0
Detector 1 Delay (s)	0.0		0.0		0.0	0.0
Detector 2 Position(ft)			94			94
Detector 2 Size(ft)			6			6
Detector 2 Type			Cl+Ex			Cl+Ex
Detector 2 Channel						
Detector 2 Extend (s)			0.0			0.0
Turn Type	Prot		NA		D.Pm	NA
Protected Phases	8		2			6
Permitted Phases					2	

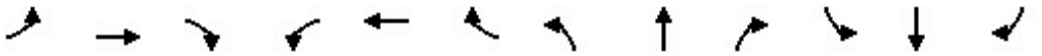
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Detector Phase	8		2		2	6
Switch Phase						
Minimum Initial (s)	7.0		10.0		10.0	10.0
Minimum Split (s)	20.0		35.0		35.0	17.6
Total Split (s)	20.0		45.0		45.0	45.0
Total Split (%)	30.8%		69.2%		69.2%	69.2%
Maximum Green (s)	13.0		38.0		38.0	38.0
Yellow Time (s)	5.0		5.0		5.0	5.0
All-Red Time (s)	2.0		2.0		2.0	2.0
Lost Time Adjust (s)	-2.0		-2.0		-2.0	-2.0
Total Lost Time (s)	5.0		5.0		5.0	5.0
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0		3.0		3.0	3.0
Recall Mode	None		C-Min		C-Min	C-Min
Walk Time (s)	7.0		7.0		7.0	
Flash Dont Walk (s)	6.0		18.0		18.0	
Pedestrian Calls (#/hr)	0		0		0	
Act Effct Green (s)	14.5		40.5		40.5	40.5
Actuated g/C Ratio	0.22		0.62		0.62	0.62
v/c Ratio	0.51		0.43		0.19	0.24
Control Delay	24.2		7.5		7.5	5.6
Queue Delay	0.0		0.0		0.0	0.0
Total Delay	24.2		7.5		7.5	5.6
LOS	C		A		A	A
Approach Delay	24.2		7.5			5.9
Approach LOS	C		A			A
Queue Length 50th (ft)	70		82		8	34
Queue Length 95th (ft)	100		135		m27	69
Internal Link Dist (ft)	1105		1100			687
Turn Bay Length (ft)	150				300	
Base Capacity (vph)	828		2127		344	2246
Starvation Cap Reductn	0		0		0	0
Spillback Cap Reductn	0		0		0	0
Storage Cap Reductn	0		0		0	0
Reduced v/c Ratio	0.47		0.42		0.18	0.23

Intersection Summary	
Area Type:	Other
Cycle Length: 65	
Actuated Cycle Length: 65	
Offset: 0 (0%), Referenced to phase 2:NBSB and 6:SBT, Start of Green	
Natural Cycle: 55	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.51	
Intersection Signal Delay: 10.5	Intersection LOS: B
Intersection Capacity Utilization 54.2%	ICU Level of Service A
Analysis Period (min) 15	

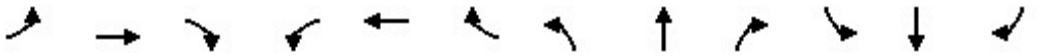
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 300: NC 96 (Arendell Ave) & Pearces Road





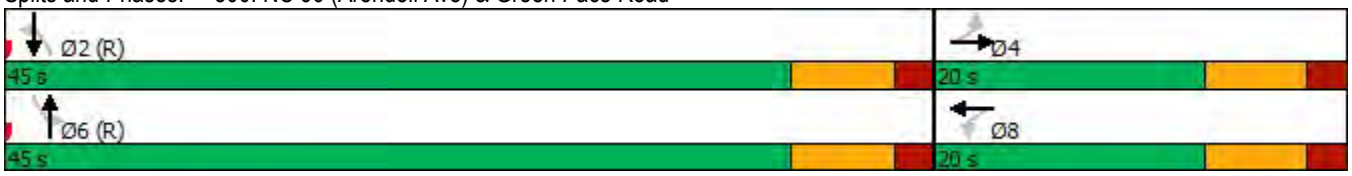
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	39	28	82	4	17	4	73	401	18	4	383	42
Future Volume (vph)	39	28	82	4	17	4	73	401	18	4	383	42
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	200		0	150		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	25			25			100			100		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.926			0.980			0.994			0.985	
Flt Protected		0.987			0.993		0.950			0.950		
Satd. Flow (prot)	0	1702	0	0	1813	0	1770	1852	0	1770	1835	0
Flt Permitted		0.905			0.943		0.454			0.459		
Satd. Flow (perm)	0	1561	0	0	1721	0	846	1852	0	855	1835	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		35			35			45			45	
Link Distance (ft)		1260			791			891			736	
Travel Time (s)		24.5			15.4			13.5			11.2	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	43	31	91	4	19	4	81	446	20	4	426	47
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	165	0	0	27	0	81	466	0	4	473	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100		20	100	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		D.Pm	NA		D.Pm	NA	
Protected Phases		4			8			6			2	
Permitted Phases	4			8			2			6		



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	4	4		8	8		2	6		6	2	
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		10.0	10.0		10.0	10.0	
Minimum Split (s)	14.0	14.0		14.0	14.0		17.0	17.0		17.0	17.0	
Total Split (s)	20.0	20.0		20.0	20.0		45.0	45.0		45.0	45.0	
Total Split (%)	30.8%	30.8%		30.8%	30.8%		69.2%	69.2%		69.2%	69.2%	
Maximum Green (s)	13.0	13.0		13.0	13.0		38.0	38.0		38.0	38.0	
Yellow Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)		-2.0			-2.0		-2.0	-2.0		-2.0	-2.0	
Total Lost Time (s)		5.0			5.0		5.0	5.0		5.0	5.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0		2.0	2.0		5.0	5.0		5.0	5.0	
Minimum Gap (s)	0.2	0.2		0.2	0.2		3.0	3.0		3.0	3.0	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		15.0	15.0		15.0	15.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		30.0	30.0		30.0	30.0	
Recall Mode	None	None		None	None		C-Min	C-Min		C-Min	C-Min	
Act Effct Green (s)		13.2			13.2		41.8	41.8		41.8	41.8	
Actuated g/C Ratio		0.20			0.20		0.64	0.64		0.64	0.64	
v/c Ratio		0.52			0.08		0.15	0.39		0.01	0.40	
Control Delay		28.3			19.6		7.1	7.4		5.5	7.6	
Queue Delay		0.0			0.0		0.0	0.0		0.0	0.0	
Total Delay		28.3			19.6		7.1	7.4		5.5	7.6	
LOS		C			B		A	A		A	A	
Approach Delay		28.3			19.6			7.3			7.6	
Approach LOS		C			B			A			A	
Queue Length 50th (ft)		59			9		10	70		0	76	
Queue Length 95th (ft)		102			25		36	138		4	159	
Internal Link Dist (ft)		1180			711			811			656	
Turn Bay Length (ft)							200			150		
Base Capacity (vph)		374			413		551	1206		557	1195	
Starvation Cap Reductn		0			0		0	0		0	0	
Spillback Cap Reductn		0			0		0	0		0	0	
Storage Cap Reductn		0			0		0	0		0	0	
Reduced v/c Ratio		0.44			0.07		0.15	0.39		0.01	0.40	

Intersection Summary			
Area Type:	Other		
Cycle Length: 65			
Actuated Cycle Length: 65			
Offset: 0 (0%), Referenced to phase 2:NBSB and 6:NBSB, Start of Green			
Natural Cycle: 40			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.52			
Intersection Signal Delay: 10.5		Intersection LOS: B	
Intersection Capacity Utilization 57.7%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 500: NC 96 (Arendell Ave) & Green Pace Road



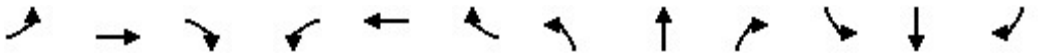
Intersection	
Int Delay, s/veh	7.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	30	69	43	63	46	30	28	171	71	23	206	22
Future Vol, veh/h	30	69	43	63	46	30	28	171	71	23	206	22
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	33	77	48	70	51	33	31	190	79	26	229	24

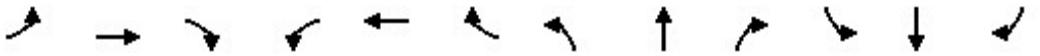
Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	627	624	241	648	597	230	253	0	0	269	0	0
Stage 1	293	293	-	292	292	-	-	-	-	-	-	-
Stage 2	334	331	-	356	305	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	396	402	798	383	416	809	1312	-	-	1295	-	-
Stage 1	715	670	-	716	671	-	-	-	-	-	-	-
Stage 2	680	645	-	661	662	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	329	382	798	293	395	809	1312	-	-	1295	-	-
Mov Cap-2 Maneuver	329	382	-	293	395	-	-	-	-	-	-	-
Stage 1	695	655	-	696	652	-	-	-	-	-	-	-
Stage 2	584	627	-	536	647	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	17.9	21	0.8	0.7
HCM LOS	C	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1312	-	-	436	377	1295	-	-
HCM Lane V/C Ratio	0.024	-	-	0.362	0.41	0.02	-	-
HCM Control Delay (s)	7.8	0	-	17.9	21	7.8	0	-
HCM Lane LOS	A	A	-	C	C	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	1.6	1.9	0.1	-	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	258	4	101	13	13	15	191	804	5	7	718	213
Future Volume (vph)	258	4	101	13	13	15	191	804	5	7	718	213
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	400		0	150		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	25			25			100			100		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Frt		0.962			0.949			0.999			0.966	
Flt Protected		0.966			0.985		0.950			0.950		
Satd. Flow (prot)	0	1731	0	0	1741	0	1770	3536	0	1770	3419	0
Flt Permitted		0.760			0.892		0.211			0.285		
Satd. Flow (perm)	0	1362	0	0	1577	0	393	3536	0	531	3419	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		445			513			1027			1180	
Travel Time (s)		10.1			11.7			15.6			17.9	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	287	4	112	14	14	17	212	893	6	8	798	237
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	403	0	0	45	0	212	899	0	8	1035	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100		20	100	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		D.P+P	NA		D.P+P	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			6			2		



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	4	4		8	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		7.0	10.0		7.0	10.0	
Minimum Split (s)	14.2	14.2		15.0	15.0		14.3	30.0		14.4	17.0	
Total Split (s)	15.0	15.0		15.0	15.0		20.0	45.0		20.0	45.0	
Total Split (%)	18.8%	18.8%		18.8%	18.8%		25.0%	56.3%		25.0%	56.3%	
Maximum Green (s)	8.0	8.0		8.0	8.0		13.0	38.0		13.0	38.0	
Yellow Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)		-2.0			-2.0		-2.0	-2.0		-2.0	-2.0	
Total Lost Time (s)		5.0			5.0		5.0	5.0		5.0	5.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		None	C-Max		None	C-Max	
Walk Time (s)				7.0	7.0			7.0				
Flash Dont Walk (s)				1.0	1.0			16.0				
Pedestrian Calls (#/hr)				0	0			0				
Act Effct Green (s)		10.0			10.0		55.0	57.2		59.0	44.3	
Actuated g/C Ratio		0.12			0.12		0.69	0.72		0.74	0.55	
v/c Ratio		2.37			0.23		0.47	0.36		0.02	0.55	
Control Delay		655.4			34.8		5.2	6.0		2.7	13.1	
Queue Delay		0.0			0.0		0.0	0.0		0.0	0.0	
Total Delay		655.4			34.8		5.2	6.0		2.7	13.1	
LOS		F			C		A	A		A	B	
Approach Delay		655.4			34.8			5.8			13.1	
Approach LOS		F			C			A			B	
Queue Length 50th (ft)		~336			21		18	78		1	158	
Queue Length 95th (ft)		#505			51		m24	203		4	238	
Internal Link Dist (ft)		365			433			947			1100	
Turn Bay Length (ft)							400			150		
Base Capacity (vph)		170			197		547	2528		630	1891	
Starvation Cap Reductn		0			0		0	0		0	0	
Spillback Cap Reductn		0			0		0	0		0	0	
Storage Cap Reductn		0			0		0	0		0	0	
Reduced v/c Ratio		2.37			0.23		0.39	0.36		0.01	0.55	

Intersection Summary			
Area Type:	Other		
Cycle Length: 80			
Actuated Cycle Length: 80			
Offset: 45 (56%), Referenced to phase 2:NBSB and 6:NBSB, Start of Green			
Natural Cycle: 80			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 2.37			
Intersection Signal Delay: 109.8		Intersection LOS: F	
Intersection Capacity Utilization 77.1%		ICU Level of Service D	
Analysis Period (min) 15			

~ Volume exceeds capacity, queue is theoretically infinite.

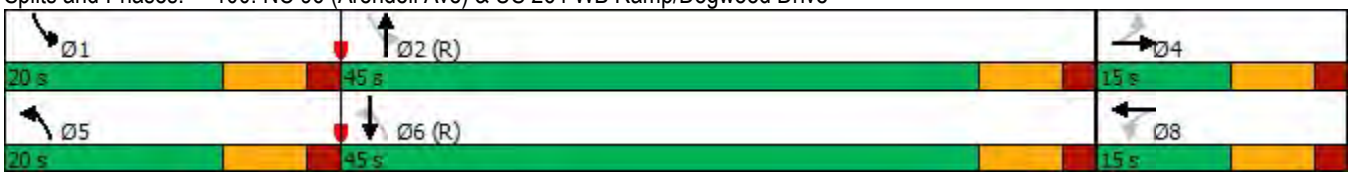
Queue shown is maximum after two cycles.

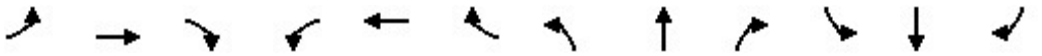
95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

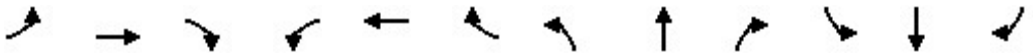
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 100: NC 96 (Arendell Ave) & US 264 WB Ramp/Dogwood Drive





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	338	8	320	0	0	0	0	662	154	300	532	0
Future Volume (vph)	338	8	320	0	0	0	0	662	154	300	532	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		100	0		0	0		0	275		0
Storage Lanes	0		1	0		0	0		0	1		0
Taper Length (ft)	25			25			25			100		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	1.00
Frt			0.850					0.972				
Flt Protected		0.953								0.950		
Satd. Flow (prot)	0	1775	1583	0	0	0	0	3440	0	1770	3539	0
Flt Permitted		0.953								0.183		
Satd. Flow (perm)	0	1775	1583	0	0	0	0	3440	0	341	3539	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		468			613			651			1027	
Travel Time (s)		10.6			13.9			9.9			15.6	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	376	9	356	0	0	0	0	736	171	333	591	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	385	356	0	0	0	0	907	0	333	591	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1					2		1	2	
Detector Template	Left	Thru	Right					Thru		Left	Thru	
Leading Detector (ft)	20	100	20					100		20	100	
Trailing Detector (ft)	0	0	0					0		0	0	
Detector 1 Position(ft)	0	0	0					0		0	0	
Detector 1 Size(ft)	20	6	20					6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex					Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0					0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0					0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0					0.0		0.0	0.0	
Detector 2 Position(ft)		94						94			94	
Detector 2 Size(ft)		6						6			6	
Detector 2 Type		Cl+Ex						Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0						0.0			0.0	
Turn Type	Perm	NA	Perm					NA		D.P+P	NA	
Protected Phases		4						2		1	6	
Permitted Phases	4		4							2		



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	4	4	4					2		1	6	
Switch Phase												
Minimum Initial (s)	7.0	7.0	7.0					10.0		7.0	10.0	
Minimum Split (s)	14.0	14.0	14.0					29.0		14.8	17.0	
Total Split (s)	20.0	20.0	20.0					45.0		15.0	60.0	
Total Split (%)	25.0%	25.0%	25.0%					56.3%		18.8%	75.0%	
Maximum Green (s)	13.0	13.0	13.0					38.0		8.0	53.0	
Yellow Time (s)	5.0	5.0	5.0					5.0		5.0	5.0	
All-Red Time (s)	2.0	2.0	2.0					2.0		2.0	2.0	
Lost Time Adjust (s)		-2.0	-2.0					-2.0		-2.0	-2.0	
Total Lost Time (s)		5.0	5.0					5.0		5.0	5.0	
Lead/Lag								Lag		Lead		
Lead-Lag Optimize?								Yes		Yes		
Vehicle Extension (s)	3.0	3.0	3.0					3.0		3.0	3.0	
Recall Mode	None	None	None					C-Min		None	C-Min	
Walk Time (s)								7.0				
Flash Dont Walk (s)								15.0				
Pedestrian Calls (#/hr)								0				
Act Effct Green (s)		24.4	24.4					30.6		40.6	45.6	
Actuated g/C Ratio		0.30	0.30					0.38		0.51	0.57	
v/c Ratio		0.71	0.74					0.69		0.95	0.29	
Control Delay		36.3	38.8					23.2		40.1	4.6	
Queue Delay		0.0	0.0					0.0		0.0	0.0	
Total Delay		36.3	38.8					23.2		40.1	4.6	
LOS		D	D					C		D	A	
Approach Delay		37.5						23.2			17.4	
Approach LOS		D						C			B	
Queue Length 50th (ft)		170	158					195		75	58	
Queue Length 95th (ft)		#364	#351					222		m#140	m0	
Internal Link Dist (ft)		388			533			571			947	
Turn Bay Length (ft)			100							275		
Base Capacity (vph)		540	482					1720		351	2433	
Starvation Cap Reductn		0	0					0		0	0	
Spillback Cap Reductn		0	0					0		0	0	
Storage Cap Reductn		0	0					0		0	0	
Reduced v/c Ratio		0.71	0.74					0.53		0.95	0.24	

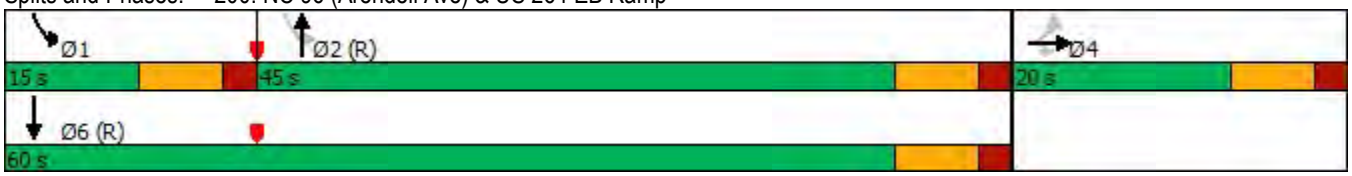
Intersection Summary			
Area Type:	Other		
Cycle Length: 80			
Actuated Cycle Length: 80			
Offset: 0 (0%), Referenced to phase 2:NBSB and 6:SBT, Start of Green			
Natural Cycle: 70			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.95			
Intersection Signal Delay: 25.2		Intersection LOS: C	
Intersection Capacity Utilization 71.5%		ICU Level of Service C	
Analysis Period (min) 15			

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 200: NC 96 (Arendell Ave) & US 264 EB Ramp



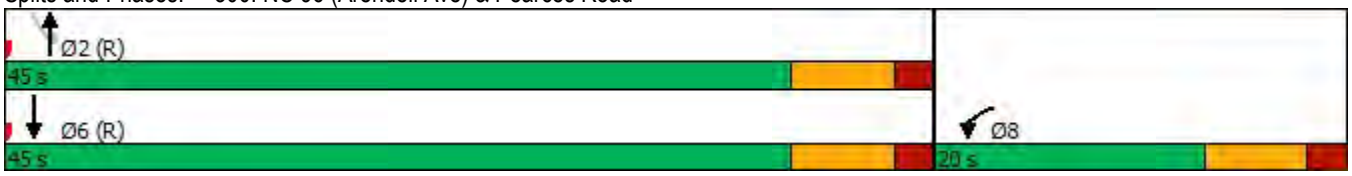
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	302	34	685	381	75	576
Future Volume (vph)	302	34	685	381	75	576
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150	0		0	300	
Storage Lanes	1	0		0	1	
Taper Length (ft)	100				100	
Lane Util. Factor	0.97	0.95	0.95	0.95	1.00	0.95
Frt	0.985		0.946			
Flt Protected	0.957				0.950	
Satd. Flow (prot)	3406	0	3348	0	1770	3539
Flt Permitted	0.957				0.195	
Satd. Flow (perm)	3406	0	3348	0	363	3539
Right Turn on Red		No		No		
Satd. Flow (RTOR)						
Link Speed (mph)	35		45			45
Link Distance (ft)	1185		1180			773
Travel Time (s)	23.1		17.9			11.7
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	336	38	761	423	83	640
Shared Lane Traffic (%)						
Lane Group Flow (vph)	374	0	1184	0	83	640
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	24		12			12
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Number of Detectors	1		2		1	2
Detector Template	Left		Thru		Left	Thru
Leading Detector (ft)	20		100		20	100
Trailing Detector (ft)	0		0		0	0
Detector 1 Position(ft)	0		0		0	0
Detector 1 Size(ft)	20		6		20	6
Detector 1 Type	Cl+Ex		Cl+Ex		Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0		0.0		0.0	0.0
Detector 1 Queue (s)	0.0		0.0		0.0	0.0
Detector 1 Delay (s)	0.0		0.0		0.0	0.0
Detector 2 Position(ft)			94			94
Detector 2 Size(ft)			6			6
Detector 2 Type			Cl+Ex			Cl+Ex
Detector 2 Channel						
Detector 2 Extend (s)			0.0			0.0
Turn Type	Prot		NA		D.Pm	NA
Protected Phases	8		2			6
Permitted Phases					2	

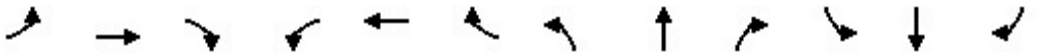
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Detector Phase	8		2		2	6
Switch Phase						
Minimum Initial (s)	7.0		10.0		10.0	10.0
Minimum Split (s)	20.0		32.6		32.6	20.0
Total Split (s)	20.0		45.0		45.0	45.0
Total Split (%)	30.8%		69.2%		69.2%	69.2%
Maximum Green (s)	13.0		38.0		38.0	38.0
Yellow Time (s)	5.0		5.0		5.0	5.0
All-Red Time (s)	2.0		2.0		2.0	2.0
Lost Time Adjust (s)	-2.0		-2.0		-2.0	-2.0
Total Lost Time (s)	5.0		5.0		5.0	5.0
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0		3.0		3.0	3.0
Recall Mode	None		C-Min		C-Min	C-Min
Walk Time (s)	7.0		7.0		7.0	
Flash Dont Walk (s)	6.0		18.0		18.0	
Pedestrian Calls (#/hr)	0		0		0	
Act Effct Green (s)	13.7		41.3		41.3	41.3
Actuated g/C Ratio	0.21		0.64		0.64	0.64
v/c Ratio	0.52		0.56		0.36	0.28
Control Delay	25.2		8.2		11.8	6.2
Queue Delay	0.0		0.0		0.0	0.0
Total Delay	25.2		8.2		11.8	6.2
LOS	C		A		B	A
Approach Delay	25.2		8.2			6.8
Approach LOS	C		A			A
Queue Length 50th (ft)	67		122		12	45
Queue Length 95th (ft)	103		176		m39	95
Internal Link Dist (ft)	1105		1100			693
Turn Bay Length (ft)	150				300	
Base Capacity (vph)	792		2131		231	2252
Starvation Cap Reductn	0		0		0	0
Spillback Cap Reductn	0		0		0	0
Storage Cap Reductn	0		0		0	0
Reduced v/c Ratio	0.47		0.56		0.36	0.28

Intersection Summary			
Area Type:	Other		
Cycle Length: 65			
Actuated Cycle Length: 65			
Offset: 0 (0%), Referenced to phase 2:NBSB and 6:SBT, Start of Green			
Natural Cycle: 55			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.56			
Intersection Signal Delay: 10.6		Intersection LOS: B	
Intersection Capacity Utilization 61.7%		ICU Level of Service B	
Analysis Period (min) 15			

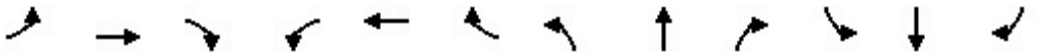
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 300: NC 96 (Arendell Ave) & Pearces Road





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	40	31	72	4	15	6	72	610	10	5	537	65
Future Volume (vph)	40	31	72	4	15	6	72	610	10	5	537	65
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	200		0	150		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	25			25			100			100		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.932			0.966			0.998			0.984	
Flt Protected		0.986			0.993		0.950			0.950		
Satd. Flow (prot)	0	1712	0	0	1787	0	1770	1859	0	1770	1833	0
Flt Permitted		0.896			0.953		0.341			0.329		
Satd. Flow (perm)	0	1556	0	0	1715	0	635	1859	0	613	1833	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		35			35			45			45	
Link Distance (ft)		1260			791			885			736	
Travel Time (s)		24.5			15.4			13.4			11.2	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	44	34	80	4	17	7	80	678	11	6	597	72
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	158	0	0	28	0	80	689	0	6	669	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100		20	100	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		D.Pm	NA		D.Pm	NA	
Protected Phases		4			8			6			2	
Permitted Phases	4			8			2			6		

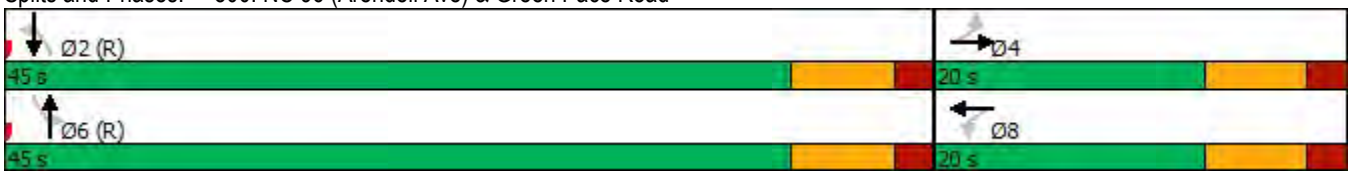


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	4	4		8	8		2	6		6	2	
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		10.0	10.0		10.0	10.0	
Minimum Split (s)	14.0	14.0		14.0	14.0		17.0	17.0		17.0	17.0	
Total Split (s)	20.0	20.0		20.0	20.0		45.0	45.0		45.0	45.0	
Total Split (%)	30.8%	30.8%		30.8%	30.8%		69.2%	69.2%		69.2%	69.2%	
Maximum Green (s)	13.0	13.0		13.0	13.0		38.0	38.0		38.0	38.0	
Yellow Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)		-2.0			-2.0		-2.0	-2.0		-2.0	-2.0	
Total Lost Time (s)		5.0			5.0		5.0	5.0		5.0	5.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0		2.0	2.0		5.0	5.0		5.0	5.0	
Minimum Gap (s)	0.2	0.2		0.2	0.2		3.0	3.0		3.0	3.0	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		15.0	15.0		15.0	15.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		30.0	30.0		30.0	30.0	
Recall Mode	None	None		None	None		C-Min	C-Min		C-Min	C-Min	
Act Effct Green (s)		12.5			12.5		46.3	46.3		46.3	46.3	
Actuated g/C Ratio		0.19			0.19		0.71	0.71		0.71	0.71	
v/c Ratio		0.53			0.09		0.18	0.52		0.01	0.51	
Control Delay		29.9			20.9		7.6	8.7		5.0	8.0	
Queue Delay		0.0			0.0		0.0	0.0		0.0	0.0	
Total Delay		29.9			20.9		7.6	8.7		5.0	8.0	
LOS		C			C		A	A		A	A	
Approach Delay		29.9			20.9			8.6			8.0	
Approach LOS		C			C			A			A	
Queue Length 50th (ft)		56			9		10	114		1	123	
Queue Length 95th (ft)		105			27		m31	208		5	227	
Internal Link Dist (ft)		1180			711			805			656	
Turn Bay Length (ft)							200			150		
Base Capacity (vph)		359			395		452	1324		436	1306	
Starvation Cap Reductn		0			0		0	0		0	0	
Spillback Cap Reductn		0			0		0	0		0	0	
Storage Cap Reductn		0			0		0	0		0	0	
Reduced v/c Ratio		0.44			0.07		0.18	0.52		0.01	0.51	

Intersection Summary			
Area Type:	Other		
Cycle Length: 65			
Actuated Cycle Length: 65			
Offset: 0 (0%), Referenced to phase 2:NBSB and 6:NBSB, Start of Green			
Natural Cycle: 40			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.53			
Intersection Signal Delay: 10.6		Intersection LOS: B	
Intersection Capacity Utilization 67.5%		ICU Level of Service C	
Analysis Period (min) 15			

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 500: NC 96 (Arendell Ave) & Green Pace Road



Intersection	
Int Delay, s/veh	9.4

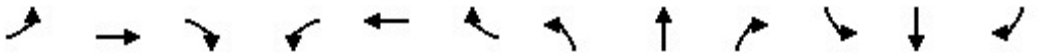
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	42	93	28	63	62	21	20	306	64	14	200	23
Future Vol, veh/h	42	93	28	63	62	21	20	306	64	14	200	23
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	47	103	31	70	69	23	22	340	71	16	222	26

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	733	722	235	754	700	376	248	0	0	411	0	0
Stage 1	267	267	-	420	420	-	-	-	-	-	-	-
Stage 2	466	455	-	334	280	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	336	353	804	326	363	670	1318	-	-	1148	-	-
Stage 1	738	688	-	611	589	-	-	-	-	-	-	-
Stage 2	577	569	-	680	679	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	267	340	804	233	349	670	1318	-	-	1148	-	-
Mov Cap-2 Maneuver	267	340	-	233	349	-	-	-	-	-	-	-
Stage 1	722	677	-	598	576	-	-	-	-	-	-	-
Stage 2	480	556	-	545	668	-	-	-	-	-	-	-

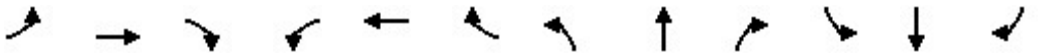
Approach	EB	WB	NB	SB
HCM Control Delay, s	25.8	29.5	0.4	0.5
HCM LOS	D	D		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1318	-	-	350	305	1148	-	-
HCM Lane V/C Ratio	0.017	-	-	0.517	0.532	0.014	-	-
HCM Control Delay (s)	7.8	0	-	25.8	29.5	8.2	0	-
HCM Lane LOS	A	A	-	D	D	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	2.8	2.9	0	-	-

Future Build Conditions



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	167	14	93	68	15	82	191	664	85	108	523	258
Future Volume (vph)	167	14	93	68	15	82	191	664	85	108	523	258
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	400		0	150		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	25			25			100			100		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Frt		0.954			0.933			0.983			0.950	
Flt Protected		0.970			0.980		0.950			0.950		
Satd. Flow (prot)	0	1724	0	0	1703	0	1770	3479	0	1770	3362	0
Flt Permitted		0.626			0.795		0.275			0.298		
Satd. Flow (perm)	0	1112	0	0	1382	0	512	3479	0	555	3362	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		445			380			1027			1180	
Travel Time (s)		10.1			8.6			15.6			17.9	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	186	16	103	76	17	91	212	738	94	120	581	287
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	305	0	0	184	0	212	832	0	120	868	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100		20	100	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		D.P+P	NA		D.P+P	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			6			2		



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	4	4		8	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		7.0	10.0		7.0	10.0	
Minimum Split (s)	14.2	14.2		15.0	15.0		14.3	30.0		14.4	17.0	
Total Split (s)	15.0	15.0		15.0	15.0		20.0	45.0		20.0	45.0	
Total Split (%)	18.8%	18.8%		18.8%	18.8%		25.0%	56.3%		25.0%	56.3%	
Maximum Green (s)	8.0	8.0		8.0	8.0		13.0	38.0		13.0	38.0	
Yellow Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)		-2.0			-2.0		-2.0	-2.0		-2.0	-2.0	
Total Lost Time (s)		5.0			5.0		5.0	5.0		5.0	5.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		None	C-Max		None	C-Max	
Walk Time (s)				7.0	7.0			7.0				
Flash Dont Walk (s)				1.0	1.0			16.0				
Pedestrian Calls (#/hr)				0	0			0				
Act Effct Green (s)		10.0			10.0		55.0	48.5		56.0	44.6	
Actuated g/C Ratio		0.12			0.12		0.69	0.61		0.70	0.56	
v/c Ratio		2.19			1.07		0.41	0.39		0.23	0.46	
Control Delay		582.4			125.8		5.3	14.6		3.9	11.7	
Queue Delay		0.0			0.0		0.0	0.0		0.0	0.0	
Total Delay		582.4			125.8		5.3	14.6		3.9	11.7	
LOS		F			F		A	B		A	B	
Approach Delay		582.4			125.8			12.7			10.8	
Approach LOS		F			F			B			B	
Queue Length 50th (ft)		~249			~103		21	187		13	124	
Queue Length 95th (ft)		#400			#227		30	227		24	180	
Internal Link Dist (ft)		365			300			947			1100	
Turn Bay Length (ft)							400			150		
Base Capacity (vph)		139			172		615	2108		644	1876	
Starvation Cap Reductn		0			0		0	0		0	0	
Spillback Cap Reductn		0			0		0	0		0	0	
Storage Cap Reductn		0			0		0	0		0	0	
Reduced v/c Ratio		2.19			1.07		0.34	0.39		0.19	0.46	

Intersection Summary			
Area Type:	Other		
Cycle Length: 80			
Actuated Cycle Length: 80			
Offset: 45 (56%), Referenced to phase 2:NBSB and 6:NBSB, Start of Green			
Natural Cycle: 70			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 2.19			
Intersection Signal Delay: 89.1		Intersection LOS: F	
Intersection Capacity Utilization 68.1%		ICU Level of Service C	
Analysis Period (min) 15			

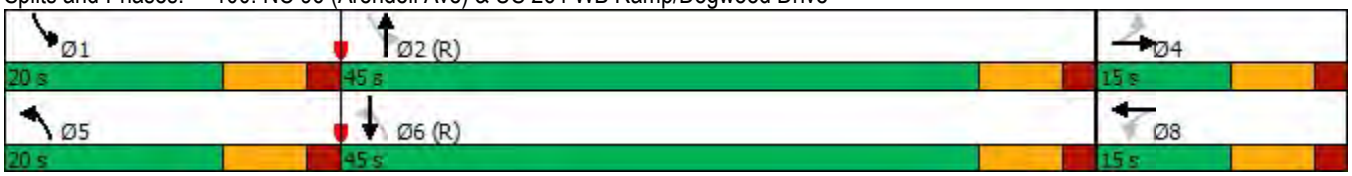
~ Volume exceeds capacity, queue is theoretically infinite.

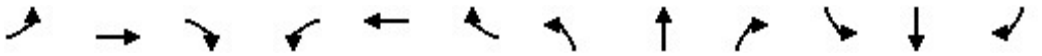
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

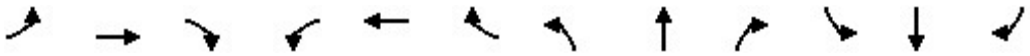
Queue shown is maximum after two cycles.

