NCDOT STIP R-2721/R-2828/R-2829

PREFERRED ALTERNATIVE - TRAFFIC ANALYSIS TECHNICAL MEMORANDUM

COMPLETE 540 TRIANGLE EXPRESSWAY SOUTHEAST EXTENSION

Wake County & Johnston County

PREPARED FOR:

North Carolina Department of Transportation (NCDOT)
Project Development & Environmental Analysis Branch

Federal Highway Administration (FHWA)

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July 2017

NCDOT STIP PROJECTS R-2721, R-2828 & R-2829
Complete 540 (Triangle Expressway Southeast Extension)

WAKE AND JOHNSTON COUNTIES

Preferred Alternative Traffic Analysis

TECHNICAL MEMORANDUM

Prepared for:

The North Carolina Department of Transportation

Congestion Management Section

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EXECUTIVE SUMMARY

1. Introduction

The North Carolina Department of Transportation (NCDOT) is studying ways to improve regional mobility in southern and eastern Wake County. NCDOT State Transportation Improvement Program (STIP) Projects R-2721, R-2828, and R-2829, collectively known as Complete 540 – Triangle Expressway Southeast Extension form the outer loop around Raleigh and surround communities in Wake and Johnston Counties, extending from the NC 55 Holly Springs Bypass to I-40 near the US 70 Clayton Bypass (Southern Wake Freeway) and then to I-495 / US 64 / US 264 Knightdale Bypass (Eastern Wake Freeway).

Project level traffic capacity analyses for the Complete 540 project were developed by HNTB North Carolina, P.C. (HNTB) on February 23, 2015, for a No-Build alternative and 17 Detailed Study Alternatives (DSA), which included 2010 Base Year, 2012 Intermediate Year, and 2035 Future Year scenarios. Based on the analysis and the National Environmental Policy Act (NEPA) process, DSA 2 was selected as the Preferred Alternative for Complete 540.

HNTB North Carolina, P.C. has been contracted by the NCDOT to prepare project level traffic capacity analysis for the selected Complete 540 Preferred Alternative (DSA 2) using the Preferred Alternative (DSA 2) traffic forecast. The purpose of this traffic capacity analysis is to identify existing and projected roadway facility, interchange and intersection operations and any potential deficiencies for the major roadways surrounding and intersecting the Complete 540 functional designs for the Preferred Alternative (DSA 2) under 2016 Base Year and 2040 Design Year conditions. This report will refer to DSA 2 as the Preferred Alternative (PA) for simplicity. **Figure ES-1** shows the PA corridor and the project study area for the traffic analysis. ***Appendix A*** contains all figures described in this report.

Traffic volumes used in this traffic capacity analysis were based on the *Complete 540 Preferred Alternative Traffic Forecast* prepared by HNTB and approved by NCDOT Transportation Planning Branch (TPB) on August 11, 2016. The traffic capacity analysis references the following forecast volumes for the 2016 and 2040 analysis scenarios:

- 2016 Base Year No-Build,
- 2016 Base Year Build DSA 2 (PA), and
- 2040 Design Year Build DSA 2 (PA).

Complete 540 functional designs and interchange forms evaluated in this traffic capacity analysis were based on the designs and interchange form recommendations prepared by Lochner, based upon ongoing coordination, planning, analysis and design. The designs are currently being reviewed by NCDOT.

The following sections describe existing and future transportation conditions in the project study area, the capacity analysis methodology, capacity analysis results for the 2016 Base Year and 2040 Design Year, microsimulation operations analysis, and conclusions and recommendations derived from the capacity analyses related to current functional design for the Complete 540 PA.

2. Existing and Future Conditions

The Complete 540 PA corridor alignment in the project study area runs primarily east-west between the existing Triangle Expressway termini at NC 55 Bypass in Apex to I-40 near Clayton. The corridor alignment then runs primarily north-south between I-40 and the existing I-540 system

interchange with I-495 / US 64 / US 264 in Knightdale. The corridor alignment crosses multiple existing freeway, arterial, and local roadway facilities. The Complete 540 PA is shown on **Figure ES-1**.

Under existing conditions, there are five major access-controlled freeways, numerous major and minor arterial facilities, nine existing interchanges, one planned future interchange (STIP Project # R-2635D), and 10 existing at-grade intersections on Y-line facilities in the traffic analysis study area.

Existing traffic control information was provided by NCDOT for all signalized intersections. Other relevant study information and analysis inputs for the existing study area facilities and corridors was collected from existing aerial photography, traffic forecast and field verified in 2014 by HNTB staff.

Under future conditions, the Complete 540 project, Triangle Expressway Southeast Extension, will complete the Raleigh 540 outer loop. Construction is currently scheduled to be completed in phases. Phase I (southern portion) is between NC 55 Bypass in Apex and I-40 near the Johnston County line. Phase II (eastern portion) continues the project at I-40 and ends at I-495 / US 64 / US 264 in Knightdale. The project is located primarily in Wake County with a small portion of the project that extends into Johnston County.

Transportation demands, social and economic demands and mobility considerations are the basis for additional transportation infrastructure in southeastern Wake County. Complete 540 will link the towns of Clayton, Garner, Fuquay-Varina, Holly Springs, Apex, Cary, Knightdale, and Raleigh. It will also connect major roadways in southern Raleigh and aid in easing congestion on the I-40, I-440 (Raleigh Beltline), NC 42, NC 55, Ten Ten Road and other arterial surface streets by providing a high-speed, reliable transportation option. The Complete 540 project would increase the overall capacity of the existing study area roadway network and be expected to divert traffic from secondary roads. The Complete 540 PA corridor is approximately 30 miles in length, beginning at the existing Toll NC 540 (Triangle Expressway) and NC 55 Bypass service interchange and terminating at the existing I-540 and I-495 / US 64 / US 264 system interchange.

With construction of Complete 540, there are nine existing interchanges, one planned future interchange (STIP Project # R-2635D) and 10 future interchanges (on and adjacent to the PA alignment), and 10 existing and 16 future at-grade intersections in the traffic analysis study area.

3. Methodology

2016 Base Year / 2040 Design Year Traffic Volume Development

Peak hour traffic volume estimates for the 2016 Base Year No-Build and Build scenarios and 2040 Design Year Build scenario were developed using daily traffic forecast information from the *Complete 540 Preferred Alternative Traffic Forecast*. Daily traffic data, such as Average Annual Daily Traffic (AADT) estimates for study area roadway segments, truck percentages, design hour volumes (DHV-factor), and peak directional flows (D-factor) were entered into NCDOT Congestion Management Section peak hour traffic volume breakout spreadsheets for each intersection and/or interchange. This traffic volume data was then entered in the capacity analysis software, as appropriate.

Capacity Analysis

Per standards for the preparation of capacity analyses for TIP projects used by the NCDOT Congestion Management Section, the Complete 540 project study area and PA were analyzed

using methodologies set forth in the Highway Capacity Manual 2010 (Transportation Research Board, December 2010) and the accompanying Highway Capacity Software 2010 (HCS Version 6.60) for freeway facilities and unsignalized intersections. Signalized and unsignalized intersections were analyzed in Synchro Professional Version 9. Results for AM and PM peak hour timeframes are given as a Level-of-Service (LOS) for segments of freeway and intersections that correspond to a letter grade of LOS A through LOS F. In general, LOS D is the minimum threshold for acceptable peak hour traffic operations on the freeway segments and study area intersections, and was used as a benchmark in analyzing the PA functional design geometrics for the 2016 and 2040 analysis years. **Table ES-1** includes the details for each analysis type.

Table ES - 1 Capacity Analysis Details

Analysis Type	Details
Freeway System Analysis	Segmented the PA alignment network into separate basic freeway, weaving, merge, and diverge areas in HCS Freeway Facilities Module (Freeway Facilities). Calculated both individual segment vehicular density and LOS and overall directional system operational statistics per HCM 2010 methods.
Intersection Analysis	Created Synchro network that included individual intersections, both signalized and unsignalized, and corridors near the proposed interchange ramp terminals and incorporated signal plan information. Build network analyzed all Complete 540 interchange ramp terminal intersections as signalized intersections in the Design Year.

4. Development of Alternatives

The Build Alternative assumes construction of Complete 540 in addition other background improvements that are committed to and funded by NCDOT, local municipalities, or private development projects and would occur by the 2040 Design Year. The Complete 540 PA is shown on **Figure ES–1**. The roadway design (alignment, interchange forms, geometrics, design criteria) was provided by Lochner for use in the traffic capacity analysis.

2016 Base Year / 2040 Design Year Traffic Volume Development

Peak hour traffic volume estimates for the 2016 Base Year No-Build and Build scenarios and 2040 Design Year Build scenario were developed using daily traffic forecast information from the *Complete 540 Preferred Alternative Traffic Forecast*. Daily traffic data, such as Average Annual Daily Traffic (AADT) estimates for study area roadway segments, truck percentages, design hour volumes (DHV-factor), and peak directional flows (D-factor) were entered into NCDOT Congestion Management Section peak hour traffic volume breakout spreadsheets for each intersection and/or interchange. This traffic volume data was then entered in the capacity analysis software, as appropriate.

2040 Design Year Build Capacity Analysis Results

For Complete 540 PA operations, all freeway segments are expected to operate at LOS D or better, as shown in **Table ES-2**. For the NC 540 corridor (Triangle Expressway), between NC 55 Bypass and Veridea Parkway (formerly Old Holly Springs-Apex Road), two basic segments (OHSARI B1-D2 & D2-B3) in the eastbound PM peak are expected to operate at (LOS E) or exceeding (LOS F) peak hour capacity. For the I-40 and US 70 corridors, all segments expected to operate at LOS D or better. On the I-495 / US 64 / US 264 corridor, results indicate that four (4) eastbound and three (3) westbound segments at (LOS E) or exceeding (LOS F) peak hour capacity.

Of the 36 study area intersections analyzed at interchange ramp terminals or adjacent Y-lines, four (4) intersections are projected to experience operational deficiencies in the 2040 Design Year Build PA scenario, as shown in **Table ES-3**. Three (3) of the four (4) intersections projected to experience operational deficiencies are along the NC 55 Bypass, two (2) of which are the ramp terminal intersections. The intersection of realigned Donny Brook Road/Chandler Ridge Circle/Wake Tech Drive and US 401 is expected to operate at LOS E in the AM and LOS C in the PM peak hour.

Table ES - 2 2040 Design Year Freeway Operations Summary*

Scenario	Complete 540											
	Eastbound						Westbound					
	LOS A	LOS B	LOS C	LOS D	LOS E	LOS F	LOS A	LOS B	LOS C	LOS D	LOS E	LOS F
2040 Build	12	35	16	2	0	0	10	28	23	4	0	0

*-Table shows the number of segments for each LOS

Table ES - 3 2040 Build Intersection Capacity Analysis Summary

Scenario	Number of Intersections Operating at Given LOS in at Least One AM or PM Peak Hour*					
	LOS A	LOS B	LOS C	LOS D	LOS E	LOS F
2040 Build	2	14	12	3	***1***	***3***

*-For signalized intersections, overall intersection LOS. For unsignalized intersections, worst-case critical movement.

5. Summary and Recommendations

The Complete 540 traffic capacity analysis was completed to evaluate 2016 Base Year No-Build and Build, and 2040 Design Year Build peak hour traffic operations for the Complete 540 Preferred Alternative and surrounding freeway facilities and nearby intersections within the traffic analysis study area.

Based on the 2016 Base Year capacity analysis, all the No-Build and Build PA freeway and intersection facilities are projected to operate at acceptable LOS D or better.

Based on the 2040 Design Year capacity analysis, the following conclusions and recommendations are presented for study area facilities and intersections:

Complete 540 Preferred Alternative Corridor

All Complete 540 PA freeway segments and interchange design configurations are projected to operate at LOS D or better in the 2040 Design Year, based on the current functional designs for Complete 540 as a six-lane, toll facility.

Of the 36 study area intersections analyzed at interchange ramp terminals or adjacent Y-lines, only 4 intersections are projected to experience operational deficiencies. Three (3) of the four (4) intersections potentially experiencing operational deficiencies are the two interchange ramp terminal intersections along NC 55 Bypass. This is due to the high vehicular volume and limited capacity along NC 55 Bypass. The intersection of realigned Donny Brook Road/Chandler Ridge Circle/Wake Tech Drive and US 401 is expected to operate at LOS E in the AM and LOS C in the PM. Reasonably feasible laneage improvements were considered and implemented at these four (4) intersection locations as part of the Complete 540 project.

NC 540 (Triangle Expressway) Corridor

Based on the 2040 Design Year Build PA analysis results, two basic segments (OHSARI B1-D2 & D2-B3) between NC 55 Bypass and Veridea Parkway (formerly Old Holly Springs-Apex Road) in the eastbound PM peak experience projected operational deficiencies. This is mainly due to the limited capacity between the eastbound off-ramp and on-ramps at Old Holly Springs-Apex Road. All the westbound segments are expected to operate at LOS D or better.

I-540 Corridor

The existing section of I-540 from I-495 / US 64 / US 264 to US 64 Business is projected to operate at acceptable LOS D or better with construction of Complete 540 and I-540 planned widening to an 8-lane facility as per 2040 MTP.

I-40 Corridor

Based on the 2040 Design Year Build PA analysis results, the existing sections of I-40 are projected to operate at acceptable LOS C or better, with construction of Complete 540 and I-40 planned widening to a 10-lane facility with eight (8) general purpose lanes and two (2) managed lanes as per the 2040 MTP. The PA proposes a five-leg system interchange with I-40 and US 70 and provides acceptable interchange spacing between US 70 and NC 42. The potential impacts of Complete 540 on I-40, US 70, US 70 Business and the system interchange operations will be re-evaluated to complete an interstate access report.

US 70 Corridor

The existing section of US 70 from I-40 to NC 42 is projected to operate at acceptable LOS D or better with construction of Complete 540 in 2040 Design Year.

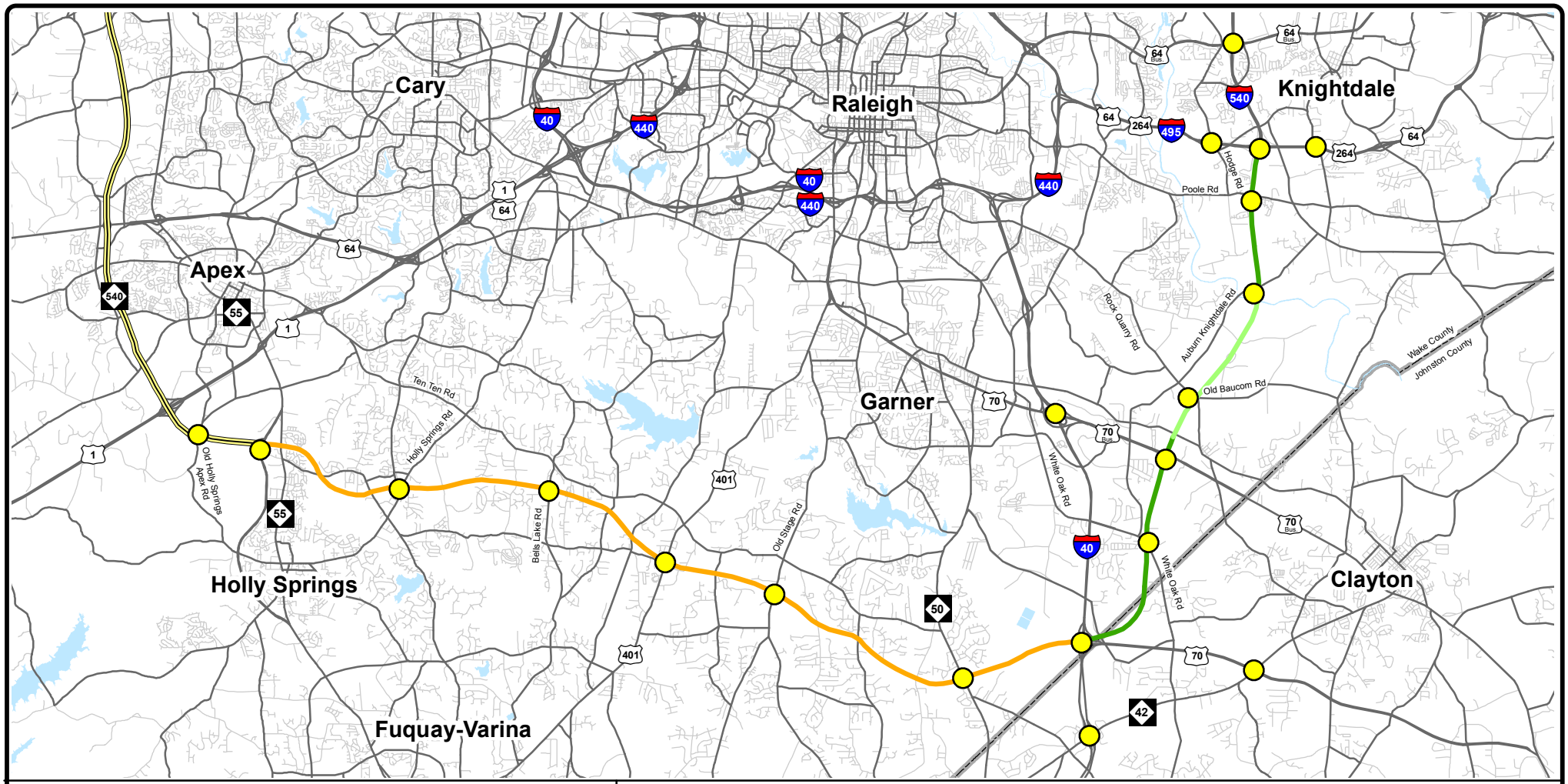
I-495 / US 64 / US 264 Corridor

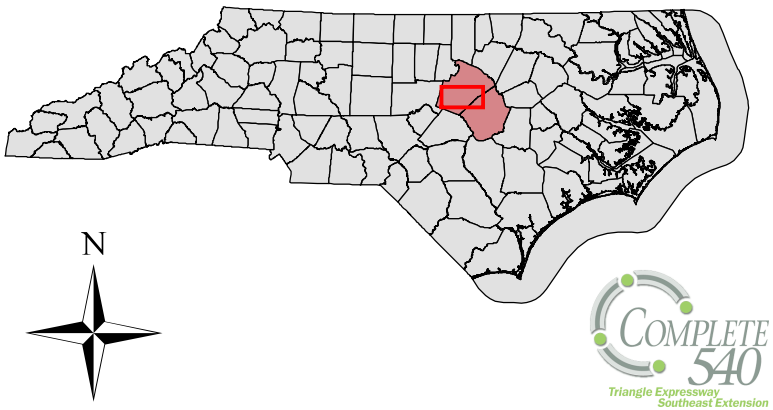
Capacity analysis results indicate that I-495 / US 64 / US 264 is operating near or over capacity with operational deficiencies in the 2040 Design Year Build AM and PM peak hours. In the 2040 Design Year Build PA scenario, I-495 / US 64 / US 264 from Hodge Road to Smithfield Road is projected to operate at LOS E or F for 4 of 13 eastbound segments and 3 of 13 westbound segments as a six-lane freeway facility. Construction of Complete 540 proposes modifying the existing directional system interchange with I-495 / US 64 / US 264 and I-540 by connecting the forth leg and constructing a flyover and a loop ramp. The system interchange was planned, designed and constructed to accommodate the future completion and connection of the 540 loop. This interchange modification would add one eastbound and one westbound freeway merge on I-495 / US 64 / US 264. The potential impacts of Complete 540 on I-495 / US 64 / US 264, I-540 and the system interchange operations will be re-evaluated to complete an interstate access report.

Ramp Demand-to-Capacity Ratios

Based on the analysis, all the ramps at the Complete 540 at I-40/US 70 Bypass system interchange are projected to operate with demand to capacity (d/C) ratios less than 1 in both the AM and PM peak hours. At the Complete 540, I-540 and I-495 / US 64 / US 264 system interchange, the ramps from westbound I-495 / US 64 / US 264 to northbound I-540 in the AM peak and the loop ramp from southbound I-540 to eastbound I-495 / US 64 / US 264 in the PM peak hour are projected to operate at d/C ratio greater than (>) 1. To operate at d/C ratio less than (<) 1, the westbound I-495 / US 64 / US 264 to northbound I-540 would require two continuous lanes to merge with the eastbound ramp and on to I-540. The loop ramp from southbound I-540 to eastbound I-495 / US 64 / US 264 (Location # 10) would require two lanes to operate at d/C ratio less than (<) 1. The ramps from eastbound and westbound I-495 / US 64

/ US 264 to northbound I-540 in the AM peak, from eastbound I-495 / US 64 / US 264 to northbound I-540 in the PM peak and from southbound I-540 to westbound I-495 / US 64 / US 264 in the AM peak hour are nearing capacity (d/C ratio > 0.85). If the demand for any of these ramps nearing capacity exceed the estimated demand in 2040, an additional lane may be necessary to operate at d/C ratio less than (<) 1. Where ramp volumes are projected to be near or exceed capacity, the feasibility of providing two lanes should be considered during the project development process.





Complete 540 PA Traffic Analysis Study Area

Legend

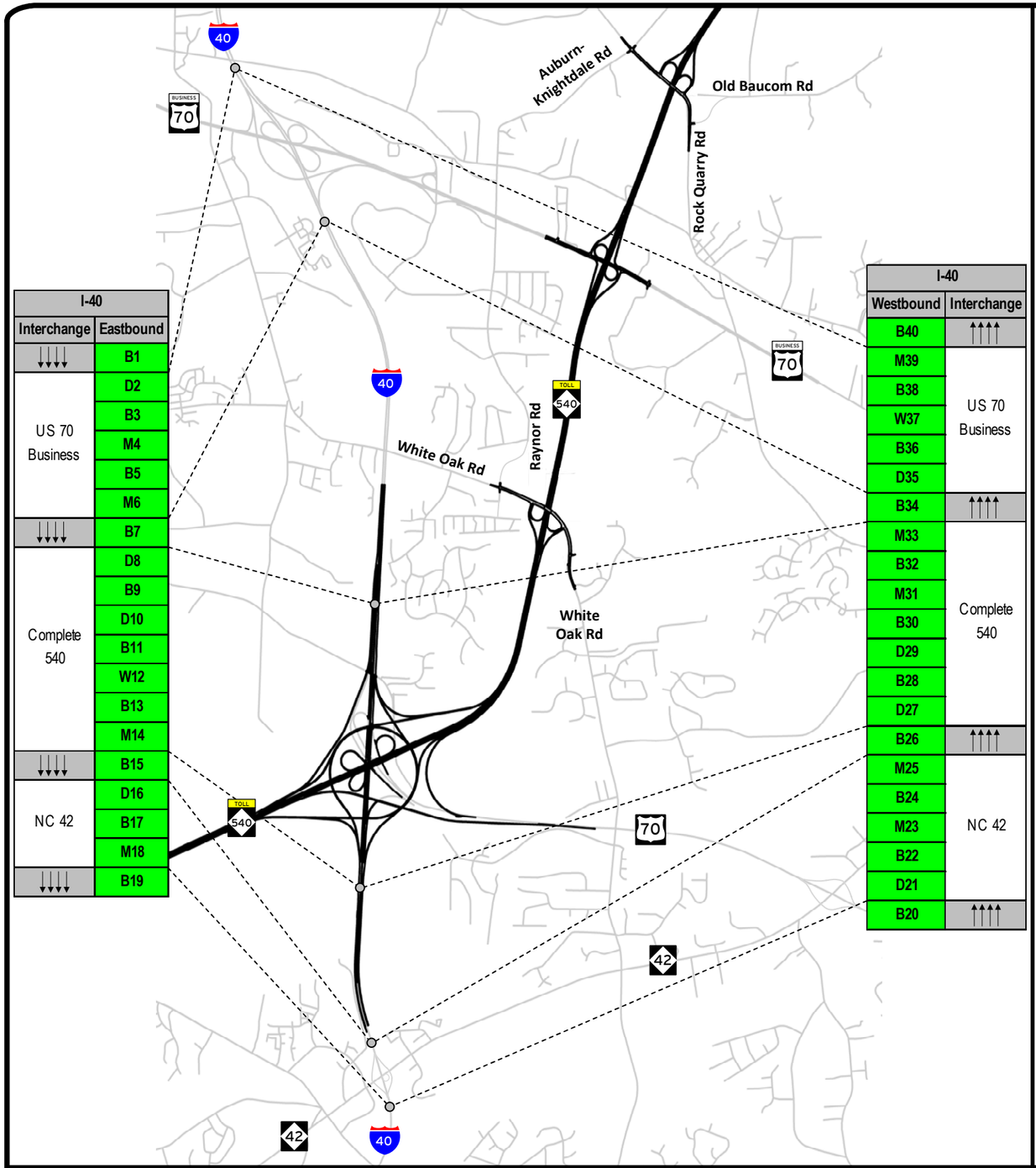
- Interchanges
- Triangle Expressway
- Major Roads
- Counties

NCDOT Preferred Alternative Corridor

- Orange
- Green
- Mint

STIP: R-2721, R-2828, R-2829	**WBS:** 37673.1.TA2, 35516.1.TA2, 35517.1.TA1
COUNTY: Wake/Johnston	**DIVISION:** 5/4
DATE: July 2017	
PREPARED BY: HNTB North Carolina, P.C. 343 E. Six Forks Rd, Suite 200 Raleigh, NC 27609	
LOCATION: NC 55 Bypass (Holly Springs) to I-495 / US 64 Bypass / US 264 (Knightdale)	
PROJECT: Complete 540 Triangle Expressway Southeast Extension	**Figure ES-1**

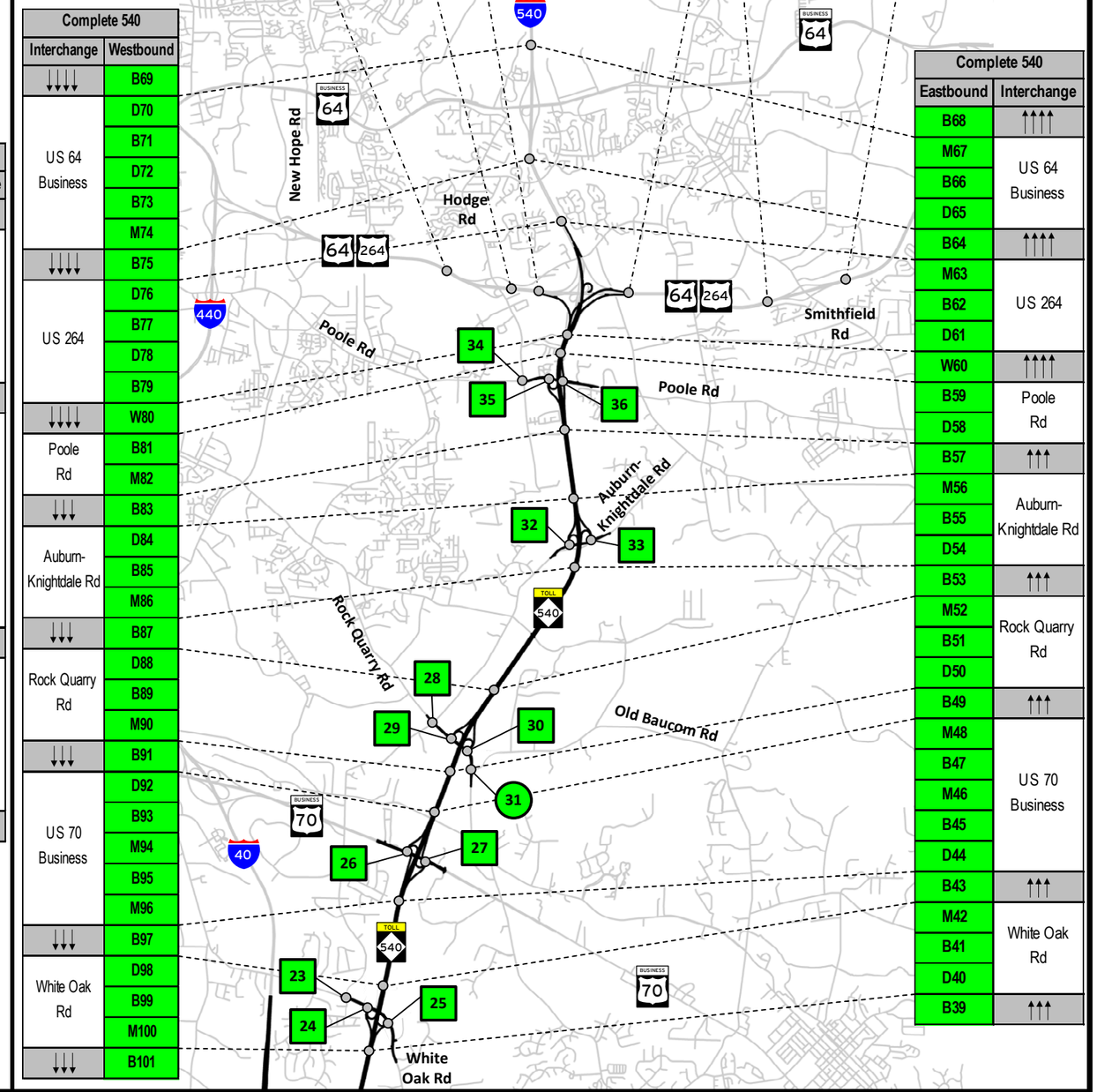
| Facility | Complete 540 | | |



I-40	
Interchange	Eastbound
	B1
US 70 Business	D2
	B3
	M4
	B5
	M6
	B7
Complete 540	D8
	B9
	D10
	B11
	W12
	B13
	M14
	B15
NC 42	D16
	B17
	M18
	B19

I-40	
Westbound	Interchange
B40	
M39	
B38	
W37	US 70 Business
B36	
D35	
B34	
M33	
B32	
M31	
B30	Complete 540
D29	
B28	
D27	
B26	
M25	
B24	
M23	NC 42
B22	
D21	
B20	

I-495 / US 64 / US 264													
Westbound	B26	M25	B24	W23	B22	M21	B20	D19	B18	M17	B16	D15	B14
Interchange		Hodge Rd			Complete 540					Smithfield Rd			
Eastbound	B1	D2	B3	W4	B5	M6	B7	M8	B9	D10	B11	M12	B13



Complete 540	
Interchange	Westbound
	B69
US 64 Business	D70
	B71
	D72
	B73
	M74
	B75
US 264	D76
	B77
	D78
	B79
	W80
Poole Rd	B81
	M82
	B83
Auburn-Knightdale Rd	D84
	B85
	M86
	B87
Rock Quarry Rd	D88
	B89
	M90
	B91
US 70 Business	D92
	B93
	M94
	B95
	M96
	B97
White Oak Rd	D98
	B99
	M100
	B101

Complete 540	
Eastbound	Interchange
B68	
M67	
B66	US 64 Business
D65	
B64	
M63	
B62	US 264
D61	
W60	
B59	Poole Rd
D58	
B57	
M56	
B55	Auburn-Knightdale Rd
D54	
B53	
M52	
B51	Rock Quarry Rd
D50	
B49	
M48	
B47	
M46	US 70 Business
B45	
D44	
B43	
M42	
B41	White Oak Rd
D40	
B39	

LEGEND

AM (PM) Peak Hour Level of Service

- LOS A – D
- LOS E
- LOS F
- Not Analyzed

Bold/Italics – Time Period Demand/Capacity Ratio > 1

Intersection ID # = XX

Freeway ID # = B XX, Basic
= M XX, Merge
= D XX, Diverge
= W XX, Weave

XX **= Freeway Segment Breaks**

XX **= Unsignalized Intersection**

XX **= Signalized Intersection**

N

NOT TO SCALE

S.T.I.P. R-2721, R-2828, R-2829

COMPLETE 540
TRIANGLE EXPRESSWAY SOUTHEAST EXTENSION

WAKE AND JOHNSTON COUNTIES

2040 DESIGN YEAR BUILD PREFERRED ALTERNATIVE

LOS & SEGMENT ID #

DATE: July 2017 **DIVISION:** 5

PREPARED BY: HNTB North Carolina, P.C.
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Figure ES.3

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1. INTRODUCTION

The North Carolina Department of Transportation (NCDOT) is studying ways to improve regional mobility in southern and eastern Wake County. NCDOT State Transportation Improvement Program (STIP) Projects R-2721, R-2828, and R-2829, collectively known as Complete 540 – Triangle Expressway Southeast Extension form the outer loop around Raleigh and surround communities in Wake and Johnston Counties, extending from the NC 55 Holly Springs Bypass to I-40 near the US 70 Clayton Bypass (Southern Wake Freeway) and then to I-495 / US 64 / US 264 Knightdale Bypass (Eastern Wake Freeway).

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Traffic volumes used in this traffic capacity analysis were based on the *Complete 540 Preferred Alternative Traffic Forecast* prepared by HNTB and approved by NCDOT Transportation Planning Branch (TPB) on August 11, 2016. The traffic capacity analysis references the following forecast volumes for the 2016 and 2040 analysis scenarios:

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Complete 540 functional designs and interchange forms evaluated in this traffic capacity analysis were based on the designs and interchange form recommendations prepared by Lochner, based upon ongoing coordination, planning, analysis and design. The designs are currently being reviewed by NCDOT.

The following sections describe existing and future transportation conditions in the project study area, the capacity analysis methodology, capacity analysis results for the 2016 Base Year and 2040 Design Year, microsimulation operations analysis, and conclusions and recommendations derived from the capacity analyses related to current functional design for the Complete 540 PA.

2. EXISTING CONDITIONS

The following pages describe the context of the proposed project, the existing transportation system in the Complete 540 project study area and data collection activities conducted for the study.

2.1. Project Corridor Description

The Complete 540 PA corridor alignment in the project study area runs primarily east-west between the existing Triangle Expressway termini at NC 55 Bypass in Apex to I-40 near Clayton. The corridor alignment then runs primarily north-south between I-40 and the existing I-540 system interchange with I-495 / US 64 / US 264 in Knightdale. The corridor alignment crosses multiple existing freeway, arterial, and local roadway facilities. Most of the project study area features lower density rural/suburban development.

Future PA interchange spacing is well over one mile between interchanges, except for the segment from Poole Road to I-495 / US 64 / US 264. In addition to the proposed interchanges, the PA corridor will have numerous grade separations with natural features, railroads, and minor y-line local roadways. There are numerous existing roadway facilities, primarily surface arterial roadways, that parallel the proposed corridor alignment.

The proposed Complete 540 PA is being studied as a six-lane, toll facility and designed for a 75-mile per hour (mph) design speed, with access limited to service and system interchanges with existing y-line facilities. Similar to existing Triangle Expressway, Complete 540 is being planned for all-electronic tolling with overhead toll gantries. No toll booths or speed reductions are required with this type of toll facility. No specific lane restrictions, truck climbing lanes, transit, non-motorized transportation, or High-Occupancy Vehicle (HOV) features are planned for Complete 540.

The general project study area and the spatial relationship of the PA corridor alignment to connecting transportation facilities, municipalities and notable physical and natural features in the region is shown in **Figure 1**.

2.2. Study Area Transportation Facilities

The future location of the PA alignment in relation to existing No-Build surface street intersections and existing freeway crossings and freeway segments included in the No-Build and Build analyses is shown in **Figure 1**. General descriptions and information for selected existing study area roadways to be included in the Complete 540 intersection and freeway capacity analyses are found in **Table 1**.

Table 1 Existing Study Area Roadways

Build Corridor Interchange #	Build Corridor Analysis Intersection ID#s	SR Number / Shield	Road Name	Functional Classification*	Study Area Cross Sections	2015 AADT#	Speed Limit
1	10-11	55	NC 55 Bypass	Principal Arterial	4 lane divided	28,000 - 35,000	55
2	20-26	1152	Holly Springs Road	Minor Arterial	2 lane undivided	13,000	45
2	23	1300	Kildaire Farm Road	Minor Arterial	2 lane undivided	20,000	45
3	30-31	1386	Bells Lake Road	Major Collector	2 lane undivided	4,600	45
4	40-46	401	US 401	Principal Arterial	4 lane divided	33,000 - 35,000	55
4	42	1503	Donny Brook Road	Major Collector	2 lane undivided	3,000	45
4	42	2779	Old McCullers Road	Local	2 lane undivided	N/A	35
5	50-52	1006	Old Stage Road	Minor Arterial	2 lane undivided	10,000	45
6	60-67	50	NC 50 (Benson Road)	Minor Arterial	2 lane undivided	15,000 – 17,000	55
6	66	1010	Cleveland School Road	Major Collector	2 lane undivided	8,000	55
8	80-82	2700	White Oak Road	Major Collector	2 lane undivided	8,000^^	45
8	82	2555	Raynor Road	Major Collector	2 lane undivided	6,800[1]	45
9	90-91, 105	BUS 70	US 70 Business	Principal Arterial	4 lane divided	29,000 - 36,000	55
10	100-101, 103	5204	Old Baucom Road	Local	2 lane undivided	960^	55
10	100-104	2542	Rock Quarry Road	Minor Arterial	2 lane undivided	4,900	55
11	102, 110-111	2555	Auburn-Knightdale Road	Major Collector	2 lane undivided	2,800^^ - 3,700^^	45
12	120-122	1007	Poole Road	Minor Arterial	2 lane undivided	10,000	45
12	122	2516	Hodge Road	Major Collector	2 lane undivided	1,200[2] - 12,000	45
7	*N/A*	40	I-40	Interstate	4 - 6 lane divided	60,000 – 84,000	65 - 70
7, 19	*N/A*	BYPASS 70	US 70 Bypass (Clayton Bypass)	Freeway	4 lane divided	28,000	70
1-12, 20	*N/A*	540	NC 540	Freeway	6 lane divided	13,000 – 20,000	70
13-14	*N/A*	540	I-540	Interstate	6 lane divided	50,000 – 58,000	70
13, 15-16	*N/A*	495	I-495	Interstate	6 lane divided	73,000 – 78,000	70
13, 15-16	*N/A*	BYPASS 64 264	US 64 Bypass / US 264	Freeway	6 lane divided	59,000 – 70,000	70
14	*N/A*	BUSINESS 64	US 64 Business	Principal Arterial	6 lane divided	31,000 - 36,000	45

* - As defined on the *NCDOT Functional Classification Map* (http://ncdot.maps.arcgis.com/home/webmap/viewer.html?layers=029a9a9fe26e43d687d30cd3c08b1792, Accessed February 2017)
# - Obtained from the *NCDOT AADT Web Map* (https://ncdot.maps.arcgis.com/home/webmap/viewer.html?webmap=b7a26d6d8abd419f8c27f58a607b25a1, Accessed February 2017)
^2014 AADT
^^2013 AADT (2014 AADT either not counted or an outlier)
1 – Raynor Road AADT at station (just south of US 70 BUS) likely significantly higher than actual volumes just north of White Oak Road.
2 – Low 1,200 AADT value on Hodge Road is south of Poole Road.

Study Area Roadways

There are five major access-controlled freeways within the traffic forecast study area: I-40, I-540, NC 540, I-495 / US 64 / US 264 (Knightdale Bypass), and US 70 Bypass (Clayton Bypass). The following are descriptions of the major roadways within the traffic forecast study area:

- **I-40** is the primary freeway corridor for regional connectivity between Raleigh, Research Triangle Park (RTP), Durham and Chapel Hill in the Triangle. I-40 varies from a four-lane to a six-lane freeway in the traffic analysis study area. The posted speed limit ranges from 65 to 70 miles per hour (mph) through the traffic analysis study area.

- **I-540** is an existing loop freeway around the northern portions of Wake County. It currently spans from I-40 on the western side of Wake County to I-495 / US 64 / US 264 near Knightdale in eastern Wake County. The facility features a six-lane cross section in the study area, with auxiliary lanes at interchanges and a posted speed limit of 70 mph.

- **NC 540**, also referred to as **Triangle Expressway**, is an existing freeway facility that is an extension of I-540 in western Wake County from I-40 to NC 55 Bypass near Holly Springs. The facility features a six-lane cross section with a posted speed limit of 70 mph. NC 540 from NC 54 (near RTP) to NC 55 Bypass is a toll facility.

- **I-495 / US 64 / US 264 (Knightdale Bypass)** is an existing controlled access freeway in the traffic forecast study area providing access to areas of east Wake County to I-440 and further to I-95. In the traffic forecast study area, I-495 / US 64 / US 264 features a six-lane cross-section, with auxiliary lanes at interchanges and a posted 70 mph speed limit. Currently, the route is designated I-495 from I-440 to I-540 and US 64 / US 264 east of I-540 with plans to designate the entire facility, from I-440 to I-95 in Rocky Mount, as I-495 in the future.

- **US 70 Bypass (Clayton Bypass)** is an existing controlled access freeway in the traffic forecast study area providing access to areas of Johnston County to I-40. In the traffic forecast study area, US 70 Bypass contains a four-lane cross-section, with auxiliary lanes at interchanges and a posted speed limit of 70 mph.

Other major roadways that are specifically included in the project study area include NC 55 Bypass, Holly Springs Road, Bells Lake Road, US 401, Old Stage Road, NC 50 (Benson Road), White Oak Road, US 70 Business, Rock Quarry Road, Auburn-Knightdale Road, and Poole Road. These existing thoroughfares are primarily multi-lane and two-lane facilities with 35, 45, or 55 mph speed limits in the traffic forecast study area and provide regional connectivity and access throughout Wake County, with future interchange connections to the proposed PA corridor.

Y-Lines and Grade Separated Facilities

Along the Complete 540 PA corridor, there are 17 proposed grade separations of the NC 540 freeway including railroads and intersecting minor study area roadways that have no interchange access to NC 540. These facilities within the Complete 540 project corridor are currently planned to cross NC 540 via overpasses or underpasses, per the functional designs, and are subject to change. The grade separated facilities are identified in **Table 2**, but were not studied specifically for any traffic operations impacts in this document, since they will not directly impact Complete 540 operations.

Table 2 Y-Line Grade Separated Facilities*

Y Line	Crossing Type
Old NC 55 (E. Williams St.)	Underpass
SR 1301 (Sunset Lake Road) *[western crossing]*	Overpass
SR 1301 (Sunset Lake Road) *[eastern crossing]*	Overpass
SR 1389 (Pierce-Olive Road)	Overpass
SR 1387 (West Lake Road)	Overpass
SR 1578 (Deer Meadow Road)	Overpass
SR 1404 (Johnson Pond Road)	Overpass
SR 1375 (Lake Wheeler Road)	Underpass
SR 2722 (Old McCullers Road)	Underpass
Norfolk Southern Railroad	Underpass
SR 2723 (Fanny Brown Road)	Overpass
SR 2725 (Holland Church Road)	Overpass
SR 2727 (Sauls Road)	Overpass
SR 2731 (Jordan Road)	Overpass
Southern Railway	Underpass
SR 1004 (E. Garner Road)	Underpass
SR 2552 (Battle Bridge Road)	Overpass

* Overpass and underpass locations are preliminary and subject to change.

Along the proposed NC 540 corridor, multiple Y-line facilities are impacted and re-routed/re-aligned based on proximity to the proposed NC 540 corridor and interchange ramp terminals. Below is a list of notable Y-line facilities impacted:

- SR 1300 (Kildaire Farm Road) realigned to the north, across from SR 3921 (Sancroft Drive at SR 1152 (Holly Springs Road)
- SR 1503 (Donny Brook Road) realigned to the south, joining Chandler Ridge Circle, across from Wake Tech Way at US 401
- SR 2779 (Old McCullers Road) severed from US 401 and realigned to Wake Tech internal circulation
- SR 2555 (Raynor Road) realigned to the west to be across from a realigned Tiffany Creek Drive at SR 2700 (White Oak Road)
- SR 5204 (Old Baucom Road) realigned to the south at intersection with SR 2542 (Rock Quarry Road)

2.3. Study Area Interchanges / Intersections

The following paragraphs describe existing geometrics and traffic control at all study area interchanges and intersections. Refer to **Figures 4.1** to **4.5** for additional schematic details, including laneage between intersections.

Existing Study Area Interchanges

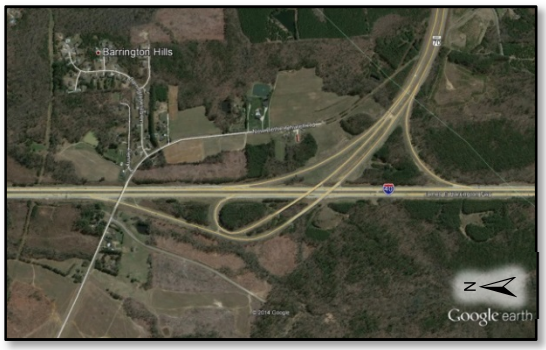
NC 540 (Triangle Expressway) & NC 55 Bypass
The existing Toll NC 540 six-lane freeway facility currently terminates at the NC 55 Bypass four-lane divided facility. This service interchange is a partial cloverleaf design and features single-lane loop ramps in the northeast and southeast interchange quadrants with free-flowing entry/exit movements for each movement. This interchange is designed to accommodate future Complete 540.



I-40 & US 70 Business
The US 70 Business interchange with I-40 is a partial cloverleaf design with loop ramps in the northeast, southeast, and northwest interchange quadrants. The interchange features single and dual lane on-ramps and off-ramps with free-flowing entry/exit movements for all ramp terminals, except for one. The I-40 EB to US 70 Business Westbound ramp terminal is signalized. US 70 Business is an existing four-lane divided facility.



I-40 & US 70 (Clayton Bypass)
US 70 Bypass (Clayton Bypass), opened to traffic in 2008, terminates at a system interchange with I-40. This system interchange is a trumpet interchange design with two lanes on the I-40 eastbound off-ramp flyover and a single lane on all other ramps.



I-495 & Hodge Road
The Hodge Road service interchange with I-495 is a partial cloverleaf design with loop ramps in the northwest and southwest interchange quadrants. Signalized ramp terminals exist on both sides of the Hodge Road overpass. This study analyzes only the mainline freeway facilities at this interchange since the roadway design project limits for Complete 540 do not extend to the ramp terminals at this interchange.



I-540 & I-495 / US 264 / US 64

I-540 currently terminates at a system interchange with I-495 / US 64 / US 264. This system interchange is a trumpet interchange design with a one lane flyover and loop ramp. This interchange is designed to accommodate future Complete 540.



US 264 / US 64 (Knightdale Bypass) & Smithfield Road

The Smithfield Road service interchange with US 64 / US 264 is a traditional diamond interchange design. Signalized ramp terminals exist on both sides of the US 64 / US 264 overpass. This study analyzes only the mainline freeway facilities at this interchange since the roadway design project limits for Complete 540 do not extend to the ramp terminals at this interchange.



US 64 Business & I-540

The US 64 Business service interchange with I-540 is a diamond interchange design with a loop ramp in the southwest interchange quadrant. Signalized ramp terminals exist on both sides of the US 64 Business overpass. This study analyzes only the mainline freeway facilities at this interchange since the roadway design project limits for Complete 540 do not extend to the ramp terminals at this interchange.



I-40 & NC 42

The NC 42 interchange with I-40 is a diamond interchange design with a loop ramp in the southeast interchange quadrant. Signalized ramp terminals exist on both sides of the NC 42 overpass. This study analyzes only the mainline freeway facilities at this interchange since the roadway design project limits for Complete 540 do not extend to the ramp terminals at this interchange.



US 70 & NC 42

The NC 42 interchange with US 70 is a diamond interchange design. Signalized ramp terminals exist on both sides of the NC 42 overpass. This study analyzes only the mainline freeway facilities at this interchange since the roadway design project limits for Complete 540 do not extend to the ramp terminals at this interchange.



Existing Study Area Intersections

HNTB analyzed 12 existing at-grade intersections in the No-Build and Build scenarios, that are expected to be impacted by the Complete 540 PA alignment. **Table 3** provides a list of existing intersections and their existing traffic control details.

Table 3 Existing Study Area Intersection Details

Intersection	Study ID #	Traffic Control	Signal Phases	Signal Operation	Cross walk	Ped Signals
NC 55 Bypass and Mid-block U-turn	1	Unsignalized	N/A	N/A	No	No
NC 55 Bypass and Old Smithfield Road	2	Unsignalized	N/A	N/A	No	No
NC 55 Bypass and NC 540 EB Ramps	3	Unsignalized	N/A	N/A	No	No
NC 55 Bypass and NC 540 WB Ramps	4	Unsignalized	N/A	N/A	No	No
Holly Springs Road (SR 1152) and Kildaire Farm Road (SR 1300)	11	Signal	3	Coordinated	No	No
US 401 and Donny Brook Road (SR 1503) / Old McCullers Rd (SR 2779)	15	Signal	5	Coordinated	No	No
US 401 and Wake Tech Drive / Chandler Ridge	14	Signal	5	Coordinated	Yes	Yes
NC 50 and Cleveland Road (SR 1010) / Stevens Oaks Drive (SR 5324)	20	Signal	3	Free-Run	No	No
White Oak Road (SR 2700) and Raynor Road (SR 2555)	23	Unsignalized	N/A	N/A	No	No
Rock Quarry Road (SR 2542) and Auburn-Knightdale Road (SR 2555)	28	Signal	2	Free-Run	No	No
Rock Quarry Road (SR 2542) and Old Baucom Road (SR 5204)	31	Unsignalized	N/A	N/A	No	No
Poole Road (SR 1007) and Hodge Road (SR 2516)	34	Signal	3	Free-Run	No	No

Coordinated = Coordinated Signal Control (Closed Loop System)

2.4. Data Collection

Field verification of existing conditions and operations within the study area, including geometrics, traffic control devices, speed limits, and traffic patterns, was completed on June 16, 2016. In June 2016 HNTB received the most recent traffic signal plans in the study area from the NCDOT Transportation Mobility and Safety Division. The 2040 Metropolitan Transportation Plan (MTP) documents were obtained from Capital Area Metropolitan Planning Organization (CAMPO).

3. METHODOLOGY

The following pages describe the traffic volume development and capacity analysis methodologies used in this technical memorandum.

3.1. 2016 Base Year and 2040 Design Year Traffic Volume Development

The *Complete 540 Preferred Alternative Traffic Forecast*, prepared by HNTB North Carolina, was used to develop the AM and PM peak hour traffic volumes analyzed in this study. ***Appendix B*** contains the traffic forecast used in this report. Refer to the original traffic forecast documentation for additional details on the traffic counts conducted to support the traffic forecast.

Raw count data was not directly used in the 2016 Base Year traffic analyses for Complete 540. 2016 Base Year volumes that were analyzed in this report are a product of the final traffic forecast data that included daily traffic estimates/directional splits/design hourly volume estimates that were reduced to AM and PM peak hour information. ***Appendix C*** contains the traffic forecast breakout peak hour traffic volumes

Daily traffic flows and design data (DHV and D) were entered into the NCDOT Congestion Management Section peak hour breakout spreadsheets for conversion into peak hour volumes at each study area intersection. The peak hour breakout spreadsheet results were converted into individual AM and PM peak hour movements for the proposed Complete 540 interchange forms in a separate conversion spreadsheet developed by HNTB. Both the peak hour breakout spreadsheets and the interchange conversion spreadsheets are found in ***Appendix C***.

Traffic flows were balanced between ramp terminals at each interchange, and were balanced (through the Freeway Facilities software data entry) for mainline segments along existing and proposed Complete 540 alignments based on an entry input volume and subsequent peak hour breakout on-ramp/off-ramp volumes. In this manner, the existing freeway and proposed Complete 540 freeway systems were balanced with a different methodology (and results) than if individual interchange mainline volume breakouts were analyzed in individual HCS freeway segment analyses.

3.2. Capacity Analysis Methodology

Evaluating traffic operations on suburban arterials and uninterrupted flow freeway facilities is generally done by the determination of level of service (LOS) criteria. The level of service on a freeway segment, arterial corridor, or individual intersection correlates qualitative aspects of traffic flow to quantitative terms. This enables transportation professionals to take the qualitative issues, such as congestion and substandard geometrics, and translate them into measurable quantities, such as operating speeds, flow densities, and vehicular delays. The *2010 Highway Capacity Manual (HCM 2010)* characterizes level of service by letter designations A through F. Level of service A represents ideal low-volume traffic operations, and level of service F represents over-saturated, high-volume traffic operations.

LOS for intersections is determined by average delay per vehicle, while LOS for freeway facilities is primarily determined by vehicular density of a defined freeway segment, merge/diverge area or weaving section. Level of service letter designations and criteria for arterial intersections (seconds of delay per vehicle) and for freeway facilities (average density in passenger cars per mile per lane (pc/mi/ln)) are described in **Table 4**.

The AM and PM peak hour results of this analysis are based on the LOS and delay procedures presented in the *HCM 2010*. To obtain optimized signal timings for the future traffic conditions, the timing optimization software Synchro Professional Version 9.0 was used to evaluate an optimal cycle length and phasing for the projected peak hour traffic volumes. Existing intersection signal plans were used in the analysis to develop cycle lengths, phasing, splits and intersection coordination along the project study area's arterial facilities (where applicable). NCDOT Congestion Management Section Capacity Analysis Guidelines were used in developing all other scenario timings for Build scenarios and/or future year analyses. SimTraffic Professional was used for microsimulation.

All freeway analyses, such as basic freeway segments and ramp merges and diverges, were analyzed using the Highway Capacity Software (HCS) 2010 freeway facilities system module (Freeway Facilities). Freeway Facilities allows the integration of individual segment analyses into corridor analysis to study potential multi-segment operational issues.

To simplify the process of organizing analysis results for all No-Build Alternative and Build Alternative scenarios, an identification scheme was developed for all freeway segments and study area intersections. Build Complete 540 freeway segments were analyzed in the HCS Freeway Facilities software package in the 2016 and 2040 analysis years, for the AM and PM peak hours, and in the eastbound and westbound directions. Segments are numbered sequentially in the eastbound/northbound direction and then the westbound/southbound direction. Each identification also includes a preceding letter designation for basic freeways (B), diverge ramp areas (D), merge ramp areas (M) and weaving sections (W) in the project study area.

To aid in the organizational process for analyzing surface street at-grade intersections and to assist in individual corridor signal coordination optimization, each Y-line facility intersecting Completing 540 was separated and numbered as individual zones in Synchro (1-12). Individual signalized and unsignalized study area intersections are then numbered 1-36 moving from west to east and south to north through the study area.

Table 4 Intersection & Freeway Segment Level of Service (LOS) Characteristics

Level of Service Description	Intersection		Freeway	
	Per Vehicle Delay Signal Control (seconds)	Per Vehicle Delay Stop Control (seconds)	Basic Freeway Segment Density (pc/mi/ln)	Merge/Diverge/ Weaving Area Density (pc/mi/ln)
LOS A Free flow Freedom to select desired speed / maneuver is extremely high General level of comfort and convenience for motorists is excellent	**< 10.0**	**< 10.0**	**0 – 11.0**	**<= 10.0**
LOS B Stable flow Other vehicles in the traffic stream become noticeable Reduction in freedom to maneuver from LOS A	**10.0 – 20.0**	**10.0 – 15.0**	**>11.0 – 18.0**	**>10.0 – 20.0**
LOS C Stable flow Maneuverability/operating speed are significantly affected by other vehicles General level of comfort and convenience declines noticeably	**20.0 – 35.0**	**15.0 – 25.0**	**>18.0 – 26.0**	**>20.0 – 28.0**
LOS D High density but stable flow Speed and freedom to maneuver are severely restricted General level of comfort / convenience is poor Small increases in traffic will generally cause operational problems	**35.0 – 55.0**	**25.0 – 35.0**	**>26.0 – 35.0**	**>28.0 – 35.0**
LOS E Unstable flow Speed reduced to lower but relatively uniform value Volumes at or near capacity level Comfort and convenience are extremely poor Small flow increases/minor traffic disturbances will cause breakdowns	**55.0 – 80.0**	**35.0 – 50.0**	**>35.0 – 45.0**	**>35.0**
LOS F Forced or breakdown flow Volumes exceed roadway capacity Formation of unstable queues Stoppages for long periods of time because of traffic congestion	**> 80.0**	**> 50.0**	**> 45.0**	**Demand exceeds capacity**

Transportation Research Board, *Highway Capacity Manual*. Washington, D.C.: National Research Council, 2010.

3.2.1. Freeway Analysis Methodology

The initial procedure for freeway analysis input into the HCS 2010 freeway facilities module (Freeway Facilities) involved the segmentation of existing (NC 540, I-40, US 70, I-495 / US 64 / US 264, I-540) and the proposed freeway facility (Complete 540). The functional design file for the PA was reviewed and segmented appropriately depending on its alignment, proposed interchange forms and geometric characteristics. Segments fall into the following categories – basic freeway segments, merge areas, diverge areas, weaving segments and collector-distributor facilities.

After segmentation, geometric and traffic flow inputs were entered into Freeway Facilities for each segment. For a basic freeway segment, these inputs and typical values used in this analysis) include:

- Traffic volumes were generated from NCDOT Forecast non-adjustable peak hour breakouts for the first entering mainline segment only.
- Four 15-minute time periods with demand adjustment factors of 0.89, 1.00, 1.11 and 1.00 were applied to the hourly demand to replicate a 0.90 peak hour factor. See ***Appendix D*** for additional information.
- The number of lanes varies depending on existing geometrics, planned MTP improvements to existing freeway facilities or PA design. The standard PA design is for a six-lane divided facility in most locations, with three travel lanes in each direction. Auxiliary lanes are proposed along Complete 540 at the following locations:
    - In both eastbound and westbound directions between Veridea Parkway (Old Holly Springs-Apex Road) and NC 55 Bypass,
    - In both northbound and southbound directions between I-495 / US 64/ US 264 and Poole Road, and
    - In both northbound and southbound directions between Complete 540/US 70 Bypass and NC 42.
- The terrain type is assumed to be “Rolling” for this area per the Design Criteria.
- The Base Free Flow Speed was assumed to be 5 mph greater than posted speed limits.
- The Truck Percentages were calculated from the Traffic Forecast as being equal to the percent Duals plus the percent TTST divided by two for all the peak hour mainline study area entry segments only. The truck percentages for all other mainline segments were calculated based on on/off-ramp percentages.
- Lane Width set to 12 feet.
- Right Shoulder Lateral Clearance set to 6 feet.
- Segment Lengths were determined by aerial photography or functional designs between upstream/downstream merge/diverge points.

The Freeway Facilities inputs for merging and diverging areas contain additional input parameters beyond the basic freeway segment information. These parameters, and typical values used in this analysis, include:

- On-Ramp/Off-Ramp volumes were generated from NCDOT Forecast non-adjustable peak hour breakouts.

- The location of Ramp Relative to Freeway was set to Right for all segments, given the PA alignment.
- Acceleration/Deceleration Lane Lengths were determined from aerial photography, field measurement or functional designs.
- The Free Flow Speeds on Ramps were set 50 mph for cloverleaf/flyover on/off ramps/diamond on/off ramps and 30 mph for loop ramps
- The Truck Percentage was taken from Traffic Forecast (Duals+TTST/2) for peak hour Y-lines.

The Freeway Facilities inputs for weaving areas contain additional input parameters beyond the basic freeway segment and ramp segment information. These parameters, and typical values used in this analysis, include:

- On-Ramp/Off-Ramp volumes were generated from NCDOT Forecast non-adjustable peak hour breakouts and factored counts.
- The location of Ramp Relative to Freeway was set to Right for all segments, given the PA alignment.
- Acceleration/Deceleration Lane Lengths were determined from aerial photography, field measurement or functional designs.
- The Free Flow Speeds on Ramps were set to 30 mph for loop ramps.

After inputs were entered into Freeway Facilities and checked, output data for each segment was collected for the segment density and corresponding LOS. In addition, system-wide information (by freeway direction) from Freeway Facilities was compiled and compared for the study alternatives.

The following Freeway Facilities analysis assumptions for service interchanges were also implemented in the development of the Freeway Facilities network files:

- On-Ramp/Off-Ramp Volumes (Maximum 1-lane ramp demand of 2,200 vehicles per hour. Where ramp demands exceeded 2,200 vehicles per hour, ramp lane was increased from 1 to 2-lanes). One exception to this assumption is at the NC 55 Bypass interchange. The off-ramp from eastbound NC 540 to southbound NC 55 Bypass and the on-ramp loop from northbound NC 55 Bypass to westbound NC 540 are analyzed as single-lane ramps to adhere to the existing configuration.
- Acceleration/Deceleration Lane Lengths (Maximum input distance of 1,500 feet. All distances exceeding 1,500 feet were reduced to 1,500 feet).
- Drop Lanes (Due to Freeway Facilities analysis limitations, an off-ramp was analyzed to remove volumes from the mainline to create the effect of a drop lane).

Additionally, the demand-to-capacity (d/C) ratios for ramp roadways at the two system interchanges were checked for potential capacity issues using the method described in HCM 2010. The following parameters and assumptions were used in the analysis:

- On-Ramp/Off-Ramp volumes were generated from NCDOT Forecast non-adjustable peak hour breakouts.
- The Free Flow Speeds on the ramps were set 50 mph for cloverleaf/flyover on/off ramps/diamond on/off ramps and 30 mph for loop ramps

- The Truck Percentage was taken from Traffic Forecast (Duals+TTST/2) for peak hour Y-lines.
- The maximum capacity a single lane ramp was 2,200 passenger cars/hour (pc/h) for flyover ramps and 2,100 pc/h for loop ramps.

The capacity of each ramp roadway was determined by multiplying the number of lanes by the single-lane capacity of the ramp. The d/C ratios were calculated by dividing the demand flow rate by the overall capacity of the ramp roadway.

Detailed output from Freeway Facilities and the d/C ratio summary tables can be found in ***Appendix D***.

3.2.2. Signalized Intersection Analysis Methodology

Signalized intersection capacity analyses were performed using Synchro Professional Software Version 9.0 for all scenarios. GIS-based roadway centerline information and geo-referenced aerial photography were obtained from NCDOT and NC OneMap to establish a base map for developing the proper spatial orientation of the Synchro roadway network for the separate y-line arterial roadway corridors that have existing interchanges with I-40/US 264 or future PA interchanges with Complete 540 corridors that are being analyzed for this study. Per direction from NCDOT Congestion Management staff, no analysis of the Y-line ramp terminal intersections intersecting I-40, I-495 / US 64 / US 264 or US 64 Business beyond actual PA design footprints were made for this study.

HNTB 2016 Base Year PA traffic forecast volume data for the AM and PM peak hours was entered into the Synchro networks. Current signal plans were obtained from NCDOT and used for the 2016 No-Build Alternative inputs for signal phasing and timing (cycle length, splits, offset, and coordination). Additional signal timing details that comply with NCDOT Congestion Management practices and recommendations were also updated (lost time, no right-turn-on-red, PHF, etc.) for the AM and PM peak hours.

2016 Build analysis and 2040 Design Year Build analysis included updates to Synchro inputs and parameters as follows:

- Traffic volume updates for each alternative from traffic forecast breakouts
- Optimization of cycle lengths/splits/offsets for the 2016 Base Year Build alternative
- Further optimization checks for 2040 Build alternatives
- Updating intersection control from unsignalized to signalized between No-Build and Build and/or base and future year scenarios, if warranted based on unsignalized intersection capacity analysis results and Manual on Uniform Traffic Control Devices (MUTCD) peak hour signal warrant criteria/thresholds
- Permissible changes in signal phasing in situations where phase orders could improve performance and complied with NCDOT Congestion Management policies/guidelines
- Synchro default lane utilization factors (LUFs) were updated at intersections where dual left turns and/or downstream lane drops were present using the calculation methods outlined in the NCDOT research report titled False Capacity for Lane Drops by Lee, et al. (2005).

3.2.3. Unsignalized Intersection Analysis Methodology

Unsignalized intersection capacity analyses were performed using the HCS 2010 Unsignalized report for two-way stop-controlled intersections in Synchro Professional Software Version 9.0. There are six existing unsignalized, two-way stop-controlled intersections in the project study area that were included in this analysis:

- NC 55 Bypass and Mid-block U-turn
- NC 55 Bypass and Old Smithfield Road
- NC 55 Bypass and NC 540 Eastbound Ramps
- NC 55 Bypass and NC 540 Westbound Ramps
- White Oak Road and Raynor Road
- Rock Quarry Road and Old Baucom Road

Unsignalized intersection analysis inputs were identical to the input methodology used for the signalized intersections and complied with NCDOT Congestion Management practices.

Microsimulation runs were performed using the SimTraffic software package for 2016 Base Year No-Build, 2016 Base Year Build PA and 2040 Design Year Build PA scenarios for the AM and PM peak hour conditions. The models were run for one hour with a 15-minute seeing period where traffic was loaded onto the network. Ten (10) model runs were conducted with 1-10 number seeds. SimTraffic queuing and blocking results were compiled as a check of 95th percentile queue length results from the Synchro output and as a general visual check of individual intersection operations. No direct comparisons were made between Synchro and SimTraffic results for vehicular delay and LOS.

Summary tables showing the LOS, delay, Synchro 95th percentile queues and SimTraffic maximum queues for each of the analysis scenarios are included in ***Appendix E***. Detailed Synchro LOS and delay reports and SimTraffic queueing and blocking reports are also included in ***Appendix E***.

4. DEVELOPMENT OF ALTERNATIVES

This Complete 540 technical memorandum includes analysis of the following scenarios:

- 2016 Base Year No-Build,
- 2016 Base Year Build PA, and
- 2040 Design Year Build PA.

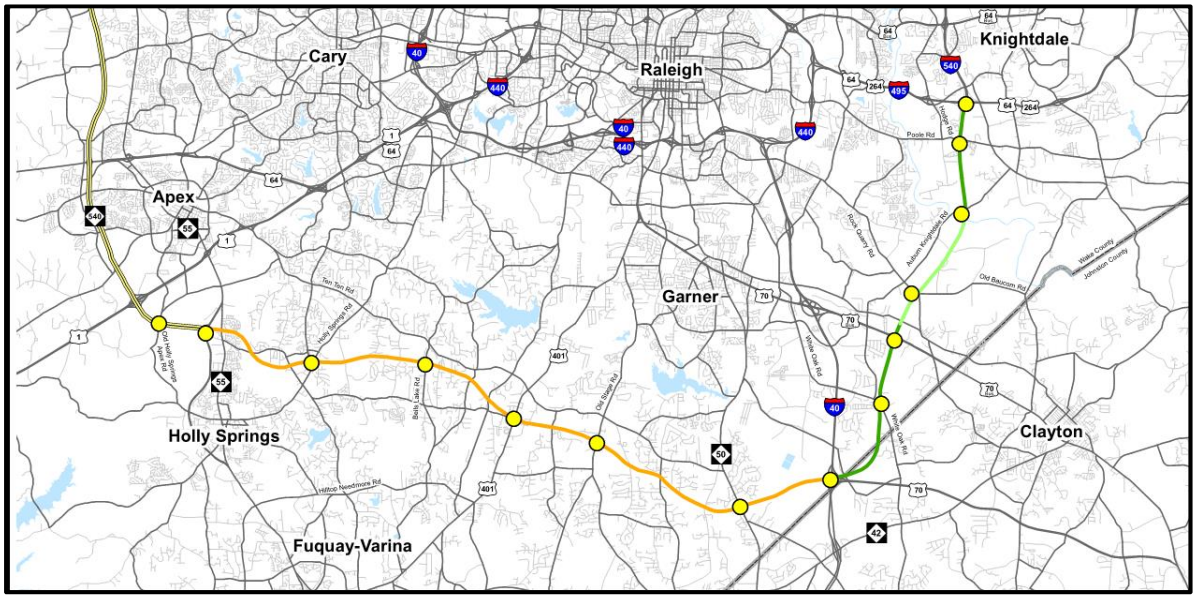
A 2040 Design Year No-Build scenario is not included. Per Section 8 of the *Complete 540 Preferred Alternative Traffic Forecast*, "The Complete 540 project team considered the preparation of a 2040 Future Year No-Build (FYNB) traffic forecast in conjunction with the preparation of the Future Year Build (FYB) traffic forecast for the preferred alternative. A 2040 FYNB traffic forecast has not been developed. Various alternative means and methods are being explored at this time to quantitatively assess FYNB and FYB traffic forecast scenarios based on traffic operations and traffic conditions."

The following section describes the Build PA alternative analyzed in the report.

4.1. Complete 540 Build Preferred Alternative Description

The Complete 540 PA corridor follows the orange, green, mint, and green segment corridors as displayed in **Exhibit 1** below and in **Figure 1** included in ***Appendix A***.

Exhibit 1 Complete 540 Preferred Alternative (PA)



The Complete 540 PA corridor is comprised of three corridor segments. The first segment is the Orange Corridor for the southern section of the project. The Orange Corridor begins at the Triangle Expressway and NC 55 Bypass interchange in Holly Springs and travels eastward to the I-40 and US 70 Bypass interchange near the border of Wake and Johnston Counties. The Orange Corridor primarily runs to the south of and parallel to SR 1010 (Ten Ten Road) for most its alignment. The Orange Corridor includes planned interchanges at NC 55 Bypass, SR 1152 (Holly Springs Road), SR 1386 (Bells Lake Road), US 401, SR 1006 (Old Stage Road), NC 50, and I-40.

The second corridor segment is the Green Corridor for the eastern section of the project. The Green Corridor begins at the I-40 and US 70 interchange and heads north/northeast to the existing I-540 and I-495 / US 64 / US 264 interchange. The Green Corridor has planned interchanges with I-40, SR 2700 (White Oak Road), US 70 Business, SR 2542 (Rock Quarry Road), SR 2555 (Auburn-Knightdale Road), SR 1007 (Poole Road), and I-495 / US 64 / US 264.

The third corridor segment is the Mint Corridor. The Mint Corridor has interchanges at the same locations as the Green Corridor. The only difference between the two alignments is that the section of the project between Rock Quarry Road and Auburn Knightdale Road has a proposed alignment slightly further to the east in the Mint Corridor option.

Table 5 summarizes the proposed interchange forms for the PA corridor along the southern and eastern sections of NC 540.

Table 5 Interchange Forms for the Preferred Alternative

Interchange	Interchange #	Proposed Interchange Form*
NC 55 Bypass & NC 540	1	6 Ramp Partial Cloverleaf with Loops in Quadrants A & D
Holly Springs Road & NC 540	2	Diverging Diamond
Bells Lake Road & NC 540	3	Partial Cloverleaf with Loops in Quadrants A & C
US 401 & NC 540	4	6 Ramp Partial Cloverleaf with Loops in Quadrants A & C
Old Stage Road & NC 540	5	Diamond
NC 50 & NC 540	6	Half Tight Diamond with Loop in Quadrant B
I-40/US 70 & NC 540	7	Dreamcatcher
White Oak Road & NC 540	8	Partial Cloverleaf with Loops in Quadrants B & C
US 70 Business & NC 540	9	6 Ramp Partial Cloverleaf with Loops in Quadrants A & C
Rock Quarry Road/Old Baucom Road & NC 540	10	Partial Cloverleaf with Loops in Quadrants A & D
Auburn-Knightdale Road & NC 540	11	Partial Cloverleaf with Loops in Quadrants A & D
Poole Road & NC 540	12	Half Tight Diamond with Loop in Quadrant B
US 64/264 & NC 540	13	Semi directional with Loops in Quadrant B & D

* - Proposed interchange forms selected by the project team are preliminary and subject to change.

4.2. 2040 Design Year Build PA Alternative Assumptions

The 2040 Design Year Build PA scenario assumes that the Complete 540 project will be constructed along with committed to and fiscally constrained 2040 MTP projects. Based on information collected to date for the Complete 540 project, the additional improvements shown in **Table 6** are currently anticipated (or approved in the 2040 CAMPO MTP) in the project study area by the 2040 Design Year. Therefore, the project assumes the additional improvements from the 2040 MTP in the 2040 Design Year.

Additionally, NCDOT STIP Project R-2635D, also referred to as Access 540, proposes to convert the existing grade separation of Veridea Parkway (formerly Old Holly Springs-Apex Road) over NC 540 (Triangle Expressway) to a partial cloverleaf interchange and construct auxiliary lanes

between US 1 and NC 55 Bypass. The project is currently scheduled to be open to traffic in 2017. R-2635D functional design plans, prepared by HNTB, were reviewed and incorporated into the freeway analysis only. A partial cloverleaf, with loop ramps in the northeast and southeast quadrants, was analyzed in Freeway Facilities by inserting diverge and merge segments into the existing NC 540 (Triangle Expressway) freeway network configuration. The 2040 Design Year Build freeway analysis was updated from the 2016 Base Year to include this interchange adjacent to the Complete 540 western project termini at NC 55 Bypass. It was assumed that all existing roadway geometrics, laneage, and traffic control would remain consistent with 2016 Base Year information along all other areas.