Splits and Phases: 100: NC 96 (Arendell Ave) & US 264 WB Ramp/Dogwood Drive





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	216	4	249	0	0	0	0	725	139	163	522	0
Future Volume (vph)	216	4	249	0	0	0	0	725	139	163	522	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		100	0		0	0		0	275		0
Storage Lanes	0		1	0		0	0		0	1		0
Taper Length (ft)	25			25			25			100		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	1.00
Frt			0.850					0.976				
Flt Protected		0.953								0.950		
Satd. Flow (prot)	0	1775	1583	0	0	0	0	3454	0	1770	3539	0
Flt Permitted		0.953								0.195		
Satd. Flow (perm)	0	1775	1583	0	0	0	0	3454	0	363	3539	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		468			613			651			1027	
Travel Time (s)		10.6			13.9			9.9			15.6	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	240	4	277	0	0	0	0	806	154	181	580	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	244	277	0	0	0	0	960	0	181	580	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1					2		1	2	
Detector Template	Left	Thru	Right					Thru		Left	Thru	
Leading Detector (ft)	20	100	20					100		20	100	
Trailing Detector (ft)	0	0	0					0		0	0	
Detector 1 Position(ft)	0	0	0					0		0	0	
Detector 1 Size(ft)	20	6	20					6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex					Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0					0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0					0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0					0.0		0.0	0.0	
Detector 2 Position(ft)		94						94			94	
Detector 2 Size(ft)		6						6			6	
Detector 2 Type		Cl+Ex						Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0						0.0			0.0	
Turn Type	Perm	NA	Perm					NA		D.P+P	NA	
Protected Phases		4						2		1	6	
Permitted Phases	4		4							2		



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	4	4	4					2		1	6	
Switch Phase												
Minimum Initial (s)	7.0	7.0	7.0					10.0		7.0	10.0	
Minimum Split (s)	14.0	14.0	14.0					29.0		14.8	17.0	
Total Split (s)	20.0	20.0	20.0					45.0		15.0	60.0	
Total Split (%)	25.0%	25.0%	25.0%					56.3%		18.8%	75.0%	
Maximum Green (s)	13.0	13.0	13.0					38.0		8.0	53.0	
Yellow Time (s)	5.0	5.0	5.0					5.0		5.0	5.0	
All-Red Time (s)	2.0	2.0	2.0					2.0		2.0	2.0	
Lost Time Adjust (s)		-2.0	-2.0					-2.0		-2.0	-2.0	
Total Lost Time (s)		5.0	5.0					5.0		5.0	5.0	
Lead/Lag								Lag		Lead		
Lead-Lag Optimize?								Yes		Yes		
Vehicle Extension (s)	3.0	3.0	3.0					3.0		3.0	3.0	
Recall Mode	None	None	None					C-Min		None	C-Min	
Walk Time (s)								7.0				
Flash Dont Walk (s)								15.0				
Pedestrian Calls (#/hr)								0				
Act Effct Green (s)		19.6	19.6					35.6		45.4	50.4	
Actuated g/C Ratio		0.24	0.24					0.44		0.57	0.63	
v/c Ratio		0.56	0.71					0.63		0.48	0.26	
Control Delay		32.8	40.7					19.3		7.4	4.2	
Queue Delay		0.0	0.0					0.0		0.0	0.0	
Total Delay		32.8	40.7					19.3		7.4	4.2	
LOS		C	D					B		A	A	
Approach Delay		37.0						19.3			5.0	
Approach LOS		D						B			A	
Queue Length 50th (ft)		100	119					203		29	66	
Queue Length 95th (ft)		#203	#267					229		m8	m12	
Internal Link Dist (ft)		388			533			571			947	
Turn Bay Length (ft)			100							275		
Base Capacity (vph)		435	388					1727		382	2433	
Starvation Cap Reductn		0	0					0		0	0	
Spillback Cap Reductn		0	0					0		0	0	
Storage Cap Reductn		0	0					0		0	0	
Reduced v/c Ratio		0.56	0.71					0.56		0.47	0.24	

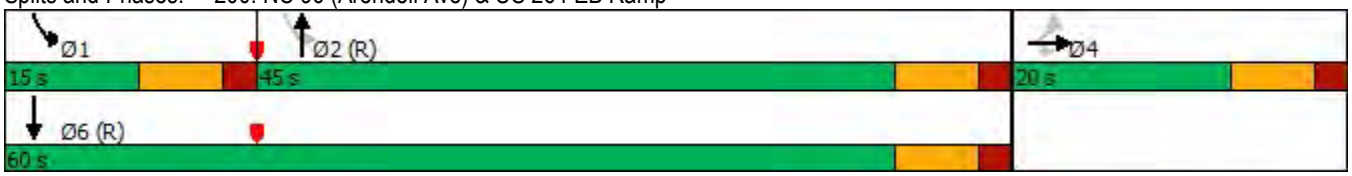
Intersection Summary			
Area Type:	Other		
Cycle Length: 80			
Actuated Cycle Length: 80			
Offset: 0 (0%), Referenced to phase 2:NBSB and 6:SBT, Start of Green			
Natural Cycle: 60			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.71			
Intersection Signal Delay: 18.6		Intersection LOS: B	
Intersection Capacity Utilization 58.2%		ICU Level of Service B	
Analysis Period (min) 15			

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 200: NC 96 (Arendell Ave) & US 264 EB Ramp



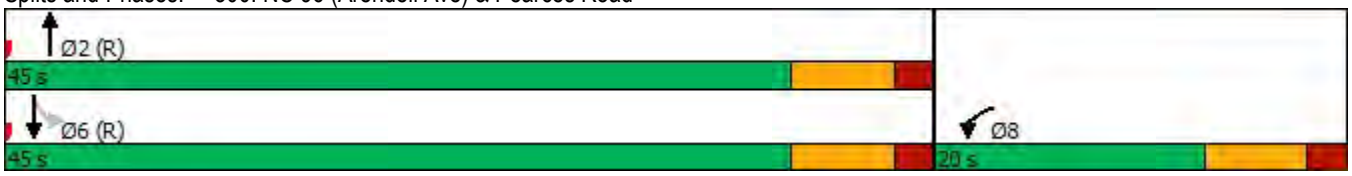
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	366	20	545	308	57	510
Future Volume (vph)	366	20	545	308	57	510
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150	0		0	175	
Storage Lanes	1	0		0	1	
Taper Length (ft)	100				100	
Lane Util. Factor	0.97	0.95	0.95	0.95	1.00	0.95
Frt	0.992		0.946			
Flt Protected	0.955				0.950	
Satd. Flow (prot)	3423	0	3348	0	1770	3539
Flt Permitted	0.955				0.266	
Satd. Flow (perm)	3423	0	3348	0	495	3539
Right Turn on Red		No		No		
Satd. Flow (RTOR)						
Link Speed (mph)	35		45			45
Link Distance (ft)	1185		1180			765
Travel Time (s)	23.1		17.9			11.6
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	407	22	606	342	63	567
Shared Lane Traffic (%)						
Lane Group Flow (vph)	429	0	948	0	63	567
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	24		12			12
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Number of Detectors	1		2		1	2
Detector Template	Left		Thru		Left	Thru
Leading Detector (ft)	20		100		20	100
Trailing Detector (ft)	0		0		0	0
Detector 1 Position(ft)	0		0		0	0
Detector 1 Size(ft)	20		6		20	6
Detector 1 Type	Cl+Ex		Cl+Ex		Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0		0.0		0.0	0.0
Detector 1 Queue (s)	0.0		0.0		0.0	0.0
Detector 1 Delay (s)	0.0		0.0		0.0	0.0
Detector 2 Position(ft)			94			94
Detector 2 Size(ft)			6			6
Detector 2 Type			Cl+Ex			Cl+Ex
Detector 2 Channel						
Detector 2 Extend (s)			0.0			0.0
Turn Type	Prot		NA		Perm	NA
Protected Phases	8		2			6
Permitted Phases					6	

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Detector Phase	8		2		6	6
Switch Phase						
Minimum Initial (s)	7.0		10.0		10.0	10.0
Minimum Split (s)	20.0		32.6		30.9	30.9
Total Split (s)	20.0		45.0		45.0	45.0
Total Split (%)	30.8%		69.2%		69.2%	69.2%
Maximum Green (s)	13.0		38.0		38.0	38.0
Yellow Time (s)	5.0		5.0		5.0	5.0
All-Red Time (s)	2.0		2.0		2.0	2.0
Lost Time Adjust (s)	-2.0		-2.0		-2.0	-2.0
Total Lost Time (s)	5.0		5.0		5.0	5.0
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0		3.0		3.0	3.0
Recall Mode	None		C-Min		C-Min	C-Min
Walk Time (s)	7.0		7.0			
Flash Dont Walk (s)	6.0		18.0			
Pedestrian Calls (#/hr)	0		0			
Act Effct Green (s)	15.2		39.8		39.8	39.8
Actuated g/C Ratio	0.23		0.61		0.61	0.61
v/c Ratio	0.54		0.46		0.21	0.26
Control Delay	24.0		8.2		8.9	6.4
Queue Delay	0.0		0.0		0.0	0.0
Total Delay	24.0		8.2		8.9	6.4
LOS	C		A		A	A
Approach Delay	24.0		8.2			6.7
Approach LOS	C		A			A
Queue Length 50th (ft)	76		93		8	38
Queue Length 95th (ft)	108		153		m32	87
Internal Link Dist (ft)	1105		1100			685
Turn Bay Length (ft)	150				175	
Base Capacity (vph)	846		2106		311	2226
Starvation Cap Reductn	0		0		0	0
Spillback Cap Reductn	0		0		0	0
Storage Cap Reductn	0		0		0	0
Reduced v/c Ratio	0.51		0.45		0.20	0.25

Intersection Summary			
Area Type:	Other		
Cycle Length: 65			
Actuated Cycle Length: 65			
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green			
Natural Cycle: 55			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.54			
Intersection Signal Delay: 11.1		Intersection LOS: B	
Intersection Capacity Utilization 56.8%		ICU Level of Service B	
Analysis Period (min) 15			

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 300: NC 96 (Arendell Ave) & Pearces Road



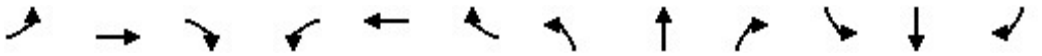
Intersection	
Int Delay, s/veh	7.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	188	18	27	4	4	139
Future Vol, veh/h	188	18	27	4	4	139
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	209	20	30	4	4	154

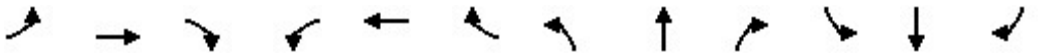
Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	34	0	-	0	470	32
Stage 1	-	-	-	-	32	-
Stage 2	-	-	-	-	438	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1578	-	-	-	552	1042
Stage 1	-	-	-	-	991	-
Stage 2	-	-	-	-	651	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1578	-	-	-	478	1042
Mov Cap-2 Maneuver	-	-	-	-	478	-
Stage 1	-	-	-	-	858	-
Stage 2	-	-	-	-	651	-

Approach	EB	WB	SB
HCM Control Delay, s	7	0	9.2
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1578	-	-	-	1009
HCM Lane V/C Ratio	0.132	-	-	-	0.157
HCM Control Delay (s)	7.6	0	-	-	9.2
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0.5	-	-	-	0.6



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	39	28	96	4	17	4	83	420	18	4	412	42
Future Volume (vph)	39	28	96	4	17	4	83	420	18	4	412	42
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	200		0	150		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	25			25			100			100		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.920			0.980			0.994			0.986	
Flt Protected		0.988			0.993		0.950			0.950		
Satd. Flow (prot)	0	1693	0	0	1813	0	1770	1852	0	1770	1837	0
Flt Permitted		0.914			0.943		0.429			0.441		
Satd. Flow (perm)	0	1566	0	0	1721	0	799	1852	0	821	1837	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		35			35			45			45	
Link Distance (ft)		1260			770			893			736	
Travel Time (s)		24.5			15.0			13.5			11.2	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	43	31	107	4	19	4	92	467	20	4	458	47
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	181	0	0	27	0	92	487	0	4	505	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100		20	100	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		D.Pm	NA		D.Pm	NA	
Protected Phases		4			8			6			2	
Permitted Phases	4			8			2			6		

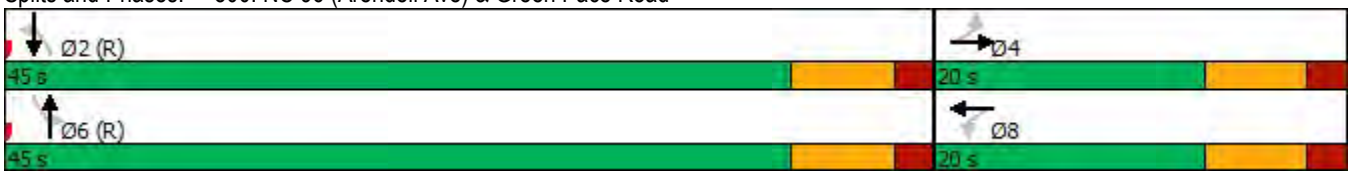


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	4	4		8	8		2	6		6	2	
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		10.0	10.0		10.0	10.0	
Minimum Split (s)	14.0	14.0		14.0	14.0		17.0	17.0		17.0	17.0	
Total Split (s)	20.0	20.0		20.0	20.0		45.0	45.0		45.0	45.0	
Total Split (%)	30.8%	30.8%		30.8%	30.8%		69.2%	69.2%		69.2%	69.2%	
Maximum Green (s)	13.0	13.0		13.0	13.0		38.0	38.0		38.0	38.0	
Yellow Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)		-2.0			-2.0		-2.0	-2.0		-2.0	-2.0	
Total Lost Time (s)		5.0			5.0		5.0	5.0		5.0	5.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0		2.0	2.0		5.0	5.0		5.0	5.0	
Minimum Gap (s)	0.2	0.2		0.2	0.2		3.0	3.0		3.0	3.0	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		15.0	15.0		15.0	15.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		30.0	30.0		30.0	30.0	
Recall Mode	None	None		None	None		C-Min	C-Min		C-Min	C-Min	
Act Effct Green (s)		13.7			13.7		41.3	41.3		41.3	41.3	
Actuated g/C Ratio		0.21			0.21		0.64	0.64		0.64	0.64	
v/c Ratio		0.55			0.07		0.18	0.41		0.01	0.43	
Control Delay		28.5			19.0		8.0	8.0		5.8	8.2	
Queue Delay		0.0			0.0		0.0	0.0		0.0	0.0	
Total Delay		28.5			19.0		8.0	8.0		5.8	8.2	
LOS		C			B		A	A		A	A	
Approach Delay		28.5			19.0			8.0			8.2	
Approach LOS		C			B			A			A	
Queue Length 50th (ft)		64			9		12	78		1	86	
Queue Length 95th (ft)		109			24		m40	151		4	178	
Internal Link Dist (ft)		1180			690			813			656	
Turn Bay Length (ft)							200			150		
Base Capacity (vph)		382			420		517	1200		532	1191	
Starvation Cap Reductn		0			0		0	0		0	0	
Spillback Cap Reductn		0			0		0	0		0	0	
Storage Cap Reductn		0			0		0	0		0	0	
Reduced v/c Ratio		0.47			0.06		0.18	0.41		0.01	0.42	

Intersection Summary			
Area Type:	Other		
Cycle Length: 65			
Actuated Cycle Length: 65			
Offset: 0 (0%), Referenced to phase 2:NBSB and 6:NBSB, Start of Green			
Natural Cycle: 40			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.55			
Intersection Signal Delay: 11.2		Intersection LOS: B	
Intersection Capacity Utilization 59.9%		ICU Level of Service B	
Analysis Period (min) 15			

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 500: NC 96 (Arendell Ave) & Green Pace Road



Intersection	
Int Delay, s/veh	8.2

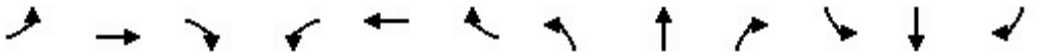
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	30	69	50	70	46	30	33	185	76	23	227	22
Future Vol, veh/h	30	69	50	70	46	30	33	185	76	23	227	22
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	33	77	56	78	51	33	37	206	84	26	252	24

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	680	680	264	705	650	248	276	0	0	290	0	0
Stage 1	316	316	-	322	322	-	-	-	-	-	-	-
Stage 2	364	364	-	383	328	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	365	373	775	351	388	791	1287	-	-	1272	-	-
Stage 1	695	655	-	690	651	-	-	-	-	-	-	-
Stage 2	655	624	-	640	647	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	299	351	775	259	365	791	1287	-	-	1272	-	-
Mov Cap-2 Maneuver	299	351	-	259	365	-	-	-	-	-	-	-
Stage 1	671	639	-	666	628	-	-	-	-	-	-	-
Stage 2	556	602	-	510	631	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	19.5	25.3	0.9	0.7
HCM LOS	C	D		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1287	-	-	412	336	1272	-	-
HCM Lane V/C Ratio	0.028	-	-	0.402	0.483	0.02	-	-
HCM Control Delay (s)	7.9	0	-	19.5	25.3	7.9	0	-
HCM Lane LOS	A	A	-	C	D	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	1.9	2.5	0.1	-	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	258	11	101	69	24	93	191	785	61	85	699	213
Future Volume (vph)	258	11	101	69	24	93	191	785	61	85	699	213
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	400		0	150		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	25			25			100			100		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Frt		0.963			0.933			0.989			0.965	
Flt Protected		0.966			0.982		0.950			0.950		
Satd. Flow (prot)	0	1733	0	0	1707	0	1770	3500	0	1770	3415	0
Flt Permitted		0.537			0.863		0.219			0.257		
Satd. Flow (perm)	0	963	0	0	1500	0	408	3500	0	479	3415	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		445			380			1027			1180	
Travel Time (s)		10.1			8.6			15.6			17.9	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	287	12	112	77	27	103	212	872	68	94	777	237
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	411	0	0	207	0	212	940	0	94	1014	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100		20	100	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		D.P+P	NA		D.P+P	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			6			2		



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	4	4		8	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		7.0	10.0		7.0	10.0	
Minimum Split (s)	14.2	14.2		15.0	15.0		14.3	30.0		14.4	17.0	
Total Split (s)	15.0	15.0		15.0	15.0		20.0	45.0		20.0	45.0	
Total Split (%)	18.8%	18.8%		18.8%	18.8%		25.0%	56.3%		25.0%	56.3%	
Maximum Green (s)	8.0	8.0		8.0	8.0		13.0	38.0		13.0	38.0	
Yellow Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)		-2.0			-2.0		-2.0	-2.0		-2.0	-2.0	
Total Lost Time (s)		5.0			5.0		5.0	5.0		5.0	5.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		None	C-Max		None	C-Max	
Walk Time (s)				7.0	7.0			7.0				
Flash Dont Walk (s)				1.0	1.0			16.0				
Pedestrian Calls (#/hr)				0	0			0				
Act Effct Green (s)		10.0			10.0		55.0	48.7		56.0	44.3	
Actuated g/C Ratio		0.12			0.12		0.69	0.61		0.70	0.55	
v/c Ratio		3.42			1.11		0.46	0.44		0.20	0.54	
Control Delay		1127.4			133.8		4.9	11.7		3.8	12.9	
Queue Delay		0.0			0.0		0.0	0.0		0.0	0.0	
Total Delay		1127.4			133.8		4.9	11.7		3.8	12.9	
LOS		F			F		A	B		A	B	
Approach Delay		1127.4			133.8			10.5			12.2	
Approach LOS		F			F			B			B	
Queue Length 50th (ft)		~371			~120		18	182		10	154	
Queue Length 95th (ft)		#541			#249		m22	213		20	230	
Internal Link Dist (ft)		365			300			947			1100	
Turn Bay Length (ft)							400			150		
Base Capacity (vph)		120			187		556	2128		601	1891	
Starvation Cap Reductn		0			0		0	0		0	0	
Spillback Cap Reductn		0			0		0	0		0	0	
Storage Cap Reductn		0			0		0	0		0	0	
Reduced v/c Ratio		3.42			1.11		0.38	0.44		0.16	0.54	

Intersection Summary			
Area Type:	Other		
Cycle Length: 80			
Actuated Cycle Length: 80			
Offset: 45 (56%), Referenced to phase 2:NBSB and 6:NBSB, Start of Green			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 3.42			
Intersection Signal Delay: 179.5		Intersection LOS: F	
Intersection Capacity Utilization 76.9%		ICU Level of Service D	
Analysis Period (min) 15			

~ Volume exceeds capacity, queue is theoretically infinite.

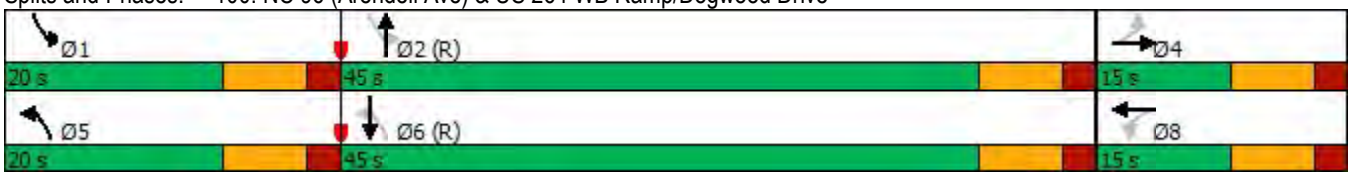
Queue shown is maximum after two cycles.

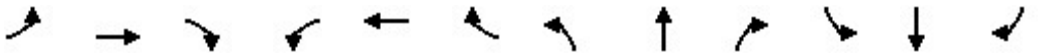
95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

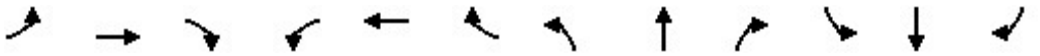
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 100: NC 96 (Arendell Ave) & US 264 WB Ramp/Dogwood Drive





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	349	8	320	0	0	0	0	689	154	311	560	0
Future Volume (vph)	349	8	320	0	0	0	0	689	154	311	560	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		100	0		0	0		0	275		0
Storage Lanes	0		1	0		0	0		0	1		0
Taper Length (ft)	25			25			25			100		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	1.00
Frt			0.850					0.973				
Flt Protected		0.953								0.950		
Satd. Flow (prot)	0	1775	1583	0	0	0	0	3444	0	1770	3539	0
Flt Permitted		0.953								0.176		
Satd. Flow (perm)	0	1775	1583	0	0	0	0	3444	0	328	3539	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		468			613			651			1027	
Travel Time (s)		10.6			13.9			9.9			15.6	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	388	9	356	0	0	0	0	766	171	346	622	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	397	356	0	0	0	0	937	0	346	622	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1					2		1	2	
Detector Template	Left	Thru	Right					Thru		Left	Thru	
Leading Detector (ft)	20	100	20					100		20	100	
Trailing Detector (ft)	0	0	0					0		0	0	
Detector 1 Position(ft)	0	0	0					0		0	0	
Detector 1 Size(ft)	20	6	20					6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex					Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0					0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0					0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0					0.0		0.0	0.0	
Detector 2 Position(ft)		94						94			94	
Detector 2 Size(ft)		6						6			6	
Detector 2 Type		Cl+Ex						Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0						0.0			0.0	
Turn Type	Perm	NA	Perm					NA		D.P+P	NA	
Protected Phases		4						2		1	6	
Permitted Phases	4		4							2		



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	4	4	4					2		1	6	
Switch Phase												
Minimum Initial (s)	7.0	7.0	7.0					10.0		7.0	10.0	
Minimum Split (s)	14.0	14.0	14.0					29.0		14.8	17.0	
Total Split (s)	20.0	20.0	20.0					45.0		15.0	60.0	
Total Split (%)	25.0%	25.0%	25.0%					56.3%		18.8%	75.0%	
Maximum Green (s)	13.0	13.0	13.0					38.0		8.0	53.0	
Yellow Time (s)	5.0	5.0	5.0					5.0		5.0	5.0	
All-Red Time (s)	2.0	2.0	2.0					2.0		2.0	2.0	
Lost Time Adjust (s)		-2.0	-2.0					-2.0		-2.0	-2.0	
Total Lost Time (s)		5.0	5.0					5.0		5.0	5.0	
Lead/Lag								Lag		Lead		
Lead-Lag Optimize?								Yes		Yes		
Vehicle Extension (s)	3.0	3.0	3.0					3.0		3.0	3.0	
Recall Mode	None	None	None					C-Min		None	C-Min	
Walk Time (s)								7.0				
Flash Dont Walk (s)								15.0				
Pedestrian Calls (#/hr)								0				
Act Effct Green (s)		23.5	23.5					31.5		41.5	46.5	
Actuated g/C Ratio		0.29	0.29					0.39		0.52	0.58	
v/c Ratio		0.76	0.77					0.69		0.99	0.30	
Control Delay		39.9	41.6					22.6		43.0	5.1	
Queue Delay		0.0	0.0					0.0		0.0	0.0	
Total Delay		39.9	41.6					22.6		43.0	5.1	
LOS		D	D					C		D	A	
Approach Delay		40.7						22.6			18.7	
Approach LOS		D						C			B	
Queue Length 50th (ft)		181	163					197		95	63	
Queue Length 95th (ft)		#391	#362					224		m#162	m0	
Internal Link Dist (ft)		388			533			571			947	
Turn Bay Length (ft)			100							275		
Base Capacity (vph)		521	464					1722		350	2433	
Starvation Cap Reductn		0	0					0		0	0	
Spillback Cap Reductn		0	0					0		0	0	
Storage Cap Reductn		0	0					0		0	0	
Reduced v/c Ratio		0.76	0.77					0.54		0.99	0.26	

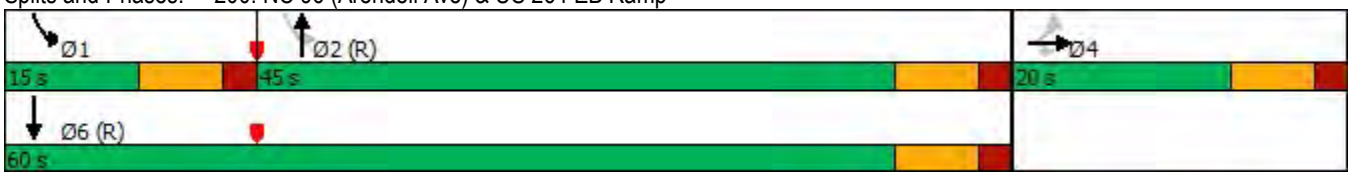
Intersection Summary			
Area Type:	Other		
Cycle Length: 80			
Actuated Cycle Length: 80			
Offset: 0 (0%), Referenced to phase 2:NBSB and 6:SBT, Start of Green			
Natural Cycle: 70			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.99			
Intersection Signal Delay: 26.3		Intersection LOS: C	
Intersection Capacity Utilization 73.4%		ICU Level of Service D	
Analysis Period (min) 15			

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 200: NC 96 (Arendell Ave) & US 264 EB Ramp



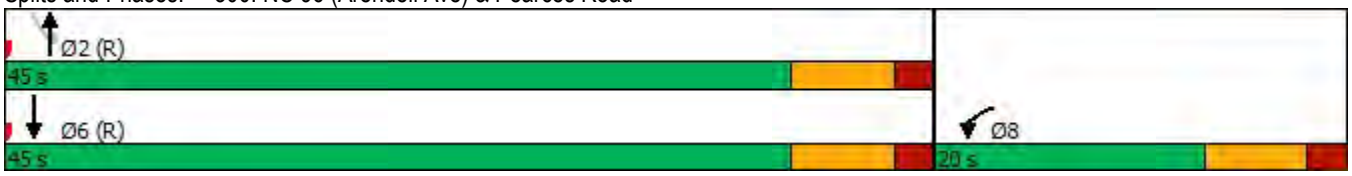
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	329	34	718	409	75	608
Future Volume (vph)	329	34	718	409	75	608
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150	0		0	175	
Storage Lanes	1	0		0	1	
Taper Length (ft)	100				100	
Lane Util. Factor	0.97	0.95	0.95	0.95	1.00	0.95
Frt	0.986		0.946			
Flt Protected	0.957				0.950	
Satd. Flow (prot)	3410	0	3348	0	1770	3539
Flt Permitted	0.957				0.174	
Satd. Flow (perm)	3410	0	3348	0	324	3539
Right Turn on Red		No		No		
Satd. Flow (RTOR)						
Link Speed (mph)	35		45			45
Link Distance (ft)	1185		1180			773
Travel Time (s)	23.1		17.9			11.7
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	366	38	798	454	83	676
Shared Lane Traffic (%)						
Lane Group Flow (vph)	404	0	1252	0	83	676
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	24		12			12
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Number of Detectors	1		2		1	2
Detector Template	Left		Thru		Left	Thru
Leading Detector (ft)	20		100		20	100
Trailing Detector (ft)	0		0		0	0
Detector 1 Position(ft)	0		0		0	0
Detector 1 Size(ft)	20		6		20	6
Detector 1 Type	Cl+Ex		Cl+Ex		Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0		0.0		0.0	0.0
Detector 1 Queue (s)	0.0		0.0		0.0	0.0
Detector 1 Delay (s)	0.0		0.0		0.0	0.0
Detector 2 Position(ft)			94			94
Detector 2 Size(ft)			6			6
Detector 2 Type			Cl+Ex			Cl+Ex
Detector 2 Channel						
Detector 2 Extend (s)			0.0			0.0
Turn Type	Prot		NA		D.Pm	NA
Protected Phases	8		2			6
Permitted Phases					2	

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Detector Phase	8		2		2	6
Switch Phase						
Minimum Initial (s)	7.0		10.0		10.0	10.0
Minimum Split (s)	20.0		32.6		32.6	17.6
Total Split (s)	20.0		45.0		45.0	45.0
Total Split (%)	30.8%		69.2%		69.2%	69.2%
Maximum Green (s)	13.0		38.0		38.0	38.0
Yellow Time (s)	5.0		5.0		5.0	5.0
All-Red Time (s)	2.0		2.0		2.0	2.0
Lost Time Adjust (s)	-2.0		-2.0		-2.0	-2.0
Total Lost Time (s)	5.0		5.0		5.0	5.0
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0		3.0		3.0	3.0
Recall Mode	None		C-Min		C-Min	C-Min
Walk Time (s)	7.0		7.0		7.0	
Flash Dont Walk (s)	6.0		18.0		18.0	
Pedestrian Calls (#/hr)	0		0		0	
Act Effct Green (s)	14.1		40.9		40.9	40.9
Actuated g/C Ratio	0.22		0.63		0.63	0.63
v/c Ratio	0.55		0.60		0.41	0.30
Control Delay	25.3		8.9		13.6	6.4
Queue Delay	0.0		0.0		0.0	0.0
Total Delay	25.3		8.9		13.6	6.4
LOS	C		A		B	A
Approach Delay	25.3		8.9			7.2
Approach LOS	C		A			A
Queue Length 50th (ft)	72		137		12	49
Queue Length 95th (ft)	111		192		m36	101
Internal Link Dist (ft)	1105		1100			693
Turn Bay Length (ft)	150				175	
Base Capacity (vph)	799		2116		204	2237
Starvation Cap Reductn	0		0		0	0
Spillback Cap Reductn	0		0		0	0
Storage Cap Reductn	0		0		0	0
Reduced v/c Ratio	0.51		0.59		0.41	0.30

Intersection Summary	
Area Type:	Other
Cycle Length: 65	
Actuated Cycle Length: 65	
Offset: 0 (0%), Referenced to phase 2:NBSB and 6:SBT, Start of Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.60	
Intersection Signal Delay: 11.1	Intersection LOS: B
Intersection Capacity Utilization 64.2%	ICU Level of Service C
Analysis Period (min) 15	

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 300: NC 96 (Arendell Ave) & Pearces Road



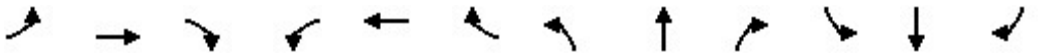
Intersection	
Int Delay, s/veh	7.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	144	12	42	4	4	145
Future Vol, veh/h	144	12	42	4	4	145
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	160	13	47	4	4	161

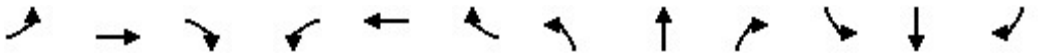
Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	51	0	-	0	382	49
Stage 1	-	-	-	-	49	-
Stage 2	-	-	-	-	333	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1555	-	-	-	620	1020
Stage 1	-	-	-	-	973	-
Stage 2	-	-	-	-	726	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1555	-	-	-	556	1020
Mov Cap-2 Maneuver	-	-	-	-	556	-
Stage 1	-	-	-	-	872	-
Stage 2	-	-	-	-	726	-

Approach	EB	WB	SB
HCM Control Delay, s	7	0	9.3
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1555	-	-	-	998
HCM Lane V/C Ratio	0.103	-	-	-	0.166
HCM Control Delay (s)	7.6	0	-	-	9.3
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0.3	-	-	-	0.6



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	40	31	83	4	15	6	83	632	10	5	558	65
Future Volume (vph)	40	31	83	4	15	6	83	632	10	5	558	65
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	200		0	150		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	25			25			100			100		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.927			0.966			0.998			0.984	
Flt Protected		0.987			0.993		0.950			0.950		
Satd. Flow (prot)	0	1704	0	0	1787	0	1770	1859	0	1770	1833	0
Flt Permitted		0.904			0.944		0.314			0.301		
Satd. Flow (perm)	0	1561	0	0	1699	0	585	1859	0	561	1833	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		35			35			45			45	
Link Distance (ft)		1260			776			885			736	
Travel Time (s)		24.5			15.1			13.4			11.2	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	44	34	92	4	17	7	92	702	11	6	620	72
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	170	0	0	28	0	92	713	0	6	692	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100		20	100	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		D.Pm	NA		D.Pm	NA	
Protected Phases		4			8			6			2	
Permitted Phases	4			8			2			6		

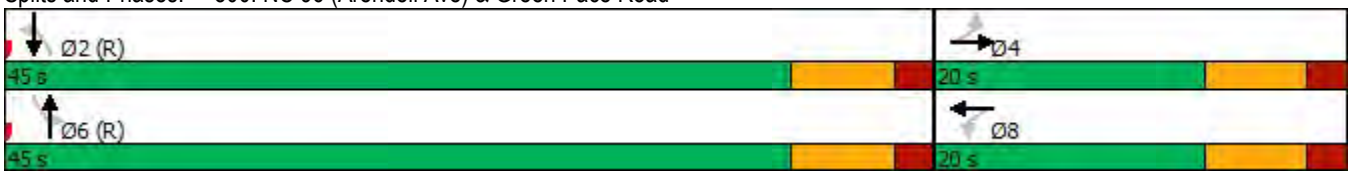


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	4	4		8	8		2	6		6	2	
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		10.0	10.0		10.0	10.0	
Minimum Split (s)	14.0	14.0		14.0	14.0		17.0	17.0		17.0	17.0	
Total Split (s)	20.0	20.0		20.0	20.0		45.0	45.0		45.0	45.0	
Total Split (%)	30.8%	30.8%		30.8%	30.8%		69.2%	69.2%		69.2%	69.2%	
Maximum Green (s)	13.0	13.0		13.0	13.0		38.0	38.0		38.0	38.0	
Yellow Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)		-2.0			-2.0		-2.0	-2.0		-2.0	-2.0	
Total Lost Time (s)		5.0			5.0		5.0	5.0		5.0	5.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0		2.0	2.0		5.0	5.0		5.0	5.0	
Minimum Gap (s)	0.2	0.2		0.2	0.2		3.0	3.0		3.0	3.0	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		15.0	15.0		15.0	15.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		30.0	30.0		30.0	30.0	
Recall Mode	None	None		None	None		C-Min	C-Min		C-Min	C-Min	
Act Effct Green (s)		12.8			12.8		42.2	42.2		42.2	42.2	
Actuated g/C Ratio		0.20			0.20		0.65	0.65		0.65	0.65	
v/c Ratio		0.55			0.08		0.24	0.59		0.02	0.58	
Control Delay		30.3			20.7		9.5	10.7		5.0	9.4	
Queue Delay		0.0			0.0		0.0	0.0		0.0	0.0	
Total Delay		30.3			20.7		9.5	10.7		5.0	9.4	
LOS		C			C		A	B		A	A	
Approach Delay		30.3			20.7			10.6			9.4	
Approach LOS		C			C			B			A	
Queue Length 50th (ft)		61			9		14	139		1	134	
Queue Length 95th (ft)		112			27		m35	221		4	241	
Internal Link Dist (ft)		1180			696			805			656	
Turn Bay Length (ft)							200			150		
Base Capacity (vph)		361			393		380	1209		365	1192	
Starvation Cap Reductn		0			0		0	0		0	0	
Spillback Cap Reductn		0			0		0	0		0	0	
Storage Cap Reductn		0			0		0	0		0	0	
Reduced v/c Ratio		0.47			0.07		0.24	0.59		0.02	0.58	

Intersection Summary			
Area Type:	Other		
Cycle Length: 65			
Actuated Cycle Length: 65			
Offset: 0 (0%), Referenced to phase 2:NBSB and 6:NBSB, Start of Green			
Natural Cycle: 45			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.59			
Intersection Signal Delay: 12.2		Intersection LOS: B	
Intersection Capacity Utilization 69.2%		ICU Level of Service C	
Analysis Period (min) 15			

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 500: NC 96 (Arendell Ave) & Green Pace Road



Intersection	
Int Delay, s/veh	11.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	42	93	33	68	62	21	26	323	70	14	216	23
Future Vol, veh/h	42	93	33	68	62	21	26	323	70	14	216	23
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	47	103	37	76	69	23	29	359	78	16	240	26

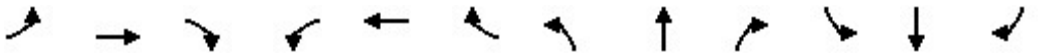
Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	787	780	253	811	754	398	266	0	0	437	0	0
Stage 1	285	285	-	456	456	-	-	-	-	-	-	-
Stage 2	502	495	-	355	298	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	309	327	786	298	338	652	1298	-	-	1123	-	-
Stage 1	722	676	-	584	568	-	-	-	-	-	-	-
Stage 2	552	546	-	662	667	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	240	312	786	204	322	652	1298	-	-	1123	-	-
Mov Cap-2 Maneuver	240	312	-	204	322	-	-	-	-	-	-	-
Stage 1	700	665	-	566	551	-	-	-	-	-	-	-
Stage 2	452	530	-	524	656	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	29.8	37.7	0.5	0.5
HCM LOS	D	E		

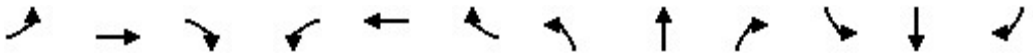
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1298	-	-	326	271	1123	-	-
HCM Lane V/C Ratio	0.022	-	-	0.573	0.619	0.014	-	-
HCM Control Delay (s)	7.8	0	-	29.8	37.7	8.3	0	-
HCM Lane LOS	A	A	-	D	E	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	3.4	3.8	0	-	-

DAVENPORT

Future Build Conditions with Improvements



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	167	14	93	68	15	82	191	664	85	108	523	258
Future Volume (vph)	167	14	93	68	15	82	191	664	85	108	523	258
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	400		0	150		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	25			25			100			100		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Frt		0.954			0.933			0.983			0.950	
Flt Protected		0.970			0.980		0.950			0.950		
Satd. Flow (prot)	0	1724	0	0	1703	0	1770	3479	0	1770	3362	0
Flt Permitted		0.970			0.980		0.136			0.173		
Satd. Flow (perm)	0	1724	0	0	1703	0	253	3479	0	322	3362	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		445			380			1027			1180	
Travel Time (s)		10.1			8.6			15.6			17.9	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	186	16	103	76	17	91	212	738	94	120	581	287
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	305	0	0	184	0	212	832	0	120	868	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100		20	100	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Split	NA		Split	NA		D.P+P	NA		D.P+P	NA	
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases							6			2		



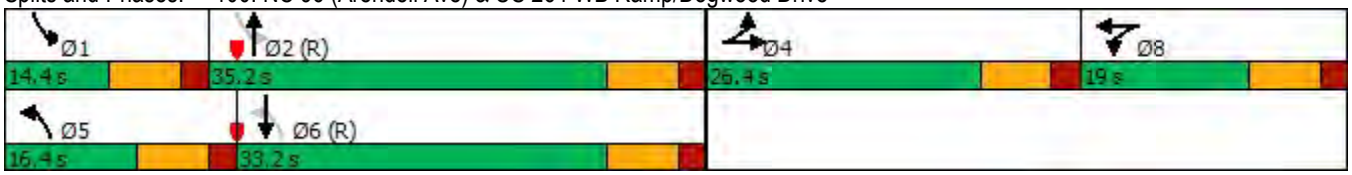
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	4	4		8	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		7.0	10.0		7.0	10.0	
Minimum Split (s)	14.2	14.2		15.0	15.0		14.3	30.0		14.4	17.0	
Total Split (s)	26.4	26.4		19.0	19.0		16.4	35.2		14.4	33.2	
Total Split (%)	27.8%	27.8%		20.0%	20.0%		17.3%	37.1%		15.2%	34.9%	
Maximum Green (s)	19.4	19.4		12.0	12.0		9.4	28.2		7.4	26.2	
Yellow Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)		-2.0			-2.0		-2.0	-2.0		-2.0	-2.0	
Total Lost Time (s)		5.0			5.0		5.0	5.0		5.0	5.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		None	C-Max		None	C-Max	
Walk Time (s)				7.0	7.0			7.0				
Flash Dont Walk (s)				1.0	1.0			16.0				
Pedestrian Calls (#/hr)				0	0			0				
Act Effct Green (s)		20.6			13.6		40.8	31.5		40.8	29.6	
Actuated g/C Ratio		0.22			0.14		0.43	0.33		0.43	0.31	
v/c Ratio		0.82			0.75		0.74	0.72		0.43	0.83	
Control Delay		54.1			59.6		35.8	32.7		19.4	39.2	
Queue Delay		0.0			0.0		0.0	0.0		0.0	0.0	
Total Delay		54.1			59.6		35.8	32.7		19.4	39.2	
LOS		D			E		D	C		B	D	
Approach Delay		54.1			59.6			33.3			36.8	
Approach LOS		D			E			C			D	
Queue Length 50th (ft)		174			108		74	235		40	260	
Queue Length 95th (ft)		#303			#207		#178	306		73	#366	
Internal Link Dist (ft)		365			300			947			1100	
Turn Bay Length (ft)							400			150		
Base Capacity (vph)		388			250		291	1152		281	1046	
Starvation Cap Reductn		0			0		0	0		0	0	
Spillback Cap Reductn		0			0		0	0		0	0	
Storage Cap Reductn		0			0		0	0		0	0	
Reduced v/c Ratio		0.79			0.74		0.73	0.72		0.43	0.83	

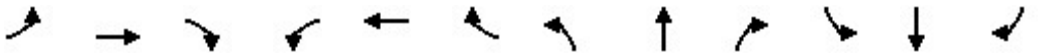
Intersection Summary			
Area Type:	Other		
Cycle Length: 95			
Actuated Cycle Length: 95			
Offset: 45 (47%), Referenced to phase 2:NBSB and 6:NBSB, Start of Green			
Natural Cycle: 80			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.83			
Intersection Signal Delay: 39.1		Intersection LOS: D	
Intersection Capacity Utilization 68.1%		ICU Level of Service C	
Analysis Period (min) 15			

95th percentile volume exceeds capacity, queue may be longer.