NCDOT is currently evaluating five alternatives for reconfiguration of the I-40 and NC 42 interchange as part of STIP I-4739 project. However, a preferred alternative and interchange form is yet to be determined. Therefore, a preferred interchange form was not assumed in the Complete 540 analysis. HNTB is coordinating with the NCDOT and STIP I-4739 project team to coordinate the connectivity between the two projects.

Table 6 2040 MTP Changes to Study Area Roadways

SR Number	Road Name	Segment	Number of Lanes	
			Existing	2040 MTP
	I-40	Exit 306 (US 70 Business) to Exit 312 (NC 42)	4	10[1]
-	I-540	Exit 24 (US 64 Business) to Exit 26 (US 64/264)	6	8[1]
-	US 64 / US 264	Exit 422 (Hodge Road) to Exit 425 (Smithfield Road)	6	8
-	US 70	Exit 318 (I-40) to Exit 320 (NC 42)	4	4
-	US 401	Ten Ten Road to Tech Road	4	6
	NC 50	Ten Ten Road to Cleveland School Road	2	4
-	NC 55 Bypass	E Williams Street to Old Smithfield Road	4	6
-	US 70 Business	I-40 to NC 42	4	6
1007	Poole Road	Hodge Road to Clifton Road	2	4
1152	Holly Springs Road	Ten Ten Road to Kildaire Farm Road	2	4[2]
1152	Holly Springs Road	Kildaire Farm Road to Sunset Lake Road	2	4[2]
1006	Old Stage Road	Ten Ten Road to Banks Road	2	4
1010	Cleveland School Road	NC 50 to NC 42	2	2
2542	Rock Quarry Road	Battle Bridge Road to E. Garner Road	2	4
1386	Bells Lake Road	Ten Ten Road to Optimist Farm Road	2	2
2700	White Oak Road	Raynor Road to Carley Circle	2	4
2555	Auburn-Knightdale Road	Battle Bridge Road to Grasshopper Road	2	2
1503	Donny Brook Road	Lake Wheeler Road to US 401	2	2
2555	Raynor Road	White Oak Road to Twain Drive	2	2
5204	Old Baucom Road	Rock Quarry Road to Brown Field Road	2	2
2516	Hodge Road	US 264/64 to Poole Road	2	2
2779	Old McCullers Road	US 401 to Ten Ten Road	2	2

[1] – Includes 2 Managed Lanes.
[2] – Analyzed 6-lane section at NC 540 interchange and 4-lane section at project limits.

5. FREEWAY SEGMENT ANALYSIS

This section presents the capacity analysis for freeway facilities for 2016 Base Year No-Build and Build and 2040 Design Year Build PA scenarios within the Complete 540 project study area. AM and PM peak hour traffic volumes and existing/proposed lane geometrics were entered into the HCS 2010 Freeway Facilities software module. Detailed segment measures of effectiveness results for the worst-case AM and PM peak hour for the Complete 540 are presented in **Tables 12** and **13**.

5.1. 2016 Base Year Analysis

This analysis uses the 2016 Base Year No-Build and Build peak hour traffic volumes and existing/proposed lane geometrics to evaluate traffic operations on the Complete 540, NC 540, I-40, US 70, I-495 / US 64 / US 264 and I-540 uninterrupted flow facilities in the project study area. The analysis determines individual freeway segment and system-wide density and LOS measures of effectiveness for 2016 Build PA scenario.

5.1.1. 2016 No-Build Scenario Results

All the segments along existing freeway facilities perform at an acceptable LOS D or better in the AM and PM peak hours. **Figure 2** provides a sheet key for the No-Build freeway segment figures. **Figures 3.1 to 3.5** schematically show 2016 Base Year No-Build existing laneage and intersection traffic control for roadways in the study area, along with the scheme for freeway segment identification numbers.

5.1.2. 2016 Build PA Scenario Results

For Complete 540 PA operations, all freeway segments are expected to operate at LOS D or better. For the US 70 and I-495 / US 64 / US 264 corridors, all freeway segments are projected to operate at LOS D or better. For the I-40 corridor, the eastbound segment results indicate that corridor operations and segment densities will slightly worsen from the No-Build scenario with two (2) segments at near capacity (LOS E) to one (1) segment at near capacity and another one exceeding peak hour capacity (LOS F). The results for the westbound segments indicate that corridor operations and segment densities will slightly improve from the No-Build scenario with seven (7) segments to six (6) segments in Build scenario near (LOS E) or exceeding (LOS F) peak hour capacity in Build.

Figure 4 provides a sheet key for the Build PA freeway segment figures. **Figures 5.1 to 5.9** schematically show 2016 Base Year Build volumes, intersection traffic control, freeway segment identification numbers and LOS for the PA.

5.2. 2040 Design Year Analysis

This analysis uses the 2040 Design Year Build peak hour traffic volumes and future planned/proposed freeway geometrics to evaluate traffic operations on the Complete 540, NC 540, I-40, US 70, I-495 / US 64 / US 264 and I-540 uninterrupted flow facilities in the project study area. Like the 2016 scenario evaluations, this analysis determines individual freeway segment and system-wide density and LOS measures of effectiveness for the 2040 Build PA scenario.

5.2.1. 2040 Build PA Scenario Results

For Complete 540 PA operations, all freeway segments are expected to operate at LOS D or better. For the NC 540 corridor, between NC 55 Bypass and Veridea Parkway (formerly Old

Holly Springs-Apex Road), two basic segments (OHSARI B1-D2 & D2-B3) in the eastbound PM peak are expected to operate at (LOS E) or exceeding (LOS F) peak hour capacity. For the I-40 corridor, results indicate that corridor operations and segment densities will slightly improve from the No-Build scenario, with all segments expected to operate at LOS D or better. For the US 70 corridor, all freeway segments are projected to operate at LOS D or better. On the I-495 / US 64 / US 264 corridor, results indicate that four (4) eastbound and three (3) westbound segments at (LOS E) or exceeding (LOS F) peak hour capacity.

Figures 6.1 to **6.9** show the traffic volumes, intersection traffic control, freeway segment identification numbers and LOS for the study area intersections in the 2040 Design Year Build PA scenario. The 2040 Design Year Build PA laneage and future 2040 MTP laneage assumptions are shown in Figures **7.1** to **7.9**.

Tables 7, 8, 9, 10 and **11** provide an overall summary and comparison of LOS results for the AM and PM peak hour LOS for basic freeway sections, merges, diverges and weaves across all three scenarios. Detailed segment measures of effectiveness results for the AM and PM peak hours are presented in **Tables 12** and **13**. ***Appendix D*** contains the detailed HCS 2010 Freeway Facilities output files and corridor summary tables.

Complete 540 and I-540 will form a continuous freeway facility corridor once Complete 540 is constructed; therefore, these facilities are included in the Complete 540 corridor summary **Tables 7, 12** and **13**. NC 540 (Triangle Expressway) would also be part of the continuous freeway facility corridor but was included in a separate table as this section was analyzed separately under the R-2635D project.

Table 7 Freeway Operations Summary – Complete 540

Scenario	Complete 540											
	Eastbound						Westbound					
	LOS A	LOS B	LOS C	LOS D	LOS E	LOS F	LOS A	LOS B	LOS C	LOS D	LOS E	LOS F
2016 No-Build	-	-	-	-	-	-	-	-	-	-	-	-
2016 Build	55	8	2	0	0	0	52	11	3	0	0	0
2040 Build	12	35	16	2	0	0	10	28	23	4	0	0

*-Table shows the number of segments for each LOS

Table 8 Freeway Operations Summary – NC 540

Scenario	NC 540											
	Eastbound						Westbound					
	LOS A	LOS B	LOS C	LOS D	LOS E	LOS F	LOS A	LOS B	LOS C	LOS D	LOS E	LOS F
2016 No-Build	4	0	0	0	0	0	3	0	0	0	0	0
2016 Build	1	0	0	0	0	0	1	0	0	0	0	0
2040 Build	0	0	0	1	1	1	0	0	1	3	0	0

*-Table shows the number of segments for each LOS

Table 9 Freeway Operations Summary – I-40

Scenario	I-40											
	Eastbound						Westbound					
	LOS A	LOS B	LOS C	LOS D	LOS E	LOS F	LOS A	LOS B	LOS C	LOS D	LOS E	LOS F
2016 No-Build	0	5	5	3	2	0	0	2	8	0	4	3
2016 Build	2	10	3	2	1	1	3	6	5	1	4	2
2040 Build	2	14	3	0	0	0	3	13	5	0	0	0

*-Table shows the number of segments for each LOS

Table 10 Freeway Operations Summary – US 70

Scenario	US 70											
	Eastbound						Westbound					
	LOS A	LOS B	LOS C	LOS D	LOS E	LOS F	LOS A	LOS B	LOS C	LOS D	LOS E	LOS F
2016 No-Build	4	3	0	0	0	0	5	3	0	0	0	0
2016 Build	3	8	0	0	0	0	2	8	0	0	0	0
2040 Build	1	5	5	0	0	0	2	1	7	0	0	0

*-Table shows the number of segments for each LOS

Table 11 Freeway Operations Summary – I-495 / US 64 / US 264

Scenario	I-495 / US 64 / US 264											
	Eastbound						Westbound					
	LOS A	LOS B	LOS C	LOS D	LOS E	LOS F	LOS A	LOS B	LOS C	LOS D	LOS E	LOS F
2016 No-Build	0	1	6	4	0	0	0	1	5	5	0	0
2016 Build	0	1	9	3	0	0	0	1	7	5	0	0
2040 Build	0	1	8	0	2	2	0	0	4	6	3	0

*-Table shows the number of segments for each LOS

5.3. Ramp Demand-to-Capacity Ratios

The capacity and operations of freeway ramps at system interchanges can have a major impact on roadway network and corridor operations. Deficiencies in freeway ramp capacity can cause upstream and downstream operational issues on the subject freeway facility and adjacent freeway/Y-line facilities. Therefore, the demand flow rate on the ramps at the two system interchanges were checked against the capacity of ramp roadways. Based on the analysis, all the ramps at the Complete 540 at I-40/US 70 Bypass system interchange are projected to operate with demand to capacity (d/C) ratios less than (<) 1 in both the AM and PM peak hours. At the Complete 540, I-540 and I-495 / US 64 / US 264 system interchange, the ramps from westbound I-495 / US 64 / US 264 to northbound I-540 (Location # 2) in the AM peak and the loop ramp from southbound I-540 to eastbound I-495 / US 64 / US 264 (Location # 10) in the PM peak hour are projected to operate at d/C ratio greater than (>) 1. To operate at d/C ratio less than (<) 1, the westbound I-495 / US 64 / US 264 to northbound I-540 (Location # 2) would require two continuous lanes to merge with the eastbound ramp and on to I-540. The loop ramp from southbound I-540 to eastbound I-495 / US 64 / US 264 (Location # 10) would require two lanes to operate at d/C ratio less than (<) 1. The ramps from eastbound and westbound I-495 / US 64 / US 264 to northbound I-540 (Location # 1) in the AM peak, from eastbound I-495 / US 64 / US 264 to northbound I-540 (Location # 3) in the PM peak and from southbound I-540 to westbound I-495 / US 64 / US 264 (Location # 8) in the AM peak hour are nearing capacity (d/C ratio > 0.85). If the demand for any of these ramps nearing capacity exceed the estimated demand in 2040, an additional lane may be necessary to operate at d/C ratio less than (<) 1. Where ramp volumes are projected to be near or exceed capacity, the feasibility of providing two lanes should be considered during the project development process. The d/C ratio summary tables for 2040 Build PA scenario and figures (**Figure D.1** and **Figure D.2**) showing location numbers are included in ***Appendix D***.

Table 12 Complete 540 Detailed Freeway Operations Summary – AM Peak

2040 Build Eastbound AM				2016 Build Eastbound AM				2016 No-Build Eastbound AM					2016 No-Build Westbound AM				2016 Build Westbound AM				2040 Build Westbound AM			
Location	**Segment ID**	**Density (pc/mi/ln)**	**LOS**	**Location**	**Segment ID**	**Density (pc/mi/ln)**	**LOS**	**Location**	**Segment ID**	**Density (pc/mi/ln)**	**LOS**		**Location**	**Segment ID**	**Density (pc/mi/ln)**	**LOS**	**Location**	**Segment ID**	**Density (pc/mi/ln)**	**LOS**	**Location**	**Segment ID**	**Density (pc/mi/ln)**	**LOS**
N/A				West of NC 55 Bypass	B3	4.9	A	West of NC 55 Bypass	B3	3.7	A	Eastern Termini	West of NC 55 Bypass	B24	6.8	A	West of NC 55 Bypass	B135	10.4	A	West of NC 55 Bypass	B135	22.1	C
West of NC 55 Bypass	W4	12.3	B	NC 55 Bypass	D4	5.4	A	NC 55 Bypass	D4	4.1	A		NC 55 Bypass	M23	7.3	A	NC 55 Bypass	M134	11.3	B	NC 55 Bypass	M134	17.6	B
NC 55 Bypass	B5	8.7	A		B5	2.7	A		B5	1.1	A			B22	5.6	A		B133	10.3	A		B133	19.9	C
	D6	10.9	B		D6	3.1	A		D6	1.4	A							M132	10.5	B		M132	21.0	C
	B7	6.8	A		B7	2.5	A											B131	5.4	A		B131	15.1	B
	M8	11.3	B		M8	3.9	A											D130	7.7	A		D130	22.7	C
	B9	10.8	A		B9	3.7	A											B129	7.1	A		B129	21.2	C
Holly Springs Rd	D10	11.6	B	Holly Springs Rd	D10	4.0	A										Holly Springs Rd	M128	7.5	A	Holly Springs Rd	M128	22.4	C
	B11	8.8	A		B11	3.0	A											B127	5.8	A		B127	16.8	B
	M12	14.7	B		M12	5.4	A											D126	9.6	A		D126	25.3	C
	B13	13.8	B		B13	5.2	A											B125	8.7	A		B125	24.8	C
Bells Lake Rd	D14	14.9	B	Bells Lake Rd	D14	5.6	A										Bells Lake Rd	M124	9.3	A	Bells Lake Rd	M124	25.8	C
	B15	11.4	B		B15	4.1	A											B123	6.9	A		B123	19.3	C
	M16	14.6	B		M16	5.9	A											D122	9.6	A		D122	23.8	C
	B17	13.5	B		B17	5.6	A											B121	8.9	A		B121	23.6	C
US 401	D18	14.9	B	US 401	D18	6.0	A										US 401	M120	9.5	A	US 401	M120	24.6	C
	B19	9.4	A		B19	4.1	A											B119	8.1	A		B119	20.5	C
	M20	10.9	B		M20	5.0	A											M118	8.5	A		M118	21.8	C
	B21	10.2	A		B21	4.7	A											B117	6.5	A		B117	15.7	B
	M22	13.6	B		M22	7.0	A											D116	10.8	B		D116	21.7	C
	B23	12.8	B		B23	6.7	A											B115	9.8	A		B115	20.5	C
Old Stage Rd	D24	14.2	B	Old Stage Rd	D24	7.4	A										N/A				N/A			
	B25	8.3	A		B25	3.9	A										Old Stage Rd	M114	10.2	B	Old Stage Rd	M114	21.6	C
	M26	9.5	A		M26	4.6	A											B113	5.5	A		B113	12.7	B
N/A				N/A														D112	6.6	A		D112	14.3	B
	B27	8.9	A		B27	4.3	A											B111	6.1	A		B111	13.5	B
NC 50	D28	9.7	A	NC 50	D28	4.7	A										NC 50	M110	6.4	A	NC 50	M110	14.3	B
	B29	6.8	A		B29	3.0	A											B109	3.4	A		B109	9.1	A
	M30	11.1	B		M30	4.8	A											D108	6.5	A		D108	16.9	B
	B31	10.6	A		B31	4.6	A											B107	5.3	A		B107	13.4	B
I-40	D32	11.5	B	I-40	D32	4.7	A										I-40	M106	5.5	A	I-40	M106	13.7	B
	B33	6.0	A		B33	3.8	A											B105	4.2	A		B105	7.2	A
	D34	6.6	A		D34	4.2	A											W104	4.9	A		W104	7.7	A
	B35	3.4	A		B35	2.1	A											B103	3.0	A		B103	4.2	A
	M36	6.0	A		M36	4.2	A											D102	8.1	A		D102	9.7	A
	B37	5.8	A		B37	4.1	A											B101	7.2	A		B101	8.7	A
	M38	9.1	A		M38	7.2	A										White Oak Rd	M100	7.6	A	White Oak Rd	M100	9.1	A
	B39	8.8	A		B39	6.9	A											B99	5.8	A		B99	6.9	A
White Oak Rd	D40	9.5	A	White Oak Rd	D40	7.5	A											D98	9.2	A		D98	11.7	B
	B41	6.7	A		B41	5.1	A											B97	7.6	A		B97	9.6	A
	M42	9.9	A		M42	7.4	A										US 70 Business	M96	8.1	A	US 70 Business	M96	10.3	B
	B43	9.4	A		B43	7.0	A											B95	6.8	A		B95	9.3	A
US 70 Business	D44	10.1	B	US 70 Business	D44	7.5	A											M94	7.1	A		M94	9.7	A
	B45	8.3	A		B45	5.8	A											B93	5.1	A		B93	7.3	A
	M46	11.2	B		M46	6.5	A											D92	6.5	A		D92	11.6	B
	B47	10.6	A		B47	6.2	A											B91	6.0	A		B91	10.6	A
	M48	15.0	B		M48	8.2	A										Rock Quarry Rd	M90	6.4	A	Rock Quarry Rd	M90	11.3	B
	B49	14.2	B		B49	7.8	A											B89	5.4	A		B89	9.5	A
Rock Quarry Rd	D50	16.8	B	Rock Quarry Rd	D50	9.3	A											D88	6.6	A		D88	13.0	B
	B51	12.8	B		B51	6.9	A											B87	6.2	A		B87	12.0	B
	M52	17.3	B		M52	8.7	A											M86	6.6	A		M86	12.9	B
	B53	16.1	B		B53	8.2	A										Auburn-Knightdale Rd	B85	5.9	A	Auburn-Knightdale Rd	B85	10.9	A
Auburn-Knightdale Rd	D54	18.8	B	Auburn-Knightdale Rd	D54	9.6	A											D84	6.6	A		D84	13.2	B
	B55	15.0	B		B55	8.0	A											B83	6.2	A		B83	12.4	B
	M56	17.9	B		M56	8.8	A										Poole Rd	M82	6.6	A	Poole Rd	M82	13.4	B
	B57	16.6	B		B57	8.3	A											B81	5.9	A		B81	11.9	B
Poole Rd	D58	17.4	B	Poole Rd	D58	8.7	A											W80	7.4	A		W80	17.5	B
	B59	15.8	B		B59	7.8	A										US 64 / US 264	B79	5.2	A	US 64 / US 264	B79	11.3	B
	W60	23.4	C		W60	9.4	A											D78	11.2	B		D78	15.2	B
US 64 / US 264	D61	25.3	C	US 64 / US 264	D61	11.2	B						US 64 / US 264	D21	6.0	A		B77	9.2	A		B77	13.0	B
	B62	15.3	B		B62	7.0	A							B20	4.5	A		D76	15.5	B		D76	20.5	C
	M63	30.6	D		M63	18.5	B							D19	12.6	B		B75	13.9	B		B75	19.2	C
	B64	25.7	C		B64	17.5	B	South of US 64 Business	B7	13.4	B			B18	10.9	A		M74	14.8	B		M74	20.1	C
US 64 Business	D65	25.3	C	US 64 Business	D65	19.7	B	US 64 Business	D8	14.7	B		US 64 Business	M17	11.5	B	US 64 Business	B73	9.5	A	US 64 Business	B73	14.3	B
	B66	18.5	C		B66	12.3	B		B9	8.9	A			B16	7.0	A		D72	16.3	B		D72	20.3	C
	M67	27.9	C		M67	22.4	C		M10	17.7	B			D15	13.5	B		B71	13.4	B		B71	17.9	B
North of US 64 Business	B68	28.4	D	North of US 64 Business	B68	21.0	C	North of US 64 Business	B11	16.4	B			B14	11.0	B		D70	16.7	B		D70	20.8	C
N/A				N/A				N/A						D13	13.5	B								
Facility		**13.5**	**B**	**Facility**		**6.8**	**A**	**Facility**		**N/A**	**N/A**		North of US 64 Business	B12	12.6	B	North of US 64 Business	B69	15.7	B	North of US 64 Business	B69	20.8	C
													Facility		**N/A**	**N/A**	**Facility**		**7.9**	**A**	**Facility**		**32.7**	**D**

Western Termini

COMPLETE 540

Cell Shading – Green = LOS A – D, Orange = LOS E, Red = LOS F; N/A – Analysis not applicable for comparable location or segment

Table 13 Complete 540 Detailed Freeway Operations Summary – PM Peak

2040 Build Eastbound PM				2016 Build Eastbound PM				2016 No-Build Eastbound PM					2016 No-Build Westbound PM				2016 Build Westbound PM				2040 Build Westbound PM			
Location	Segment ID	Density (pc/mi/ln)	LOS	Location	Segment ID	Density (pc/mi/ln)	LOS	Location	Segment ID	Density (pc/mi/ln)	LOS		Location	Segment ID	Density (pc/mi/ln)	LOS	Location	Segment ID	Density (pc/mi/ln)	LOS	Location	Segment ID	Density (pc/mi/ln)	LOS
N/A				West of NC 55 Bypass	B3	9.6	A	West of NC 55 Bypass	B3	6.8	A		West of NC 55 Bypass	B24	3.7	A	West of NC 55 Bypass	B135	6.3	A	West of NC 55 Bypass	B135	12.6	B
West of NC 55 Bypass	W4	25.1	C		D4	10.8	B		D4	7.9	A		NC 55 Bypass	M23	3.9	A		M134	6.8	A		M134	10.2	B
NC 55 Bypass	B5	14.4	B	NC 55 Bypass	B5	5.2	A	NC 55 Bypass	B5	1.4	A			B22	2.6	A	NC 55 Bypass	B133	6.2	A	NC 55 Bypass	B133	11.2	B
	D6	16.5	B		D6	5.9	A		D6	1.8	A							M132	6.3	A		M132	11.1	B
	B7	12.0	B		B7	4.8	A											B131	3.8	A		B131	9.6	A
	M8	18.7	B		M8	6.9	A											D130	5.5	A		D130	15.2	B
	B9	17.7	B		B9	6.5	A											B129	5.1	A		B129	13.5	B
Holly Springs Rd	D10	19.9	B	Holly Springs Rd	D10	7.1	A										Holly Springs Rd	M128	5.4	A	Holly Springs Rd	M128	14.2	B
	B11	14.2	B		B11	5.3	A											B127	4.3	A		B127	11.5	B
	M12	22.8	C		M12	8.9	A											D126	6.9	A		D126	18.3	B
	B13	21.9	C		B13	8.4	A											B125	6.4	A		B125	16.3	B
Bells Lake Rd	D14	23.5	C	Bells Lake Rd	D14	9.1	A										Bells Lake Rd	M124	6.7	A	Bells Lake Rd	M124	17.3	B
	B15	17.2	B		B15	6.7	A											B123	5.2	A		B123	13.6	B
	M16	22.5	C		M16	9.3	A											D122	7.1	A		D122	17.1	B
	B17	21.4	C		B17	8.8	A											B121	6.6	A		B121	15.7	B
US 401	D18	23.7	C	US 401	D18	9.5	A										US 401	M120	7.0	A	US 401	M120	16.7	B
	B19	14.6	B		B19	6.5	A											B119	5.8	A		B119	13.8	B
	M20	17.9	B		M20	8.2	A											M118	6.1	A		M118	14.5	B
	B21	16.3	B		B21	7.8	A											B117	5.0	A		B117	11.3	B
	M22	20.5	C		M22	10.6	B											D116	8.2	A		D116	16.1	B
	B23	19.5	C		B23	10.0	A											B115	7.5	A		B115	14.5	B
Old Stage Rd	D24	22.1	C	Old Stage Rd	D24	11.1	B										N/A				N/A			
	B25	12.4	B		B25	6.0	A										Old Stage Rd	M114	7.8	A	Old Stage Rd	M114	15.0	B
	M26	14.3	B		M26	7.1	A											B113	4.5	A		B113	9.6	A
N/A				N/A														D112	5.3	A		D112	11.2	B
	B27	13.3	B		B27	6.6	A											B111	4.9	A		B111	10.3	A
NC 50	D28	15.3	B	NC 50	D28	7.3	A										NC 50	M110	5.2	A	NC 50	M110	10.6	B
	B29	9.1	A		B29	4.0	A											B109	3.6	A		B109	8.1	A
	M30	14.1	B		M30	6.3	A											D108	6.1	A		D108	13.9	B
	B31	13.9	B		B31	6.1	A											B107	5.0	A		B107	11.6	B
I-40	D32	15.8	B	I-40	D32	6.3	A										I-40	M106	5.2	A	I-40	M106	11.4	B
	B33	8.0	A		B33	5.0	A											B105	4.2	A		B105	6.9	A
	D34	9.2	A		D34	5.6	A											W104	4.6	A		W104	9.0	A
	B35	3.1	A		B35	2.2	A											B103	4.0	A		B103	6.0	A
	M36	5.5	A		M36	5.2	A											D102	8.0	A		D102	10.8	B
	B37	6.7	A		B37	5.2	A											B101	7.3	A		B101	9.5	A
	M38	9.2	A		M38	8.1	A										White Oak Rd	M100	7.6	A	White Oak Rd	M100	9.8	A
	B39	9.4	A		B39	7.7	A											B99	5.4	A		B99	7.4	A
White Oak Rd	D40	10.5	B	White Oak Rd	D40	8.3	A											D98	8.6	A		D98	11.8	B
	B41	7.7	A		B41	6.4	A											B97	7.1	A		B97	10.0	A
	M42	10.5	B		M42	8.7	A										US 70 Business	M96	7.6	A	US 70 Business	M96	10.8	B
	B43	10.6	A		B43	8.3	A											B95	6.7	A		B95	9.8	A
US 70 Business	D44	11.9	B	US 70 Business	D44	9.0	A											M94	7.1	A		M94	10.4	B
	B45	8.3	A		B45	5.9	A											B93	5.9	A		B93	8.8	A
	M46	10.1	B		M46	6.5	A											D92	8.5	A		D92	16.7	B
	B47	9.9	A		B47	6.1	A											B91	7.9	A		B91	14.6	B
	M48	12.0	B		M48	7.2	A										Rock Quarry Rd	M90	8.4	A	Rock Quarry Rd	M90	15.7	B
	B49	11.6	B		B49	6.8	A											B89	6.9	A		B89	13.0	B
Rock Quarry Rd	D50	13.1	B	Rock Quarry Rd	D50	8.0	A											D88	8.8	A		D88	18.0	B
	B51	10.6	A		B51	6.2	A											B87	8.2	A		B87	16.3	B
	M52	13.7	B		M52	7.5	A										Auburn-Knightdale Rd	M86	8.8	A	Auburn-Knightdale Rd	M86	17.6	B
	B53	13.3	B		B53	7.0	A											B85	7.9	A		B85	15.0	B
Auburn-Knightdale Rd	D54	15.0	B	Auburn-Knightdale Rd	D54	8.3	A											D84	8.7	A		D84	18.0	B
	B55	12.3	B		B55	6.8	A											B83	8.2	A		B83	16.6	B
	M56	14.5	B		M56	7.5	A										Poole Rd	M82	8.8	A	Poole Rd	M82	18.0	B
	B57	13.7	B		B57	7.1	A											B81	7.8	A		B81	15.9	B
Poole Rd	D58	15.0	B	Poole Rd	D58	7.5	A											W80	9.4	A		W80	29.9	D
	B59	13.1	B		B59	6.8	A											B79	6.9	A		B79	15.0	B
	W60	19.7	B		W60	8.4	A							D21	11.1	B	US 64 / US 264	D78	16.6	B	US 64 / US 264	D78	22.2	C
US 64 / US 264	D61	18.4	B	US 64 / US 264	D61	8.4	A						US 64 / US 264	B20	8.0	A		B77	13.2	B		B77	18.7	C
	B62	12.9	B		B62	5.7	A							D19	14.8	B		D76	18.4	B		D76	25.1	C
	M63	18.4	B		M63	15.3	B							B18	13.1	B		B75	17.0	B		B75	24.8	C
	B64	17.8	B		B64	14.7	B	South of US 64 Business	B7	11.1	B			M17	13.9	B		M74	18.1	B		M74	25.2	C
US 64 Business	D65	19.4	B	US 64 Business	D65	16.5	B		D8	12.2	B		US 64 Business	B16	8.6	A	US 64 Business	B73	11.8	B	US 64 Business	B73	17.6	B
	B66	13.8	B		B66	10.3	A	US 64 Business	B9	7.3	A			D15	17.9	B		D72	21.7	C		D72	25.9	C
	M67	20.8	C		M67	18.1	B		M10	14.1	B			B14	14.3	B		B71	17.7	B		B71	24.2	C
North of US 64 Business	B68	20.2	C	North of US 64 Business	B68	16.9	B	North of US 64 Business	B11	13.1	B			D13	16.6	B		D70	20.5	C		D70	25.9	C
Facility		**16.5**	**B**	**Facility**		**7.9**	**A**	**Facility**		**N/A**	**N/A**		North of US 64 Business	B12	15.7	B	North of US 64 Business	B69	19.9	C	North of US 64 Business	B69	27.3	D
													Facility		**N/A**	**N/A**	**Facility**		**7.6**	**A**	**Facility**		**16.3**	**B**

Eastern Termini: COMPLETE 540 — Western Termini

N/A

Cell Shading – Green = LOS A – D, Orange = LOS E, Red = LOS F; N/A – Analysis not applicable for comparable location or segment.

6. INTERSECTION CAPACITY ANALYSIS

This section presents the capacity analysis for all the intersections for 2016 Base Year No-Build and Build and 2040 Design Year Build PA scenarios within the Complete 540 project study area. LOS results and additional intersection details for these scenarios are found in the raw Synchro/SimTraffic output sheets in ***Appendix E***. A tabular results summary across all scenarios is found in **Table 14** on the following pages.

The anticipated changes to the study area at-grade intersections between the No-Build and Build analyses are listed below:

- Ramp terminal intersections at the interchange of NC 540 and NC 55 Bypass were converted from unsignalized to signalized control. At the eastbound ramps, only the southbound left-turn, northbound through and right-turn, and westbound right-turn movements will be under signal control. The southbound through and eastbound right-turn movements will operate under free-flowing conditions. At the westbound ramps, the northbound right-turn movement will operate under free-flowing conditions while all other movements will be under signal control.
- The Old Smithfield Road and Mid-block U-turn intersections along NC 55 Bypass were converted from unsignalized to signalized control due the heavy volumes and the wide cross-section along NC 55 Bypass. At the Old Smithfield Road intersection, only the southbound through and northbound left-turn movements will operate under signal control. The northbound through will operate under free-flowing condition while the eastbound right-turn and westbound right-turn will operate under stop-control. Per the HCS Peak Hour Signal Warrants Analysis module results, this intersection meets the MUTCD peak hour signal warrant threshold in both 2016 and 2040 Build PA scenarios. At the Mid-block U-turn intersection, the southbound U-turn and northbound through will operate under the signal control while the southbound through will operate under free-flowing conditions.

6.1. 2016 Base Year Analysis

This analysis uses the 2016 Base Year No-Build and Build peak hour traffic volumes and existing and proposed geometrics to evaluate traffic operations at all the intersections in the project study area.

6.1.1. 2016 No-Build Scenario Results

For the 2016 No-Build alternative AM and PM peak hour scenarios, 8 out of the 12 analyzed intersections operate at LOS D or better in the AM and PM peak hours. The two ramp terminal intersections at the interchange of NC 540 and NC 55 Bypass were not analyzed because they currently operate under free-flow conditions with the existing geometric configuration. Intersections that experience deficient overall LOS in at least one peak hour include:

- Holly Springs Road and Kildaire Farm Road Drive in the PM (LOS E) peak hour, due to high vehicular delays for the eastbound right-turn movement from Kildaire Farm Road to Holly Springs Road.
- NC 50 and Cleveland School Road / Stevens Oaks Drive in the AM peak hour (LOS E), due to limited capacity for the westbound right-turn movement from Cleveland School Road to NC 50, southbound left-turn movement from NC 50 to Cleveland School Road and due to heavy opposing traffic for the northbound through movement along NC 50.

- White Oak Road and Raynor Road in both the AM (LOS F) and PM (LOS F) peak hours, due to the high vehicular delay for the southbound shared left and right-turn movements on Raynor Road.

6.1.2. 2016 Build PA Scenario Results

For the 2016 Build PA AM and PM peak hour scenarios, it was assumed that all existing signalized intersections in the project study area would be re-optimized, to reflect anticipated traffic volume changes that were included in the Complete 540 traffic forecast data. These changes had a positive effect on operations at the NC 50 and Cleveland School Road / Stevens Oaks Drive intersection, Rock Quarry Road and Auburn Knightdale Road intersection, and the Poole Road and Hodge Road intersection, with AM and PM peak hour LOS improving to LOS C or better. No intersections, including the new ramp terminal intersections added in the Build PA scenario, are expected to operate at an overall LOS E or LOS F in the 2016 Base Year.

At the White Oak Road and Raynor Road intersection, the southbound exclusive left and shared through/right-turn approach will operate at LOS F under stop control in both AM and PM peak hours. Per the HCS Peak Hour Signal Warrants Analysis module results, this intersection meets the MUTCD peak hour signal warrant threshold in both 2016 and 2040 Build PA scenarios, and therefore was analyzed as a signalized intersection in both scenarios. Consideration should be given to operating this intersection as unsignalized and monitor it for future signalization. With the signalization, this intersection is expected to operate at LOS B during both peaks in the 2016 Build PA scenario.

The HCS Peak Hour Signal Warrants Analysis reports are included in ***Appendix F***. Summary figures showing traffic volumes and overall intersection LOS for the 2016 No-Build (Existing) scenario can be found in **Figures 3.1** to **3.5**. **Figures 5.1** to **5.9** show the traffic volumes, intersection traffic control, freeway segment identification numbers and LOS for the study area intersections in the 2016 Base Year Build PA scenario. A 2016 Base Year Build PA Laneage figure is not provided in this report; however, the summary figures provided for the 2040 Design Year Build PA scenario shows where additional 2040 MTP laneage was added to the 2016 Base Year Build laneage.

6.2. 2040 Design Year Analysis

As mentioned in **Section 4**, a 2040 Design Year No-Build scenario was not included in this analysis. A comparison of 2040 Design Year No-Build and Build traffic conditions using the Triangle Regional Model (TRM) as a tool will be included in the Complete 540 Quantitative Indirect and Cumulative Effects (ICE) documentation.

This section presents future anticipated roadway network changes and capacity analysis results for the 2040 Design Year Build PA scenario in the AM and PM peak hours for the intersections within the Complete 540 project study area.

6.2.1. 2040 Build PA Scenario Results

Of the 36 study area intersections analyzed at interchange ramp terminals or adjacent Y-lines, four (4) intersections are projected to experience operational deficiencies, as shown in **Table 14**.

As per the 2040 MTP, NC 55 Bypass will be widened to a six-lane facility by the year 2030. Three (3) of the four (4) intersections projected to experience operational deficiencies are along NC 55 Bypass, two (2) of which are the ramp terminal intersections. The NC 55 Bypass and NC 540 westbound ramps intersection is expected to operate at LOS F in the AM peak hour. The partial signal at NC 55 Bypass and NC 540 eastbound ramps intersection is expected to operate at LOS F in the AM and LOS E in the PM peak hour. This is due to the high vehicular volume and limited capacity along NC 55 Bypass.

The intersection of realigned Donny Brook Road/Chandler Ridge Circle/Wake Tech Drive and US 401 is expected to operate at LOS E in the AM and LOS C in the PM. The addition of the eastbound Donny Brook Road traffic to the eastbound Chandler Ridge Circle traffic in the Build PA scenario resulted in increased delay at this intersection. All other intersections are expected to operate at an overall LOS D or better in the 2040 Design Year.

Figures 6.1 to **6.9** show the traffic volumes, intersection traffic control, freeway segment identification numbers and LOS for the study area intersections in the 2040 Design Year Build PA scenario. The 2040 Design Year Build PA laneage and future 2040 MTP laneage assumptions are shown in **Figures 7.1** to **7.9**.

Table 14 Detailed Intersection Capacity Analysis Results Summary

ID#	Intersection	2016 No-Build					2016 Build					2040 Build				
		Overall		Approach			Overall		Approach			Overall		Approach		
		LOS	Delay	Approach	LOS	Delay	LOS	Delay	Approach	LOS	Delay	LOS	Delay	Approach	LOS	Delay
1	NC 55 Bypass & Mid-block U-turn	-	-	Northbound	-	-	C (A)	27.5 (8.2)	Northbound	C (B)	34.1 (15.9)	***F*** (C)	***128.8*** (25.2)	Northbound	***F (E)***	***193.0 (62.0)***
				Southbound	-	-			Southbound	B (A)	17.2 (4.4)			Southbound	C (A)	27.7 (7.2)
2	NC 55 Bypass & Old Smithfield Road	-	-	Eastbound	***E (F)***	***35.0 (187.7)***	A (A)	1.2 (2.4)	Eastbound	A (A)	0.1 (0.1)	C (C)	32.1 (25.7)	Eastbound	A (A)	0.2 (0.1)
				Westbound	***F*** (D)	***1028.7*** (30.6)			Westbound	A (A)	0.4 (0.2)			Westbound	A (A)	1.5 (0.4)
				Northbound	-	-			Northbound	A (A)	1.5 (1.3)			Northbound	D (A)	54.1 (2.1)
				Southbound	-	-			Southbound	A (A)	0.9 (3.3)			Southbound	A (D)	2.3 (42.2)
3	NC 55 Bypass & NC 540 EB Ramps						B (A)	15.1 (5.2)	Eastbound	A (A)	0.6 (2.7)	***F (E)***	***99.6 (79.6)***	Eastbound	A ***(F)***	3.5 ***(279.1)***
									Westbound	***F*** (D)	***84.1*** (35.3)			Westbound	***F*** (D)	***213.2*** (48.3)
									Northbound	B (A)	14.4 (5.4)			Northbound	***F*** (B)	***141.8*** (15.2)
									Southbound	B (A)	19.6 (5.4)			Southbound	C (B)	29.7 (10.8)
4	NC 55 Bypass & NC 540 WB Ramps						B (A)	11.0 (9.1)	Westbound	***E*** (D)	***79.4*** (45.3)	***F*** (C)	***99.0*** (20.2)	Westbound	***E (E)***	***68.1 (73.1)***
									Northbound	A (A)	3.1 (0.8)			Northbound	***F*** (A)	***144.2*** (5.0)
									Southbound	A (B)	7.7 (10.7)			Southbound	B (C)	15.1 (20.1)
5	Holly Springs Road & NC 540 EB Off-ramp Right-turn						A (A)	1.7 (3.9)	Eastbound	A (B)	7.9 (15.9)	A (B)	4.8 (12.4)	Eastbound	B (C)	13.6 (34.5)
									Southbound	A (A)	0.8 (1.6)			Southbound	A (A)	2.7 (5.1)
6	Holly Springs Road & NC 540 EB Ramps Crossover						B (B)	14.1 (17.4)	Northbound	C (B)	21.4 (18.0)	C (C)	22.3 (21.7)	Northbound	C (B)	24.6 (18.1)
									Southbound	A (B)	9.6 (16.0)			Southbound	C (C)	20.9 (30.0)
7	Holly Springs Road & NC 540 EB Off-ramp Left-turn						A (A)	2.9 (3.9)	Eastbound	D (C)	45.1 (31.0)	A (A)	3.0 (3.7)	Eastbound	D (C)	37.0 (23.0)
									Northbound	A (A)	0.1 (0.1)			Northbound	A (A)	0.2 (0.1)
8	Holly Springs Road & NC 540 WB Off-ramp Left-turn						B (A)	11.5 (8.6)	Westbound	D (D)	40.1 (50.5)	B (B)	15.1 (12.5)	Westbound	D (D)	38.4 (50.1)
									Southbound	A (A)	0.1 (0.1)			Southbound	A (A)	0.1 (0.2)
9	Holly Springs Road & NC 540 WB Ramps Crossover						C (B)	21.0 (15.1)	Northbound	C (C)	26.8 (25.4)	B (B)	15.2 (17.2)	Northbound	B (B)	14.5 (12.8)
									Southbound	B (B)	12.1 (11.2)			Southbound	B (B)	16.1 (18.7)
10	Holly Springs Road & NC 540 WB Off-ramp Right-turn						A (A)	4.3 (2.6)	Westbound	B (A)	13.9 (8.8)	A (A)	9.1 (6.0)	Westbound	C (B)	25.0 (16.8)
									Northbound	A (A)	0.1 (0.1)			Northbound	A (A)	0.1 (0.1)
11	Holly Springs Road (SR 1152) & Kildaire Farm Road (SR 1300)/Sancroft Drive	B ***(E)***	15.2 ***(60.9)***	Eastbound	C ***(F)***	20.0 ***(120.9)***	B (C)	19.9 (26.1)	Eastbound	C (C)	25.2 (23.5)	C (D)	31.8 (36.7)	Eastbound	D (C)	38.0 (24.1)
				-	-	-			Westbound	D (D)	53.3 (52.9)			Westbound	D ***(E)***	54.0 ***(58.0)***
				Northbound	B (B)	11.2 (10.0)			Northbound	B (C)	13.1 (28.6)			Northbound	C (D)	23.7 (38.1)
				Southbound	C (D)	25.4 (44.7)			Southbound	C (C)	32.0 (26.8)			Southbound	D ***(E)***	47.4 ***(57.7)***
12	Bells Lake Road (SR 1386) & NC 540 EB Ramps						B (B)	12.2 (14.9)	Eastbound	C (C)	23.2 (20.3)	B (B)	15.9 (19.4)	Eastbound	C (C)	27.7 (23.5)
									Northbound	B (B)	10.3 (13.6)			Northbound	B (B)	12.7 (12.8)
									Southbound	A (B)	8.7 (12.1)			Southbound	B (C)	10.0 (20.4)
13	Bells Lake Road (SR 1386) & NC 540 WB Ramps						B (B)	15.1 (13.6)	Westbound	C (C)	21.4 (28.0)	B (B)	17.7 (15.2)	Westbound	B (C)	17.0 (24.7)
									Northbound	B (A)	12.9 (7.7)			Northbound	B (A)	16.8 (9.6)
									Southbound	B (A)	10.6 (9.4)			Southbound	C (B)	20.1 (14.4)
14	US 401 & Donnybrook Road (SR 1503)/Wake Tech Driveway	C (B)	20.4 (15.2)	Eastbound	D (B)	48.6 (39.9)	C (C)	31.4 (23.3)	Eastbound	***E (E)***	***77.5 (72.2)***	***E*** (C)	***63.8*** (32.4)	Eastbound	***F (F)***	***109.3 (101.8)***
				Westbound	***E (E)***	***57.0 (57.2)***			Westbound	D (D)	41.3 (43.8)			Westbound	***E (E)***	***55.7 (59.7)***
				Northbound	C (B)	22.2 (20.0)			Northbound	D (B)	36.8 (19.5)			Northbound	***E*** (C)	***78.6*** (29.2)
				Southbound	B (A)	10.9 (6.7)			Southbound	B (B)	15.5 (18.3)			Southbound	D (C)	39.2 (24.7)
15	US 401 & Donnybrook Road (SR 1503)/Old McCullers Road (SR 2779)	B (C)	17.6 (20.8)	Eastbound	***E*** (D)	***64.9*** (53.5)										
				Westbound	***E (E)***	***60.5 (58.9)***										
				Northbound	A (A)	8.4 (8.4)										
				Southbound	B (C)	16.6 (21.1)										
16	US 401 & NC 540 EB Ramps						A (B)	7.6 (10.1)	Eastbound	***E*** (D)	***57.6*** (48.3)	B (C)	13.8 (29.4)	Eastbound	***E (E)***	***62.7 (58.3)***
									Northbound	A (A)	1.3 (3.4)			Northbound	A (A)	4.0 (7.2)
									Southbound	A (A)	5.1 (5.5)			Southbound	A (C)	8.4 (34.6)
17	US 401 & NC 540 WB Ramps						B (B)	15.2 (13.2)	Westbound	D (D)	50.6 (49.1)	B (B)	18.3 (15.9)	Westbound	***E*** (D)	***59.4*** (54.3)
									Northbound	A (A)	4.2 (4.0)			Northbound	A (A)	10.0 (4.7)
									Southbound	A (A)	7.7 (7.5)			Southbound	A (B)	9.1 (12.9)
18	Old Stage Road (SR 1006) & NC 540 EB Ramps						B (B)	16.2 (17.9)	Eastbound	D (C)	35.1 (28.1)	C (C)	24.4 (20.6)	Eastbound	***E*** (C)	***56.1*** (28.9)
									Northbound	A (B)	7.0 (10.5)			Northbound	B (B)	11.7 (18.1)
									Southbound	A (A)	4.3 (6.5)			Southbound	A (B)	6.6 (10.1)
19	Old Stage Road (SR 1006) & NC 540 WB Ramps						B (B)	18.2 (13.7)	Westbound	D (D)	45.0 (40.2)	C (B)	28.9 (16.9)	Westbound	***E*** (D)	***68.9*** (47.4)
									Northbound	B (B)	15.1 (11.8)			Northbound	C (B)	21.4 (13.4)
									Southbound	B (B)	18.6 (12.4)			Southbound	D (B)	38.6 (17.4)
20	NC 50 & Steven Oaks Road (SR 5324)/Cleveland School Road (SR 1010)	***E*** (C)	***61.1 (24.8)***	Eastbound	B (C)	17.8 (20.4)	B (B)	15.2 (15.7)	Eastbound	D (D)	43.6 (41.0)	D (D)	53.6 (50.1)	Eastbound	***E (E)***	***70.3 (60.8)***
				Westbound	***E*** (D)	***69.4*** (44.7)			Westbound	A (A)	2.5 (3.3)			Westbound	A (B)	6.4 (10.4)
				Northbound	***E*** (C)	***62.1*** (28.7)			Northbound	C (C)	22.4 (32.1)			Northbound	***F (F)***	***88.1 (83.9)***
				Southbound	D (B)	54.4 (17.6)			Southbound	B (B)	18.9 (14.1)			Southbound	***E*** (D)	***61.1*** (50.5)
21	NC 50 & NC 540 EB Ramps						B (B)	14.7 (18.5)	Eastbound	D (C)	41.7 (33.7)	C (C)	23.2 (33.8)	Eastbound	***E*** (D)	***58.8*** (52.8)
									Northbound	A (B)	8.5 (16.1)			Northbound	B (C)	13.6 (29.6)
									Southbound	B (B)	13.9 (11.2)			Southbound	C (C)	24.4 (25.2)

Table 14 (Continued) Detailed Intersection Capacity Analysis Results Summary

ID#	Intersection	2016 No-Build					2016 Build					2040 Build				
		Overall		Approach			Overall		Approach			Overall		Approach		
		LOS	Delay	Approach	LOS	Delay	LOS	Delay	Approach	LOS	Delay	LOS	Delay	Approach	LOS	Delay
22	NC 50 & NC 540 WB Ramps						B (B)	16.0 (16.7)	Eastbound	C (C)	30.7 (30.9)	C (C)	26.2 (31.8)	Eastbound	D (D)	39.3 (42.7)
									Northbound	A (A)	5.6 (9.5)			Northbound	B (C)	10.4 (24.6)
									Southbound	C (B)	26.7 (16.3)			Southbound	D (C)	41.9 (29.0)
23	White Oak Road (SR 2700) & Raynor Road (SR 2555)/Tiffany Creek Drive	-	-	-	-	-	B (B)	11.4 (14.5)	Eastbound	A (B)	9.0 (12.7)	A (B)	9.8 (15.2)	Eastbound	B (B)	10.0 (14.5)
				-	-	-			Westbound	A (A)	8.9 (3.0)			Westbound	A (A)	5.2 (3.7)
				-	-	-			Northbound	D (D)	39.2 (38.7)			Northbound	D (D)	39.3 (38.8)
				Southbound	***F (F)***	***161.5 (294.7)***			Southbound	D (D)	36.3 (52.7)			Southbound	D (D)	37.9 (41.8)
24	White Oak Road (SR 2700) & NC 540 SB Ramps						B (B)	11.1 (10.9)	Eastbound	A (A)	5.6 (6.4)	B (B)	13.9 (13.9)	Eastbound	A (B)	8.7 (10.5)
									Westbound	A (A)	4.3 (1.7)			Westbound	B (A)	10.1 (3.6)
									Northbound	C (C)	30.2 (31.4)			Northbound	C (C)	27.3 (33.0)
25	White Oak Road (SR 2700) & NC 540 NB Ramps						C (C)	23.6 (20.2)	Eastbound	D (D)	35.7 (36.5)	C (C)	21.4 (20.0)	Eastbound	D (D)	37.2 (39.4)
									Northbound	B (C)	19.9 (25.2)			Northbound	B (C)	17.2 (23.3)
									Southbound	B (B)	18.0 (12.3)			Southbound	B (B)	18.1 (13.3)
26	US 70 Business & NC 540 SB Ramps						A (A)	3.9 (8.1)	Eastbound	A (A)	3.7 (7.4)	A (B)	8.0 (19.3)	Eastbound	A (C)	8.7 (21.2)
									Westbound	A (A)	1.3 (5.5)			Westbound	A (A)	3.8 (8.4)
									Southbound	C (B)	25.4 (18.3)			Southbound	B (C)	19.4 (30.8)
27	US 70 Business & NC 540 NB Ramps						A (A)	6.8 (8.9)	Eastbound	A (A)	4.1 (6.1)	A (B)	7.4 (13.2)	Eastbound	A (A)	4.0 (7.0)
									Westbound	A (A)	5.0 (6.8)			Westbound	A (A)	7.2 (4.9)
									Northbound	C (C)	33.8 (23.4)			Northbound	D ***(F)***	38.2 ***(90.1)***
28	Rock Quarry Road (SR 2542) & Auburn Knightdale Road (SR 2555)	B (B)	12.9 (12.9)	Eastbound	A (A)	6.7 (9.0)	B (B)	10.9 (11.4)	Eastbound	A (A)	3.3 (3.4)	B (B)	15.4 (16.4)	Eastbound	A (B)	7.7 (10.1)
				Westbound	A (A)	8.5 (7.7)			Westbound	A (A)	1.3 (1.0)			Westbound	A (A)	2.8 (3.5)
				Northbound	C (C)	23.4 (22.1)			Northbound	D (D)	40.6 (42.8)			Northbound	***E*** (D)	***60.1*** (47.1)
				Southbound	C (B)	21.6 (18.7)			Southbound	D (D)	44.2 (43.8)			Southbound	D (C)	38.5 (34.6)
29	Rock Quarry Road (SR 2542) & NC 540 SB Ramps						B (C)	19.4 (23.3)	Eastbound	B (B)	18.9 (17.5)	C (C)	21.3 (23.2)	Eastbound	B (B)	14.5 (17.7)
									Westbound	B (B)	10.7 (13.8)			Westbound	B (C)	19.8 (24.9)
									Southbound	D (D)	35.3 (36.0)			Southbound	C (C)	28.6 (29.2)
30	Rock Quarry Road (SR 2542) & NC 540 NB Ramps						B (A)	12.9 (9.3)	Eastbound	A (A)	2.1 (3.1)	B (B)	16.3 (13.7)	Eastbound	A (A)	8.9 (7.6)
									Westbound	A (A)	7.7 (6.6)			Westbound	B (C)	16.8 (22.8)
									Southbound	C (C)	34.9 (32.2)			Southbound	C (C)	30.0 (23.6)
31	Rock Quarry Road (SR 2542) & Old Baucom Road (SR 5204)*	-	-	Westbound	B (B)	11.2 (10.2)	-	-	Westbound	B (A)	11.3 (9.9)	-	-	Westbound	D (D)	25.9 (34.0)
32	Auburn Knightdale Road (SR 2555) & NC 540 SB Ramps						A (A)	8.4 (8.4)	Eastbound	A (A)	3.9 (3.8)	B (B)	11.0 (11.1)	Eastbound	A (A)	8.5 (7.8)
									Westbound	A (A)	1.3 (1.2)			Westbound	A (A)	2.8 (1.8)
									Southbound	C (C)	22.7 (22.6)			Southbound	C (C)	20.2 (20.7)
33	Auburn Knightdale Road (SR 2555) & NC 540 NB Ramps						A (A)	8.1 (8.1)	Eastbound	A (A)	2.6 (2.5)	B (B)	11.4 (11.3)	Eastbound	A (A)	8.2 (7.5)
									Westbound	A (A)	3.2 (3.2)			Westbound	A (A)	5.0 (5.0)
									Southbound	C (C)	23.0 (23.0)			Southbound	C (C)	23.1 (23.3)
34	Poole Road (SR 1007) & Hodge Road (SR 2516)	D (D)	45.6 (38.4)	Eastbound	D (C)	41.8 (34.2)	B (B)	15.2 (14.3)	Eastbound	B (B)	14.6 (10.9)	C (C)	28.6 (25.9)	Eastbound	C (C)	32.8 (22.8)
				Westbound	D (D)	37.2 (45.2)			Westbound	A (A)	6.4 (4.3)			Westbound	C (B)	23.5 (16.5)
				Northbound	D (B)	40.0 (16.7)			Northbound	D (D)	54.7 (54.1)			Northbound	***E*** (D)	***56.6*** (54.4)
				Southbound	***E*** (D)	***66.0*** (38.7)			Southbound	C (C)	31.1 (34.9)			Southbound	C (D)	28.6 (37.5)
35	Poole Road (SR 1007) & NC 540 SB Ramps						C (C)	22.7 (25.5)	Eastbound	A (A)	6.7 (5.6)	C (C)	27.3 (32.3)	Eastbound	C (C)	22.6 (24.0)
									Westbound	A (A)	7.5 (5.1)			Westbound	C (C)	29.5 (34.0)
									Northbound	D (D)	41.3 (49.7)			Northbound	C (D)	29.0 (38.3)
36	Poole Road (SR 1007) & NC 540 NB Ramps						B (B)	17.6 (15.8)	Eastbound	B (B)	16.4 (14.4)	C (B)	22.4 (14.3)	Eastbound	A (A)	9.4 (4.7)
									Westbound	B (B)	13.5 (13.4)			Westbound	C (C)	29.6 (27.9)
									Northbound	***E*** (D)	***55.7*** (54.6)			Northbound	***E (E)***	***72.5 (68.7)***

X (X) – AM (PM) Peak Hour Level of Service; ##.# (##.#) – AM (PM) Peak Hour Delay in Seconds Per Vehicle
Cell Shading – Green = LOS A – D, Orange = LOS E, Red = LOS F;
BOLD/ITALIC = Intersection/Approach/Movement that has Operational Deficiencies (LOS E or F)
* Unsignalized Intersection – No Overall or Approach LOS/Delay Reported by HCM Methodology

7. CONCLUSIONS AND RECOMMENDATIONS

The Complete 540 traffic capacity analysis was completed to evaluate 2016 Base Year No-Build and Build, and 2040 Design Year Build peak hour traffic operations for the Complete 540 Preferred Alternative and surrounding freeway facilities and nearby intersections within the traffic analysis study area. The recommended freeway, arterial, interchange and intersection geometrics and intersection control for the Complete 540 PA are presented in **Figures 7.1** to **7.9**. Recommended and analyzed geometrics for the PA are included in the detailed capacity analysis outputs from HCS Freeway Facilities and Synchro/SimTraffic in ***Appendices E*** and ***F***, respectively.

Based on the 2016 Base Year capacity analysis, all the No-Build and Build PA freeway and intersection facilities are projected to operate at acceptable LOS D or better.

Based on the 2040 Design Year capacity analysis, the following conclusions and recommendations are presented for study area facilities and intersections:

Complete 540 Preferred Alternative Corridor

All Complete 540 PA freeway segments and interchange design configurations are projected to operate at LOS D or better in the 2040 Design Year, based on the current functional designs for Complete 540 as a six-lane, toll facility, as shown in **Table 15**.

Of the 36 study area intersections analyzed at interchange ramp terminals or adjacent Y-lines, only 4 intersections are projected to experience operational deficiencies as shown in **Table 16**. Three (3) of the four (4) intersections potentially experiencing operational deficiencies are the two interchange ramp terminal intersections along NC 55 Bypass. This is due to the high vehicular volume and limited capacity along NC 55 Bypass. The intersection of realigned Donny Brook Road/Chandler Ridge Circle/Wake Tech Drive and US 401 is expected to operate at LOS E in the AM and LOS C in the PM. Reasonably feasible laneage improvements were considered and implemented at these four (4) intersection locations as part of the Complete 540 project.

NC 540 (Triangle Expressway) Corridor

Based on the 2040 Design Year Build PA analysis results, two basic segments (OHSARI B1-D2 & D2-B3) between NC 55 Bypass and Veridea Parkway (formerly Old Holly Springs-Apex Road) in the eastbound PM peak experience projected operational deficiencies. This is mainly due to the limited capacity between the eastbound off-ramp and on-ramps at Old Holly Springs-Apex Road. All the westbound segments are expected to operate at LOS D or better.

I-540 Corridor

The existing section of I-540 from I-495 / US 64 / US 264 to US 64 Business is projected to operate at acceptable LOS D or better with construction of Complete 540 and I-540 planned widening to an 8-lane facility as per 2040 MTP.

I-40 Corridor

Based on the 2040 Design Year Build PA analysis results, the existing sections of I-40 are projected to operate at acceptable LOS C or better, with construction of Complete 540 and I-40 planned widening to a 10-lane facility with eight (8) general purpose lanes and two (2) managed lanes as per the 2040 MTP. The PA proposes a five-leg system interchange with I-40 and US 70 and provides acceptable interchange spacing between US 70 and NC 42. The potential impacts

of Complete 540 on I-40, US 70, US 70 Business and the system interchange operations will be re-evaluated to complete an interstate access report.

US 70 Corridor

The existing section of US 70 from I-40 to NC 42 is projected to operate at acceptable LOS D or better with construction of Complete 540 in 2040 Design Year.

I-495 / US 64 / US 264 Corridor

Capacity analysis results indicate that I-495 / US 64 / US 264 is operating near or over capacity with operational deficiencies in the 2040 Design Year Build AM and PM peak hours. In the 2040 Design Year Build PA scenario, I-495 / US 64 / US 264 from Hodge Road to Smithfield Road is projected to operate at LOS E or F for 4 of 13 eastbound segments and 3 of 13 westbound segments as a six-lane freeway facility. Construction of Complete 540 proposes modifying the existing directional system interchange with I-495 / US 64 / US 264 and I-540 by connecting the forth leg and constructing a flyover and a loop ramp. The system interchange was planned, designed and constructed to accommodate the future completion and connection of the 540 loop. This interchange modification would add one eastbound and one westbound freeway merge on I-495 / US 64 / US 264. The potential impacts of Complete 540 on I-495 / US 64 / US 264, I-540 and the system interchange operations will be re-evaluated to complete an interstate access report.

Ramp Demand-to-Capacity Ratios

Based on the analysis, all the ramps at the Complete 540 at I-40/US 70 Bypass system interchange are projected to operate with demand to capacity (d/C) ratios less than 1 in both the AM and PM peak hours. At the Complete 540, I-540 and I-495 / US 64 / US 264 system interchange, the ramps from westbound I-495 / US 64 / US 264 to northbound I-540 in the AM peak and the loop ramp from southbound I-540 to eastbound I-495 / US 64 / US 264 in the PM peak hour are projected to operate at d/C ratio greater than (>) 1. To operate at d/C ratio less than (<) 1, the westbound I-495 / US 64 / US 264 to northbound I-540 would require two continuous lanes to merge with the eastbound ramp and on to I-540. The loop ramp from southbound I-540 to eastbound I-495 / US 64 / US 264 (Location # 10) would require two lanes to operate at d/C ratio less than (<) 1. The ramps from eastbound and westbound I-495 / US 64 / US 264 to northbound I-540 in the AM peak, from eastbound I-495 / US 64 / US 264 to northbound I-540 in the PM peak and from southbound I-540 to westbound I-495 / US 64 / US 264 in the AM peak hour are nearing capacity (d/C ratio > 0.85). If the demand for any of these ramps nearing capacity exceed the estimated demand in 2040, an additional lane may be necessary to operate at d/C ratio less than (<) 1. Where ramps volumes are projected to be near or exceed capacity, the feasibility of providing two lanes should be considered during the project development process.

Table 15 Overall Freeway Operations Summary

Scenario	Complete 540											
	Eastbound						Westbound					
	LOS A	LOS B	LOS C	LOS D	LOS E	LOS F	LOS A	LOS B	LOS C	LOS D	LOS E	LOS F
2016 No-Build	-	-	-	-	-	-	-	-	-	-	-	-
2016 Build	55	8	2	0	0	0	52	11	3	0	0	0
2040 Build	12	35	16	2	0	0	10	28	23	4	0	0

*-Table shows the number of segments for each LOS

Table 16 Overall Intersection Capacity Analysis Summary

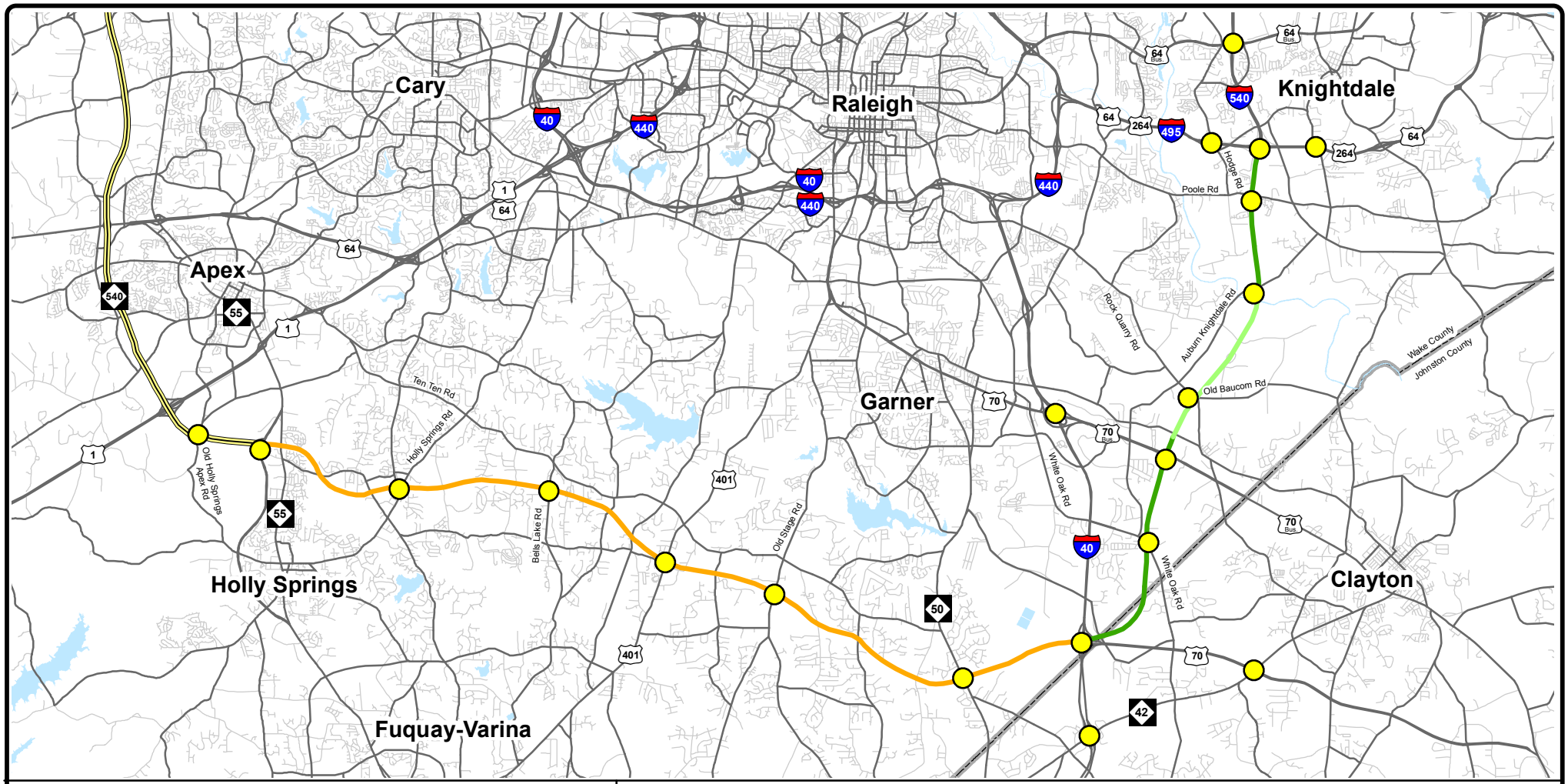
Scenario	Number of Intersections Operating at Given LOS in at Least One AM or PM Peak Hour*					
	LOS A	LOS B	LOS C	LOS D	LOS E	LOS F
2016 No-Build	0	2	1	1	***2***	***2***
2016 Build	8	20	7	0	***0***	***0***
2040 Build	2	14	12	3	***1***	***3***

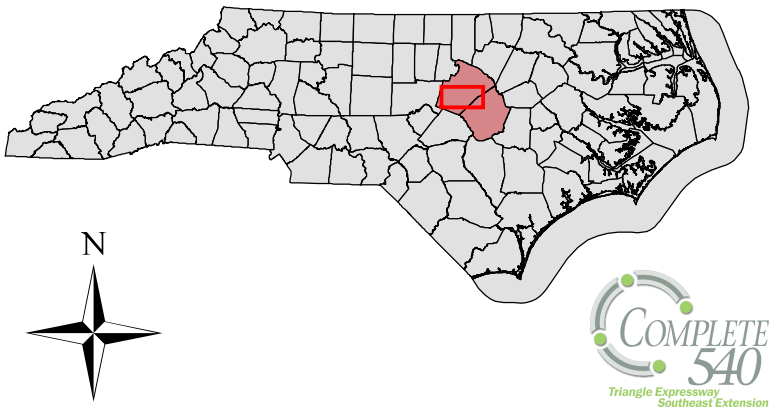
*-For signalized intersections, overall intersection LOS. For unsignalized intersections, worst-case critical movement.

APPENDIX

Appendix A – Figures

1) Traffic Analysis Study Area
2) No Build Traffic Analysis Figures Sheet Key
3) 3.1 – 3.5) 2016 No-Build Laneage, Volumes, LOS & ID
4) Build Traffic Analysis Figures Sheet Key
5) 5.1 – 5.9) 2016 Build Laneage, Volumes, LOS & ID
6) 6.1 – 6.9) 2040 Build PA Volumes, LOS & ID
7) 7.1 – 7.9) 2040 Build PA Laneage & LOS





Complete 540 PA Traffic Analysis Study Area

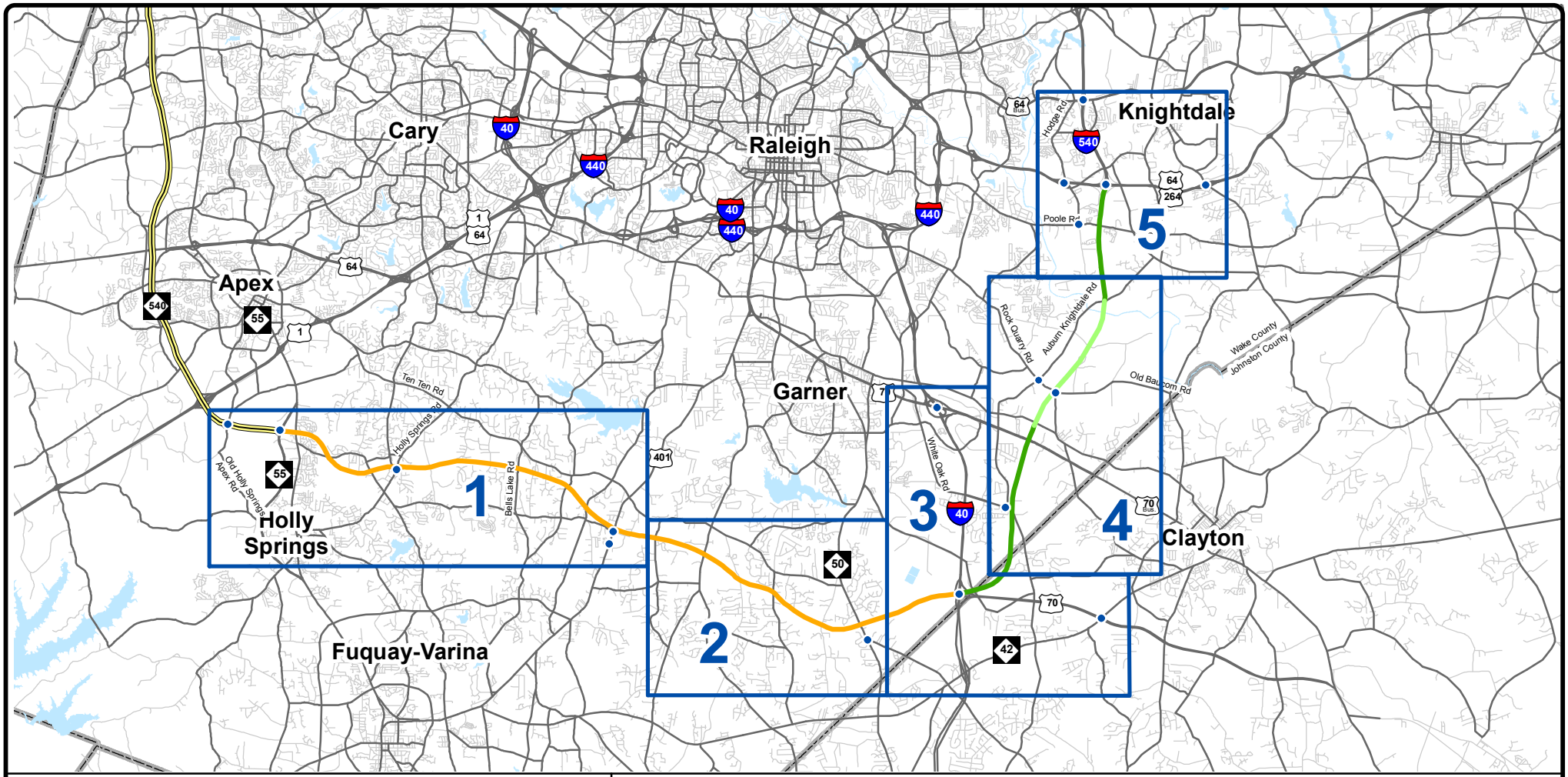
Legend

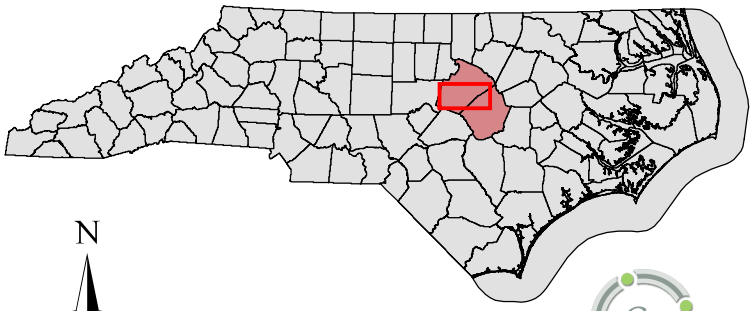
- Interchanges
- Triangle Expressway
- Major Roads
- Counties

NCDOT Preferred Alternative Corridor

- Orange
- Green
- Mint

STIP: R-2721, R-2828, R-2829	**WBS:** 37673.1.TA2, 35516.1.TA2, 35517.1.TA1
COUNTY: Wake/Johnston	**DIVISION:** 5/4
DATE: July 2017	
PREPARED BY: HNTB North Carolina, P.C. 343 E. Six Forks Rd, Suite 200 Raleigh, NC 27609	
LOCATION: NC 55 Bypass (Holly Springs) to I-495 / US 64 Bypass / US 264 (Knightdale)	
PROJECT: Complete 540 Triangle Expressway Southeast Extension	**Figure 1**





No Build Traffic Analysis Figures Sheet Key

Legend

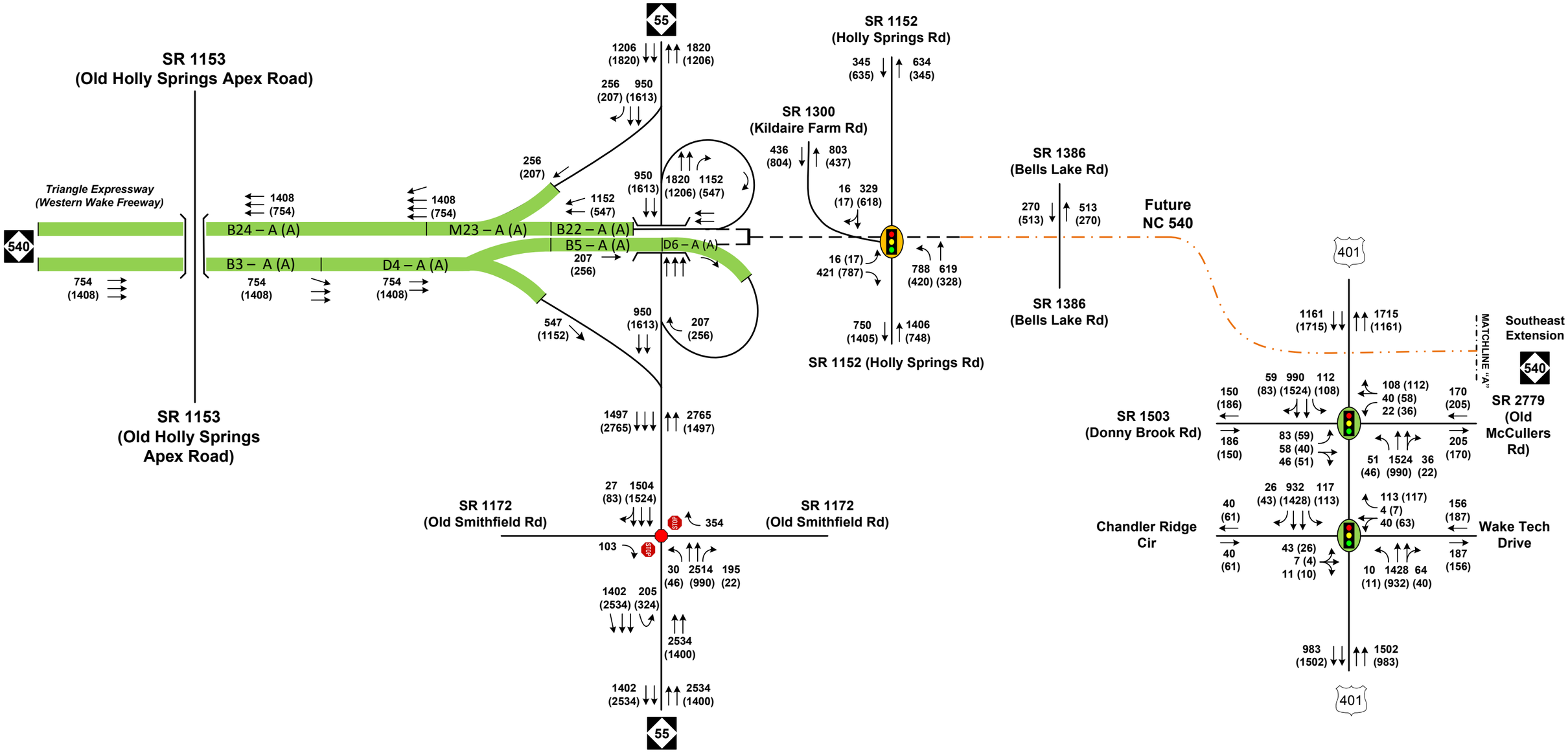
- Analyzed Intersection/Interchange
- Triangle Expressway
- Major Roads
- Counties

NCDOT PA Corridor

CORRIDOR

- Orange
- Green
- Mint

STIP: R-2721, R-2828, R-2829	**WBS:** 37673.1.TA2, 35516.1.TA1, 35517.1.TA1
COUNTY: Wake/Johnston	**DIVISION:** 5/4
DATE: July 2017	
PREPARED BY: HNTB North Carolina, P.C. 343 E. Six Forks Rd, Suite 200 Raleigh, NC 27609	
LOCATION: NC 55 Bypass (Holly Springs) to I-495 / US 64 Bypass / US 264 (Knightdale)	
PROJECT: Complete 540 Triangle Expressway Southeast Extension	**Figure 2**



LEGEND

XX (XX) = AM (PM) Peak Hour Volumes

= Unsignalized Intersection

= Signalized Intersection

= Lane Geometry

AM (PM) Peak Hour Level of Service

- LOS A – D
- LOS E
- LOS F
- Not Analyzed

Bold/Italics = Any Time Period D/C Ratio > 1

N

NOT TO SCALE

S.T.I.P. R-2721, R-2828, R-2829

COMPLETE 540

TRIANGLE EXPRESSWAY SOUTHEAST EXTENSION

WAKE AND JOHNSTON COUNTIES

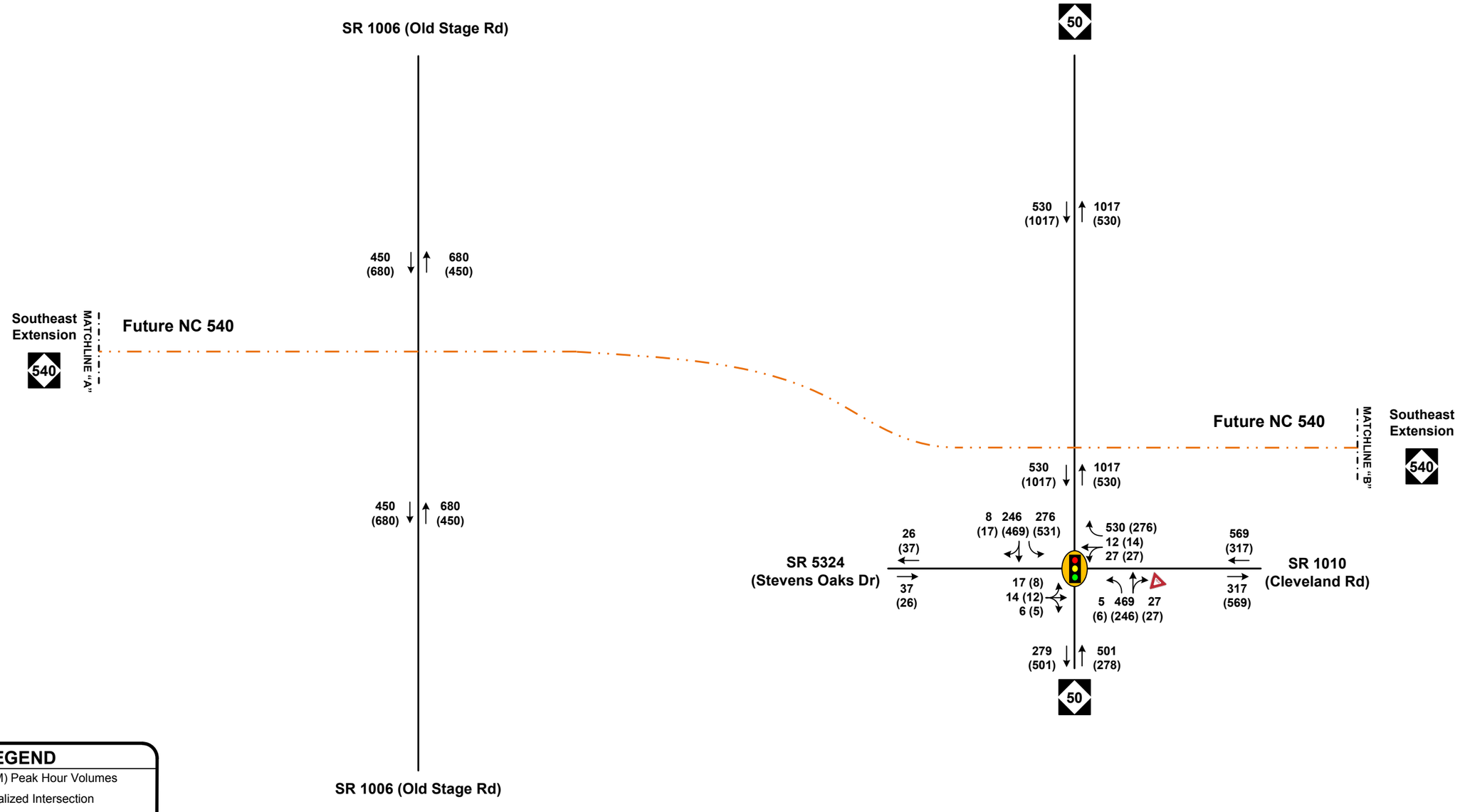
Preferred Alternative

2016 BASE YEAR NO-BUILD LANEAGE, HCM SEGMENT ID#, VOLUMES & LOS

DATE: July 2017

FIGURE 3.1

NOT TO SCALE



LEGEND

XX (XX) = AM (PM) Peak Hour Volumes

= Unsignalized Intersection

= Signalized Intersection

= Lane Geometry

AM (PM) Peak Hour Level of Service

- LOS A – D
- LOS E
- LOS F
- Not Analyzed

Bold/Italics = Any Time Period D/C Ratio > 1

S.T.I.P. R-2721, R-2828, R-2829
COMPLETE 540
TRIANGLE EXPRESSWAY SOUTHEAST EXTENSION
WAKE AND JOHNSTON COUNTIES

Preferred Alternative

2016 BASE YEAR NO-BUILD LANEAGE, HCM SEGMENT ID#, VOLUMES & LOS

DATE: July 2017

FIGURE 3.2

NOT TO SCALE

NOT TO SCALE

Southeast Extension

540

MATCHLINE "B"

Future NC 540

42

70

40

B15 – A (B) | M14 – B (B) | B13 – A (B) | D12 – B (C) | B11 – B (C) | M10 – A (B) | B9–A(B) | D8 – B (C) | B7 – C (D) | M6 – C (D) | B5–C(C) | M4 – C (D) | B3 – B (C) | D2 – D (E) | B1 – B (E)

B16 – B (B) | D17 – C (B) | B18–B(A) | M19 – C (B) | B20 – C (B) | M21 – C (B) | B22–C(B) | D23 – C (B) | B24–C(B) | M25 – E (C) | B26 – F (C) | D27 – E (C) | B28–F(C) | W29 – E (B) | B30–F(C) | M31 – E (D) | B32 – C (C)

B1 – A (A) | M2 – A (B) | B3 – A (A) | D4 – A (B)

B14–A (A) | D13 – B (A) | B12 – A (A) | M11 – B (A)

B5–A (A) | M6 – A (B) | B7 – A (A)

B10–A (A) | D9 – B (A) | B8 – A (A)

1848 (2343) | 281 (372) | 1138 (1971) | 710 (985) | 1848 (2956) | 912 (1195) | 120 (142) | 1728 (2814) | 2640 (4009) | 1388 (2056) | 2056 (1388) | 327 (520) | 1061 (1536) | 266 (258) | 832 (1235) | 327 (520) | 95 (95) | 1788 (1130) | 95 (95) | 2313 (3489) | 1098 (1520) | 2218 (3394) | 3316 (4914)

2244 (1487) | 1872 (1206) | 805 (524) | 372 (281) | 2677 (1730) | 180 (186) | 2857 (1916) | 912 (1195) | 143 (120) | 2714 (1796) | 120 (142) | 1194 (912) | 3908 (2708) | 95 (95) | 3813 (2613) | 258 (268) | 258 (268) | 803 (1268) | 4071 (2881) | 520 (327) | 3551 (2554) | 4813 (3384) | 4813 (3384)

1055 (1315) | 1308 (1060) | 178 (195) | 195 (178)

877 (1120) | 1113 (882) | 270 (280) | 280 (270) | 1147 (1400) | 1393 (1152)

803 (1268) | 1363 (898) | 1262 (830) | 927 (1330) | 1728 (2625) | 2625 (1728)

Future NC 540

MATCHLINE "C"

Southeast Extension

540

42

70

BUS 70

Clayton Bypass

LEGEND

XX (XX) = AM (PM) Peak Hour Volumes

= Unsignalized Intersection

= Signalized Intersection

= Lane Geometry

AM (PM) Peak Hour Level of Service

- LOS A – D
- LOS E
- LOS F
- Not Analyzed

Bold/Italics = Any Time Period D/C Ratio > 1

Preferred Alternative: I-40 at US 70

S.T.I.P. R-2721, R-2828, R-2829
COMPLETE 540
TRIANGLE EXPRESSWAY
SOUTHEAST EXTENSION
WAKE AND JOHNSTON COUNTIES

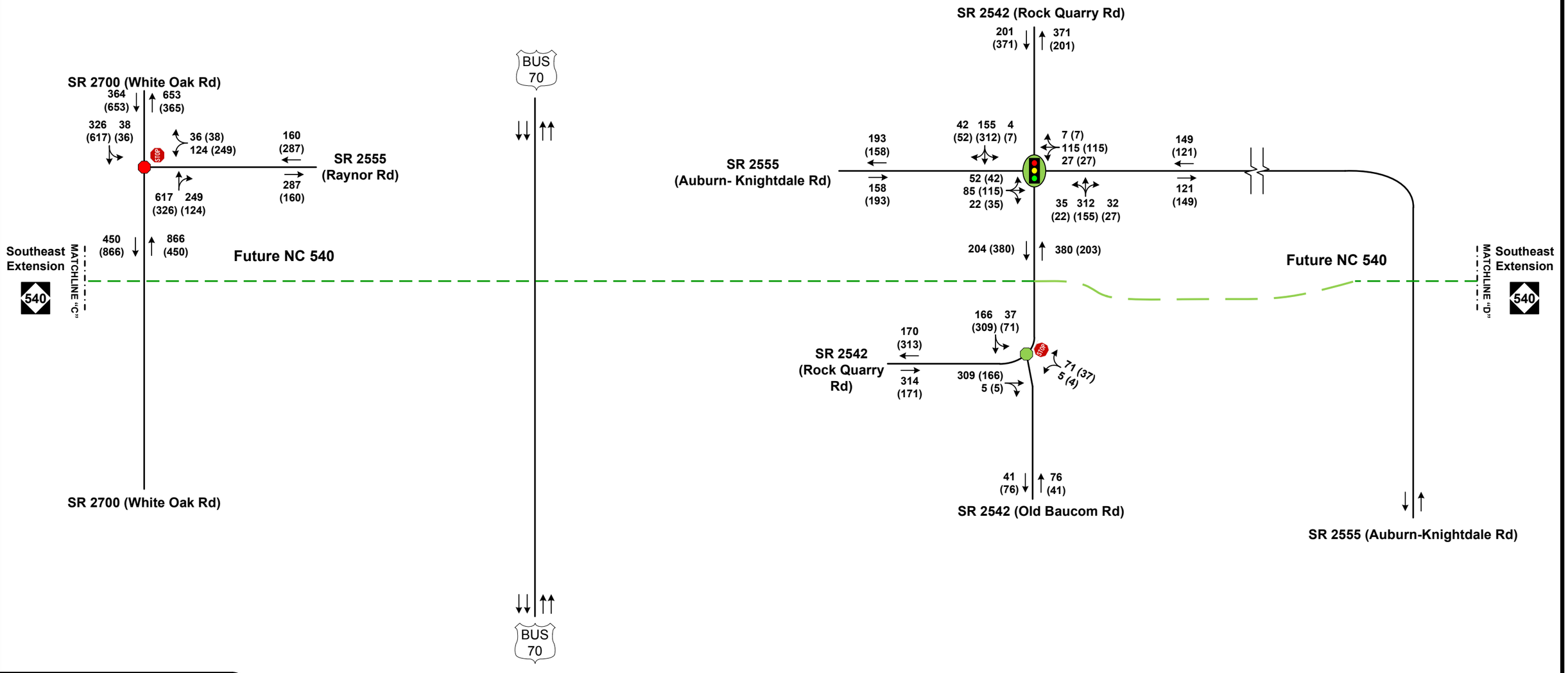
NOT TO SCALE

2016 BASE YEAR NO-BUILD LANEAGE, HCM SEGMENT ID#, VOLUMES & LOS

DATE: July 2017

FIGURE 3.3

NOT TO SCALE



LEGEND

XX (XX) = AM (PM) Peak Hour Volumes

= Unsignalized Intersection

= Signalized Intersection

= Lane Geometry

AM (PM) Peak Hour Level of Service

- LOS A – D
- LOS E
- LOS F
- Not Analyzed

Bold/Italics = Any Time Period D/C Ratio > 1

S.T.I.P. R-2721, R-2828, R-2829

COMPLETE 540
TRIANGLE EXPRESSWAY
SOUTHEAST EXTENSION
WAKE AND JOHNSTON COUNTIES

Preferred Alternative

2016 BASE YEAR NO-BUILD
LANEAGE, HCM SEGMENT ID#, VOLUMES & LOS

DATE: July 2017

FIGURE 3.4

LEGEND

XX (XX) = AM (PM) Peak Hour Volumes

= Unsignalized Intersection

= Signalized Intersection

= Lane Geometry

AM (PM) Peak Hour Level of Service

- LOS A – D
- LOS E
- LOS F
- Not Analyzed

Bold/Italics = Any Time Period D/C Ratio > 1

Business 64

Business 64

SR 2516 (Hodge Rd)

SR 2515 (Old Faison Rd)

SR 2233 (Smithfield Rd)

264 Knightdale Bypass 64

264 Knightdale Bypass 64

SR 1007 (Poole Rd)

SR 1007 (Poole Rd)

Future NC 540

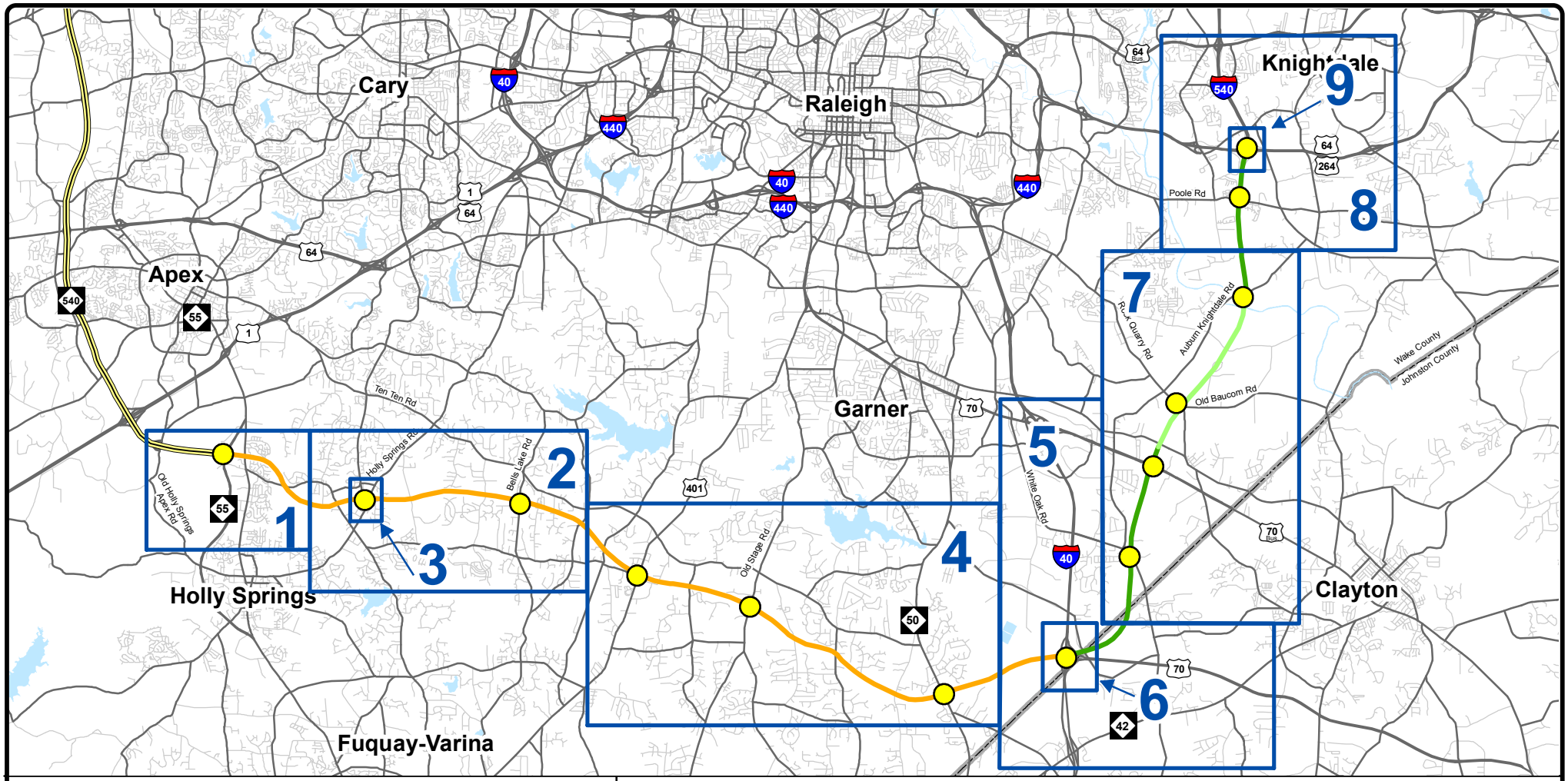
Southeast Extension 540

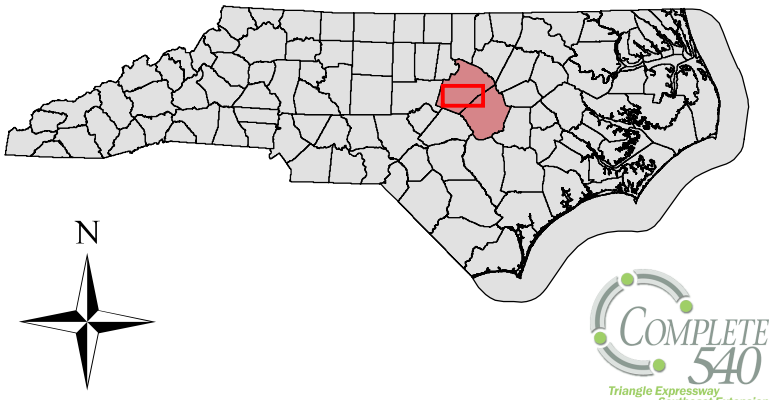
MATCHLINE "D"

SR 2516 (Hodge Rd)

SR 2233 (Smithfield Rd)

Preferred Alternative: I-495/US 64/264	
N	S.T.I.P. R-2721, R-2828, R-2829 **COMPLETE 540** **TRIANGLE EXPRESSWAY** **SOUTHEAST EXTENSION** WAKE AND JOHNSTON COUNTIES
NOT TO SCALE	**2016 BASE YEAR NO-BUILD LANEAGE, HCM SEGMENT ID#, VOLUMES & LOS**
DATE: July 2017	**FIGURE 3.5**





Build PA Traffic Analysis Figures Sheet Key

Legend

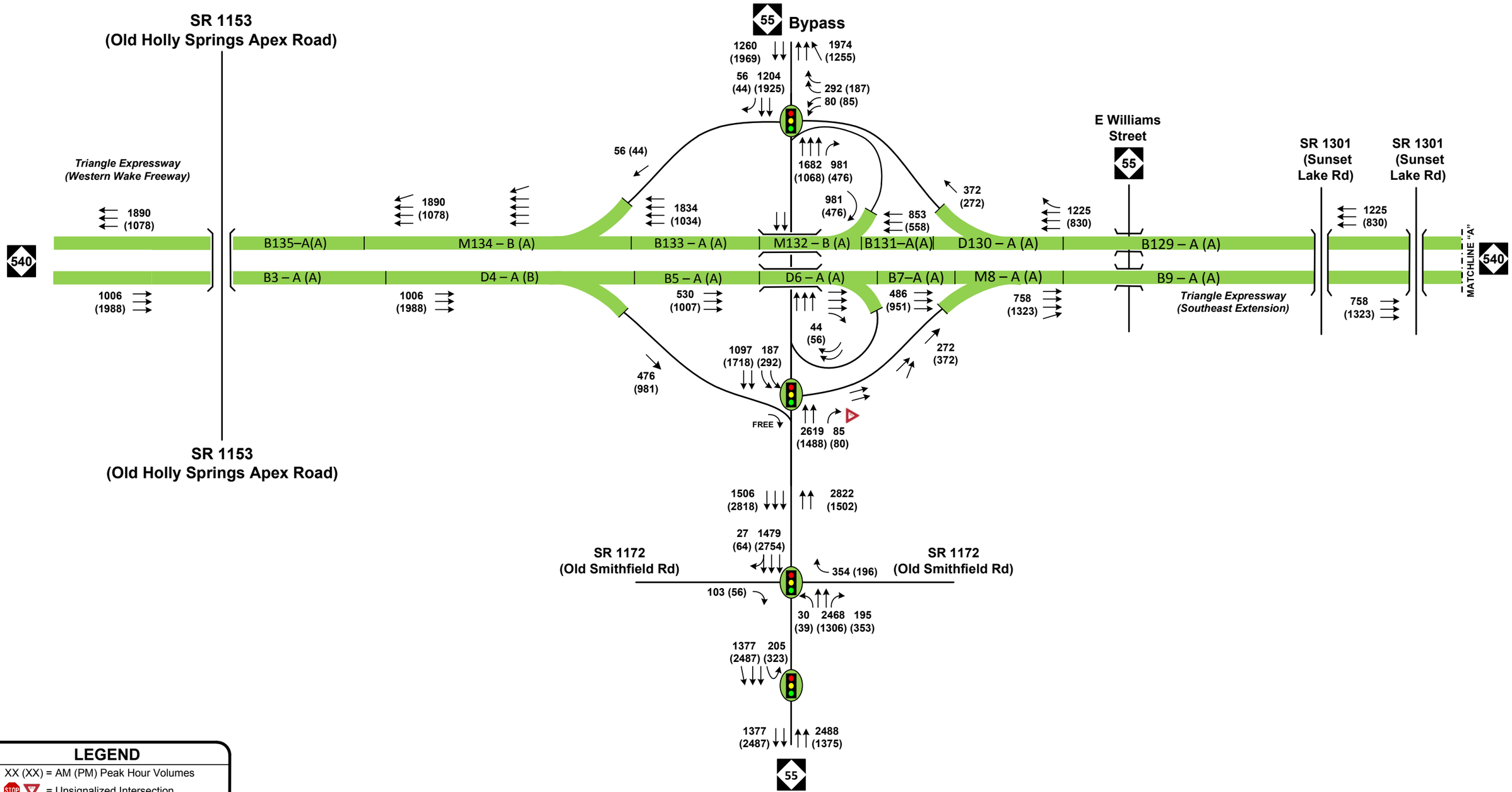
- Interchanges
- Triangle Expressway
- Major Roads
- Counties

NCDOT Preferred Alternative Corridor

- Orange
- Green
- Mint

STIP: R-2721, R-2828, R-2829	**WBS:** 37673.1.TA2, 35516.1.TA1, 35517.1.TA1
COUNTY: Wake/Johnston	**DIVISION:** 5/4
DATE: July 2017	
PREPARED BY:	HNTB North Carolina, P.C. 343 E. Six Forks Rd, Suite 200 Raleigh, NC 27609
LOCATION:	NC 55 Bypass (Holly Springs) to I-495 / US 64 Bypass / US 264 (Knightdale)
PROJECT:	Complete 540 Triangle Expressway Southeast Extension

Figure 4



LEGEND

XX (XX) = AM (PM) Peak Hour Volumes

= Unsignalized Intersection

= Signalized Intersection

= Lane Geometry

AM (PM) Peak Hour Level of Service

- LOS A – D
- LOS E
- LOS F
- Not Analyzed

Bold/Italics = Any Time Period D/C Ratio > 1

S.T.I.P. R-2721, R-2828, R-2829

COMPLETE 540
TRIANGLE EXPRESSWAY
SOUTHEAST EXTENSION
WAKE AND JOHNSTON COUNTIES

Preferred Alternative

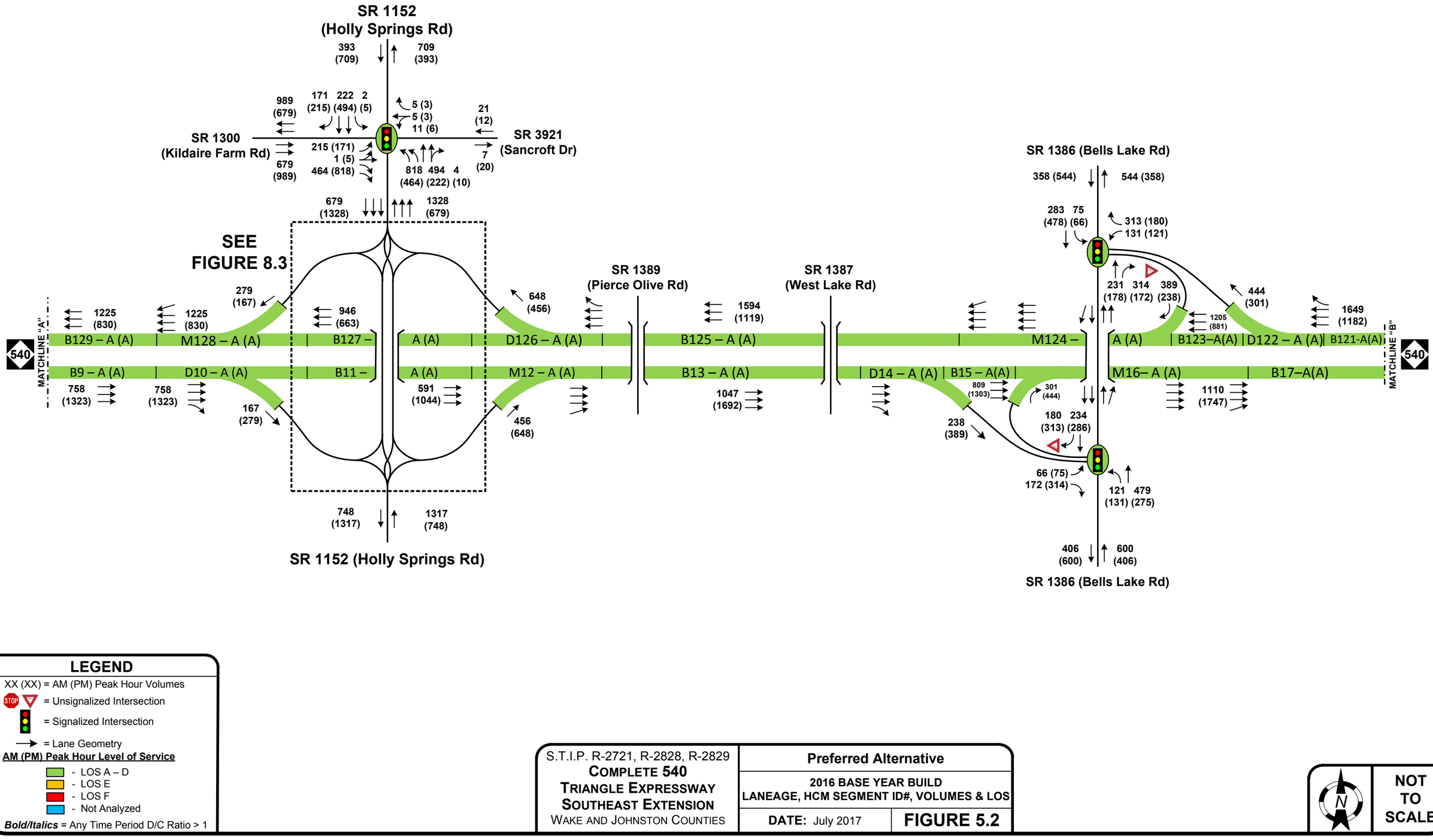
2016 BASE YEAR BUILD
LANEAGE, HCM SEGMENT ID#, VOLUMES & LOS

DATE: July 2017

FIGURE 5.1

N

NOT TO SCALE



LEGEND

XX (XX) = AM (PM) Peak Hour Volumes

= Unsignalized Intersection

= Signalized Intersection

= Lane Geometry

AM (PM) Peak Hour Level of Service

- LOS A – D
- LOS E
- LOS F
- Not Analyzed

Bold/Italics = Any Time Period D/C Ratio > 1

S.T.I.P. R-2721, R-2828, R-2829
COMPLETE 540
TRIANGLE EXPRESSWAY
SOUTHEAST EXTENSION
WAKE AND JOHNSTON COUNTIES

Preferred Alternative

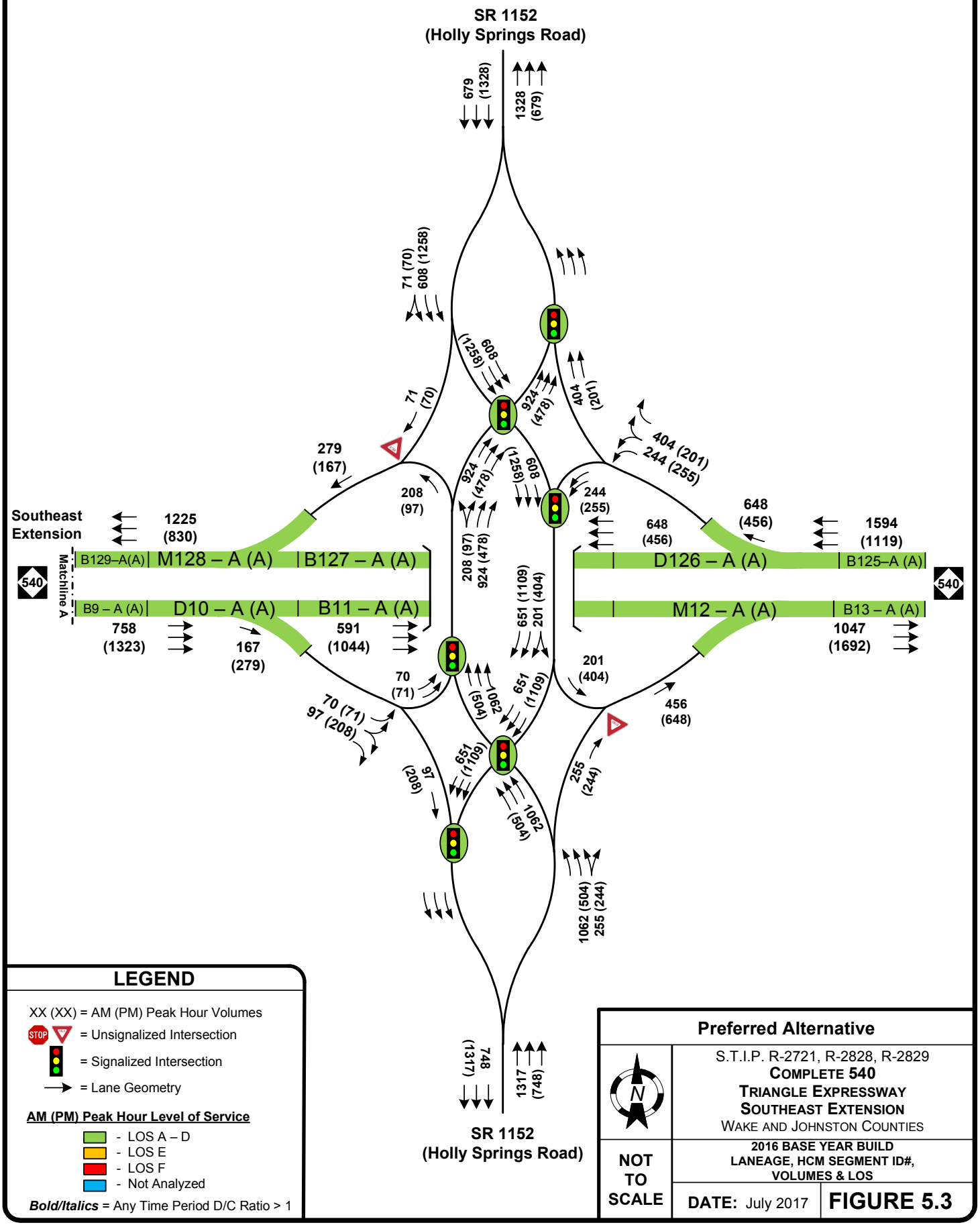
2016 BASE YEAR BUILD
LANEAGE, HCM SEGMENT ID#, VOLUMES & LOS

DATE: July 2017

FIGURE 5.2

N

NOT TO SCALE



LEGEND

XX (XX) = AM (PM) Peak Hour Volumes

= Unsignalized Intersection

= Signalized Intersection

= Lane Geometry

AM (PM) Peak Hour Level of Service

- LOS A – D
- LOS E
- LOS F
- Not Analyzed

Bold/Italics = Any Time Period D/C Ratio > 1

Preferred Alternative

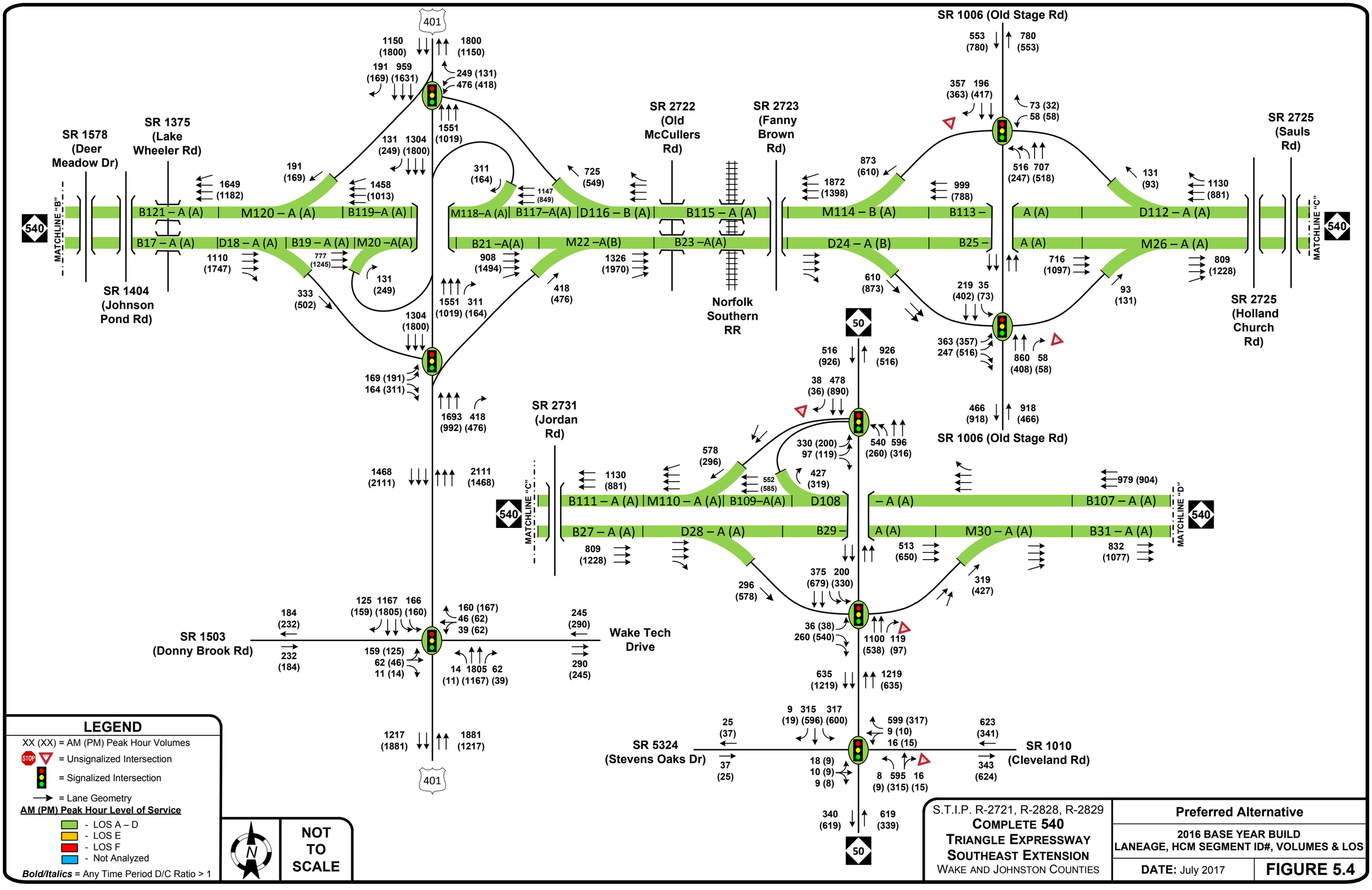
S.T.I.P. R-2721, R-2828, R-2829
COMPLETE 540
TRIANGLE EXPRESSWAY
SOUTHEAST EXTENSION
WAKE AND JOHNSTON COUNTIES

2016 BASE YEAR BUILD
LANEAGE, HCM SEGMENT ID#,
VOLUMES & LOS

NOT TO SCALE

DATE: July 2017

FIGURE 5.3



LEGEND

XX (XX) = AM (PM) Peak Hour Volumes

= Unsignalized Intersection

= Signalized Intersection

= Lane Geometry

AM (PM) Peak Hour Level of Service

- LOS A – D
- LOS E
- LOS F
- Not Analyzed

Bold/Italics = Any Time Period D/C Ratio > 1

N

NOT TO SCALE

S.T.I.P. R-2721, R-2828, R-2829

COMPLETE 540

TRIANGLE EXPRESSWAY SOUTHEAST EXTENSION

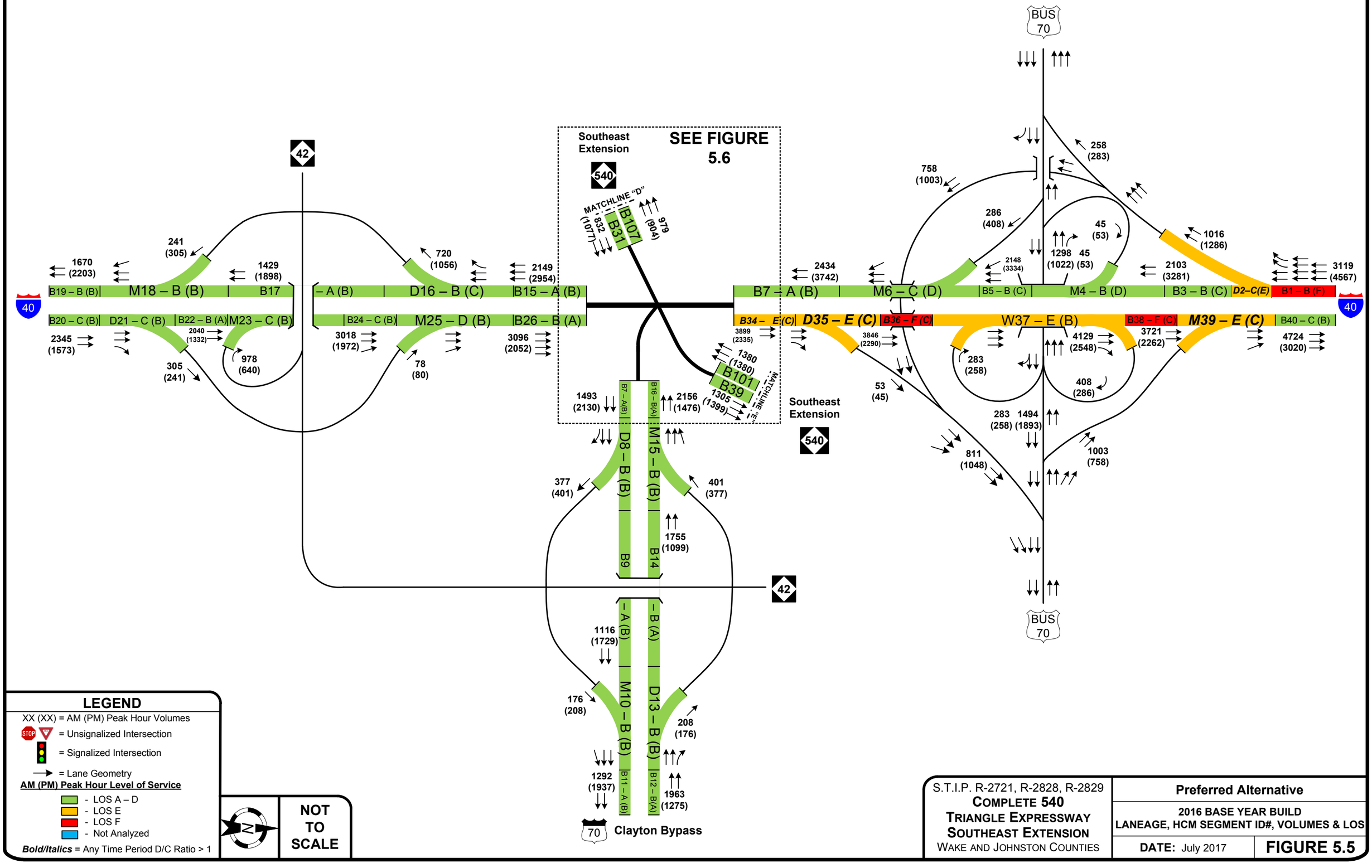
WAKE AND JOHNSTON COUNTIES

Preferred Alternative

2016 BASE YEAR BUILD LANEAGE, HCM SEGMENT ID#, VOLUMES & LOS

DATE: July 2017

FIGURE 5.4



LEGEND

XX (XX) = AM (PM) Peak Hour Volumes

= Unsignalized Intersection

= Signalized Intersection

= Lane Geometry

AM (PM) Peak Hour Level of Service

- LOS A – D
- LOS E
- LOS F
- Not Analyzed

Bold/Italics = Any Time Period D/C Ratio > 1

NOT TO SCALE

S.T.I.P. R-2721, R-2828, R-2829

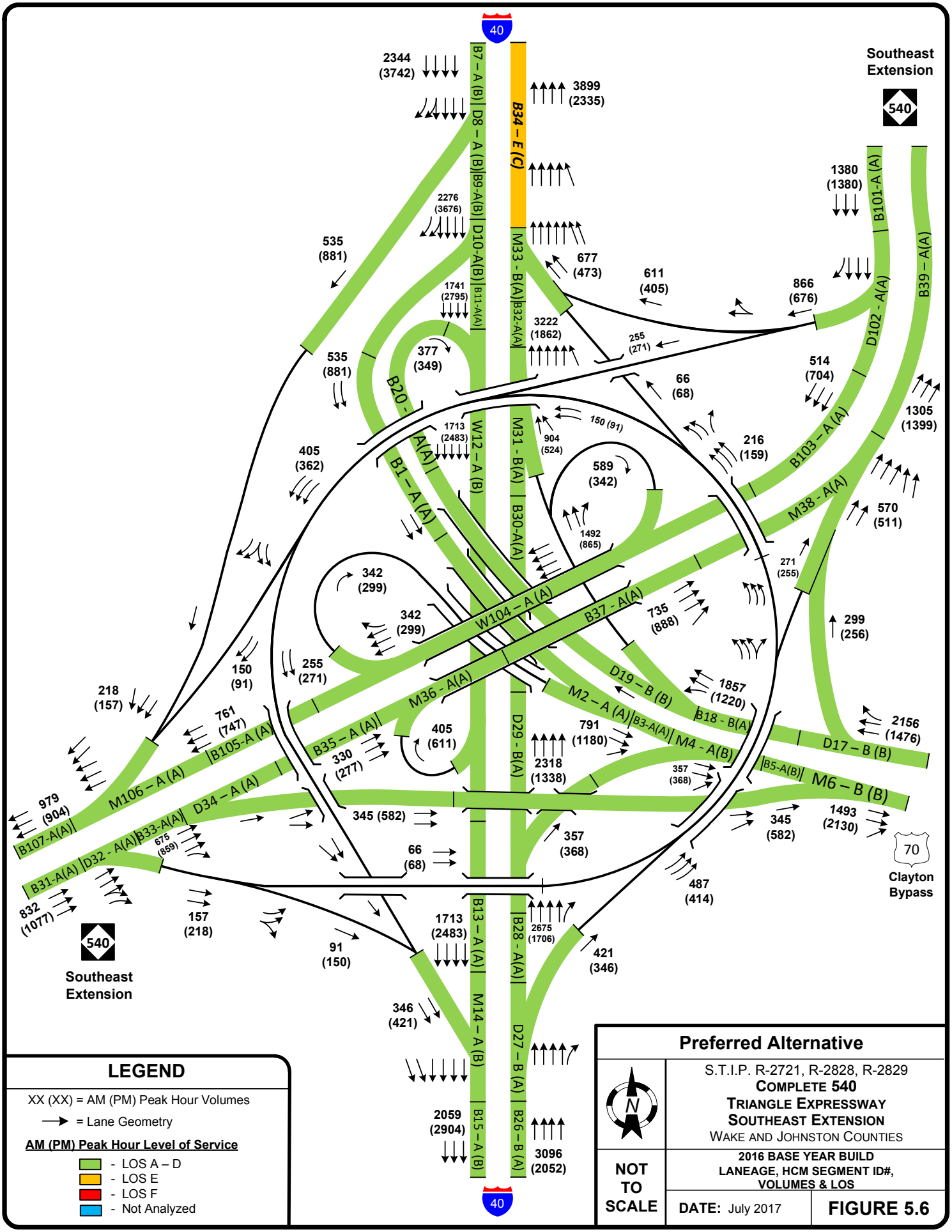
COMPLETE 540
TRIANGLE EXPRESSWAY
SOUTHEAST EXTENSION
WAKE AND JOHNSTON COUNTIES

Preferred Alternative

2016 BASE YEAR BUILD
LANEAGE, HCM SEGMENT ID#, VOLUMES & LOS

DATE: July 2017

FIGURE 5.5



LEGEND

XX (XX) = AM (PM) Peak Hour Volumes

→ = Lane Geometry

AM (PM) Peak Hour Level of Service

- LOS A – D
- LOS E
- LOS F
- Not Analyzed

Preferred Alternative

S.T.I.P. R-2721, R-2828, R-2829

COMPLETE 540
TRIANGLE EXPRESSWAY
SOUTHEAST EXTENSION
WAKE AND JOHNSTON COUNTIES

2016 BASE YEAR BUILD
LANEAGE, HCM SEGMENT ID#, VOLUMES & LOS

N

NOT TO SCALE

DATE: July 2017

FIGURE 5.6

LEGEND

XX (XX) = AM (PM) Peak Hour Volumes

= Unsignalized Intersection

= Signalized Intersection

= Lane Geometry

AM (PM) Peak Hour Level of Service

- LOS A – D
- LOS E
- LOS F
- Not Analyzed

Bold/Italics = Any Time Period D/C Ratio > 1

SR 2700 (White Oak Rd)

Tiffany Creek Dr

SR 2555 (Raynor Rd)

SR 2542 (Rock Quarry Rd)

Southeast Extension

MATCHLINE "E"

MATCHLINE "F"

MATCHLINE "G"

SR 2555 (Auburn-Knightdale Rd)

SR 2552 (Battle Bridge Rd)

SR 1004 (E. Garner Rd)

Southern Railway

BUS 70

SR 2542 (Old Baucom Rd)

B101 – A (A) | M100–A (A) | B99–A (A) | D98 | B (B) | B97 – A (A) | M96 – A (A) | B95–A(A) | M94 – A (A) | B93 – A (A) | D92 – A (A) | B91 – A (A)

B39 – A (A) | D40 – A (A) | B41–A (A) | M42 | A (A) | B43 – A (A) | D44 – A (A) | B45–A(A) | M46 – A (A) | B47 – A(A) | M48 – A (A) | B49 – A (A)

B91 – A (A) | M90 – A (A) | B89–A(A) | D88 – A (A) | B87 – A (A)

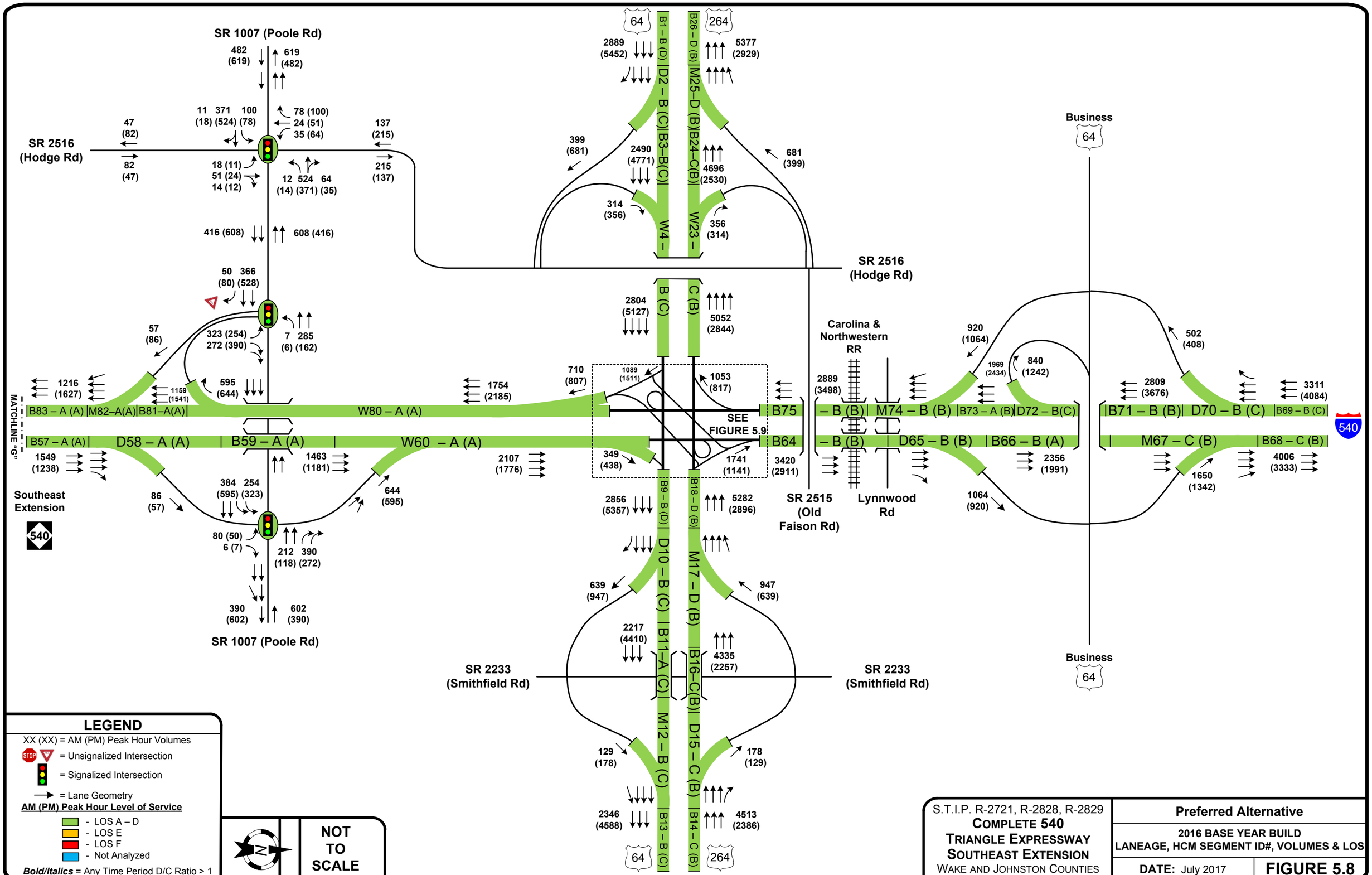
B49 – A (A) | D50–A (A) | B51–A(A) | M52 – A (A) | B53 – A (A)

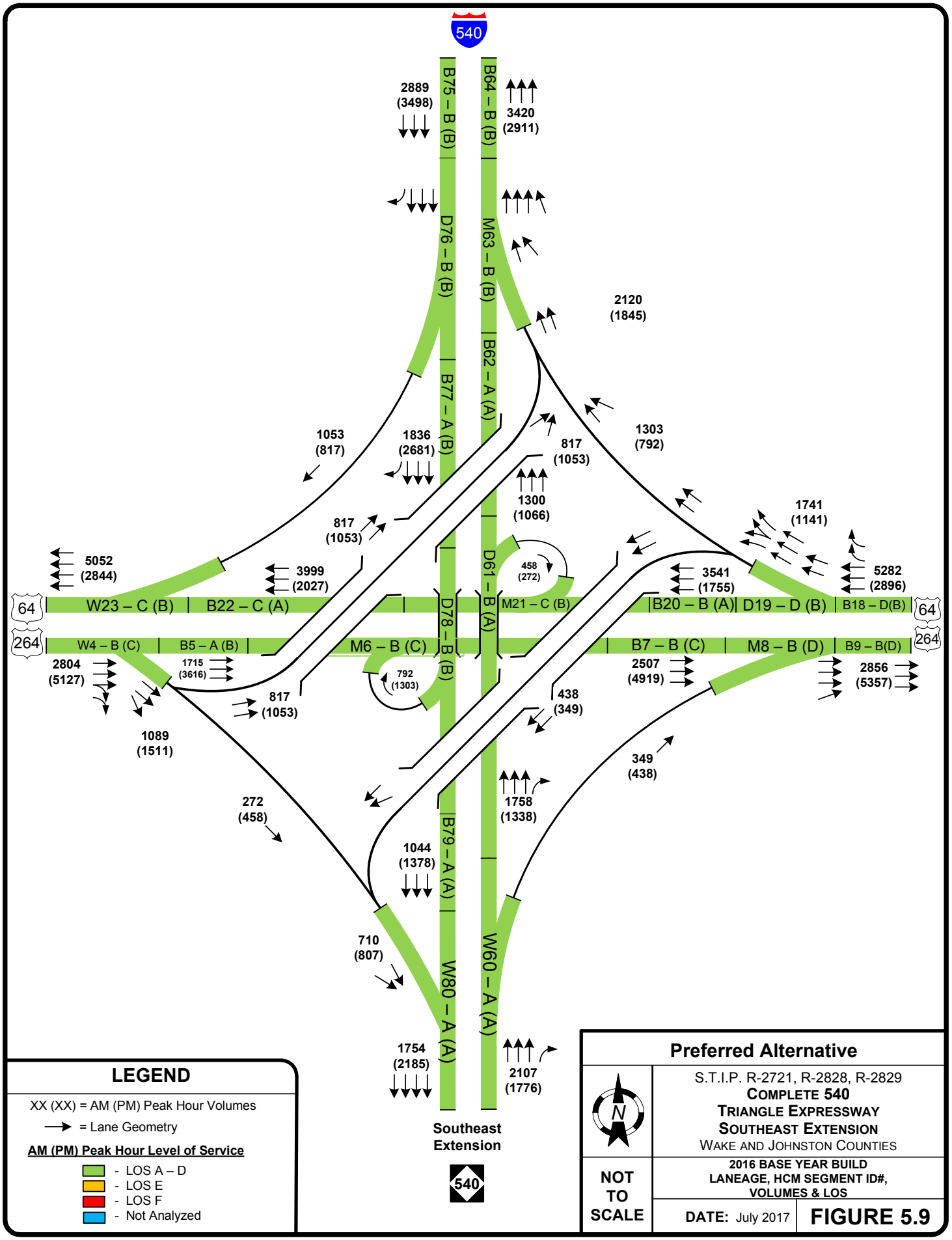
M86 | A (A) | B85–A (A) | D84 – A (A) | B83 – A (A)

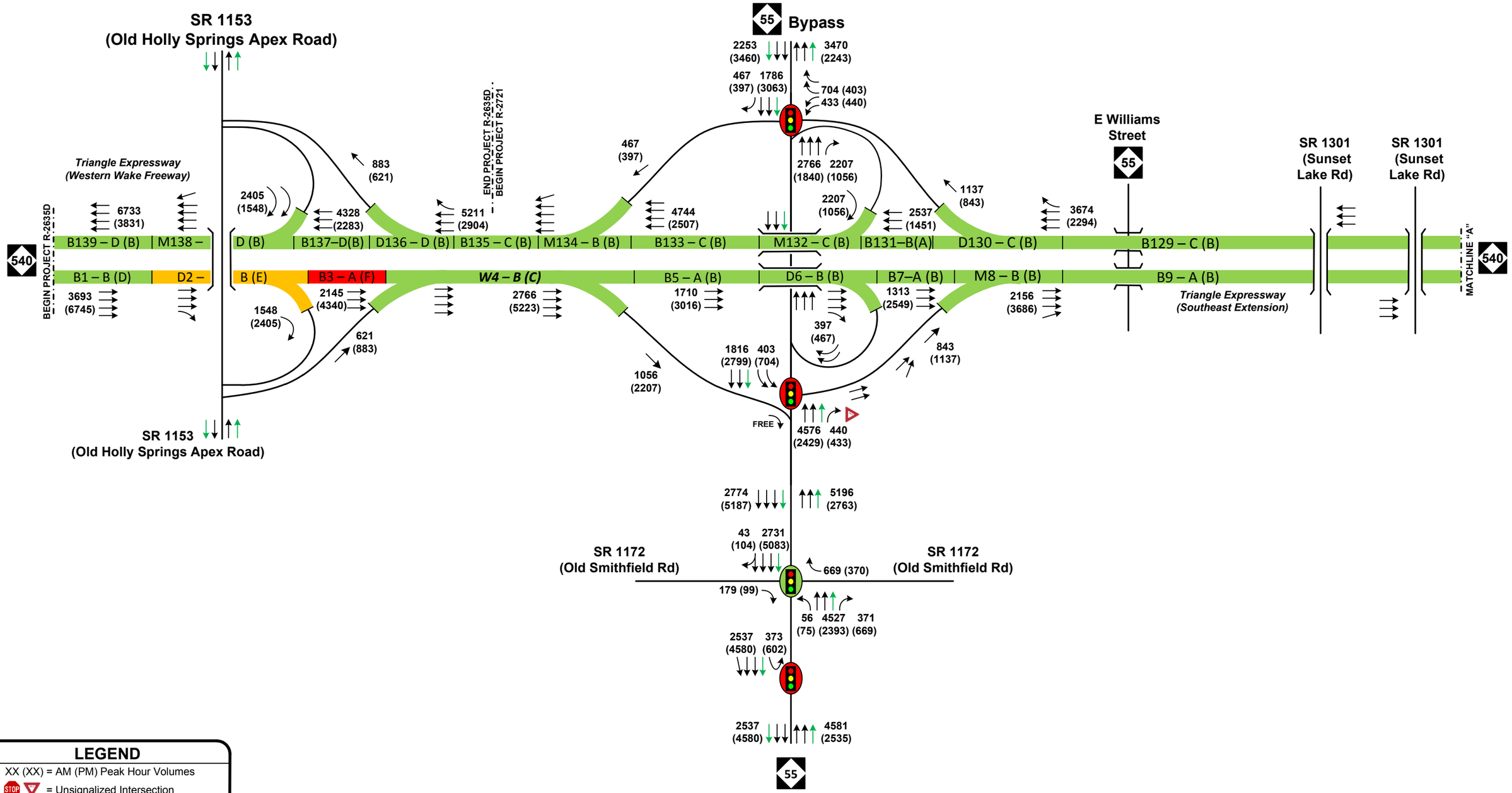
D54 | – A (A) | B55–A (A) | M56 – A (A) | B57 – A (A)

S.T.I.P. R-2721, R-2828, R-2829	Preferred Alternative
COMPLETE 540	2016 BASE YEAR BUILD
TRIANGLE EXPRESSWAY	LANEAGE, HCM SEGMENT ID#, VOLUMES & LOS
SOUTHEAST EXTENSION	**DATE:** July 2017 — **FIGURE 5.7**
WAKE AND JOHNSTON COUNTIES	

NOT TO SCALE


SR 1007 (Poole Rd)
SR 2516 (Hodge Rd)
64
264
B1 – B (D)
D2 – B (C)
B3–B(C)
B26 – D (B)
M25–D (B)
B24–C(B)
W4 –
W23 –
2889 (5452)
5377 (2929)
399 (681)
2490 (4771)
4696 (2530)
681 (399)
314 (356)
356 (314)
482 (619)
619 (482)
11 371 100 (18) (524) (78)
78 (100)
24 (51)
35 (64)
47 (82)
82 (47)
137 (215)
215 (137)
18 (11)
51 (24)
14 (12)
12 524 64 (14) (371) (35)
416 (608)
608 (416)
50 366 (80) (528)
323 (254)
272 (390)
7 285 (6) (162)
57 (86)
595 (644)
1159 (1541)
1216 (1627)
B83 – A (A)
M82–A(A)
B81–A(A)
W80 – A (A)
1754 (2185)
710 (807)
1089 (1511)
1053 (817)
SEE FIGURE 5.9
B75
B64
B57 – A (A)
D58 – A (A)
B59 – A (A)
W60 – A (A)
1549 (1238)
1463 (1181)
2107 (1776)
349 (438)
1741 (1141)
3420 (2911)
384 254 (595) (323)
86 (57)
644 (595)
80 (50)
6 (7)
212 (118)
390 (272)
390 (602)
602 (390)
Southeast Extension
540
SR 1007 (Poole Rd)
B (C)
C (B)
2804 (5127)
5052 (2844)
B9 – B (D)
D10 – B (C)
B11–A (C)
M12 – B (C)
B18 – D (B)
M17 – D (B)
B16–C(B)
D15 – C (B)
B14 – C (B)
B13 – B (C)
2856 (5357)
5282 (2896)
639 (947)
947 (639)
2217 (4410)
4335 (2257)
129 (178)
178 (129)
2346 (4588)
4513 (2386)
SR 2233 (Smithfield Rd)
SR 2233 (Smithfield Rd)
Carolina & Northwestern RR
2889 (3498)
920 (1064)
1969 (2434)
840 (1242)
– B (B)
M74 – B (B)
B73 – A (B)
D72 – B(C)
– B (B)
D65 – B (B)
B66 – B (A)
3420 (2911)
2356 (1991)
1064 (920)
SR 2515 (Old Faison Rd)
Lynnwood Rd
Business
64
502 (408)
2809 (3676)
3311 (4084)
B71 – B (B)
D70 – B (C)
B69 – B (C)
M67 – C (B)
B68 – C (B)
1650 (1342)
4006 (3333)
540
Business
64
MATCHLINE "G"
LEGEND
XX (XX) = AM (PM) Peak Hour Volumes
= Unsignalized Intersection
= Signalized Intersection
= Lane Geometry
AM (PM) Peak Hour Level of Service
- LOS A – D
- LOS E
- LOS F
- Not Analyzed
Bold/Italics = Any Time Period D/C Ratio > 1
N
NOT TO SCALE
S.T.I.P. R-2721, R-2828, R-2829
COMPLETE 540
TRIANGLE EXPRESSWAY
SOUTHEAST EXTENSION
WAKE AND JOHNSTON COUNTIES
Preferred Alternative
2016 BASE YEAR BUILD
LANEAGE, HCM SEGMENT ID#, VOLUMES & LOS
DATE: July 2017
FIGURE 5.8


540
B75 – B (B)
B64 – B (B)
2889
(3498)
3420
(2911)
D76 – B (B)
M63 – B (B)
2120
(1845)
B62 – A (A)
B77 – A (B)
1053
(817)
1836
(2681)
817
(1053)
1303
(792)
1300
(1066)
1741
(1141)
817
(1053)
D61 – B (A)
458
(272)
5052
(2844)
3999
(2027)
3541
(1755)
5282
(2896)
64
W23 – C (B)
B22 – C (A)
D78 – B (B)
M21 – C (B)
B20 – B (A)
D19 – D (B)
B18 – D(B)
64
264
W4 – B (C)
B5 – A (B)
M6 – B (C)
B7 – B (C)
M8 – B (D)
B9 – B(D)
264
2804
(5127)
1715
(3616)
792
(1303)
2507
(4919)
2856
(5357)
817
(1053)
438
(349)
1089
(1511)
349
(438)
272
(458)
1758
(1338)
B79 – A (A)
1044
(1378)
710
(807)
W80 – A (A)
W60 – A (A)
1754
(2185)
2107
(1776)
Southeast
Extension
540
LEGEND
XX (XX) = AM (PM) Peak Hour Volumes
= Lane Geometry
AM (PM) Peak Hour Level of Service
- LOS A – D
- LOS E
- LOS F
- Not Analyzed
Preferred Alternative
N
S.T.I.P. R-2721, R-2828, R-2829
COMPLETE 540
TRIANGLE EXPRESSWAY
SOUTHEAST EXTENSION
WAKE AND JOHNSTON COUNTIES
NOT
TO
SCALE
2016 BASE YEAR BUILD
LANEAGE, HCM SEGMENT ID#,
VOLUMES & LOS
DATE: July 2017
FIGURE 5.9