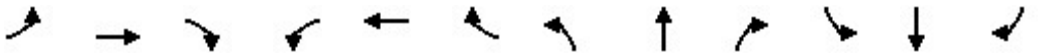
Queue shown is maximum after two cycles.

Splits and Phases: 100: NC 96 (Arendell Ave) & US 264 WB Ramp/Dogwood Drive





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	216	4	249	0	0	0	0	725	139	163	522	0
Future Volume (vph)	216	4	249	0	0	0	0	725	139	163	522	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		100	0		0	0		0	275		0
Storage Lanes	0		1	0		0	0		0	1		0
Taper Length (ft)	25			25			25			100		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	1.00
Frt			0.850					0.976				
Flt Protected		0.953								0.950		
Satd. Flow (prot)	0	1775	1583	0	0	0	0	3454	0	1770	3539	0
Flt Permitted		0.953								0.195		
Satd. Flow (perm)	0	1775	1583	0	0	0	0	3454	0	363	3539	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		468			613			651			1027	
Travel Time (s)		10.6			13.9			9.9			15.6	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	240	4	277	0	0	0	0	806	154	181	580	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	244	277	0	0	0	0	960	0	181	580	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1					2		1	2	
Detector Template	Left	Thru	Right					Thru		Left	Thru	
Leading Detector (ft)	20	100	20					100		20	100	
Trailing Detector (ft)	0	0	0					0		0	0	
Detector 1 Position(ft)	0	0	0					0		0	0	
Detector 1 Size(ft)	20	6	20					6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex					Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0					0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0					0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0					0.0		0.0	0.0	
Detector 2 Position(ft)		94						94			94	
Detector 2 Size(ft)		6						6			6	
Detector 2 Type		Cl+Ex						Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0						0.0			0.0	
Turn Type	Perm	NA	Perm					NA		D.P+P	NA	
Protected Phases		4						2		1	6	
Permitted Phases	4		4							2		



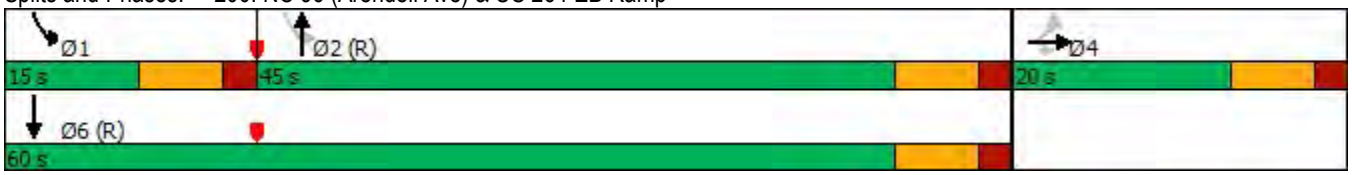
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	4	4	4					2		1	6	
Switch Phase												
Minimum Initial (s)	7.0	7.0	7.0					10.0		7.0	10.0	
Minimum Split (s)	14.0	14.0	14.0					29.0		14.8	17.0	
Total Split (s)	20.0	20.0	20.0					45.0		15.0	60.0	
Total Split (%)	25.0%	25.0%	25.0%					56.3%		18.8%	75.0%	
Maximum Green (s)	13.0	13.0	13.0					38.0		8.0	53.0	
Yellow Time (s)	5.0	5.0	5.0					5.0		5.0	5.0	
All-Red Time (s)	2.0	2.0	2.0					2.0		2.0	2.0	
Lost Time Adjust (s)		-2.0	-2.0					-2.0		-2.0	-2.0	
Total Lost Time (s)		5.0	5.0					5.0		5.0	5.0	
Lead/Lag								Lag		Lead		
Lead-Lag Optimize?								Yes		Yes		
Vehicle Extension (s)	3.0	3.0	3.0					3.0		3.0	3.0	
Recall Mode	None	None	None					C-Min		None	C-Min	
Walk Time (s)								7.0				
Flash Dont Walk (s)								15.0				
Pedestrian Calls (#/hr)								0				
Act Effct Green (s)		19.6	19.6					35.6		45.4	50.4	
Actuated g/C Ratio		0.24	0.24					0.44		0.57	0.63	
v/c Ratio		0.56	0.71					0.63		0.48	0.26	
Control Delay		32.8	40.7					19.3		11.0	6.9	
Queue Delay		0.0	0.0					0.0		0.0	0.0	
Total Delay		32.8	40.7					19.3		11.0	6.9	
LOS		C	D					B		B	A	
Approach Delay		37.0						19.3			7.9	
Approach LOS		D						B			A	
Queue Length 50th (ft)		100	119					203		38	68	
Queue Length 95th (ft)		#203	#267					229		50	72	
Internal Link Dist (ft)		388			533			571			947	
Turn Bay Length (ft)			100							275		
Base Capacity (vph)		435	388					1727		382	2433	
Starvation Cap Reductn		0	0					0		0	0	
Spillback Cap Reductn		0	0					0		0	0	
Storage Cap Reductn		0	0					0		0	0	
Reduced v/c Ratio		0.56	0.71					0.56		0.47	0.24	

Intersection Summary			
Area Type:	Other		
Cycle Length: 80			
Actuated Cycle Length: 80			
Offset: 0 (0%), Referenced to phase 2:NBSB and 6:SBT, Start of Green			
Natural Cycle: 60			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.71			
Intersection Signal Delay: 19.5		Intersection LOS: B	
Intersection Capacity Utilization 58.2%		ICU Level of Service B	
Analysis Period (min) 15			

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 200: NC 96 (Arendell Ave) & US 264 EB Ramp



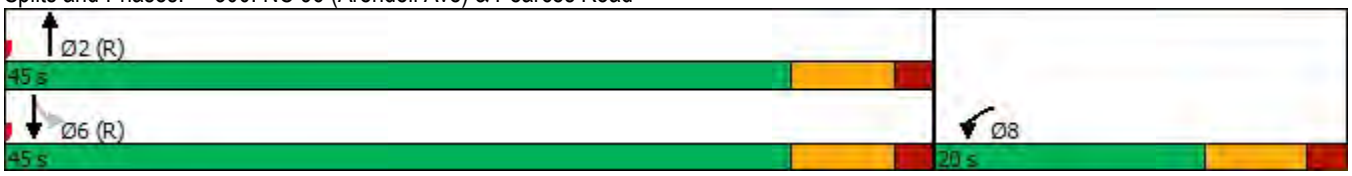
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	366	20	545	308	57	510
Future Volume (vph)	366	20	545	308	57	510
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150	0		0	175	
Storage Lanes	1	0		0	1	
Taper Length (ft)	100				100	
Lane Util. Factor	0.97	0.95	0.95	0.95	1.00	0.95
Frt	0.992		0.946			
Flt Protected	0.955				0.950	
Satd. Flow (prot)	3423	0	3348	0	1770	3539
Flt Permitted	0.955				0.266	
Satd. Flow (perm)	3423	0	3348	0	495	3539
Right Turn on Red		No		No		
Satd. Flow (RTOR)						
Link Speed (mph)	35		45			45
Link Distance (ft)	1185		1180			765
Travel Time (s)	23.1		17.9			11.6
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	407	22	606	342	63	567
Shared Lane Traffic (%)						
Lane Group Flow (vph)	429	0	948	0	63	567
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	24		12			12
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Number of Detectors	1		2		1	2
Detector Template	Left		Thru		Left	Thru
Leading Detector (ft)	20		100		20	100
Trailing Detector (ft)	0		0		0	0
Detector 1 Position(ft)	0		0		0	0
Detector 1 Size(ft)	20		6		20	6
Detector 1 Type	Cl+Ex		Cl+Ex		Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0		0.0		0.0	0.0
Detector 1 Queue (s)	0.0		0.0		0.0	0.0
Detector 1 Delay (s)	0.0		0.0		0.0	0.0
Detector 2 Position(ft)			94			94
Detector 2 Size(ft)			6			6
Detector 2 Type			Cl+Ex			Cl+Ex
Detector 2 Channel						
Detector 2 Extend (s)			0.0			0.0
Turn Type	Prot		NA		Perm	NA
Protected Phases	8		2			6
Permitted Phases					6	

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Detector Phase	8		2		6	6
Switch Phase						
Minimum Initial (s)	7.0		10.0		10.0	10.0
Minimum Split (s)	20.0		32.6		30.9	30.9
Total Split (s)	20.0		45.0		45.0	45.0
Total Split (%)	30.8%		69.2%		69.2%	69.2%
Maximum Green (s)	13.0		38.0		38.0	38.0
Yellow Time (s)	5.0		5.0		5.0	5.0
All-Red Time (s)	2.0		2.0		2.0	2.0
Lost Time Adjust (s)	-2.0		-2.0		-2.0	-2.0
Total Lost Time (s)	5.0		5.0		5.0	5.0
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0		3.0		3.0	3.0
Recall Mode	None		C-Min		C-Min	C-Min
Walk Time (s)	7.0		7.0			
Flash Dont Walk (s)	6.0		18.0			
Pedestrian Calls (#/hr)	0		0			
Act Effct Green (s)	15.2		39.8		39.8	39.8
Actuated g/C Ratio	0.23		0.61		0.61	0.61
v/c Ratio	0.54		0.46		0.21	0.26
Control Delay	24.0		8.2		8.9	6.4
Queue Delay	0.0		0.0		0.0	0.0
Total Delay	24.0		8.2		8.9	6.4
LOS	C		A		A	A
Approach Delay	24.0		8.2			6.7
Approach LOS	C		A			A
Queue Length 50th (ft)	76		93		8	38
Queue Length 95th (ft)	108		153		m32	87
Internal Link Dist (ft)	1105		1100			685
Turn Bay Length (ft)	150				175	
Base Capacity (vph)	846		2106		311	2226
Starvation Cap Reductn	0		0		0	0
Spillback Cap Reductn	0		0		0	0
Storage Cap Reductn	0		0		0	0
Reduced v/c Ratio	0.51		0.45		0.20	0.25

Intersection Summary			
Area Type:	Other		
Cycle Length: 65			
Actuated Cycle Length: 65			
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green			
Natural Cycle: 55			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.54			
Intersection Signal Delay: 11.1		Intersection LOS: B	
Intersection Capacity Utilization 56.8%		ICU Level of Service B	
Analysis Period (min) 15			

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 300: NC 96 (Arendell Ave) & Pearces Road



Intersection	
Int Delay, s/veh	7.3

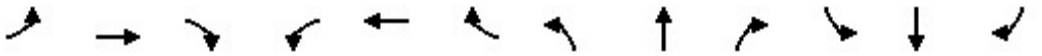
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	188	18	27	4	4	139
Future Vol, veh/h	188	18	27	4	4	139
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	209	20	30	4	4	154

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	34	0	-	0	470	32
Stage 1	-	-	-	-	32	-
Stage 2	-	-	-	-	438	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1578	-	-	-	552	1042
Stage 1	-	-	-	-	991	-
Stage 2	-	-	-	-	651	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1578	-	-	-	478	1042
Mov Cap-2 Maneuver	-	-	-	-	478	-
Stage 1	-	-	-	-	858	-
Stage 2	-	-	-	-	651	-

Approach	EB	WB	SB
HCM Control Delay, s	7	0	9.2
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1578	-	-	-	1009
HCM Lane V/C Ratio	0.132	-	-	-	0.157
HCM Control Delay (s)	7.6	0	-	-	9.2
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0.5	-	-	-	0.6

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	39	28	96	4	17	4	83	420	18	4	412	42
Future Volume (vph)	39	28	96	4	17	4	83	420	18	4	412	42
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	200		0	150		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	25			25			100			100		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.920			0.980			0.994			0.986	
Flt Protected		0.988			0.993		0.950			0.950		
Satd. Flow (prot)	0	1693	0	0	1813	0	1770	1852	0	1770	1837	0
Flt Permitted		0.914			0.943		0.429			0.441		
Satd. Flow (perm)	0	1566	0	0	1721	0	799	1852	0	821	1837	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		35			35			45			45	
Link Distance (ft)		1260			770			893			736	
Travel Time (s)		24.5			15.0			13.5			11.2	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	43	31	107	4	19	4	92	467	20	4	458	47
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	181	0	0	27	0	92	487	0	4	505	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100		20	100	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		D.Pm	NA		D.Pm	NA	
Protected Phases		4			8			6			2	
Permitted Phases	4			8			2			6		

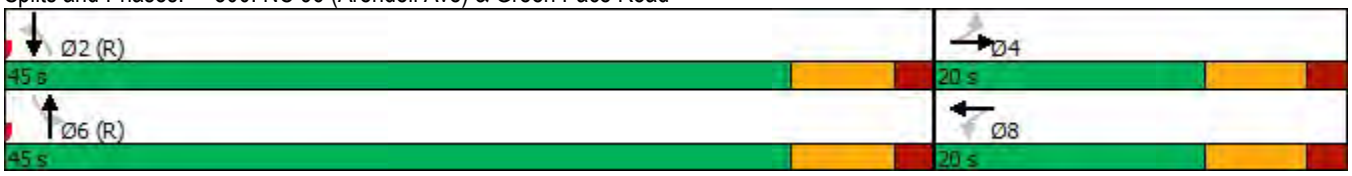


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	4	4		8	8		2	6		6	2	
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		10.0	10.0		10.0	10.0	
Minimum Split (s)	14.0	14.0		14.0	14.0		17.0	17.0		17.0	17.0	
Total Split (s)	20.0	20.0		20.0	20.0		45.0	45.0		45.0	45.0	
Total Split (%)	30.8%	30.8%		30.8%	30.8%		69.2%	69.2%		69.2%	69.2%	
Maximum Green (s)	13.0	13.0		13.0	13.0		38.0	38.0		38.0	38.0	
Yellow Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)		-2.0			-2.0		-2.0	-2.0		-2.0	-2.0	
Total Lost Time (s)		5.0			5.0		5.0	5.0		5.0	5.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0		2.0	2.0		5.0	5.0		5.0	5.0	
Minimum Gap (s)	0.2	0.2		0.2	0.2		3.0	3.0		3.0	3.0	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		15.0	15.0		15.0	15.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		30.0	30.0		30.0	30.0	
Recall Mode	None	None		None	None		C-Min	C-Min		C-Min	C-Min	
Act Effct Green (s)		13.7			13.7		41.3	41.3		41.3	41.3	
Actuated g/C Ratio		0.21			0.21		0.64	0.64		0.64	0.64	
v/c Ratio		0.55			0.07		0.18	0.41		0.01	0.43	
Control Delay		28.5			19.0		8.0	8.0		5.8	8.2	
Queue Delay		0.0			0.0		0.0	0.0		0.0	0.0	
Total Delay		28.5			19.0		8.0	8.0		5.8	8.2	
LOS		C			B		A	A		A	A	
Approach Delay		28.5			19.0			8.0			8.2	
Approach LOS		C			B			A			A	
Queue Length 50th (ft)		64			9		12	78		1	86	
Queue Length 95th (ft)		109			24		m40	151		4	178	
Internal Link Dist (ft)		1180			690			813			656	
Turn Bay Length (ft)							200			150		
Base Capacity (vph)		382			420		517	1200		532	1191	
Starvation Cap Reductn		0			0		0	0		0	0	
Spillback Cap Reductn		0			0		0	0		0	0	
Storage Cap Reductn		0			0		0	0		0	0	
Reduced v/c Ratio		0.47			0.06		0.18	0.41		0.01	0.42	

Intersection Summary			
Area Type:	Other		
Cycle Length: 65			
Actuated Cycle Length: 65			
Offset: 0 (0%), Referenced to phase 2:NBSB and 6:NBSB, Start of Green			
Natural Cycle: 40			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.55			
Intersection Signal Delay: 11.2		Intersection LOS: B	
Intersection Capacity Utilization 59.9%		ICU Level of Service B	
Analysis Period (min) 15			

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 500: NC 96 (Arendell Ave) & Green Pace Road

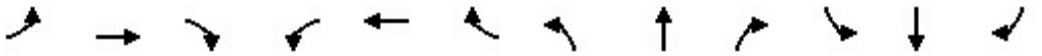


Intersection	
Intersection Delay, s/veh	12.3
Intersection LOS	B

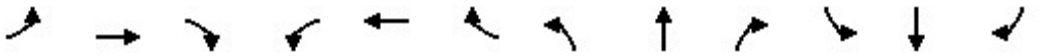
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	30	69	50	70	46	30	33	185	76	23	227	22
Future Vol, veh/h	30	69	50	70	46	30	33	185	76	23	227	22
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	33	77	56	78	51	33	37	206	84	26	252	24
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	10.9	11.1	13	12.8
HCM LOS	B	B	B	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	11%	20%	48%	8%
Vol Thru, %	63%	46%	32%	83%
Vol Right, %	26%	34%	21%	8%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	294	149	146	272
LT Vol	33	30	70	23
Through Vol	185	69	46	227
RT Vol	76	50	30	22
Lane Flow Rate	327	166	162	302
Geometry Grp	1	1	1	1
Degree of Util (X)	0.476	0.265	0.266	0.452
Departure Headway (Hd)	5.25	5.762	5.896	5.381
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	683	621	607	668
Service Time	3.304	3.825	3.96	3.433
HCM Lane V/C Ratio	0.479	0.267	0.267	0.452
HCM Control Delay	13	10.9	11.1	12.8
HCM Lane LOS	B	B	B	B
HCM 95th-tile Q	2.6	1.1	1.1	2.4



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	258	11	101	69	24	93	191	785	61	85	699	213
Future Volume (vph)	258	11	101	69	24	93	191	785	61	85	699	213
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	400		0	150		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	25			25			100			100		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Frt		0.963			0.933			0.989			0.965	
Flt Protected		0.966			0.982		0.950			0.950		
Satd. Flow (prot)	0	1733	0	0	1707	0	1770	3500	0	1770	3415	0
Flt Permitted		0.966			0.982		0.132			0.127		
Satd. Flow (perm)	0	1733	0	0	1707	0	246	3500	0	237	3415	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		445			380			1027			1180	
Travel Time (s)		10.1			8.6			15.6			17.9	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	287	12	112	77	27	103	212	872	68	94	777	237
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	411	0	0	207	0	212	940	0	94	1014	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100		20	100	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Split	NA		Split	NA		D.P+P	NA		D.P+P	NA	
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases							6			2		



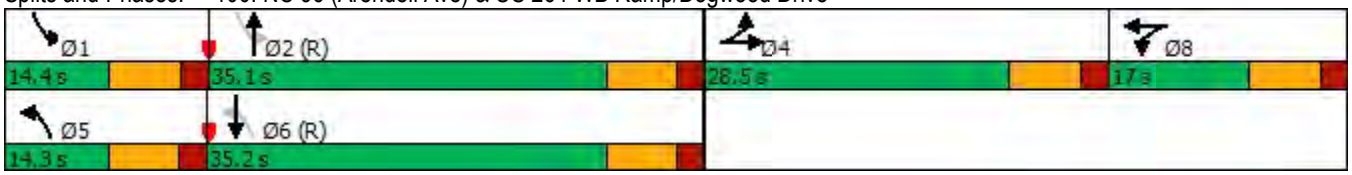
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	4	4		8	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		7.0	10.0		7.0	10.0	
Minimum Split (s)	14.2	14.2		15.0	15.0		14.3	30.0		14.4	17.0	
Total Split (s)	28.5	28.5		17.0	17.0		14.3	35.1		14.4	35.2	
Total Split (%)	30.0%	30.0%		17.9%	17.9%		15.1%	36.9%		15.2%	37.1%	
Maximum Green (s)	21.5	21.5		10.0	10.0		7.3	28.1		7.4	28.2	
Yellow Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)		-2.0			-2.0		-2.0	-2.0		-2.0	-2.0	
Total Lost Time (s)		5.0			5.0		5.0	5.0		5.0	5.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		None	C-Max		None	C-Max	
Walk Time (s)				7.0	7.0			7.0				
Flash Dont Walk (s)				1.0	1.0			16.0				
Pedestrian Calls (#/hr)				0	0			0				
Act Effct Green (s)		23.5			12.0		39.5	33.0		40.5	30.2	
Actuated g/C Ratio		0.25			0.13		0.42	0.35		0.43	0.32	
v/c Ratio		0.96			0.96		0.84	0.77		0.37	0.93	
Control Delay		71.6			95.9		49.5	34.1		19.0	47.9	
Queue Delay		0.0			0.0		0.0	0.0		0.0	0.0	
Total Delay		71.6			95.9		49.5	34.1		19.0	47.9	
LOS		E			F		D	C		B	D	
Approach Delay		71.6			95.9			37.0			45.4	
Approach LOS		E			F			D			D	
Queue Length 50th (ft)		245			126		75	276		31	310	
Queue Length 95th (ft)		#430			#266		#200	#364		59	#438	
Internal Link Dist (ft)		365			300			947			1100	
Turn Bay Length (ft)							400			150		
Base Capacity (vph)		428			215		251	1215		252	1085	
Starvation Cap Reductn		0			0		0	0		0	0	
Spillback Cap Reductn		0			0		0	0		0	0	
Storage Cap Reductn		0			0		0	0		0	0	
Reduced v/c Ratio		0.96			0.96		0.84	0.77		0.37	0.93	

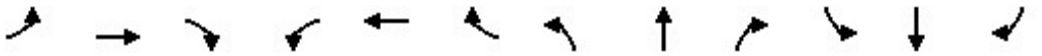
Intersection Summary			
Area Type:	Other		
Cycle Length: 95			
Actuated Cycle Length: 95			
Offset: 45 (47%), Referenced to phase 2:NBSB and 6:NBSB, Start of Green			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.96			
Intersection Signal Delay: 49.4		Intersection LOS: D	
Intersection Capacity Utilization 76.9%		ICU Level of Service D	
Analysis Period (min) 15			

95th percentile volume exceeds capacity, queue may be longer.

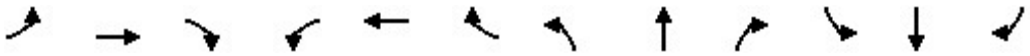
Queue shown is maximum after two cycles.

Splits and Phases: 100: NC 96 (Arendell Ave) & US 264 WB Ramp/Dogwood Drive





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	349	8	320	0	0	0	0	689	154	311	560	0
Future Volume (vph)	349	8	320	0	0	0	0	689	154	311	560	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		100	0		0	0		0	275		0
Storage Lanes	0		1	0		0	0		0	1		0
Taper Length (ft)	25			25			25			100		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	1.00
Frt			0.850					0.973				
Flt Protected		0.953								0.950		
Satd. Flow (prot)	0	1775	1583	0	0	0	0	3444	0	1770	3539	0
Flt Permitted		0.953								0.176		
Satd. Flow (perm)	0	1775	1583	0	0	0	0	3444	0	328	3539	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		468			613			651			1027	
Travel Time (s)		10.6			13.9			9.9			15.6	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	388	9	356	0	0	0	0	766	171	346	622	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	397	356	0	0	0	0	937	0	346	622	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1					2		1	2	
Detector Template	Left	Thru	Right					Thru		Left	Thru	
Leading Detector (ft)	20	100	20					100		20	100	
Trailing Detector (ft)	0	0	0					0		0	0	
Detector 1 Position(ft)	0	0	0					0		0	0	
Detector 1 Size(ft)	20	6	20					6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex					Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0					0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0					0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0					0.0		0.0	0.0	
Detector 2 Position(ft)		94						94			94	
Detector 2 Size(ft)		6						6			6	
Detector 2 Type		Cl+Ex						Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0						0.0			0.0	
Turn Type	Perm	NA	Perm					NA		D.P+P	NA	
Protected Phases		4						2		1	6	
Permitted Phases	4		4							2		



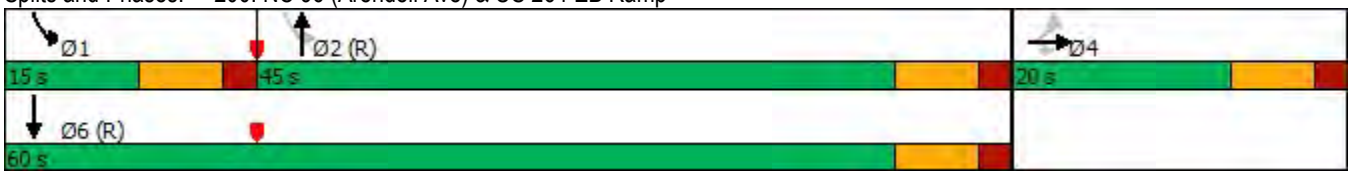
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	4	4	4					2		1	6	
Switch Phase												
Minimum Initial (s)	7.0	7.0	7.0					10.0		7.0	10.0	
Minimum Split (s)	14.0	14.0	14.0					29.0		14.8	17.0	
Total Split (s)	20.0	20.0	20.0					45.0		15.0	60.0	
Total Split (%)	25.0%	25.0%	25.0%					56.3%		18.8%	75.0%	
Maximum Green (s)	13.0	13.0	13.0					38.0		8.0	53.0	
Yellow Time (s)	5.0	5.0	5.0					5.0		5.0	5.0	
All-Red Time (s)	2.0	2.0	2.0					2.0		2.0	2.0	
Lost Time Adjust (s)		-2.0	-2.0					-2.0		-2.0	-2.0	
Total Lost Time (s)		5.0	5.0					5.0		5.0	5.0	
Lead/Lag								Lag		Lead		
Lead-Lag Optimize?								Yes		Yes		
Vehicle Extension (s)	3.0	3.0	3.0					3.0		3.0	3.0	
Recall Mode	None	None	None					C-Min		None	C-Min	
Walk Time (s)								7.0				
Flash Dont Walk (s)								15.0				
Pedestrian Calls (#/hr)								0				
Act Effct Green (s)		23.5	23.5					31.5		41.5	46.5	
Actuated g/C Ratio		0.29	0.29					0.39		0.52	0.58	
v/c Ratio		0.76	0.77					0.69		0.99	0.30	
Control Delay		39.9	41.6					22.6		63.5	8.5	
Queue Delay		0.0	0.0					0.0		0.0	0.0	
Total Delay		39.9	41.6					22.6		63.5	8.5	
LOS		D	D					C		E	A	
Approach Delay		40.7						22.6			28.1	
Approach LOS		D						C			C	
Queue Length 50th (ft)		181	163					197		101	74	
Queue Length 95th (ft)		#391	#362					224		#240	78	
Internal Link Dist (ft)		388			533			571			947	
Turn Bay Length (ft)			100							275		
Base Capacity (vph)		521	464					1722		350	2433	
Starvation Cap Reductn		0	0					0		0	0	
Spillback Cap Reductn		0	0					0		0	0	
Storage Cap Reductn		0	0					0		0	0	
Reduced v/c Ratio		0.76	0.77					0.54		0.99	0.26	

Intersection Summary			
Area Type:	Other		
Cycle Length: 80			
Actuated Cycle Length: 80			
Offset: 0 (0%), Referenced to phase 2:NBSB and 6:SBT, Start of Green			
Natural Cycle: 70			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.99			
Intersection Signal Delay: 29.8		Intersection LOS: C	
Intersection Capacity Utilization 73.4%		ICU Level of Service D	
Analysis Period (min) 15			

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 200: NC 96 (Arendell Ave) & US 264 EB Ramp



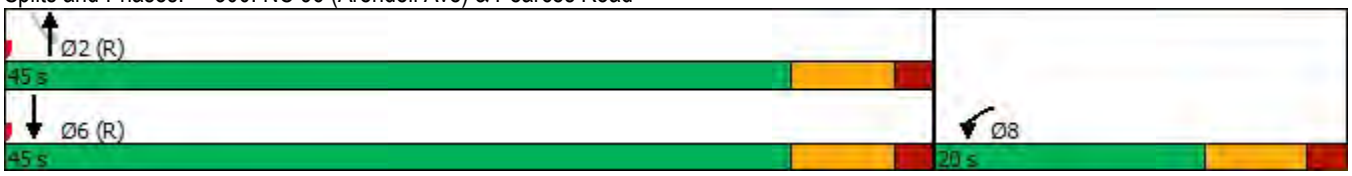
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	329	34	718	409	75	608
Future Volume (vph)	329	34	718	409	75	608
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150	0		0	175	
Storage Lanes	1	0		0	1	
Taper Length (ft)	100				100	
Lane Util. Factor	0.97	0.95	0.95	0.95	1.00	0.95
Frt	0.986		0.946			
Flt Protected	0.957				0.950	
Satd. Flow (prot)	3410	0	3348	0	1770	3539
Flt Permitted	0.957				0.174	
Satd. Flow (perm)	3410	0	3348	0	324	3539
Right Turn on Red		No		No		
Satd. Flow (RTOR)						
Link Speed (mph)	35		45			45
Link Distance (ft)	1185		1180			773
Travel Time (s)	23.1		17.9			11.7
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	366	38	798	454	83	676
Shared Lane Traffic (%)						
Lane Group Flow (vph)	404	0	1252	0	83	676
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	24		12			12
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Number of Detectors	1		2		1	2
Detector Template	Left		Thru		Left	Thru
Leading Detector (ft)	20		100		20	100
Trailing Detector (ft)	0		0		0	0
Detector 1 Position(ft)	0		0		0	0
Detector 1 Size(ft)	20		6		20	6
Detector 1 Type	Cl+Ex		Cl+Ex		Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0		0.0		0.0	0.0
Detector 1 Queue (s)	0.0		0.0		0.0	0.0
Detector 1 Delay (s)	0.0		0.0		0.0	0.0
Detector 2 Position(ft)			94			94
Detector 2 Size(ft)			6			6
Detector 2 Type			Cl+Ex			Cl+Ex
Detector 2 Channel						
Detector 2 Extend (s)			0.0			0.0
Turn Type	Prot		NA		D.Pm	NA
Protected Phases	8		2			6
Permitted Phases					2	

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Detector Phase	8		2		2	6
Switch Phase						
Minimum Initial (s)	7.0		10.0		10.0	10.0
Minimum Split (s)	20.0		32.6		32.6	17.6
Total Split (s)	20.0		45.0		45.0	45.0
Total Split (%)	30.8%		69.2%		69.2%	69.2%
Maximum Green (s)	13.0		38.0		38.0	38.0
Yellow Time (s)	5.0		5.0		5.0	5.0
All-Red Time (s)	2.0		2.0		2.0	2.0
Lost Time Adjust (s)	-2.0		-2.0		-2.0	-2.0
Total Lost Time (s)	5.0		5.0		5.0	5.0
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0		3.0		3.0	3.0
Recall Mode	None		C-Min		C-Min	C-Min
Walk Time (s)	7.0		7.0		7.0	
Flash Dont Walk (s)	6.0		18.0		18.0	
Pedestrian Calls (#/hr)	0		0		0	
Act Effct Green (s)	14.1		40.9		40.9	40.9
Actuated g/C Ratio	0.22		0.63		0.63	0.63
v/c Ratio	0.55		0.60		0.41	0.30
Control Delay	25.3		8.9		13.6	6.4
Queue Delay	0.0		0.0		0.0	0.0
Total Delay	25.3		8.9		13.6	6.4
LOS	C		A		B	A
Approach Delay	25.3		8.9			7.2
Approach LOS	C		A			A
Queue Length 50th (ft)	72		137		12	49
Queue Length 95th (ft)	111		192		m36	101
Internal Link Dist (ft)	1105		1100			693
Turn Bay Length (ft)	150				175	
Base Capacity (vph)	799		2116		204	2237
Starvation Cap Reductn	0		0		0	0
Spillback Cap Reductn	0		0		0	0
Storage Cap Reductn	0		0		0	0
Reduced v/c Ratio	0.51		0.59		0.41	0.30