LEGEND

XX (XX) = AM (PM) Peak Hour Volumes

= Unsignalized Intersection

= Signalized Intersection

= Lane Geometry

= Future Laneage By Others

AM (PM) Peak Hour Level of Service

- LOS A – D
- LOS E
- LOS F
- Not Analyzed

Bold/Italics = Any Time Period D/C Ratio > 1

S.T.I.P. R-2721, R-2828, R-2829

COMPLETE 540

TRIANGLE EXPRESSWAY SOUTHEAST EXTENSION

WAKE AND JOHNSTON COUNTIES

Preferred Alternative

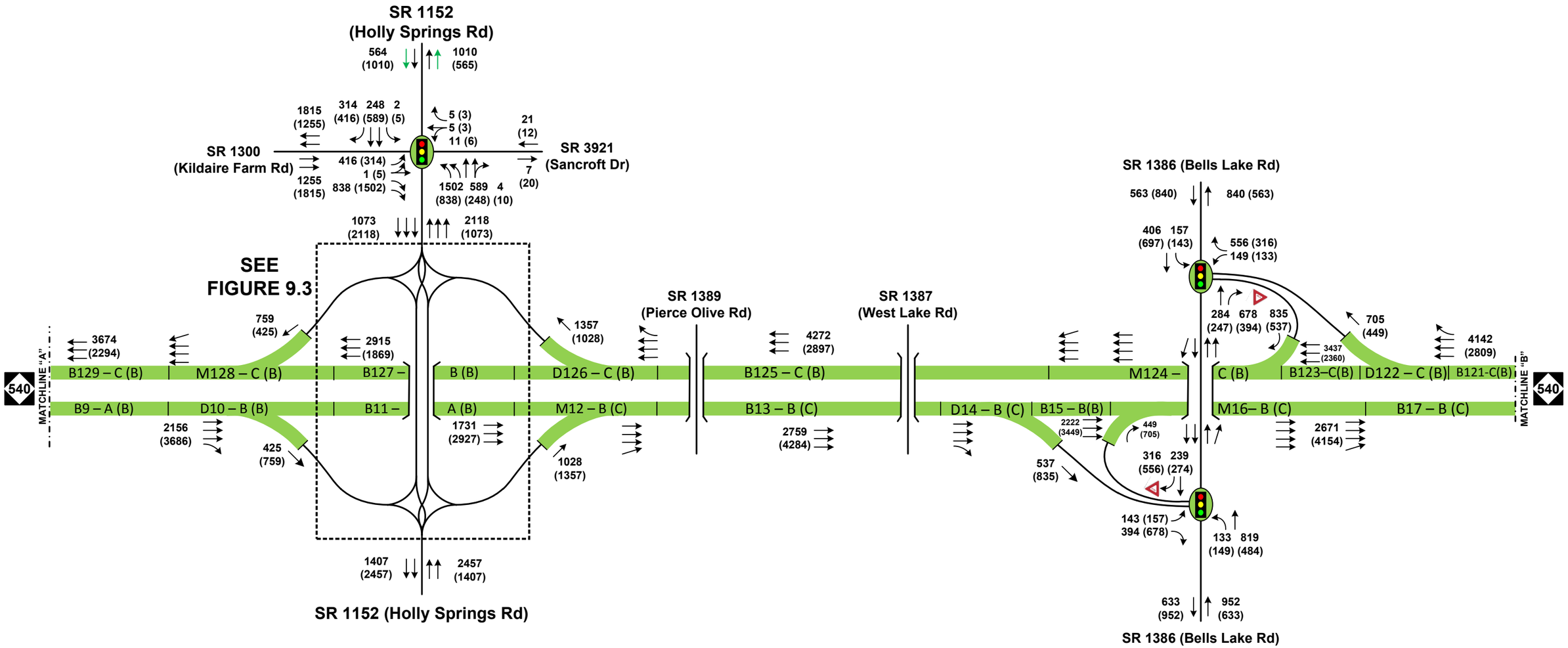
2040 FUTURE YEAR BUILD LANEAGE, HCM SEGMENT ID#, VOLUMES & LOS

DATE: July 2017

FIGURE 6.1

N

NOT TO SCALE



LEGEND

XX (XX) = AM (PM) Peak Hour Volumes

= Unsignalized Intersection

= Signalized Intersection

= Lane Geometry

= Future Laneage By Others

AM (PM) Peak Hour Level of Service

- LOS A – D
- LOS E
- LOS F
- Not Analyzed

Bold/Italics = Any Time Period D/C Ratio > 1

S.T.I.P. R-2721, R-2828, R-2829

COMPLETE 540
TRIANGLE EXPRESSWAY
SOUTHEAST EXTENSION
WAKE AND JOHNSTON COUNTIES

Preferred Alternative

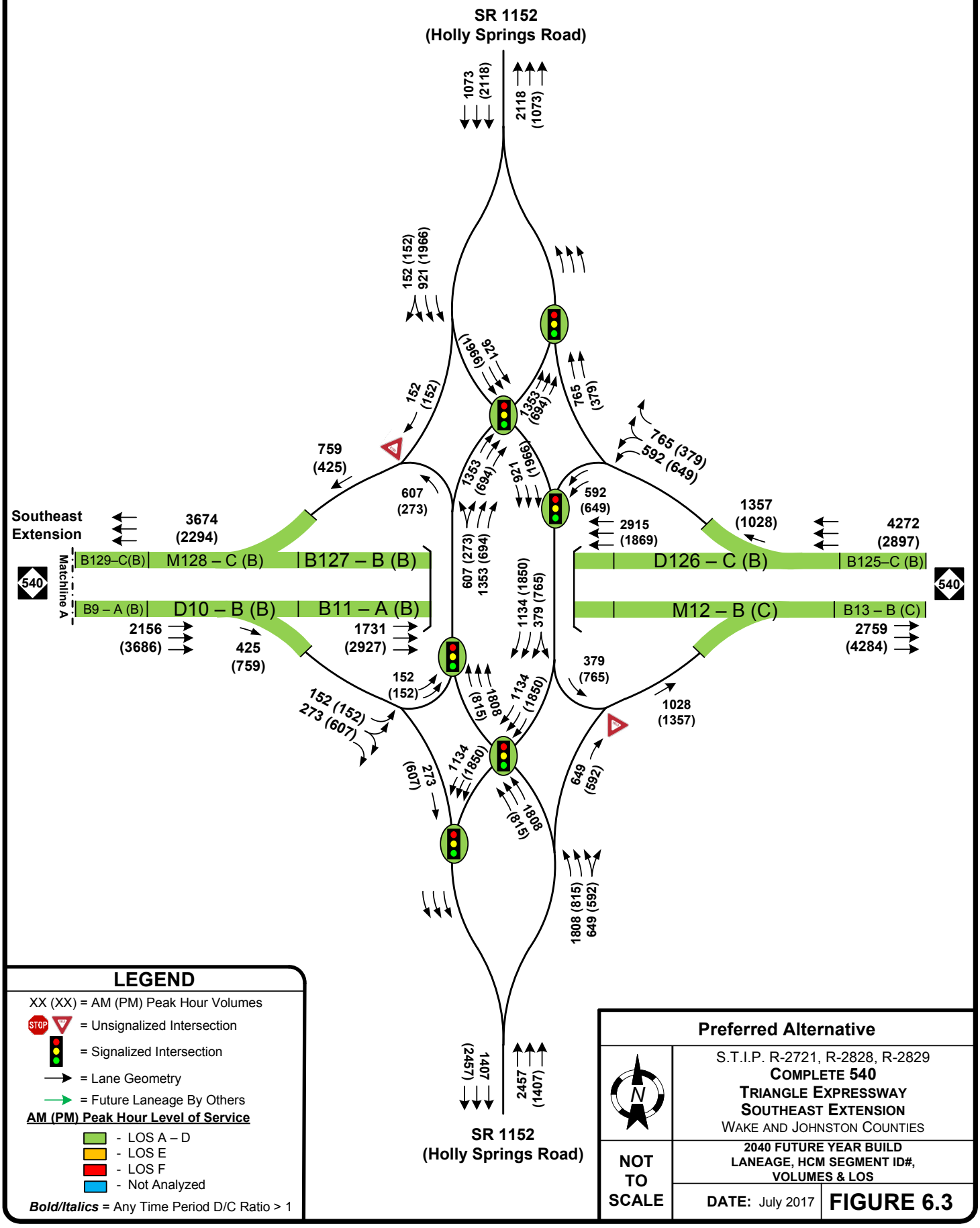
2040 FUTURE YEAR BUILD
LANEAGE, HCM SEGMENT ID#, VOLUMES & LOS

DATE: July 2017

FIGURE 6.2

N

NOT TO SCALE



LEGEND

XX (XX) = AM (PM) Peak Hour Volumes

= Unsignalized Intersection

= Signalized Intersection

= Lane Geometry

= Future Laneage By Others

AM (PM) Peak Hour Level of Service

- LOS A – D
- LOS E
- LOS F
- Not Analyzed

Bold/Italics = Any Time Period D/C Ratio > 1

Preferred Alternative

S.T.I.P. R-2721, R-2828, R-2829

COMPLETE 540

TRIANGLE EXPRESSWAY

SOUTHEAST EXTENSION

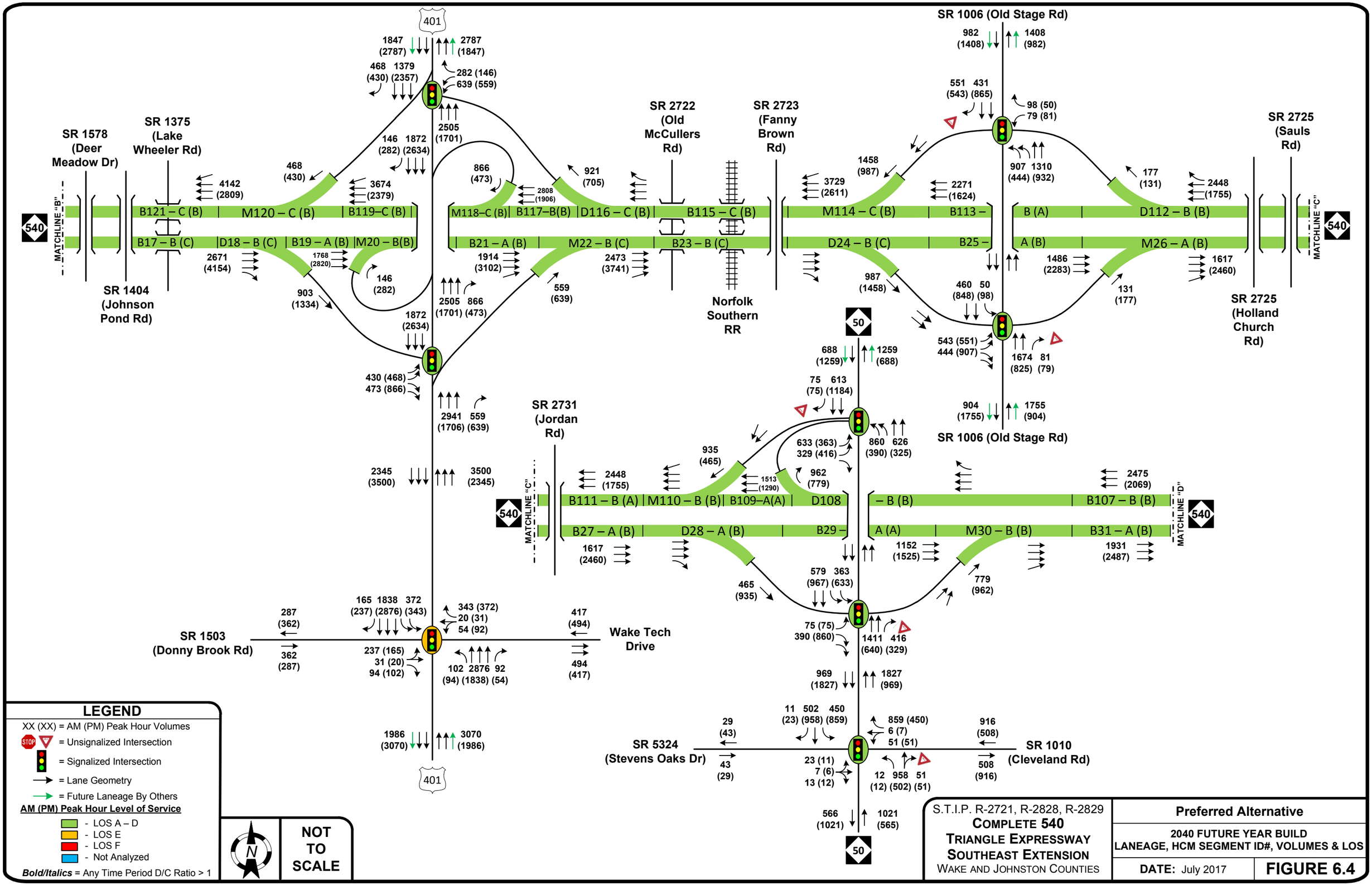
WAKE AND JOHNSTON COUNTIES

2040 FUTURE YEAR BUILD LANEAGE, HCM SEGMENT ID#, VOLUMES & LOS

NOT TO SCALE

DATE: July 2017

FIGURE 6.3



LEGEND

XX (XX) = AM (PM) Peak Hour Volumes

= Unsignalized Intersection

= Signalized Intersection

= Lane Geometry

= Future Laneage By Others

AM (PM) Peak Hour Level of Service

- LOS A – D
- LOS E
- LOS F
- Not Analyzed

Bold/Italics = Any Time Period D/C Ratio > 1

N

NOT TO SCALE

S.T.I.P. R-2721, R-2828, R-2829

COMPLETE 540 TRIANGLE EXPRESSWAY SOUTHEAST EXTENSION

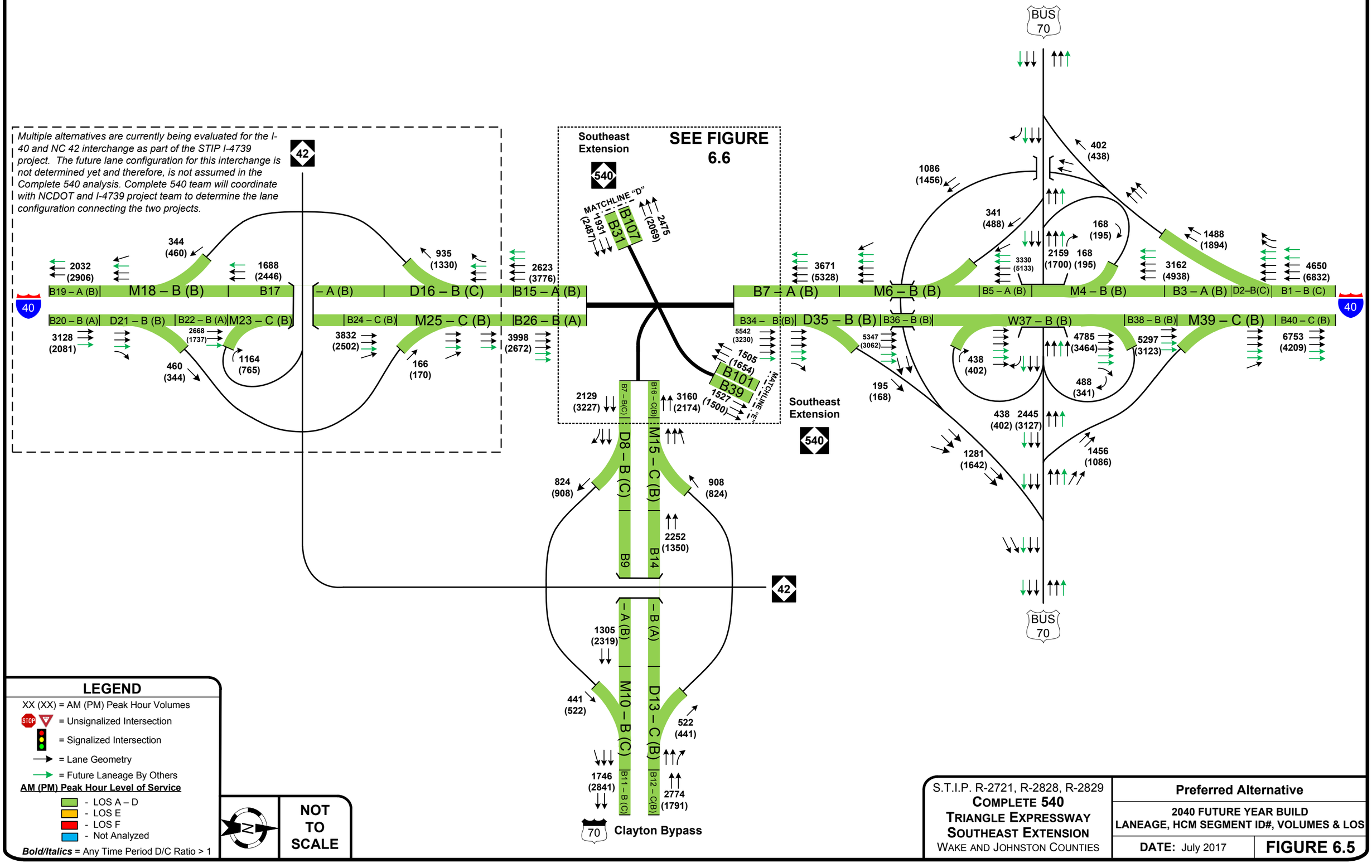
WAKE AND JOHNSTON COUNTIES

Preferred Alternative

2040 FUTURE YEAR BUILD LANEAGE, HCM SEGMENT ID#, VOLUMES & LOS

DATE: July 2017

FIGURE 6.4



LEGEND

XX (XX) = AM (PM) Peak Hour Volumes

= Unsignalized Intersection

= Signalized Intersection

= Lane Geometry

= Future Laneage By Others

AM (PM) Peak Hour Level of Service

- LOS A – D
- LOS E
- LOS F
- Not Analyzed

Bold/Italics = Any Time Period D/C Ratio > 1

N

NOT TO SCALE

S.T.I.P. R-2721, R-2828, R-2829

COMPLETE 540

TRIANGLE EXPRESSWAY SOUTHEAST EXTENSION

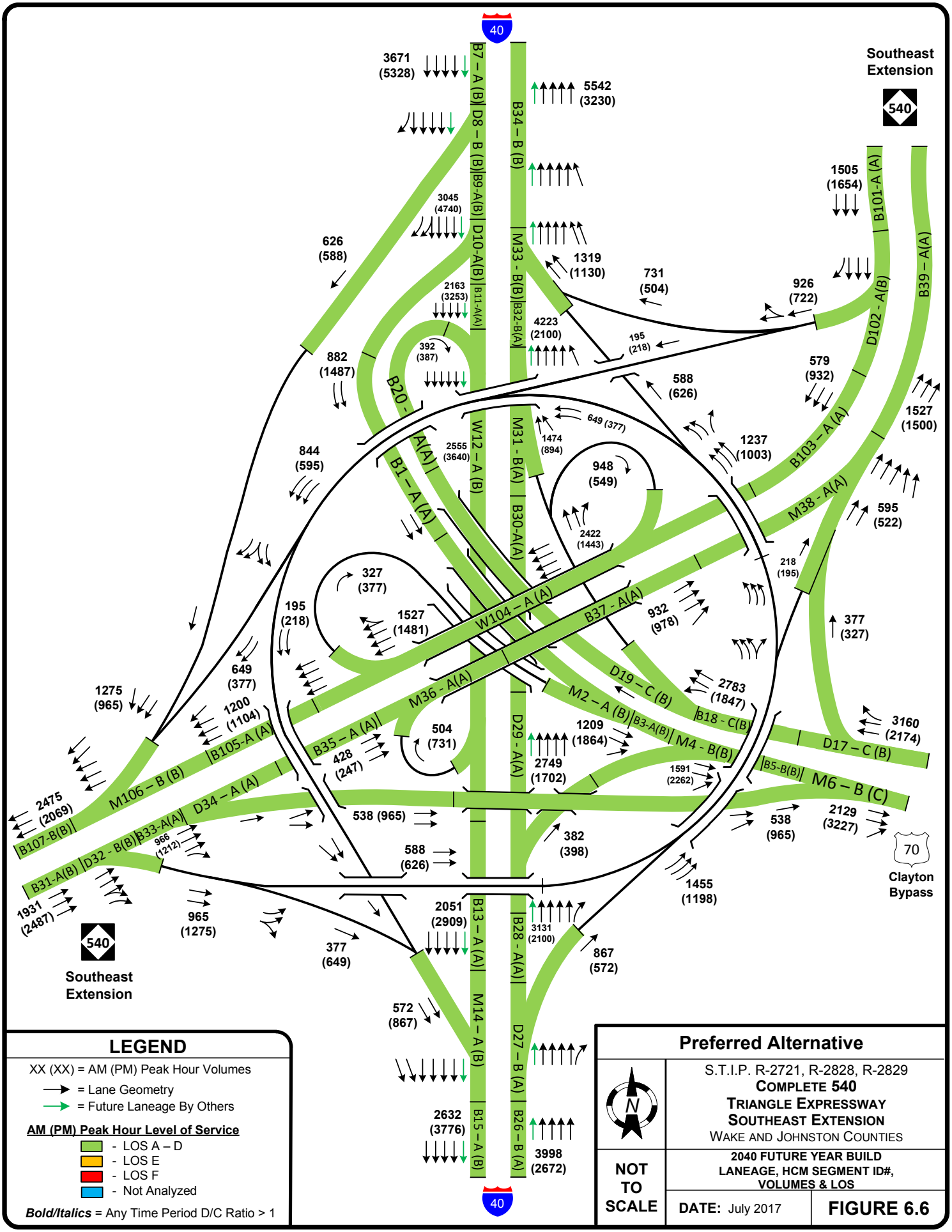
WAKE AND JOHNSTON COUNTIES

Preferred Alternative

2040 FUTURE YEAR BUILD LANEAGE, HCM SEGMENT ID#, VOLUMES & LOS

DATE: July 2017

FIGURE 6.5



LEGEND

XX (XX) = AM (PM) Peak Hour Volumes

→ = Lane Geometry

→ = Future Laneage By Others

AM (PM) Peak Hour Level of Service

- LOS A – D
- LOS E
- LOS F
- Not Analyzed

Bold/Italics = Any Time Period D/C Ratio > 1

Preferred Alternative

S.T.I.P. R-2721, R-2828, R-2829

COMPLETE 540

TRIANGLE EXPRESSWAY

SOUTHEAST EXTENSION

WAKE AND JOHNSTON COUNTIES

2040 FUTURE YEAR BUILD LANEAGE, HCM SEGMENT ID#, VOLUMES & LOS

N

NOT TO SCALE

DATE: July 2017

FIGURE 6.6

LEGEND

XX (XX) = AM (PM) Peak Hour Volumes

= Unsignalized Intersection

= Signalized Intersection

= Lane Geometry

= Future Laneage By Others

AM (PM) Peak Hour Level of Service

- LOS A – D
- LOS E
- LOS F
- Not Analyzed

SR 2700 (White Oak Rd)

Tiffany Creek Dr

SR 2555 (Raynor Rd)

SR 2542 (Rock Quarry Rd)

Southeast Extension

MATCHLINE "E"

MATCHLINE "F"

MATCHLINE "G"

540

B101 – A (A) | M100–A (A) | B99–A (A) | D98 | B (B) | B97 – A (A) | M96 – B (B) | B95–A(A) | M94 – A (B) | B93 – A (A) | D92 – B (B) | B91 – A (B)

B39 – A (B) | D40 – A (B) | B41–A (A) | M42 | A (B) | B43 – A (A) | D44 – B (B) | B45 – A (A) | M46 – B (B) | B47 – A(A) | M48 – B (B) | B49 – B (B)

SR 1004 (E. Garner Rd)

Southern Railway

BUS 70

SR 2555 (Auburn-Knightdale Rd)

SR 2555 (Auburn-Knightdale Rd)

SR 2552 (Battle Bridge Rd)

SR 2542 (Rock Quarry Rd)

SR 2542 (Old Baucom Rd)

SR 2700 (White Oak Rd)

Southeast Extension

MATCHLINE "F"

540

B91 – A (B) | M90 – B (B) | B89–A(B) | D88 – B (B) | B87 – B (B)

B49 – B (B) | D50 – B (B) | B51 – B (A) | M52 – B (B) | B53 – B (B)

M86 | B (B) | B85–A (B) | D84 – B (B) | B83 – B (B)

D54 | – B (B) | B55 – B (B) | M56 – B (B) | B57 – B (B)

Southeast Extension

MATCHLINE "G"

540

S.T.I.P. R-2721, R-2828, R-2829

COMPLETE 540

TRIANGLE EXPRESSWAY

SOUTHEAST EXTENSION

WAKE AND JOHNSTON COUNTIES

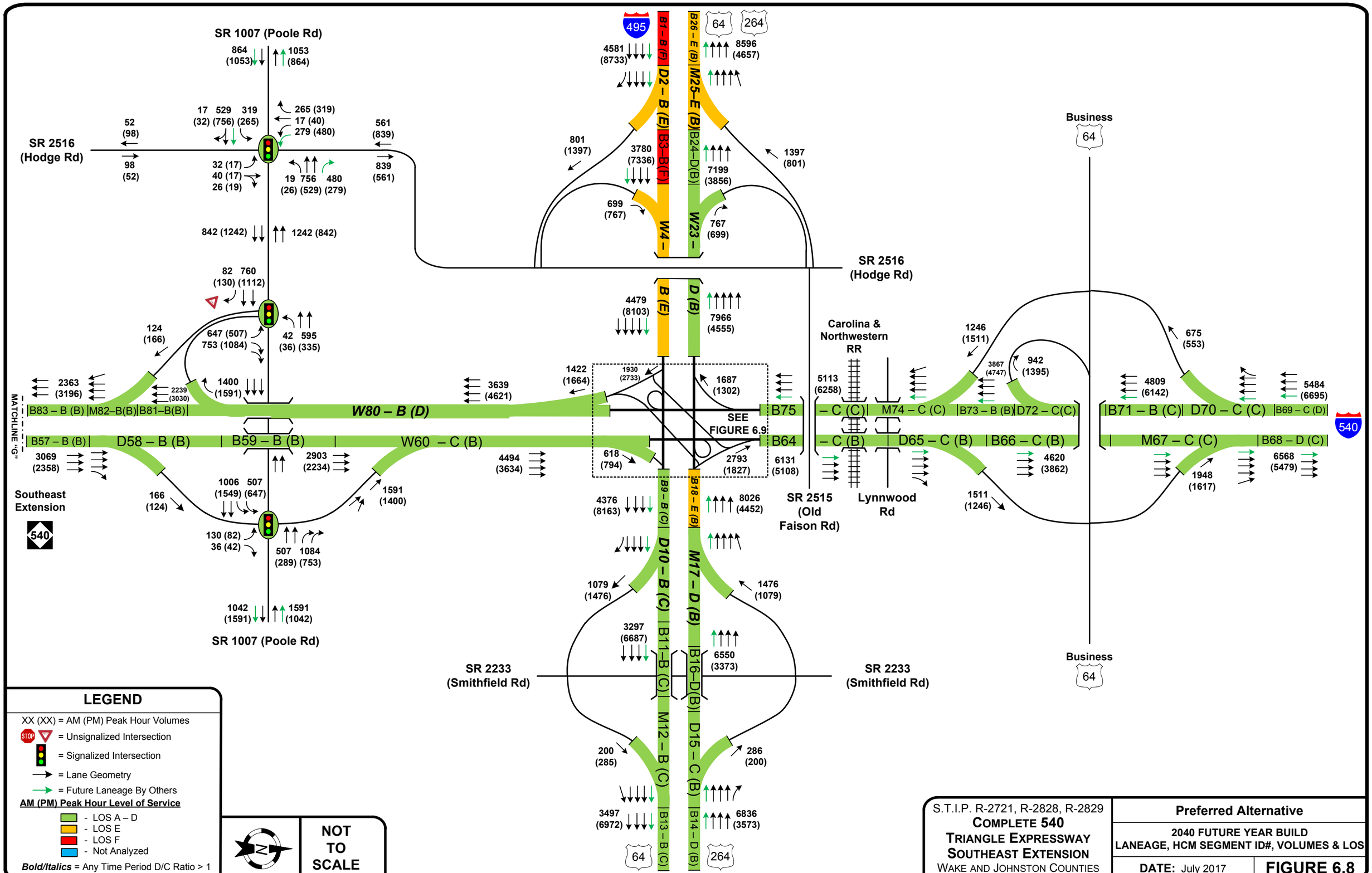
Preferred Alternative

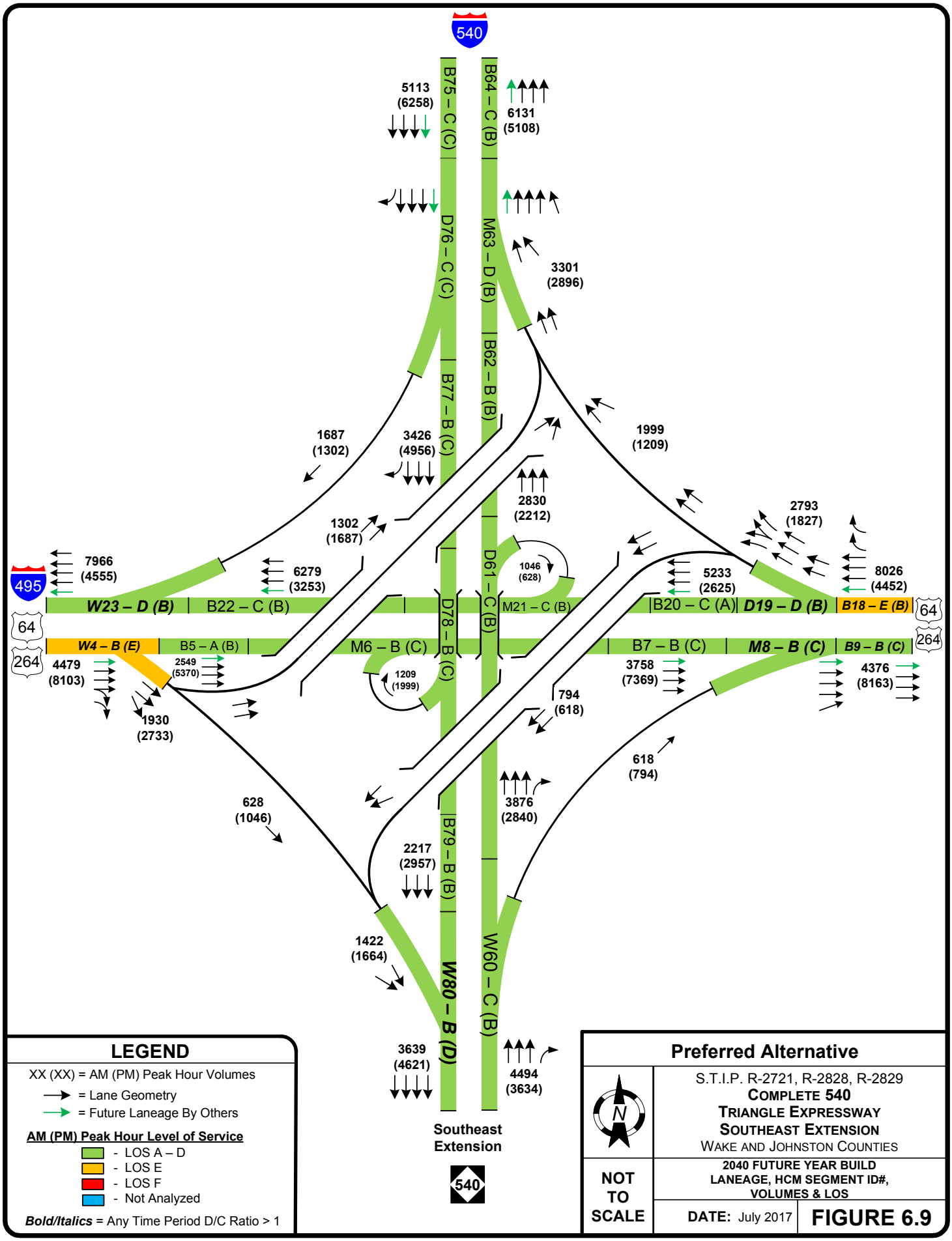
2040 FUTURE YEAR BUILD
LANEAGE, HCM SEGMENT ID#, VOLUMES & LOS

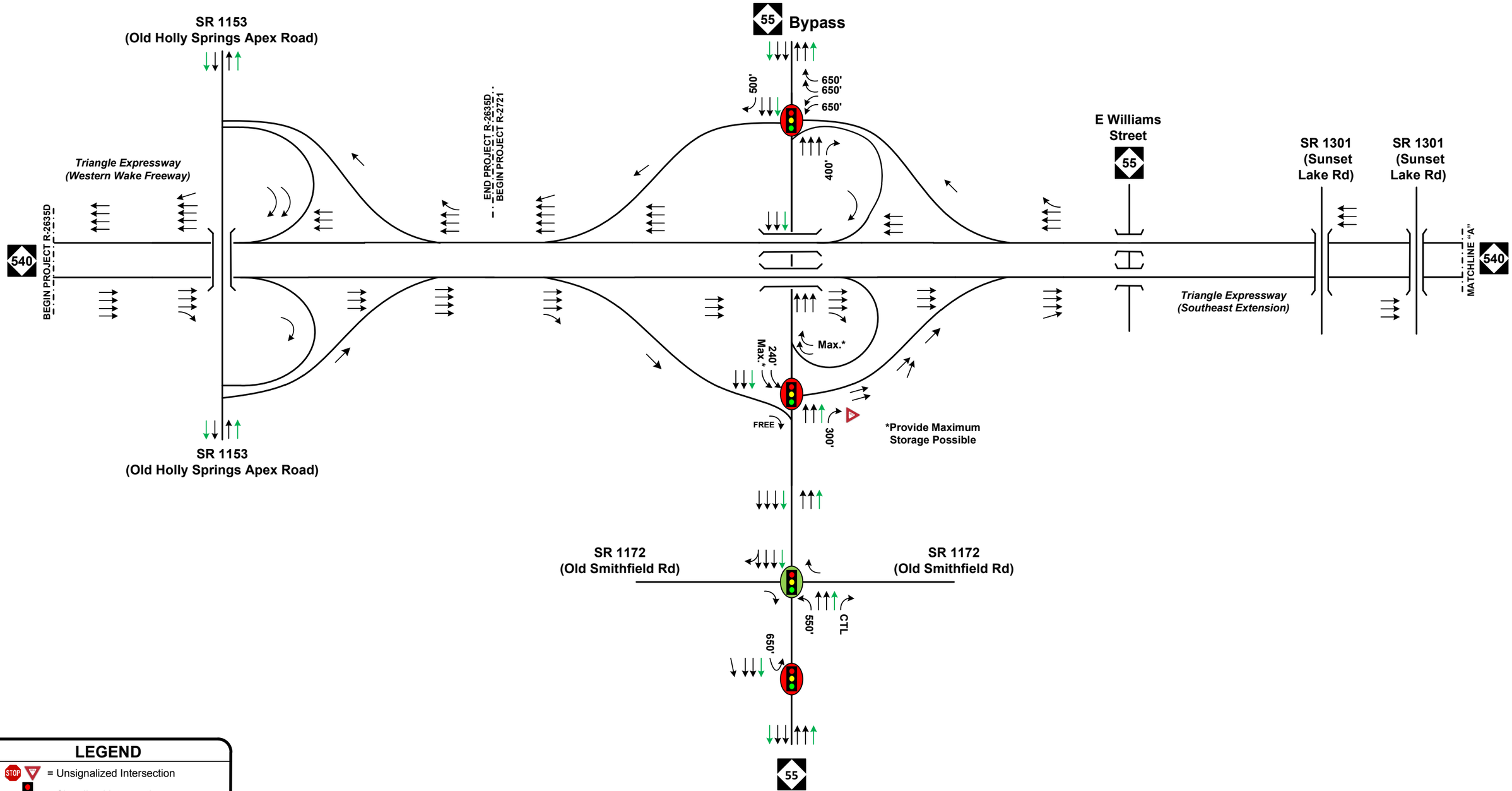
DATE: July 2017

FIGURE 6.7

NOT TO SCALE


SR 1007 (Poole Rd)
SR 2516 (Hodge Rd)
SR 2516 (Hodge Rd)
SR 1007 (Poole Rd)
SR 2233 (Smithfield Rd)
SR 2233 (Smithfield Rd)
SR 2515 (Old Faison Rd)
Lynnwood Rd
Carolina & Northwestern RR
Southeast Extension
Business 64
Business 64
495
64
264
540
MATCHLINE "G"
B83 – B (B) | M82–B(B) | B81–B(B)
W80 – B (D)
B57 – B (B) | D58 – B (B) | B59 – B (B) | W60 – C (B)
B1 – B (F) | D2 – B (E) | B3–B(F) | W4 –
B26 – E (B) | M25–E (B) | B24–D(B) | W23 –
B (E) | D (B)
B9 – B (C) | D10 – B (C) | B11–B(C) | M12 – B (C) | B13 – B (C)
B18 – E (B) | M17 – D (B) | B16–D(B) | D15 – C (B) | B14 – D (B)
B75
B64
SEE FIGURE 6.9
– C (C) | M74 – C (C) | B73 – B (B) | D72 – C(C)
– C (B) | D65 – C (B) | B66 – C (B)
B71 – B (C) | D70 – C (C) | B69 – C (D)
M67 – C (C) | B68 – D (C)
LEGEND
XX (XX) = AM (PM) Peak Hour Volumes
= Unsignalized Intersection
= Signalized Intersection
= Lane Geometry
= Future Laneage By Others
AM (PM) Peak Hour Level of Service
- LOS A – D
- LOS E
- LOS F
- Not Analyzed
Bold/Italics = Any Time Period D/C Ratio > 1
NOT TO SCALE
S.T.I.P. R-2721, R-2828, R-2829
COMPLETE 540
TRIANGLE EXPRESSWAY
SOUTHEAST EXTENSION
WAKE AND JOHNSTON COUNTIES
Preferred Alternative
2040 FUTURE YEAR BUILD
LANEAGE, HCM SEGMENT ID#, VOLUMES & LOS
DATE: July 2017
FIGURE 6.8


540
B75 – C (C)
B64 – C (B)
5113
(6258)
6131
(5108)
D76 – C (C)
M63 – D (B)
3301
(2896)
B77 – B (C)
B62 – B (B)
1687
(1302)
3426
(4956)
1999
(1209)
2830
(2212)
1302
(1687)
2793
(1827)
D61 – C (B)
1046
(628)
495
7966
(4555)
6279
(3253)
5233
(2625)
8026
(4452)
W23 – D (B)
B22 – C (B)
D78 – B (C)
M21 – C (B)
B20 – C (A)
D19 – D (B)
B18 – E (B)
64
64
W4 – B (E)
B5 – A (B)
M6 – B (C)
B7 – B (C)
M8 – B (C)
B9 – B (C)
264
264
4479
(8103)
2549
(5370)
1209
(1999)
3758
(7369)
4376
(8163)
1930
(2733)
794
(618)
618
(794)
628
(1046)
3876
(2840)
2217
(2957)
B79 – B (B)
1422
(1664)
W80 – B (D)
W60 – C (B)
3639
(4621)
4494
(3634)
Southeast
Extension
540
LEGEND
XX (XX) = AM (PM) Peak Hour Volumes
= Lane Geometry
= Future Laneage By Others
AM (PM) Peak Hour Level of Service
- LOS A – D
- LOS E
- LOS F
- Not Analyzed
Bold/Italics = Any Time Period D/C Ratio > 1
Preferred Alternative
N
S.T.I.P. R-2721, R-2828, R-2829
COMPLETE 540
TRIANGLE EXPRESSWAY
SOUTHEAST EXTENSION
WAKE AND JOHNSTON COUNTIES
NOT
TO
SCALE
2040 FUTURE YEAR BUILD
LANEAGE, HCM SEGMENT ID#,
VOLUMES & LOS
DATE: July 2017
FIGURE 6.9



LEGEND

= Unsignalized Intersection

= Signalized Intersection

= Lane Geometry

= Future Laneage By Others

###' = Recommended Storage Length

AM (PM) Peak Hour Level of Service

- LOS A – D
- LOS E
- LOS F

S.T.I.P. R-2721, R-2828, R-2829

COMPLETE 540
TRIANGLE EXPRESSWAY
SOUTHEAST EXTENSION
WAKE AND JOHNSTON COUNTIES

Preferred Alternative

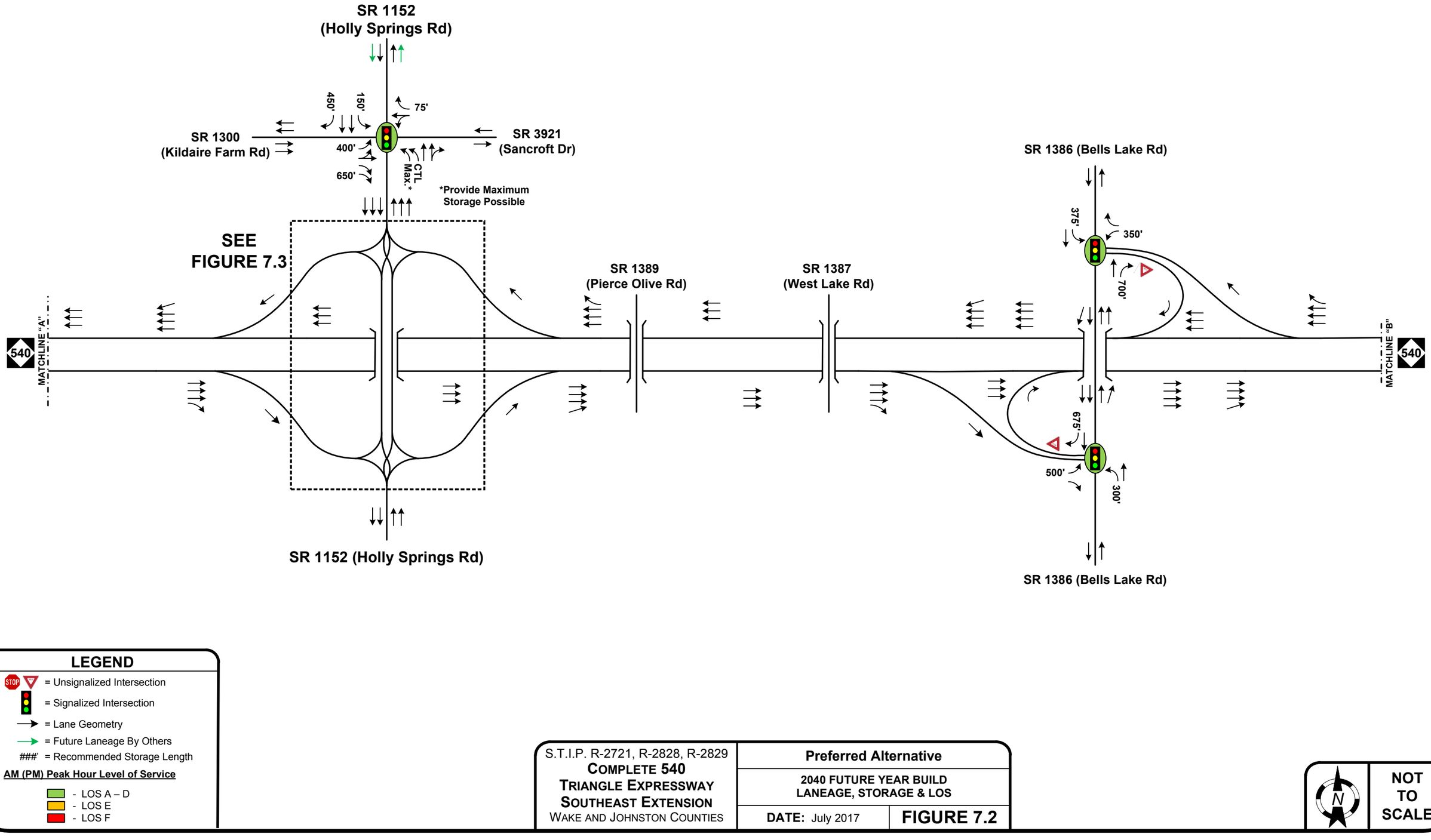
2040 FUTURE YEAR BUILD
LANEAGE, STORAGE & LOS

DATE: July 2017

FIGURE 7.1

N

NOT TO SCALE



LEGEND

- = Unsignalized Intersection
- = Signalized Intersection
- = Lane Geometry
- = Future Laneage By Others
- ###' = Recommended Storage Length

AM (PM) Peak Hour Level of Service

- - LOS A – D
- - LOS E
- - LOS F

S.T.I.P. R-2721, R-2828, R-2829
COMPLETE 540
TRIANGLE EXPRESSWAY
SOUTHEAST EXTENSION
WAKE AND JOHNSTON COUNTIES

Preferred Alternative

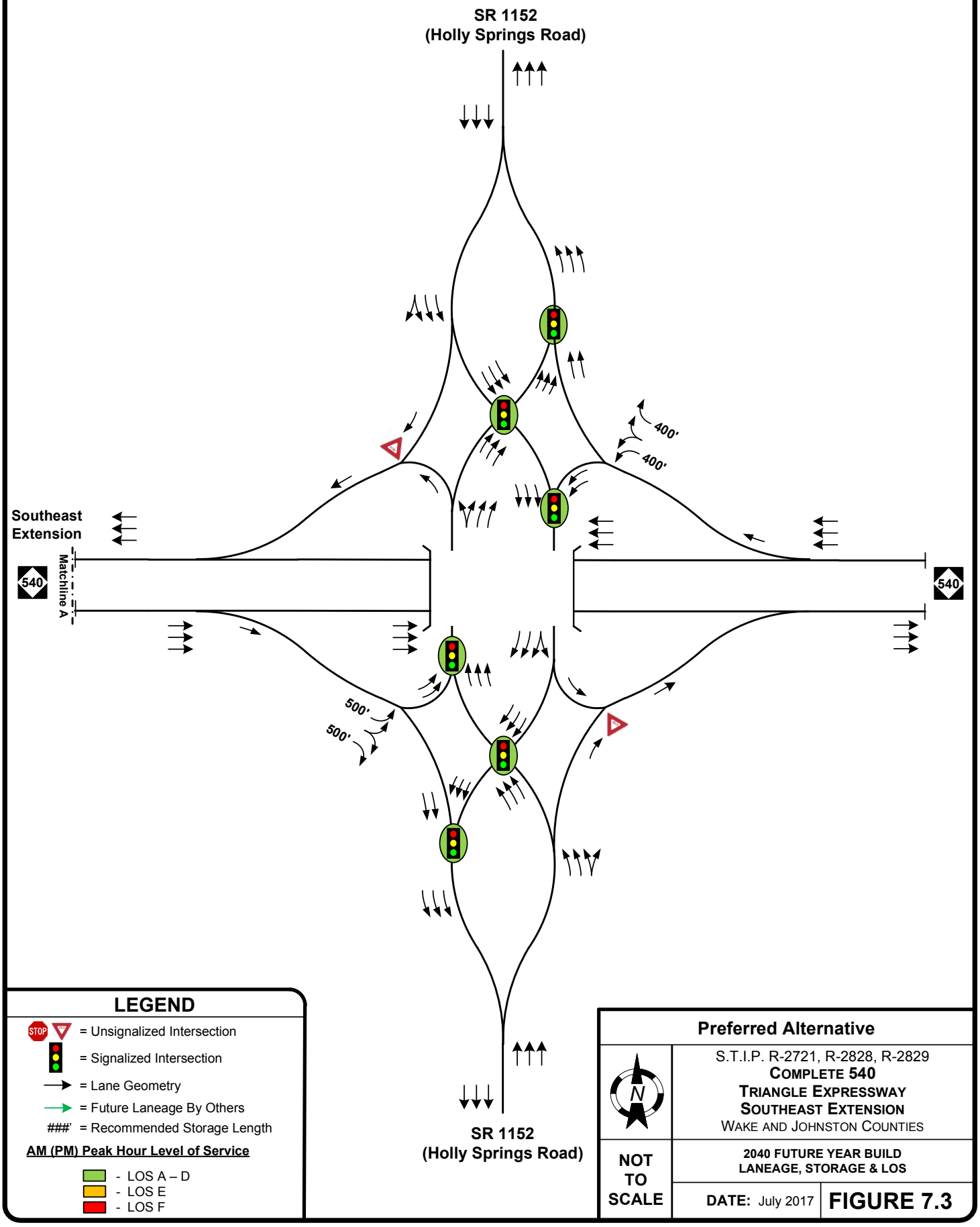
2040 FUTURE YEAR BUILD
LANEAGE, STORAGE & LOS

DATE: July 2017

FIGURE 7.2

N

NOT TO SCALE



LEGEND

STOP = Unsignalized Intersection

= Signalized Intersection

= Lane Geometry

= Future Laneage By Others

###' = Recommended Storage Length

AM (PM) Peak Hour Level of Service

- LOS A – D
- LOS E
- LOS F

Preferred Alternative

N

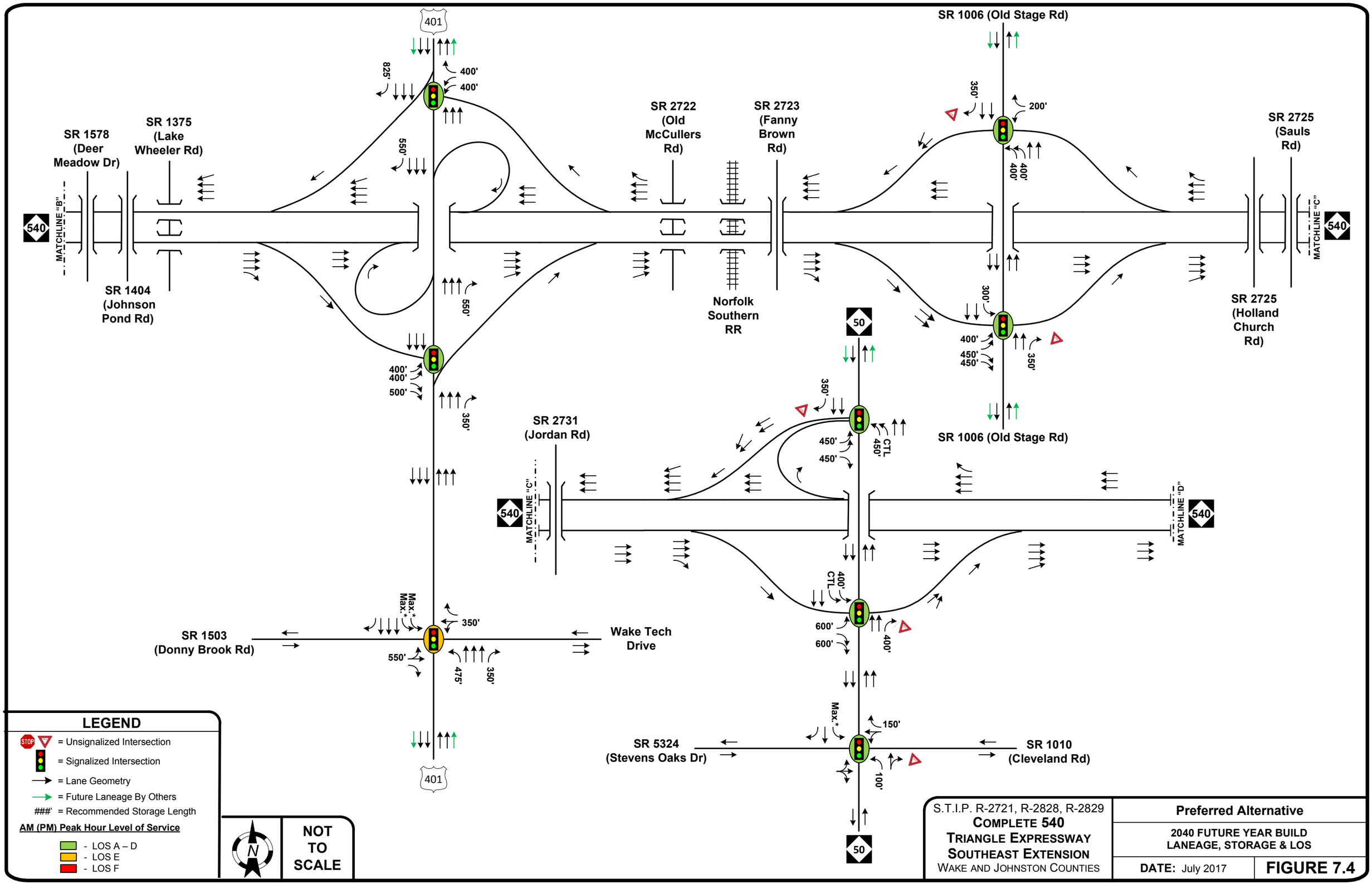
S.T.I.P. R-2721, R-2828, R-2829
COMPLETE 540
TRIANGLE EXPRESSWAY
SOUTHEAST EXTENSION
WAKE AND JOHNSTON COUNTIES

NOT TO SCALE

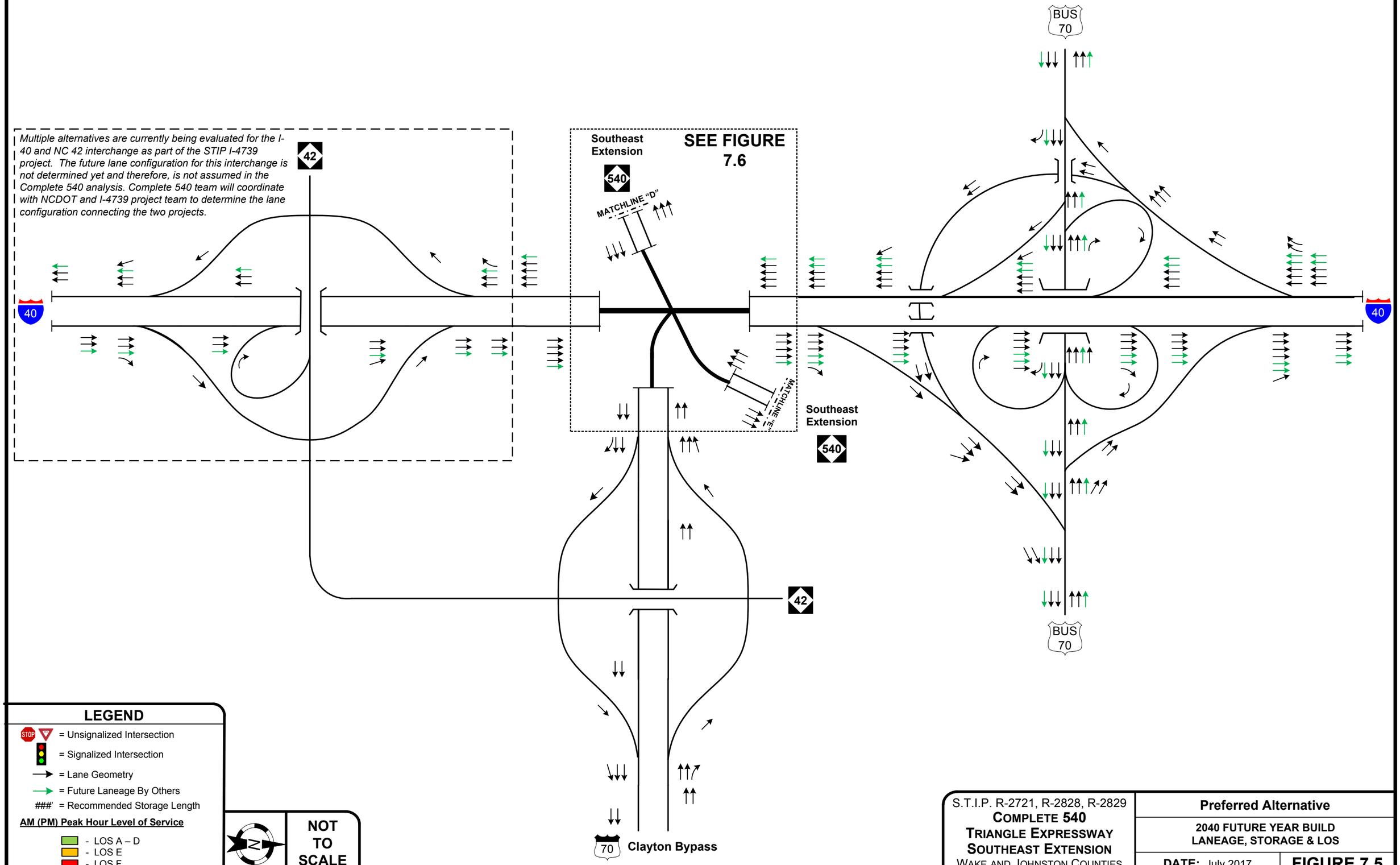
2040 FUTURE YEAR BUILD
LANEAGE, STORAGE & LOS

DATE: July 2017

FIGURE 7.3


401
825'
400'
400'
550'
SR 1578
(Deer
Meadow Dr)
SR 1375
(Lake
Wheeler Rd)
MATCHLINE "B"
540
SR 1404
(Johnson
Pond Rd)
550'
400'
400'
500'
350'
SR 2722
(Old
McCullers
Rd)
SR 2723
(Fanny
Brown
Rd)
Norfolk
Southern
RR
SR 1006 (Old Stage Rd)
350'
200'
400'
400'
SR 2725
(Sauls
Rd)
MATCHLINE "C"
540
300'
400'
450'
450'
350'
SR 2725
(Holland
Church
Rd)
SR 1006 (Old Stage Rd)
50
350'
450'
450'
CTL
450'
SR 2731
(Jordan Rd)
MATCHLINE "C"
540
MATCHLINE "D"
540
CTL
400'
600'
600'
400'
Max.*
350'
SR 1503
(Donny Brook Rd)
550'
475'
350'
Wake Tech
Drive
Max.*
150'
SR 5324
(Stevens Oaks Dr)
100'
SR 1010
(Cleveland Rd)
50
401
LEGEND
= Unsignalized Intersection
= Signalized Intersection
= Lane Geometry
= Future Laneage By Others
###' = Recommended Storage Length
AM (PM) Peak Hour Level of Service
- LOS A – D
- LOS E
- LOS F
N
NOT
TO
SCALE
S.T.I.P. R-2721, R-2828, R-2829
COMPLETE 540
TRIANGLE EXPRESSWAY
SOUTHEAST EXTENSION
WAKE AND JOHNSTON COUNTIES
Preferred Alternative
2040 FUTURE YEAR BUILD
LANEAGE, STORAGE & LOS
DATE: July 2017
FIGURE 7.4

Multiple alternatives are currently being evaluated for the I-40 and NC 42 interchange as part of the STIP I-4739 project. The future lane configuration for this interchange is not determined yet and therefore, is not assumed in the Complete 540 analysis. Complete 540 team will coordinate with NCDOT and I-4739 project team to determine the lane configuration connecting the two projects.



LEGEND

- = Unsignalized Intersection
- = Signalized Intersection
- = Lane Geometry
- = Future Laneage By Others
- ###' = Recommended Storage Length

AM (PM) Peak Hour Level of Service

- - LOS A – D
- - LOS E
- - LOS F

NOT TO SCALE

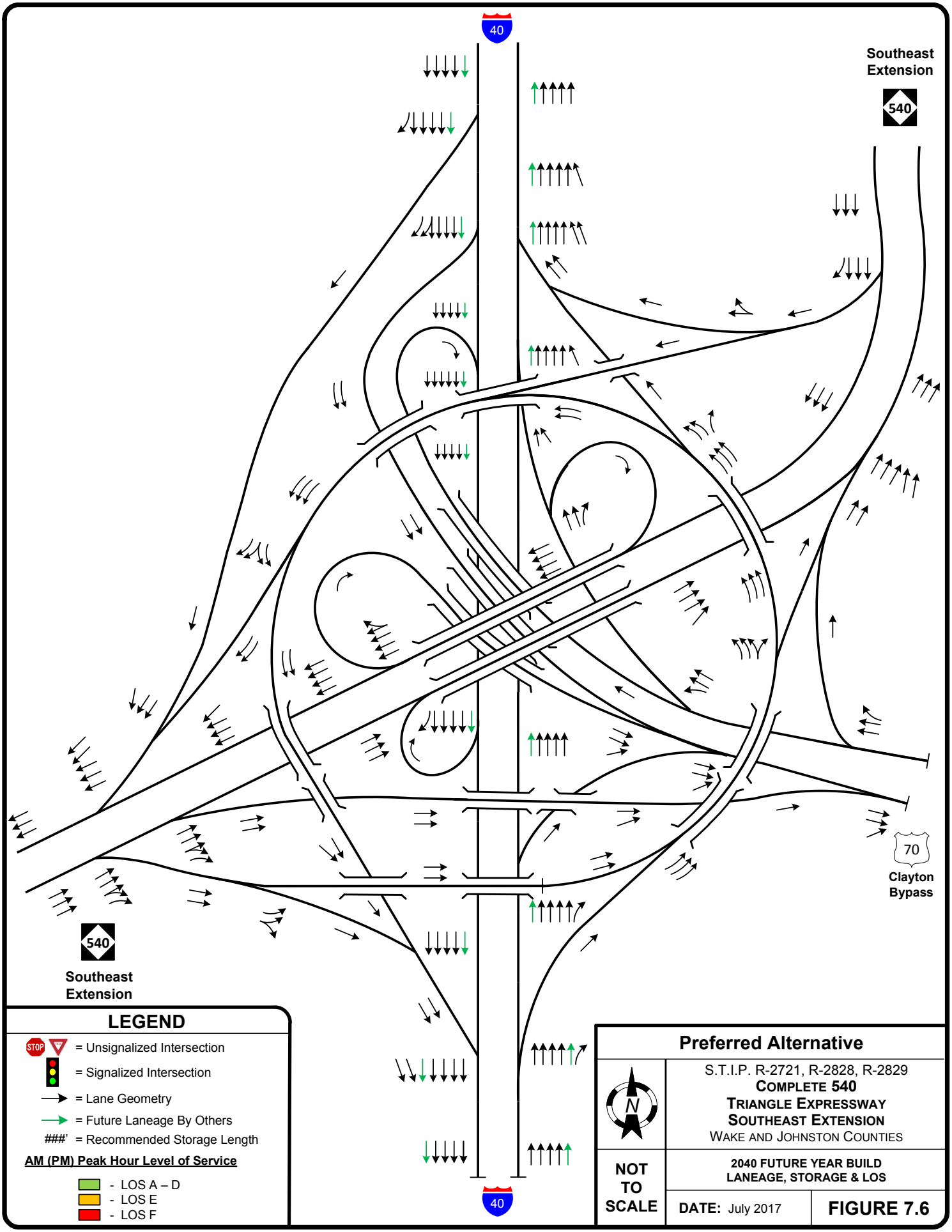
S.T.I.P. R-2721, R-2828, R-2829
COMPLETE 540
TRIANGLE EXPRESSWAY SOUTHEAST EXTENSION
WAKE AND JOHNSTON COUNTIES

Preferred Alternative

2040 FUTURE YEAR BUILD LANEAGE, STORAGE & LOS

DATE: July 2017

FIGURE 7.5



LEGEND

= Unsignalized Intersection

= Signalized Intersection

= Lane Geometry

= Future Laneage By Others

###' = Recommended Storage Length

AM (PM) Peak Hour Level of Service

- LOS A – D
- LOS E
- LOS F

Preferred Alternative

S.T.I.P. R-2721, R-2828, R-2829

COMPLETE 540

TRIANGLE EXPRESSWAY

SOUTHEAST EXTENSION

WAKE AND JOHNSTON COUNTIES

2040 FUTURE YEAR BUILD LANEAGE, STORAGE & LOS

NOT TO SCALE

DATE: July 2017

FIGURE 7.6

LEGEND

- = Unsignalized Intersection
- = Signalized Intersection
- = Lane Geometry
- = Future Laneage By Others
- ###' = Recommended Storage Length

AM (PM) Peak Hour Level of Service

- - LOS A – D
- - LOS E
- - LOS F

SR 2700 (White Oak Rd)

Tiffany Creek Dr

SR 2555 (Raynor Rd)

BUS 70

SR 1004 (E. Garner Rd)

SR 2542 (Rock Quarry Rd)

Southeast Extension

540

MATCHLINE "E"

MATCHLINE "F"

MATCHLINE "G"

SR 2555 (Auburn-Knightdale Rd)

Southern Railway

SR 2700 (White Oak Rd)

SR 2555 (Auburn-Knightdale Rd)

SR 2552 (Battle Bridge Rd)

SR 2542 (Rock Quarry Rd)

SR 2542 (Old Baucom Rd)

S.T.I.P. R-2721, R-2828, R-2829

COMPLETE 540
TRIANGLE EXPRESSWAY
SOUTHEAST EXTENSION
WAKE AND JOHNSTON COUNTIES

Preferred Alternative

2040 FUTURE YEAR BUILD LANEAGE, STORAGE & LOS

DATE: July 2017

FIGURE 7.7

NOT TO SCALE

SR 1007 (Poole Rd)

SR 2516 (Hodge Rd)

450'
300'
300'
300'
50'
150'
300'
150'
600'
700'
250'

MATCHLINE "G"

Southeast Extension
540

300' CTL
250'
550'
550'

SR 1007 (Poole Rd)

495
64
264

SR 2516 (Hodge Rd)

SEE FIGURE 7.9

SR 2233 (Smithfield Rd)

SR 2233 (Smithfield Rd)

64
264

Carolina & Northwestern RR

SR 2515 (Old Faison Rd)

Lynnwood Rd

Business
64

Business
64

540

LEGEND

- = Unsignalized Intersection
- = Signalized Intersection
- = Lane Geometry
- = Future Laneage By Others
- ###' = Recommended Storage Length

AM (PM) Peak Hour Level of Service

- LOS A – D
- LOS E
- LOS F

N

NOT TO SCALE

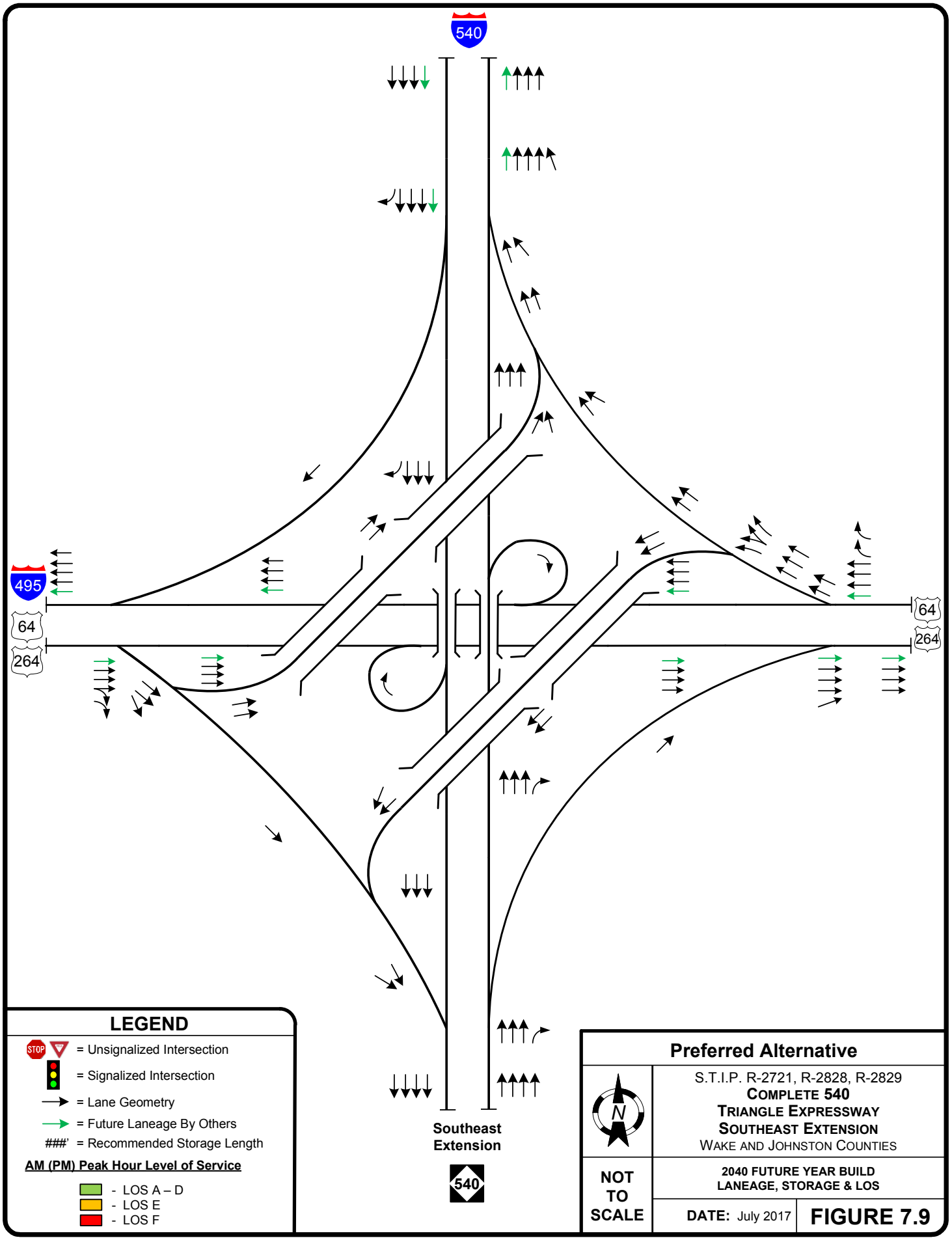
S.T.I.P. R-2721, R-2828, R-2829
COMPLETE 540
TRIANGLE EXPRESSWAY
SOUTHEAST EXTENSION
WAKE AND JOHNSTON COUNTIES

Preferred Alternative

2040 FUTURE YEAR BUILD LANEAGE, STORAGE & LOS

DATE: July 2017

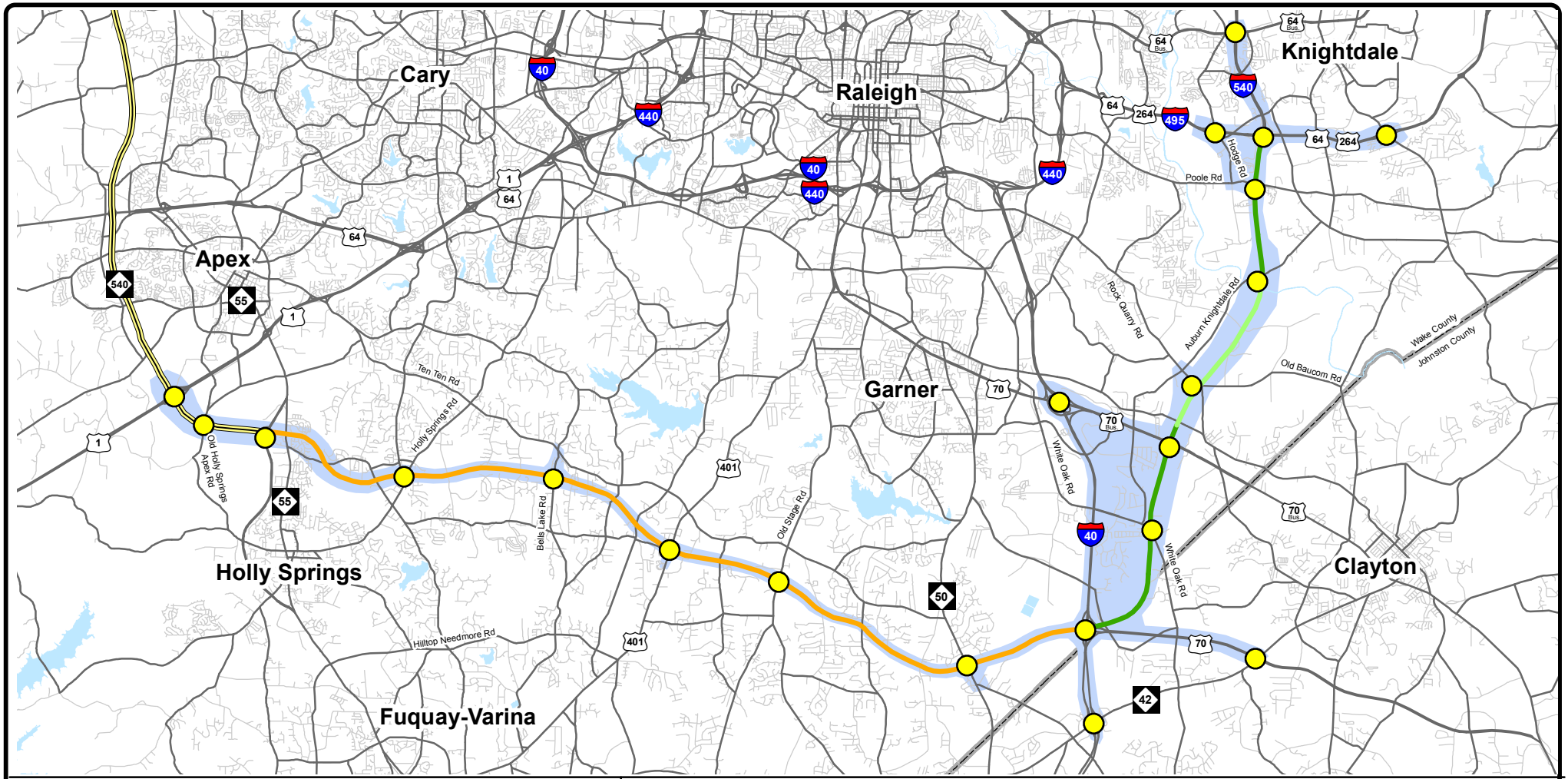
FIGURE 7.8

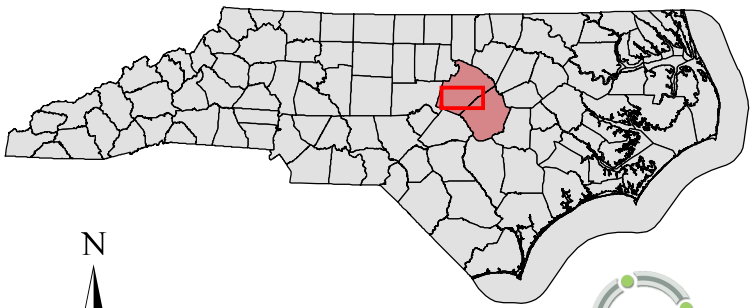

540
495
64
264
64
264
Southeast
Extension
540
LEGEND
= Unsignalized Intersection
= Signalized Intersection
= Lane Geometry
= Future Laneage By Others
###' = Recommended Storage Length
AM (PM) Peak Hour Level of Service
- LOS A – D
- LOS E
- LOS F
Preferred Alternative
N
S.T.I.P. R-2721, R-2828, R-2829
COMPLETE 540
TRIANGLE EXPRESSWAY
SOUTHEAST EXTENSION
WAKE AND JOHNSTON COUNTIES
NOT TO SCALE
2040 FUTURE YEAR BUILD
LANEAGE, STORAGE & LOS
DATE: July 2017
FIGURE 7.9

Appendix B – Complete 540 Traffic Forecast

1) Traffic Forecast Overview Figures
2) 2016 No-Build
3) 2016 Build
4) 2040 Build

Traffic Forecast Overview Figures





N

COMPLETE 540
Triangle Expressway Southeast Extension

Traffic Forecast Study Area

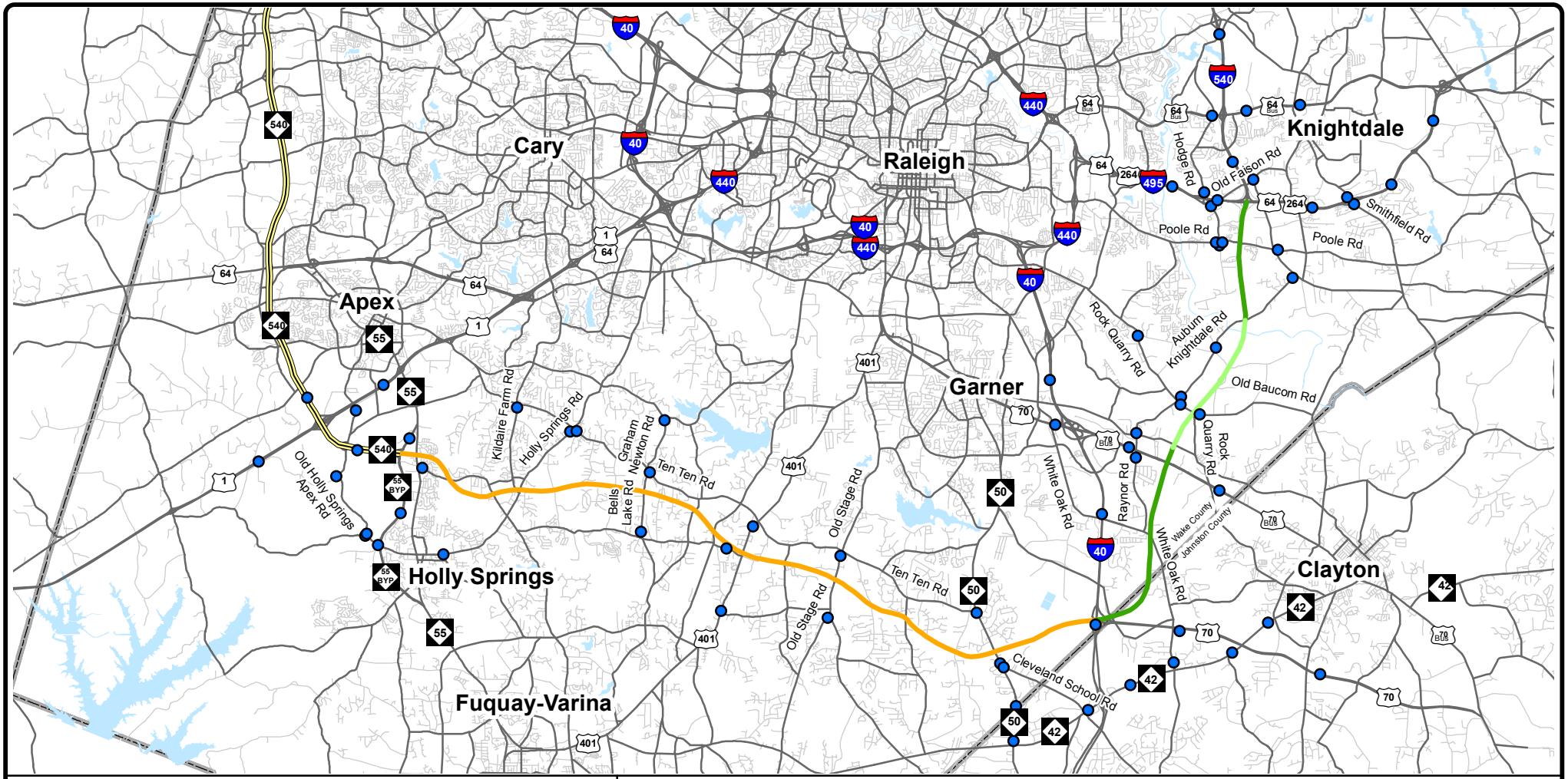
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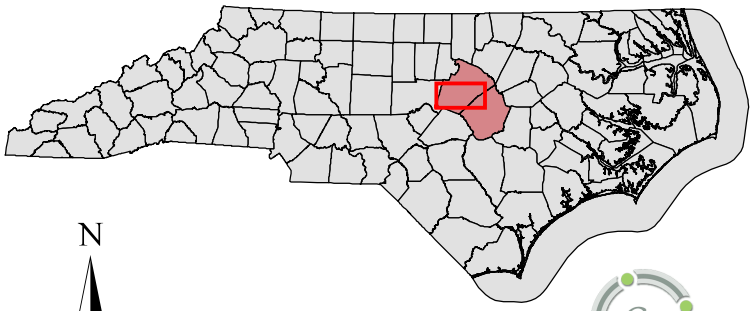
- Interchanges
- Triangle Expressway
- Major Roads
- Traffic Forecast Study Area
- Counties

NCDOT Recommended DSA Corridors

- Orange
- Green
- Mint

STIP: R-2721, R-2828, R-2829	**WBS:** 37673.1.TA2, 35516.1.TA2, 35517.1.TA1
COUNTY: Wake/Johnston	**DIVISION:** 5/4
DATE: October 2016	
PREPARED BY: HNTB North Carolina, P.C. 343 E. Six Forks Rd, Suite 200 Raleigh, NC 27609	
LOCATION: NC 55 Bypass (Holly Springs) to I-495 / US 64 Bypass / US 264 (Knightdale)	
PROJECT: Complete 540 Triangle Expressway Southeast Extension	**Figure 1**





N

COMPLETE 540
Triangle Expressway Southeast Extension

Selected Historic AADT Locations

Legend

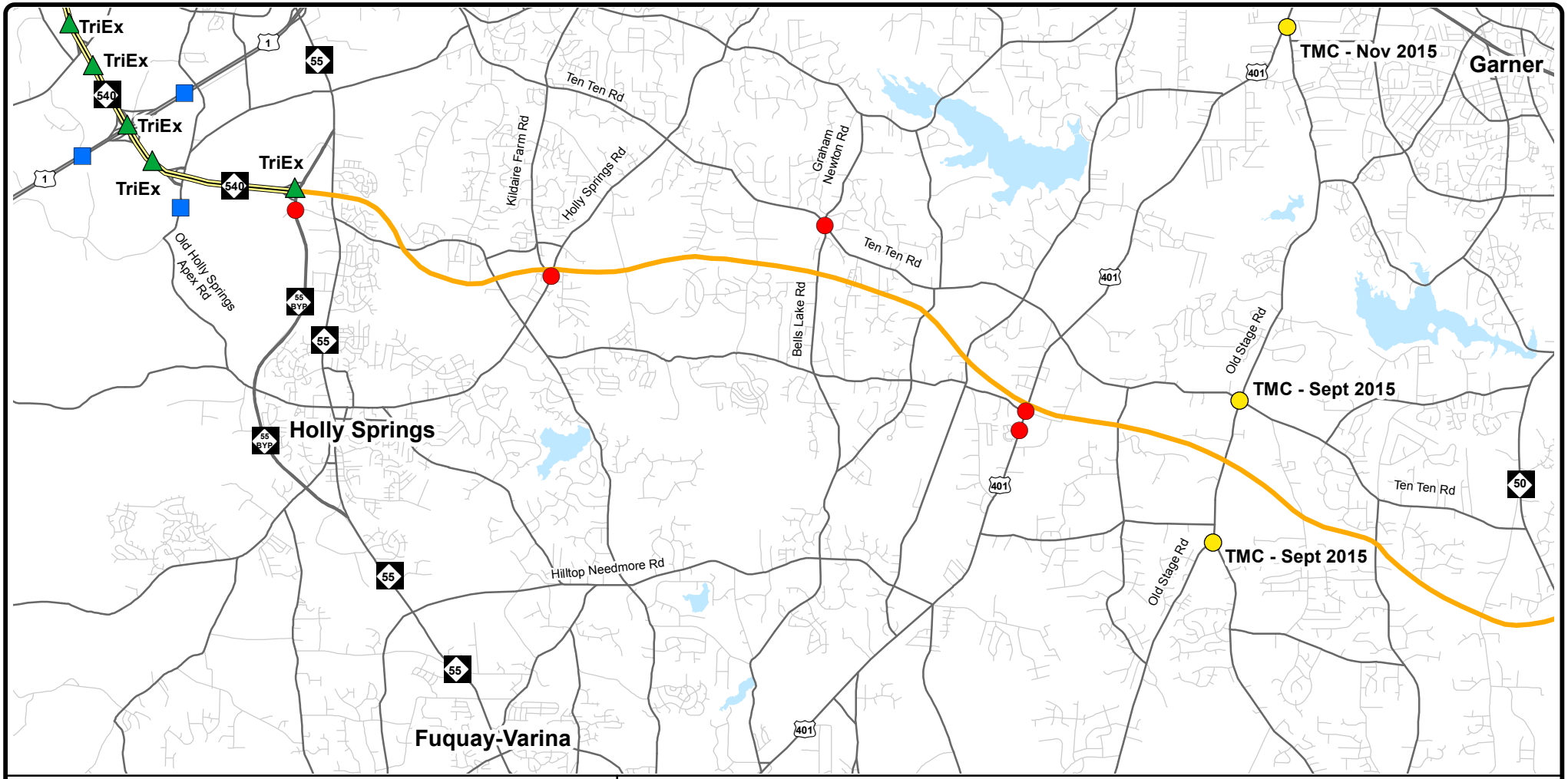
- Selected Historic AADT Locations
- Major Roads
- Counties
- Triangle Expressway

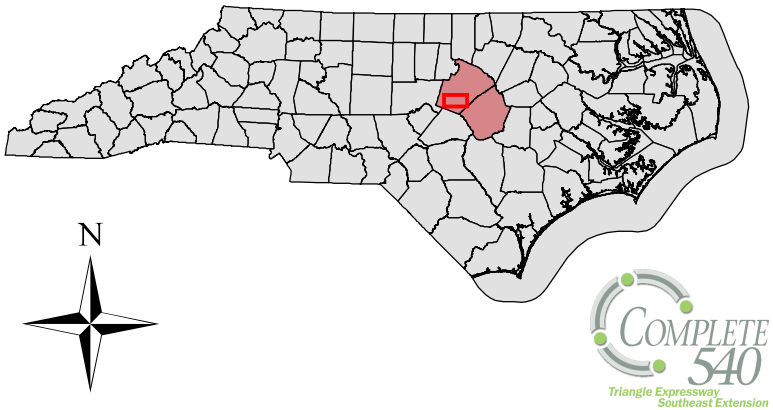
NCDOT Recommended DSA Corridors

- Orange
- Green
- Mint

STIP: R-2721, R-2828, R-2829	**WBS:** 37673.1.TA2, 35516.1.TA2, 35517.1.TA1
COUNTY: Wake/Johnston	**DIVISION:** 5/4
DATE: October 2016	
PREPARED BY:	HNTB North Carolina, P.C. 343 E. Six Forks Rd, Suite 200 Raleigh, NC 27609
LOCATION:	NC 55 Bypass (Holly Springs) to I-495 / US 64 Bypass / US 264 (Knightdale)
PROJECT:	Complete 540 Triangle Expressway Southeast Extension

Figure 2





Traffic Count Request Locations

Legend

Traffic Count Request Location

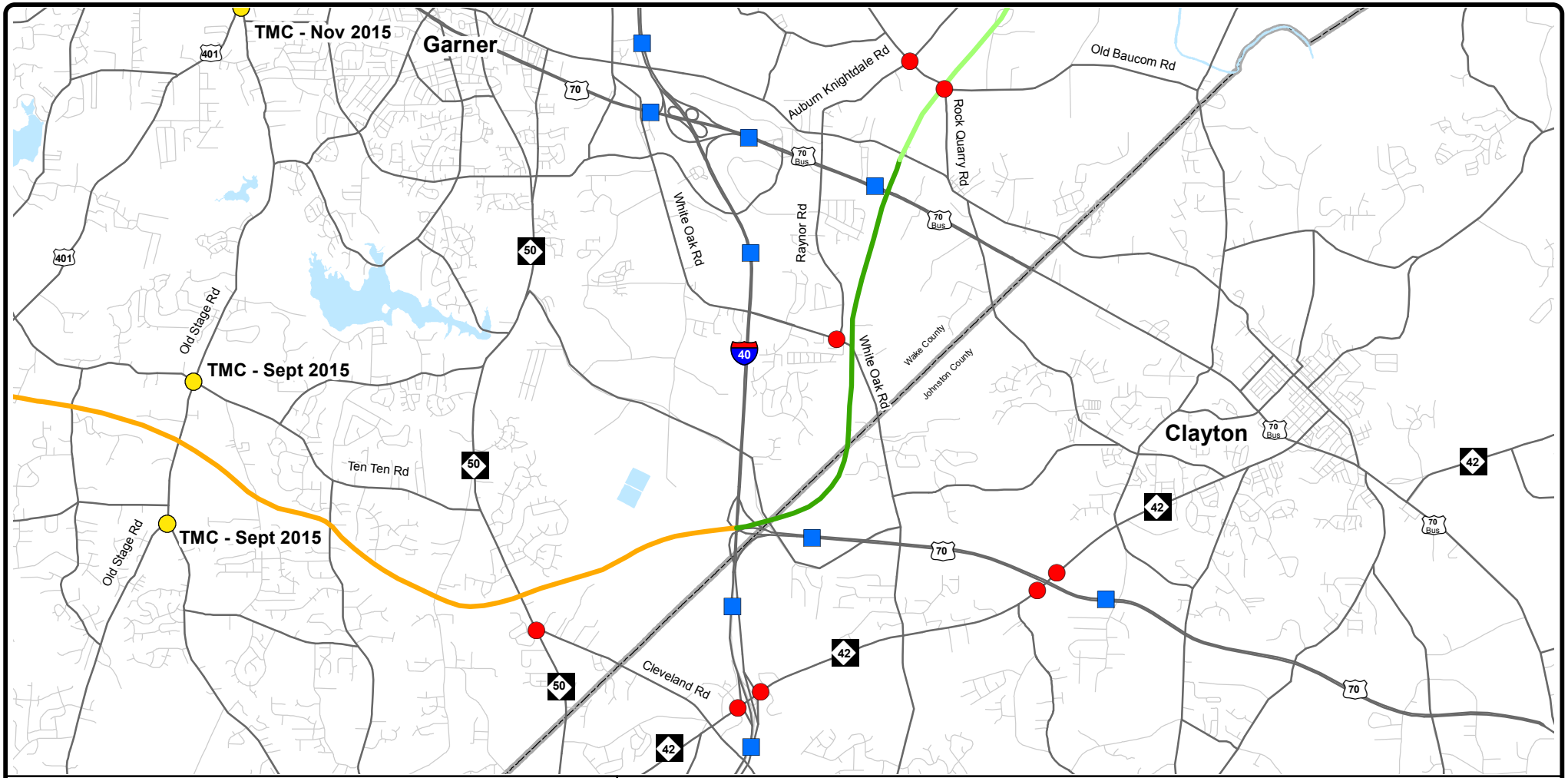
- 13-hr TMC
- 24-hr TriEx Data
- 48-hr VSC
- 13-hr Sept/Nov 2015 TMC
- Major Roads
- Counties
- Triangle Expressway

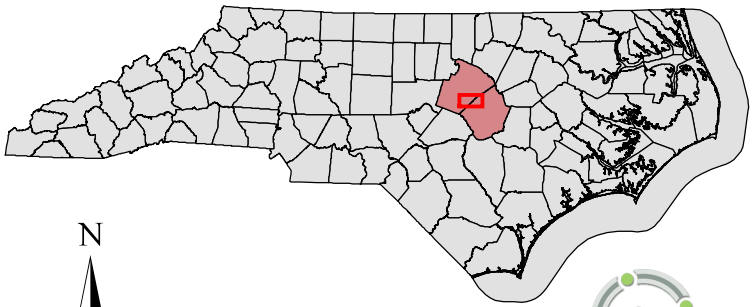
NCDOT Recommended DSA Corridors

- Orange
- Green
- Mint

STIP: R-2721, R-2828, R-2829	**WBS:** 37673.1.TA2, 35516.1.TA2, 35517.1.TA1
COUNTY: Wake/Johnston	**DIVISION:** 5/4
DATE: October 2016	
PREPARED BY:	HNTB North Carolina, P.C. 343 E. Six Forks Rd, Suite 200 Raleigh, NC 27609
LOCATION:	NC 55 Bypass (Holly Springs) to I-495 / US 64 Bypass / US 264 (Knightdale)
PROJECT:	Complete 540 Triangle Expressway Southeast Extension

Figure 3.1





N

COMPLETE 540
Triangle Expressway Southeast Extension

Traffic Count Request Locations

Legend

Traffic Count Request Location

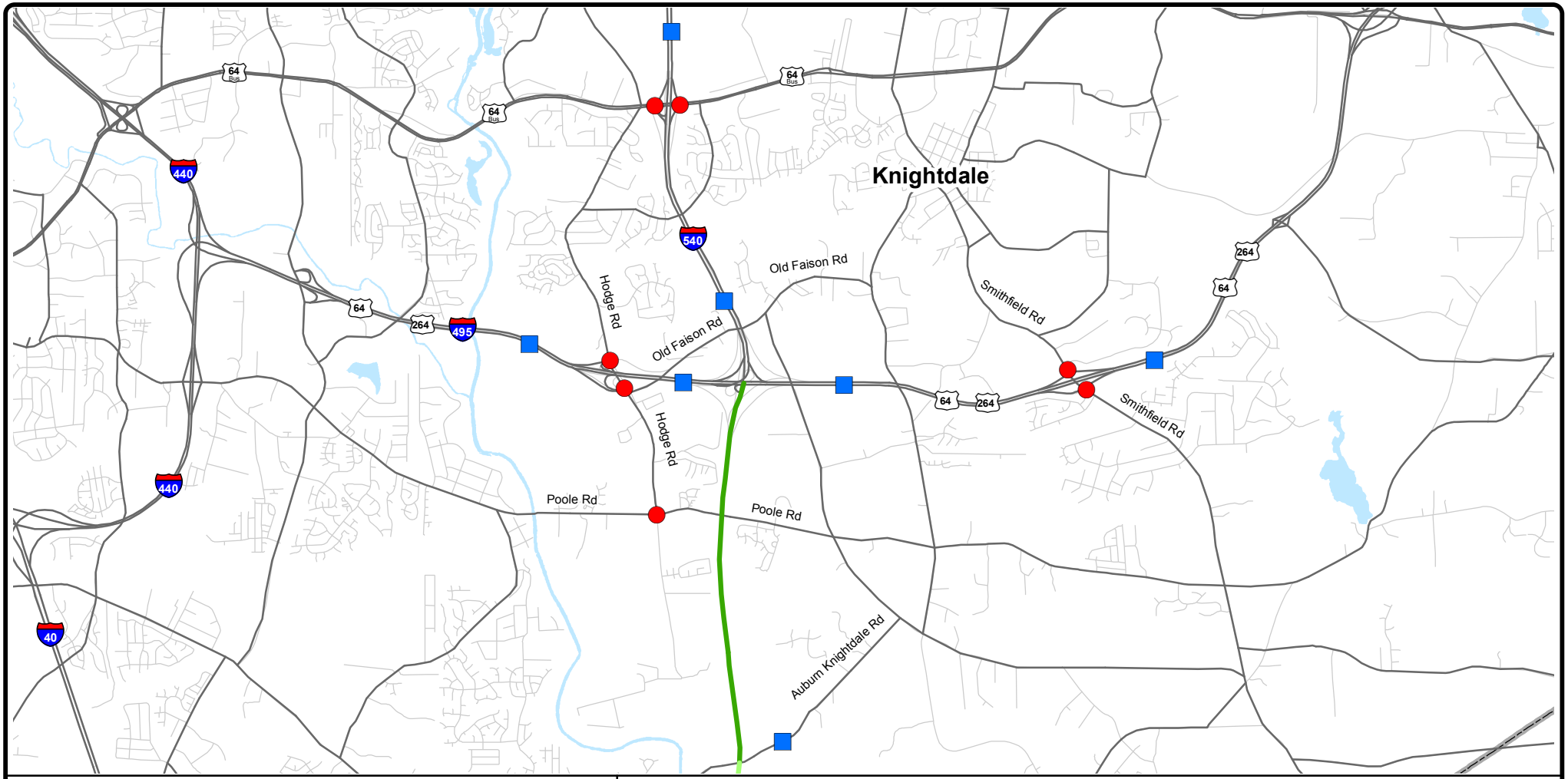
- 13-hr TMC
- 24-hr TriEx Data
- 48-hr VSC
- 13-hr Sept/Nov 2015 TMC
- Major Roads
- Counties
- Triangle Expressway

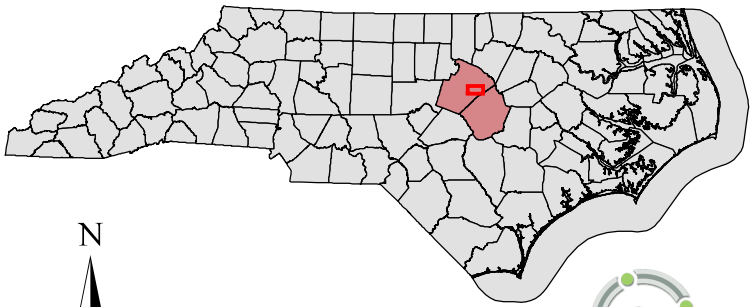
NCDOT Recommended DSA Corridors

- Orange
- Green
- Mint

STIP: R-2721, R-2828, R-2829	**WBS:** 37673.1.TA2, 35516.1.TA2, 35517.1.TA1
COUNTY: Wake/Johnston	**DIVISION:** 5/4
DATE: October 2016	
PREPARED BY:	HNTB North Carolina, P.C. 343 E. Six Forks Rd, Suite 200 Raleigh, NC 27609
LOCATION:	NC 55 Bypass (Holly Springs) to I-495 / US 64 Bypass / US 264 (Knightdale)
PROJECT:	Complete 540 Triangle Expressway Southeast Extension

Figure 3.2





Traffic Count Request Locations

Legend

Traffic Count Request Location

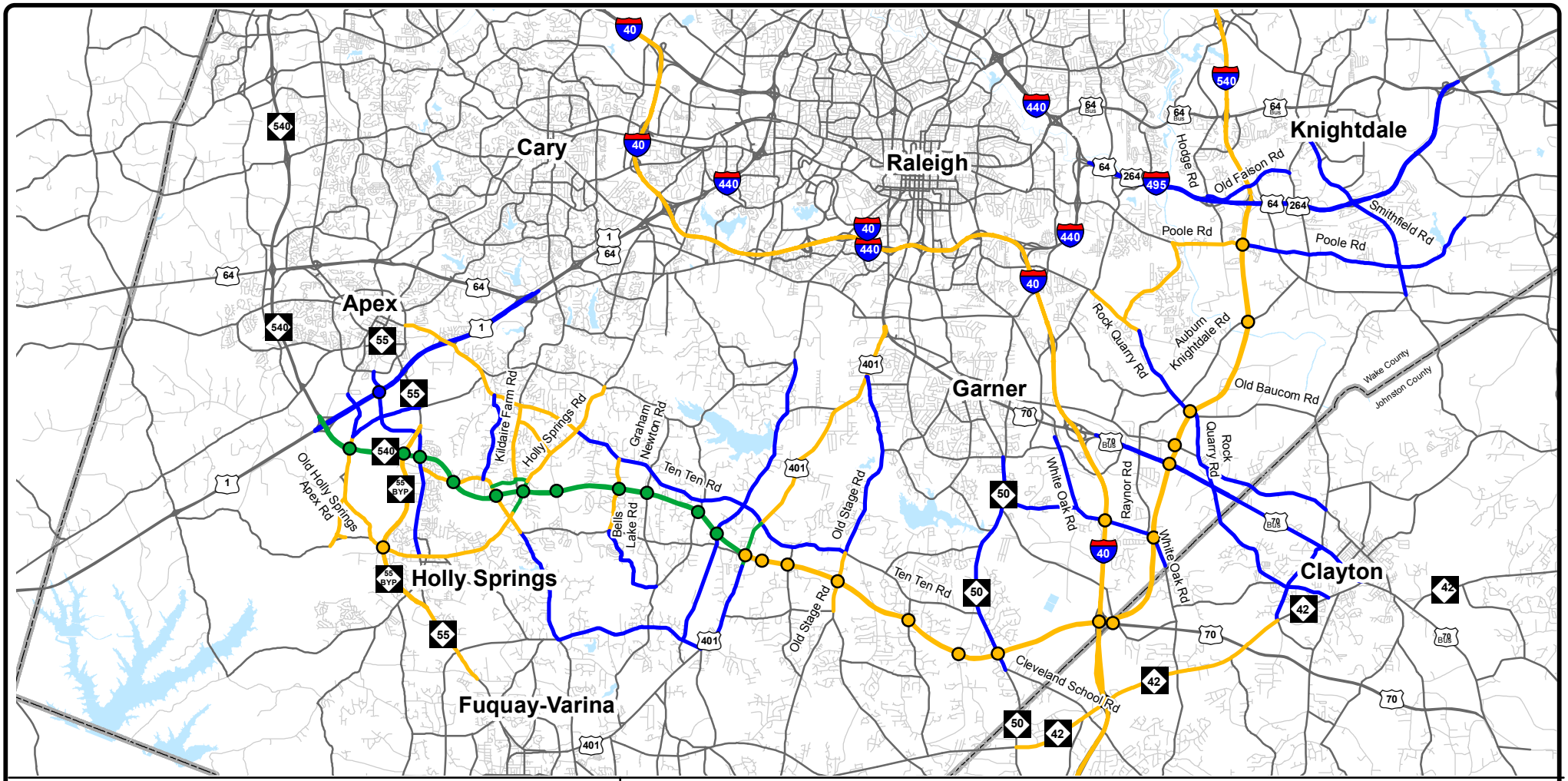
- 13-hr TMC
- 24-hr TriEx Data
- 48-hr VSC
- 13-hr Sept/Nov 2015 TMC
- Major Roads
- Counties
- Triangle Expressway

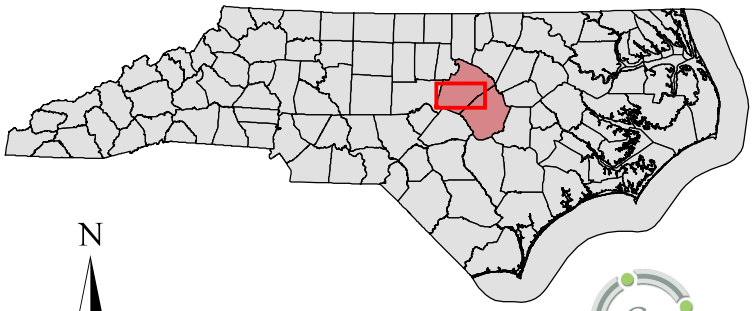
NCDOT Recommended DSA Corridors

- Orange
- Green
- Mint

STIP: R-2721, R-2828, R-2829	**WBS:** 37673.1.TA2, 35516.1.TA2, 35517.1.TA1
COUNTY: Wake/Johnston	**DIVISION:** 5/4
DATE: October 2016	
PREPARED BY:	HNTB North Carolina, P.C. 343 E. Six Forks Rd, Suite 200 Raleigh, NC 27609
LOCATION:	NC 55 Bypass (Holly Springs) to I-495 / US 64 Bypass / US 264 (Knightdale)
PROJECT:	Complete 540 Triangle Expressway Southeast Extension

Figure 3.3







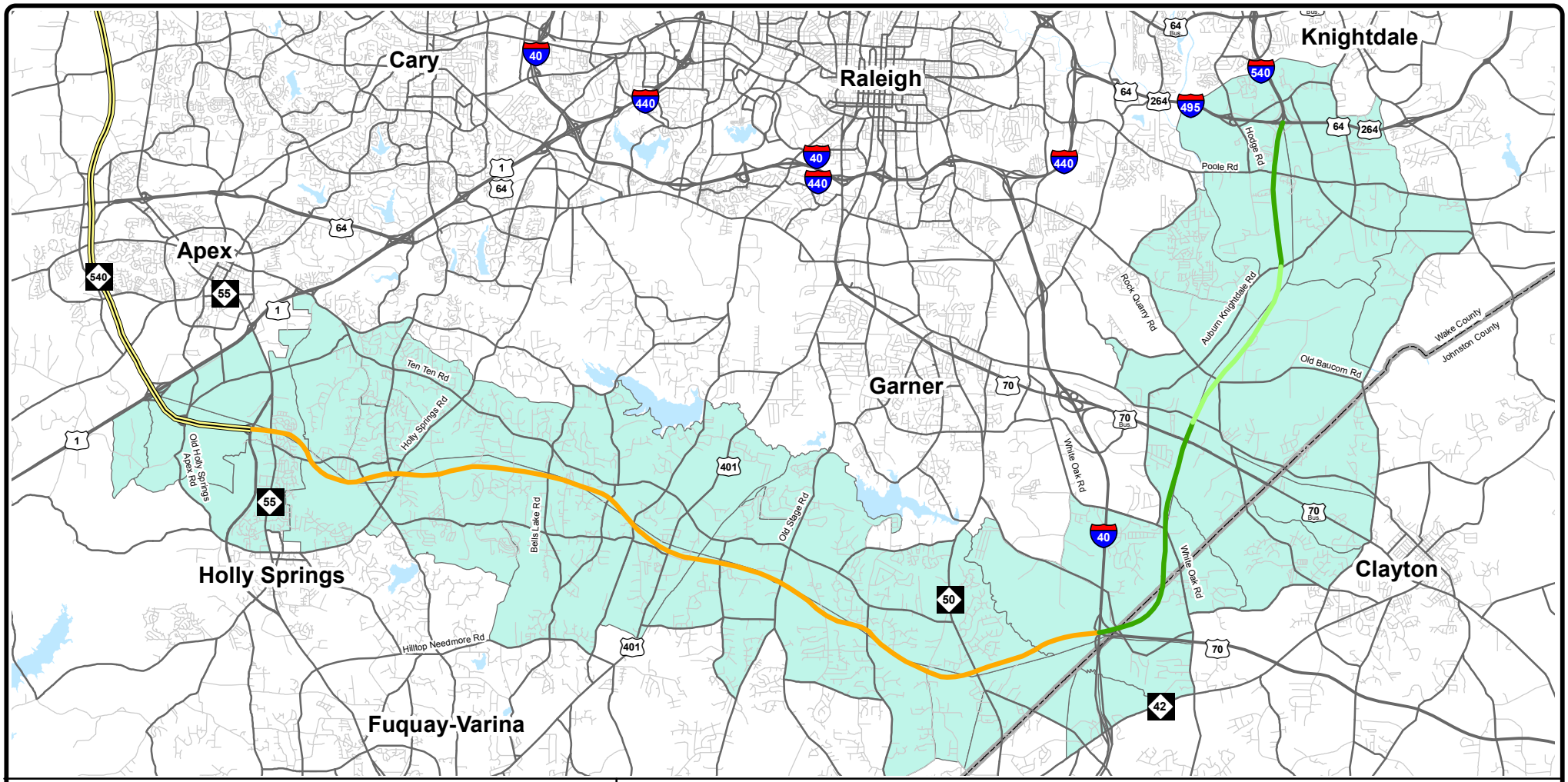
COMPLETE 540
Triangle Expressway Southeast Extension

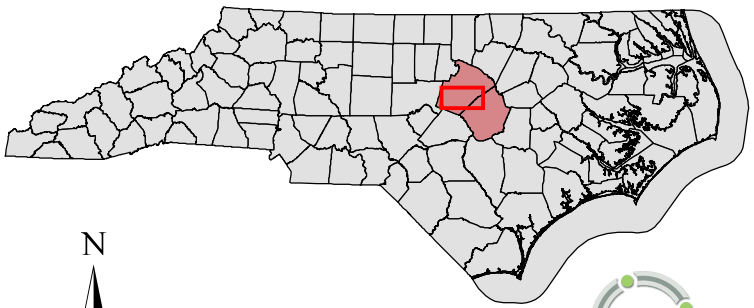
Selected 2040 Metropolitan Transportation Plan (MTP) Projects

Legend

Highway	Interchange
2020 MTP Projects	2020
2030 MTP Projects	2030
2040 MTP Projects	2040
Major Roads	
Counties	

STIP: R-2721, R-2828, R-2829	**WBS:** 37673.1.TA2, 35516.1.TA2, 35517.1.TA1
COUNTY: Wake/Johnston	**DIVISION:** 5/4
DATE: October 2016	
PREPARED BY: HNTB North Carolina, P.C. 343 E. Six Forks Rd, Suite 200 Raleigh, NC 27609	
LOCATION: NC 55 Bypass (Holly Springs) to I-495 / US 64 Bypass / US 264 (Knightdale)	
PROJECT: Complete 540 Triangle Expressway Southeast Extension	**Figure 4**





Selected Traffic Analysis Zones (TAZs)

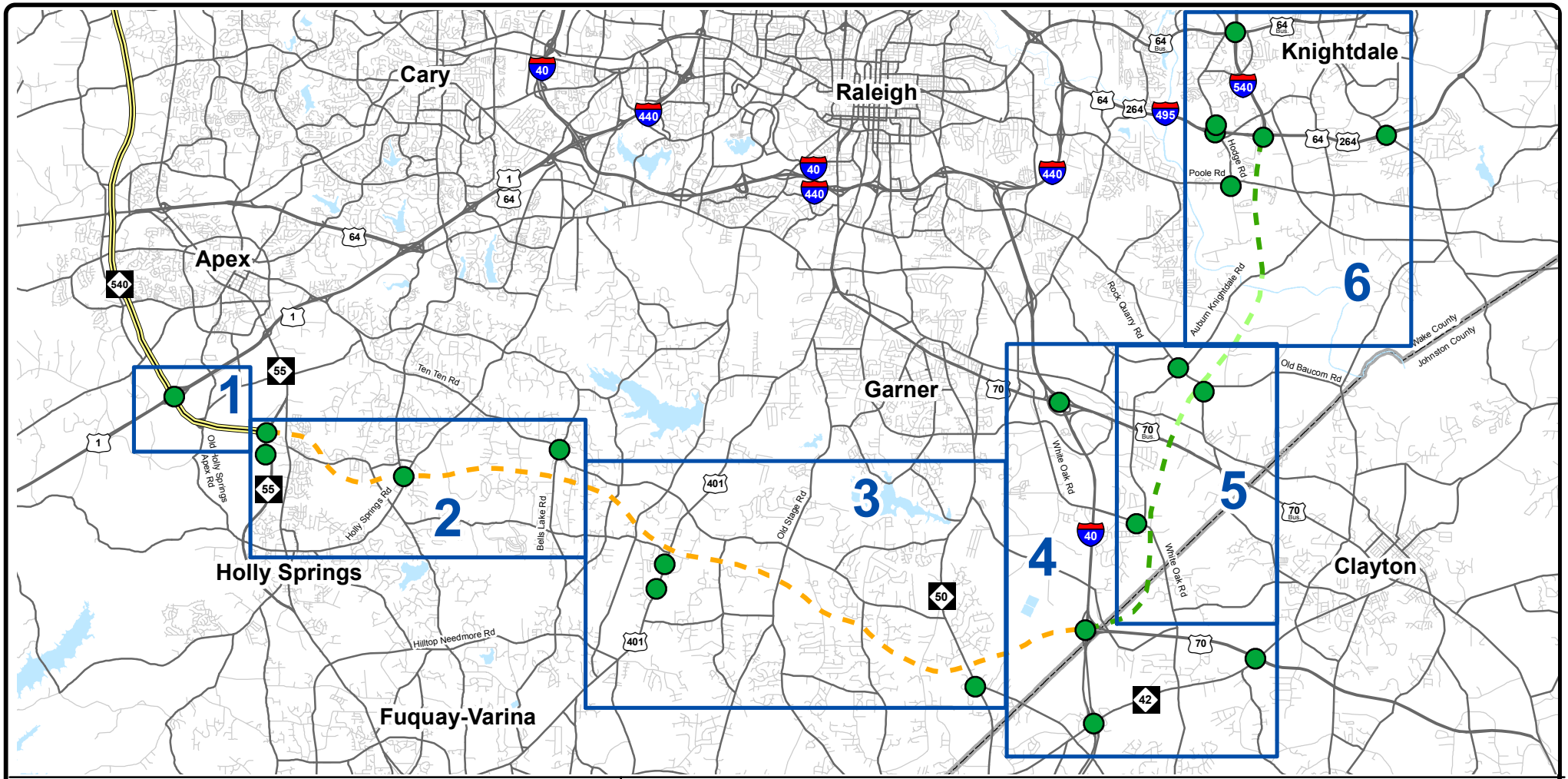
Legend

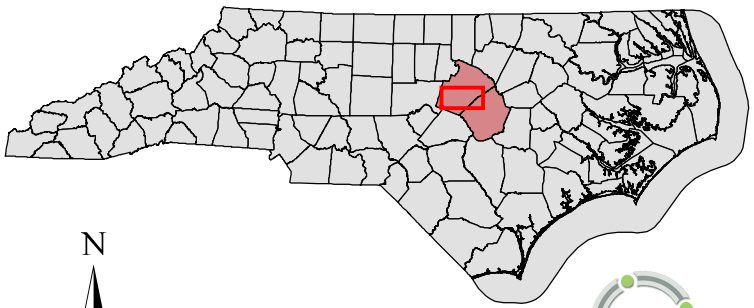
- TRM Study Area TAZs
- Triangle Expressway
- Major Roads
- Counties

NCDOT Recommended DSA Corridors

- Orange
- Green
- Mint

STIP: R-2721, R-2828, R-2829	**WBS:** 37673.1.TA2, 35516.1.TA2, 35517.1.TA1
COUNTY: Wake/Johnston	**DIVISION:** 5/4
DATE: October 2016	
PREPARED BY: HNTB North Carolina, P.C. 343 E. Six Forks Rd, Suite 200 Raleigh, NC 27609	
LOCATION: NC 55 Bypass (Holly Springs) to I-495 / US 64 Bypass / US 264 (Knightdale)	
PROJECT: Complete 540 Triangle Expressway Southeast Extension	**Figure 5**





Base Year No-Build Traffic Forecast Figures Sheet Key

Legend

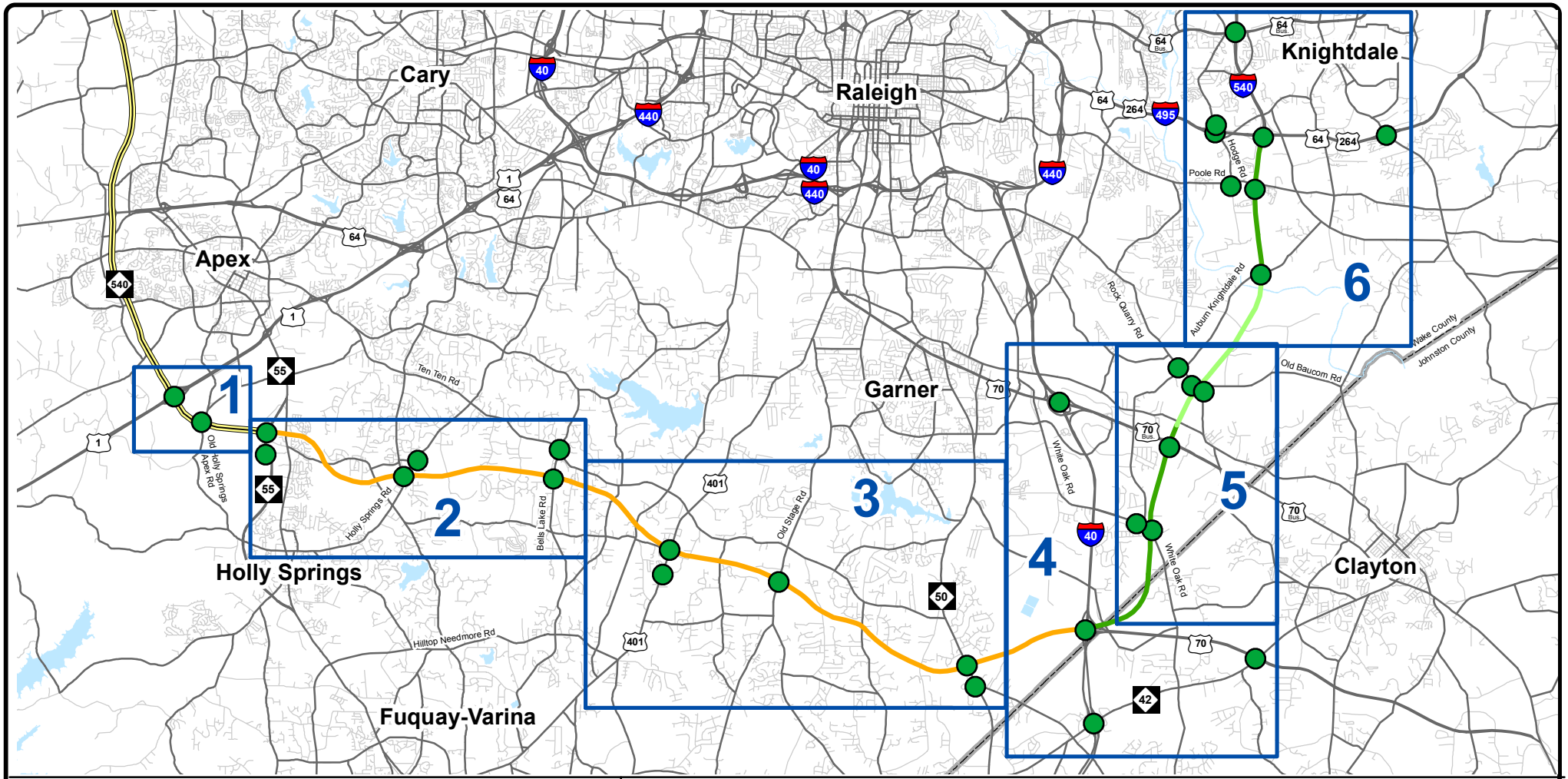
- Forecasted Intersections / Interchanges
- Triangle Expressway
- Major Roads
- Counties

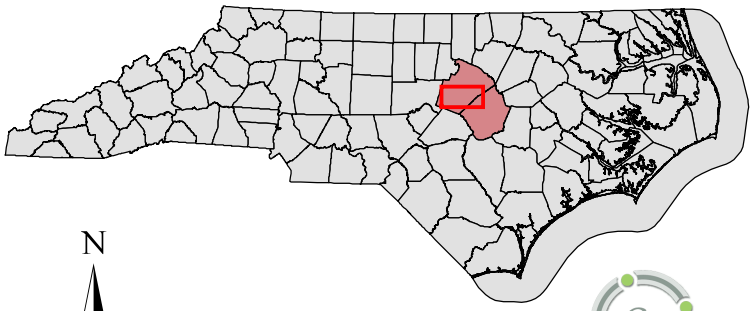
NCDOT Recommended DSA Corridors*

- Orange
- Green
- Mint

*The Complete 540 project is not included in the Base Year No-Build scenario. The proposed DSA corridor is shown as a dashed line on this figure for reference purposes only.

STIP: R-2721, R-2828, R-2829	**WBS:** 37673.1.TA2, 35516.1.TA2, 35517.1.TA1
COUNTY: Wake/Johnston	**DIVISION:** 5/4
DATE: October 2016	
PREPARED BY: HNTB North Carolina, P.C. 343 E. Six Forks Rd, Suite 200 Raleigh, NC 27609	
LOCATION: NC 55 Bypass (Holly Springs) to I-495 / US 64 Bypass / US 264 (Knightdale)	
PROJECT: Complete 540 Triangle Expressway Southeast Extension	**Figure 6**





Build Traffic Forecast Figures Sheet Key

Legend

- Forecasted Intersections / Interchanges
- Triangle Expressway
- Major Roads
- Counties

NCDOT Recommended DSA Corridors

- Orange
- Green
- Mint

STIP: R-2721, R-2828, R-2829	**WBS:** 37673.1.TA2, 35516.1.TA2, 35517.1.TA1
COUNTY: Wake/Johnston	**DIVISION:** 5/4
DATE: October 2016	
PREPARED BY: HNTB North Carolina, P.C. 343 E. Six Forks Rd, Suite 200 Raleigh, NC 27609	
LOCATION: NC 55 Bypass (Holly Springs) to I-495 / US 64 Bypass / US 264 (Knightdale)	
PROJECT: Complete 540 Triangle Expressway Southeast Extension	**Figure 7**

2016 No-Build

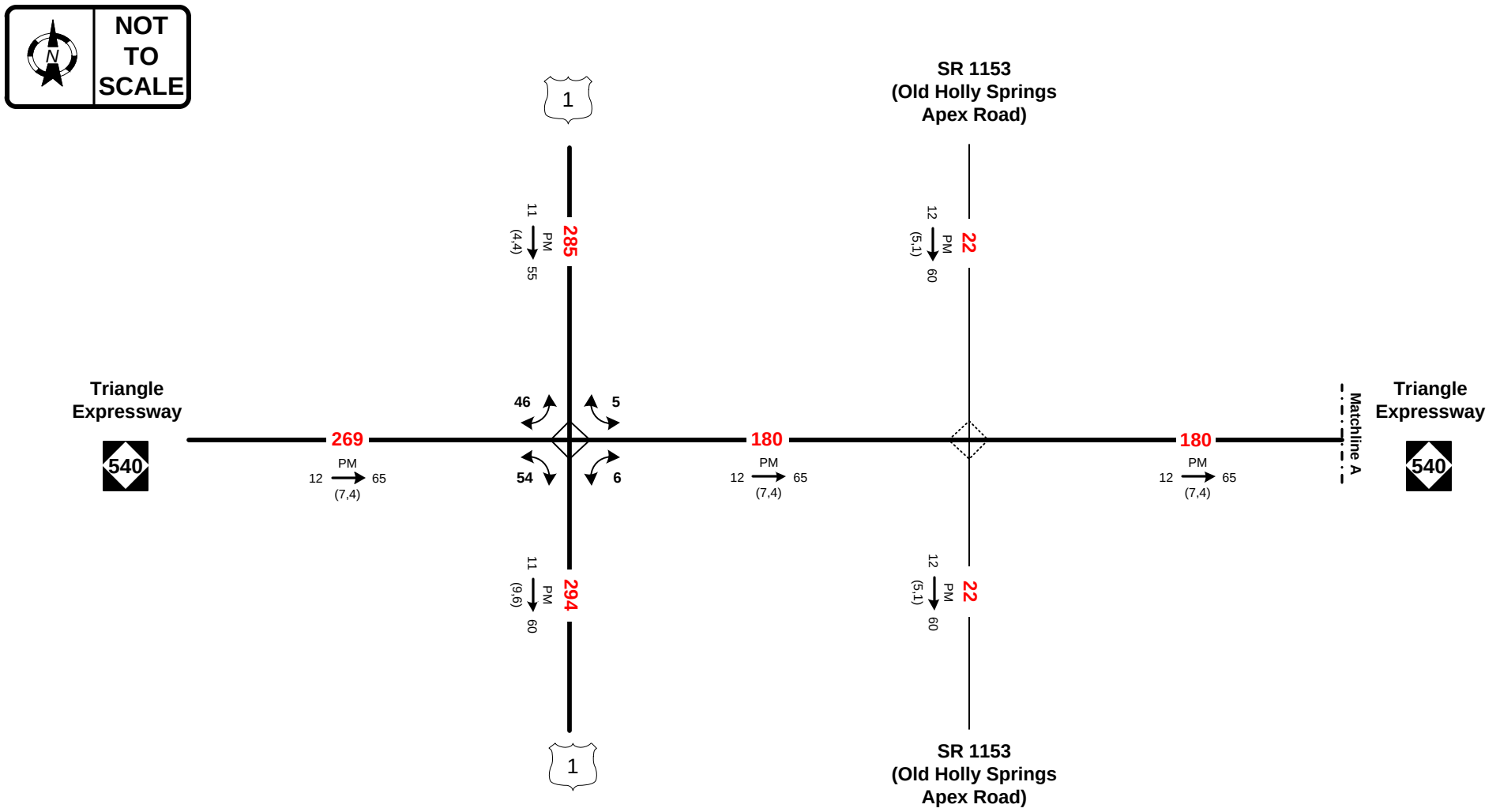


Figure 8.1 corresponds to **Figure 6 – Sheet Key 1**

2016 AVERAGE ANNUAL DAILY TRAFFIC

No-Build

LEGEND

K PM → D
(d,t)

###	No. of Vehicles Per Day (VPD) in 100s
1-	Less than 50 VPD
X	Movement Prohibited
--------	Proposed Interchange R-2635D
K	Design Hour Factor (%)
PM	PM Peak Period
D	Peak Hour Directional Split (%)
→	Indicates Direction of D
(d,t)	Duals, TT-STs (%)

STIP: R2721, R-2828, R-2829

WBS: 37673.1.TA2, 35516.1.TA1, 35517.1.TA1

COUNTY: Wake/Johnston

DIVISION: 5/4

DATE: October 2016

PREPARED BY: HNTB North Carolina, P.C.
343 East Six Forks Rd Suite 200
Raleigh, North Carolina 27609

LOCATION: NC 55 Bypass (Holly Springs) to I-495 / US 64 Bypass / US 264 (Knightdale)

PROJECT: Complete 540 Triangle Expressway Southeast Extension

Figure 8.1

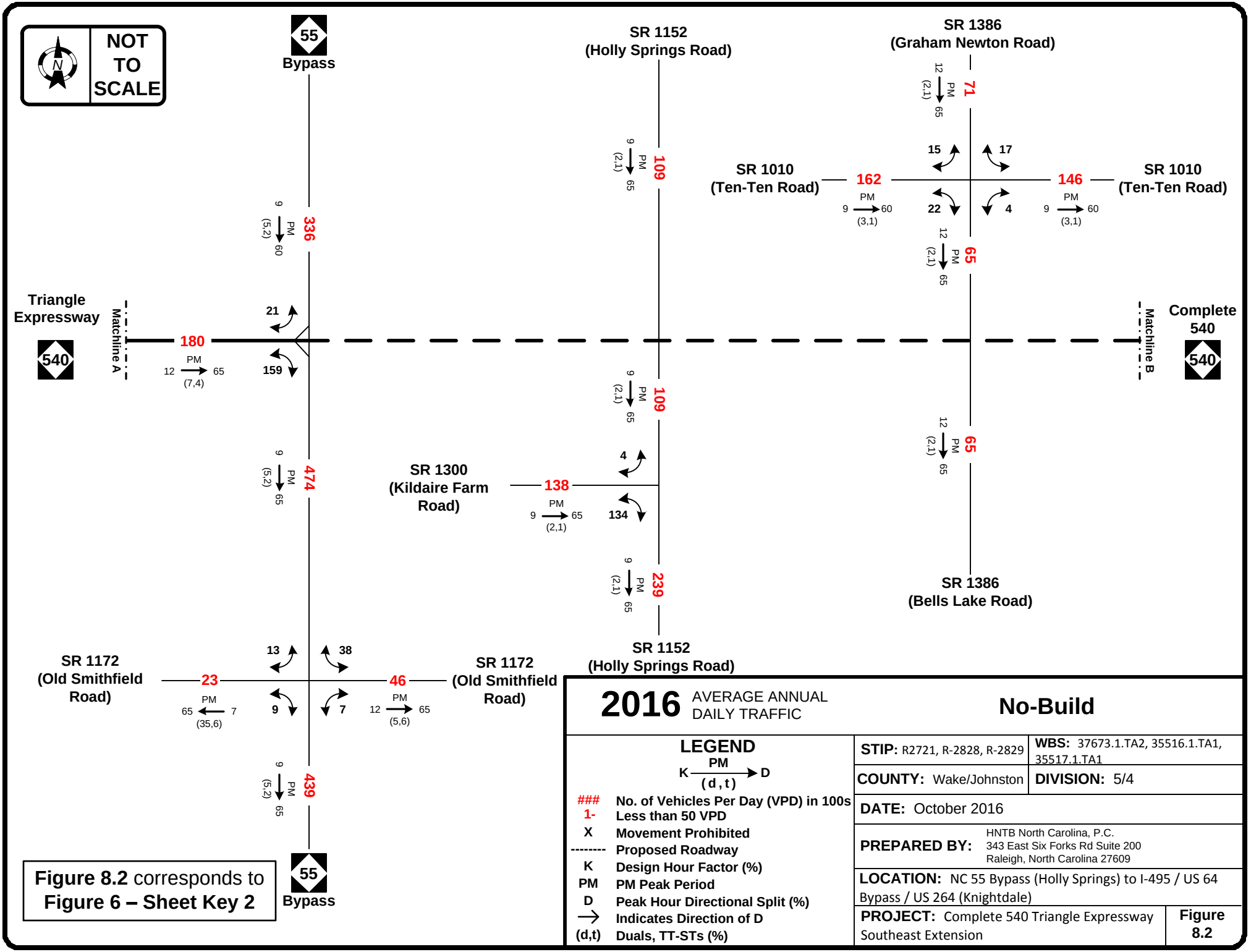


Figure 8.2 corresponds to **Figure 6 – Sheet Key 2**

2016 AVERAGE ANNUAL DAILY TRAFFIC

No-Build

LEGEND

PM
K → D
(d, t)

###	No. of Vehicles Per Day (VPD) in 100s
1-	Less than 50 VPD
X	Movement Prohibited
--------	Proposed Roadway
K	Design Hour Factor (%)
PM	PM Peak Period
D	Peak Hour Directional Split (%)
→	Indicates Direction of D
(d,t)	Duals, TT-STs (%)

STIP: R2721, R-2828, R-2829

WBS: 37673.1.TA2, 35516.1.TA1, 35517.1.TA1

COUNTY: Wake/Johnston

DIVISION: 5/4

DATE: October 2016

PREPARED BY: HNTB North Carolina, P.C.
343 East Six Forks Rd Suite 200
Raleigh, North Carolina 27609

LOCATION: NC 55 Bypass (Holly Springs) to I-495 / US 64 Bypass / US 264 (Knightdale)

PROJECT: Complete 540 Triangle Expressway Southeast Extension

Figure 8.2

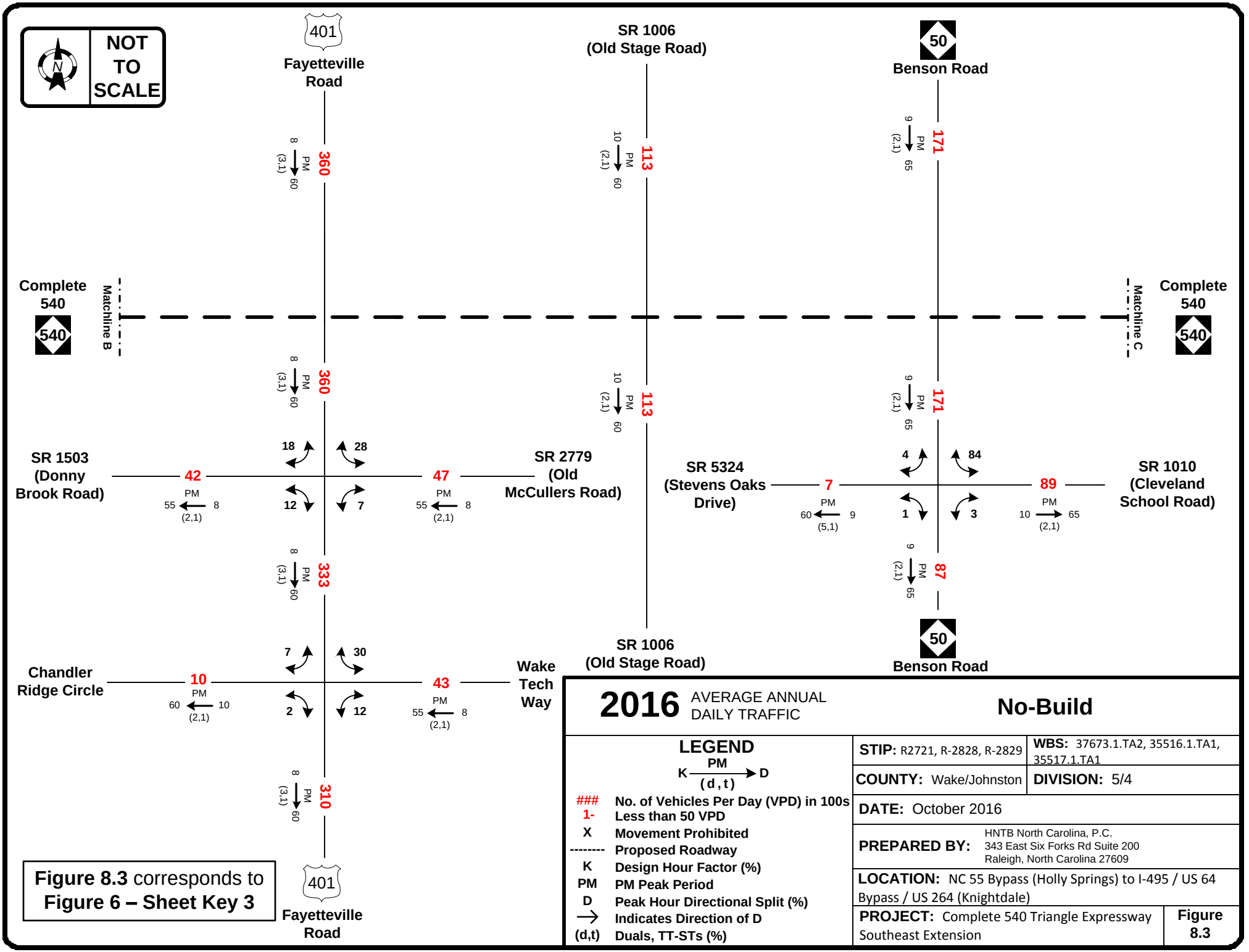


Figure 8.3 corresponds to **Figure 6 – Sheet Key 3**

2016 AVERAGE ANNUAL DAILY TRAFFIC

No-Build

LEGEND

PM
K → D
(d, t)

###	No. of Vehicles Per Day (VPD) in 100s
1-	Less than 50 VPD
X	Movement Prohibited
--------	Proposed Roadway
K	Design Hour Factor (%)
PM	PM Peak Period
D	Peak Hour Directional Split (%)
→	Indicates Direction of D
(d,t)	Duals, TT-STs (%)

STIP: R2721, R-2828, R-2829

WBS: 37673.1.TA2, 35516.1.TA1, 35517.1.TA1

COUNTY: Wake/Johnston

DIVISION: 5/4

DATE: October 2016

PREPARED BY: HNTB North Carolina, P.C.
343 East Six Forks Rd Suite 200
Raleigh, North Carolina 27609

LOCATION: NC 55 Bypass (Holly Springs) to I-495 / US 64 Bypass / US 264 (Knightdale)

PROJECT: Complete 540 Triangle Expressway Southeast Extension

Figure 8.3

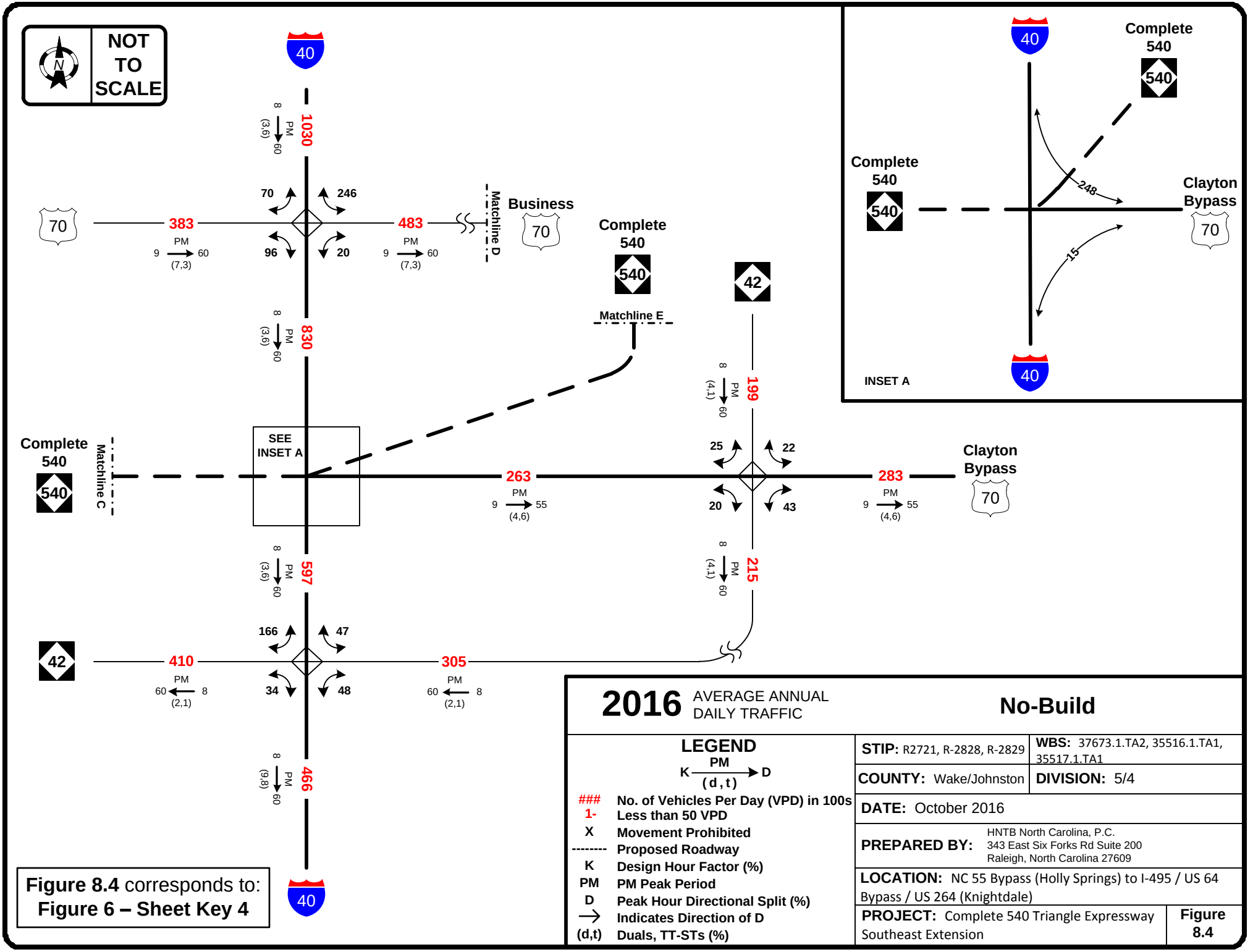


Figure 8.4 corresponds to:
Figure 6 – Sheet Key 4

2016 AVERAGE ANNUAL DAILY TRAFFIC

No-Build

LEGEND

PM
K → D
(d, t)

###	No. of Vehicles Per Day (VPD) in 100s
1-	Less than 50 VPD
X	Movement Prohibited
--------	Proposed Roadway
K	Design Hour Factor (%)
PM	PM Peak Period
D	Peak Hour Directional Split (%)
→	Indicates Direction of D
(d,t)	Duals, TT-STs (%)

STIP: R2721, R-2828, R-2829

WBS: 37673.1.TA2, 35516.1.TA1, 35517.1.TA1

COUNTY: Wake/Johnston

DIVISION: 5/4

DATE: October 2016

PREPARED BY: HNTB North Carolina, P.C.
343 East Six Forks Rd Suite 200
Raleigh, North Carolina 27609

LOCATION: NC 55 Bypass (Holly Springs) to I-495 / US 64 Bypass / US 264 (Knightdale)

PROJECT: Complete 540 Triangle Expressway Southeast Extension

Figure 8.4

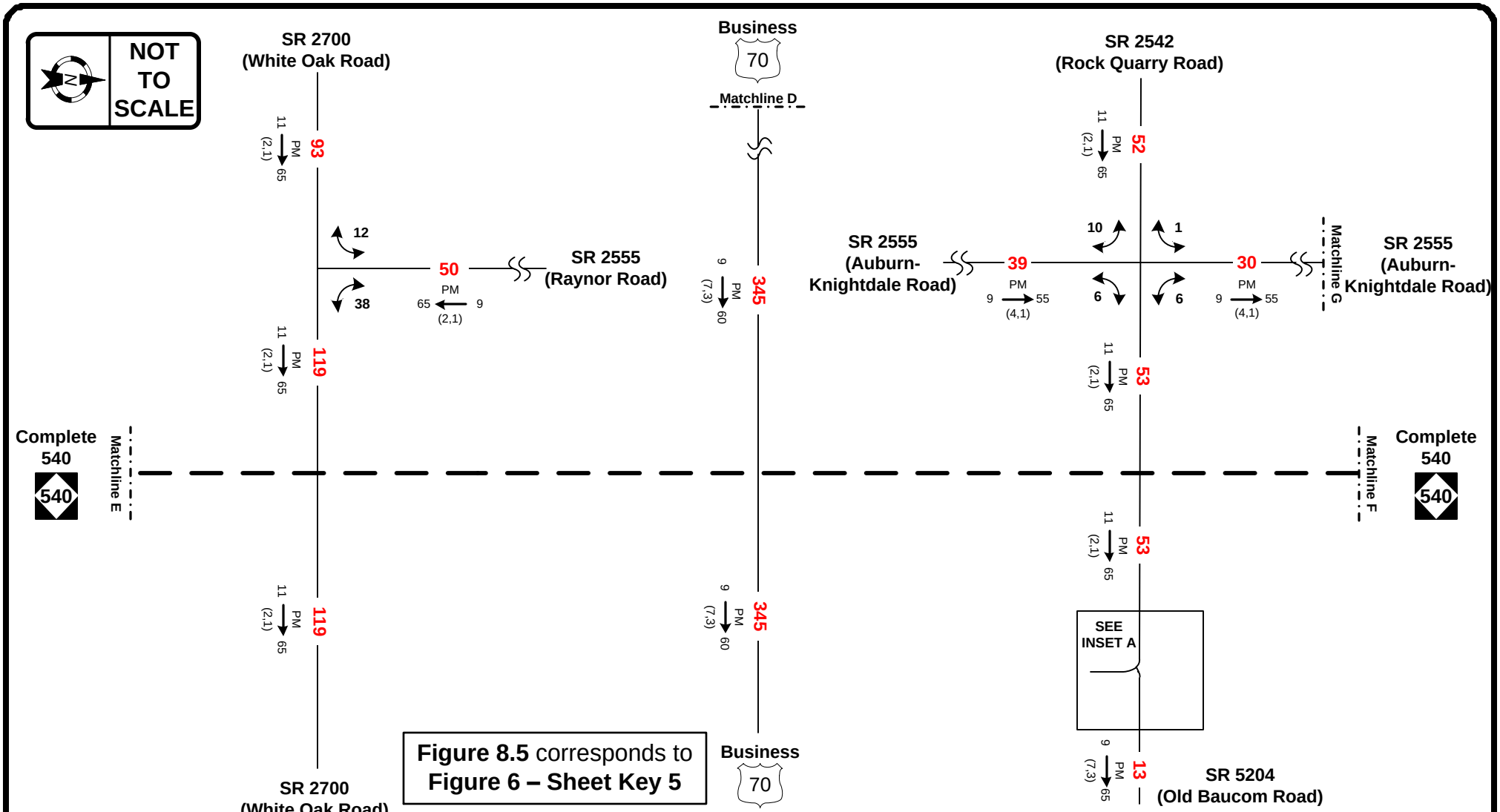
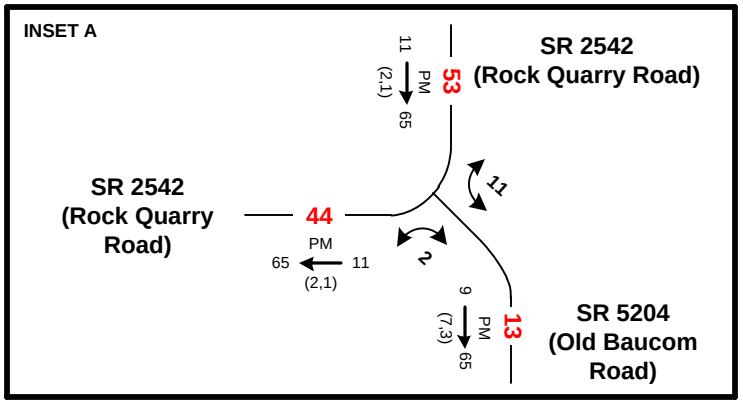


Figure 8.5 corresponds to **Figure 6 – Sheet Key 5**



2016 AVERAGE ANNUAL DAILY TRAFFIC

No-Build

LEGEND

K PM (d, t) D

###	No. of Vehicles Per Day (VPD) in 100s
1-	Less than 50 VPD
X	Movement Prohibited
--------	Proposed Roadway
K	Design Hour Factor (%)
PM	PM Peak Period
D	Peak Hour Directional Split (%)
→	Indicates Direction of D
(d,t)	Duals, TT-STs (%)

STIP: R2721, R-2828, R-2829

WBS: 37673.1.TA2, 35516.1.TA1, 35517.1.TA1

COUNTY: Wake/Johnston

DIVISION: 5/4

DATE: October 2016

PREPARED BY: HNTB North Carolina, P.C.
343 East Six Forks Rd Suite 200
Raleigh, North Carolina 27609

LOCATION: NC 55 Bypass (Holly Springs) to I-495 / US 64 Bypass / US 264 (Knightdale)

PROJECT: Complete 540 Triangle Expressway Southeast Extension

Figure 8.5

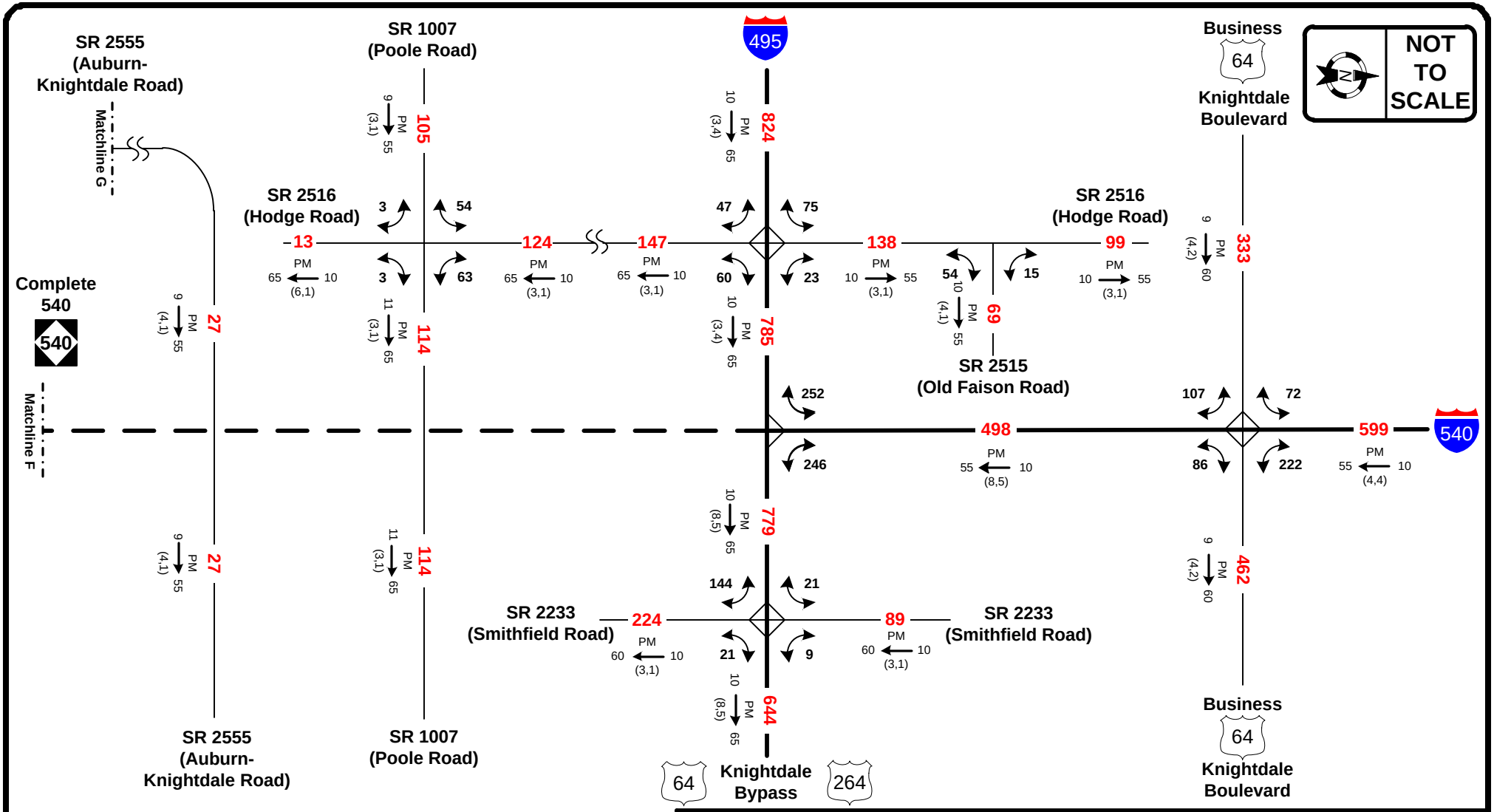


Figure 8.6 corresponds to:
Figure 6 – Sheet Key 6

2016 AVERAGE ANNUAL DAILY TRAFFIC

No-Build

LEGEND

PM
K → D
(d, t)

###	No. of Vehicles Per Day (VPD) in 100s
1-	Less than 50 VPD
X	Movement Prohibited
--------	Proposed Roadway
K	Design Hour Factor (%)
PM	PM Peak Period
D	Peak Hour Directional Split (%)
→	Indicates Direction of D
(d,t)	Duals, TT-STs (%)

STIP: R2721, R-2828, R-2829

WBS: 37673.1.TA2, 35516.1.TA1, 35517.1.TA1

COUNTY: Wake/Johnston

DIVISION: 5/4

DATE: October 2016

PREPARED BY: HNTB North Carolina, P.C.
343 East Six Forks Rd Suite 200
Raleigh, North Carolina 27609

LOCATION: NC 55 Bypass (Holly Springs) to I-495 / US 64 Bypass / US 264 (Knightdale)