Intersection Summary	
Area Type:	Other
Cycle Length: 65	
Actuated Cycle Length: 65	
Offset: 0 (0%), Referenced to phase 2:NBSB and 6:SBT, Start of Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.60	
Intersection Signal Delay: 11.1	Intersection LOS: B
Intersection Capacity Utilization 64.2%	ICU Level of Service C
Analysis Period (min) 15	

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 300: NC 96 (Arendell Ave) & Pearces Road



Intersection	
Int Delay, s/veh	7.1

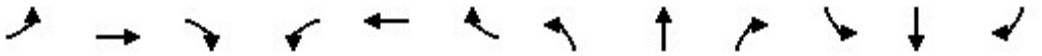
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	144	12	42	4	4	145
Future Vol, veh/h	144	12	42	4	4	145
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	160	13	47	4	4	161

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	51	0	-	0	382	49
Stage 1	-	-	-	-	49	-
Stage 2	-	-	-	-	333	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1555	-	-	-	620	1020
Stage 1	-	-	-	-	973	-
Stage 2	-	-	-	-	726	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1555	-	-	-	556	1020
Mov Cap-2 Maneuver	-	-	-	-	556	-
Stage 1	-	-	-	-	872	-
Stage 2	-	-	-	-	726	-

Approach	EB	WB	SB
HCM Control Delay, s	7	0	9.3
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1555	-	-	-	998
HCM Lane V/C Ratio	0.103	-	-	-	0.166
HCM Control Delay (s)	7.6	0	-	-	9.3
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0.3	-	-	-	0.6

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	40	31	83	4	15	6	83	632	10	5	558	65
Future Volume (vph)	40	31	83	4	15	6	83	632	10	5	558	65
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	200		0	150		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	25			25			100			100		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.927			0.966			0.998			0.984	
Flt Protected		0.987			0.993		0.950			0.950		
Satd. Flow (prot)	0	1704	0	0	1787	0	1770	1859	0	1770	1833	0
Flt Permitted		0.904			0.944		0.314			0.301		
Satd. Flow (perm)	0	1561	0	0	1699	0	585	1859	0	561	1833	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		35			35			45			45	
Link Distance (ft)		1260			776			885			736	
Travel Time (s)		24.5			15.1			13.4			11.2	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	44	34	92	4	17	7	92	702	11	6	620	72
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	170	0	0	28	0	92	713	0	6	692	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100		20	100	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		D.Pm	NA		D.Pm	NA	
Protected Phases		4			8			6			2	
Permitted Phases	4			8			2			6		

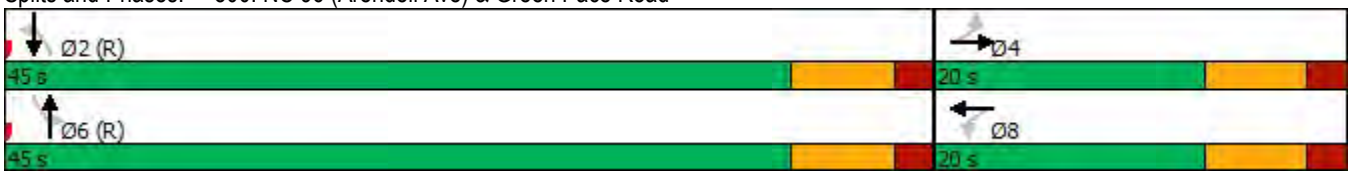


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	4	4		8	8		2	6		6	2	
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		10.0	10.0		10.0	10.0	
Minimum Split (s)	14.0	14.0		14.0	14.0		17.0	17.0		17.0	17.0	
Total Split (s)	20.0	20.0		20.0	20.0		45.0	45.0		45.0	45.0	
Total Split (%)	30.8%	30.8%		30.8%	30.8%		69.2%	69.2%		69.2%	69.2%	
Maximum Green (s)	13.0	13.0		13.0	13.0		38.0	38.0		38.0	38.0	
Yellow Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)		-2.0			-2.0		-2.0	-2.0		-2.0	-2.0	
Total Lost Time (s)		5.0			5.0		5.0	5.0		5.0	5.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0		2.0	2.0		5.0	5.0		5.0	5.0	
Minimum Gap (s)	0.2	0.2		0.2	0.2		3.0	3.0		3.0	3.0	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		15.0	15.0		15.0	15.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		30.0	30.0		30.0	30.0	
Recall Mode	None	None		None	None		C-Min	C-Min		C-Min	C-Min	
Act Effct Green (s)		12.8			12.8		42.2	42.2		42.2	42.2	
Actuated g/C Ratio		0.20			0.20		0.65	0.65		0.65	0.65	
v/c Ratio		0.55			0.08		0.24	0.59		0.02	0.58	
Control Delay		30.3			20.7		9.5	10.7		5.0	9.4	
Queue Delay		0.0			0.0		0.0	0.0		0.0	0.0	
Total Delay		30.3			20.7		9.5	10.7		5.0	9.4	
LOS		C			C		A	B		A	A	
Approach Delay		30.3			20.7			10.6			9.4	
Approach LOS		C			C			B			A	
Queue Length 50th (ft)		61			9		14	139		1	134	
Queue Length 95th (ft)		112			27		m35	221		4	241	
Internal Link Dist (ft)		1180			696			805			656	
Turn Bay Length (ft)							200			150		
Base Capacity (vph)		361			393		380	1209		365	1192	
Starvation Cap Reductn		0			0		0	0		0	0	
Spillback Cap Reductn		0			0		0	0		0	0	
Storage Cap Reductn		0			0		0	0		0	0	
Reduced v/c Ratio		0.47			0.07		0.24	0.59		0.02	0.58	

Intersection Summary			
Area Type:	Other		
Cycle Length: 65			
Actuated Cycle Length: 65			
Offset: 0 (0%), Referenced to phase 2:NBSB and 6:NBSB, Start of Green			
Natural Cycle: 45			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.59			
Intersection Signal Delay: 12.2		Intersection LOS: B	
Intersection Capacity Utilization 69.2%		ICU Level of Service C	
Analysis Period (min) 15			

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 500: NC 96 (Arendell Ave) & Green Pace Road



Intersection	
Intersection Delay, s/veh	16.7
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	42	93	33	68	62	21	26	323	70	14	216	23
Future Vol, veh/h	42	93	33	68	62	21	26	323	70	14	216	23
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	47	103	37	76	69	23	29	359	78	16	240	26
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	12.6	12.4	21.6	13.9
HCM LOS	B	B	C	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	6%	25%	45%	6%
Vol Thru, %	77%	55%	41%	85%
Vol Right, %	17%	20%	14%	9%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	419	168	151	253
LT Vol	26	42	68	14
Through Vol	323	93	62	216
RT Vol	70	33	21	23
Lane Flow Rate	466	187	168	281
Geometry Grp	1	1	1	1
Degree of Util (X)	0.72	0.332	0.304	0.462
Departure Headway (Hd)	5.569	6.41	6.532	5.921
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	652	560	549	610
Service Time	3.58	4.459	4.582	3.936
HCM Lane V/C Ratio	0.715	0.334	0.306	0.461
HCM Control Delay	21.6	12.6	12.4	13.9
HCM Lane LOS	C	B	B	B
HCM 95th-tile Q	6.1	1.4	1.3	2.4

DAVENPORT

Queueing Analysis
SimTraffic Worksheets

Intersection: 100: NC 96 (Arendell Ave) & US 264 WB Ramp/Dogwood Drive

Movement	EB	WB	NB	NB	NB	SB	SB	SB
Directions Served	LTR	LTR	L	T	TR	L	T	TR
Maximum Queue (ft)	434	72	132	140	177	26	124	182
Average Queue (ft)	413	20	61	56	49	3	69	98
95th Queue (ft)	425	49	105	117	116	16	111	157
Link Distance (ft)	395	467		971	971		783	783
Upstream Blk Time (%)	96							
Queuing Penalty (veh)	0							
Storage Bay Dist (ft)			400			100		
Storage Blk Time (%)							1	
Queuing Penalty (veh)							0	

Intersection: 200: NC 96 (Arendell Ave) & US 264 EB Ramp

Movement	EB	EB	NB	NB	SB	SB	SB
Directions Served	LT	R	T	TR	L	T	T
Maximum Queue (ft)	334	200	163	205	92	68	70
Average Queue (ft)	118	17	93	76	48	19	27
95th Queue (ft)	211	101	163	160	90	51	61
Link Distance (ft)	418		602	602		971	971
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)		100			275		
Storage Blk Time (%)	13						
Queuing Penalty (veh)	31						

Intersection: 300: NC 96 (Arendell Ave) & Pearces Road

Movement	WB	WB	NB	NB	SB	SB
Directions Served	L	R	T	R	L	T
Maximum Queue (ft)	250	294	255	189	53	216
Average Queue (ft)	134	14	99	84	31	108
95th Queue (ft)	209	101	188	147	59	179
Link Distance (ft)		1097	289	289		1562
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)	150				175	
Storage Blk Time (%)	6					1
Queuing Penalty (veh)	1					0

Intersection: 500: NC 96 (Arendell Ave) & Green Pace Road

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	143	51	108	20
Average Queue (ft)	49	19	33	1
95th Queue (ft)	94	43	85	7
Link Distance (ft)	1217	713	1562	700
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 600: Pearces Road & Proctor Street

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	73	76	31	49
Average Queue (ft)	39	47	6	5
95th Queue (ft)	65	79	25	26
Link Distance (ft)	900	1110	1097	1044
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Network Summary

Network wide Queuing Penalty: 33

Intersection: 100: NC 96 (Arendell Ave) & US 264 WB Ramp/Dogwood Drive

Movement	EB	WB	NB	NB	NB	SB	SB	SB
Directions Served	LTR	LTR	L	T	TR	L	T	TR
Maximum Queue (ft)	447	93	138	141	155	20	202	245
Average Queue (ft)	416	31	64	52	45	1	87	106
95th Queue (ft)	433	75	109	112	111	7	162	188
Link Distance (ft)	395	467		971	971		783	783
Upstream Blk Time (%)	100							
Queuing Penalty (veh)	0							
Storage Bay Dist (ft)			400			100		
Storage Blk Time (%)							5	
Queuing Penalty (veh)							0	

Intersection: 200: NC 96 (Arendell Ave) & US 264 EB Ramp

Movement	EB	EB	NB	NB	SB	SB	SB
Directions Served	LT	R	T	TR	L	LT	T
Maximum Queue (ft)	434	200	182	160	104	150	122
Average Queue (ft)	213	92	106	76	52	93	52
95th Queue (ft)	391	232	184	145	86	129	107
Link Distance (ft)	418		587	587		971	971
Upstream Blk Time (%)	4						
Queuing Penalty (veh)	0						
Storage Bay Dist (ft)		100			275		
Storage Blk Time (%)	38	1					
Queuing Penalty (veh)	118	5					

Intersection: 300: NC 96 (Arendell Ave) & Pearces Road

Movement	WB	WB	NB	NB	SB	SB
Directions Served	L	R	T	R	L	T
Maximum Queue (ft)	210	48	230	134	116	163
Average Queue (ft)	131	18	112	76	56	101
95th Queue (ft)	193	43	192	128	94	151
Link Distance (ft)		1097	289	289		1562
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)	150				175	
Storage Blk Time (%)	6					0
Queuing Penalty (veh)	2					0

Intersection: 500: NC 96 (Arendell Ave) & Green Pace Road

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	115	50	257	37
Average Queue (ft)	65	13	42	2
95th Queue (ft)	108	38	136	14
Link Distance (ft)	1217	652	1562	696
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 600: Pearces Road & Proctor Street

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	162	98	30	56
Average Queue (ft)	54	49	3	5
95th Queue (ft)	102	79	17	25
Link Distance (ft)	900	1110	1097	1044
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Network Summary

Network wide Queuing Penalty: 125

Intersection: 100: NC 96 (Arendell Ave) & US 264 WB Ramp/Dogwood Drive

Movement	EB	WB	NB	NB	NB	SB	SB	SB
Directions Served	LTR	LTR	L	T	TR	L	T	TR
Maximum Queue (ft)	446	52	140	156	157	26	159	200
Average Queue (ft)	361	24	76	67	65	5	82	107
95th Queue (ft)	544	52	120	132	129	20	145	199
Link Distance (ft)	394	467		971	971		1120	1120
Upstream Blk Time (%)	75							
Queuing Penalty (veh)	0							
Storage Bay Dist (ft)			400			150		
Storage Blk Time (%)							1	
Queuing Penalty (veh)							0	

Intersection: 200: NC 96 (Arendell Ave) & US 264 EB Ramp

Movement	EB	EB	NB	NB	SB	SB	SB
Directions Served	LT	R	T	TR	L	T	T
Maximum Queue (ft)	259	200	302	331	177	69	53
Average Queue (ft)	122	32	130	111	77	19	26
95th Queue (ft)	202	142	240	230	149	50	53
Link Distance (ft)	418		602	602		971	971
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)		100			275		
Storage Blk Time (%)	16						
Queuing Penalty (veh)	39						

Intersection: 300: NC 96 (Arendell Ave) & Pearces Road

Movement	WB	WB	NB	NB	SB	SB	SB
Directions Served	L	LR	T	TR	L	T	T
Maximum Queue (ft)	111	153	194	179	94	90	90
Average Queue (ft)	58	91	80	75	30	39	49
95th Queue (ft)	104	136	153	145	69	71	82
Link Distance (ft)		1083	1120	1120		681	681
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)	150				300		
Storage Blk Time (%)		0					
Queuing Penalty (veh)		1					

Intersection: 500: NC 96 (Arendell Ave) & Green Pace Road

Movement	EB	WB	NB	NB	SB	SB
Directions Served	LTR	LTR	L	TR	L	TR
Maximum Queue (ft)	160	50	88	162	19	124
Average Queue (ft)	63	16	28	68	1	55
95th Queue (ft)	116	41	62	143	9	109
Link Distance (ft)	1217	747		825		698
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)			200		150	
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 600: Pearces Road & Proctor Street

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	92	100	94	31
Average Queue (ft)	46	47	12	9
95th Queue (ft)	76	79	51	31
Link Distance (ft)	901	1110	1083	1044
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Network Summary

Network wide Queuing Penalty: 40

Intersection: 100: NC 96 (Arendell Ave) & US 264 WB Ramp/Dogwood Drive

Movement	EB	WB	NB	NB	NB	SB	SB	SB
Directions Served	LTR	LTR	L	T	TR	L	T	TR
Maximum Queue (ft)	446	95	137	119	159	26	196	212
Average Queue (ft)	414	30	67	42	41	5	93	107
95th Queue (ft)	431	76	115	102	105	21	148	183
Link Distance (ft)	394	467		971	971		1120	1120
Upstream Blk Time (%)	99							
Queuing Penalty (veh)	0							
Storage Bay Dist (ft)			400			150		
Storage Blk Time (%)							1	
Queuing Penalty (veh)							0	

Intersection: 200: NC 96 (Arendell Ave) & US 264 EB Ramp

Movement	EB	EB	NB	NB	SB	SB	SB
Directions Served	LT	R	T	TR	L	T	T
Maximum Queue (ft)	434	200	230	297	243	127	137
Average Queue (ft)	186	56	140	143	131	44	49
95th Queue (ft)	334	191	213	219	218	94	108
Link Distance (ft)	418		602	602		971	971
Upstream Blk Time (%)	2						
Queuing Penalty (veh)	0						
Storage Bay Dist (ft)		100			275		
Storage Blk Time (%)	33						
Queuing Penalty (veh)	105						

Intersection: 300: NC 96 (Arendell Ave) & Pearces Road

Movement	WB	WB	NB	NB	SB	SB	SB
Directions Served	L	LR	T	TR	L	T	T
Maximum Queue (ft)	184	199	204	209	92	159	116
Average Queue (ft)	72	103	101	100	45	62	52
95th Queue (ft)	141	159	181	199	85	121	104
Link Distance (ft)		1083	1120	1120		687	687
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)	150				300		
Storage Blk Time (%)	0	1					
Queuing Penalty (veh)	0	2					

Intersection: 500: NC 96 (Arendell Ave) & Green Pace Road

Movement	EB	WB	NB	NB	SB	SB
Directions Served	LTR	LTR	L	TR	L	TR
Maximum Queue (ft)	138	48	68	191	24	212
Average Queue (ft)	76	12	24	79	1	66
95th Queue (ft)	120	35	49	157	8	142
Link Distance (ft)	1217	747		819		698
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)			200		150	
Storage Blk Time (%)				0		1
Queuing Penalty (veh)				0		0

Intersection: 600: Pearces Road & Proctor Street

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	104	118	54	54
Average Queue (ft)	57	56	11	4
95th Queue (ft)	91	94	41	23
Link Distance (ft)	901	1110	1083	1044
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Network Summary

Network wide Queuing Penalty: 108

Intersection: 100: NC 96 (Arendell Ave) & US 264 WB Ramp/Dogwood Drive

Movement	EB	WB	NB	NB	NB	SB	SB	SB
Directions Served	LTR	LTR	L	T	TR	L	T	TR
Maximum Queue (ft)	457	314	133	174	202	249	261	224
Average Queue (ft)	412	210	70	78	90	44	74	102
95th Queue (ft)	429	341	115	153	174	113	154	177
Link Distance (ft)	394	309		971	971		1120	1120
Upstream Blk Time (%)	97	4						
Queuing Penalty (veh)	0	6						
Storage Bay Dist (ft)			400			150		
Storage Blk Time (%)							1	
Queuing Penalty (veh)							1	

Intersection: 200: NC 96 (Arendell Ave) & US 264 EB Ramp

Movement	EB	EB	NB	NB	SB	SB	SB
Directions Served	LT	R	T	TR	L	T	T
Maximum Queue (ft)	182	56	228	221	136	121	137
Average Queue (ft)	120	2	117	131	64	47	42
95th Queue (ft)	172	18	195	211	114	99	106
Link Distance (ft)	418		602	602		971	971
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)		100			275		
Storage Blk Time (%)	18						
Queuing Penalty (veh)	45						

Intersection: 300: NC 96 (Arendell Ave) & Pearces Road

Movement	WB	WB	NB	NB	SB	SB	SB
Directions Served	L	LR	T	TR	L	T	T
Maximum Queue (ft)	145	155	159	136	73	190	156
Average Queue (ft)	69	84	71	68	28	60	57
95th Queue (ft)	123	134	126	131	64	130	116
Link Distance (ft)		1083	1120	1120		679	679
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)	150				175		
Storage Blk Time (%)	0	1				0	
Queuing Penalty (veh)	0	1				0	

Intersection: 400: Dogwood Drive & Site Access

Movement	EB	SB
Directions Served	LT	LR
Maximum Queue (ft)	53	98
Average Queue (ft)	8	39
95th Queue (ft)	34	67
Link Distance (ft)	309	229
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 500: NC 96 (Arendell Ave) & Green Pace Road

Movement	EB	WB	NB	NB	SB	SB
Directions Served	LTR	LTR	L	TR	L	TR
Maximum Queue (ft)	198	50	88	151	24	206
Average Queue (ft)	101	18	28	83	2	69
95th Queue (ft)	168	42	59	159	10	135
Link Distance (ft)	1217	725		826		696
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)			200		150	
Storage Blk Time (%)						0
Queuing Penalty (veh)						0

Intersection: 600: Pearces Road & Proctor Street

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	143	97	52	50
Average Queue (ft)	45	50	11	3
95th Queue (ft)	89	80	38	19
Link Distance (ft)	901	1110	1083	1044
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Network Summary

Network wide Queuing Penalty: 53

Intersection: 100: NC 96 (Arendell Ave) & US 264 WB Ramp/Dogwood Drive

Movement	EB	WB	NB	NB	NB	SB	SB	SB
Directions Served	LTR	LTR	L	T	TR	L	T	TR
Maximum Queue (ft)	446	318	161	190	201	85	198	223
Average Queue (ft)	414	228	77	72	76	36	90	98
95th Queue (ft)	430	380	124	155	168	68	166	180
Link Distance (ft)	394	309		971	971		1120	1120
Upstream Blk Time (%)	99	21						
Queuing Penalty (veh)	0	40						
Storage Bay Dist (ft)			400			150		
Storage Blk Time (%)							1	
Queuing Penalty (veh)							1	

Intersection: 200: NC 96 (Arendell Ave) & US 264 EB Ramp

Movement	EB	EB	NB	NB	SB	SB	SB
Directions Served	LT	R	T	TR	L	T	T
Maximum Queue (ft)	434	200	256	258	340	118	131
Average Queue (ft)	222	114	143	142	196	39	42
95th Queue (ft)	359	268	232	223	330	96	94
Link Distance (ft)	418		602	602		971	971
Upstream Blk Time (%)	0						
Queuing Penalty (veh)	0						
Storage Bay Dist (ft)		100			275		
Storage Blk Time (%)	46	0			8		
Queuing Penalty (veh)	146	0			23		

Intersection: 300: NC 96 (Arendell Ave) & Pearces Road

Movement	WB	WB	NB	NB	SB	SB	SB
Directions Served	L	LR	T	TR	L	T	T
Maximum Queue (ft)	142	180	264	212	114	160	152
Average Queue (ft)	71	105	116	98	54	63	64
95th Queue (ft)	120	158	214	184	106	123	126
Link Distance (ft)		1083	1120	1120		687	687
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)	150				175		
Storage Blk Time (%)	0	1				0	
Queuing Penalty (veh)	0	2				0	

Intersection: 400: Dogwood Drive & Site Access

Movement	EB	WB	SB
Directions Served	LT	TR	LR
Maximum Queue (ft)	55	53	244
Average Queue (ft)	13	5	62
95th Queue (ft)	44	26	147
Link Distance (ft)	309	247	229
Upstream Blk Time (%)			1
Queuing Penalty (veh)			0
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 500: NC 96 (Arendell Ave) & Green Pace Road

Movement	EB	WB	NB	NB	SB	SB
Directions Served	LTR	LTR	L	TR	L	TR
Maximum Queue (ft)	227	50	106	207	22	231
Average Queue (ft)	96	19	39	101	1	97
95th Queue (ft)	171	48	79	198	7	195
Link Distance (ft)	1217	732		819		698
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)			200		150	
Storage Blk Time (%)				0		2
Queuing Penalty (veh)				0		0

Intersection: 600: Pearces Road & Proctor Street

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	135	76	54	74
Average Queue (ft)	51	49	7	7
95th Queue (ft)	86	76	30	36
Link Distance (ft)	901	1110	1083	1044
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Network Summary

Network wide Queuing Penalty: 212

Intersection: 100: NC 96 (Arendell Ave) & US 264 WB Ramp/Dogwood Drive

Movement	EB	WB	NB	NB	NB	SB	SB	SB
Directions Served	LTR	LTR	L	T	TR	L	T	TR
Maximum Queue (ft)	409	206	161	299	350	115	249	299
Average Queue (ft)	243	126	87	164	180	47	162	205
95th Queue (ft)	381	200	130	249	276	85	247	287
Link Distance (ft)	394	309		971	971		1120	1120
Upstream Blk Time (%)	1							
Queuing Penalty (veh)	0							
Storage Bay Dist (ft)			400			150		
Storage Blk Time (%)							10	
Queuing Penalty (veh)							10	

Intersection: 200: NC 96 (Arendell Ave) & US 264 EB Ramp

Movement	EB	EB	NB	NB	SB	SB	SB
Directions Served	LT	R	T	TR	L	T	T
Maximum Queue (ft)	302	200	264	312	154	181	161
Average Queue (ft)	123	26	136	139	67	63	70
95th Queue (ft)	229	137	230	244	117	137	141
Link Distance (ft)	418		602	602		971	971
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)		100			275		
Storage Blk Time (%)	17						
Queuing Penalty (veh)	43						

Intersection: 300: NC 96 (Arendell Ave) & Pearces Road

Movement	WB	WB	NB	NB	SB	SB	SB
Directions Served	L	LR	T	TR	L	T	T
Maximum Queue (ft)	129	155	197	162	74	105	121
Average Queue (ft)	65	94	83	83	33	46	45
95th Queue (ft)	114	143	146	149	72	88	89
Link Distance (ft)		1083	1120	1120		679	679
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)	150				175		
Storage Blk Time (%)		1					
Queuing Penalty (veh)		1					

Intersection: 400: Dogwood Drive & Site Access

Movement	EB	SB
Directions Served	LT	LR
Maximum Queue (ft)	54	96
Average Queue (ft)	7	40
95th Queue (ft)	31	69
Link Distance (ft)	309	229
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 500: NC 96 (Arendell Ave) & Green Pace Road

Movement	EB	WB	NB	NB	SB	SB
Directions Served	LTR	LTR	L	TR	L	TR
Maximum Queue (ft)	148	50	90	242	18	120
Average Queue (ft)	81	17	35	85	1	53
95th Queue (ft)	140	44	76	172	6	102
Link Distance (ft)	1217	725		826		696
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)			200		150	
Storage Blk Time (%)				0		
Queuing Penalty (veh)				0		

Intersection: 600: Pearces Road & Proctor Street

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	76	98	142	89
Average Queue (ft)	38	39	61	50
95th Queue (ft)	64	66	95	75
Link Distance (ft)	901	1110	1083	1044
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Network Summary

Network wide Queuing Penalty: 55

Intersection: 100: NC 96 (Arendell Ave) & US 264 WB Ramp/Dogwood Drive

Movement	EB	WB	NB	NB	NB	SB	SB	SB
Directions Served	LTR	LTR	L	T	TR	L	T	TR
Maximum Queue (ft)	457	312	240	328	367	250	419	470
Average Queue (ft)	380	197	140	180	194	105	270	273
95th Queue (ft)	485	315	211	256	281	263	410	420
Link Distance (ft)	394	309		971	971		1120	1120
Upstream Blk Time (%)	46	1						
Queuing Penalty (veh)	0	2						
Storage Bay Dist (ft)			400			150		
Storage Blk Time (%)							40	
Queuing Penalty (veh)							34	

Intersection: 200: NC 96 (Arendell Ave) & US 264 EB Ramp

Movement	EB	EB	NB	NB	SB	SB	SB
Directions Served	LT	R	T	TR	L	T	T
Maximum Queue (ft)	434	200	296	243	285	176	169
Average Queue (ft)	251	127	144	141	144	65	67
95th Queue (ft)	428	274	237	209	233	134	139
Link Distance (ft)	418		602	602		971	971
Upstream Blk Time (%)	5						
Queuing Penalty (veh)	0						
Storage Bay Dist (ft)		100			275		
Storage Blk Time (%)	43	2			1		
Queuing Penalty (veh)	138	6			2		

Intersection: 300: NC 96 (Arendell Ave) & Pearces Road

Movement	WB	WB	NB	NB	SB	SB	SB
Directions Served	L	LR	T	TR	L	T	T
Maximum Queue (ft)	179	155	276	234	156	117	182
Average Queue (ft)	75	87	120	109	57	60	77
95th Queue (ft)	140	139	209	199	117	98	143
Link Distance (ft)		1083	1120	1120		687	687
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)	150				175		
Storage Blk Time (%)	1	0			0		
Queuing Penalty (veh)	2	1			0		

Intersection: 400: Dogwood Drive & Site Access

Movement	EB	SB
Directions Served	LT	LR
Maximum Queue (ft)	32	73
Average Queue (ft)	7	39
95th Queue (ft)	29	62
Link Distance (ft)	309	229
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 500: NC 96 (Arendell Ave) & Green Pace Road

Movement	EB	WB	NB	NB	SB
Directions Served	LTR	LTR	L	TR	TR
Maximum Queue (ft)	177	32	105	248	252
Average Queue (ft)	79	12	45	104	98
95th Queue (ft)	137	34	83	207	187
Link Distance (ft)	1217	732		819	698
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)			200		
Storage Blk Time (%)				0	2
Queuing Penalty (veh)				0	0

Intersection: 600: Pearces Road & Proctor Street

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	77	101	194	81
Average Queue (ft)	47	47	82	53
95th Queue (ft)	71	83	144	83
Link Distance (ft)	901	1110	1083	1044
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Network Summary

Network wide Queuing Penalty: 183

Turning Movement Counts

File Name : Zebulon(264 EB and NC 96)
Site Code :
Start Date : 5/9/2022
Page No : 1

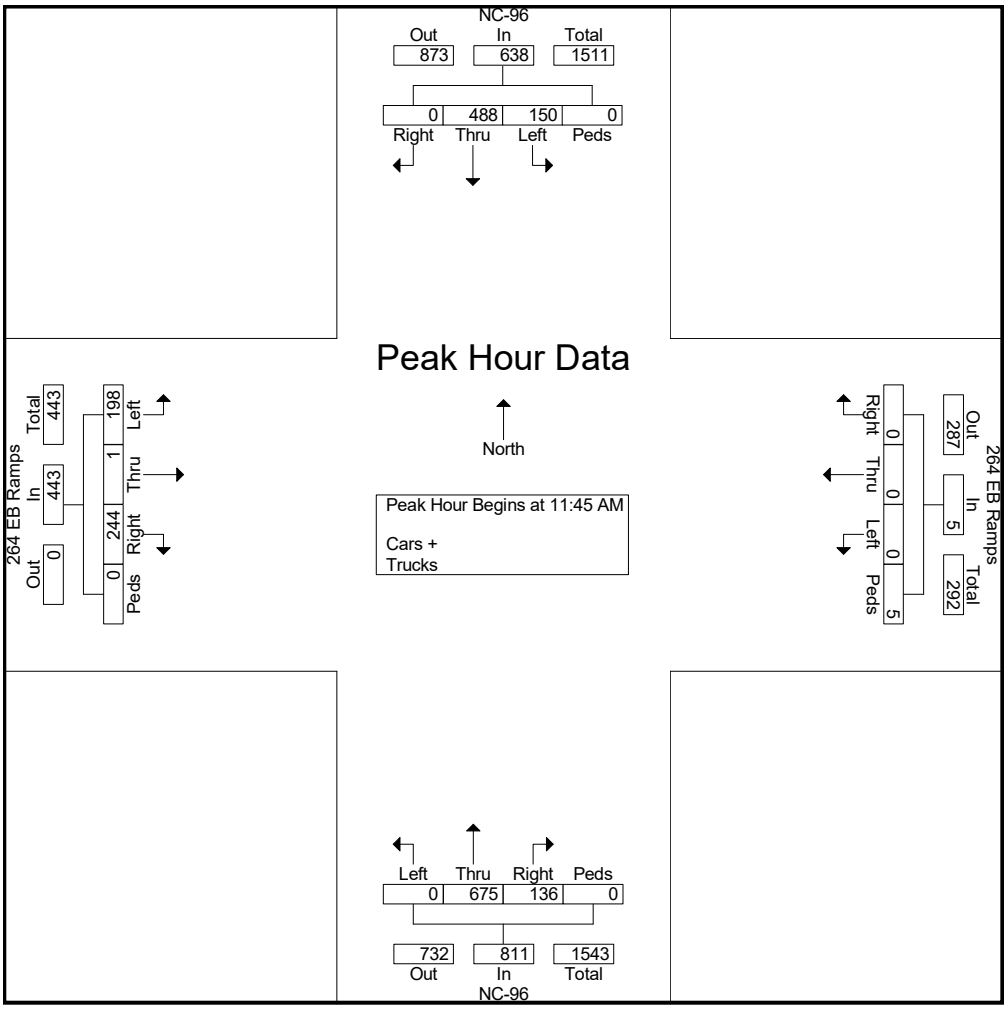
Groups Printed- Cars + - Trucks

	NC-96 Southbound					264 EB Ramps Westbound					NC-96 Northbound					264 EB Ramps Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
11:00 AM	0	117	47	0	164	0	0	0	0	0	19	115	0	0	134	39	1	45	0	85	383
11:15 AM	0	119	38	0	157	0	0	0	2	2	30	99	0	0	129	63	0	39	0	102	390
11:30 AM	0	113	49	0	162	0	0	0	0	0	28	126	0	0	154	56	1	43	0	100	416
11:45 AM	0	118	31	0	149	0	0	0	2	2	26	171	0	0	197	69	0	41	0	110	458
Total	0	467	165	0	632	0	0	0	4	4	103	511	0	0	614	227	2	168	0	397	1647
12:00 PM	0	126	35	0	161	0	0	0	0	0	42	167	0	0	209	73	0	48	0	121	491
12:15 PM	0	120	52	0	172	0	0	0	3	3	41	172	0	0	213	40	1	59	0	100	488
12:30 PM	0	124	32	0	156	0	0	0	0	0	27	165	0	0	192	62	0	50	0	112	460
12:45 PM	0	114	55	1	170	0	0	0	0	0	29	135	0	2	166	74	1	45	0	120	456
Total	0	484	174	1	659	0	0	0	3	3	139	639	0	2	780	249	2	202	0	453	1895
Grand Total	0	951	339	1	1291	0	0	0	7	7	242	1150	0	2	1394	476	4	370	0	850	3542
Apprch %	0	73.7	26.3	0.1		0	0	0	100		17.4	82.5	0	0.1		56	0.5	43.5	0		
Total %	0	26.8	9.6	0	36.4	0	0	0	0.2	0.2	6.8	32.5	0	0.1	39.4	13.4	0.1	10.4	0	24	
Cars +	0	923	317	1	1241	0	0	0	7	7	230	1126	0	2	1358	460	2	353	0	815	3421
% Cars +	0	97.1	93.5	100	96.1	0	0	0	100	100	95	97.9	0	100	97.4	96.6	50	95.4	0	95.9	96.6
Trucks	0	28	22	0	50	0	0	0	0	0	12	24	0	0	36	16	2	17	0	35	121
% Trucks	0	2.9	6.5	0	3.9	0	0	0	0	0	5	2.1	0	0	2.6	3.4	50	4.6	0	4.1	3.4

TRAFFIC DATA COLLECTION

File Name : Zebulon(264 EB and NC 96)
Site Code :
Start Date : 5/9/2022
Page No : 2

	NC-96 Southbound					264 EB Ramps Westbound					NC-96 Northbound					264 EB Ramps Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 12:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 11:45 AM																					
11:45 AM	0	118	31	0	149	0	0	0	2	2	26	171	0	0	197	69	0	41	0	110	458
12:00 PM	0	**126**	35	0	161	0	0	0	0	0	**42**	167	0	0	209	**73**	0	48	0	**121**	**491**
12:15 PM	0	120	**52**	0	**172**	0	0	0	**3**	**3**	41	**172**	0	0	**213**	40	**1**	**59**	0	100	488
12:30 PM	0	124	32	0	156	0	0	0	0	0	27	165	0	0	192	62	0	50	0	112	460
Total Volume	0	488	150	0	638	0	0	0	5	5	136	675	0	0	811	244	1	198	0	443	1897
% App. Total	0	76.5	23.5	0		0	0	0	100		16.8	83.2	0	0		55.1	0.2	44.7	0		
PHF	.000	.968	.721	.000	.927	.000	.000	.000	.417	.417	.810	.981	.000	.000	.952	.836	.250	.839	.000	.915	.966



File Name : Zebulon(264 EB and NC 96)
Site Code :
Start Date : 5/9/2022
Page No : 1