PROJECT: Complete 540 Triangle Expressway Southeast Extension

Figure 8.6

2016 Build

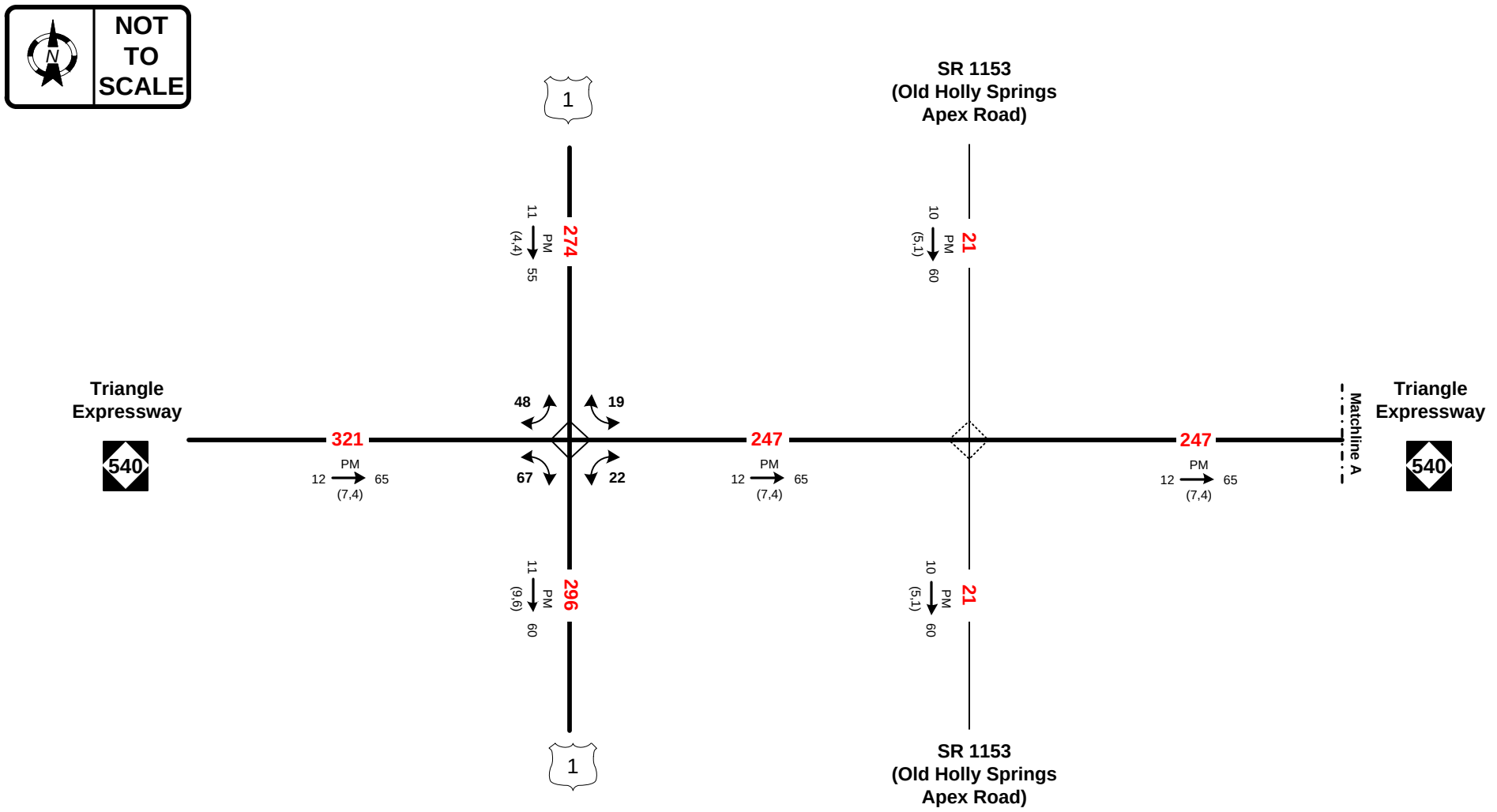


Figure 10.1 corresponds to **Figure 7 – Sheet Key 1**

2016 AVERAGE ANNUAL DAILY TRAFFIC

Build

LEGEND

PM
K → D
(d, t)

###	No. of Vehicles Per Day (VPD) in 100s
1-	Less than 50 VPD
X	Movement Prohibited
———	Roadway on New Location
K	Design Hour Factor (%)
PM	PM Peak Period
D	Peak Hour Directional Split (%)
→	Indicates Direction of D
(d,t)	Duals, TT-STs (%)

STIP: R2721, R-2828, R-2829

WBS: 37673.1.TA2, 35516.1.TA1, 35517.1.TA1

COUNTY: Wake/Johnston

DIVISION: 5/4

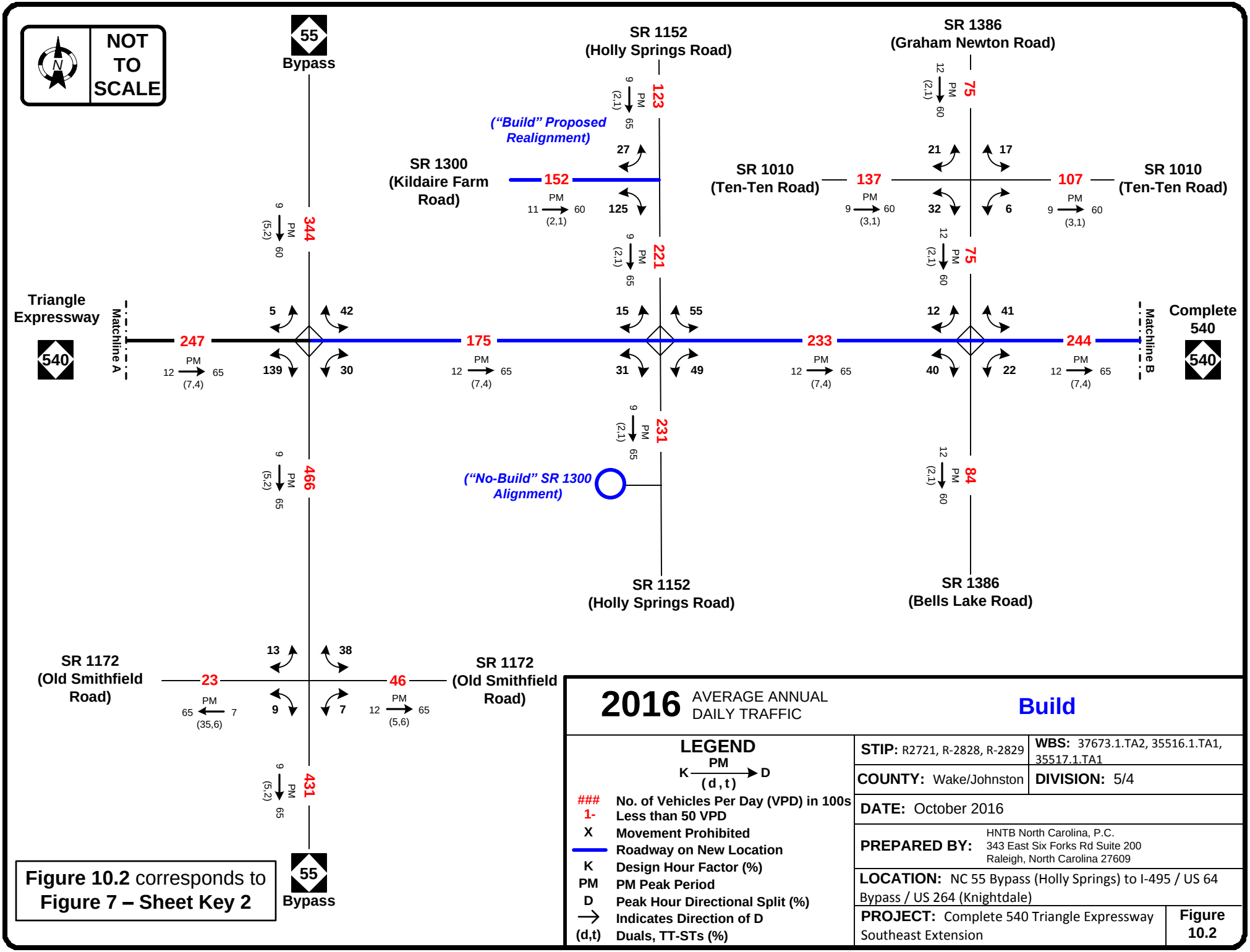
DATE: October 2016

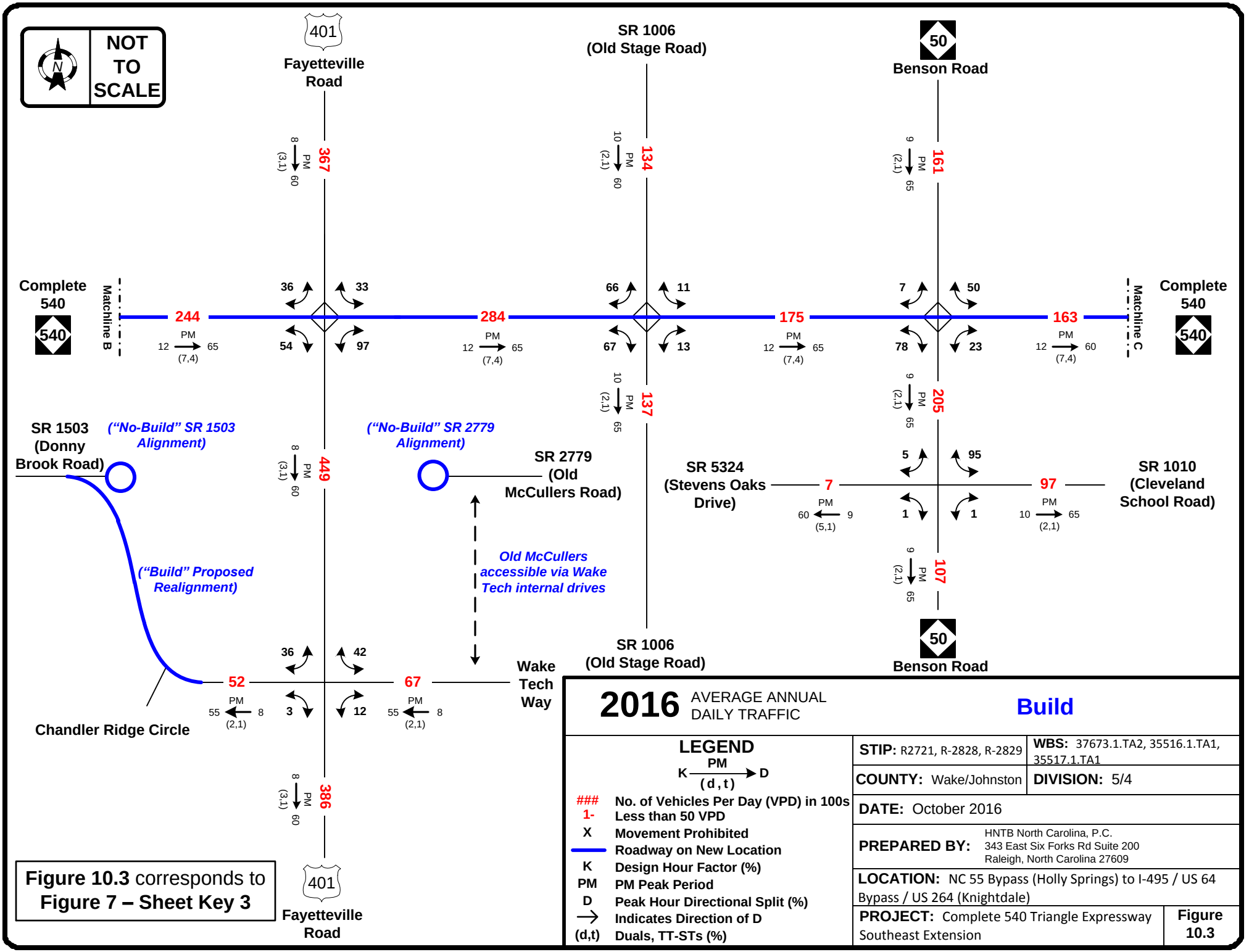
PREPARED BY: HNTB North Carolina, P.C.
343 East Six Forks Rd Suite 200
Raleigh, North Carolina 27609

LOCATION: NC 55 Bypass (Holly Springs) to I-495 / US 64 Bypass / US 264 (Knightdale)

PROJECT: Complete 540 Triangle Expressway Southeast Extension

Figure 10.1


NOT TO SCALE
55 Bypass
SR 1152 (Holly Springs Road)
SR 1386 (Graham Newton Road)
("Build" Proposed Realignment)
SR 1300 (Kildaire Farm Road)
SR 1010 (Ten-Ten Road)
SR 1010 (Ten-Ten Road)
Triangle Expressway
540
Matchline A
Matchline B
Complete 540
("No-Build" SR 1300 Alignment)
SR 1152 (Holly Springs Road)
SR 1386 (Bells Lake Road)
SR 1172 (Old Smithfield Road)
SR 1172 (Old Smithfield Road)
55 Bypass
Figure 10.2 corresponds to Figure 7 – Sheet Key 2
2016 AVERAGE ANNUAL DAILY TRAFFIC
Build
LEGEND
K PM → D (d, t)
No. of Vehicles Per Day (VPD) in 100s
1- Less than 50 VPD
X Movement Prohibited
Roadway on New Location
K Design Hour Factor (%)
PM PM Peak Period
D Peak Hour Directional Split (%)
→ Indicates Direction of D
(d,t) Duals, TT-STs (%)
STIP: R2721, R-2828, R-2829
WBS: 37673.1.TA2, 35516.1.TA1, 35517.1.TA1
COUNTY: Wake/Johnston
DIVISION: 5/4
DATE: October 2016
PREPARED BY: HNTB North Carolina, P.C. 343 East Six Forks Rd Suite 200 Raleigh, North Carolina 27609
LOCATION: NC 55 Bypass (Holly Springs) to I-495 / US 64 Bypass / US 264 (Knightdale)
PROJECT: Complete 540 Triangle Expressway Southeast Extension
Figure 10.2


NOT TO SCALE
401
Fayetteville Road
SR 1006 (Old Stage Road)
50
Benson Road
Complete 540
540
Matchline B
Matchline C
244
284
175
163
367
134
161
137
205
449
107
386
36
33
54
97
66
11
67
13
7
50
78
23
SR 1503 (Donny Brook Road)
("No-Build" SR 1503 Alignment)
("Build" Proposed Realignment)
Chandler Ridge Circle
("No-Build" SR 2779 Alignment)
SR 2779 (Old McCullers Road)
Old McCullers accessible via Wake Tech internal drives
SR 5324 (Stevens Oaks Drive)
SR 1010 (Cleveland School Road)
7
97
5
95
1
1
52
67
36
42
3
12
Wake Tech Way
PM
12 → 65 (7,4)
55 ← 8 (2,1)
60 ← 9 (5,1)
10 → 65 (2,1)
8 (3,1) PM 60
10 (2,1) PM 60
9 (2,1) PM 65
10 (2,1) PM 65
9 (2,1) PM 65
9 (2,1) PM 65
Figure 10.3 corresponds to Figure 7 – Sheet Key 3
2016 AVERAGE ANNUAL DAILY TRAFFIC
Build
LEGEND
K PM → D (d, t)
No. of Vehicles Per Day (VPD) in 100s
1- Less than 50 VPD
X Movement Prohibited
Roadway on New Location
K Design Hour Factor (%)
PM PM Peak Period
D Peak Hour Directional Split (%)
→ Indicates Direction of D
(d,t) Duals, TT-STs (%)
STIP: R2721, R-2828, R-2829
WBS: 37673.1.TA2, 35516.1.TA1, 35517.1.TA1
COUNTY: Wake/Johnston
DIVISION: 5/4
DATE: October 2016
PREPARED BY: HNTB North Carolina, P.C. 343 East Six Forks Rd Suite 200 Raleigh, North Carolina 27609
LOCATION: NC 55 Bypass (Holly Springs) to I-495 / US 64 Bypass / US 264 (Knightdale)
PROJECT: Complete 540 Triangle Expressway Southeast Extension
Figure 10.3

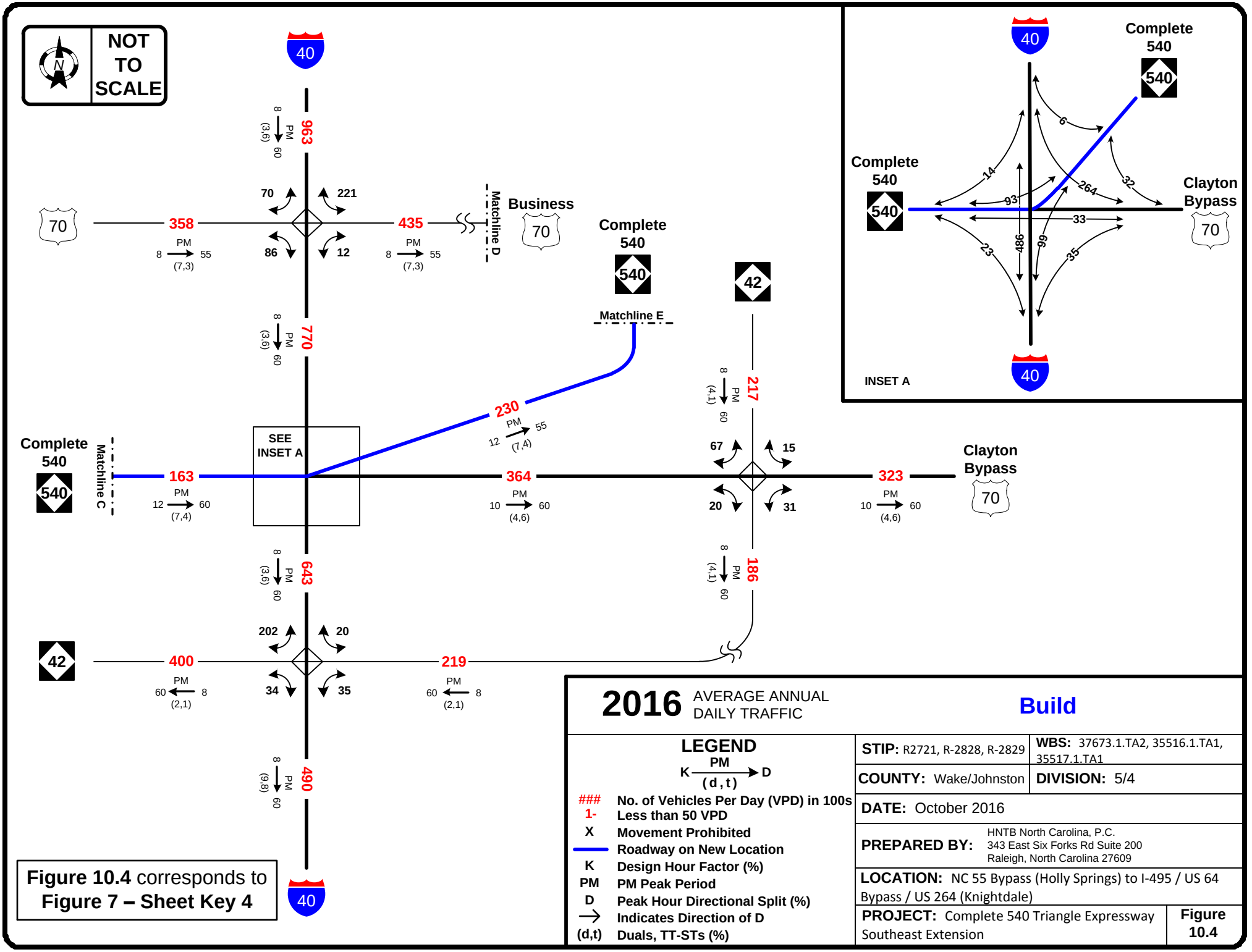


Figure 10.4 corresponds to **Figure 7 – Sheet Key 4**

2016 AVERAGE ANNUAL DAILY TRAFFIC

Build

LEGEND

PM
K → D
(d, t)

###	No. of Vehicles Per Day (VPD) in 100s
1-	Less than 50 VPD
X	Movement Prohibited
———	Roadway on New Location
K	Design Hour Factor (%)
PM	PM Peak Period
D	Peak Hour Directional Split (%)
→	Indicates Direction of D
(d,t)	Duals, TT-STs (%)

STIP: R2721, R-2828, R-2829	**WBS:** 37673.1.TA2, 35516.1.TA1, 35517.1.TA1
COUNTY: Wake/Johnston	**DIVISION:** 5/4
DATE: October 2016	
PREPARED BY: HNTB North Carolina, P.C. 343 East Six Forks Rd Suite 200 Raleigh, North Carolina 27609	
LOCATION: NC 55 Bypass (Holly Springs) to I-495 / US 64 Bypass / US 264 (Knightdale)	
PROJECT: Complete 540 Triangle Expressway Southeast Extension	**Figure 10.4**

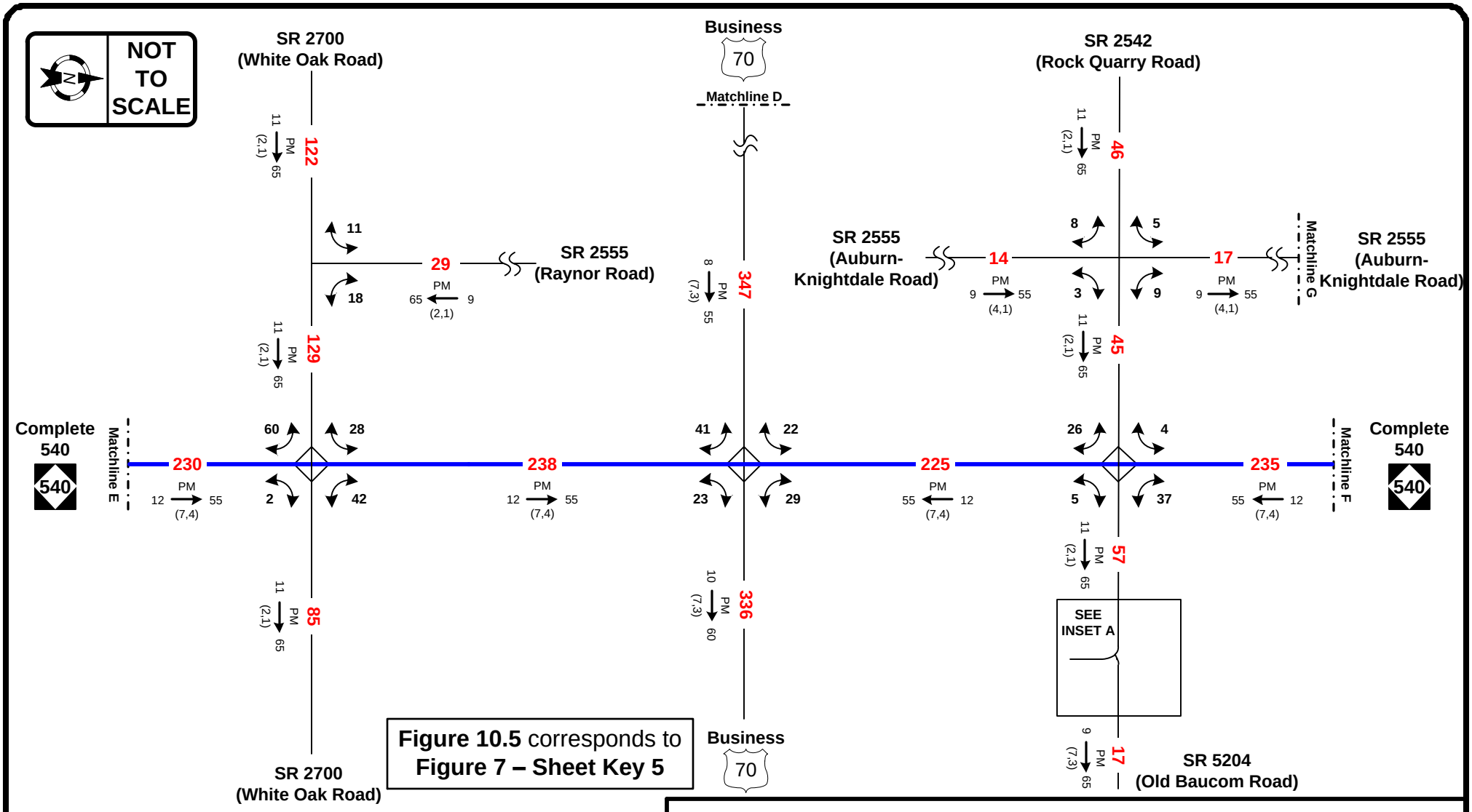
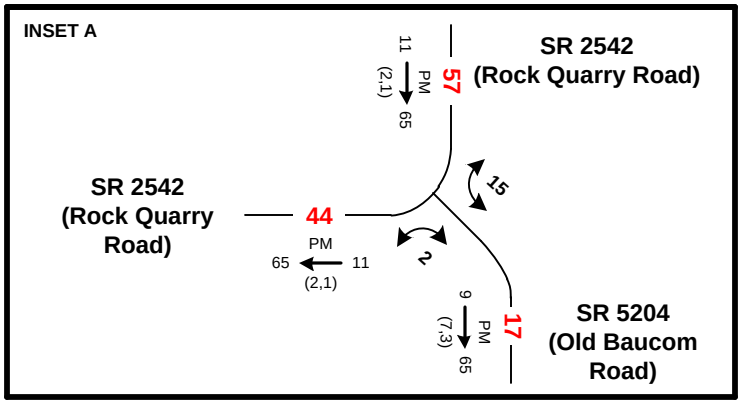


Figure 10.5 corresponds to **Figure 7 – Sheet Key 5**



2016 AVERAGE ANNUAL DAILY TRAFFIC

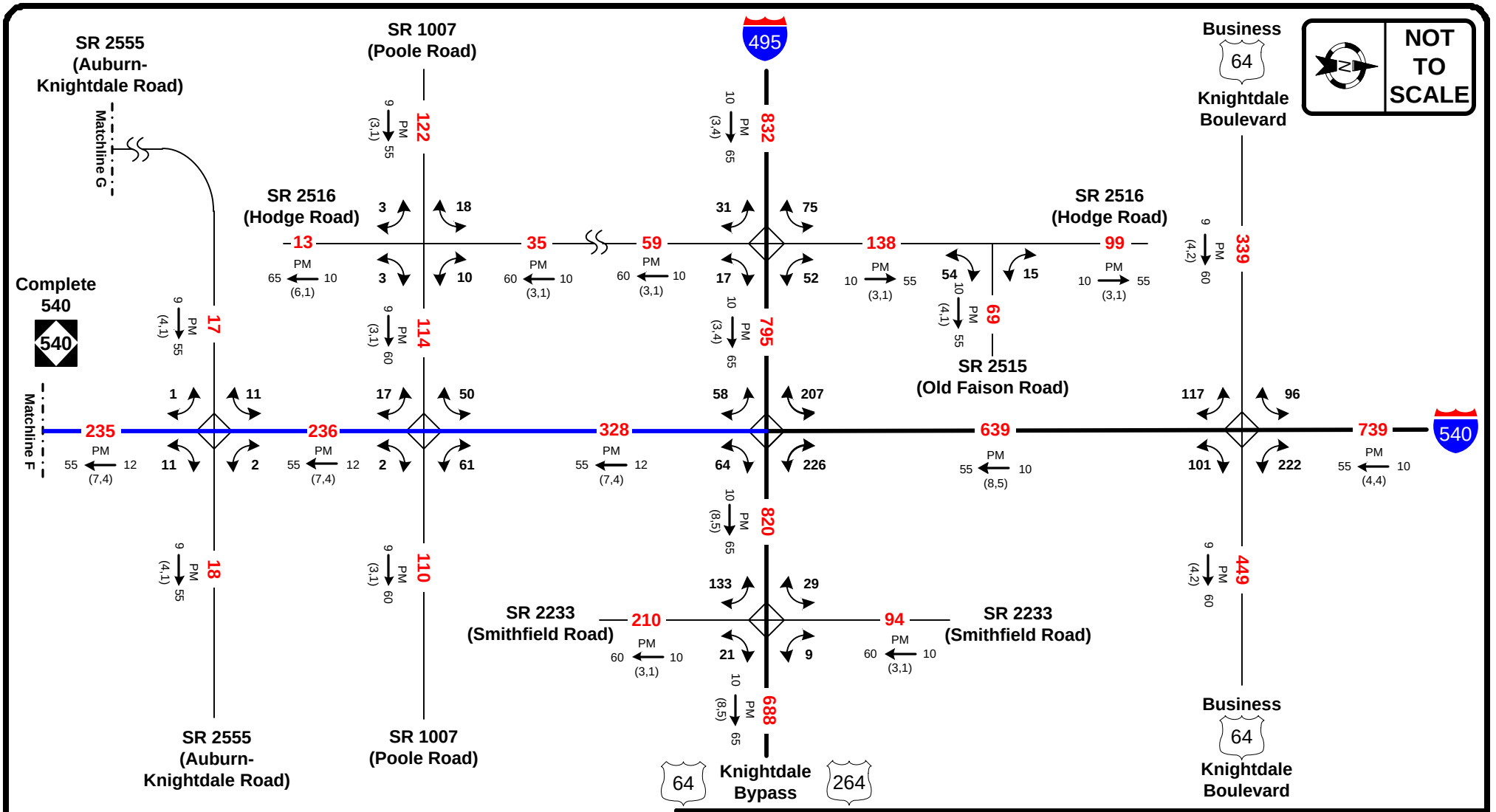
Build

LEGEND

K PM → D
(d , t)

###	No. of Vehicles Per Day (VPD) in 100s
1-	Less than 50 VPD
X	Movement Prohibited
———	Roadway on New Location
K	Design Hour Factor (%)
PM	PM Peak Period
D	Peak Hour Directional Split (%)
→	Indicates Direction of D
(d,t)	Duals, TT-STs (%)

STIP: R2721, R-2828, R-2829	**WBS:** 37673.1.TA2, 35516.1.TA1, 35517.1.TA1
COUNTY: Wake/Johnston	**DIVISION:** 5/4
DATE: October 2016	
PREPARED BY: HNTB North Carolina, P.C. 343 East Six Forks Rd Suite 200 Raleigh, North Carolina 27609	
LOCATION: NC 55 Bypass (Holly Springs) to I-495 / US 64 Bypass / US 264 (Knightdale)	
PROJECT: Complete 540 Triangle Expressway Southeast Extension	**Figure 10.5**



2016 AVERAGE ANNUAL DAILY TRAFFIC

Build

LEGEND

K PM → D
(d, t)

###	No. of Vehicles Per Day (VPD) in 100s
1-	Less than 50 VPD
X	Movement Prohibited
———	Roadway on New Location
K	Design Hour Factor (%)
PM	PM Peak Period
D	Peak Hour Directional Split (%)
→	Indicates Direction of D
(d,t)	Duals, TT-STs (%)

STIP: R2721, R-2828, R-2829

WBS: 37673.1.TA2, 35516.1.TA1, 35517.1.TA1

COUNTY: Wake/Johnston

DIVISION: 5/4

DATE: October 2016

PREPARED BY: HNTB North Carolina, P.C.
343 East Six Forks Rd Suite 200
Raleigh, North Carolina 27609

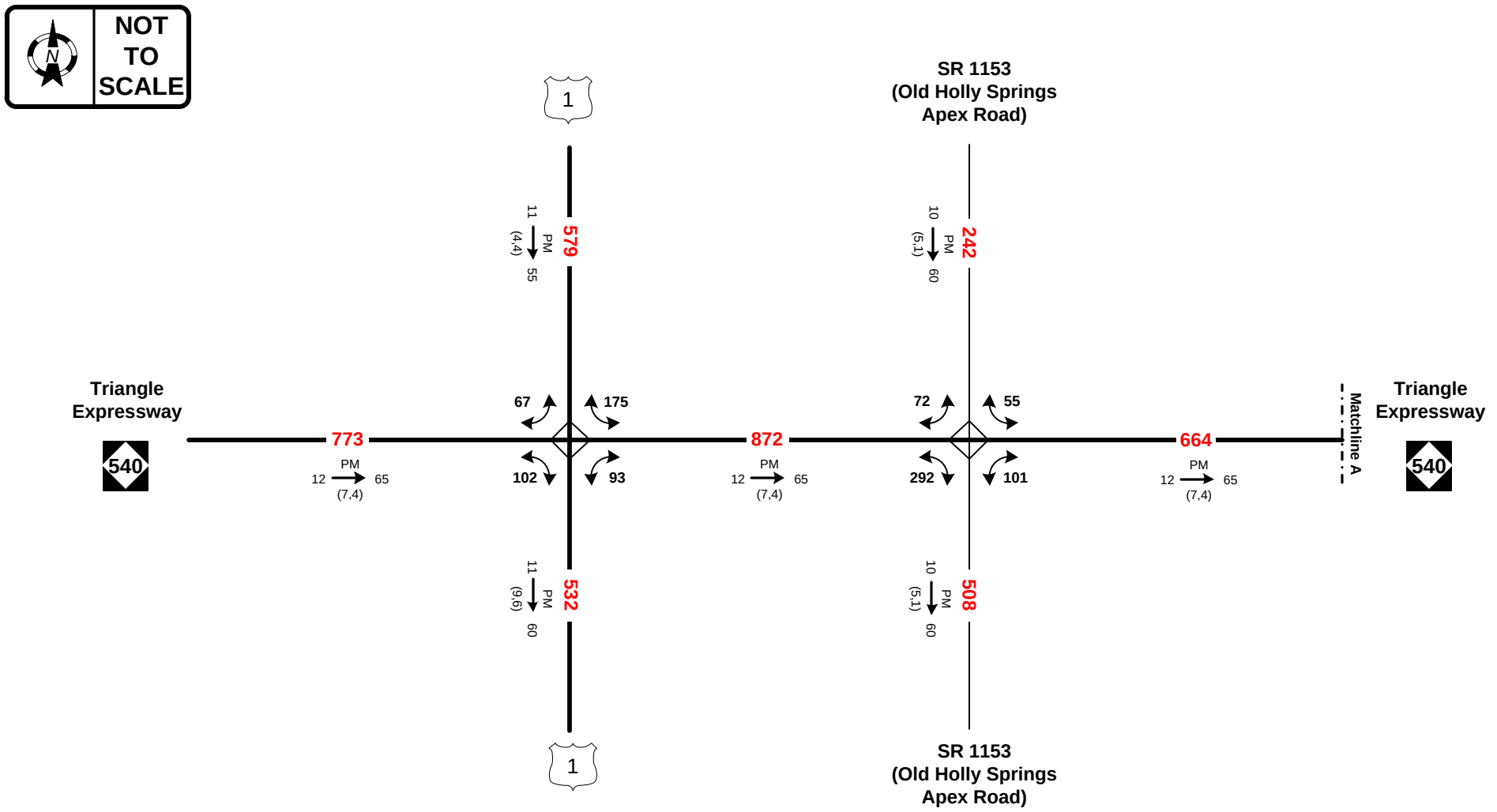
LOCATION: NC 55 Bypass (Holly Springs) to I-495 / US 64 Bypass / US 264 (Knightdale)

PROJECT: Complete 540 Triangle Expressway Southeast Extension

Figure 10.6

Figure 10.6 corresponds to **Figure 7 – Sheet Key 6**

2040 Build



2040 AVERAGE ANNUAL DAILY TRAFFIC

Build

LEGEND

PM
K → D
(d, t)

###	No. of Vehicles Per Day (VPD) in 100s
1-	Less than 50 VPD
X	Movement Prohibited
———	Roadway on New Location
K	Design Hour Factor (%)
PM	PM Peak Period
D	Peak Hour Directional Split (%)
→	Indicates Direction of D
(d,t)	Duals, TT-STs (%)

STIP: R2721, R-2828, R-2829

WBS: 37673.1.TA2, 35516.1.TA1, 35517.1.TA1

COUNTY: Wake/Johnston

DIVISION: 5/4

DATE: October 2016

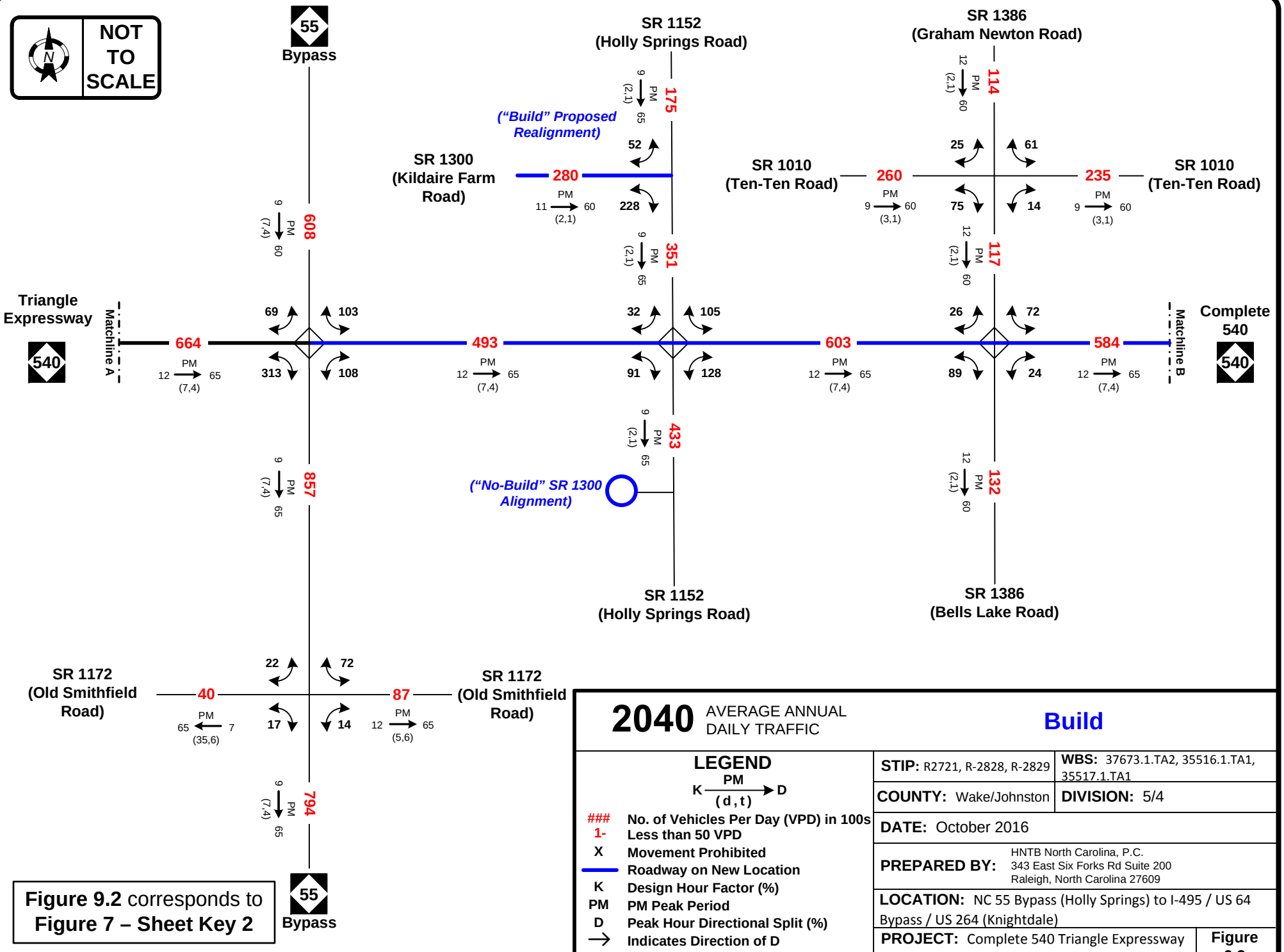
PREPARED BY: HNTB North Carolina, P.C.
343 East Six Forks Rd Suite 200
Raleigh, North Carolina 27609

LOCATION: NC 55 Bypass (Holly Springs) to I-495 / US 64 Bypass / US 264 (Knightdale)

PROJECT: Complete 540 Triangle Expressway Southeast Extension

Figure 9.1

Figure 9.1 corresponds to **Figure 7 – Sheet Key 1**



2040 AVERAGE ANNUAL DAILY TRAFFIC

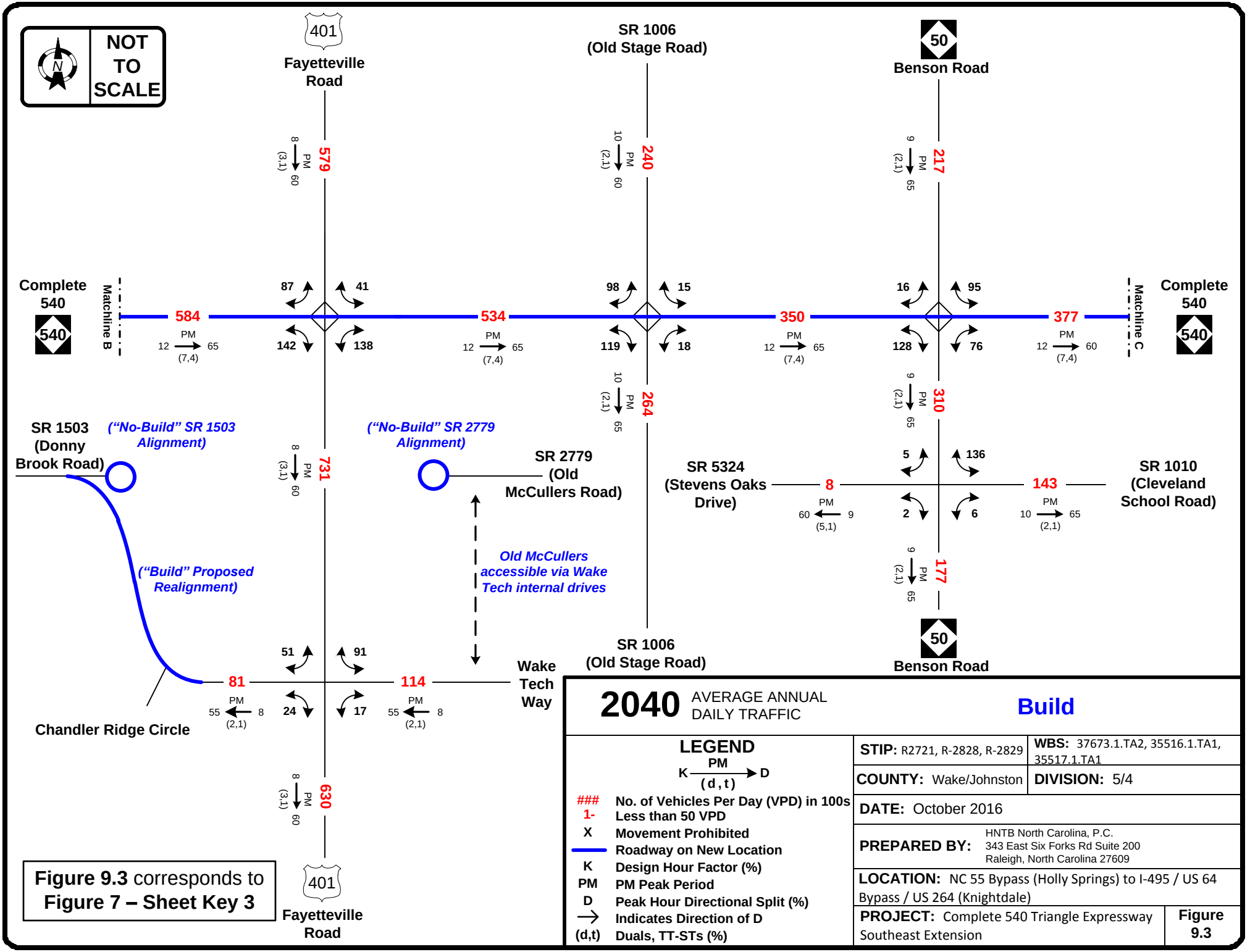
Build

LEGEND

PM
K → D
(d, t)

###	No. of Vehicles Per Day (VPD) in 100s
1-	Less than 50 VPD
X	Movement Prohibited
———	Roadway on New Location
K	Design Hour Factor (%)
PM	PM Peak Period
D	Peak Hour Directional Split (%)
→	Indicates Direction of D
(d,t)	Duals, TT-STs (%)

STIP: R2721, R-2828, R-2829	**WBS:** 37673.1.TA2, 35516.1.TA1, 35517.1.TA1
COUNTY: Wake/Johnston	**DIVISION:** 5/4
DATE: October 2016	
PREPARED BY: HNTB North Carolina, P.C. 343 East Six Forks Rd Suite 200 Raleigh, North Carolina 27609	
LOCATION: NC 55 Bypass (Holly Springs) to I-495 / US 64 Bypass / US 264 (Knightdale)	
PROJECT: Complete 540 Triangle Expressway Southeast Extension	**Figure 9.2**


NOT TO SCALE
401
Fayetteville Road
SR 1006 (Old Stage Road)
50
Benson Road
Complete 540
540
Matchline B
Matchline C
584
534
350
377
579
240
217
731
264
310
177
630
87
41
142
138
98
15
119
18
16
95
128
76
5
136
2
6
8
PM
12
65
(7,4)
60
(5,1)
9
10
(2,1)
(3,1)
SR 1503 (Donny Brook Road)
("No-Build" SR 1503 Alignment)
("Build" Proposed Realignment)
("No-Build" SR 2779 Alignment)
SR 2779 (Old McCullers Road)
Old McCullers accessible via Wake Tech internal drives
SR 5324 (Stevens Oaks Drive)
SR 1010 (Cleveland School Road)
143
81
114
51
91
24
17
55
Chandler Ridge Circle
Wake Tech Way
Figure 9.3 corresponds to Figure 7 – Sheet Key 3
2040 AVERAGE ANNUAL DAILY TRAFFIC
Build
LEGEND
PM
K → D
(d, t)
No. of Vehicles Per Day (VPD) in 100s
1- Less than 50 VPD
X Movement Prohibited
Roadway on New Location
K Design Hour Factor (%)
PM PM Peak Period
D Peak Hour Directional Split (%)
→ Indicates Direction of D
(d,t) Duals, TT-STs (%)
STIP: R2721, R-2828, R-2829
WBS: 37673.1.TA2, 35516.1.TA1, 35517.1.TA1
COUNTY: Wake/Johnston
DIVISION: 5/4
DATE: October 2016
PREPARED BY: HNTB North Carolina, P.C. 343 East Six Forks Rd Suite 200 Raleigh, North Carolina 27609
LOCATION: NC 55 Bypass (Holly Springs) to I-495 / US 64 Bypass / US 264 (Knightdale)
PROJECT: Complete 540 Triangle Expressway Southeast Extension
Figure 9.3

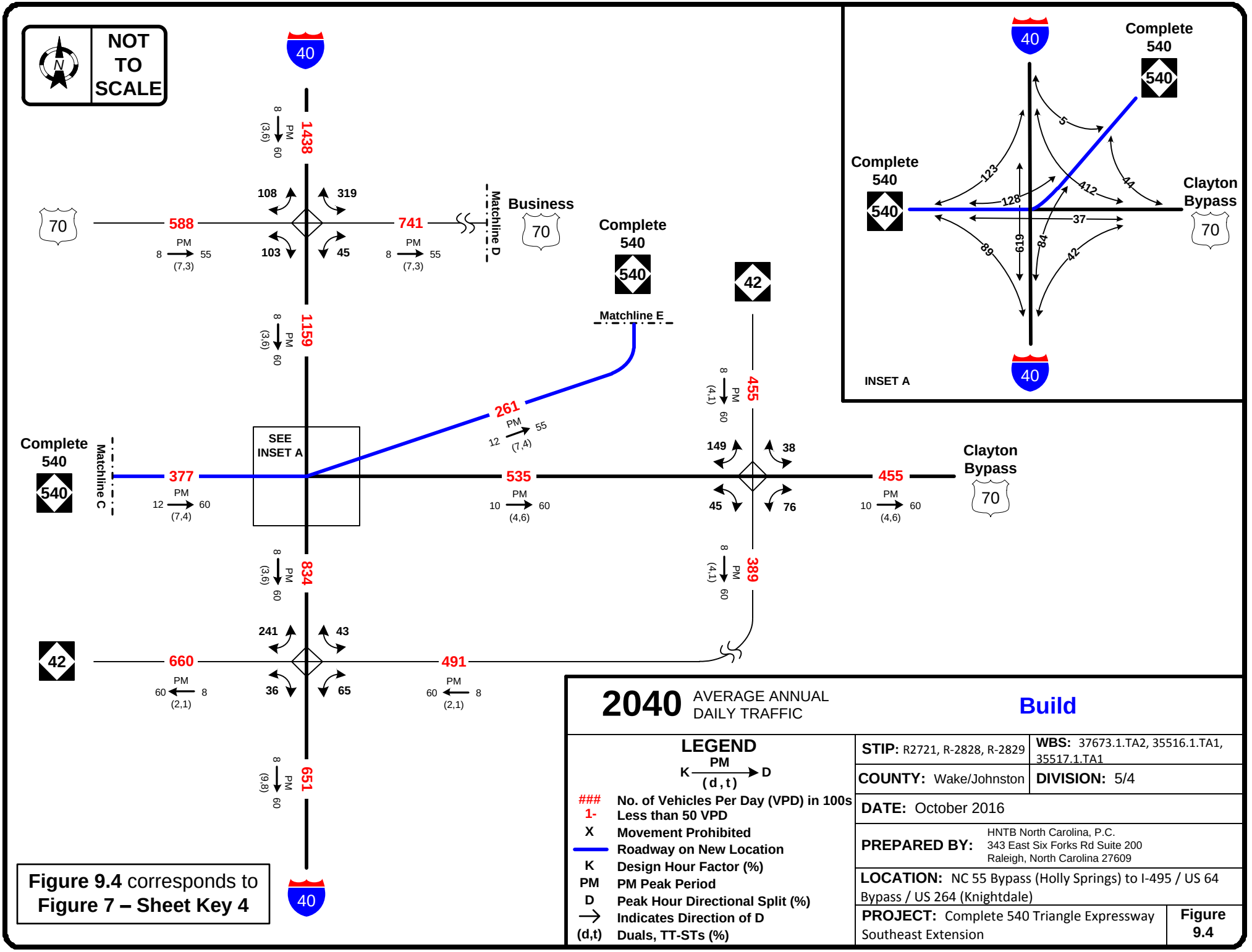


Figure 9.4 corresponds to **Figure 7 – Sheet Key 4**

2040 AVERAGE ANNUAL DAILY TRAFFIC

Build

LEGEND

PM
K → D
(d, t)

###	No. of Vehicles Per Day (VPD) in 100s
1-	Less than 50 VPD
X	Movement Prohibited
———	Roadway on New Location
K	Design Hour Factor (%)
PM	PM Peak Period
D	Peak Hour Directional Split (%)
→	Indicates Direction of D
(d,t)	Duals, TT-STs (%)

STIP: R2721, R-2828, R-2829	**WBS:** 37673.1.TA2, 35516.1.TA1, 35517.1.TA1
COUNTY: Wake/Johnston	**DIVISION:** 5/4
DATE: October 2016	
PREPARED BY: HNTB North Carolina, P.C. 343 East Six Forks Rd Suite 200 Raleigh, North Carolina 27609	
LOCATION: NC 55 Bypass (Holly Springs) to I-495 / US 64 Bypass / US 264 (Knightdale)	
PROJECT: Complete 540 Triangle Expressway Southeast Extension	**Figure 9.4**

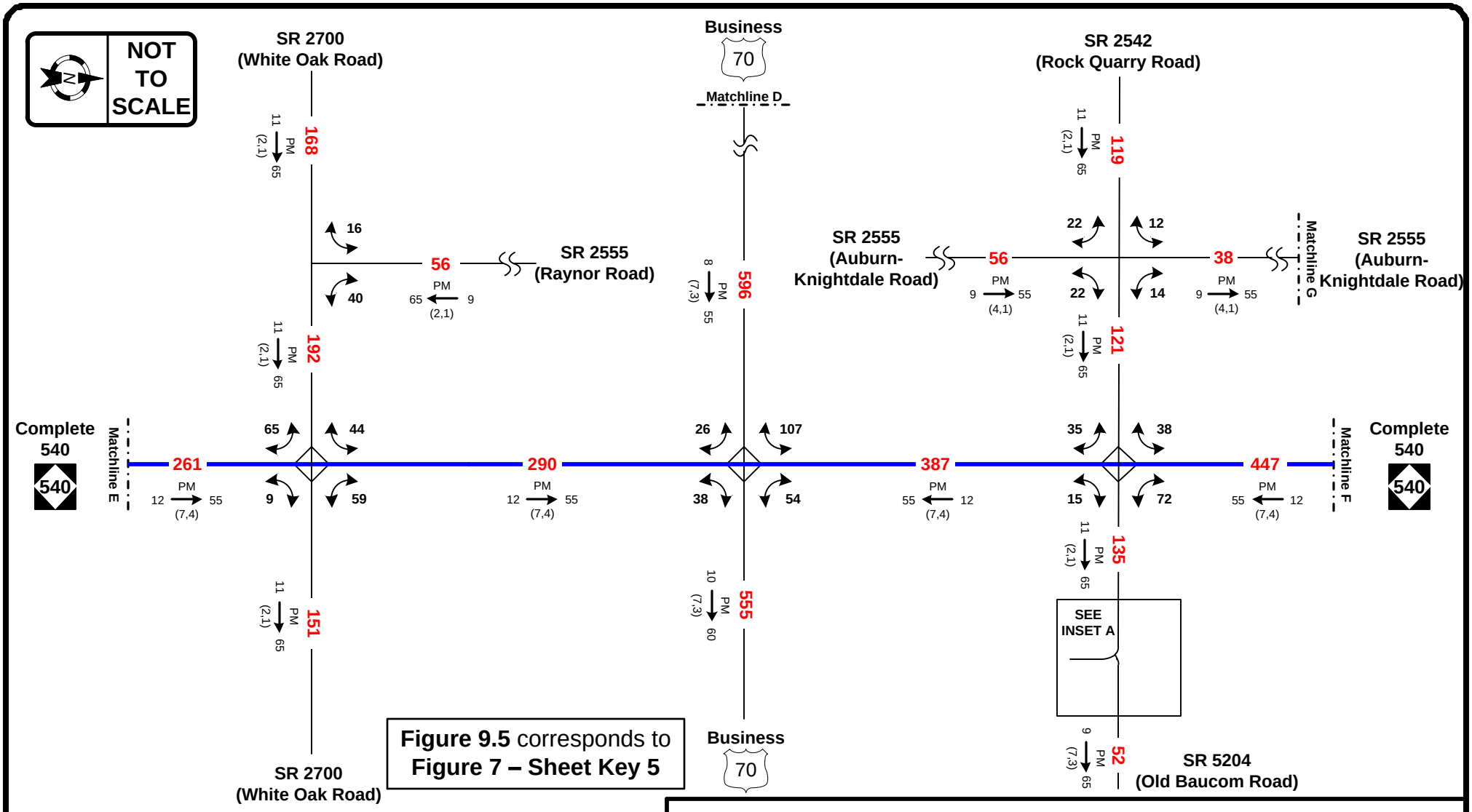
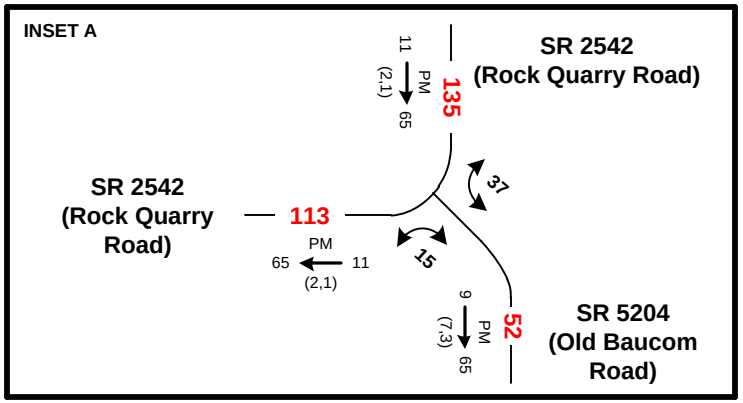


Figure 9.5 corresponds to **Figure 7 – Sheet Key 5**



2040 AVERAGE ANNUAL DAILY TRAFFIC

Build

LEGEND

K PM → D
(d , t)

###	No. of Vehicles Per Day (VPD) in 100s
1-	Less than 50 VPD
X	Movement Prohibited
———	Roadway on New Location
K	Design Hour Factor (%)
PM	PM Peak Period
D	Peak Hour Directional Split (%)
→	Indicates Direction of D
(d,t)	Duals, TT-STs (%)

STIP: R2721, R-2828, R-2829

WBS: 37673.1.TA2, 35516.1.TA1, 35517.1.TA1

COUNTY: Wake/Johnston

DIVISION: 5/4

DATE: October 2016

PREPARED BY: HNTB North Carolina, P.C.
343 East Six Forks Rd Suite 200
Raleigh, North Carolina 27609

LOCATION: NC 55 Bypass (Holly Springs) to I-495 / US 64 Bypass / US 264 (Knightdale)

PROJECT: Complete 540 Triangle Expressway Southeast Extension

Figure 9.5

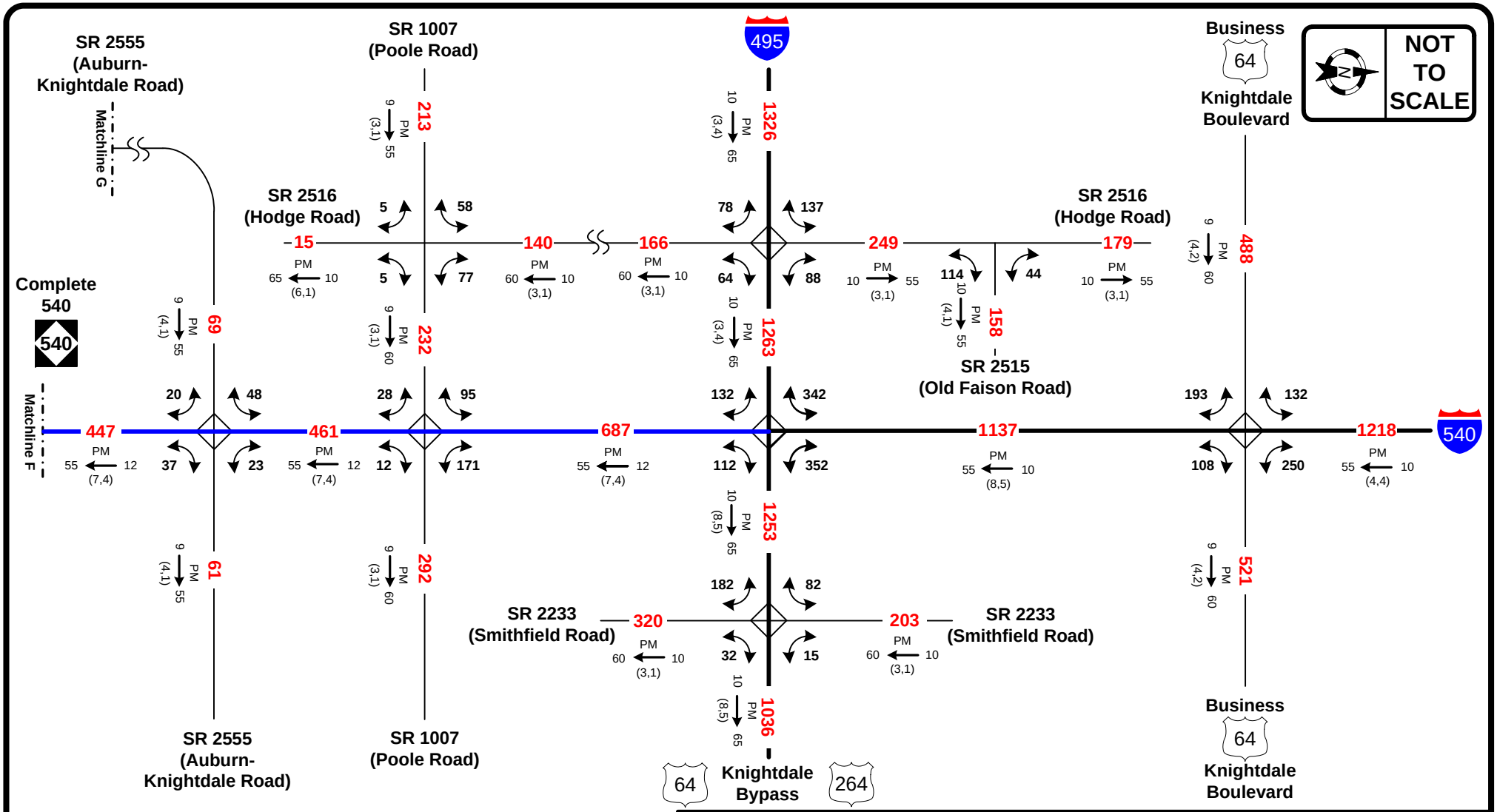


Figure 9.6 corresponds to **Figure 7 – Sheet Key 6**

2040 AVERAGE ANNUAL DAILY TRAFFIC

Build

LEGEND

PM
K → D
(d, t)

###	No. of Vehicles Per Day (VPD) in 100s
1-	Less than 50 VPD
X	Movement Prohibited
———	Roadway on New Location
K	Design Hour Factor (%)
PM	PM Peak Period
D	Peak Hour Directional Split (%)
→	Indicates Direction of D
(d,t)	Duals, TT-STs (%)

STIP: R2721, R-2828, R-2829

WBS: 37673.1.TA2, 35516.1.TA1, 35517.1.TA1

COUNTY: Wake/Johnston

DIVISION: 5/4

DATE: October 2016

PREPARED BY: HNTB North Carolina, P.C.
343 East Six Forks Rd Suite 200
Raleigh, North Carolina 27609

LOCATION: NC 55 Bypass (Holly Springs) to I-495 / US 64 Bypass / US 264 (Knightdale)

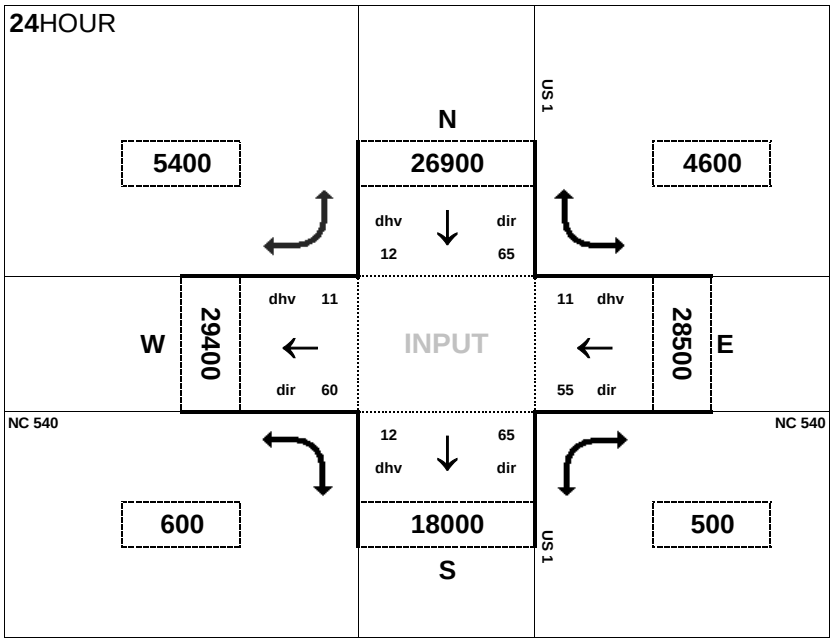
PROJECT: Complete 540 Triangle Expressway Southeast Extension

Figure 9.6

Appendix C – Peak Hour Breakout Spreadsheets

1) 2016 No-Build
2) 2016 Build DSA 2 (PA)
3) 2040 Build DSA 2 (PA)

2016 No-Build

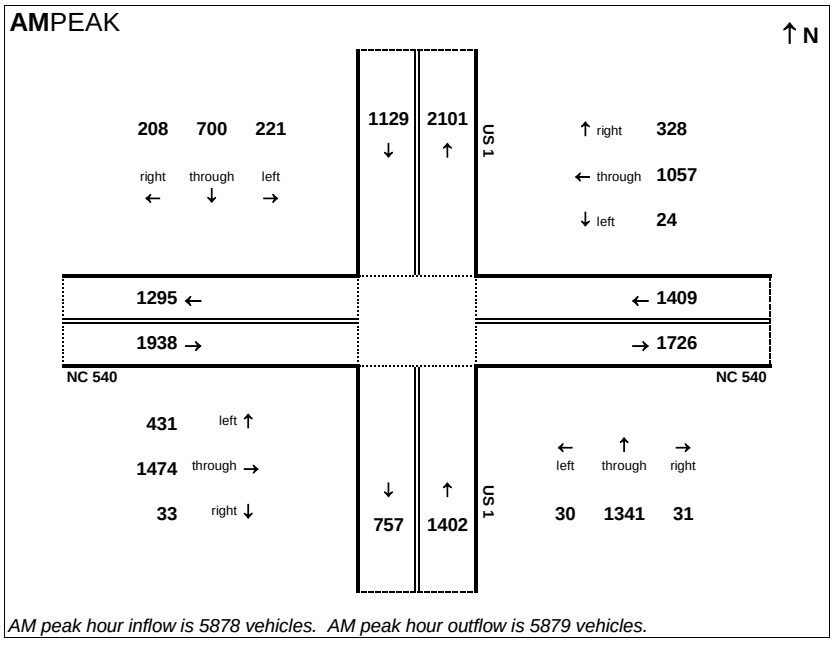


Peak Hour Volume Breakouts Report:
01: NC 540 & US 1

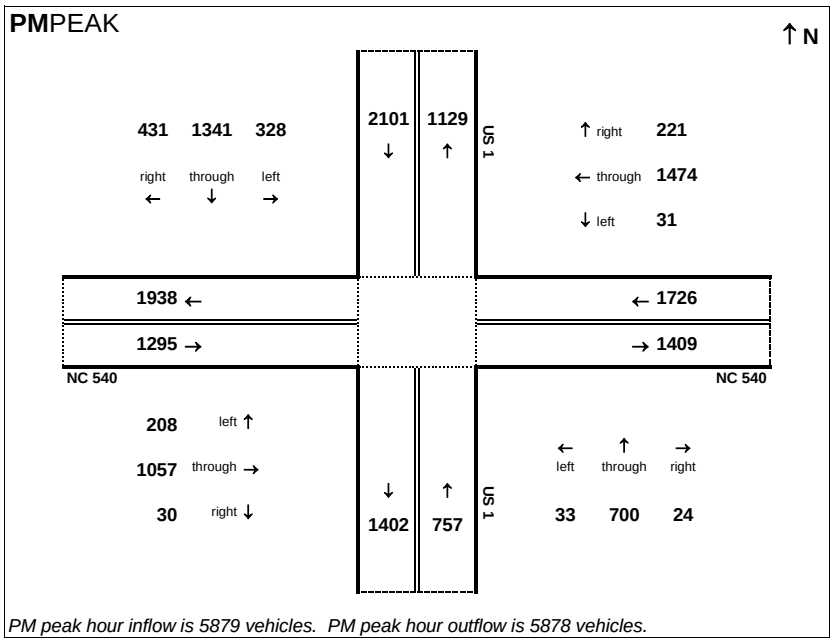
Traffic Forecast Release Date:
May-16

Traffic Data Year:
2016 No-Build

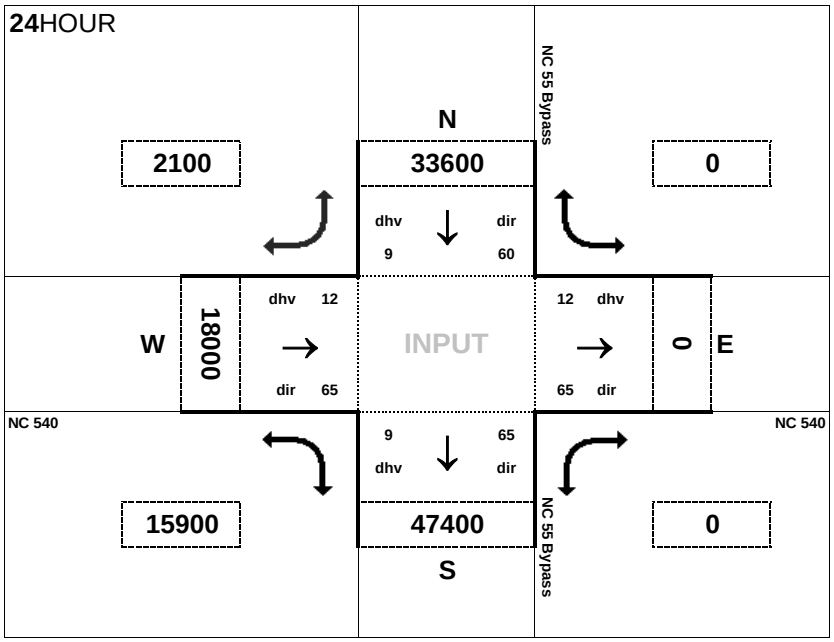
Project:
Complete 540 - Triangle Expressway - Southeast Extension

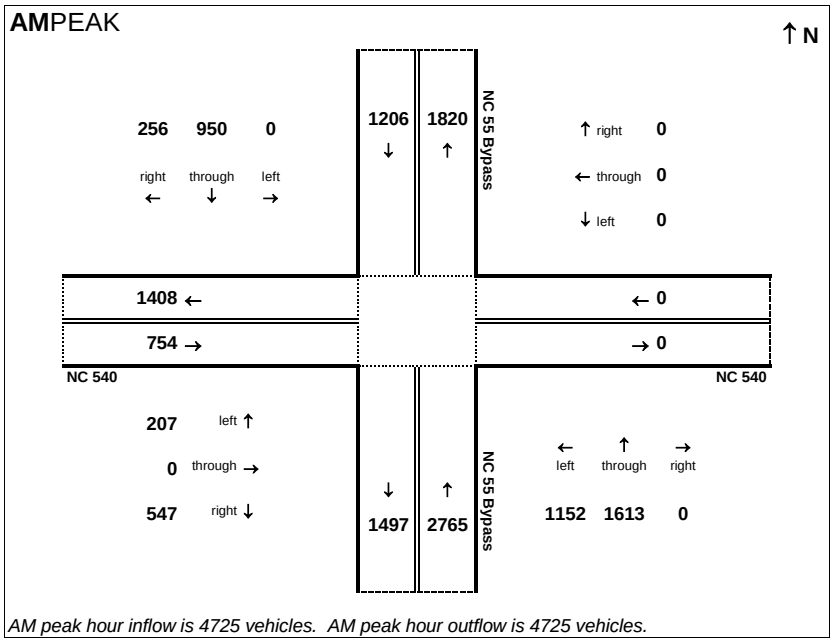


AM peak hour inflow is 5878 vehicles. AM peak hour outflow is 5879 vehicles.

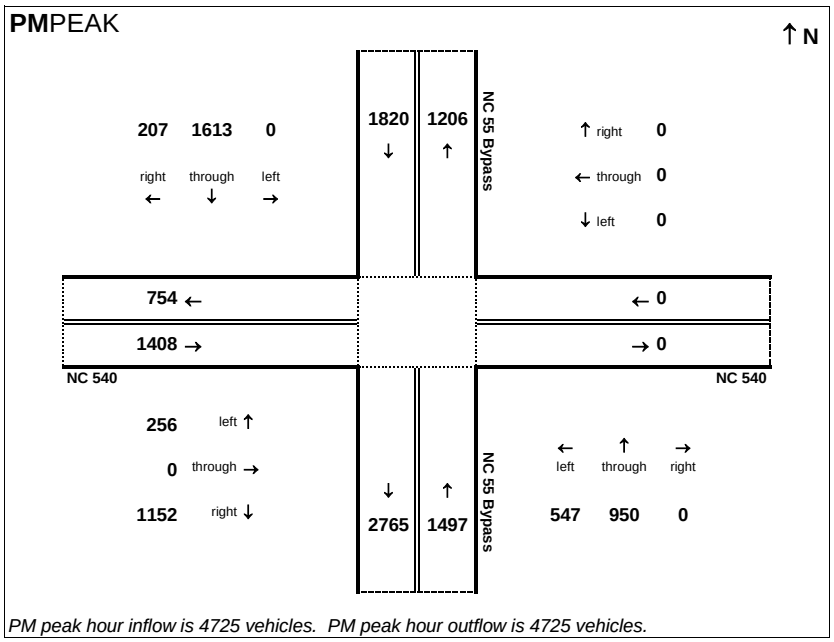


PM peak hour inflow is 5879 vehicles. PM peak hour outflow is 5878 vehicles.





AM peak hour inflow is 4725 vehicles. AM peak hour outflow is 4725 vehicles.



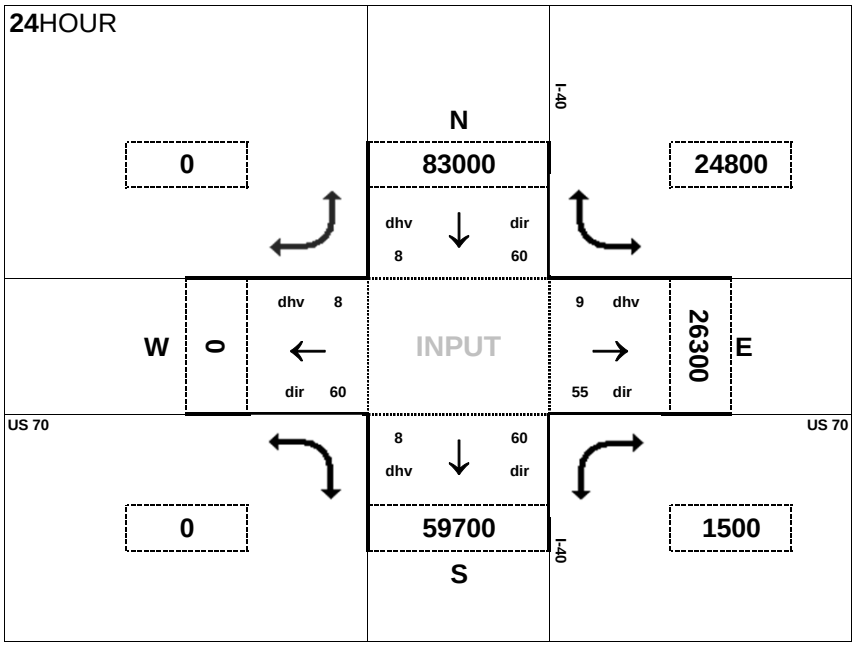
PM peak hour inflow is 4725 vehicles. PM peak hour outflow is 4725 vehicles.

Peak Hour Volume Breakouts Report:
03: NC 540 & US 55 Bypass

Traffic Forecast Release Date:
May-16

Traffic Data Year:
2016 No-Build

Project:
Complete 540 - Triangle Expressway - Southeast Extension

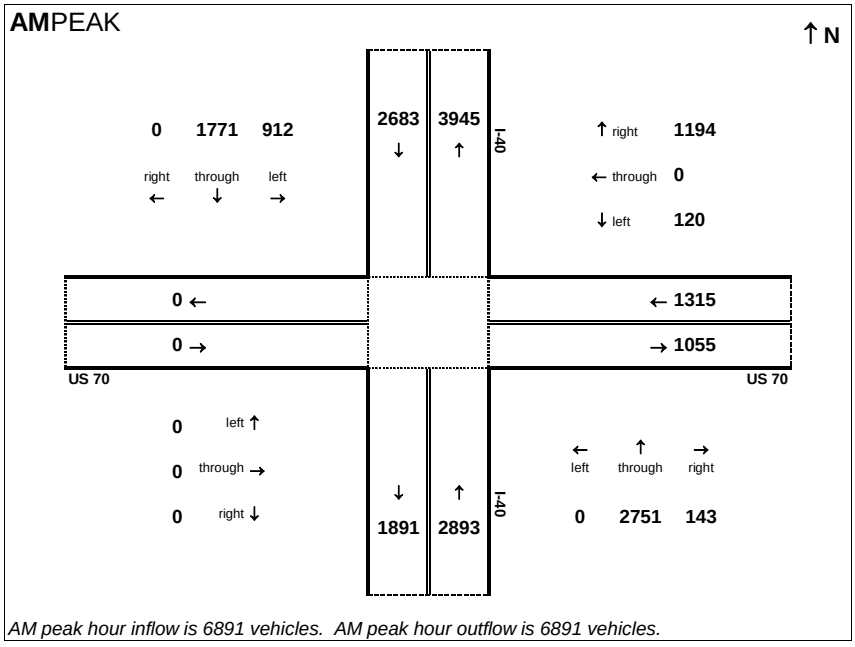


Peak Hour Volume Breakouts Report:
9: I-40 & US 70

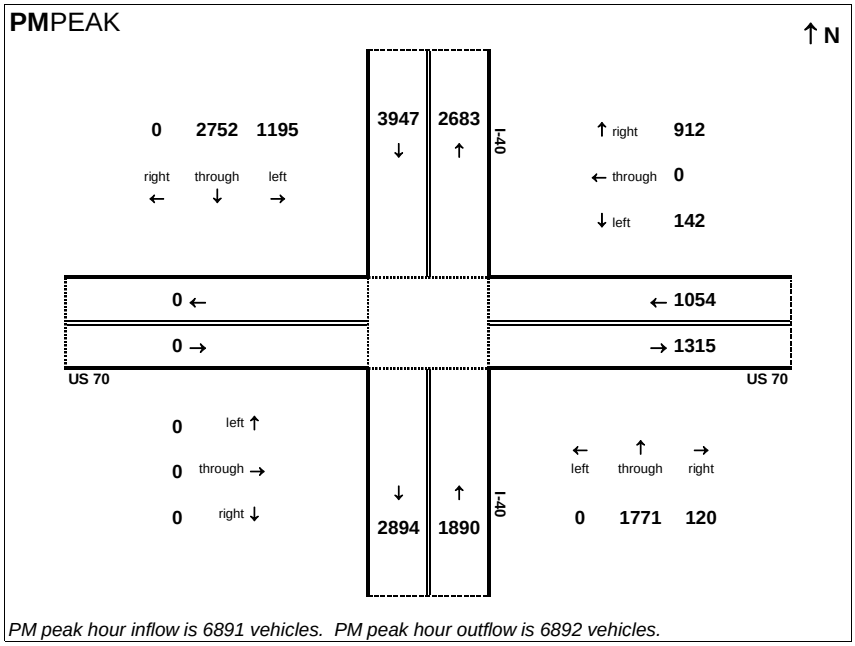
Traffic Forecast Release Date:
May-16

Traffic Data Year:
2016 No-Build

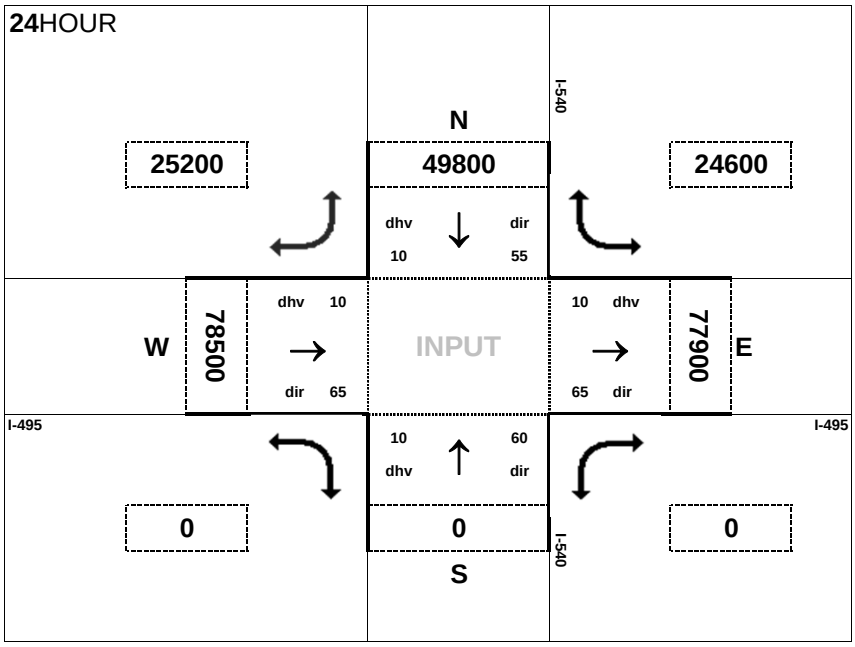
Project:
Complete 540 - Triangle Expressway - Southeast Extension



AM peak hour inflow is 6891 vehicles. AM peak hour outflow is 6891 vehicles.



PM peak hour inflow is 6891 vehicles. PM peak hour outflow is 6892 vehicles.

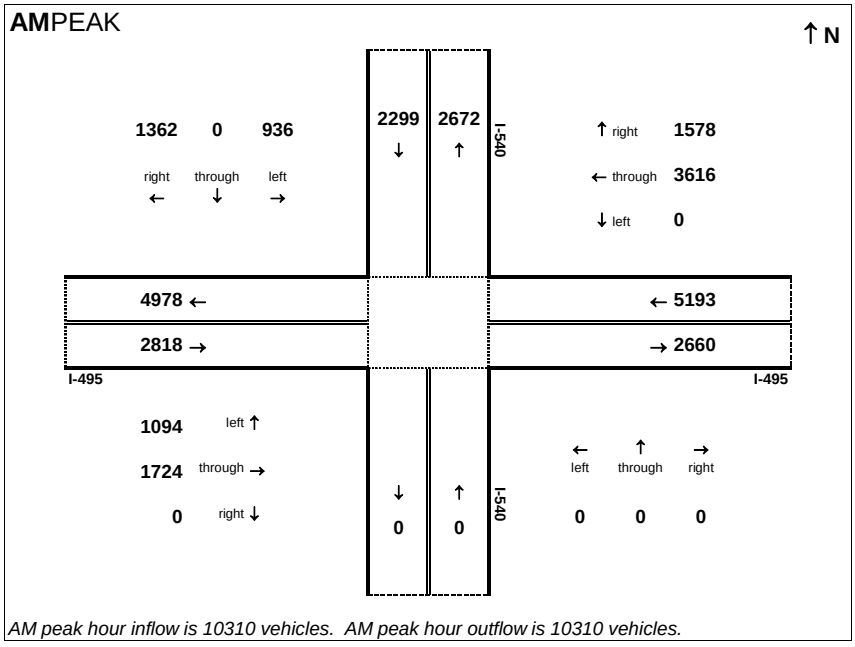


Peak Hour Volume Breakouts Report:
16: I-495 & I-540

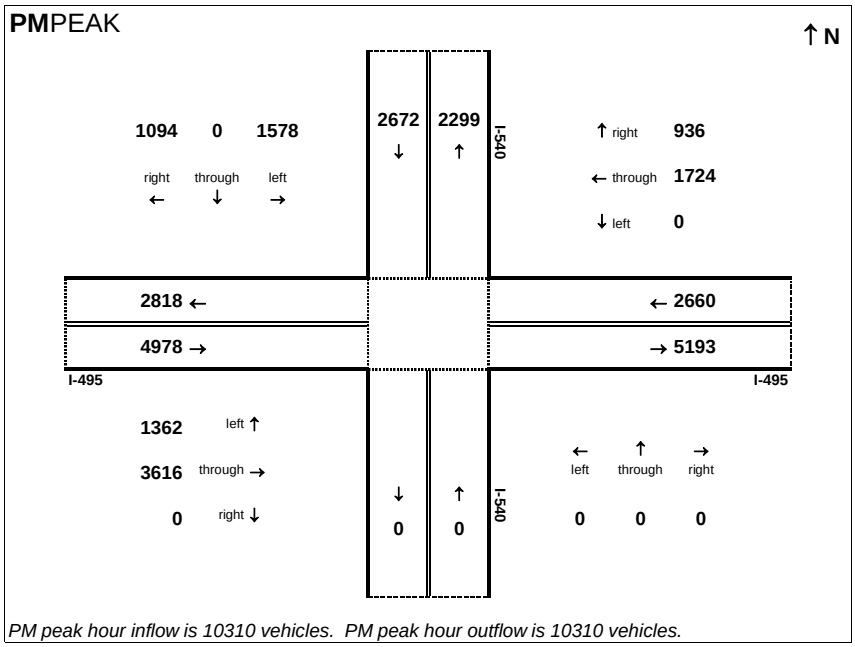
Traffic Forecast Release Date:
May-16

Traffic Data Year:
2016 No-Build

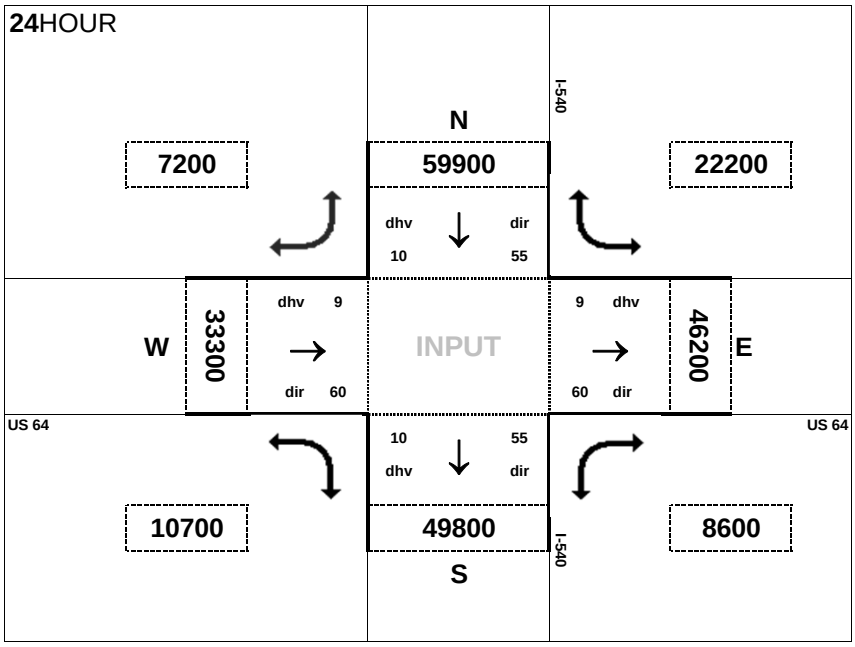
Project:
Complete 540 - Triangle Expressway - Southeast Extension



AM peak hour inflow is 10310 vehicles. AM peak hour outflow is 10310 vehicles.



PM peak hour inflow is 10310 vehicles. PM peak hour outflow is 10310 vehicles.

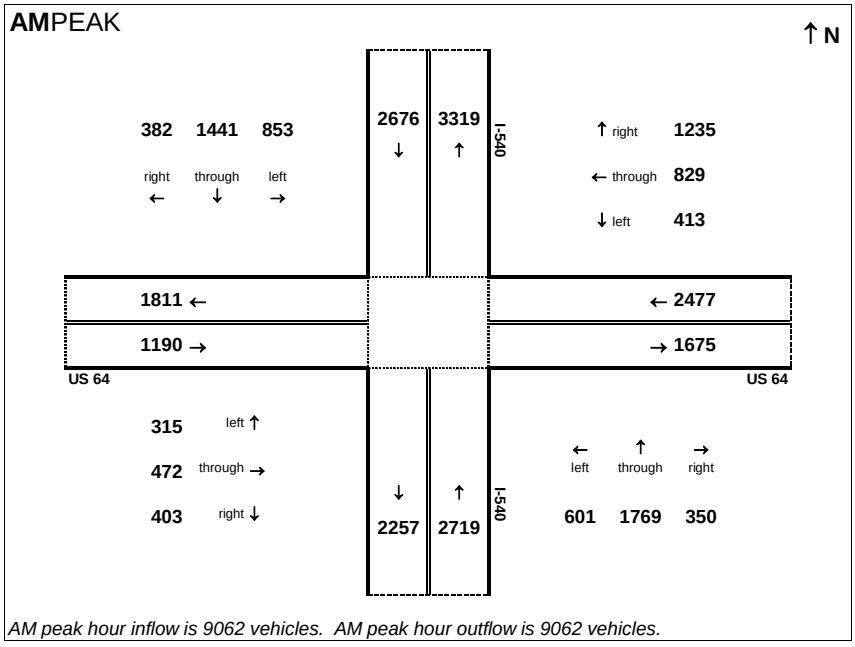


Peak Hour Volume Breakouts Report:
17: I-540 & US 64

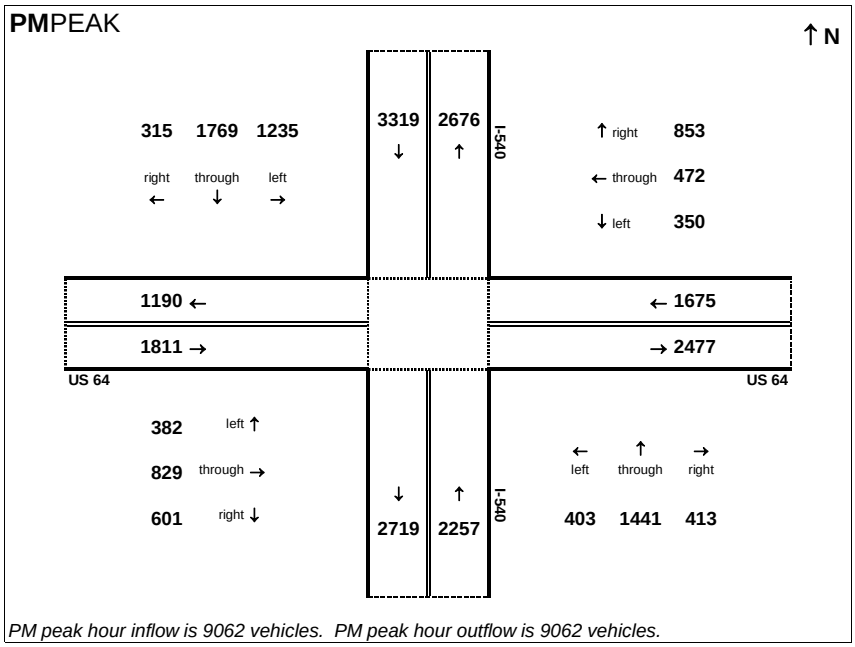
Traffic Forecast Release Date:
May-16

Traffic Data Year:
2016 No-Build

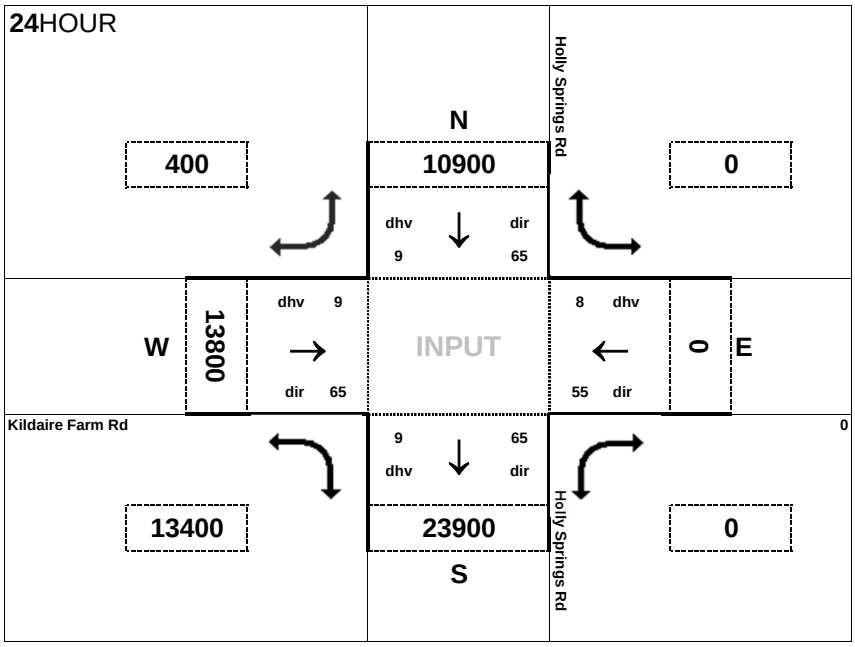
Project:
Complete 540 - Triangle Expressway - Southeast Extension



AM peak hour inflow is 9062 vehicles. AM peak hour outflow is 9062 vehicles.



PM peak hour inflow is 9062 vehicles. PM peak hour outflow is 9062 vehicles.

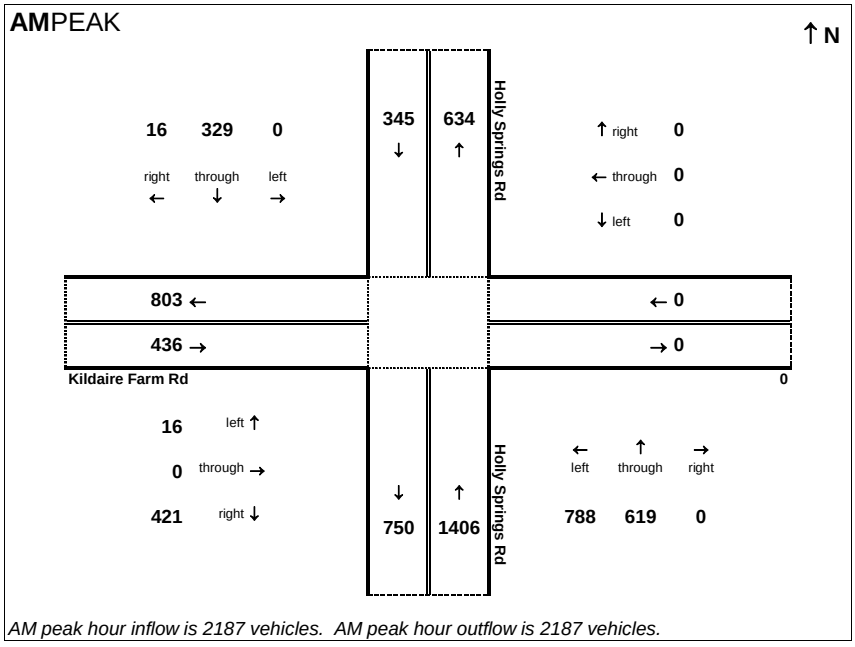


Peak Hour Volume Breakouts Report:
19: Holly Springs Rd & Kildaire Farm Rd

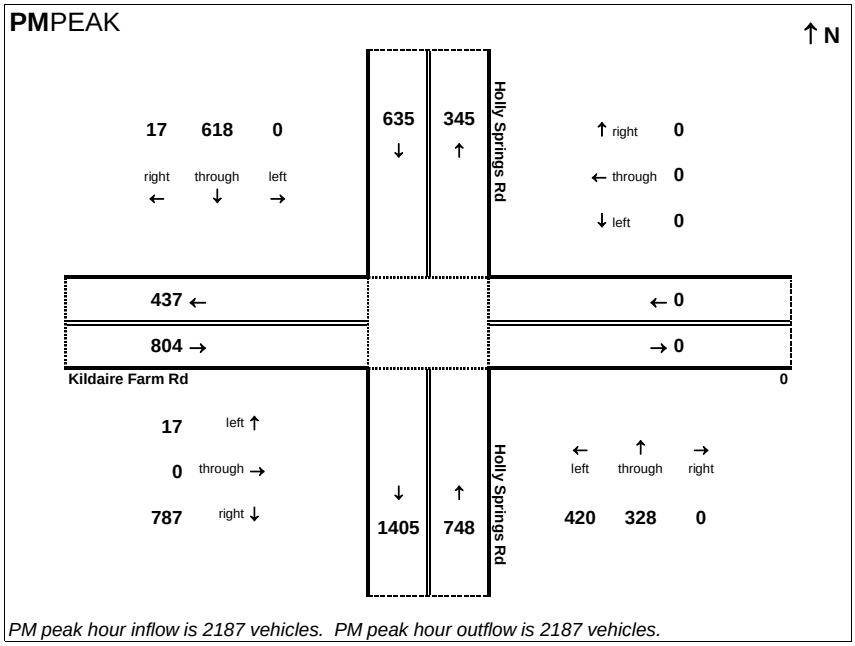
Traffic Forecast Release Date:
May-16

Traffic Data Year:
2016 No-Build

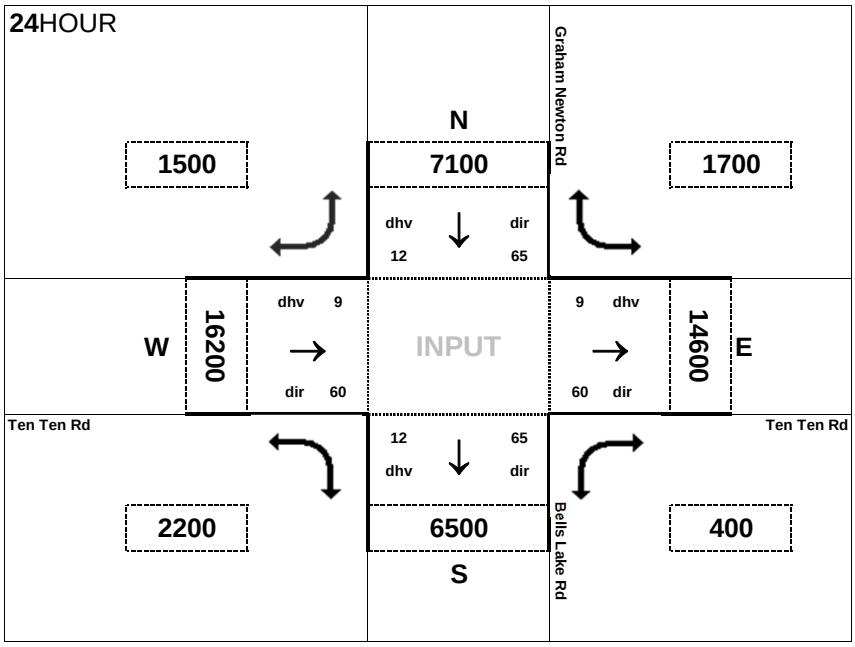
Project:
Complete 540 - Triangle Expressway - Southeast Extension

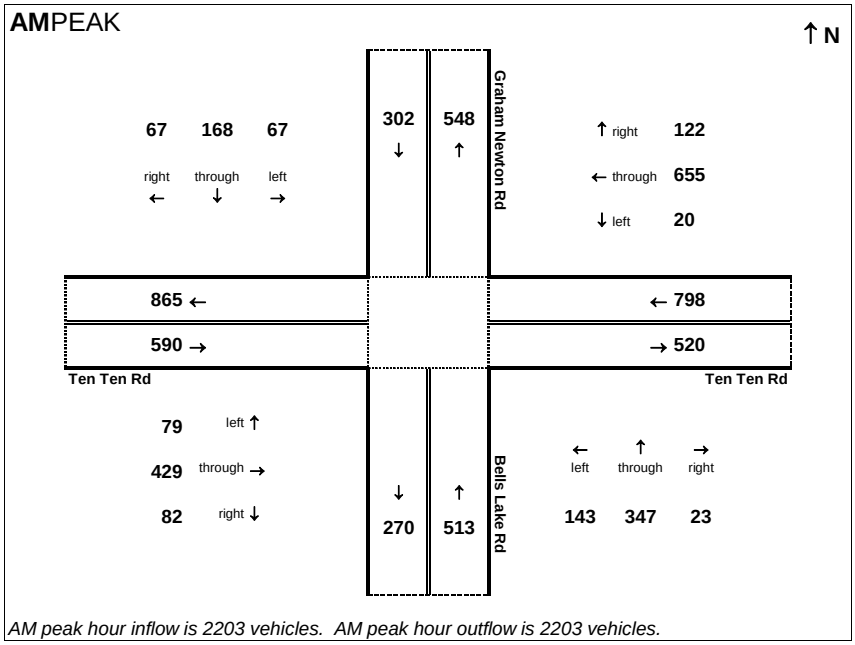


AM peak hour inflow is 2187 vehicles. AM peak hour outflow is 2187 vehicles.

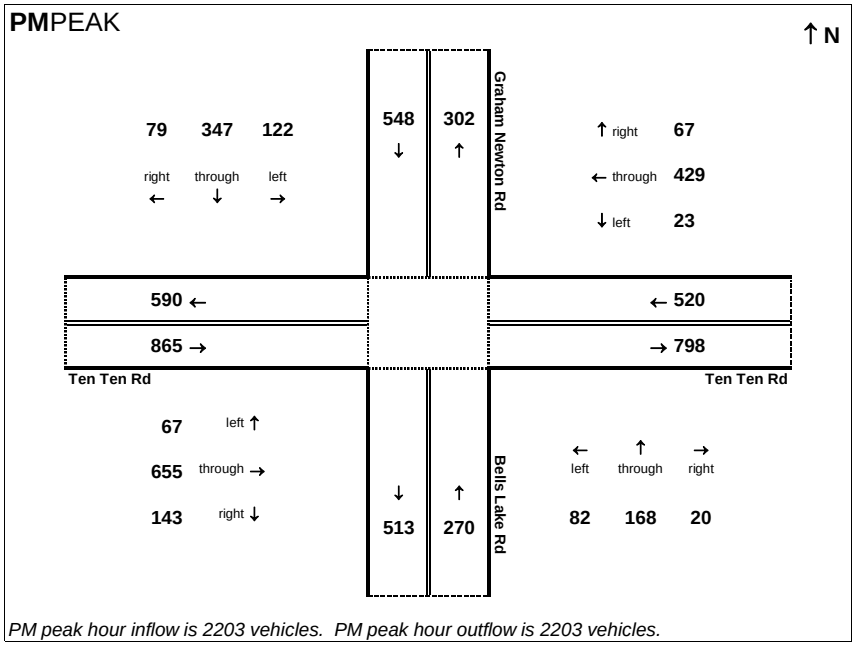


PM peak hour inflow is 2187 vehicles. PM peak hour outflow is 2187 vehicles.





AM peak hour inflow is 2203 vehicles. AM peak hour outflow is 2203 vehicles.



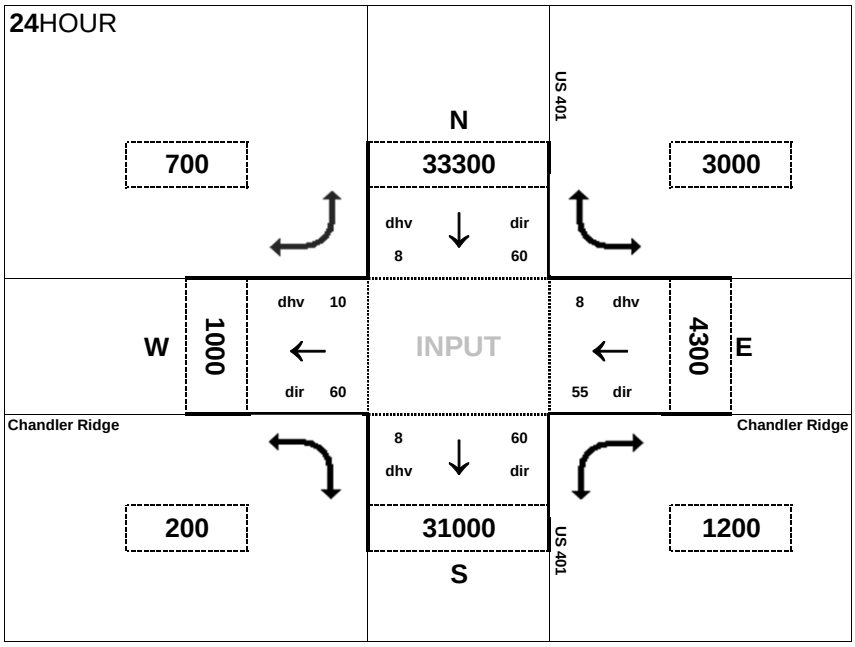
PM peak hour inflow is 2203 vehicles. PM peak hour outflow is 2203 vehicles.

Peak Hour Volume Breakouts Report:
20: Bells Lake & Ten Ten

Traffic Forecast Release Date:
May-16

Traffic Data Year:
2016 No-Build

Project:
Complete 540 - Triangle Expressway - Southeast Extension

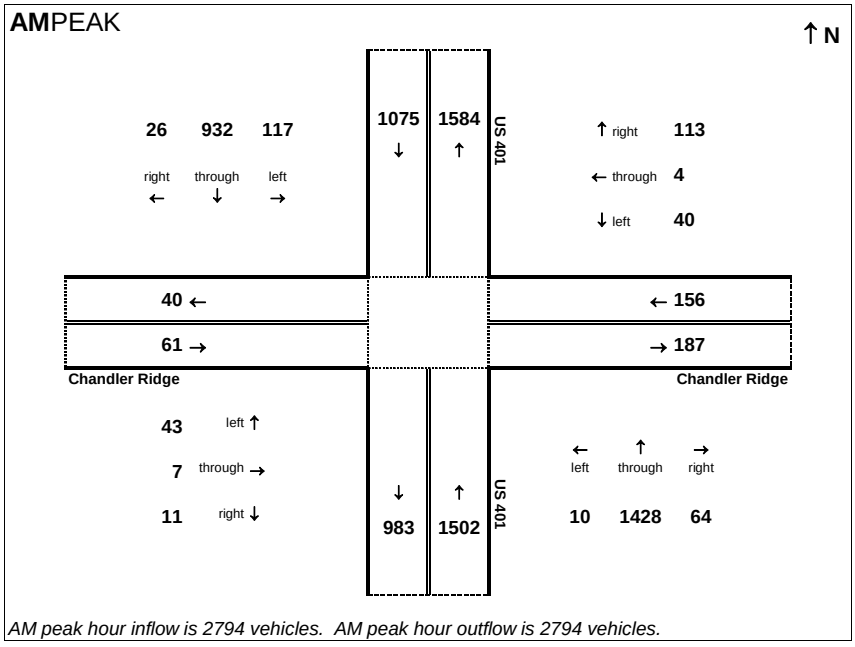


Peak Hour Volume Breakouts Report:
21: US 401 & Chandler Ridge

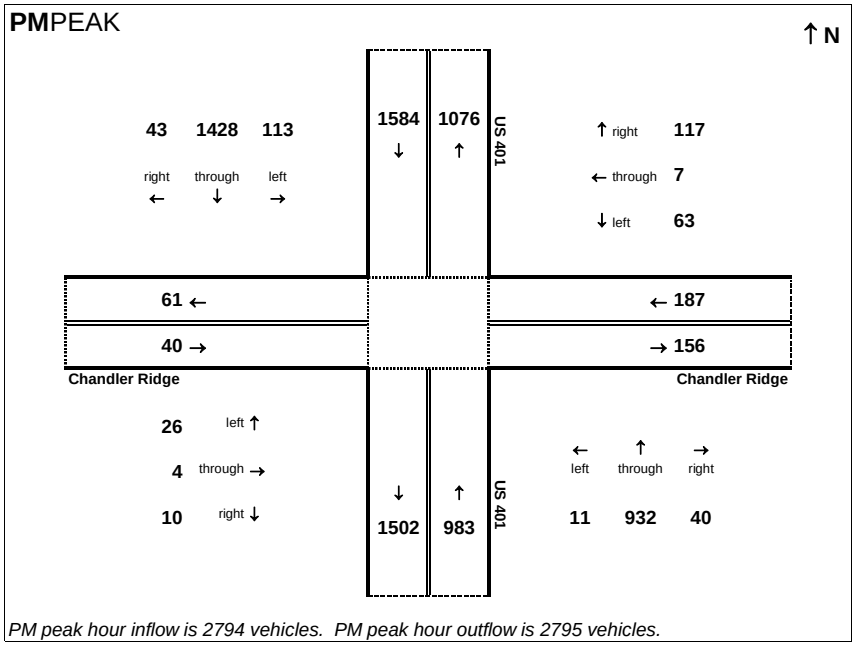
Traffic Forecast Release Date:
May-16

Traffic Data Year:
2016 No-Build

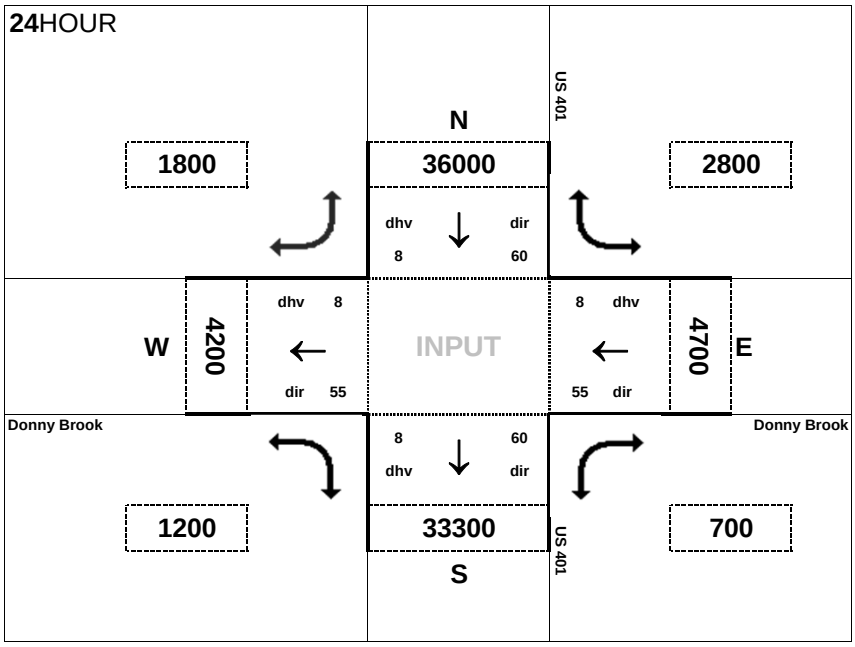
Project:
Complete 540 - Triangle Expressway - Southeast Extension



AM peak hour inflow is 2794 vehicles. AM peak hour outflow is 2794 vehicles.



PM peak hour inflow is 2794 vehicles. PM peak hour outflow is 2795 vehicles.

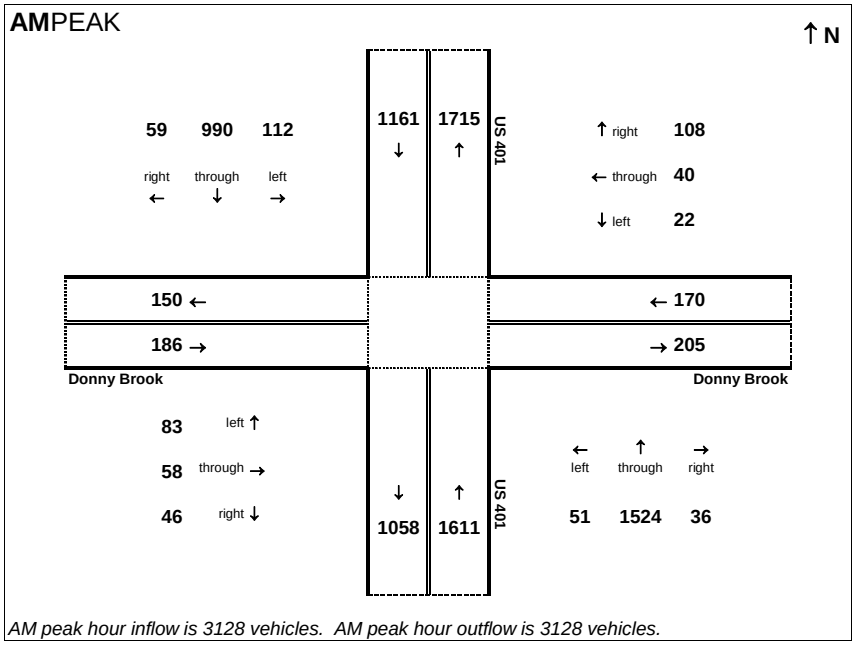


Peak Hour Volume Breakouts Report:
21: US 401 & Donny Brook

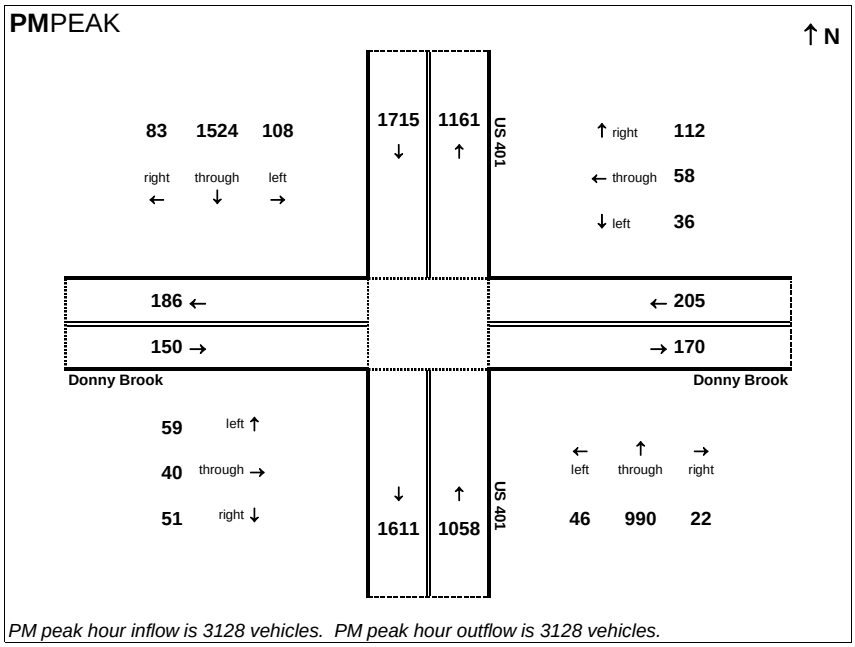
Traffic Forecast Release Date:
May-16

Traffic Data Year:
2016 No-Build

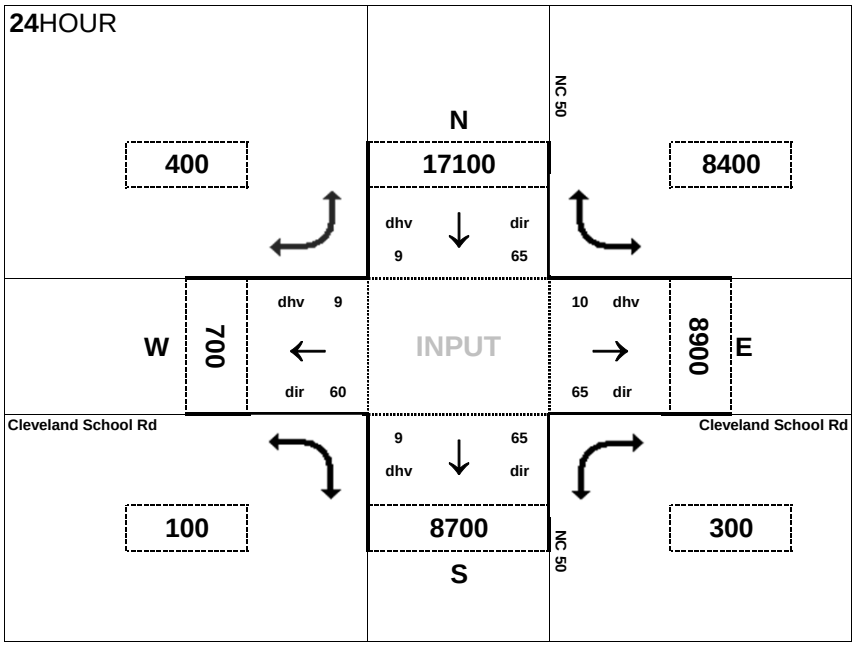
Project:
Complete 540 - Triangle Expressway - Southeast Extension



AM peak hour inflow is 3128 vehicles. AM peak hour outflow is 3128 vehicles.



PM peak hour inflow is 3128 vehicles. PM peak hour outflow is 3128 vehicles.

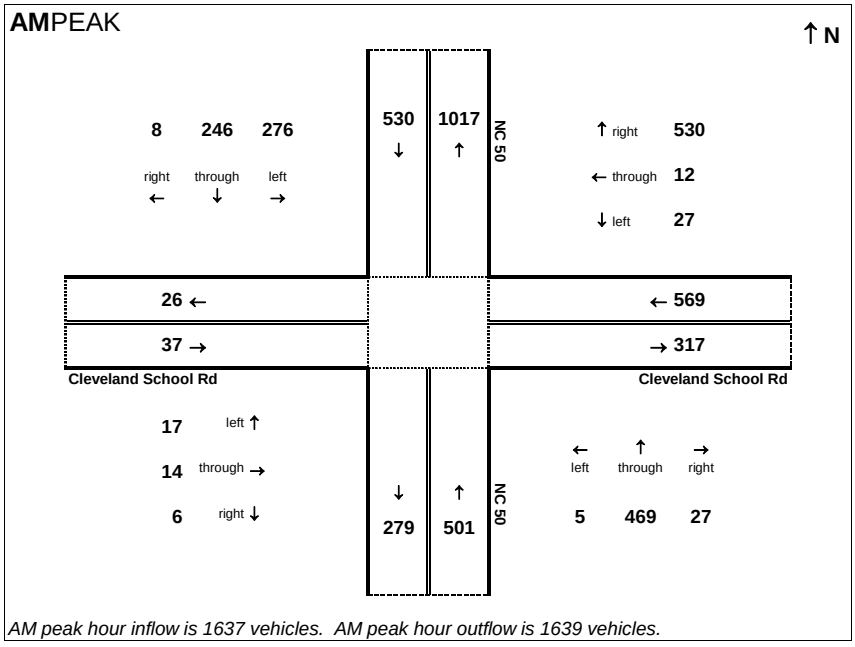


Peak Hour Volume Breakouts Report:
22: NC 50 & Cleveland School Rd

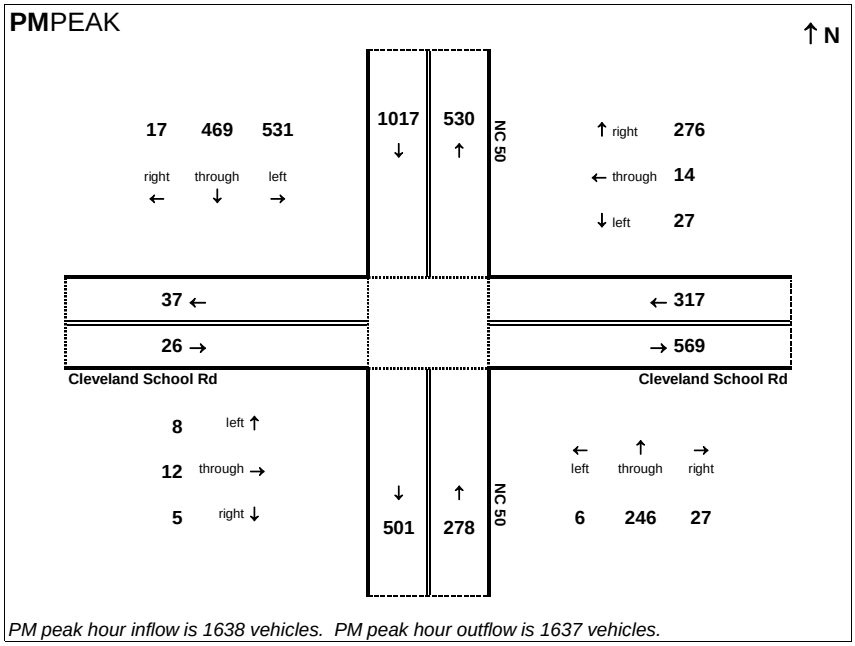
Traffic Forecast Release Date:
May-16

Traffic Data Year:
2016 No-Build

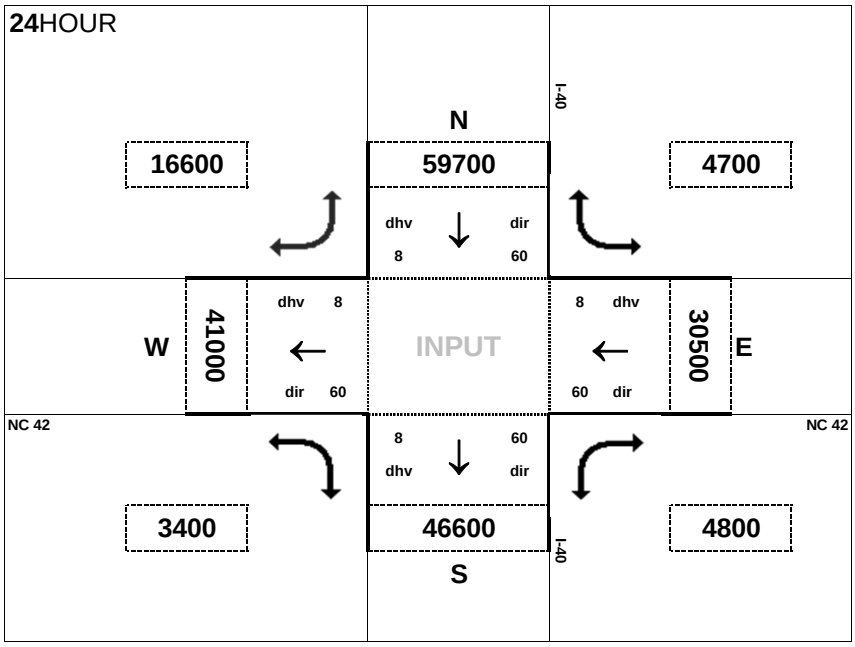
Project:
Complete 540 - Triangle Expressway - Southeast Extension



AM peak hour inflow is 1637 vehicles. AM peak hour outflow is 1639 vehicles.



PM peak hour inflow is 1638 vehicles. PM peak hour outflow is 1637 vehicles.

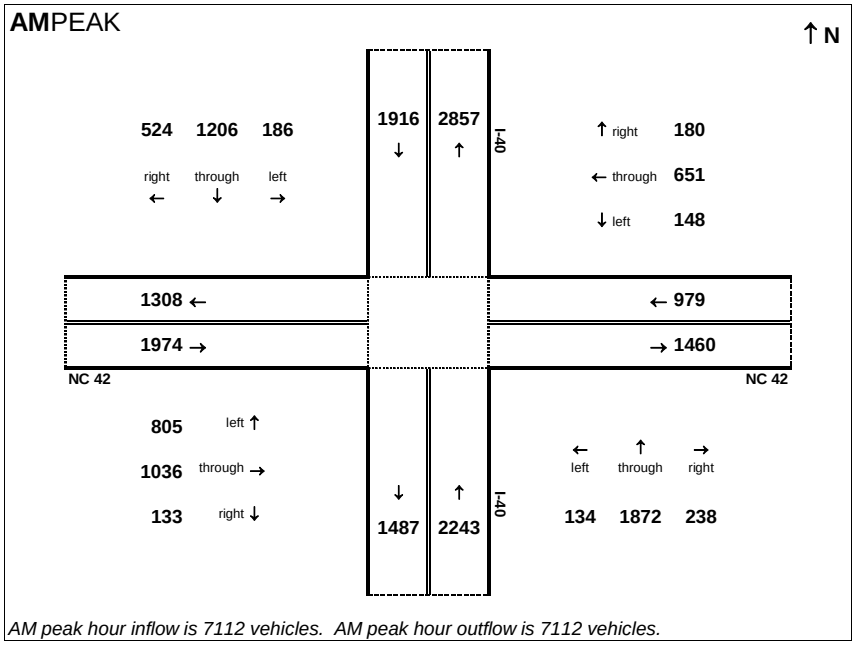


Peak Hour Volume Breakouts Report:
23: I-40 & NC 42

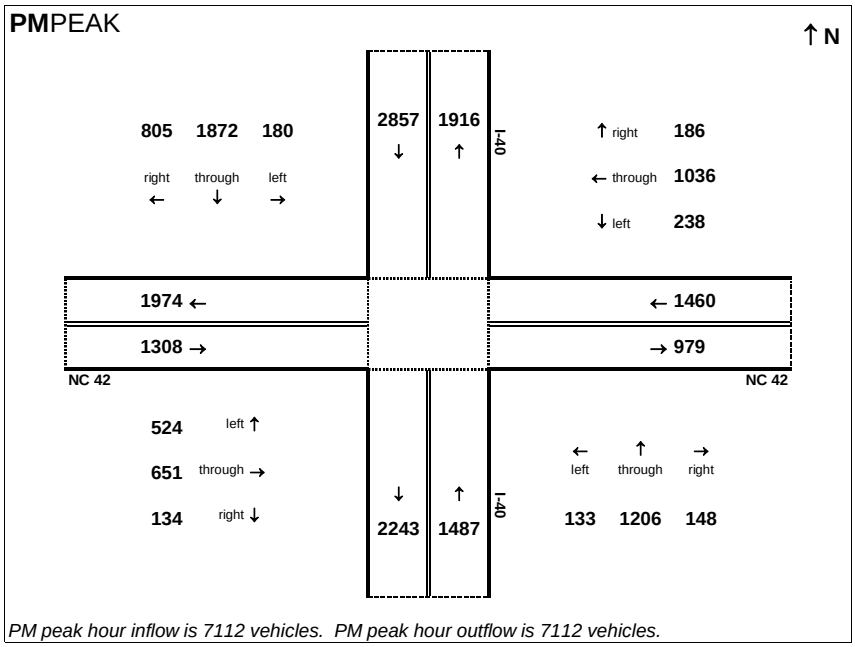
Traffic Forecast Release Date:
May-16

Traffic Data Year:
2016 No-Build

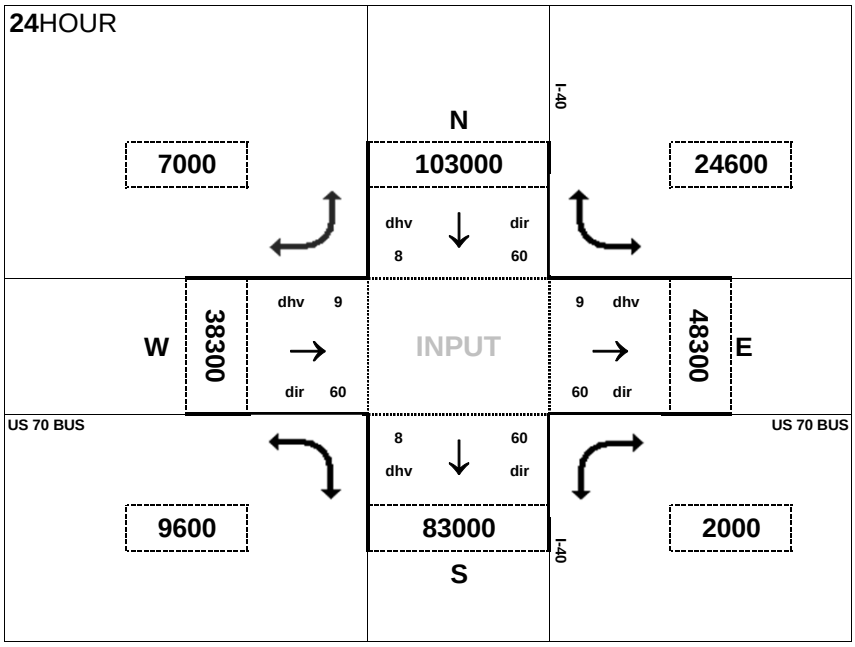
Project:
Complete 540 - Triangle Expressway - Southeast Extension



AM peak hour inflow is 7112 vehicles. AM peak hour outflow is 7112 vehicles.



PM peak hour inflow is 7112 vehicles. PM peak hour outflow is 7112 vehicles.

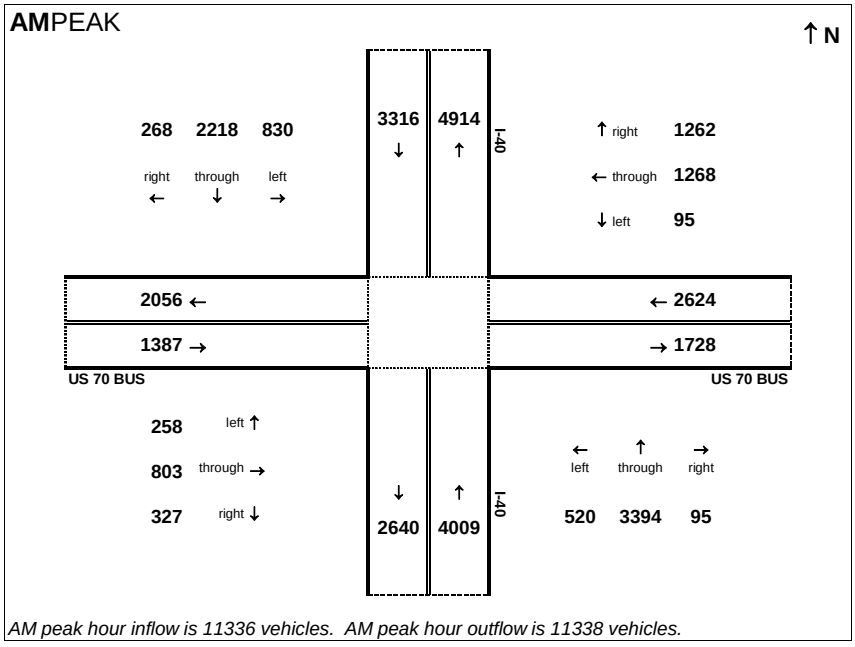


Peak Hour Volume Breakouts Report:
24: I-40 & US 70 BUS

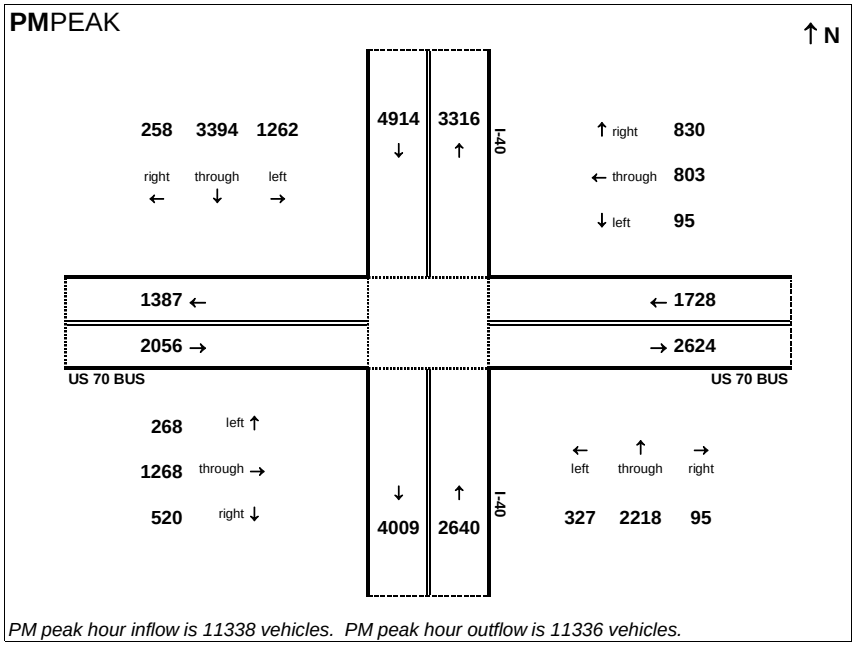
Traffic Forecast Release Date:
May-16

Traffic Data Year:
2016 No-Build

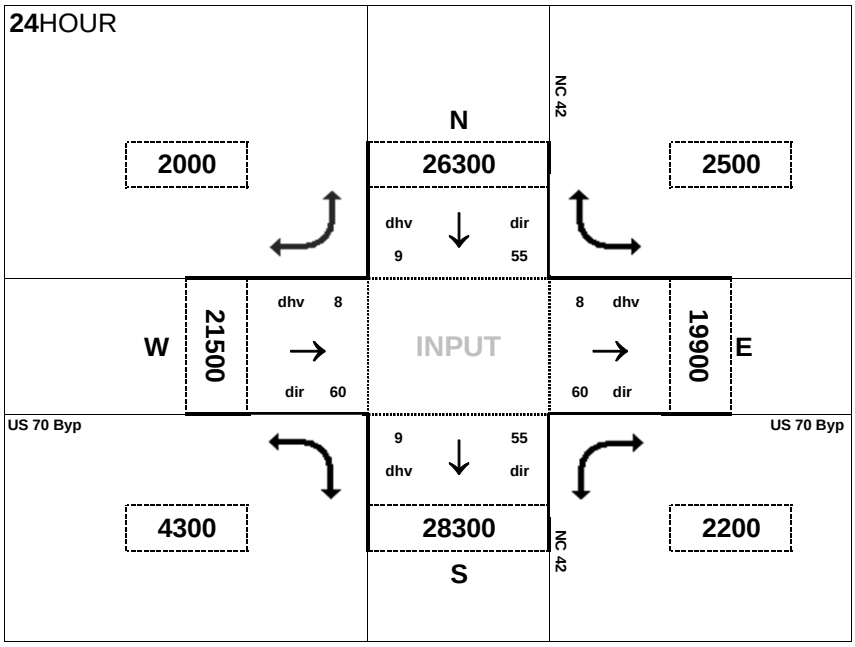
Project:
Complete 540 - Triangle Expressway - Southeast Extension



AM peak hour inflow is 11336 vehicles. AM peak hour outflow is 11338 vehicles.



PM peak hour inflow is 11338 vehicles. PM peak hour outflow is 11336 vehicles.

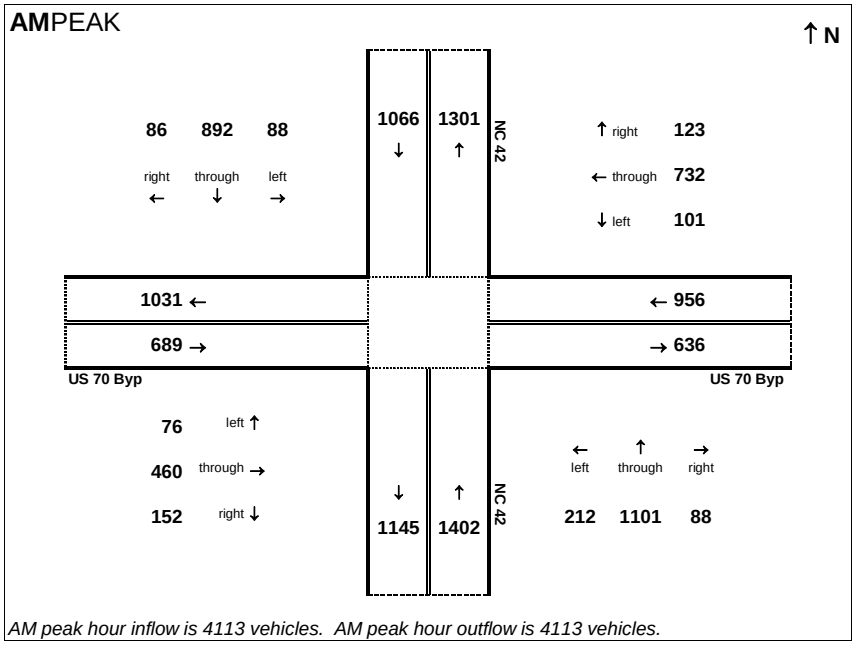


Peak Hour Volume Breakouts Report:
25: US 70 Byp & NC 42

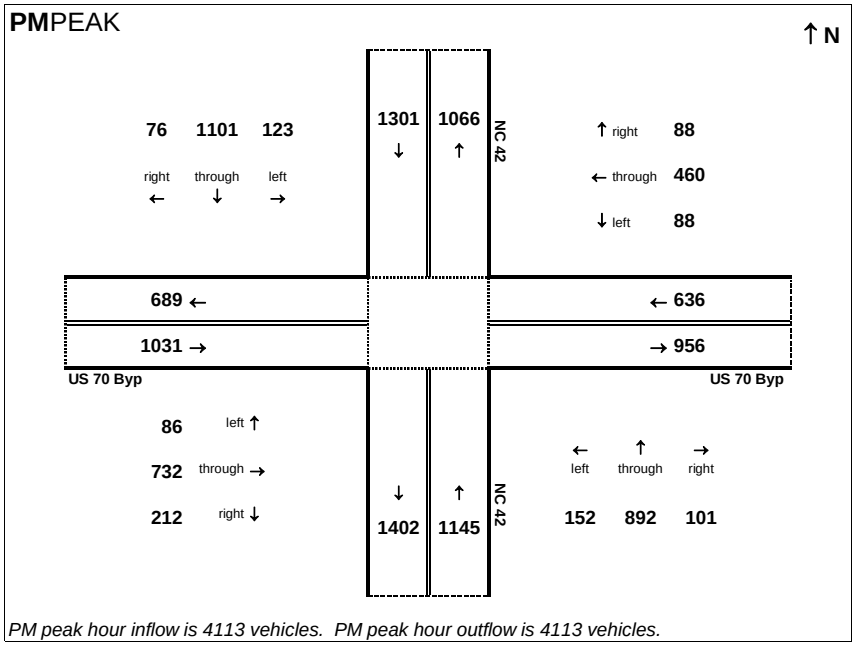
Traffic Forecast Release Date:
May-16

Traffic Data Year:
2016 No-Build

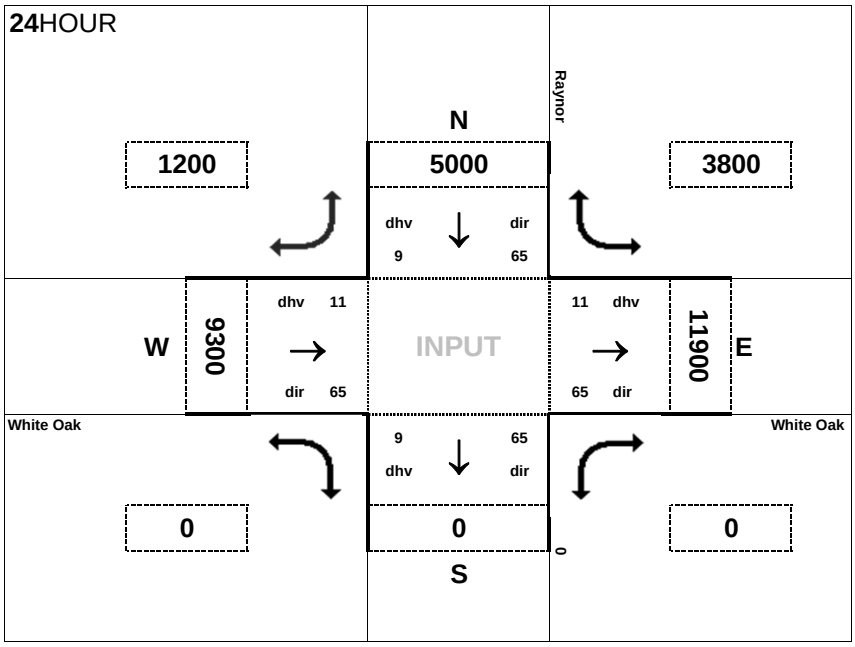
Project:
Complete 540 - Triangle Expressway - Southeast Extension



AM peak hour inflow is 4113 vehicles. AM peak hour outflow is 4113 vehicles.



PM peak hour inflow is 4113 vehicles. PM peak hour outflow is 4113 vehicles.

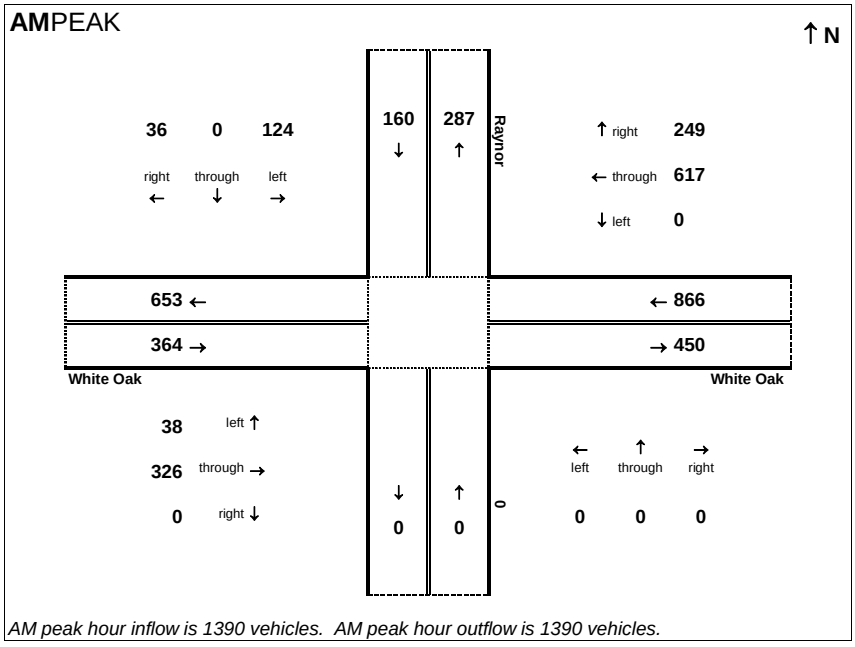


Peak Hour Volume Breakouts Report:
26: White Oak & Raynor

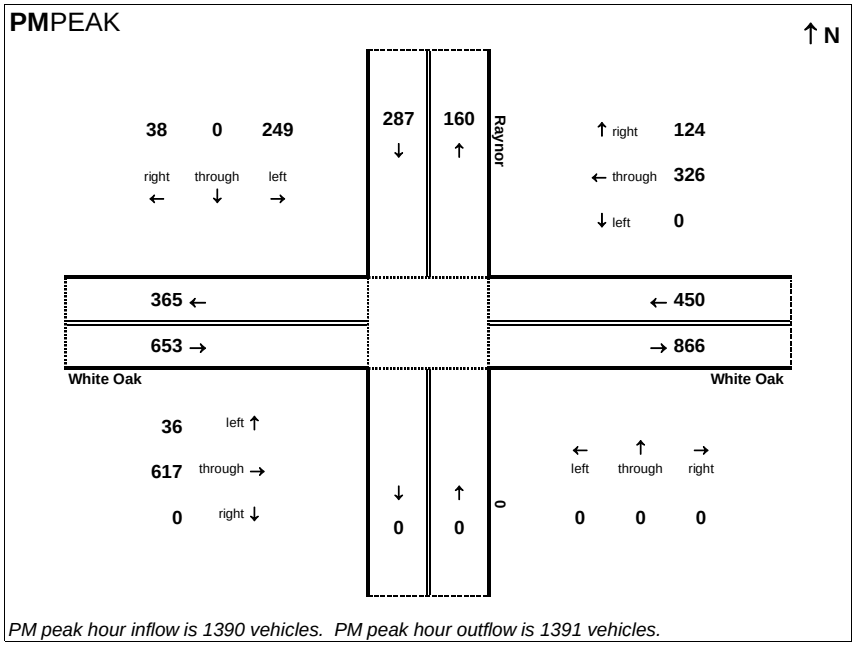
Traffic Forecast Release Date:
May-16

Traffic Data Year:
2016 No-Build

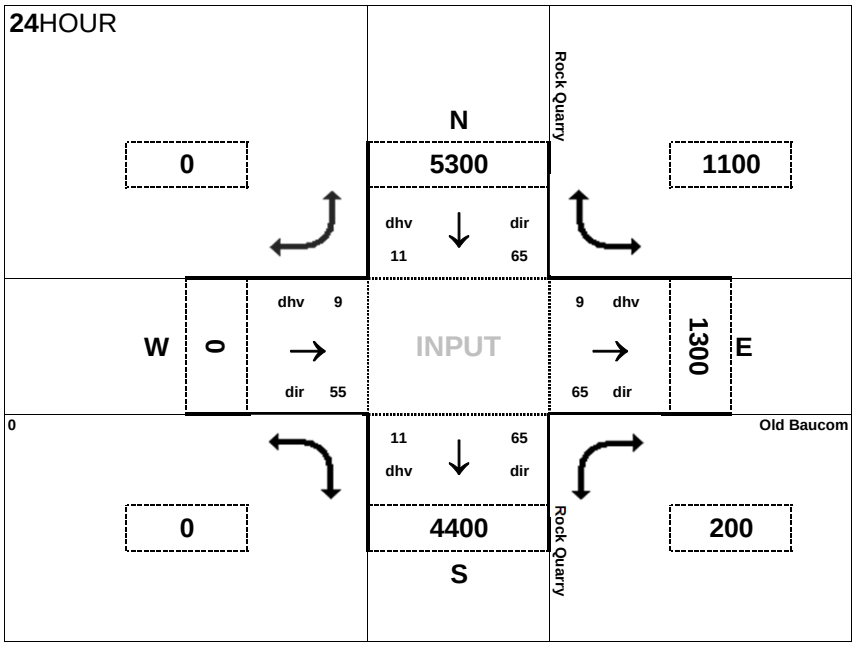
Project:
Complete 540 - Triangle Expressway - Southeast Extension



AM peak hour inflow is 1390 vehicles. AM peak hour outflow is 1390 vehicles.



PM peak hour inflow is 1390 vehicles. PM peak hour outflow is 1391 vehicles.