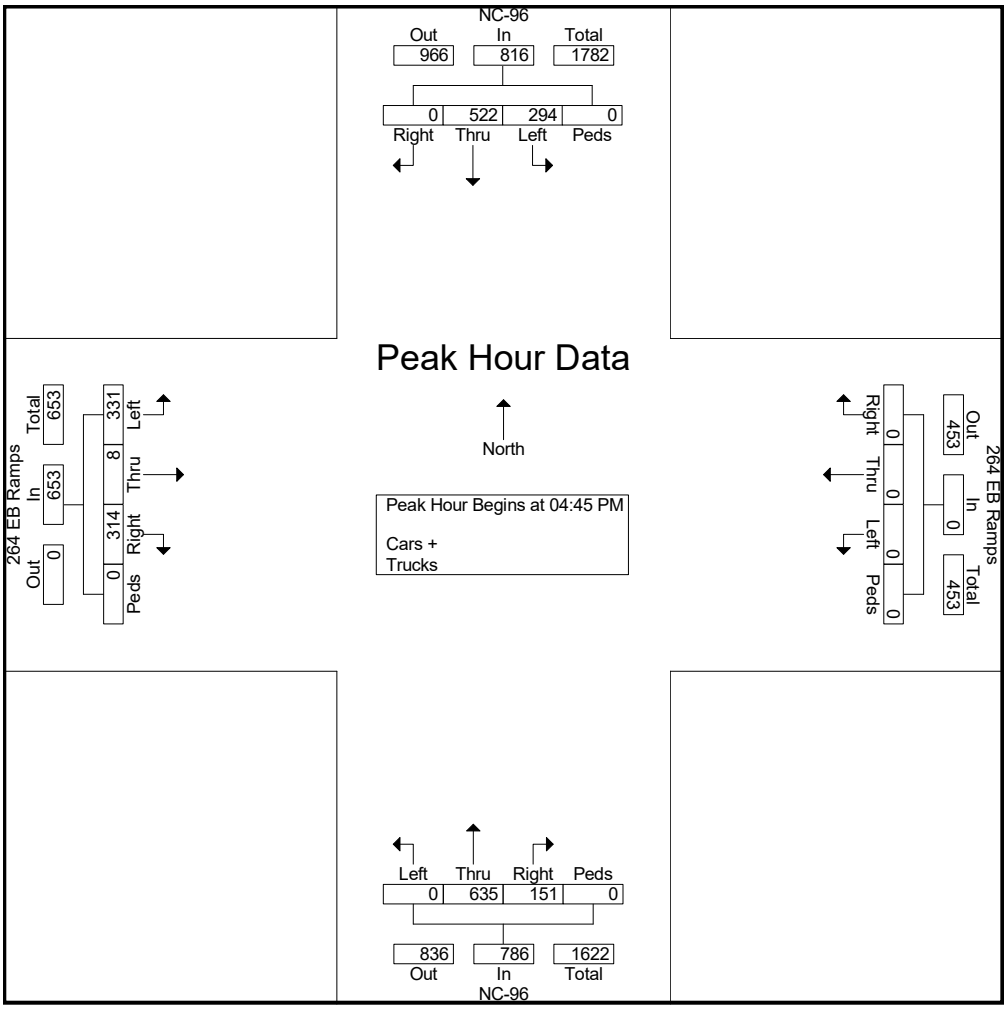
Groups Printed- Cars + - Trucks

	NC-96 Southbound					264 EB Ramps Westbound					NC-96 Northbound					264 EB Ramps Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
04:00 PM	0	109	77	0	186	0	0	0	0	0	41	158	0	0	199	79	0	99	0	178	563
04:15 PM	0	119	65	0	184	0	0	0	0	0	38	172	0	0	210	75	0	79	0	154	548
04:30 PM	0	128	68	0	196	0	0	0	0	0	48	155	0	0	203	98	1	76	0	175	574
04:45 PM	0	114	66	0	180	0	0	0	0	0	33	170	0	0	203	75	1	75	0	151	534
Total	0	470	276	0	746	0	0	0	0	0	160	655	0	0	815	327	2	329	0	658	2219
05:00 PM	0	130	83	0	213	0	0	0	0	0	40	163	0	0	203	76	3	84	0	163	579
05:15 PM	0	143	61	0	204	0	0	0	0	0	43	145	0	0	188	86	0	88	0	174	566
05:30 PM	0	135	84	0	219	0	0	0	0	0	35	157	0	0	192	77	4	84	0	165	576
05:45 PM	0	134	54	0	188	0	0	0	0	0	28	149	0	0	177	82	0	79	0	161	526
Total	0	542	282	0	824	0	0	0	0	0	146	614	0	0	760	321	7	335	0	663	2247
Grand Total	0	1012	558	0	1570	0	0	0	0	0	306	1269	0	0	1575	648	9	664	0	1321	4466
Apprch %	0	64.5	35.5	0		0	0	0	0		19.4	80.6	0	0		49.1	0.7	50.3	0		
Total %	0	22.7	12.5	0	35.2	0	0	0	0	0	6.9	28.4	0	0	35.3	14.5	0.2	14.9	0	29.6	
Cars +	0	1000	534	0	1534	0	0	0	0	0	300	1253	0	0	1553	640	8	655	0	1303	4390
% Cars +	0	98.8	95.7	0	97.7	0	0	0	0	0	98	98.7	0	0	98.6	98.8	88.9	98.6	0	98.6	98.3
Trucks	0	12	24	0	36	0	0	0	0	0	6	16	0	0	22	8	1	9	0	18	76
% Trucks	0	1.2	4.3	0	2.3	0	0	0	0	0	2	1.3	0	0	1.4	1.2	11.1	1.4	0	1.4	1.7

TRAFFIC DATA COLLECTION

File Name : Zebulon(264 EB and NC 96)
Site Code :
Start Date : 5/9/2022
Page No : 2

	NC-96 Southbound					264 EB Ramps Westbound					NC-96 Northbound					264 EB Ramps Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:45 PM																					
04:45 PM	0	114	66	0	180	0	0	0	0	0	33	**170**	0	0	**203**	75	1	75	0	151	534
05:00 PM	0	130	83	0	213	0	0	0	0	0	40	163	0	0	203	76	3	84	0	163	**579**
05:15 PM	0	**143**	61	0	204	0	0	0	0	0	**43**	145	0	0	188	**86**	0	**88**	0	**174**	566
05:30 PM	0	135	**84**	0	**219**	0	0	0	0	0	35	157	0	0	192	77	**4**	84	0	165	576
Total Volume	0	522	294	0	816	0	0	0	0	0	151	635	0	0	786	314	8	331	0	653	2255
% App. Total	0	64	36	0		0	0	0	0		19.2	80.8	0	0		48.1	1.2	50.7	0		
PHF	.000	.913	.875	.000	.932	.000	.000	.000	.000	.000	.878	.934	.000	.000	.968	.913	.500	.940	.000	.938	.974



TRAFFIC DATA COLLECTION

File Name : Zebulon(264 WB and NC 96)
Site Code :
Start Date : 5/9/2022
Page No : 1

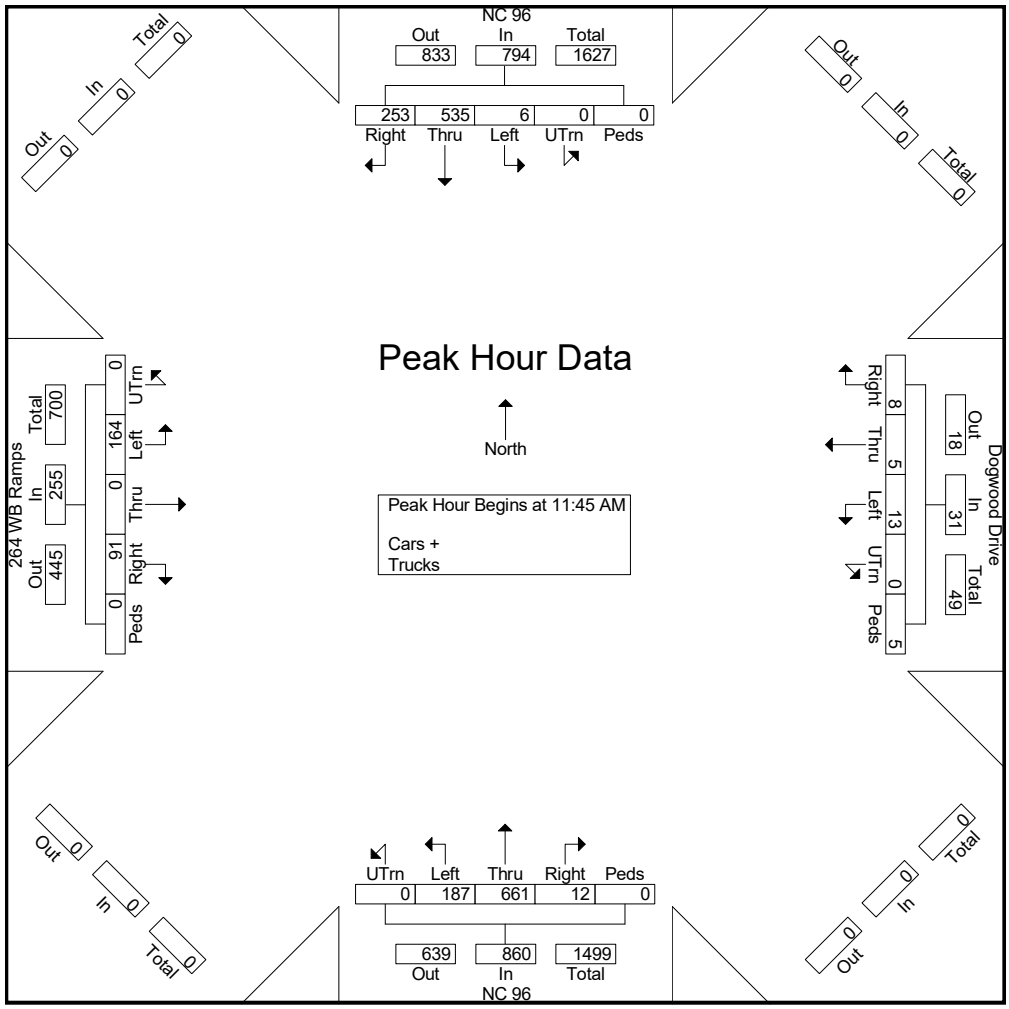
Groups Printed- Cars + - Trucks

	NC 96 Southbound						Dogwood Drive Westbound						NC 96 Northbound						264 WB Ramps Eastbound						
Start Time	Right	Thru	Left	UTrn	Peds	App. Total	Right	Thru	Left	UTrn	Peds	App. Total	Right	Thru	Left	UTrn	Peds	App. Total	Right	Thru	Left	UTrn	Peds	App. Total	Int. Total
11:00 AM	64	127	0	0	0	191	4	0	9	0	0	13	5	122	29	0	0	156	21	0	46	0	0	67	427
11:15 AM	45	135	1	0	0	181	5	0	5	0	1	11	1	109	28	0	0	138	19	0	42	1	0	62	392
11:30 AM	62	141	3	0	0	206	2	3	3	0	0	8	3	137	30	0	0	170	14	0	35	0	0	49	433
11:45 AM	61	133	2	0	0	196	0	1	2	0	2	5	1	158	50	0	0	209	21	0	32	0	0	53	463
Total	232	536	6	0	0	774	11	4	19	0	3	37	10	526	137	0	0	673	75	0	155	1	0	231	1715
12:00 PM	53	130	3	0	0	186	2	2	4	0	0	8	4	170	40	0	0	214	22	0	54	0	0	76	484
12:15 PM	69	143	1	0	0	213	4	0	4	0	3	11	5	168	53	0	0	226	23	0	46	0	0	69	519
12:30 PM	70	129	0	0	0	199	2	2	3	0	0	7	2	165	44	0	0	211	25	0	32	0	0	57	474
12:45 PM	60	148	5	0	0	213	2	2	2	0	0	6	6	144	34	0	0	184	15	1	39	0	0	55	458
Total	252	550	9	0	0	811	10	6	13	0	3	32	17	647	171	0	0	835	85	1	171	0	0	257	1935
Grand Total	484	1086	15	0	0	1585	21	10	32	0	6	69	27	1173	308	0	0	1508	160	1	326	1	0	488	3650
Apprch %	30.5	68.5	0.9	0	0		30.4	14.5	46.4	0	8.7		1.8	77.8	20.4	0	0		32.8	0.2	66.8	0.2	0		
Total %	13.3	29.8	0.4	0	0	43.4	0.6	0.3	0.9	0	0.2	1.9	0.7	32.1	8.4	0	0	41.3	4.4	0	8.9	0	0	13.4	
Cars +	460	1047	15	0	0	1522	21	10	31	0	6	68	27	1145	297	0	0	1469	152	1	299	1	0	453	3512
% Cars +	95	96.4	100	0	0	96	100	100	96.9	0	100	98.6	100	97.6	96.4	0	0	97.4	95	100	91.7	100	0	92.8	96.2
Trucks	24	39	0	0	0	63	0	0	1	0	0	1	0	28	11	0	0	39	8	0	27	0	0	35	138
% Trucks	5	3.6	0	0	0	4	0	0	3.1	0	0	1.4	0	2.4	3.6	0	0	2.6	5	0	8.3	0	0	7.2	3.8

TRAFFIC DATA COLLECTION

File Name : Zebulon(264 WB and NC 96)
Site Code :
Start Date : 5/9/2022
Page No : 2

	NC 96 Southbound						Dogwood Drive Westbound						NC 96 Northbound						264 WB Ramps Eastbound						
Start Time	Right	Thru	Left	UTrn	Peds	App. Total	Right	Thru	Left	UTrn	Peds	App. Total	Right	Thru	Left	UTrn	Peds	App. Total	Right	Thru	Left	UTrn	Peds	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 12:45 PM - Peak 1 of 1																									
Peak Hour for Entire Intersection Begins at 11:45 AM																									
11:45 AM	61	133	2	0	0	196	0	1	2	0	2	5	1	158	50	0	0	209	21	0	32	0	0	53	463
12:00 PM	53	130	**3**	0	0	186	2	**2**	**4**	0	0	8	4	**170**	40	0	0	214	22	0	**54**	0	0	**76**	484
12:15 PM	69	**143**	1	0	0	**213**	**4**	0	4	0	**3**	**11**	**5**	168	**53**	0	0	**226**	23	0	46	0	0	69	**519**
12:30 PM	**70**	129	0	0	0	199	2	2	3	0	0	7	2	165	44	0	0	211	**25**	0	32	0	0	57	474
Total Volume	253	535	6	0	0	794	8	5	13	0	5	31	12	661	187	0	0	860	91	0	164	0	0	255	1940
% App. Total	31.9	67.4	0.8	0	0		25.8	16.1	41.9	0	16.1		1.4	76.9	21.7	0	0		35.7	0	64.3	0	0		
PHF	.904	.935	.500	.000	.000	.932	.500	.625	.813	.000	.417	.705	.600	.972	.882	.000	.000	.951	.910	.000	.759	.000	.000	.839	.934



File Name : Zebulon(264 WB and NC 96)
Site Code :
Start Date : 5/9/2022
Page No : 1

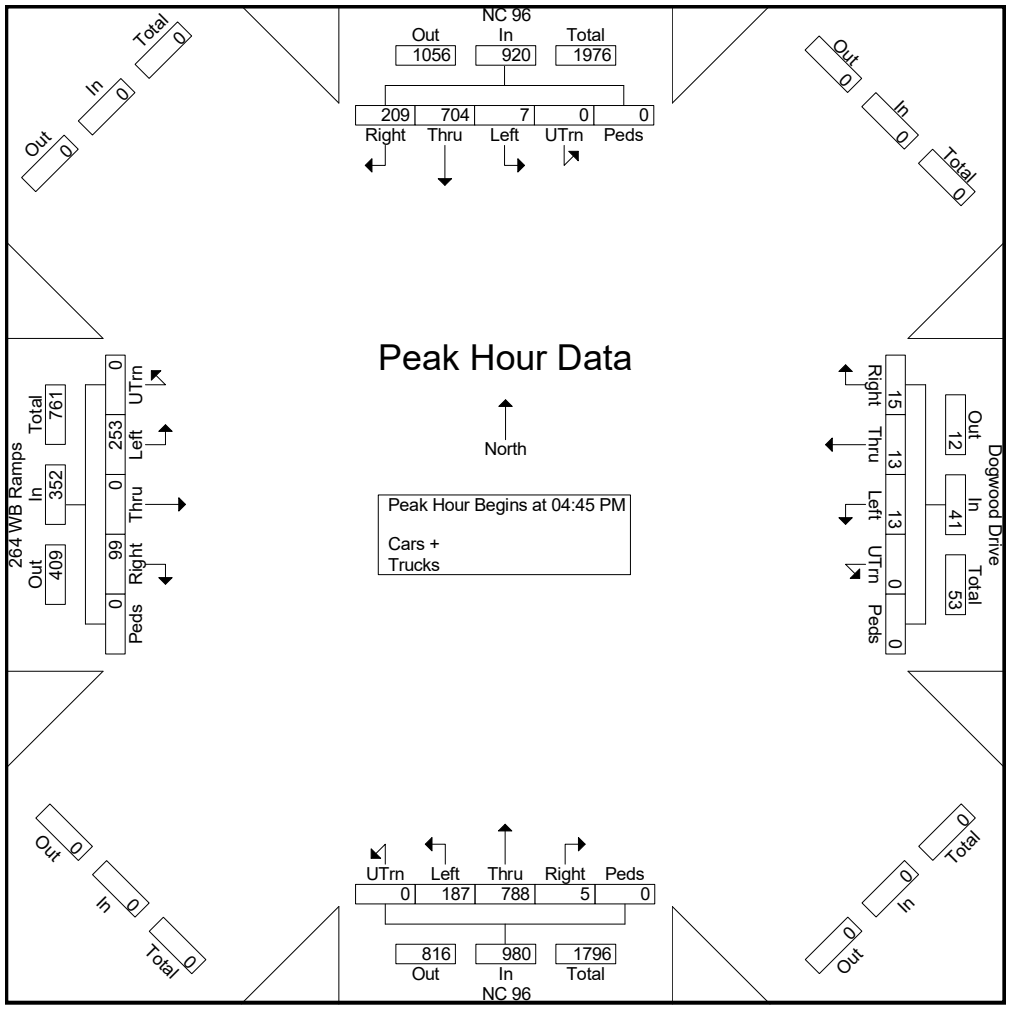
Groups Printed- Cars + - Trucks

	NC 96 Southbound						Dogwood Drive Westbound						NC 96 Northbound						264 WB Ramps Eastbound						
Start Time	Right	Thru	Left	UTrn	Peds	App. Total	Right	Thru	Left	UTrn	Peds	App. Total	Right	Thru	Left	UTrn	Peds	App. Total	Right	Thru	Left	UTrn	Peds	App. Total	Int. Total
04:00 PM	64	159	0	0	0	223	5	2	3	0	0	10	7	199	47	0	0	253	18	1	49	0	0	68	554
04:15 PM	43	165	0	0	0	208	2	2	1	0	0	5	2	196	40	0	0	238	16	0	73	0	0	89	540
04:30 PM	56	167	3	0	0	226	7	1	5	0	0	13	6	181	42	0	0	229	25	1	74	0	0	100	568
04:45 PM	55	173	4	0	0	232	5	3	2	0	0	10	1	209	44	0	0	254	8	0	56	0	0	64	560
Total	218	664	7	0	0	889	19	8	11	0	0	38	16	785	173	0	0	974	67	2	252	0	0	321	2222
05:00 PM	50	168	1	0	0	219	6	3	4	0	0	13	1	204	55	0	0	260	30	0	78	0	0	108	600
05:15 PM	40	174	0	0	0	214	2	6	5	0	0	13	0	187	42	0	0	229	30	0	54	0	0	84	540
05:30 PM	64	189	2	0	0	255	2	1	2	0	0	5	3	188	46	0	0	237	31	0	65	0	0	96	593
05:45 PM	56	147	4	0	0	207	6	2	5	0	0	13	2	176	42	0	0	220	28	0	72	0	0	100	540
Total	210	678	7	0	0	895	16	12	16	0	0	44	6	755	185	0	0	946	119	0	269	0	0	388	2273
Grand Total	428	1342	14	0	0	1784	35	20	27	0	0	82	22	1540	358	0	0	1920	186	2	521	0	0	709	4495
Apprch %	24	75.2	0.8	0	0		42.7	24.4	32.9	0	0		1.1	80.2	18.6	0	0		26.2	0.3	73.5	0	0		
Total %	9.5	29.9	0.3	0	0	39.7	0.8	0.4	0.6	0	0	1.8	0.5	34.3	8	0	0	42.7	4.1	0	11.6	0	0	15.8	
Cars +	417	1312	14	0	0	1743	35	20	27	0	0	82	22	1519	353	0	0	1894	183	2	502	0	0	687	4406
% Cars +	97.4	97.8	100	0	0	97.7	100	100	100	0	0	100	100	98.6	98.6	0	0	98.6	98.4	100	96.4	0	0	96.9	98
Trucks	11	30	0	0	0	41	0	0	0	0	0	0	0	21	5	0	0	26	3	0	19	0	0	22	89
% Trucks	2.6	2.2	0	0	0	2.3	0	0	0	0	0	0	0	1.4	1.4	0	0	1.4	1.6	0	3.6	0	0	3.1	2

TRAFFIC DATA COLLECTION

File Name : Zebulon(264 WB and NC 96)
Site Code :
Start Date : 5/9/2022
Page No : 2

	NC 96 Southbound						Dogwood Drive Westbound						NC 96 Northbound						264 WB Ramps Eastbound						
Start Time	Right	Thru	Left	UTrn	Peds	App. Total	Right	Thru	Left	UTrn	Peds	App. Total	Right	Thru	Left	UTrn	Peds	App. Total	Right	Thru	Left	UTrn	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																									
Peak Hour for Entire Intersection Begins at 04:45 PM																									
04:45 PM	55	173	**4**	0	0	232	5	3	2	0	0	10	1	**209**	44	0	0	254	8	0	56	0	0	64	560
05:00 PM	50	168	1	0	0	219	**6**	3	4	0	0	**13**	1	204	**55**	0	0	**260**	30	0	**78**	0	0	**108**	**600**
05:15 PM	40	174	0	0	0	214	2	**6**	**5**	0	0	13	0	187	42	0	0	229	30	0	54	0	0	84	540
05:30 PM	**64**	**189**	2	0	0	**255**	2	1	2	0	0	5	**3**	188	46	0	0	237	**31**	0	65	0	0	96	593
Total Volume	209	704	7	0	0	920	15	13	13	0	0	41	5	788	187	0	0	980	99	0	253	0	0	352	2293
% App. Total	22.7	76.5	0.8	0	0		36.6	31.7	31.7	0	0		0.5	80.4	19.1	0	0		28.1	0	71.9	0	0		
PHF	.816	.931	.438	.000	.000	.902	.625	.542	.650	.000	.000	.788	.417	.943	.850	.000	.000	.942	.798	.000	.811	.000	.000	.815	.955



TRAFFIC DATA COLLECTION

File Name : Zebulon(Green Pace Rd and NC-96)
Site Code :
Start Date : 5/9/2022
Page No : 1

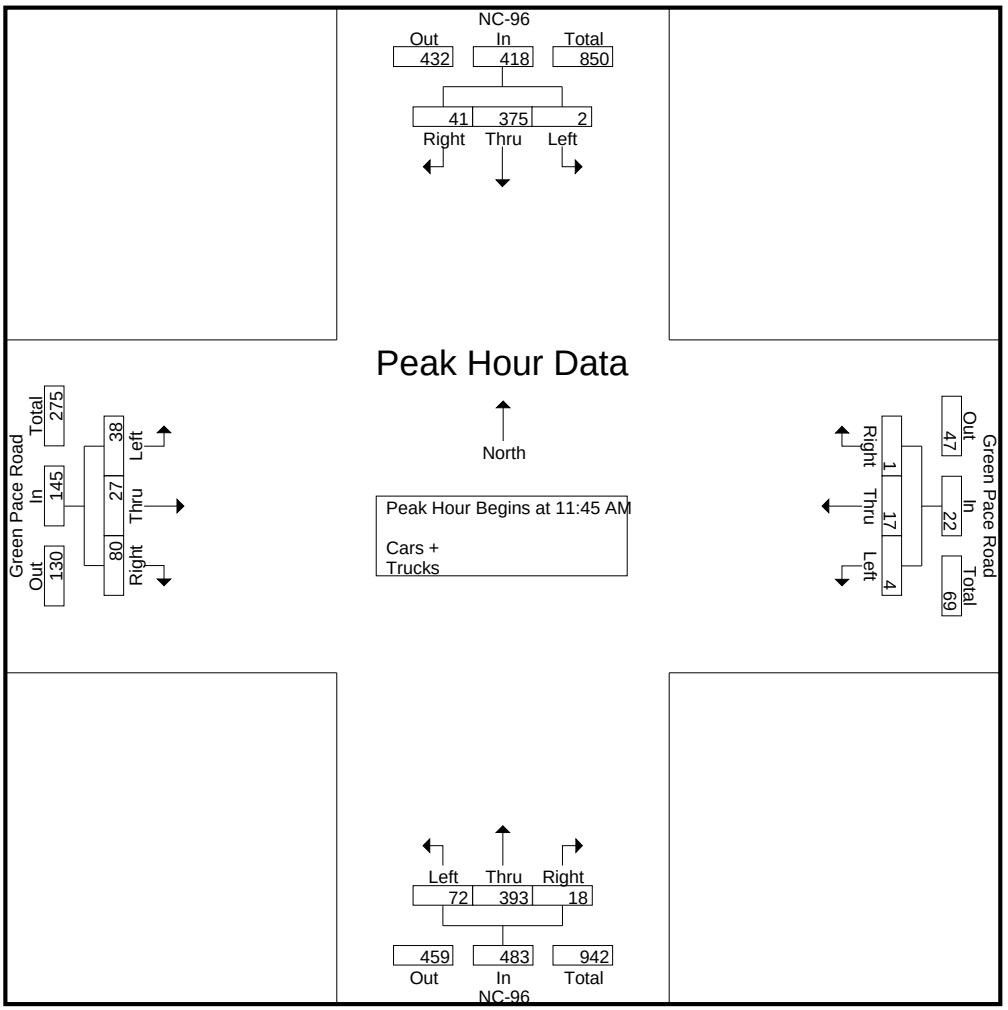
Groups Printed- Cars + - Trucks

	NC-96 Southbound				Green Pace Road Westbound				NC-96 Northbound				Green Pace Road Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
11:00 AM	6	93	0	99	1	2	0	3	2	81	10	93	16	4	9	29	224
11:15 AM	7	87	0	94	0	3	1	4	2	63	12	77	14	5	4	23	198
11:30 AM	9	84	0	93	0	1	0	1	2	77	26	105	18	3	7	28	227
11:45 AM	10	89	2	101	0	4	1	5	4	96	9	109	19	9	10	38	253
Total	32	353	2	387	1	10	2	13	10	317	57	384	67	21	30	118	902
12:00 PM	6	93	0	99	0	6	1	7	2	106	19	127	19	7	9	35	268
12:15 PM	6	100	0	106	0	4	1	5	6	105	20	131	22	4	12	38	280
12:30 PM	19	93	0	112	1	3	1	5	6	86	24	116	20	7	7	34	267
12:45 PM	8	97	0	105	1	1	1	3	2	87	18	107	18	10	8	36	251
Total	39	383	0	422	2	14	4	20	16	384	81	481	79	28	36	143	1066
Grand Total	71	736	2	809	3	24	6	33	26	701	138	865	146	49	66	261	1968
Apprch %	8.8	91	0.2		9.1	72.7	18.2		3	81	16		55.9	18.8	25.3		
Total %	3.6	37.4	0.1	41.1	0.2	1.2	0.3	1.7	1.3	35.6	7	44	7.4	2.5	3.4	13.3	
Cars +	69	688	2	759	3	22	6	31	26	666	134	826	142	46	65	253	1869
% Cars +	97.2	93.5	100	93.8	100	91.7	100	93.9	100	95	97.1	95.5	97.3	93.9	98.5	96.9	95
Trucks	2	48	0	50	0	2	0	2	0	35	4	39	4	3	1	8	99
% Trucks	2.8	6.5	0	6.2	0	8.3	0	6.1	0	5	2.9	4.5	2.7	6.1	1.5	3.1	5

TRAFFIC DATA COLLECTION

File Name : Zebulon(Green Pace Rd and NC-96)
Site Code :
Start Date : 5/9/2022

	NC-96 Southbound				Green Pace Road Westbound				NC-96 Northbound				Green Pace Road Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 12:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 11:45 AM																	
11:45 AM	10	89	**2**	101	0	4	**1**	5	4	96	9	109	19	**9**	10	**38**	253
12:00 PM	6	93	0	99	0	**6**	1	**7**	2	**106**	19	127	19	7	9	35	268
12:15 PM	6	**100**	0	106	0	4	1	5	**6**	105	20	**131**	**22**	4	**12**	38	**280**
12:30 PM	**19**	93	0	**112**	**1**	3	1	5	6	86	**24**	116	20	7	7	34	267
Total Volume	41	375	2	418	1	17	4	22	18	393	72	483	80	27	38	145	1068
% App. Total	9.8	89.7	0.5		4.5	77.3	18.2		3.7	81.4	14.9		55.2	18.6	26.2		
PHF	.539	.938	.250	.933	.250	.708	1.00	.786	.750	.927	.750	.922	.909	.750	.792	.954	.954



TRAFFIC DATA COLLECTION

File Name : Zebulon(Green Pace Rd and NC-96)
Site Code :
Start Date : 5/9/2022
Page No : 1

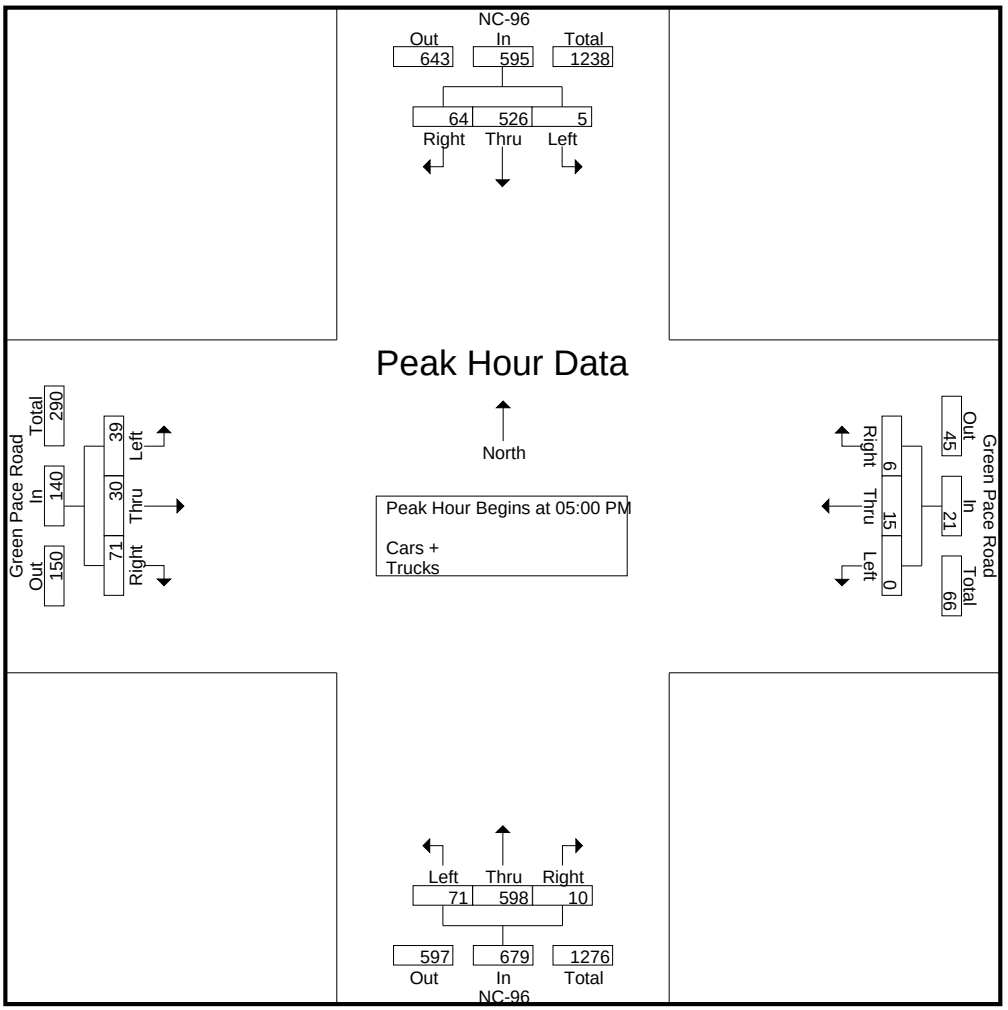
Groups Printed- Cars + - Trucks

	NC-96 Southbound				Green Pace Road Westbound				NC-96 Northbound				Green Pace Road Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
04:00 PM	7	137	0	144	0	3	0	3	2	126	11	139	13	5	9	27	313
04:15 PM	15	128	2	145	2	4	3	9	5	135	22	162	17	6	5	28	344
04:30 PM	17	128	0	145	1	5	1	7	4	159	19	182	15	10	3	28	362
04:45 PM	10	138	2	150	0	3	0	3	5	136	12	153	11	10	6	27	333
Total	49	531	4	584	3	15	4	22	16	556	64	636	56	31	23	110	1352
05:00 PM	15	128	2	145	1	3	0	4	6	152	21	179	13	7	9	29	357
05:15 PM	17	138	0	155	3	5	0	8	2	157	16	175	13	6	9	28	366
05:30 PM	12	126	1	139	1	1	0	2	0	133	26	159	21	9	10	40	340
05:45 PM	20	134	2	156	1	6	0	7	2	156	8	166	24	8	11	43	372
Total	64	526	5	595	6	15	0	21	10	598	71	679	71	30	39	140	1435
Grand Total	113	1057	9	1179	9	30	4	43	26	1154	135	1315	127	61	62	250	2787
Apprch %	9.6	89.7	0.8		20.9	69.8	9.3		2	87.8	10.3		50.8	24.4	24.8		
Total %	4.1	37.9	0.3	42.3	0.3	1.1	0.1	1.5	0.9	41.4	4.8	47.2	4.6	2.2	2.2	9	
Cars +	112	1025	9	1146	9	30	4	43	26	1125	133	1284	125	61	62	248	2721
% Cars +	99.1	97	100	97.2	100	100	100	100	100	97.5	98.5	97.6	98.4	100	100	99.2	97.6
Trucks	1	32	0	33	0	0	0	0	0	29	2	31	2	0	0	2	66
% Trucks	0.9	3	0	2.8	0	0	0	0	0	2.5	1.5	2.4	1.6	0	0	0.8	2.4

TRAFFIC DATA COLLECTION

File Name : Zebulon(Green Pace Rd and NC-96)
Site Code :
Start Date : 5/9/2022
Page No : 2

	NC-96 Southbound				Green Pace Road Westbound				NC-96 Northbound				Green Pace Road Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	15	128	**2**	145	1	3	0	4	**6**	152	21	**179**	13	7	9	29	357
05:15 PM	17	**138**	0	155	**3**	5	0	**8**	2	**157**	16	175	13	6	9	28	366
05:30 PM	12	126	1	139	1	1	0	2	0	133	**26**	159	21	**9**	10	40	340
05:45 PM	**20**	134	2	**156**	1	**6**	0	7	2	156	8	166	**24**	8	**11**	**43**	**372**
Total Volume	64	526	5	595	6	15	0	21	10	598	71	679	71	30	39	140	1435
% App. Total	10.8	88.4	0.8		28.6	71.4	0		1.5	88.1	10.5		50.7	21.4	27.9		
PHF	.800	.953	.625	.954	.500	.625	.000	.656	.417	.952	.683	.948	.740	.833	.886	.814	.964



File Name : Zebulon(NC-96 and Pearces Road)
Site Code :
Start Date : 5/9/2023
Page No : 1

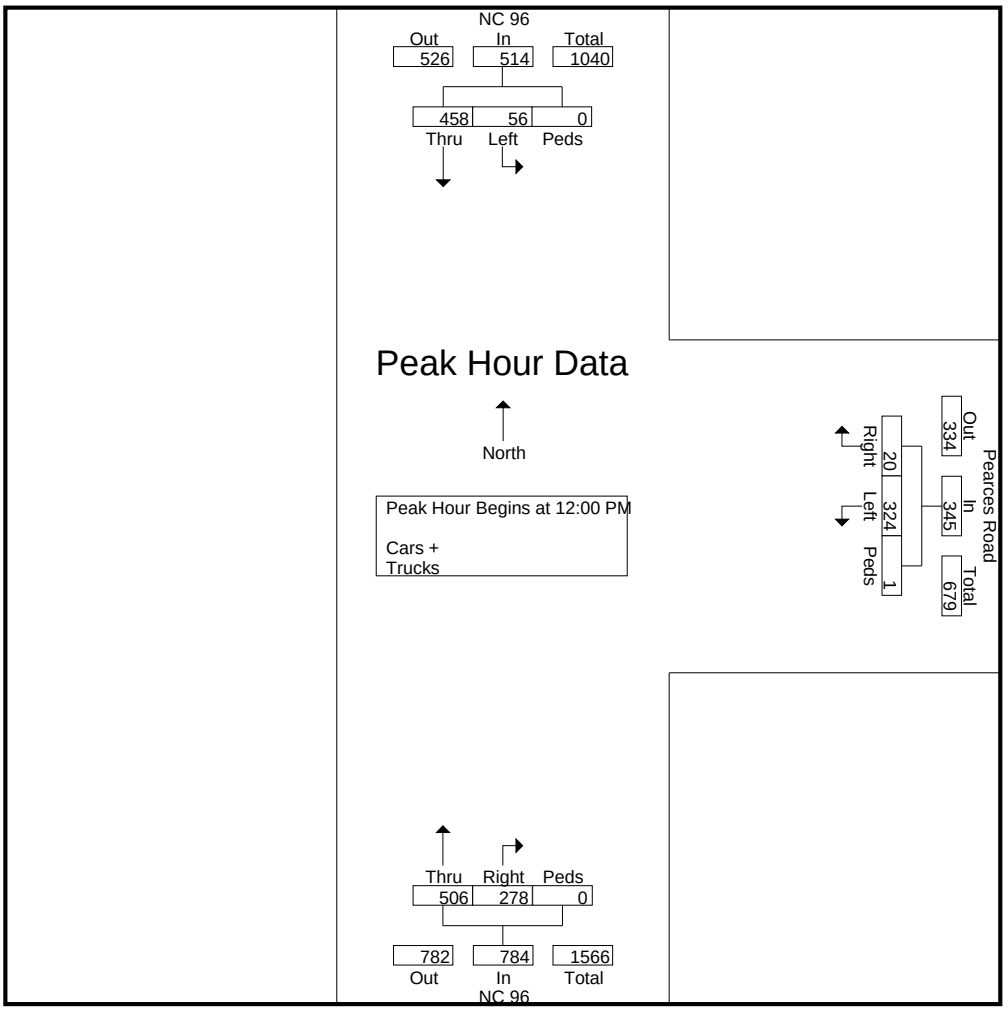
Groups Printed- Cars + - Trucks

	NC 96 Southbound				Pearces Road Westbound				NC 96 Northbound				
Start Time	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	Int. Total
11:00 AM	103	16	0	119	9	66	0	75	51	100	0	151	345
11:15 AM	113	8	0	121	5	53	0	58	47	94	0	141	320
11:30 AM	104	9	0	113	9	75	1	85	48	106	0	154	352
11:45 AM	107	9	0	116	7	73	0	80	62	110	0	172	368
Total	427	42	0	469	30	267	1	298	208	410	0	618	1385
12:00 PM	105	13	0	118	5	73	1	79	70	146	0	216	413
12:15 PM	125	12	0	137	6	82	0	88	67	139	0	206	431
12:30 PM	122	15	0	137	6	89	0	95	67	116	0	183	415
12:45 PM	106	16	0	122	3	80	0	83	74	105	0	179	384
Total	458	56	0	514	20	324	1	345	278	506	0	784	1643
Grand Total	885	98	0	983	50	591	2	643	486	916	0	1402	3028
Apprch %	90	10	0		7.8	91.9	0.3		34.7	65.3	0		
Total %	29.2	3.2	0	32.5	1.7	19.5	0.1	21.2	16.1	30.3	0	46.3	
Cars +	839	96	0	935	48	574	2	624	471	875	0	1346	2905
% Cars +	94.8	98	0	95.1	96	97.1	100	97	96.9	95.5	0	96	95.9
Trucks	46	2	0	48	2	17	0	19	15	41	0	56	123
% Trucks	5.2	2	0	4.9	4	2.9	0	3	3.1	4.5	0	4	4.1

TRAFFIC DATA COLLECTION

File Name : Zebulon(NC-96 and Pearces Road)
Site Code :
Start Date : 5/9/2023

	NC 96 Southbound				Pearces Road Westbound				NC 96 Northbound				
Start Time	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 12:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 12:00 PM													
12:00 PM	105	13	0	118	5	73	**1**	79	70	**146**	0	**216**	413
12:15 PM	**125**	12	0	**137**	**6**	82	0	88	67	139	0	206	**431**
12:30 PM	122	15	0	137	6	**89**	0	**95**	67	116	0	183	415
12:45 PM	106	**16**	0	122	3	80	0	83	**74**	105	0	179	384
Total Volume	458	56	0	514	20	324	1	345	278	506	0	784	1643
% App. Total	89.1	10.9	0		5.8	93.9	0.3		35.5	64.5	0		
PHF	.916	.875	.000	.938	.833	.910	.250	.908	.939	.866	.000	.907	.953



File Name : Zebulon(NC-96 and Pearces Road)
Site Code :
Start Date : 5/9/2023
Page No : 1

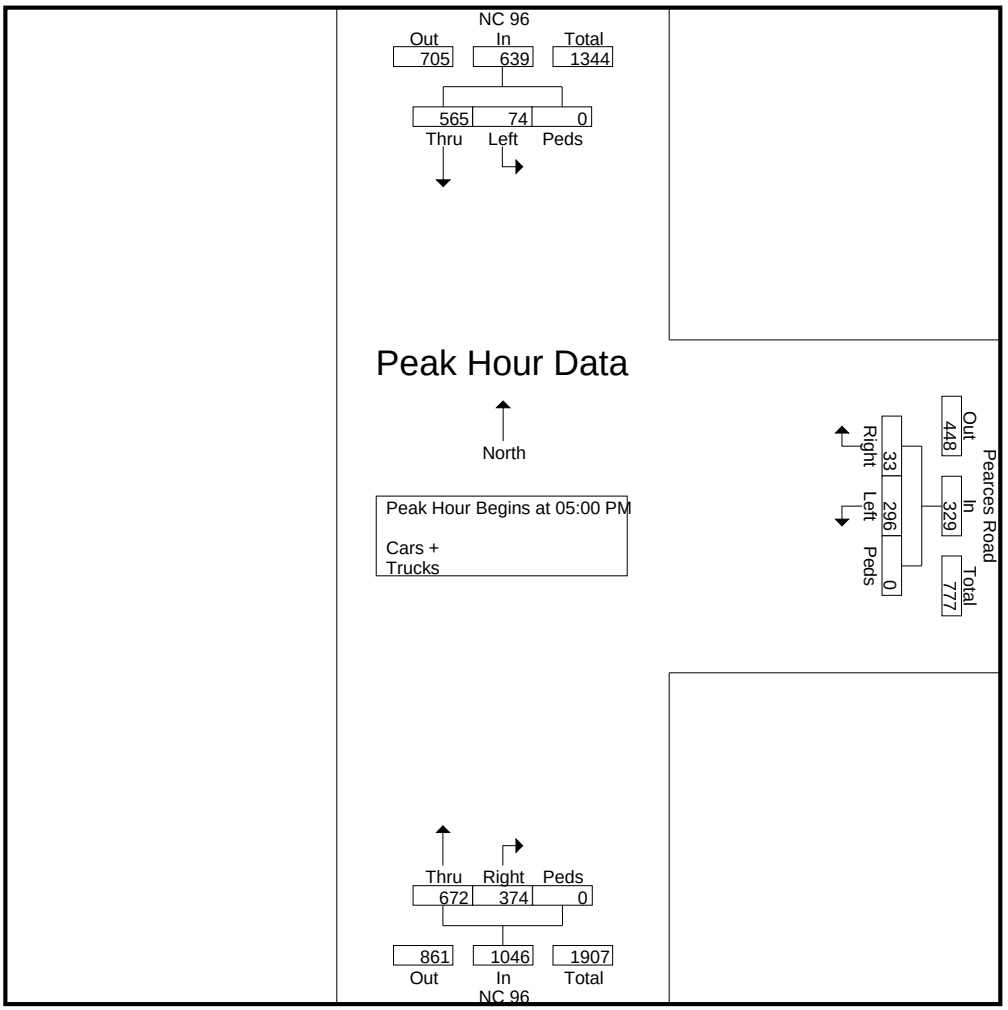
Groups Printed- Cars + - Trucks

	NC 96 Southbound				Pearces Road Westbound				NC 96 Northbound				
Start Time	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	Int. Total
04:00 PM	146	23	0	169	4	70	0	74	97	139	0	236	479
04:15 PM	141	13	0	154	10	70	0	80	101	152	0	253	487
04:30 PM	139	15	0	154	11	73	0	84	83	168	0	251	489
04:45 PM	146	16	0	162	10	69	0	79	96	142	0	238	479
Total	572	67	0	639	35	282	0	317	377	601	0	978	1934
05:00 PM	134	12	0	146	7	66	0	73	95	184	0	279	498
05:15 PM	139	16	0	155	5	67	0	72	104	166	0	270	497
05:30 PM	149	19	0	168	14	84	0	98	89	153	0	242	508
05:45 PM	143	27	0	170	7	79	0	86	86	169	0	255	511
Total	565	74	0	639	33	296	0	329	374	672	0	1046	2014
Grand Total	1137	141	0	1278	68	578	0	646	751	1273	0	2024	3948
Apprch %	89	11	0		10.5	89.5	0		37.1	62.9	0		
Total %	28.8	3.6	0	32.4	1.7	14.6	0	16.4	19	32.2	0	51.3	
Cars +	1105	141	0	1246	66	567	0	633	739	1244	0	1983	3862
% Cars +	97.2	100	0	97.5	97.1	98.1	0	98	98.4	97.7	0	98	97.8
Trucks	32	0	0	32	2	11	0	13	12	29	0	41	86
% Trucks	2.8	0	0	2.5	2.9	1.9	0	2	1.6	2.3	0	2	2.2

TRAFFIC DATA COLLECTION

File Name : Zebulon(NC-96 and Pearces Road)
Site Code :
Start Date : 5/9/2023

	NC 96 Southbound				Pearces Road Westbound				NC 96 Northbound				
Start Time	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 05:00 PM													
05:00 PM	134	12	0	146	7	66	0	73	95	**184**	0	**279**	498
05:15 PM	139	16	0	155	5	67	0	72	**104**	166	0	270	497
05:30 PM	**149**	19	0	168	**14**	**84**	0	**98**	89	153	0	242	508
05:45 PM	143	**27**	0	**170**	7	79	0	86	86	169	0	255	**511**
Total Volume	565	74	0	639	33	296	0	329	374	672	0	1046	2014
% App. Total	88.4	11.6	0		10	90	0		35.8	64.2	0		
PHF	.948	.685	.000	.940	.589	.881	.000	.839	.899	.913	.000	.937	.985



File Name : Zebulon(Proctor St and Pearces)
Site Code :
Start Date : 5/9/2022
Page No : 1

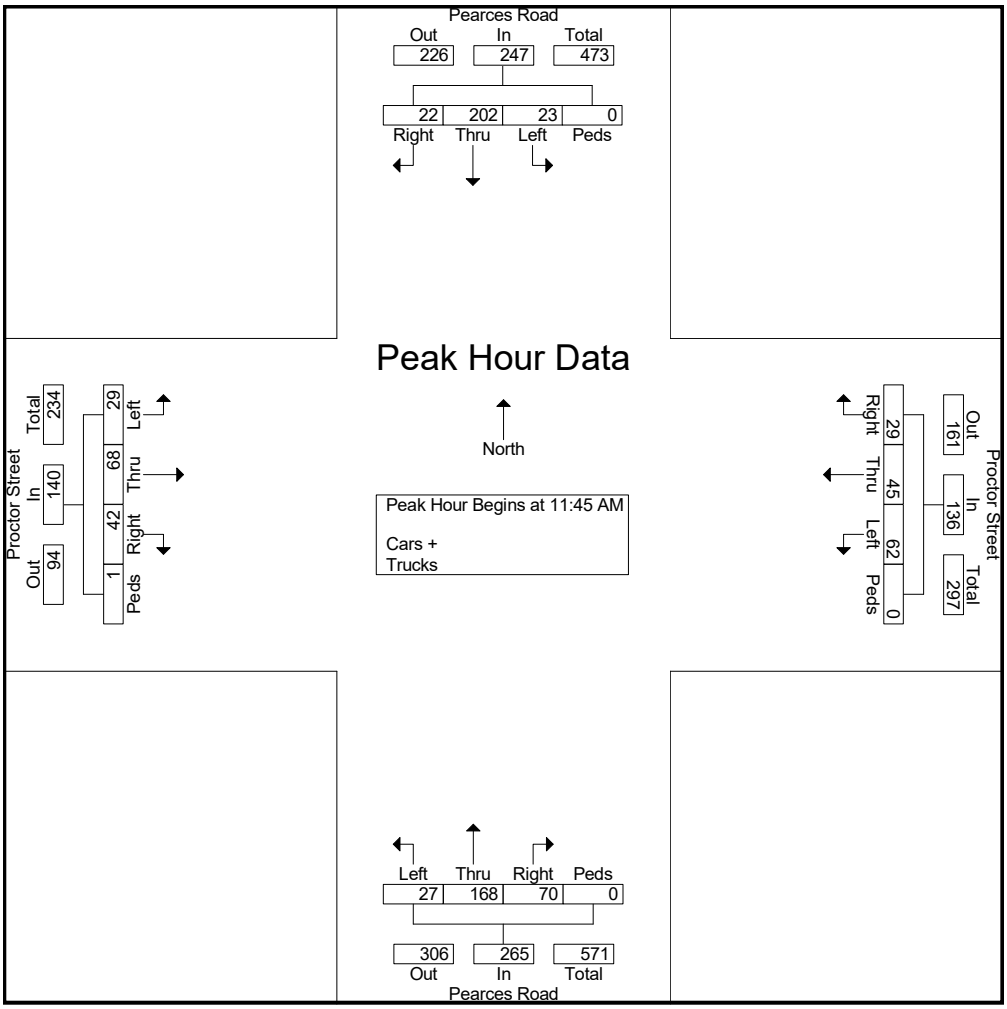
Groups Printed- Cars + - Trucks

	Pearces Road Southbound					Proctor Street Westbound					Pearces Road Northbound					Proctor Street Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
11:00 AM	3	44	4	0	51	3	11	18	0	32	9	35	2	0	46	6	5	4	0	15	144
11:15 AM	8	24	4	0	36	3	9	19	0	31	10	33	4	0	47	5	14	2	0	21	135
11:30 AM	4	50	7	2	63	3	15	22	0	40	15	28	2	0	45	3	10	3	0	16	164
11:45 AM	9	50	3	0	62	15	10	13	0	38	15	39	14	0	68	4	19	8	1	32	200
Total	24	168	18	2	212	24	45	72	0	141	49	135	22	0	206	18	48	17	1	84	643
12:00 PM	4	45	6	0	55	3	10	15	0	28	15	49	6	0	70	20	14	13	0	47	200
12:15 PM	3	46	7	0	56	6	9	23	0	38	20	42	3	0	65	10	14	3	0	27	186
12:30 PM	6	61	7	0	74	5	16	11	0	32	20	38	4	0	62	8	21	5	0	34	202
12:45 PM	4	44	8	0	56	3	11	17	0	31	19	44	2	0	65	7	22	10	0	39	191
Total	17	196	28	0	241	17	46	66	0	129	74	173	15	0	262	45	71	31	0	147	779
Grand Total	41	364	46	2	453	41	91	138	0	270	123	308	37	0	468	63	119	48	1	231	1422
Apprch %	9.1	80.4	10.2	0.4		15.2	33.7	51.1	0		26.3	65.8	7.9	0		27.3	51.5	20.8	0.4		
Total %	2.9	25.6	3.2	0.1	31.9	2.9	6.4	9.7	0	19	8.6	21.7	2.6	0	32.9	4.4	8.4	3.4	0.1	16.2	
Cars +	39	353	45	2	439	40	90	135	0	265	121	297	37	0	455	63	115	46	1	225	1384
% Cars +	95.1	97	97.8	100	96.9	97.6	98.9	97.8	0	98.1	98.4	96.4	100	0	97.2	100	96.6	95.8	100	97.4	97.3
Trucks	2	11	1	0	14	1	1	3	0	5	2	11	0	0	13	0	4	2	0	6	38
% Trucks	4.9	3	2.2	0	3.1	2.4	1.1	2.2	0	1.9	1.6	3.6	0	0	2.8	0	3.4	4.2	0	2.6	2.7

TRAFFIC DATA COLLECTION

File Name : Zebulon(Proctor St and Pearces)
Site Code :
Start Date : 5/9/2022
Page No : 2

	Pearces Road Southbound					Proctor Street Westbound					Pearces Road Northbound					Proctor Street Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 12:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 11:45 AM																					
11:45 AM	**9**	50	3	0	62	**15**	10	13	0	**38**	15	39	**14**	0	68	4	19	8	**1**	32	200
12:00 PM	4	45	6	0	55	3	10	15	0	28	15	**49**	6	0	**70**	**20**	14	**13**	0	**47**	200
12:15 PM	3	46	**7**	0	56	6	9	**23**	0	38	**20**	42	3	0	65	10	14	3	0	27	186
12:30 PM	6	**61**	7	0	**74**	5	**16**	11	0	32	20	38	4	0	62	8	**21**	5	0	34	**202**
Total Volume	22	202	23	0	247	29	45	62	0	136	70	168	27	0	265	42	68	29	1	140	788
% App. Total	8.9	81.8	9.3	0		21.3	33.1	45.6	0		26.4	63.4	10.2	0		30	48.6	20.7	0.7		
PHF	.611	.828	.821	.000	.834	.483	.703	.674	.000	.895	.875	.857	.482	.000	.946	.525	.810	.558	.250	.745	.975



File Name : Zebulon(Proctor St and Pearces)
Site Code :
Start Date : 5/9/2022
Page No : 1

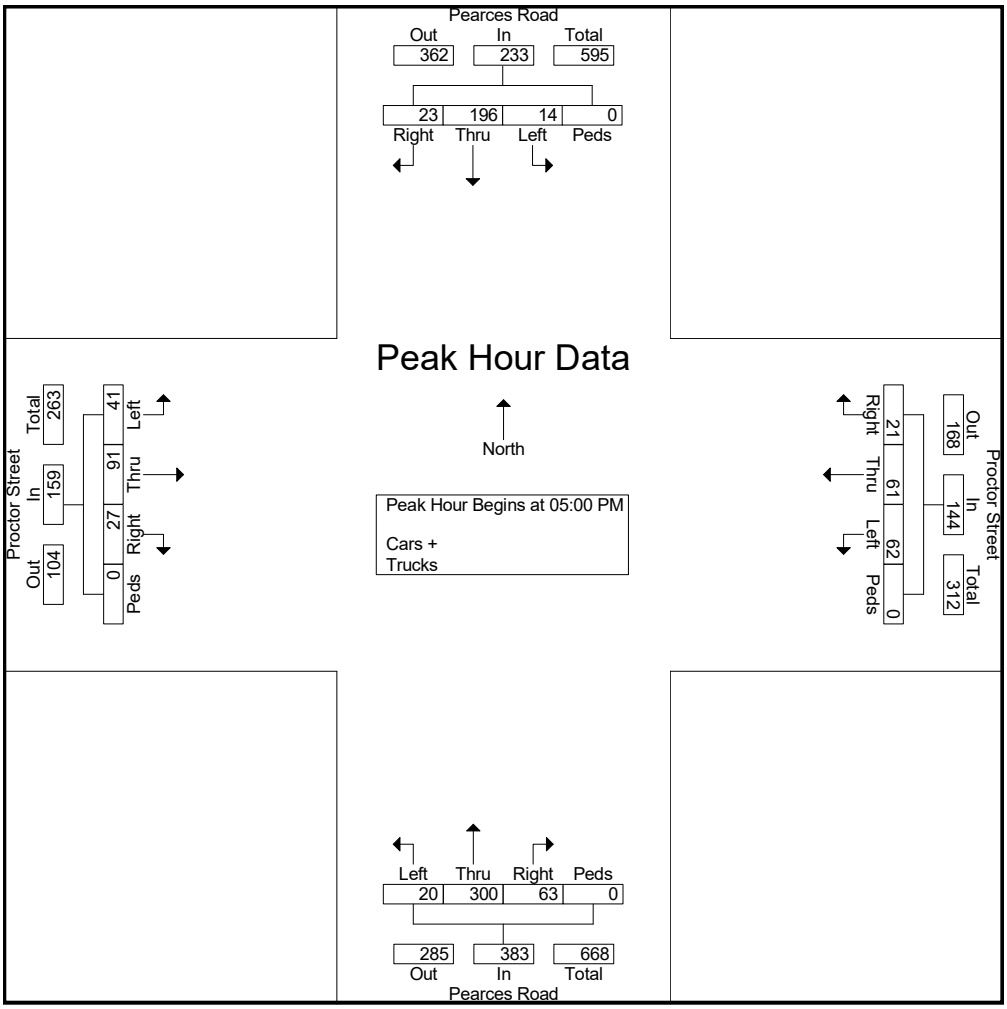
Groups Printed- Cars + - Trucks

	Pearces Road Southbound					Proctor Street Westbound					Pearces Road Northbound					Proctor Street Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
04:00 PM	4	39	3	0	46	7	26	11	0	44	16	71	8	0	95	4	11	10	0	25	210
04:15 PM	6	48	6	0	60	5	17	16	0	38	18	70	7	0	95	5	20	8	0	33	226
04:30 PM	3	52	3	1	59	3	21	21	0	45	19	62	4	0	85	7	25	9	1	42	231
04:45 PM	1	40	2	0	43	5	6	18	0	29	14	86	6	0	106	2	25	7	0	34	212
Total	14	179	14	1	208	20	70	66	0	156	67	289	25	0	381	18	81	34	1	134	879
05:00 PM	5	39	6	0	50	2	17	14	0	33	16	65	7	0	88	4	22	10	0	36	207
05:15 PM	5	46	1	0	52	5	12	11	0	28	21	87	1	0	109	7	16	8	0	31	220
05:30 PM	10	60	5	0	75	7	14	23	0	44	15	73	7	0	95	6	26	15	0	47	261
05:45 PM	3	51	2	0	56	7	18	14	0	39	11	75	5	0	91	10	27	8	0	45	231
Total	23	196	14	0	233	21	61	62	0	144	63	300	20	0	383	27	91	41	0	159	919
Grand Total	37	375	28	1	441	41	131	128	0	300	130	589	45	0	764	45	172	75	1	293	1798
Apprch %	8.4	85	6.3	0.2		13.7	43.7	42.7	0		17	77.1	5.9	0		15.4	58.7	25.6	0.3		
Total %	2.1	20.9	1.6	0.1	24.5	2.3	7.3	7.1	0	16.7	7.2	32.8	2.5	0	42.5	2.5	9.6	4.2	0.1	16.3	
Cars +	37	371	28	1	437	41	131	125	0	297	126	584	45	0	755	45	171	75	1	292	1781
% Cars +	100	98.9	100	100	99.1	100	100	97.7	0	99	96.9	99.2	100	0	98.8	100	99.4	100	100	99.7	99.1
Trucks	0	4	0	0	4	0	0	3	0	3	4	5	0	0	9	0	1	0	0	1	17
% Trucks	0	1.1	0	0	0.9	0	0	2.3	0	1	3.1	0.8	0	0	1.2	0	0.6	0	0	0.3	0.9

TRAFFIC DATA COLLECTION

File Name : Zebulon(Proctor St and Pearces)
Site Code :
Start Date : 5/9/2022
Page No : 2

	Pearces Road Southbound					Proctor Street Westbound					Pearces Road Northbound					Proctor Street Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 05:00 PM																					
05:00 PM	5	39	**6**	0	50	2	17	14	0	33	16	65	**7**	0	88	4	22	10	0	36	207
05:15 PM	5	46	1	0	52	5	12	11	0	28	**21**	**87**	1	0	**109**	7	16	8	0	31	220
05:30 PM	**10**	**60**	5	0	**75**	**7**	14	**23**	0	**44**	15	73	7	0	95	6	26	**15**	0	**47**	**261**
05:45 PM	3	51	2	0	56	7	**18**	14	0	39	11	75	5	0	91	**10**	**27**	8	0	45	231
Total Volume	23	196	14	0	233	21	61	62	0	144	63	300	20	0	383	27	91	41	0	159	919
% App. Total	9.9	84.1	6	0		14.6	42.4	43.1	0		16.4	78.3	5.2	0		17	57.2	25.8	0		
PHF	.575	.817	.583	.000	.777	.750	.847	.674	.000	.818	.750	.862	.714	.000	.878	.675	.843	.683	.000	.846	.880



Time	IN	OUT	TOTAL
12:00 AM	5	9	14
12:15 AM	4	8	12
12:30 AM	1	3	4
12:45 AM	3	4	7
1:00 AM	4	2	6
1:15 AM	2	4	6
1:30 AM	5	3	8
1:45 AM	0	3	3
2:00 AM	0	1	1
2:15 AM	0	0	0
2:30 AM	1	1	2
2:45 AM	0	0	0
3:00 AM	0	0	0
3:15 AM	0	0	0
3:30 AM	0	0	0
3:45 AM	0	2	2
4:00 AM	0	0	0
4:15 AM	0	0	0
4:30 AM	0	0	0
4:45 AM	0	0	0
5:00 AM	0	0	0
5:15 AM	0	0	0
5:30 AM	0	0	0
5:45 AM	0	0	0
6:00 AM	0	0	0
6:15 AM	0	0	0
6:30 AM	1	1	2
6:45 AM	1	1	2
7:00 AM	1	0	1
7:15 AM	1	1	2
7:30 AM	2	0	2
7:45 AM	0	1	1
8:00 AM	1	1	2
8:15 AM	0	0	0
8:30 AM	0	0	0
8:45 AM	0	1	1
9:00 AM	3	2	5
9:15 AM	0	0	0
9:30 AM	0	0	0
9:45 AM	2	1	3
10:00 AM	0	0	0
10:15 AM	1	0	1
10:30 AM	6	3	9
10:45 AM	9	6	15
11:00 AM	7	11	18
11:15 AM	16	12	28
11:30 AM	10	12	22
11:45 AM	17	14	31
12:00 PM	32	25	57
12:15 PM	24	23	47
12:30 PM	17	23	40
12:45 PM	24	20	44
1:00 PM	16	19	35
1:15 PM	18	20	38
1:30 PM	15	13	28
1:45 PM	10	11	21
2:00 PM	17	22	39

Peak IN	Peak OUT	Total
97	91	188

	2:15 PM	7	9	16		
	2:30 PM	13	11	24		
	2:45 PM	18	12	30		
	3:00 PM	10	15	25		
	3:15 PM	18	17	35		
	3:30 PM	14	15	29		
	3:45 PM	17	18	35		
	4:00 PM	12	9	21		
	4:15 PM	16	16	32	Peak IN	Peak OUT Total
	4:30 PM	19	13	32	81	66 147
	4:45 PM	17	12	29		
	5:00 PM	22	21	43		
	5:15 PM	23	20	43		
	5:30 PM	12	11	23		
	5:45 PM	19	15	34		
	6:00 PM	22	23	45		
	6:15 PM	7	13	20		
	6:30 PM	21	16	37		
	6:45 PM	10	15	25		
	7:00 PM	22	23	45		
	7:15 PM	19	21	40		
	7:30 PM	28	24	52		
	7:45 PM	20	17	37		
	8:00 PM	19	23	42		
	8:15 PM	15	19	34		
	8:30 PM	20	19	39		
	8:45 PM	10	16	26		
	9:00 PM	18	14	32		
	9:15 PM	16	19	35		
	9:30 PM	15	10	25		
	9:45 PM	18	16	34		
	10:00 PM	12	19	31		
	10:15 PM	13	11	24		
	10:30 PM	4	11	15		
	10:45 PM	11	7	18		
	11:00 PM	10	11	21		
	11:15 PM	10	11	21		
	11:30 PM	7	4	11		
	11:45 PM	4	10	14		
TOTAL		864	869	1733		

Time	IN	OUT	TOTAL
12:00 AM	3	6	9
12:15 AM	5	3	8
12:30 AM	4	9	13
12:45 AM	3	4	7
1:00 AM	4	1	5
1:15 AM	5	5	10
1:30 AM	5	6	11
1:45 AM	2	2	4
2:00 AM	1	1	2
2:15 AM	0	1	1
2:30 AM	0	0	0
2:45 AM	1	1	2
3:00 AM	0	1	1
3:15 AM	0	1	1
3:30 AM	0	0	0
3:45 AM	0	0	0
4:00 AM	0	1	1
4:15 AM	0	0	0
4:30 AM	0	0	0
4:45 AM	0	0	0
5:00 AM	0	0	0
5:15 AM	0	0	0
5:30 AM	0	0	0
5:45 AM	0	0	0
6:00 AM	0	0	0
6:15 AM	1	1	2
6:30 AM	0	0	0
6:45 AM	0	0	0
7:00 AM	1	0	1
7:15 AM	0	0	0
7:30 AM	2	2	4
7:45 AM	0	0	0
8:00 AM	0	1	1
8:15 AM	0	0	0
8:30 AM	0	0	0
8:45 AM	0	1	1
9:00 AM	2	0	2
9:15 AM	1	0	1
9:30 AM	1	0	1
9:45 AM	2	0	2
10:00 AM	2	1	3
10:15 AM	3	1	4
10:30 AM	7	5	12
10:45 AM	11	12	23
11:00 AM	16	10	26
11:15 AM	14	12	26
11:30 AM	18	15	33
11:45 AM	19	18	37
12:00 PM	23	21	44
12:15 PM	35	28	63
12:30 PM	17	29	46
12:45 PM	22	18	40
1:00 PM	16	19	35
1:15 PM	17	18	35
1:30 PM	22	23	45
1:45 PM	16	13	29
2:00 PM	15	20	35
2:15 PM	15	14	29
2:30 PM	13	15	28
2:45 PM	7	8	15
3:00 PM	8	11	19

Peak IN	Peak OUT	Total
96	97	193

	3:15 PM	3	3	6		
	3:30 PM	12	10	22		
	3:45 PM	11	11	22		
	4:00 PM	12	10	22		
	4:15 PM	11	16	27		
	4:30 PM	12	6	18		
	4:45 PM	13	14	27	Peak IN	Peak OUT Total
	5:00 PM	18	13	31	68	66 134
	5:15 PM	16	23	39		
	5:30 PM	15	19	34		
	5:45 PM	17	13	30		
	6:00 PM	15	16	31		
	6:15 PM	12	18	30		
	6:30 PM	18	16	34		
	6:45 PM	16	14	30		
	7:00 PM	12	16	28		
	7:15 PM	16	14	30		
	7:30 PM	17	16	33		
	7:45 PM	12	9	21		
	8:00 PM	24	20	44		
	8:15 PM	24	21	45		
	8:30 PM	25	28	53		
	8:45 PM	15	14	29		
	9:00 PM	27	19	46		
	9:15 PM	9	20	29		
	9:30 PM	19	13	32		
	9:45 PM	14	13	27		
	10:00 PM	13	18	31		
	10:15 PM	14	14	28		
	10:30 PM	19	14	33		
	10:45 PM	6	15	21		
	11:00 PM	12	10	22		
	11:15 PM	15	9	24		
	11:30 PM	4	13	17		
	11:45 PM	4	3	7		
TOTAL		861	859	1720		

Time	IN	OUT	TOTAL
12:00 AM	3	5	8
12:15 AM	2	4	6
12:30 AM	6	3	9
12:45 AM	6	9	15
1:00 AM	7	11	18
1:15 AM	6	2	8
1:30 AM	6	8	14
1:45 AM	4	6	10
2:00 AM	1	5	6
2:15 AM	1	1	2
2:30 AM	0	0	0
2:45 AM	0	0	0
3:00 AM	0	0	0
3:15 AM	0	0	0
3:30 AM	0	1	1
3:45 AM	0	0	0
4:00 AM	0	0	0
4:15 AM	0	0	0
4:30 AM	0	0	0
4:45 AM	0	0	0
5:00 AM	0	0	0
5:15 AM	0	0	0
5:30 AM	0	0	0
5:45 AM	0	1	1
6:00 AM	0	0	0
6:15 AM	0	0	0
6:30 AM	0	1	1
6:45 AM	0	0	0
7:00 AM	0	0	0
7:15 AM	2	1	3
7:30 AM	0	0	0
7:45 AM	0	0	0
8:00 AM	0	0	0
8:15 AM	1	1	2
8:30 AM	0	0	0
8:45 AM	0	0	0
9:00 AM	1	1	2
9:15 AM	0	0	0
9:30 AM	1	1	2
9:45 AM	1	0	1
10:00 AM	0	0	0
10:15 AM	2	0	2
10:30 AM	8	6	14
10:45 AM	11	7	18
11:00 AM	14	10	24
11:15 AM	7	8	15
11:30 AM	15	18	33
11:45 AM	21	22	43
12:00 PM	12	16	28
12:15 PM	20	19	39
12:30 PM	20	20	40
12:45 PM	14	16	30
1:00 PM	21	15	36
1:15 PM	7	13	20
1:30 PM	9	13	22
1:45 PM	10	16	26
2:00 PM	13	9	22
2:15 PM	16	14	30
2:30 PM	9	13	22
2:45 PM	10	14	24
3:00 PM	12	13	25

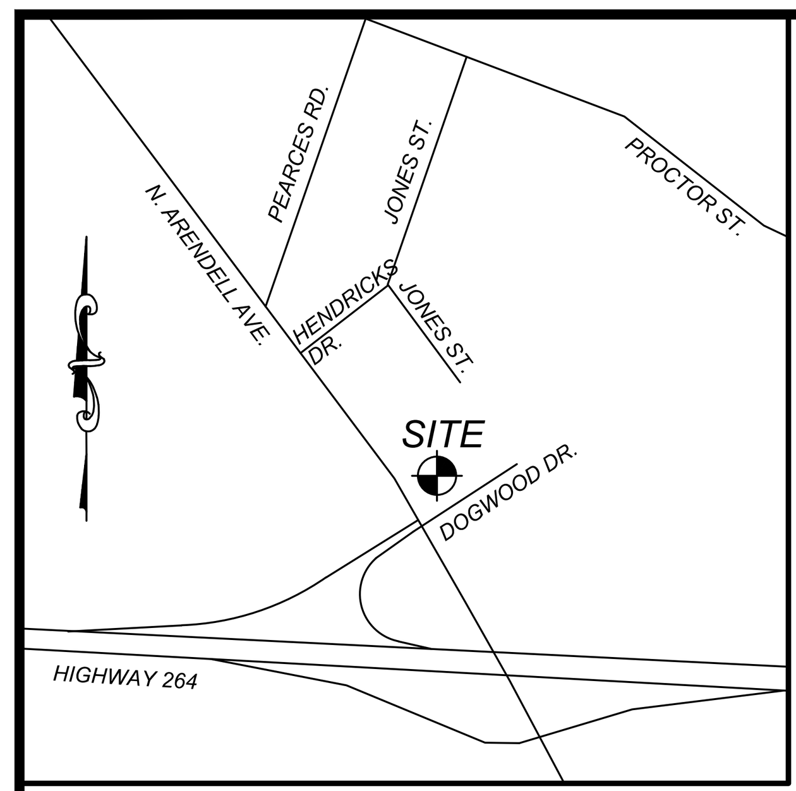
Peak IN	Peak OUT	Total
73	77	150

	3:15 PM	15	13	28		
	3:30 PM	6	12	18		
	3:45 PM	9	10	19		
	4:00 PM	11	9	20		
	4:15 PM	15	11	26		
	4:30 PM	18	15	33		
	4:45 PM	8	19	27	Peak IN	Peak OUT Total
	5:00 PM	23	18	41	69	63 132
	5:15 PM	11	13	24		
	5:30 PM	13	15	28		
	5:45 PM	22	17	39		
	6:00 PM	18	20	38		
	6:15 PM	16	17	33		
	6:30 PM	20	24	44		
	6:45 PM	19	16	35		
	7:00 PM	24	18	42		
	7:15 PM	22	27	49		
	7:30 PM	23	22	45		
	7:45 PM	11	15	26		
	8:00 PM	16	19	35		
	8:15 PM	13	20	33		
	8:30 PM	17	16	33		
	8:45 PM	15	10	25		
	9:00 PM	13	17	30		
	9:15 PM	14	24	38		
	9:30 PM	8	7	15		
	9:45 PM	13	16	29		
	10:00 PM	13	15	28		
	10:15 PM	12	11	23		
	10:30 PM	11	15	26		
	10:45 PM	10	13	23		
	11:00 PM	13	12	25		
	11:15 PM	15	10	25		
	11:30 PM	7	9	16		
	11:45 PM	8	11	19		
TOTAL		801	859	1660		

Total Average:	1704	
Mid-Day Peak Average:	89	IN
	88	OUT
PM Peak Average:	73	IN
	65	OUT

DAVENPORT

Supporting Documentation



VICINITY MAP

NTS

SITE LEGEND

- SPILL CURB
- HANDICAP RAMP
- HANDICAP STALL
- CONCRETE
- PROPERTY LINE
- SIGN
- BOLLARD
- EX. FIRE HYDRANT
- FENCE
- POLE MOUNTED AREA LIGHT
- PROPERTY CORNER
- F.F.E. = XXX.XX — FINISH FLOOR ELEVATION

SITE KEYNOTES:

1. CONSTRUCT 2.0' STANDARD CONCRETE SPILLING CURB AND GUTTER PER DETAIL SHEET
1a. CONSTRUCT 2.0' ROLLED CONCRETE SPILLING CURB AND GUTTER PER DETAIL SHEET
2. CONSTRUCT 2.0' STANDARD CONCRETE CATCHING CURB AND GUTTER PER DETAIL SHEET
2a. CONSTRUCT 2.0' ROLLED CONCRETE CATCHING CURB AND GUTTER PER DETAIL SHEET
3. CONSTRUCT CONCRETE SIDEWALK PER DETAIL SHEET, CONTRACTOR SHALL COORDINATE STAMPING PATTERN AND COLOR OF BUILDING SIDEWALK WITH OWNER
3a. CONSTRUCT CONCRETE SIDEWALK PER CITY AND NCDOT STANDARDS AND SPECIFICATIONS, BACK OF WALK TO BE ON RIGHT-OF-WAY LINE FOR ARENDELL AVENUE / HWY 96
4. CONSTRUCT CONCRETE HANDICAP RAMP PER DETAIL SHEET
4a. LOADING RAMP, 8% MAXIMUM SLOPE
4b. CONSTRUCT CONCRETE HANDICAP RAMP TO MEET NCDOT STANDARDS AND SPECIFICATIONS.
5. HANDICAP PARKING STALL
6. INSTALL HANDICAP PARKING SIGN PER ADA ACCESSIBILITY PLAN
6a. INSTALL VAN ACCESSIBLE HANDICAP PARKING SIGN PER ADA ACCESSIBILITY PLAN
7. CONCRETE PAVEMENT PER DETAIL SHEET
8. ASPHALT PAVEMENT PER DETAIL SHEET
9. TRANSFORMER PAD BY GENERAL CONTRACTOR, PER ELECTRIC COMPANY SPECIFICATIONS, (COORDINATE SIZE & LOCATION WITH UTILITY COMPANY)
10. CONSTRUCT DUMPSTER PAD, MINIMUM 6" CONCRETE WITH 4" ABC BASE, AND TRASH ENCLOSURE WITH GATES, SEE ARCHITECTURAL SHEETS FOR DETAIL, MATERIALS TO MATCH BUILDING
11. CONCRETE WHEEL STOP PER DETAIL SHEET
12. POLE MOUNTED AREA LIGHT, SEE LIGHTING PLAN
13. PAINT 4" WIDE STRIPE, WHITE
13a. PAINT 4" WIDE MINI SKIP STRIPE, WHITE
14. PAINT 4" WIDE STRIPE @ 45°, 2 FEET APART
15. PAINT TRAFFIC ARROWS PER DETAIL SHEET
16. SITE IDENTIFICATION SIGN, COORDINATE WITH TOWN AND OWNER, SIGNAGE IS SEPERATE PERMIT, INSTALLATION CAN BE INCLUDED WITH BUILDING PERMIT WORK
17. PAINT 24" STOP BAR PER NCDOT STANDARDS
18. MATCH EXISTING CURB & GUTTER PER TOWN OF ZEBULON DETAIL #3, SEE SHEET C-10a
19. ASPHALT/CONCRETE TRANSITION PER DETAIL
20. INSTALL STEEL PIPE BOLLARD PER DETAIL SHEET
21. MATCH EXISTING ASPHALT PAVEMENT
22. MATCH EXISTING CONCRETE SIDEWALK
23. PAINT CROSSWALK PER DETAIL SHEET
24. INSTALL 42" HIGH SAFTEY RAILING, FINISH POWER COATED RED, SEE DETAIL SHEET
25. DRIVEWAY TO BE CONSTRUCTED PER TOWN OF ZEBULON DETAILS #7 AND #8, SEE SHEET C-10a.
26. CONCRETE FLUME - TYPE A, SEE DETAIL SHEET
27. CONCRETE FLUME - TYPE B, SEE DETAIL SHEET
28. NOSE DOWN CURB, SEE DETAIL SHEET
29. PAINT "DO NOT ENTER" PER MUTCD AND DOT STANDARDS
30. INSTALL "STOP" SIGN PER MUTCD AND DOT STANDARDS
31. INSTALL "STOP SIGN" AND "DO NOT ENTER" SIGNS PER MUTCD AND DOT STANDARDS
32. MENU BOARD, COORDINATE WITH OWNER
33. INSTALL TRUNCATED DOMES PER ACCESSIBLE RAMP DETAILS ON SHEET C-3
34. VALLEY GUTTER PER DETAIL SHEETS

TOWN OF ZEBULON ROADWAY CONSTRUCTION NOTES:

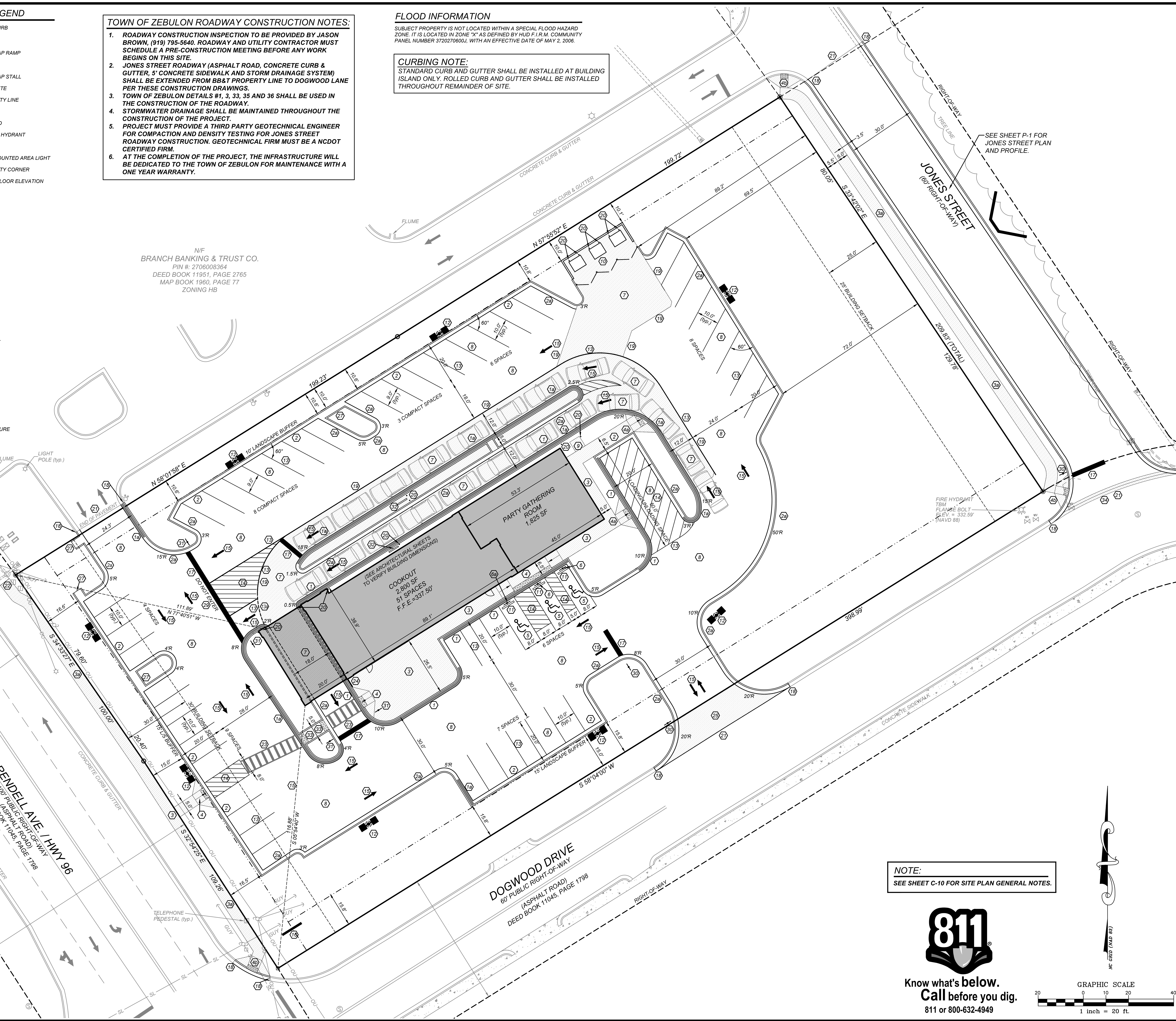
1. **ROADWAY CONSTRUCTION INSPECTION TO BE PROVIDED BY JASON BROWN, (919) 795-5640. ROADWAY AND UTILITY CONTRACTOR MUST SCHEDULE A PRE-CONSTRUCTION MEETING BEFORE ANY WORK BEGINS ON THIS SITE.**
2. **JONES STREET ROADWAY (ASPHALT ROAD, CONCRETE CURB & GUTTER, 5' CONCRETE SIDEWALK AND STORM DRAINAGE SYSTEM) SHALL BE EXTENDED FROM BB&T PROPERTY LINE TO DOGWOOD LANE PER THESE CONSTRUCTION DRAWINGS.**
3. **TOWN OF ZEBULON DETAILS #1, 3, 33, 35 AND 36 SHALL BE USED IN THE CONSTRUCTION OF THE ROADWAY.**
4. **STORMWATER DRAINAGE SHALL BE MAINTAINED THROUGHOUT THE CONSTRUCTION OF THE PROJECT.**
5. **PROJECT MUST PROVIDE A THIRD PARTY GEOTECHNICAL ENGINEER FOR COMPACTION AND DENSITY TESTING FOR JONES STREET ROADWAY CONSTRUCTION. GEOTECHNICAL FIRM MUST BE A NCDOT CERTIFIED FIRM.**
6. **AT THE COMPLETION OF THE PROJECT, THE INFRASTRUCTURE WILL BE DEDICATED TO THE TOWN OF ZEBULON FOR MAINTENANCE WITH A ONE YEAR WARRANTY.**

FLOOD INFORMATION

SUBJECT PROPERTY IS NOT LOCATED WITHIN A SPECIAL FLOOD HAZARD ZONE. IT IS LOCATED IN ZONE "X" AS DEFINED BY HUD F.I.R.M. COMMUNITY PANEL NUMBER 3720270600J, WITH AN EFFECTIVE DATE OF MAY 2, 2006.

CURBING NOTE:

STANDARD CURB AND GUTTER SHALL BE INSTALLED AT BUILDING ISLAND ONLY. ROLLED CURB AND GUTTER SHALL BE INSTALLED THROUGHOUT REMAINDER OF SITE.



NOTE:

SEE SHEET C-10 FOR SITE PLAN GENERAL NOTES.

811

Know what's **below.**
Call before you dig.
811 or 800-632-4949

GRAPHIC SCALE

20 0 10 20 40

1 inch = 20 ft.

NO.	DATE	DESCRIPTION	BY

REVISIONS

COMMERCIAL SITE DESIGN
A Sambatek Company
8312 CREEDMOOR ROAD
RALEIGH, NORTH CAROLINA 27613
(919) 848-6121, FAX: (919) 848-3741
WWW.CSITEDESIGN.COM

CLIENT/OWNER:
COOK OUT
15 LAURA LANE, SUITE 300
THOMASVILLE, NC 27360
TELEPHONE: (336) 215-7025
FAX: (336) 474-1849

COOKOUT FRESH HAMBURGERS

1200 NORTH ARENDELL AVENUE
ZEBULON, NORTH CAROLINA

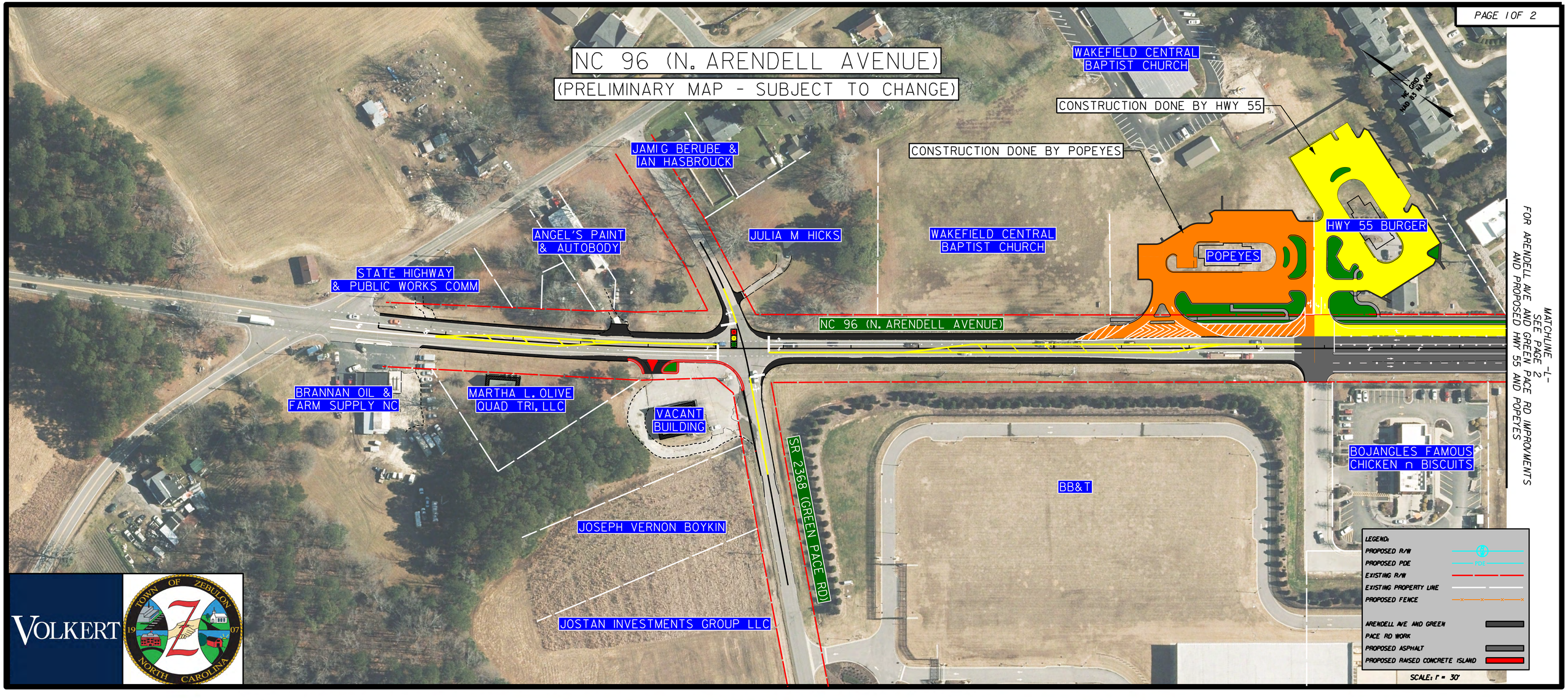
SITE PLAN

PROJECT NO.	OUT-1502
FILENAME:	OUT1502-SP
DRAWN BY:	STH
SCALE:	1" = 20'
DATE:	07-06-2022
SHEET NO.	C-2

X:\OUT - Cookout\1500 Sites\1502 - Zebulon, NC\CAD\OUT1502-SP.dwg, 3/2/2023 1:28:57 PM, travish

NC 96 (N. ARENDELL AVENUE)

(PRELIMINARY MAP - SUBJECT TO CHANGE)

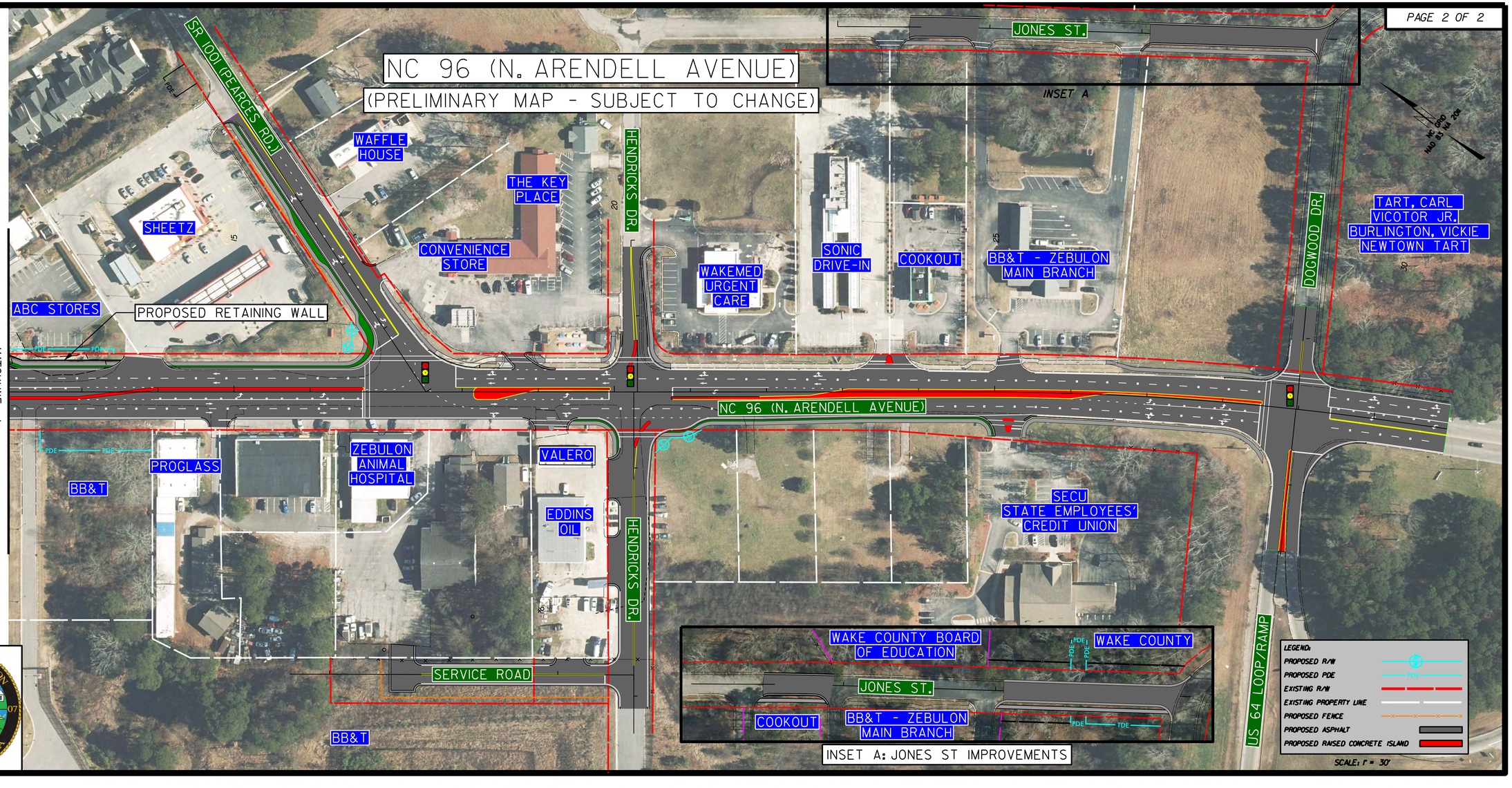


VOLKERT

TOWN OF ZEBULON 19 07 NORTH CAROLINA

NC 96 (N. ARENDELL AVENUE)

(PRELIMINARY MAP - SUBJECT TO CHANGE)

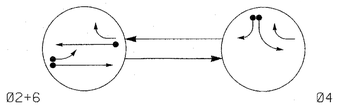


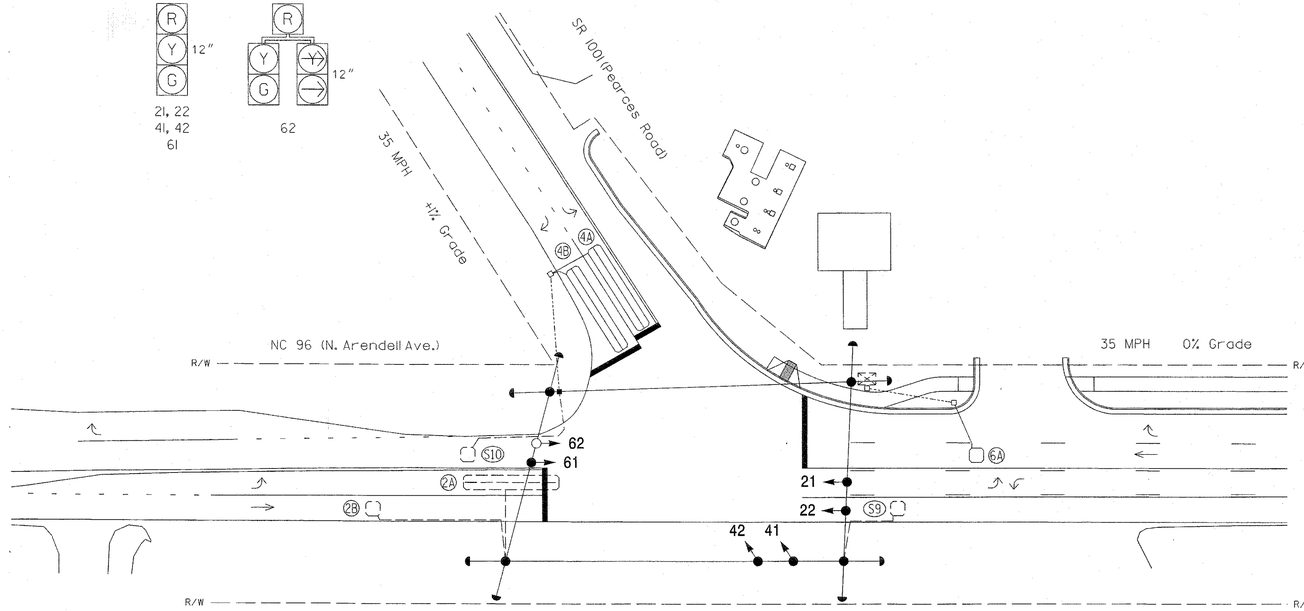
INSET A: JONES ST IMPROVEMENTS

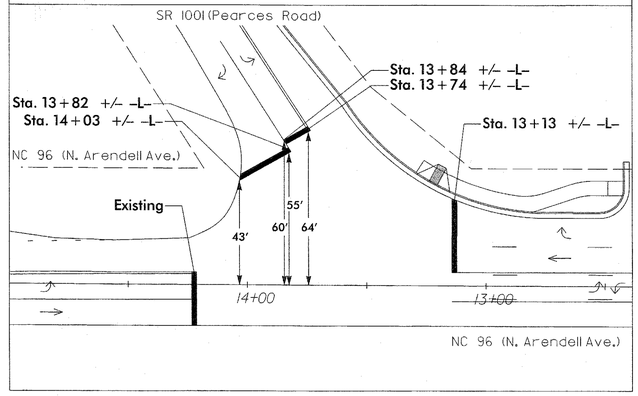
MATCHLINE -L-
SEE PAGE 1
FOR ARENDELL AVE AND GREEN PACE RD IMPROVEMENTS
AND PROPOSED HWY 55 AND POPEYES

VOLKERT

TOWN OF ZEBULON 1907 NORTH CAROLINA







PHASING DIAGRAM

PHASING DIAGRAM DETECTION LEGEND

◄──● DETECTED MOVEMENT
◄─── UNDETECTED MOVEMENT (OVERLAP)
◄── ── UNSIGNALIZED MOVEMENT
<- - -> PEDESTRIAN MOVEMENT

TABLE OF OPERATION			
SIGNAL FACE	PHASE		
	Ø2+6	Ø4	FLASH
21, 22	G	R	Y
41, 42	R	G	R
61	G	R	Y
62	G	R/→	Y

SIGNAL FACE I.D.

All Heads L.E.D.

OASIS 2070L LOOP & DETECTOR INSTALLATION CHART												
INDUCTIVE LOOPS					DETECTOR PROGRAMMING							
LOOP	SIZE (FT)	DISTANCE FROM STOPBAR (FT)	TURNS	NEW LOOP	PHASE	CALLING	EXTENSION	FULL TIME DELAY	STRETCH TIME	DELAY TIME	SYSTEM LOOP	NEW CARD
2A	6X40	+5	2-4-2	-	2	Y	Y	-	-	-	-	-
2B	6X6	70	3	-	2	Y	Y	-	-	-	-	-
4A	6X40	0	2-4-2	Y	4	Y	Y	-	-	3	-	-
4B	6X40	0	2-4-2	Y	4	Y	Y	-	-	15	-	-
6A	6X6	70	4	Y	6	Y	Y	-	-	-	-	-
S9	6X6	+150	3	-	-	-	-	-	-	-	Y	-
S10	6X6	+135	3	-	-	-	-	-	-	-	Y	-

2 Phase
Fully Actuated
(NC 96 - Arendell Ave. Closed Loop System)

NOTES

1. Refer to "Roadway Standard Drawings NCDOT" dated July 2006 and "Standard Specifications for Roads and Structures" dated July 2006.
2. Do not program signal for late night flashing operation unless otherwise directed by the Engineer.
3. Set all detector units to presence mode.
4. Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values supersede these values.
5. Closed loop system data: Controller Asset #1700.

LEGEND

PROPOSED		EXISTING
○→	Traffic Signal Head	●→
◐→	Modified Signal Head	N/A
⊣	Sign	⊣
□	Pedestrian Signal Head With Push Button & Sign	■
○───)	Signal Pole with Guy	●───◗
○─┐	Signal Pole with Sidewalk Guy	●─┐
▭	Inductive Loop Detector	▭
☒	Controller & Cabinet	☒
□	Junction Box	■
- - - - - -	2-in Underground Conduit	-·-·-·-
N/A	Right of Way	— — —
→	Directional Arrow	→

OASIS 2070L TIMING CHART			
FEATURE	PHASE		
	2	4	6
Min Green 1 *	10	7	10
Extension 1 *	3.0	2.0	3.0
Max Green 1 *	45	20	45
Yellow Clearance	3.8	3.0	3.8
Red Clearance	2.3	3.3	1.8
Walk 1 *	-	-	-
Don't Walk 1	-	-	-
Seconds Per Actuation *	-	-	-
Max Variable Initial *	-	-	-
Time Before Reduction *	-	-	-
Time To Reduce *	-	-	-
Minimum Gap	-	-	-
Recall Mode	MIN RECALL	-	MIN RECALL
Vehicle Call Memory	YELLOW	-	YELLOW
Dual Entry	-	-	-
Simultaneous Gap	ON	ON	ON

* These values may be field adjusted. Do not adjust Min Green and Extension times for phases 2 and 6 lower than what is shown. Min Green for all other phases should not be lower than 4 seconds.

INSET – STOP BAR LOCATIONS

NC DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
FINAL DRAWING Date: 2/21/12
Traffic Engineering Branch

Signal Upgrade

SEPI
ENGINEERING & CONSTRUCTION
1025 Wade Avenue
Raleigh, NC 27605
Tel:919-789-9977
Fax:919-789-9591
License #: C-2197

Prepared In the Offices of:
Transportation Mobility and Safety Division
Signal Design Section
750 N.Greenfield Pkwy,Garner,NC 27529

SCALE
0 30
1"=30'

NC 96 (N. Arendell Avenue)
at
SR 1001 (Pearces Road)

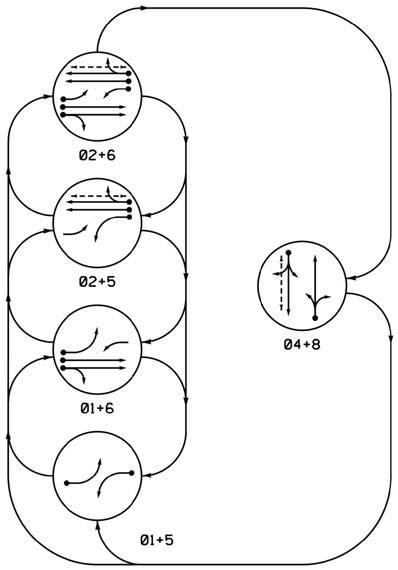
Division 5	Zebulon	Wake County	
PLAN DATE:	August 2011	REVIEWED BY:	J Hochanadel
PREPARED BY:	A Nau	REVIEWED BY:	

REVISIONS	INIT.	DATE

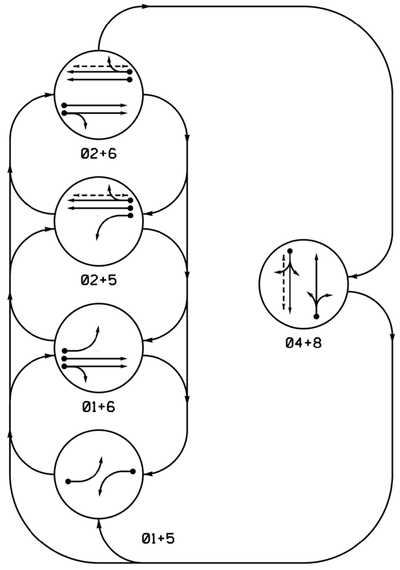
SEAL
SEAL 28430
JEFFREY P. HOCHANADEL
8/8/11
SIGNATURE DATE
SIG. INVENTORY NO. 05-1700

PROJECT REFERENCE NO.	SHEET NO.
U-5118 FB	Sig. 6.0

DEFAULT PHASING DIAGRAM



ALTERNATE PHASING DIAGRAM



PHASING DIAGRAM DETECTION LEGEND

- DETECTED MOVEMENT
- UNDETECTED MOVEMENT (OVERLAP)
- UNSIGNALIZED MOVEMENT
- PEDESTRIAN MOVEMENT

DEFAULT PHASING TABLE OF OPERATION

SIGNAL FACE	PHASE 01+5	01+6	02+5	02+6	04+8	FLASH
11	~~—~~	~~—~~	~~FY~~	~~FY~~	~~R~~	~~Y~~
21,22	R	R	G	G	R	Y
41,42	R	R	R	R	G	R
51	~~—~~	~~FY~~	~~—~~	~~FY~~	~~R~~	~~Y~~
61,62	R	G	R	G	R	Y
81,82	R	R	R	R	G	R
P21,P22	DW	DW	W	W	DW	DRK
P81,P82	DW	DW	DW	DW	W	DRK

ALTERNATE PHASING TABLE OF OPERATION

SIGNAL FACE	PHASE 01+5	01+6	02+5	02+6	04+8	FLASH
11	~~—~~	~~—~~	~~R~~	~~R~~	~~R~~	~~Y~~
21,22	R	R	G	G	R	Y
41,42	R	R	R	R	G	R
51	~~—~~	~~R~~	~~—~~	~~R~~	~~R~~	~~Y~~
61,62	R	G	R	G	R	Y
81,82	R	R	R	R	G	R
P21,P22	DW	DW	W	W	DW	DRK
P81,P82	DW	DW	DW	DW	W	DRK

OASIS 2070 LOOP & DETECTOR INSTALLATION CHART

INDUCTIVE LOOPS					DETECTOR PROGRAMMING							
LOOP	SIZE (FT)	DISTANCE FROM STOPBAR (FT)	TURNS	NEW LOOP	PHASE	CALLING	EXTENSION	FULL TIME DELAY	STRETCH TIME	DELAY TIME	SYSTEM LOOP	NEW CARD
1A	6X40	0	2-4-2	Y	1	Y	Y	-	-	15*	-	Y
					6#	Y	Y	-	-	-	-	Y
2A	6X6	70	4	Y	2	Y	Y	-	-	-	-	Y
2B	6X6	70	4	Y	2	Y	Y	-	-	-	-	Y
4A	6X40	0	2-4-2	Y	4	Y	Y	-	-	5	-	Y
4B	6X15	0	2-4-2	Y	4	Y	Y	-	-	15	-	Y
5A	6X40	0	2-4-2	Y	5	Y	Y	-	-	15*	-	Y
					2#	Y	Y	-	-	-	-	Y
6A	6X6	70	4	Y	6	Y	Y	-	-	-	-	Y
6B	6X6	70	4	Y	6	Y	Y	-	-	-	-	Y
8A	6X40	0	2-4-2	Y	8	Y	Y	-	-	10	-	Y
S1	6X6	+160	4	Y	-	-	-	-	-	-	Y	Y
S2	6X6	+160	4	Y	-	-	-	-	-	-	Y	Y

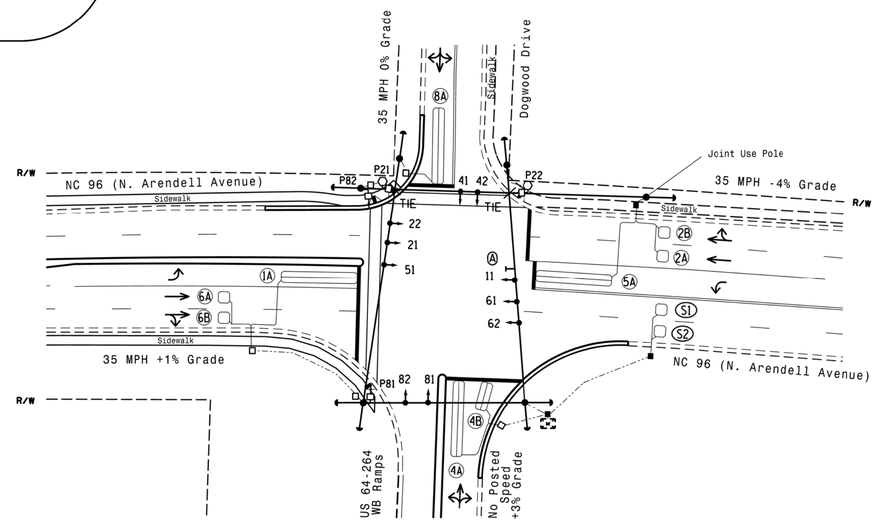
* Reduce Delay time to 3 seconds during Alternate phasing operation.

Disable phase call during Alternate phasing operation.

5 Phase
Fully Actuated
(NC 96 - N. Arendell Ave. CLS)
Signal System #: D05_30_Zebulon

NOTES

1. Refer to "Roadway Standard Drawings NCDOT" dated January 2018 and "Standard Specifications for Roads and Structures" dated January 2018.
2. Do not program signal for late night flashing operation unless otherwise directed by the Engineer.
3. Phase 1 and/or phase 5 may be lagged.
4. Set all detector units to presence mode.
5. Omit "WALK" and flashing "DON'T WALK" with no pedestrian calls.
6. Program pedestrian heads to countdown the flashing "Don't Walk" time only.
7. The Division Traffic Engineer will determine the hours of use for each phasing plan.
8. Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values supersede these values.
9. Pedestrian pedestals are conceptual and shown for reference only. See Roadway Standard Drawings 1705.04 for pushbutton location details.
10. Closed loop system data: Controller Asset #: 2250.



LEGEND

PROPOSED		EXISTING
	Traffic Signal Head	
	Modified Signal Head	N/A
	Sign	
	Pedestrian Signal Head With Push Button & Sign	
	Signal Pole with Guy	
	Signal Pole with Sidewalk Guy	
	Inductive Loop Detector	
	Controller & Cabinet	
	Junction Box	
	2-in Underground Conduit	
N/A	Right of Way	
	Directional Arrow	
N/A	Curb Ramp	
	Type II Signal Pedestal	
Ⓐ	No U-Turn Sign (R3-4)	Ⓐ

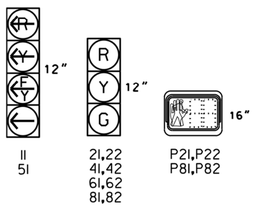
OASIS 2070 TIMING CHART

FEATURE	PHASE 1	2	4	5	6	8
Min Green 1 *	7	10	7	7	10	7
Extension 1 *	2.0	3.0	2.0	2.0	3.0	2.0
Max Green 1 *	20	45	15	20	45	15
Yellow Clearance	3.0	4.1	3.7	3.0	4.1	3.8
Red Clearance	2.4	1.6	2.2	2.3	1.6	1.6
Walk 1 *	-	7	-	-	-	7
Don't Walk 1	-	16	-	-	-	22
Seconds Per Actuation *	-	-	-	-	-	-
Max Variable Initial *	-	-	-	-	-	-
Time Before Reduction *	-	-	-	-	-	-
Time To Reduce *	-	-	-	-	-	-
Minimum Gap	-	-	-	-	-	-
Recall Mode	-	MIN RECALL	-	-	MIN RECALL	-
Vehicle Call Memory	-	YELLOW	-	-	YELLOW	-
Dual Entry	-	-	ON	-	-	ON
Simultaneous Gap	ON	ON	ON	ON	ON	ON

* These values may be field adjusted. Do not adjust Min Green and Extension times for phases 2 and 6 lower than what is shown. Min Green for all other phases should not be lower than 4 seconds.

SIGNAL FACE I.D.

All Heads L.E.D.



11
51

21,22
41,42
61,62
81,82

P21,P22
P81,P82

NC Dept of Transportation
Division of Highways
Final Drawing Date: 10/19/2020
DocuSigned by:
ITS & Signals Unit

Signal Upgrade - Final Design

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

Prepared in the Office of:
SUMMIT
DESIGN AND ENGINEERING SERVICES
NC FIRM LICENSE No: P-0339
320 Executive Court
Hillsborough, NC 27278
(919) 732-3883
(919) 732-6676 (FAX)

Prepared For:
Transportation Mobility and Safety Division
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
Signal Design Section
750 N.Greenfield Pkwy.Garner,NC 27529

NC 96 (N. Arendell Avenue)
at
US 64-264 WB Ramps
and Dogwood Drive

Division 5 Wake County Zebulon

PLAN DATE:	July 2020	REVIEWED BY:	E. Sirgany
PREPARED BY:	J. Smith	REVIEWED BY:	

SCALE 0 40 1"=40'

REVISIONS	INIT.	DATE

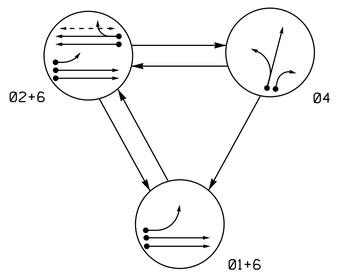
SEAL
NORTH CAROLINA PROFESSIONAL SEAL 018174 ENGINEER EDWARD W. SIRGANY

DocuSigned by: Edward W Sirgany 10/5/2020
DATE

SIG. INVENTORY NO. 05-2250

PROJECT REFERENCE NO.	SHEET NO.
NA	Sig 1.0

PHASING DIAGRAM



PHASING DIAGRAM DETECTION LEGEND

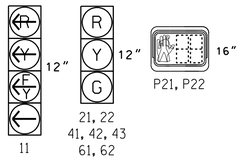
- DETECTED MOVEMENT
- UNDETECTED MOVEMENT (OVERLAP)
- UNSIGNALIZED MOVEMENT
- PEDESTRIAN MOVEMENT

TABLE OF OPERATION

SIGNAL FACE	PHASE 01+6	PHASE 02+6	PHASE 04	PHASE FLASH
11	←	~~Y~~	~~R~~	~~Y~~
21, 22	R	G	R	Y
41, 42, 43	R	R	G	R
61, 62	G	G	R	Y
P21, P22	DW	W	DW	DRK

SIGNAL FACE I.D.

All Heads L.E.D.



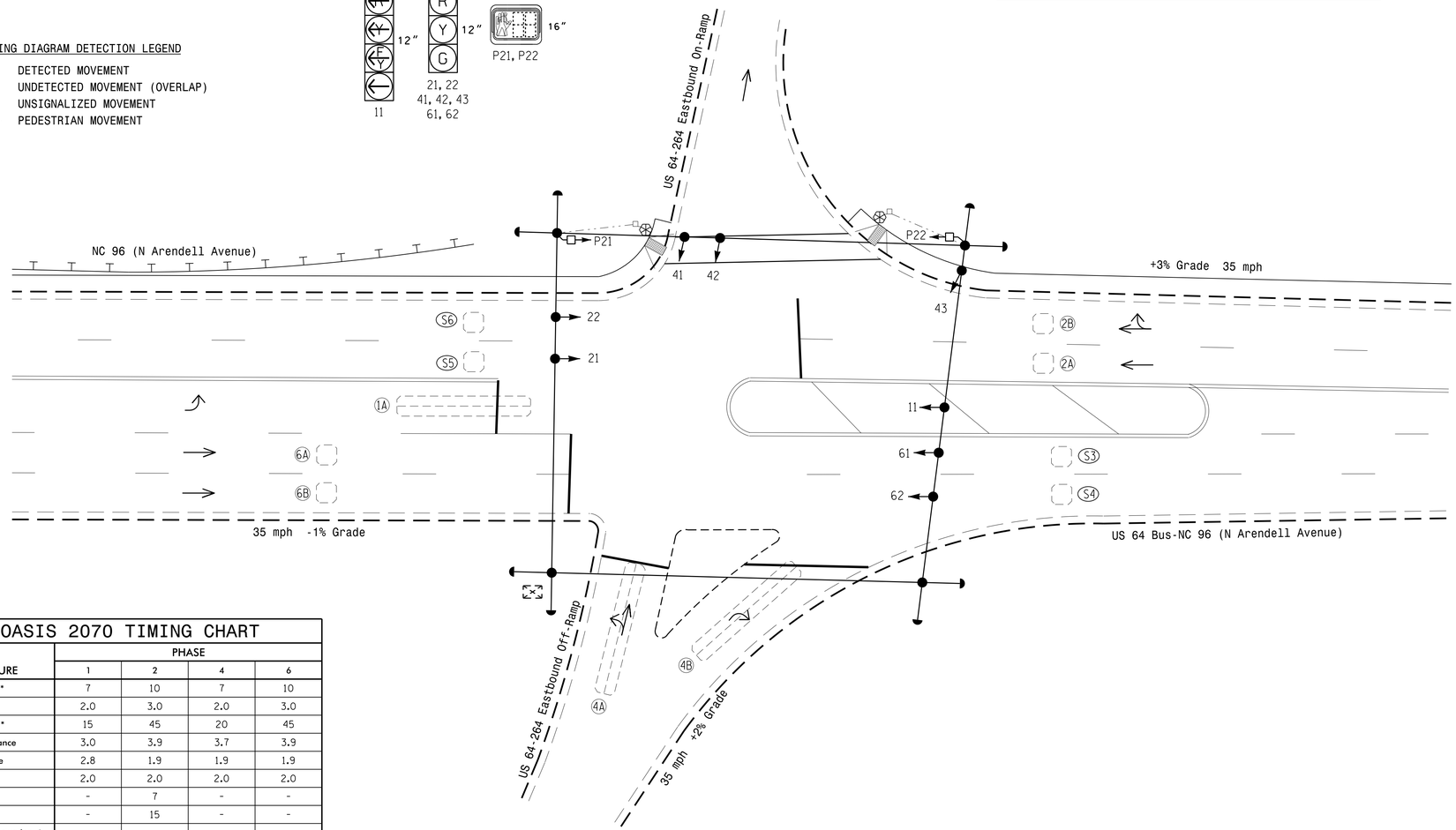
OASIS 2070 LOOP & DETECTOR INSTALLATION CHART

INDUCTIVE LOOPS					DETECTOR PROGRAMMING						
LOOP	SIZE (FT)	DISTANCE FROM STOPBAR (FT)	TURNS	NEW LOOP	PHASE	CALLING	EXTENSION	FULL TIME DELAY	STRETCH TIME	DELAY TIME	SYSTEM LOOP	NEW CARD
1A	6X40	+10	2-4-2	-	1	Y	Y	-	-	15	-	-
					6	Y	Y	-	-	-	-	-
2A, 2B	6X6	70	3	-	2	Y	Y	-	-	-	-	-
4A	6X40	0	2-4-2	-	4	Y	Y	-	-	-	-	-
4B	6X40	0	2-4-2	-	4	Y	Y	-	-	15	-	-
6A, 6B	6X6	70	3	-	6	Y	Y	-	-	-	-	-
S3	6X6	+150	3	-	-	Y	Y	-	-	-	Y	-
S4	6X6	+150	3	-	-	Y	Y	-	-	-	Y	-
S5	6X6	+100	3	-	-	Y	Y	-	-	-	Y	-
S6	6X6	+100	3	-	-	Y	Y	-	-	-	Y	-

3 Phase
Fully Actuated
NC 96 (N Arendell Ave) CLS

NOTES

1. Refer to "Roadway Standard Drawings NCDOT" dated January 2012 and "Standard Specifications for Roads and Structures" dated January 2012.
2. Do not program signal for late night flashing operation unless otherwise directed by the Engineer.
3. Phase 1 may be lagged.
4. Set all detector units to presence mode.
5. Omit "WALK" and flashing "DON'T WALK" with no pedestrian calls.
6. Program pedestrian heads to countdown the flashing "Don't Walk" time only.
7. Pedestrian pedestals are conceptual and shown for reference only. See sheets P1-P3 for pushbutton location details.
8. Pavement markings are existing.
9. Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values supersede these values.
10. Closed loop system data: Controller Asset #: 2292.



LEGEND

PROPOSED		EXISTING
	Traffic Signal Head	
	Modified Signal Head	N/A
	Sign	
	Pedestrian Signal Head With Push Button & Sign	
	Signal Pole with Guy	
	Signal Pole with Sidewalk Guy	
	Inductive Loop Detector	
	Controller & Cabinet	
	Junction Box	
	2-in Underground Conduit	
N/A	Right of Way	
	Directional Arrow	
	Type I Pushbutton Post	

OASIS 2070 TIMING CHART

FEATURE	PHASE 1	PHASE 2	PHASE 4	PHASE 6
Min Green 1 *	7	10	7	10
Extension 1 *	2.0	3.0	2.0	3.0
Max Green 1 *	15	45	20	45
Yellow Clearance	3.0	3.9	3.7	3.9
Red Clearance	2.8	1.9	1.9	1.9
Red Revert	2.0	2.0	2.0	2.0
Walk 1 *	-	7	-	-
Don't Walk 1	-	15	-	-
Seconds Per Actuation *	-	-	-	-
Max Variable Initial *	-	-	-	-
Time Before Reduction *	-	-	-	-
Time To Reduce *	-	-	-	-
Minimum Gap	-	-	-	-
Recall Mode	-	MIN RECALL	-	MIN RECALL
Vehicle Call Memory	-	YELLOW	-	YELLOW
Dual Entry	-	-	-	-
Simultaneous Gap	ON	ON	ON	ON

* These values may be field adjusted. Do not adjust Min Green and Extension times for phases 2 and 6 lower than what is shown. Min Green for all other phases should not be lower than 4 seconds.

Signal Upgrade

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

Prepared In the Offices of:
Transportation Mobility and Safety Division
Signal Design Section
750 N.Greenfield Pkwy.Garner,NC 27529

US 64 Bus-NC 96/NC 96
(N Arendell Avenue)
at
US 64-264 Eastbound Ramps

Division 5 Wake County Zebulon

PLAN DATE: January 2017 REVIEWED BY:
PREPARED BY: Alexander REVIEWED BY:

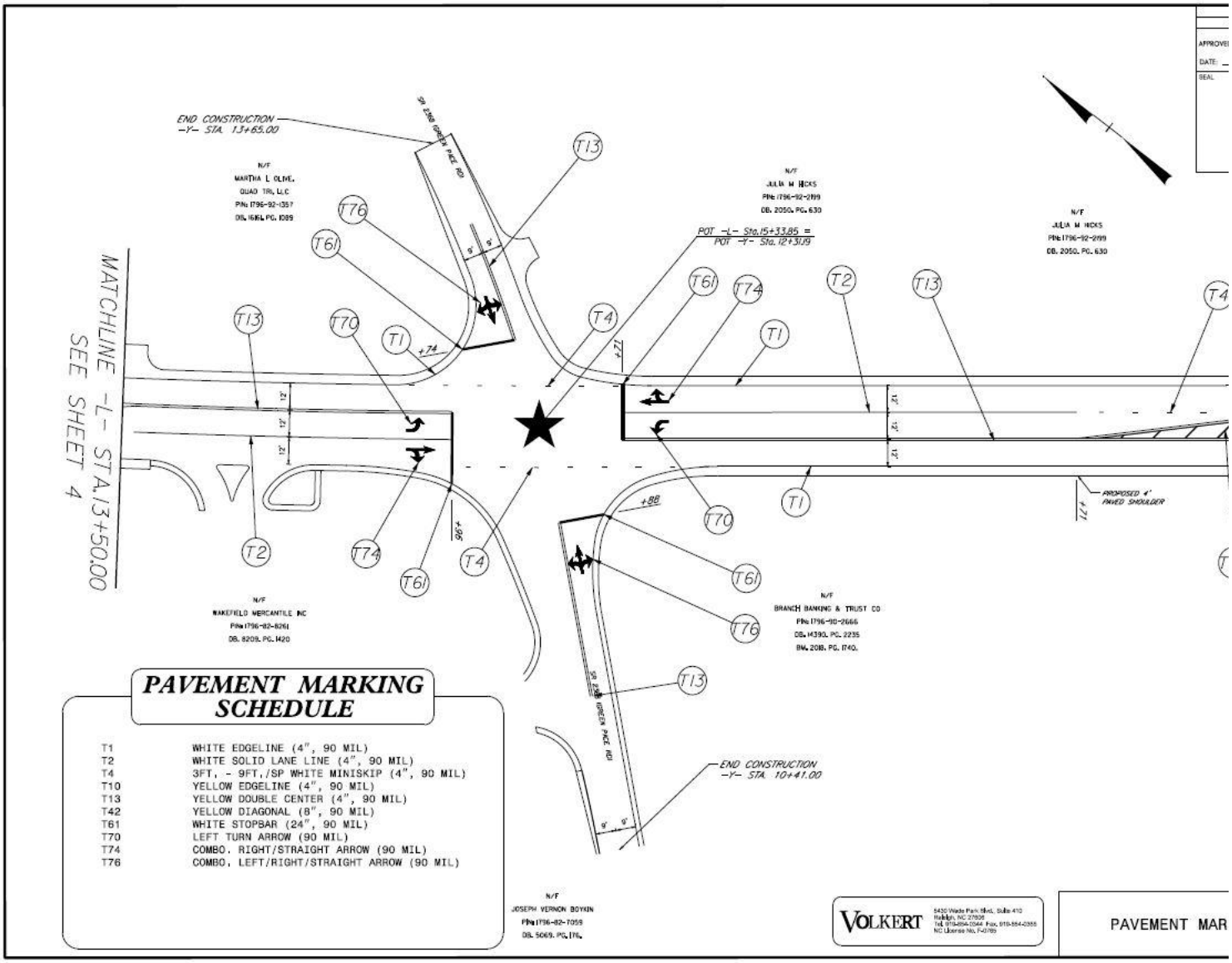
REVISIONS	INIT.	DATE

SCALE 0 20 1"=20'

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 036833 ENGINEER RYAN W. HOUGH
DocuSigned by: Ryan W. Hough 2/2/2017
SIGNATURE & DATE

SIG. INVENTORY NO. 05-2292

02-FEB-2017 10:45
S:\allSIGNALS\Signals\Signal Design Section\Central Region\Div 5\05-2292\05232_sig_dsn_20170202.dgn
rwhough



PAVEMENT MARKING SCHEDULE

T1	WHITE EDGELINE (4", 90 MIL)
T2	WHITE SOLID LANE LINE (4", 90 MIL)
T4	3FT, - 9FT,/SP WHITE MINISKIP (4", 90 MIL)
T10	YELLOW EDGELINE (4", 90 MIL)
T13	YELLOW DOUBLE CENTER (4", 90 MIL)
T42	YELLOW DIAGONAL (8", 90 MIL)
T61	WHITE STOPBAR (24", 90 MIL)
T70	LEFT TURN ARROW (90 MIL)
T74	COMBO. RIGHT/STRAIGHT ARROW (90 MIL)
T76	COMBO. LEFT/RIGHT/STRAIGHT ARROW (90 MIL)

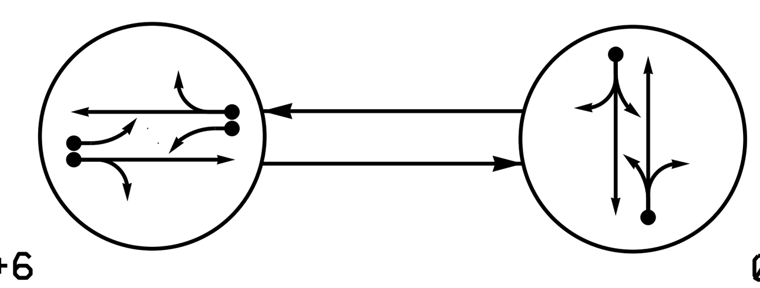
VOLKERT
5430 Wade Park Blvd., Suite 410
Raleigh, NC 27609
Tel. 919-864-0444 Fax. 919-864-0555
NC License No. F-0785

PAVEMENT MAR

PROJECT REFERENCE NO.	SHEET NO.
36249.4202	Sig. 1.0

2 Phase
Fully Actuated
(NC 96 - N. Arendell Ave. CLS)
Signal System #: D05-30_Zebulon

PHASING DIAGRAM



PHASING DIAGRAM DETECTION LEGEND

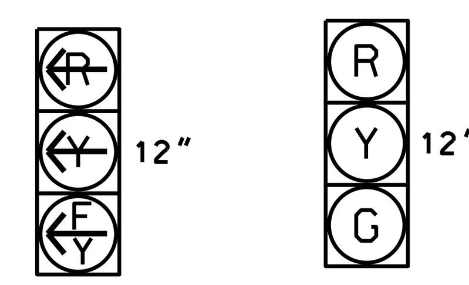
- DETECTED MOVEMENT
- UNDETECTED MOVEMENT (OVERLAP)
- UNSIGNALIZED MOVEMENT
- PEDESTRIAN MOVEMENT

TABLE OF OPERATION

SIGNAL FACE	PHASE Ø2+6	PHASE Ø4+8	PHASE FLASH
21	FY←	R←	Y←
22,23	G	R	Y
41,42	R	G	R
61	FY←	R←	Y←
62,63	G	R	Y
81,82	R	G	R

SIGNAL FACE I.D.

All Heads L.E.D.

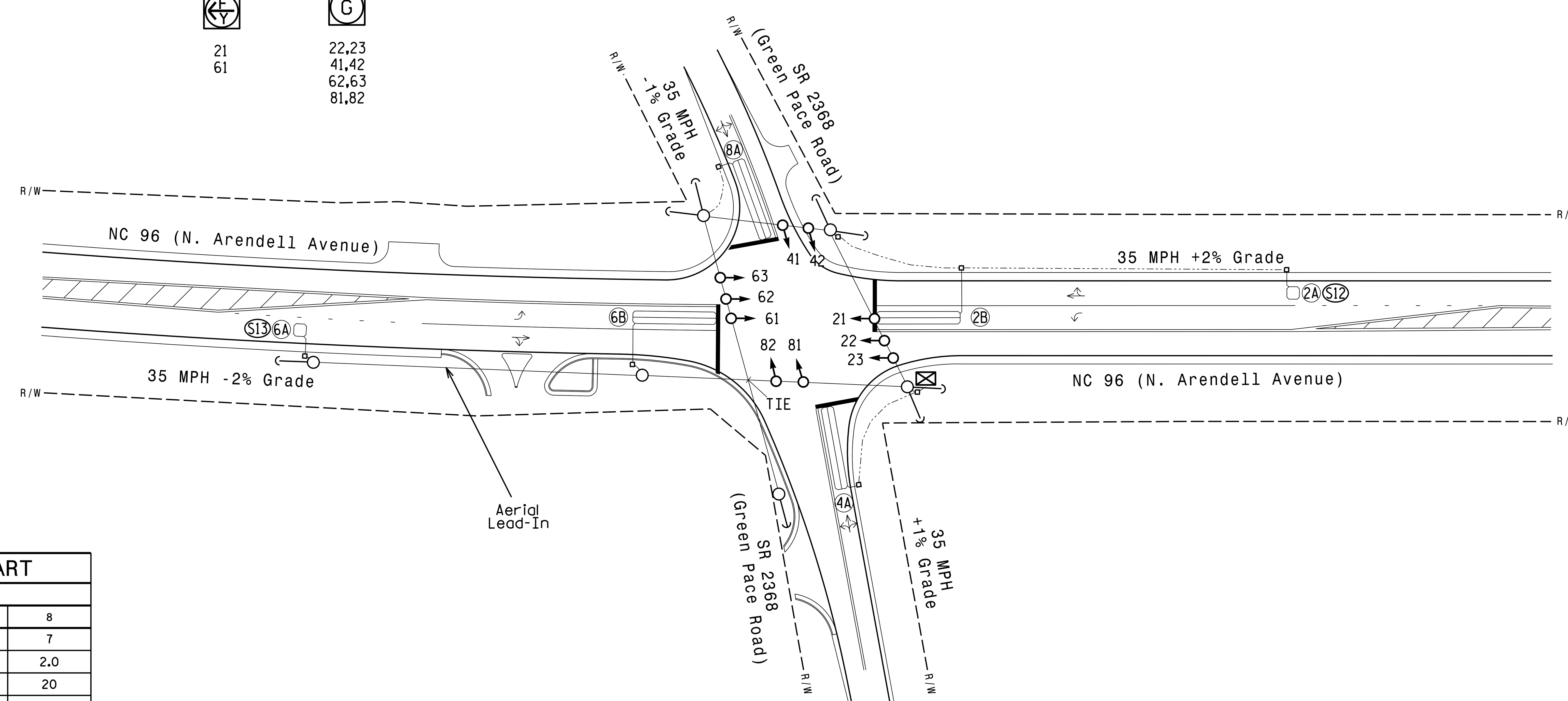


OASIS 2070 LOOP & DETECTOR INSTALLATION CHART

INDUCTIVE LOOPS					DETECTOR PROGRAMMING							
LOOP	SIZE (FT)	DISTANCE FROM STOPBAR (FT)	TURNS	NEW LOOP	PHASE	CALLING	EXTENSION	FULL TIME DELAY	STRETCH TIME	DELAY TIME	SYSTEM LOOP	NEW CARD
2A/S12	6X6	200	5	Y	2	Y	Y	-	-	-	Y	Y
2B	6X40	0	2-4-2	Y	2	Y	Y	Y	-	3	-	Y
4A	6X40	0	2-4-2	Y	4	Y	Y	-	-	5	-	Y
6A/S13	6X6	200	5	Y	6	Y	Y	-	-	-	Y	Y
6B	6X40	0	2-4-2	Y	6	Y	Y	Y	-	3	-	Y
8A	6X40	0	2-4-2	Y	8	Y	Y	-	-	5	-	Y

NOTES

1. Refer to "Roadway Standard Drawings NCDOT" dated January 2018 and "Standard Specifications for Roads and Structures" dated January 2018.
2. Do not program signal for late night flashing operation unless otherwise directed by the Engineer.
3. Locate new cabinet so as not to obstruct sight distance of vehicles turning right on red.
4. Set all detector units to presence mode.
5. Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values supersede these values.
6. Closed loop system data: Controller asset #: 0886



LEGEND

PROPOSED		EXISTING
	Traffic Signal Head	
	Modified Signal Head	N/A
	Sign	
	Pedestrian Signal Head With Push Button & Sign	
	Signal Pole with Guy	
	Signal Pole with Sidewalk Guy	
	Inductive Loop Detector	
	Controller & Cabinet	
	Junction Box	
	2-in Underground Conduit	
N/A	Right of Way	
	Directional Arrow	

OASIS 2070 TIMING CHART

FEATURE	PHASE 2	PHASE 4	PHASE 6	PHASE 8
Min Green 1 *	10	7	10	7
Extension 1 *	5.0	2.0	5.0	2.0
Max Green 1 *	45	20	45	20
Yellow Clearance	4.0	3.8	4.0	3.9
Red Clearance	1.3	1.5	1.3	1.2
Walk 1 *	-	-	-	-
Don't Walk 1	-	-	-	-
Seconds Per Actuation *	2.5	-	2.5	-
Max Variable Initial *	24	-	24	-
Time Before Reduction *	15	-	15	-
Time To Reduce *	30	-	30	-
Minimum Gap	3.0	-	3.0	-
Recall Mode	MIN RECALL	-	MIN RECALL	-
Vehicle Call Memory	YELLOW	-	YELLOW	-
Dual Entry	-	ON	-	ON
Simultaneous Gap	ON	ON	ON	ON

* These values may be field adjusted. Do not adjust Min Green and Extension times for phases 2 and 6 lower than what is shown. Min Green for all other phases should not be lower than 4 seconds.

NC Dept of Transportation
Division of Highways
Final Drawing Date: 04/25/2022
ITS & Signals Unit

New Installation

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

Prepared in the Office of:
SUMMIT DESIGN AND ENGINEERING SERVICES
NC FIRM LICENSE No: P-0339
320 Executive Court
Hillsborough, NC 27278
(919) 732-3883
(919) 732-6676 (FAX)

Prepared For: Transportation Mobility and Safety Division, Signal Design Section
750 N.Greenfield Pkwy,Garner,NC 27529

SCALE 0 40, 1"=40'

NC 96 (N. Arendell Avenue) at SR 2368 (Green Pace Road)

Division 5 | Wake County | Zebulon

PLAN DATE: November 2021 | REVIEWED BY: E. Sirgany
PREPARED BY: M. Parker | REVIEWED BY:

REVISIONS	INIT.	DATE

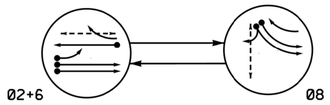
SEAL: NORTH CAROLINA PROFESSIONAL SEAL 018174 ENGINEER EDWARD W. SIRGANY

Edward W Sirgany 4/12/2022 DATE

SIG. INVENTORY NO. 05-0886

PROJECT REFERENCE NO.	SHEET NO.
U-5118 FB	Sig. 4.0

PHASING DIAGRAM



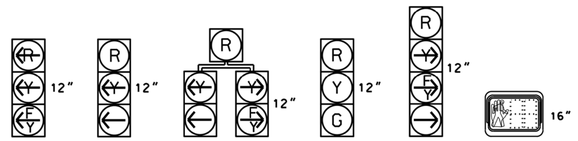
PHASING DIAGRAM DETECTION LEGEND

- DETECTED MOVEMENT
- UNDETECTED MOVEMENT (OVERLAP)
- UNSIGNALIZED MOVEMENT
- PEDESTRIAN MOVEMENT

TABLE OF OPERATION			
SIGNAL FACE	PHASE 02+6	PHASE 08	FLASH
21,22	G	R	Y
23	~~F Y~~	—	~~Y~~
61	~~F Y~~	~~R~~	~~Y~~
62,63	G	R	Y
81	R	—	R
82	R	~~F Y~~	R
P21,P22	W	DW	DRK
P81,P82	DW	W	DRK

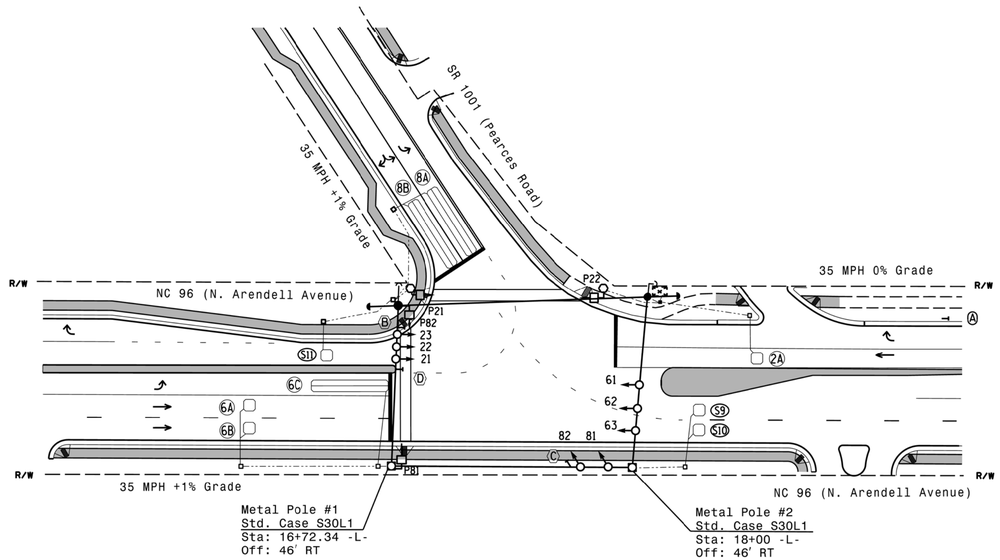
SIGNAL FACE I.D.

All Heads L.E.D.



61 | 81 | 82 | 21,22 62,63 | 23 | P21,P22 P81,P82

OASIS 2070 LOOP & DETECTOR INSTALLATION CHART												
INDUCTIVE LOOPS					DETECTOR PROGRAMMING							
LOOP	SIZE (FT)	DISTANCE FROM STOPBAR (FT)	TURNS	NEW LOOP	PHASE	CALLING	EXTENSION	FULL TIME DELAY	STRETCH TIME	DELAY TIME	SYSTEM LOOP	NEW CARD
2A	6X6	70	4	Y	2	Y	Y	-	-	-	-	Y
6A	6X6	70	4	Y	6	Y	Y	-	-	-	-	Y
6B	6X6	70	4	Y	6	Y	Y	-	-	-	-	Y
6C	6X40	0	2-4-2	Y	6	Y	Y	-	-	-	-	Y
8A	6X40	0	2-4-2	Y	8	Y	Y	-	-	3	-	Y
8B	6X40	0	2-4-2	Y	8	Y	Y	-	-	5	-	Y
S9	6X6	+160	4	Y	-	-	-	-	-	-	Y	Y
S10	6X6	+160	4	Y	-	-	-	-	-	-	Y	Y
S11	6X6	+150	4	Y	-	-	-	-	-	-	Y	Y



2 Phase
Fully Actuated
(NC 96 - N. Arendell Ave. CLS)
Signal System #: D05_30_Zebulon

NOTES

1. Refer to "Roadway Standard Drawings NCDOT" dated January 2018 and "Standard Specifications for Roads and Structures" dated January 2018.
2. Do not program signal for late night flashing operation unless otherwise directed by the Engineer.
3. Set all detector units to presence mode.
4. Omit "WALK" and flashing "DON'T WALK" with no pedestrian calls.
5. Program pedestrian heads to countdown the flashing "Don't Walk" time only.
6. Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values supersede these values.
7. Pedestrian pedestals are conceptual and shown for reference only. See Roadway Standard Drawings 1705.04 for pushbutton location details.
8. Closed loop system data: Controller Asset #: 1700.

LEGEND

PROPOSED		EXISTING
○→	Traffic Signal Head	●→
◐→	Modified Signal Head	N/A
⊣	Sign	⊣
	Pedestrian Signal Head With Push Button & Sign	
○	Signal Pole with Guy	●
○	Signal Pole with Sidewalk Guy	●
▣	Metal Strain Pole	▣
▭	Inductive Loop Detector	▭
⊠	Controller & Cabinet	⊡
□	Junction Box	■
·····	2-in Underground Conduit	·····
N/A	Right of Way	— — — —
→	Directional Arrow	→
N/A	Curb Ramp	
⬡	Type II Signal Pedestal	⬢
Ⓐ	"RIGHT LANE MUST TURN RIGHT" Sign (R3-7)	Ⓐ
Ⓑ	Right Arrow "ONLY" Sign (R3-5R)	Ⓑ
Ⓒ	Dual Turn Arrows Sign	Ⓒ
Ⓓ	No U-Turn Sign (R3-4)	Ⓓ

OASIS 2070 TIMING CHART			
	PHASE		
FEATURE	2	6	8
Min Green 1 *	10	10	7
Extension 1 *	3.0	3.0	2.0
Max Green 1 *	45	45	20
Yellow Clearance	3.8	3.8	3.0
Red Clearance	2.6	2.6	3.9
Walk 1 *	7	-	7
Don't Walk 1	18	-	15
Seconds Per Actuation *	-	-	-
Max Variable Initial *	-	-	-
Time Before Reduction *	-	-	-
Time To Reduce *	-	-	-
Minimum Gap	-	-	-
Recall Mode	MIN RECALL	MIN RECALL	-
Vehicle Call Memory	YELLOW	YELLOW	-
Dual Entry	-	-	-
Simultaneous Gap	ON	ON	ON

* These values may be field adjusted. Do not adjust Min Green and Extension times for phases 2 and 6 lower than what is shown. Min Green for all other phases should not be lower than 4 seconds.

NC Dept of Transportation
Division of Highways
Final Drawing Date: 10/19/2020
DocuSigned by: Brian Smith
ITS & Signals Unit

Signal Upgrade - Final Design

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

Prepared in the Office of:
SUMMIT DESIGN AND ENGINEERING SERVICES
NC FIRM LICENSE No: P-0339
320 Executive Court
Hillsborough, NC 27278
(919) 732-3883
(919) 732-6676 (FAX)

Prepared For: Transportation Mobility and Safety Division, North Carolina Department of Transportation, Signal Design Section
750 N.Greenfield Pkwy,Garner,NC 27529

NC 96 (N. Arendell Avenue)
at
SR 1001 (Pearces Road)

Division 5 Wake County Zebulon
PLAN DATE: July 2020 REVIEWED BY: E. Sirgany
PREPARED BY: J. Smith REVIEWED BY:

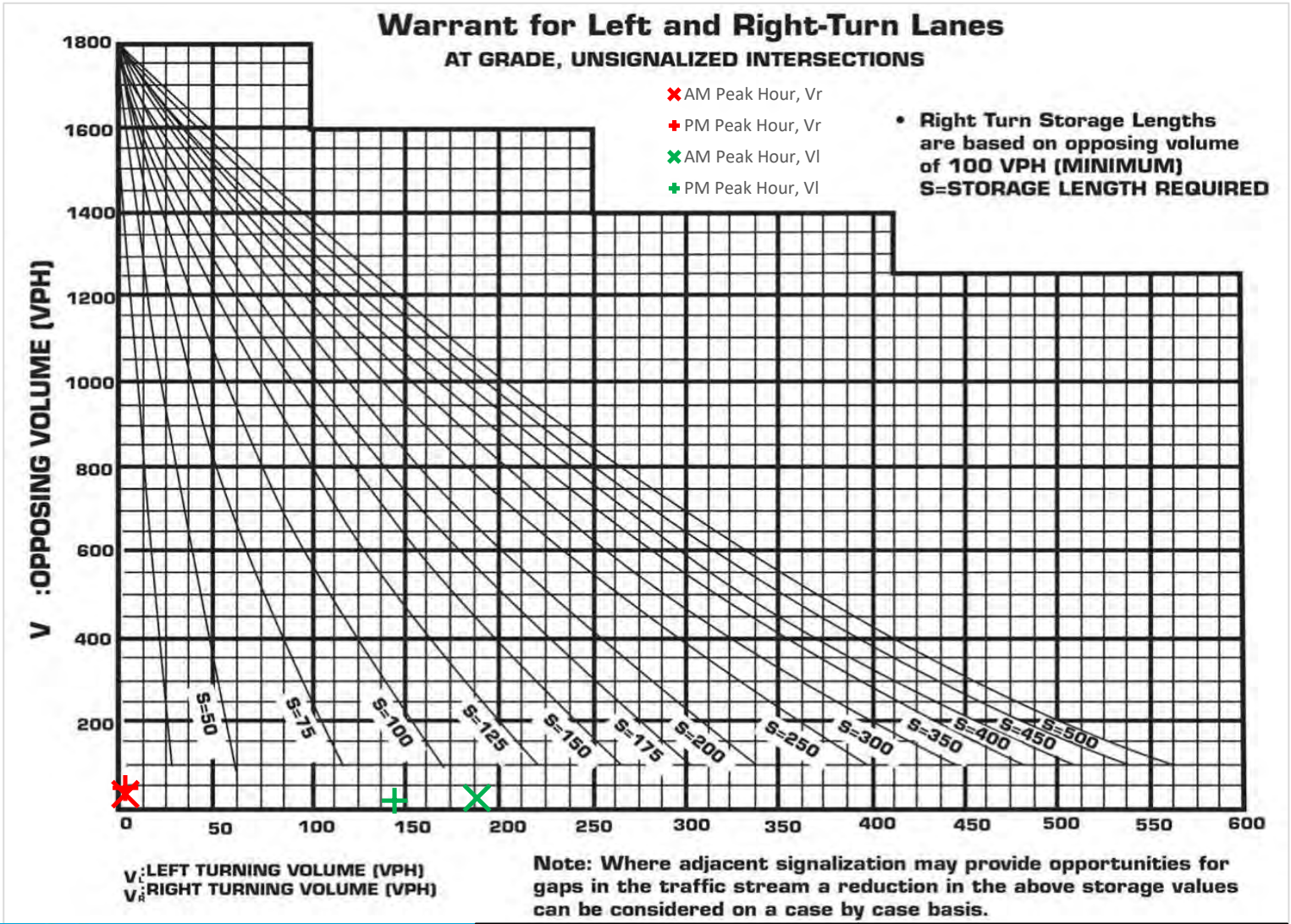
SCALE 0 40 1"=40'

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 018174 ENGINEER EDWARD W. SIRGANY
DocuSigned by: Edward W Sirgany 10/5/2020
DATE

SIG. INVENTORY NO. 05-1700

Peak Hour	Volumes		Peak Hour	Volumes	
	Opposing	Lefts		Opposing	Rights
AM	18	188	AM	27	0
PM	12	144	PM	42	0



DAVENPORT

TURN LANE WARRANT SUMMARY

DOGWOOD DRIVE AT SITE ACCESS 1