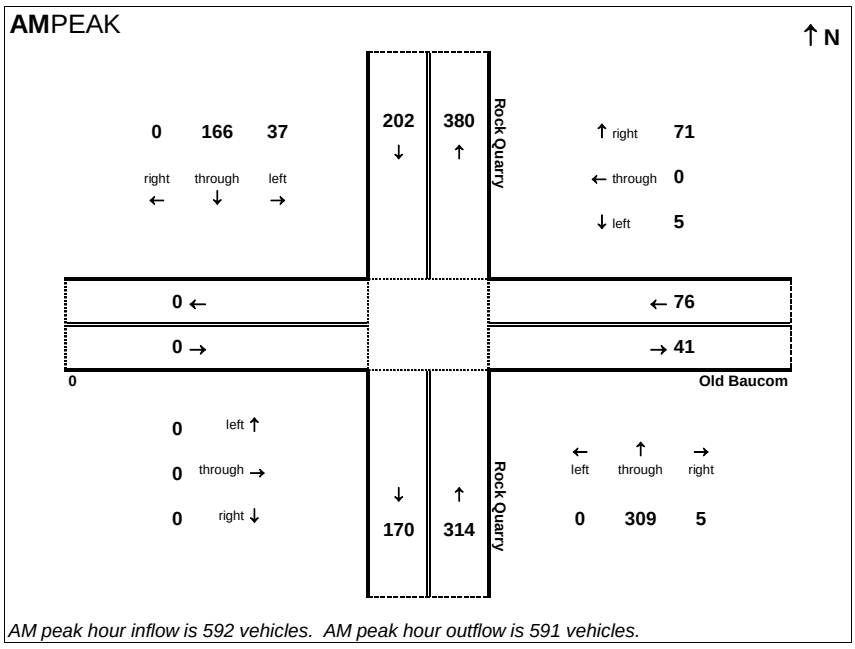


Peak Hour Volume Breakouts Report:
27: Rock Quarry & Old Baucom

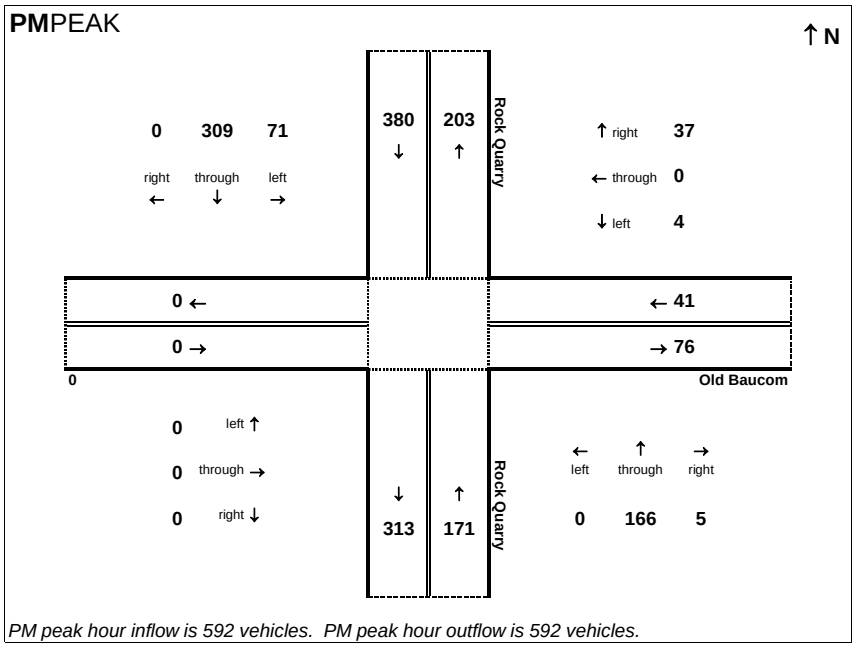
Traffic Forecast Release Date:
May-16

Traffic Data Year:
2016 No-Build

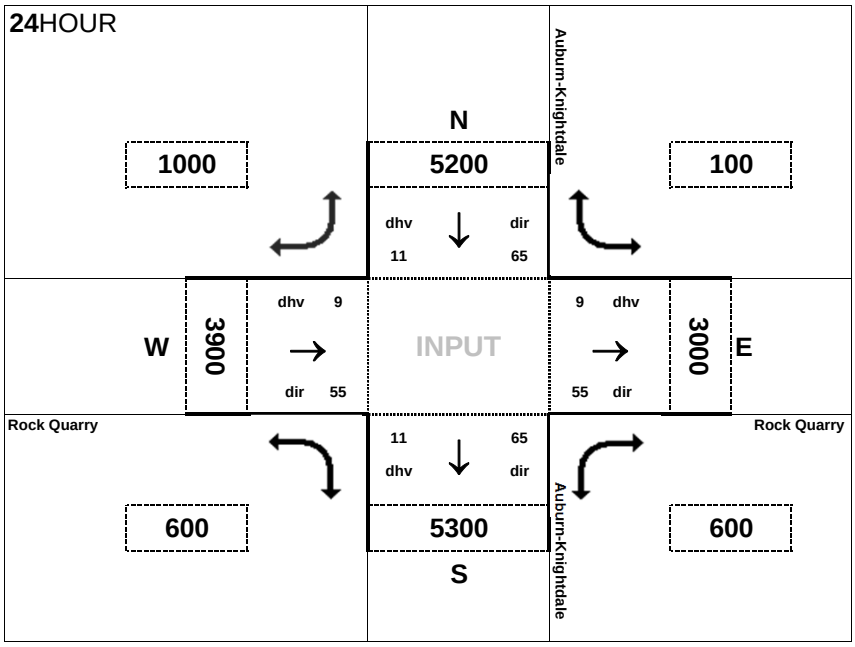
Project:
Complete 540 - Triangle Expressway - Southeast Extension



AM peak hour inflow is 592 vehicles. AM peak hour outflow is 591 vehicles.



PM peak hour inflow is 592 vehicles. PM peak hour outflow is 592 vehicles.

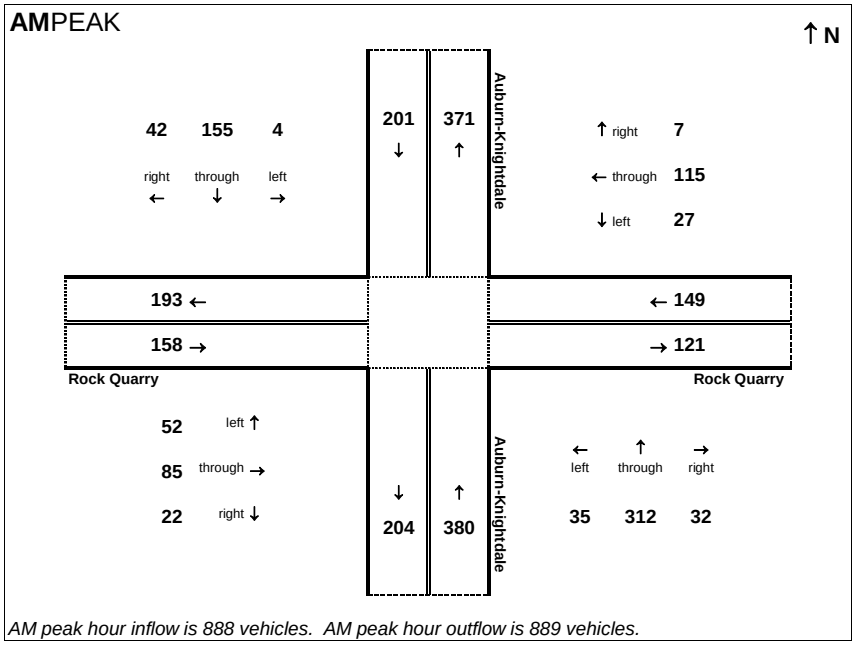


Peak Hour Volume Breakouts Report:
28: Rock Quarry & Auburn-Knightdale

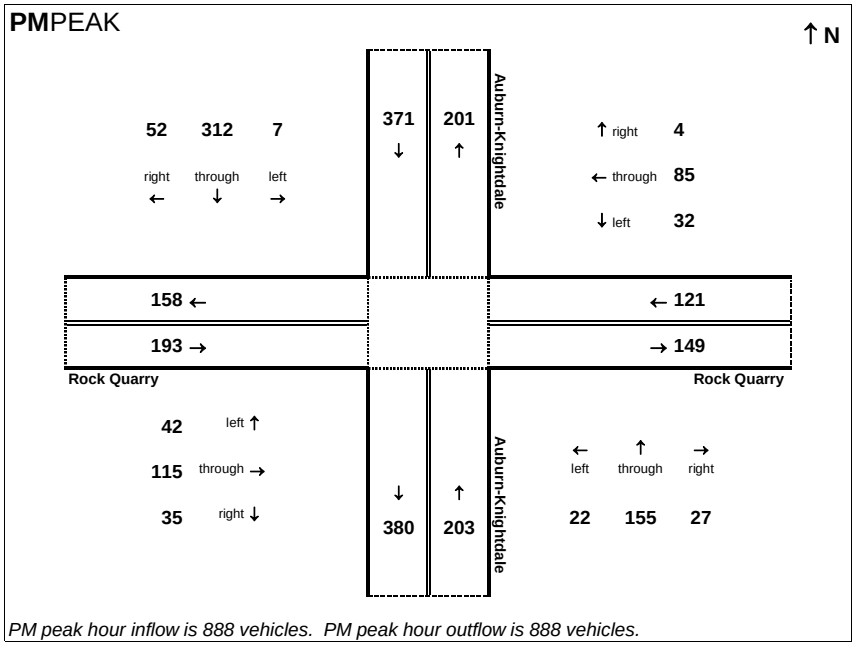
Traffic Forecast Release Date:
May-16

Traffic Data Year:
2016 No-Build

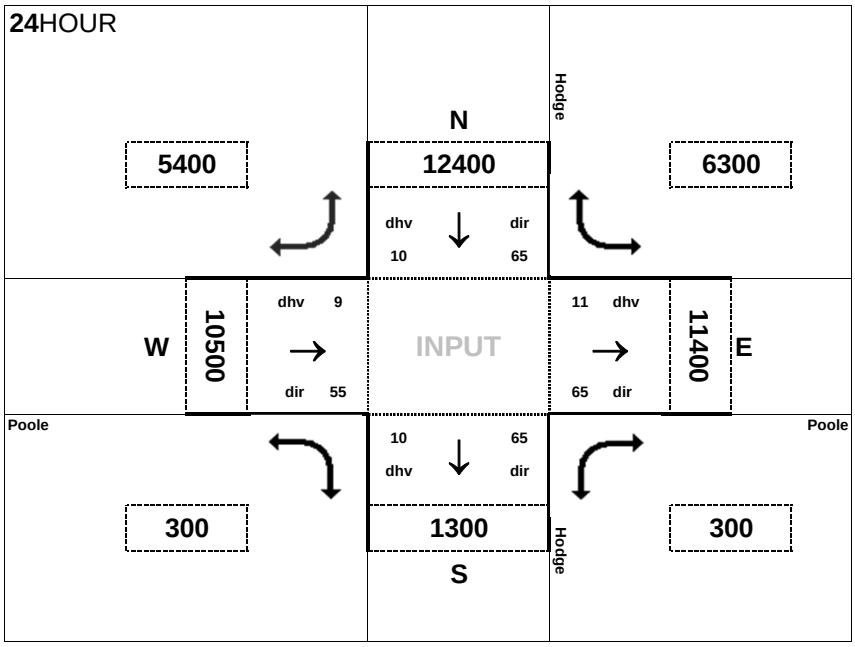
Project:
Complete 540 - Triangle Expressway - Southeast Extension



AM peak hour inflow is 888 vehicles. AM peak hour outflow is 889 vehicles.



PM peak hour inflow is 888 vehicles. PM peak hour outflow is 888 vehicles.

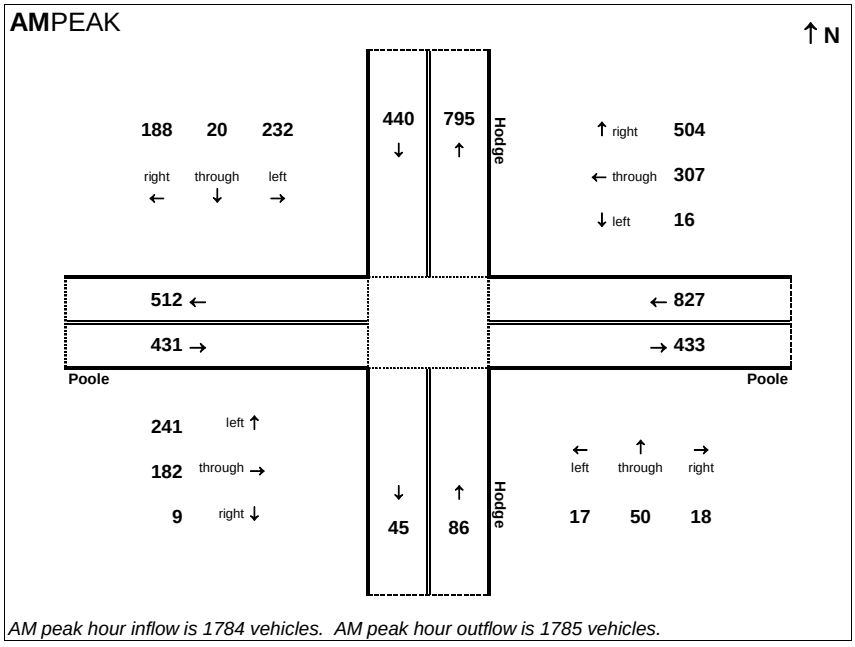


Peak Hour Volume Breakouts Report:
29: Hodge & Poole

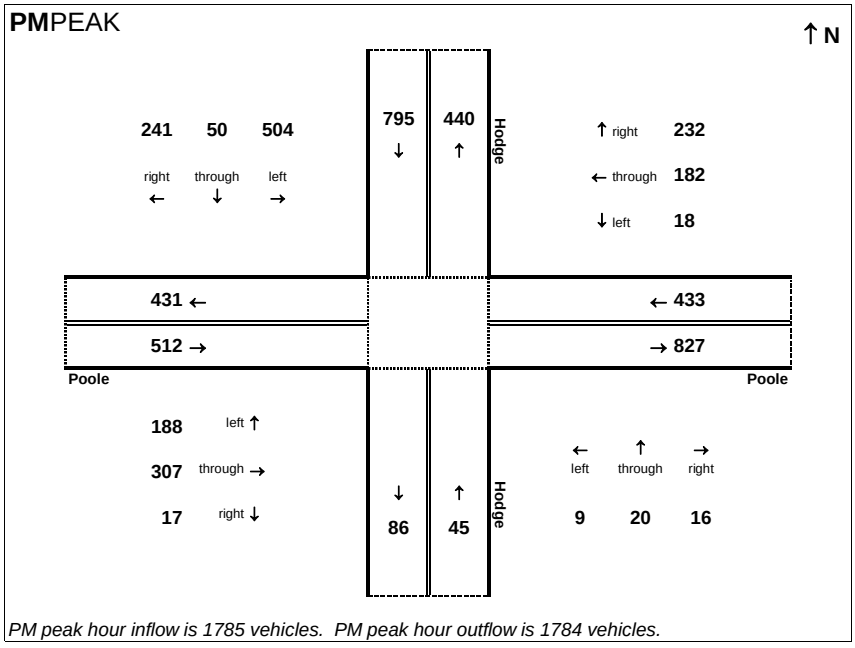
Traffic Forecast Release Date:
May-16

Traffic Data Year:
2016 No-Build

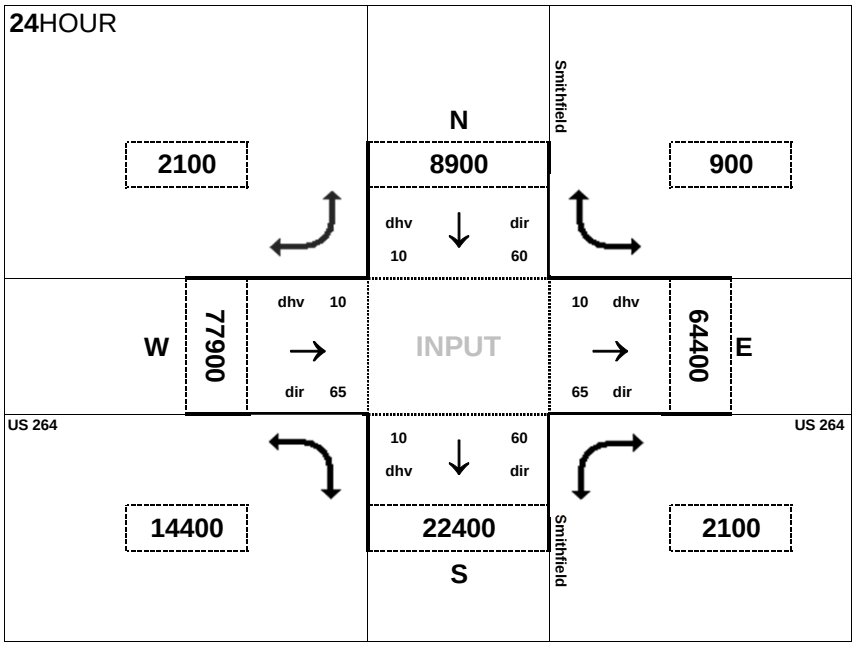
Project:
Complete 540 - Triangle Expressway - Southeast Extension



AM peak hour inflow is 1784 vehicles. AM peak hour outflow is 1785 vehicles.



PM peak hour inflow is 1785 vehicles. PM peak hour outflow is 1784 vehicles.

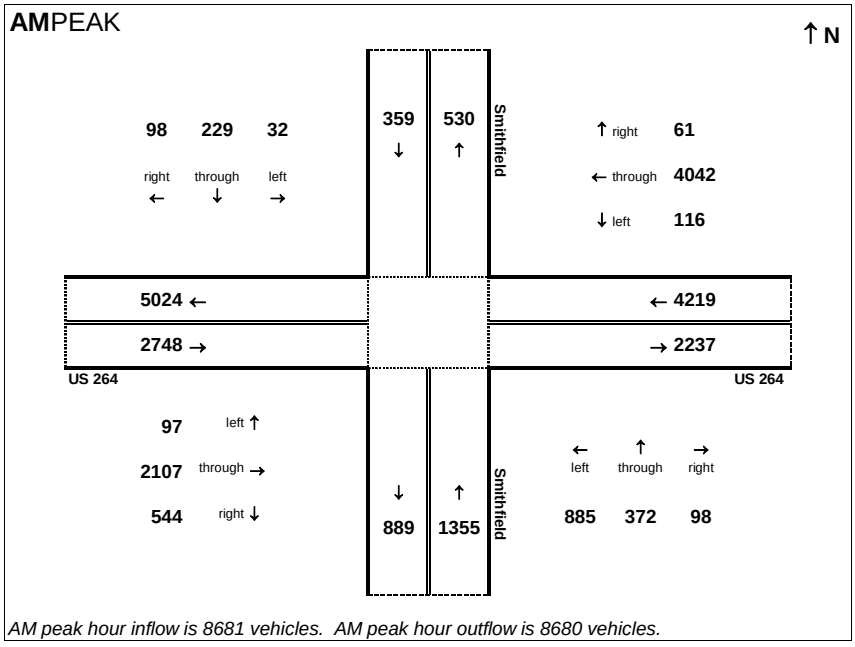


Peak Hour Volume Breakouts Report:
30: US 264 & Smithfield

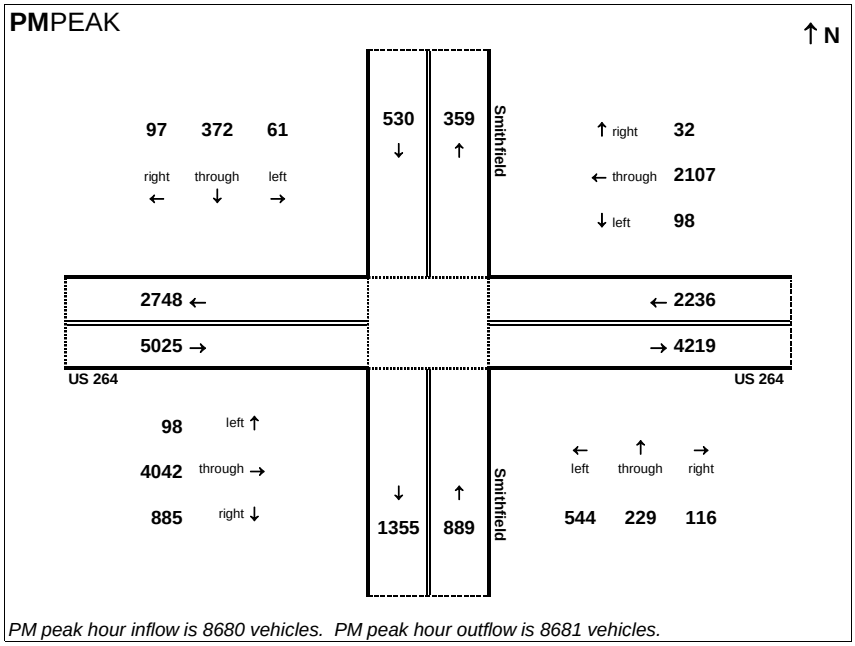
Traffic Forecast Release Date:
May-16

Traffic Data Year:
2016 No-Build

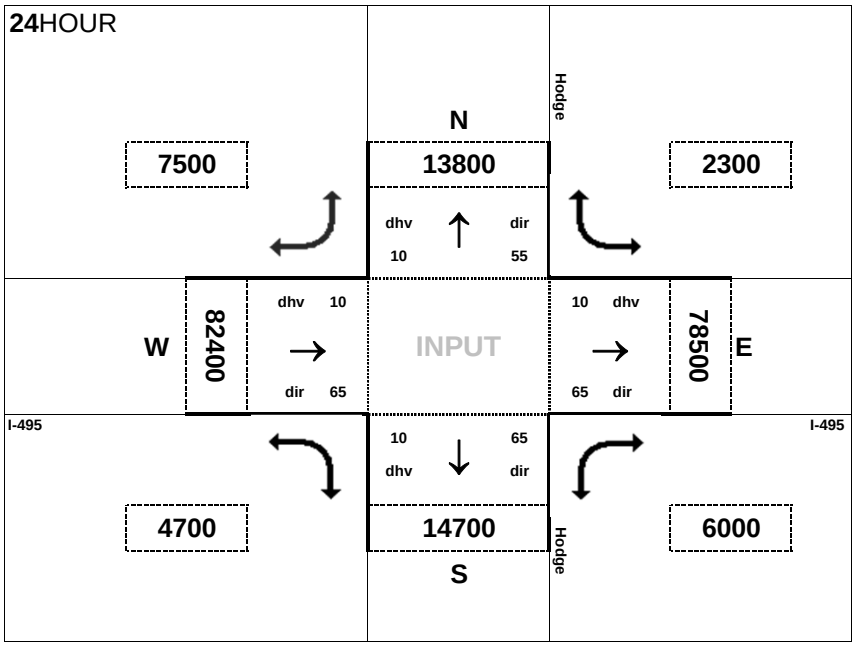
Project:
Complete 540 - Triangle Expressway - Southeast Extension



AM peak hour inflow is 8681 vehicles. AM peak hour outflow is 8680 vehicles.



PM peak hour inflow is 8680 vehicles. PM peak hour outflow is 8681 vehicles.

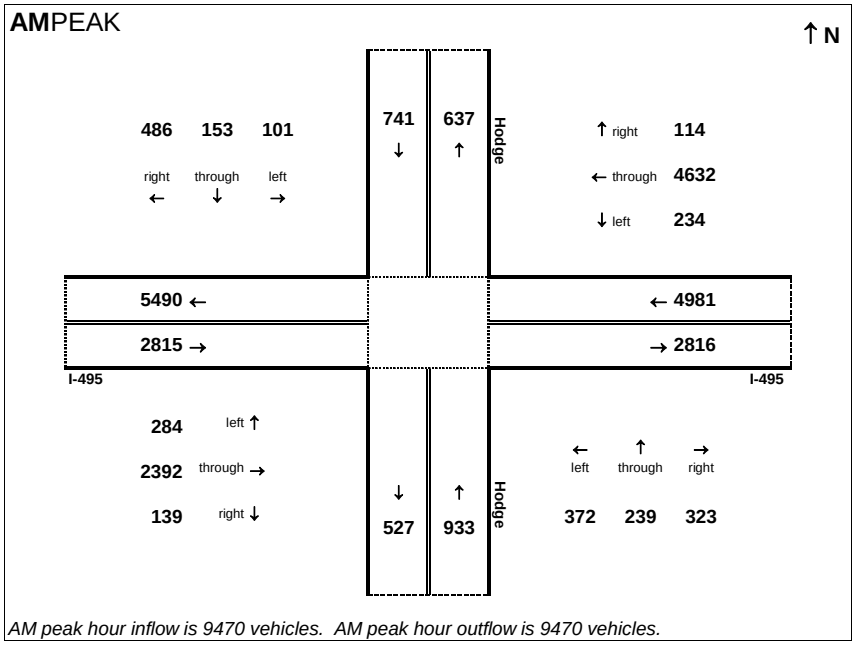


Peak Hour Volume Breakouts Report:
31: I-495 & Hodge

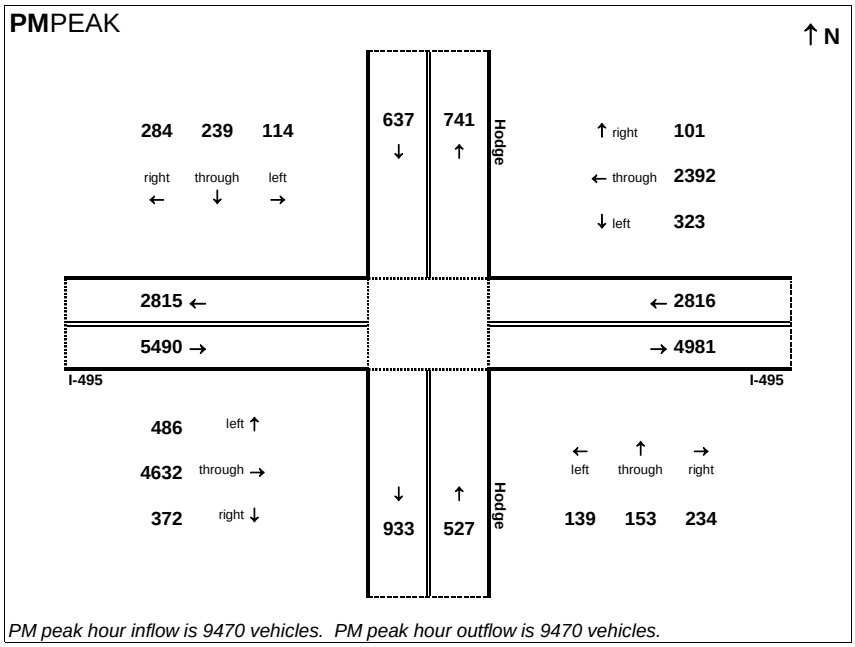
Traffic Forecast Release Date:
May-16

Traffic Data Year:
2016 No-Build

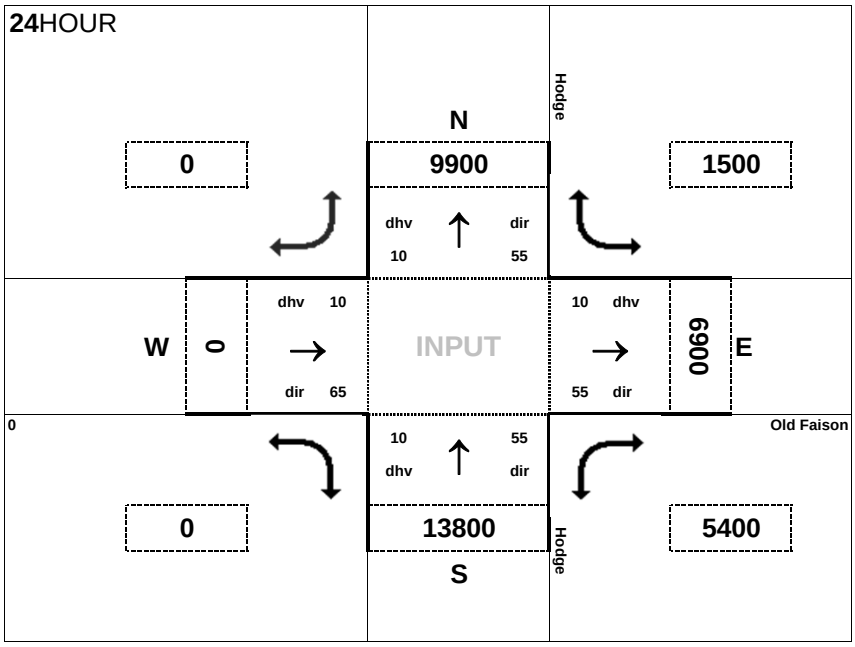
Project:
Complete 540 - Triangle Expressway - Southeast Extension



AM peak hour inflow is 9470 vehicles. AM peak hour outflow is 9470 vehicles.



PM peak hour inflow is 9470 vehicles. PM peak hour outflow is 9470 vehicles.

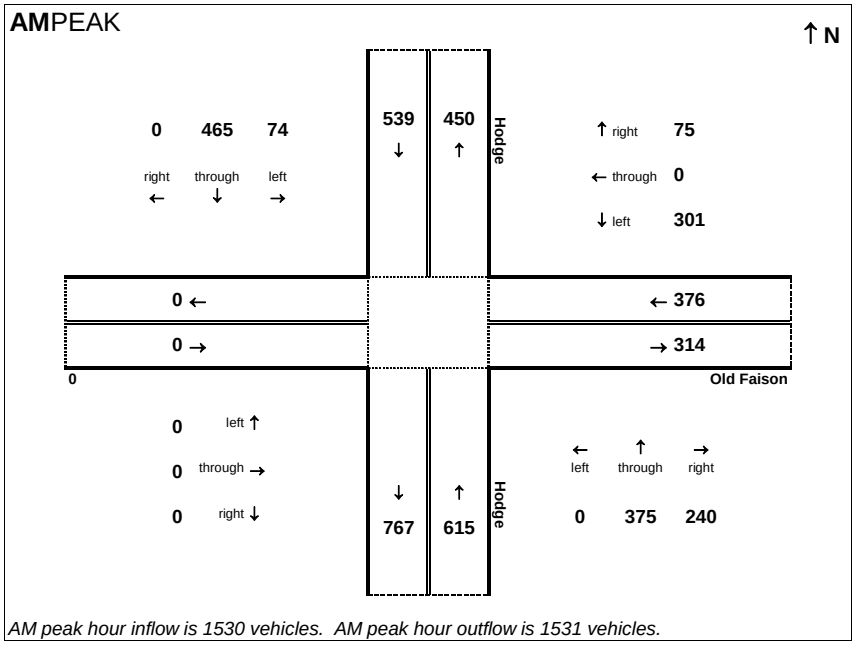


Peak Hour Volume Breakouts Report:
32: Hodge & Old Faison

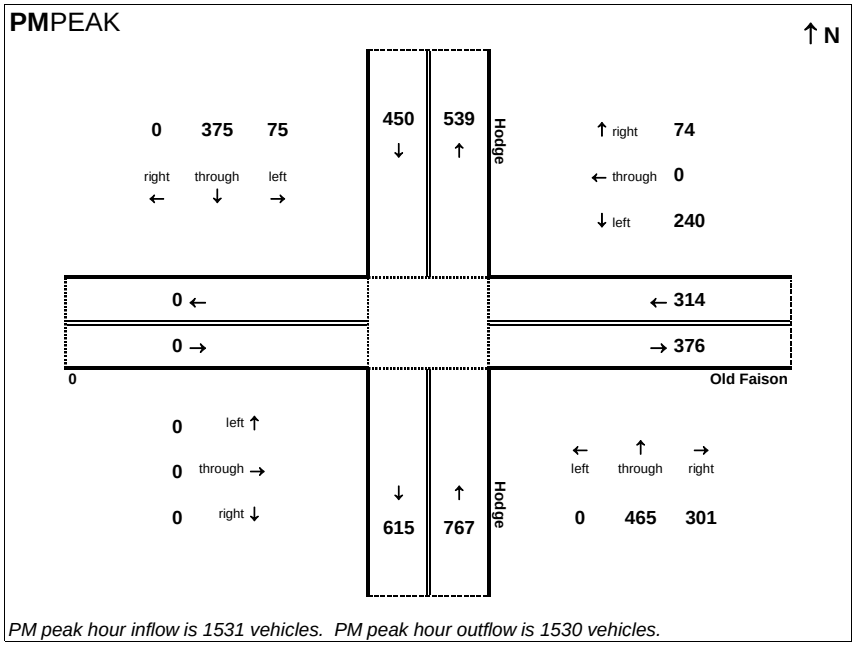
Traffic Forecast Release Date:
May-16

Traffic Data Year:
2016 No-Build

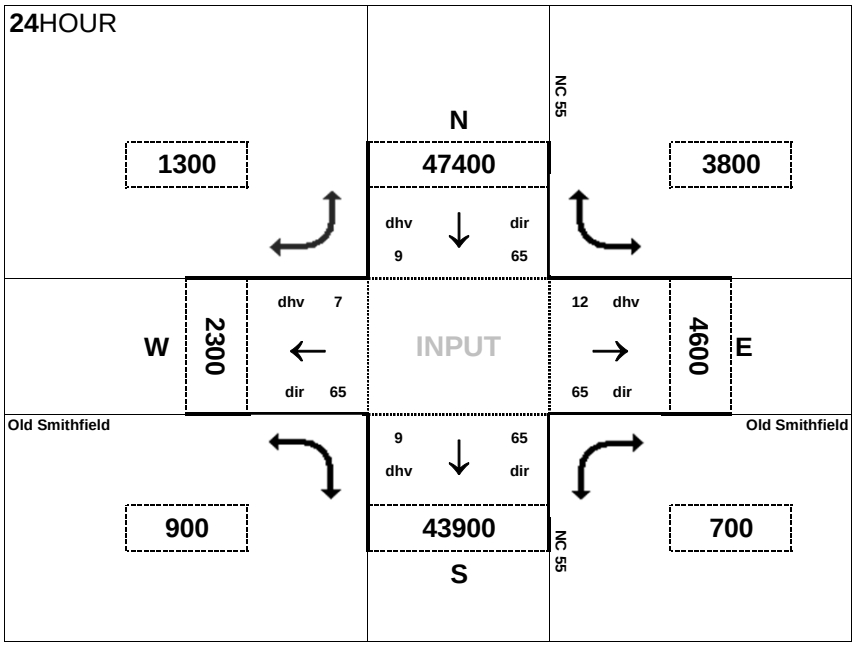
Project:
Complete 540 - Triangle Expressway - Southeast Extension



AM peak hour inflow is 1530 vehicles. AM peak hour outflow is 1531 vehicles.



PM peak hour inflow is 1531 vehicles. PM peak hour outflow is 1530 vehicles.

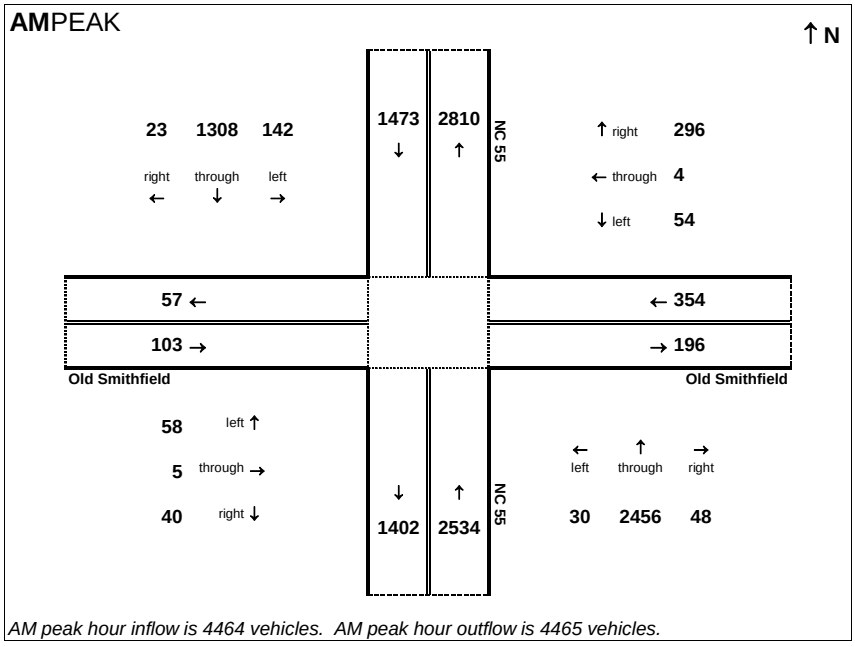


Peak Hour Volume Breakouts Report:
3: NC 55 & Old Smithfield

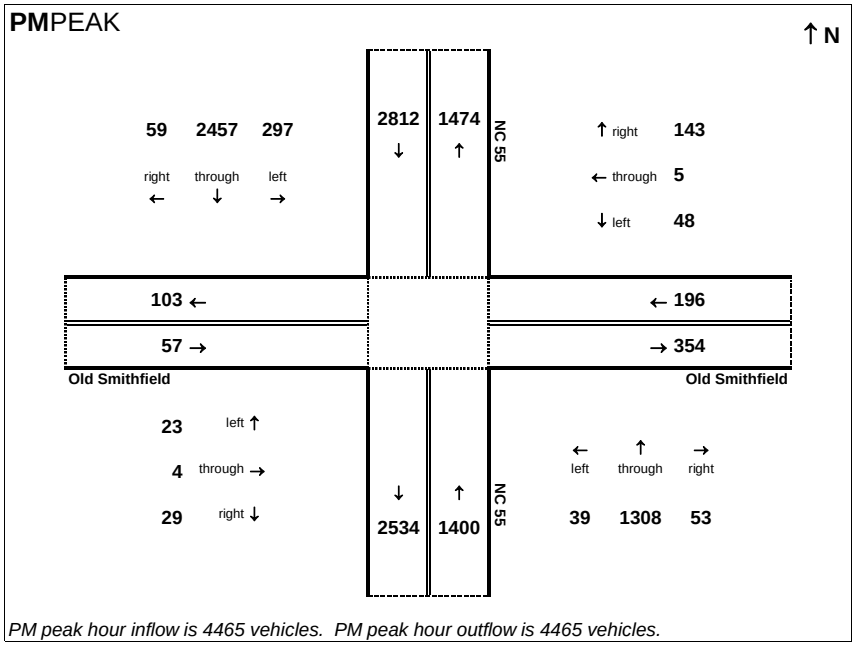
Traffic Forecast Release Date:
May-16

Traffic Data Year:
2016 No-Build

Project:
Complete 540 - Triangle Expressway - Southeast Extension



AM peak hour inflow is 4464 vehicles. AM peak hour outflow is 4465 vehicles.



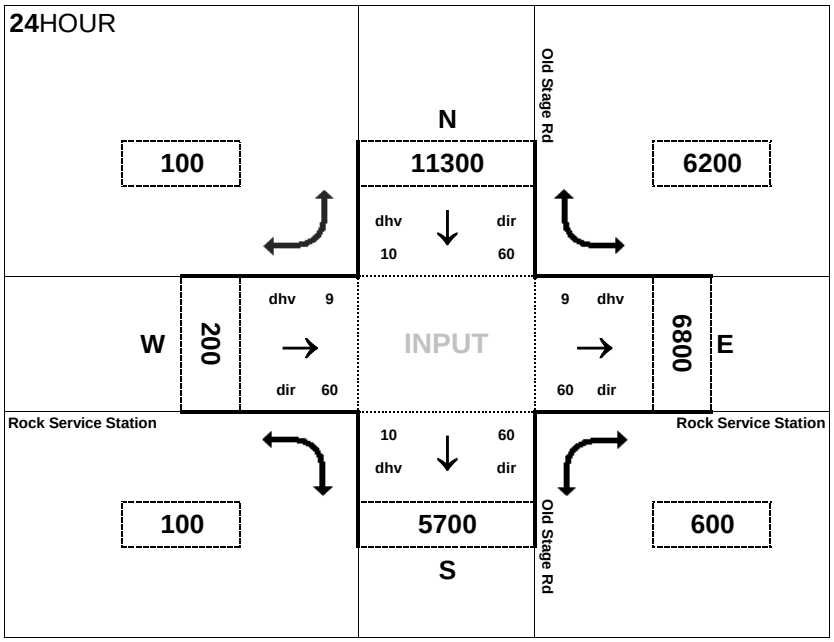
PM peak hour inflow is 4465 vehicles. PM peak hour outflow is 4465 vehicles.

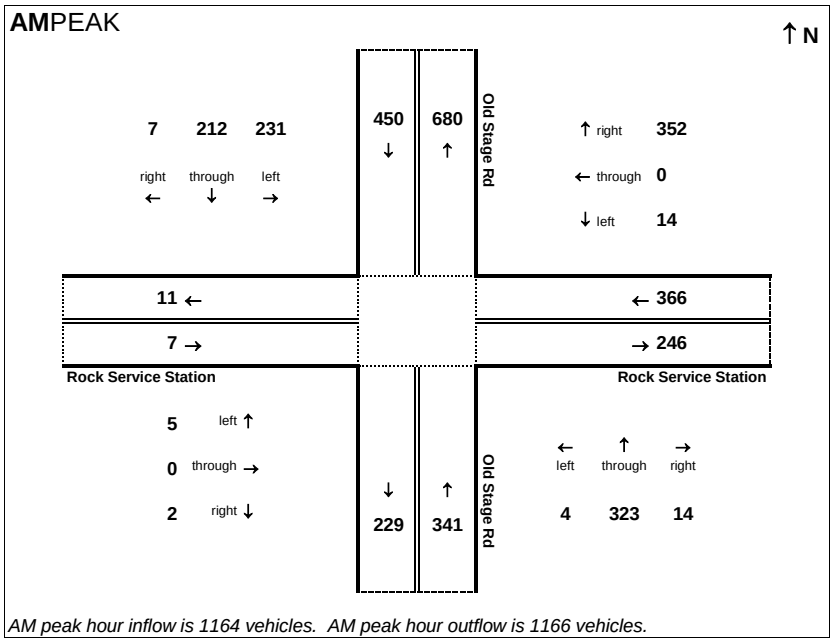
Peak Hour Volume Breakouts Report:
Old Stage Rd & Rock Service Station

Traffic Forecast Release Date:
May-16

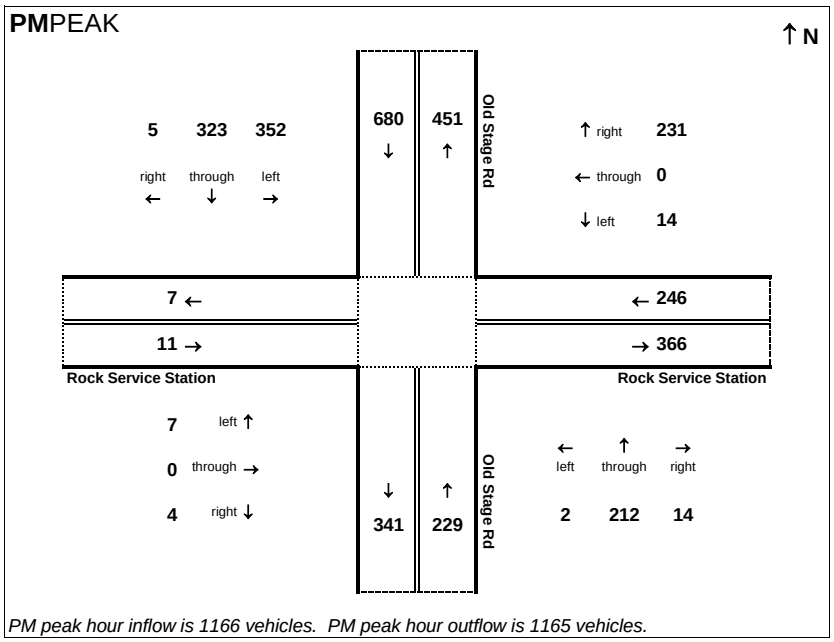
Traffic Data Year:
2016 No-Build

Project:
Complete 540 - Triangle Expressway - Southeast Extension

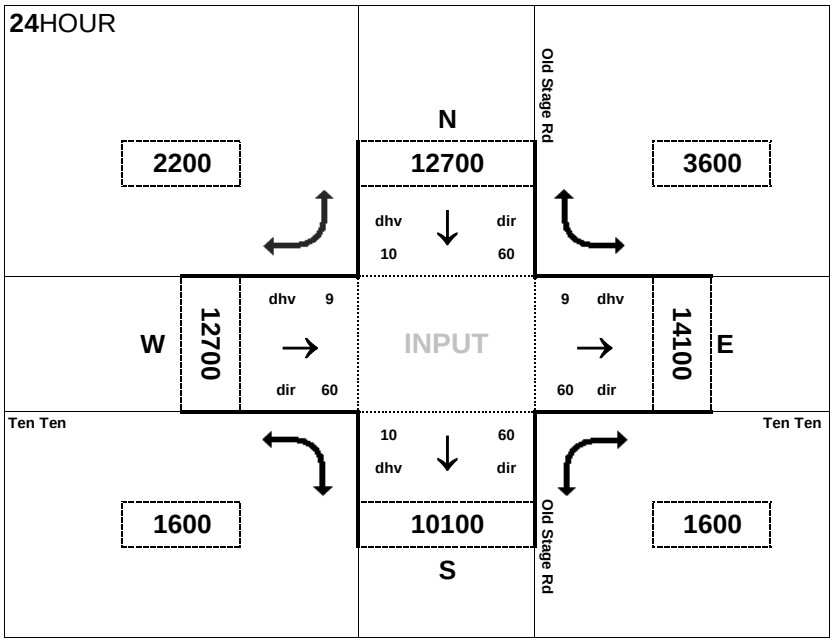




AM peak hour inflow is 1164 vehicles. AM peak hour outflow is 1166 vehicles.



PM peak hour inflow is 1166 vehicles. PM peak hour outflow is 1165 vehicles.

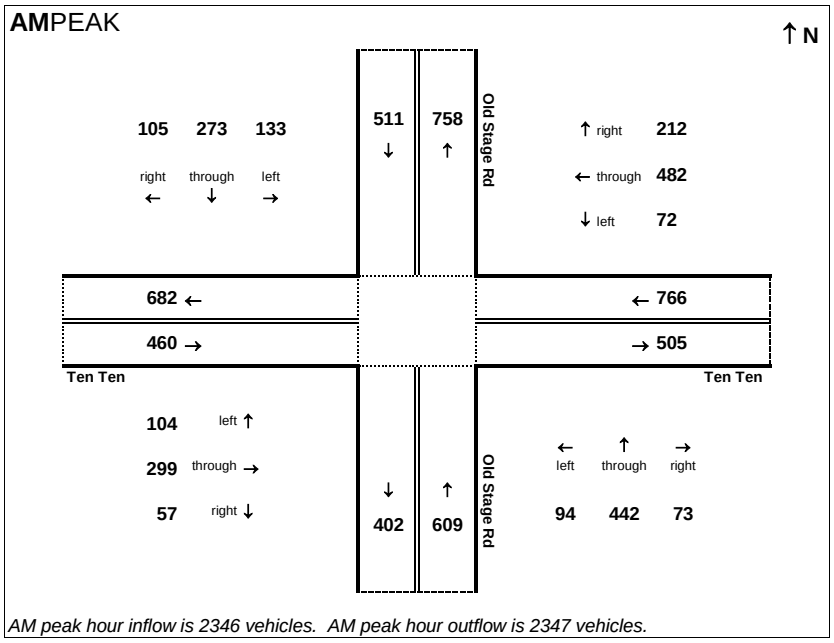


Peak Hour Volume Breakouts Report:
Old Stage Rd & Ten Ten

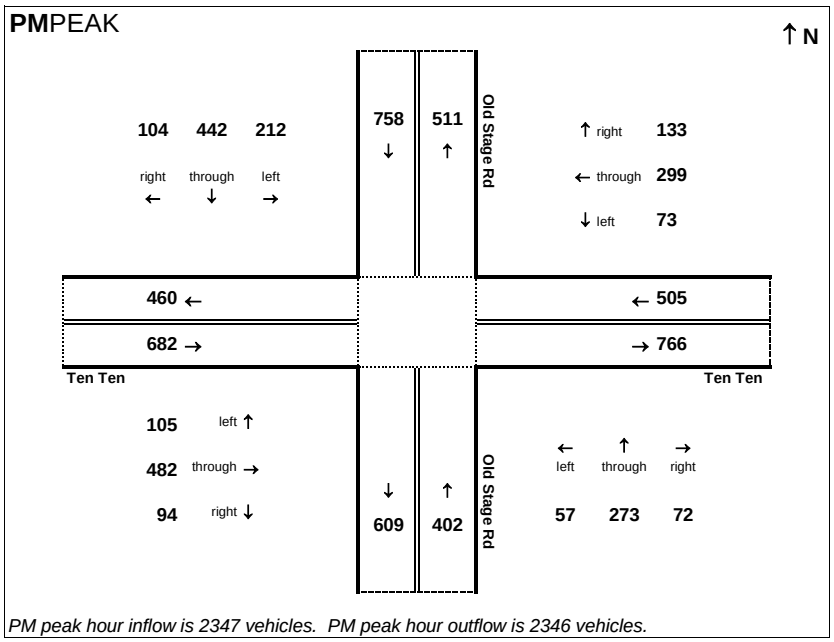
Traffic Forecast Release Date:
May-16

Traffic Data Year:
2016 No-Build

Project:
Complete 540 - Triangle Expressway - Southeast Extension

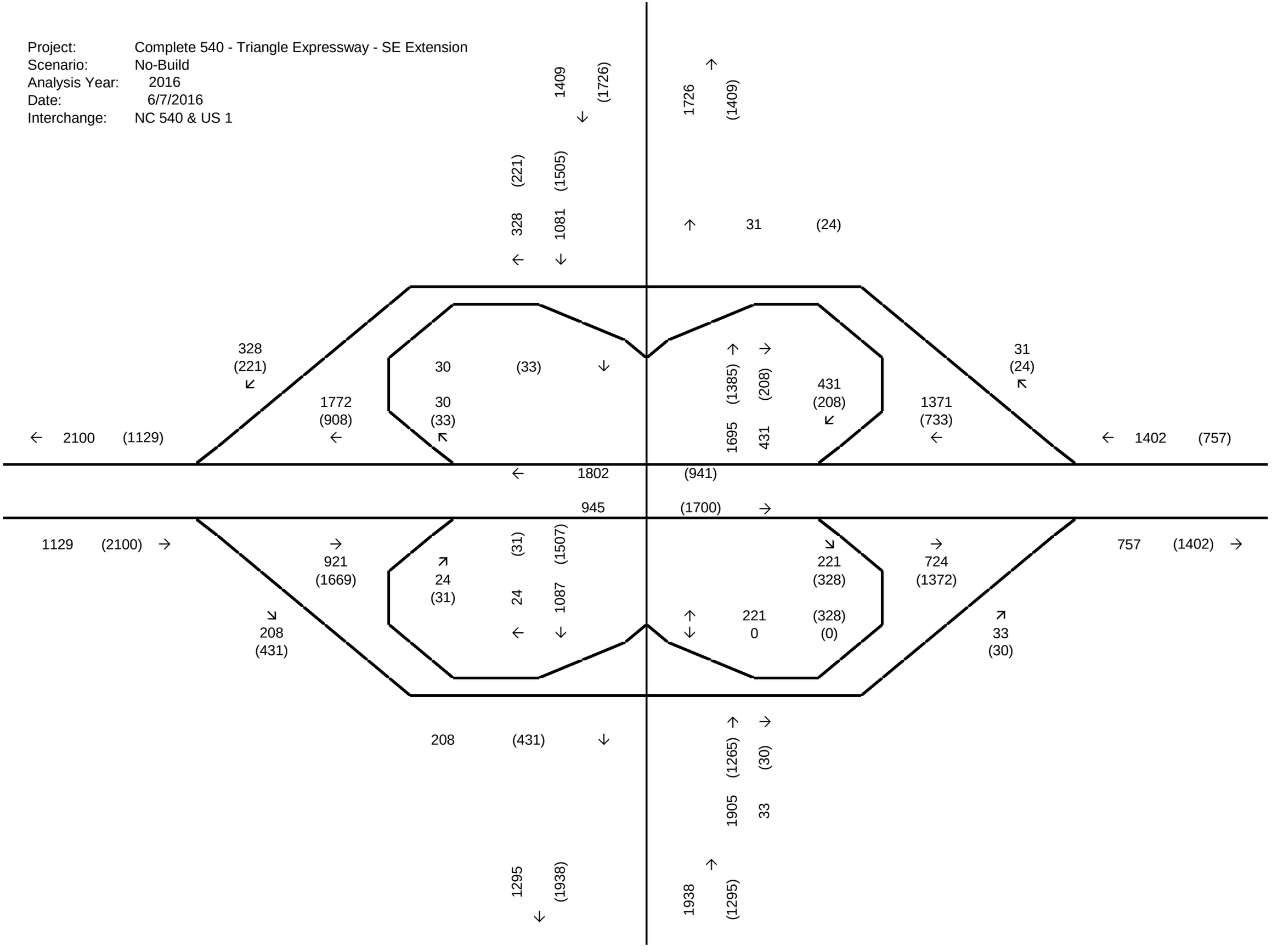


AM peak hour inflow is 2346 vehicles. AM peak hour outflow is 2347 vehicles.



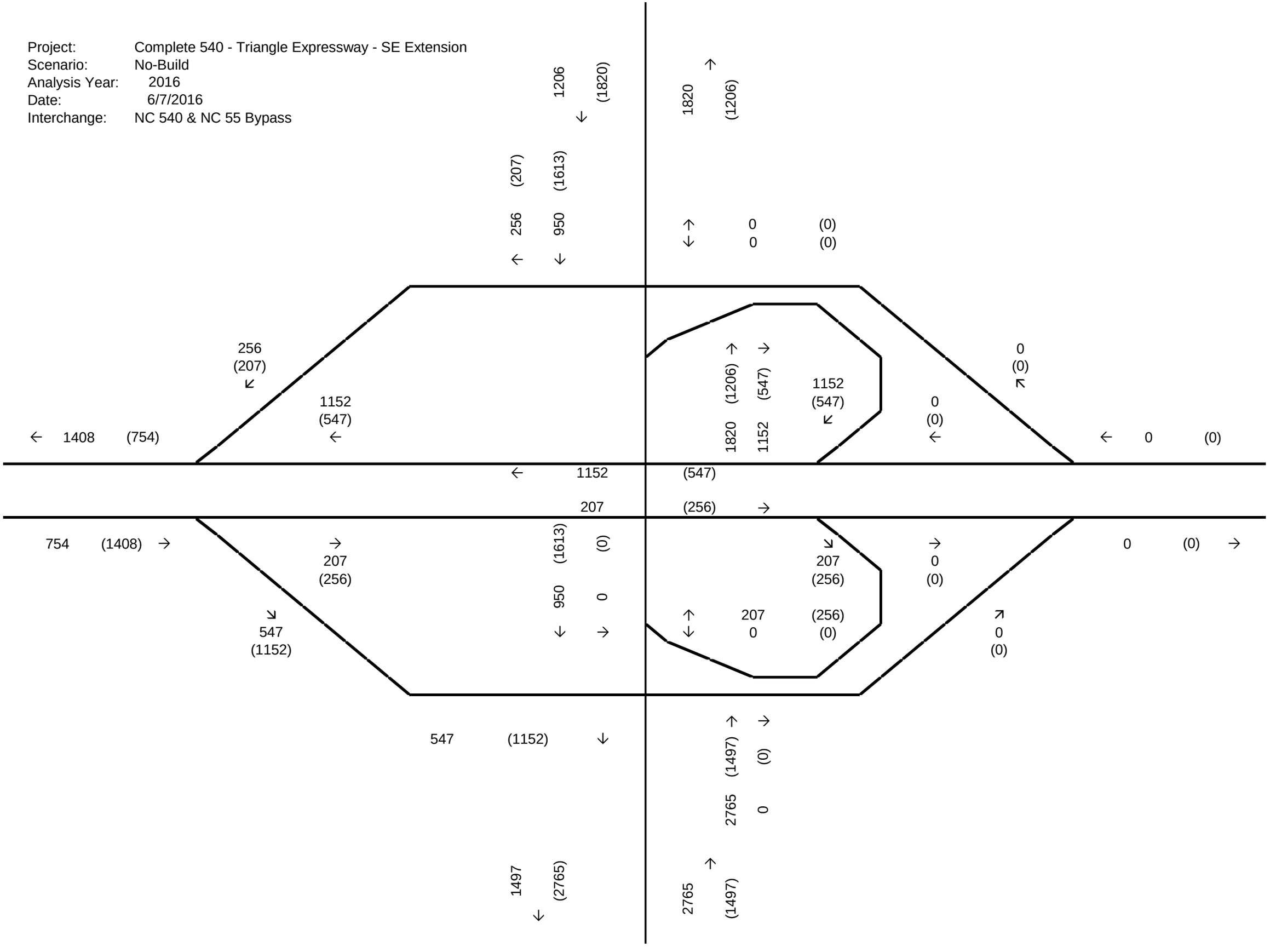
PM peak hour inflow is 2347 vehicles. PM peak hour outflow is 2346 vehicles.

Project: Complete 540 - Triangle Expressway - SE Extension
Scenario: No-Build
Analysis Year: 2016
Date: 6/7/2016
Interchange: NC 540 & US 1



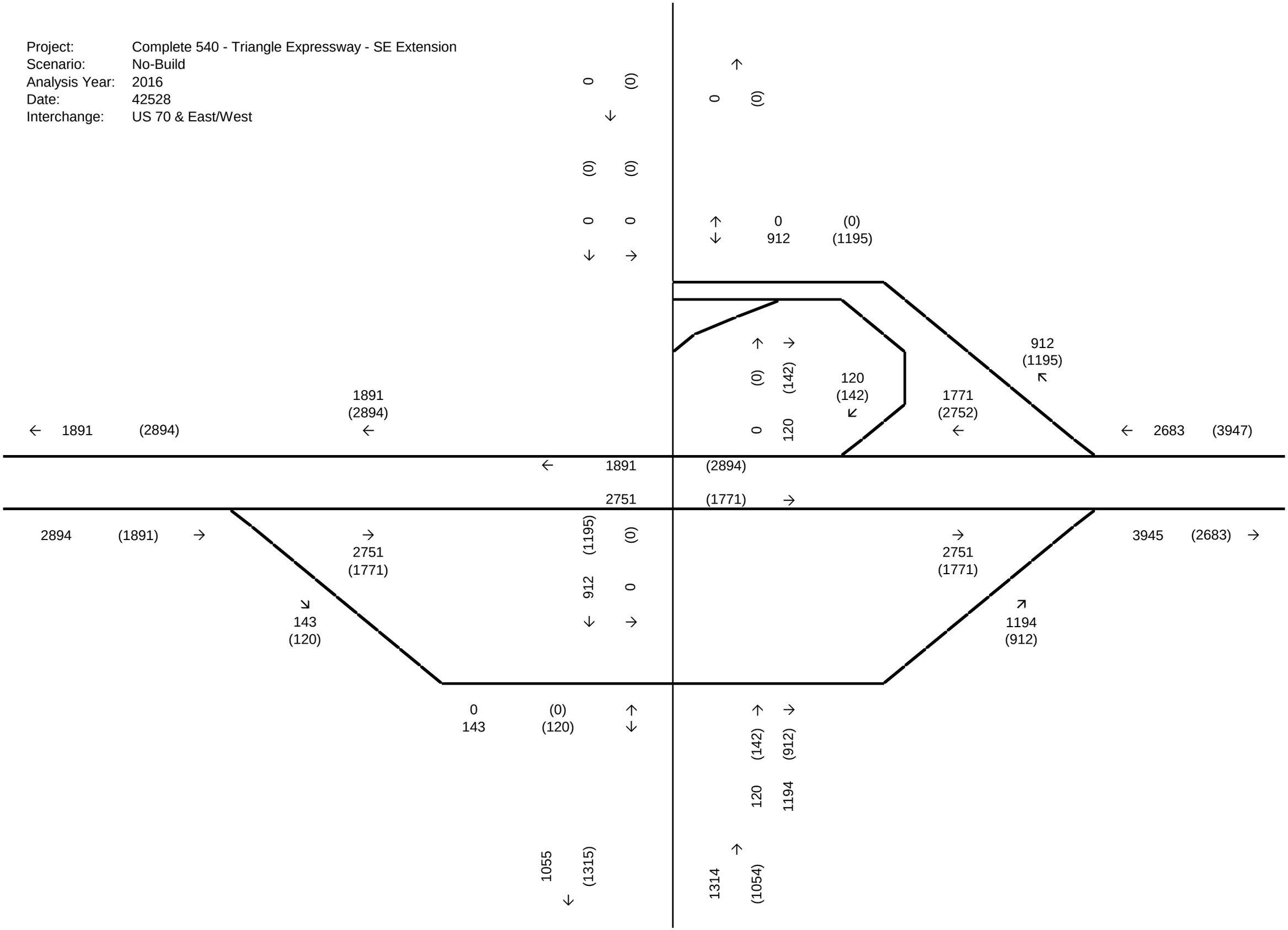
6/7/2016
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Project: Complete 540 - Triangle Expressway - SE Extension
Scenario: No-Build
Analysis Year: 2016
Date: 6/7/2016
Interchange: NC 540 & NC 55 Bypass



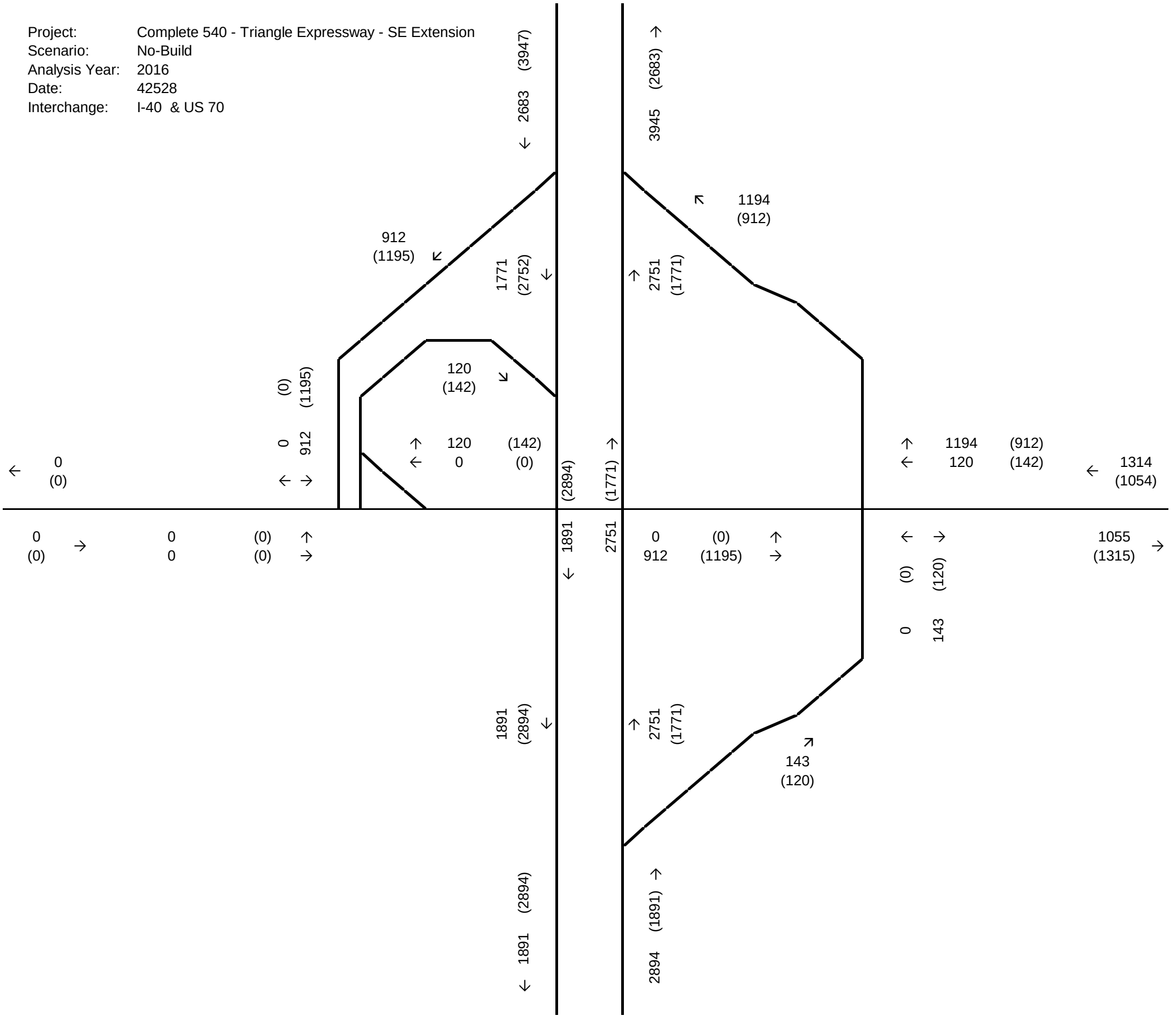
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Project: Complete 540 - Triangle Expressway - SE Extension
Scenario: No-Build
Analysis Year: 2016
Date: 42528
Interchange: US 70 & East/West

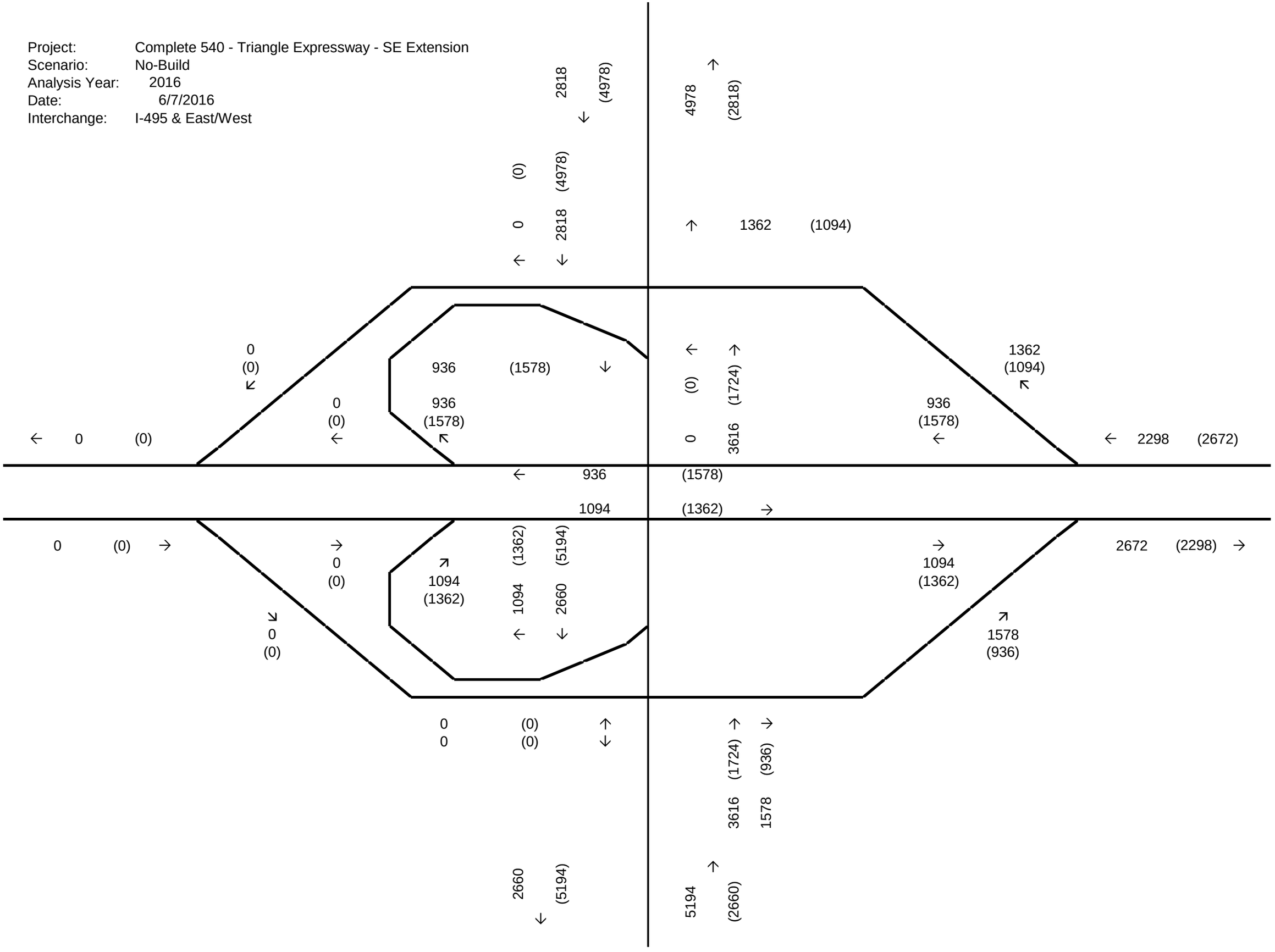


7/11/2016
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Project: Complete 540 - Triangle Expressway - SE Extension
Scenario: No-Build
Analysis Year: 2016
Date: 42528
Interchange: I-40 & US 70

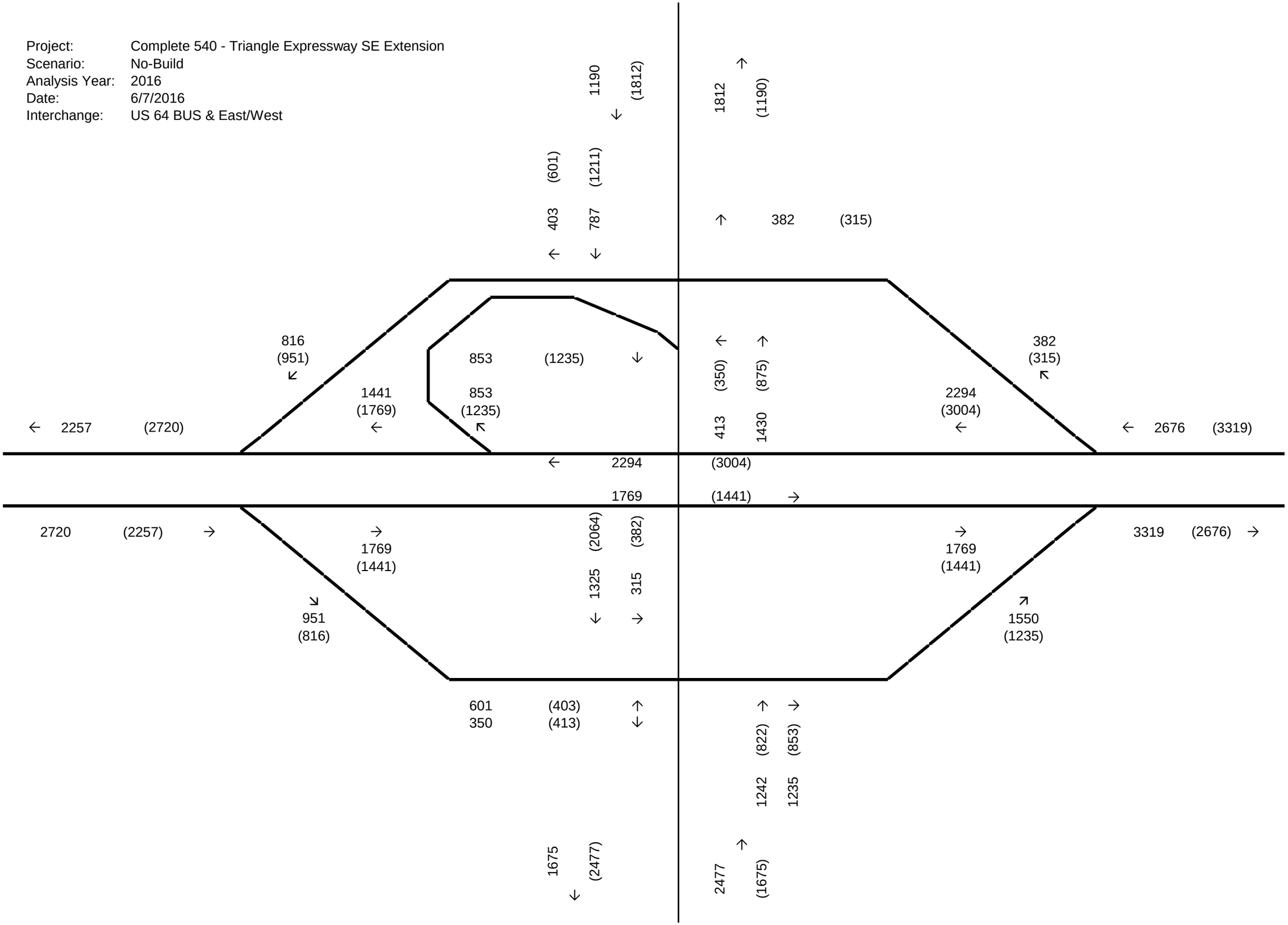


Project: Complete 540 - Triangle Expressway - SE Extension
Scenario: No-Build
Analysis Year: 2016
Date: 6/7/2016
Interchange: I-495 & East/West

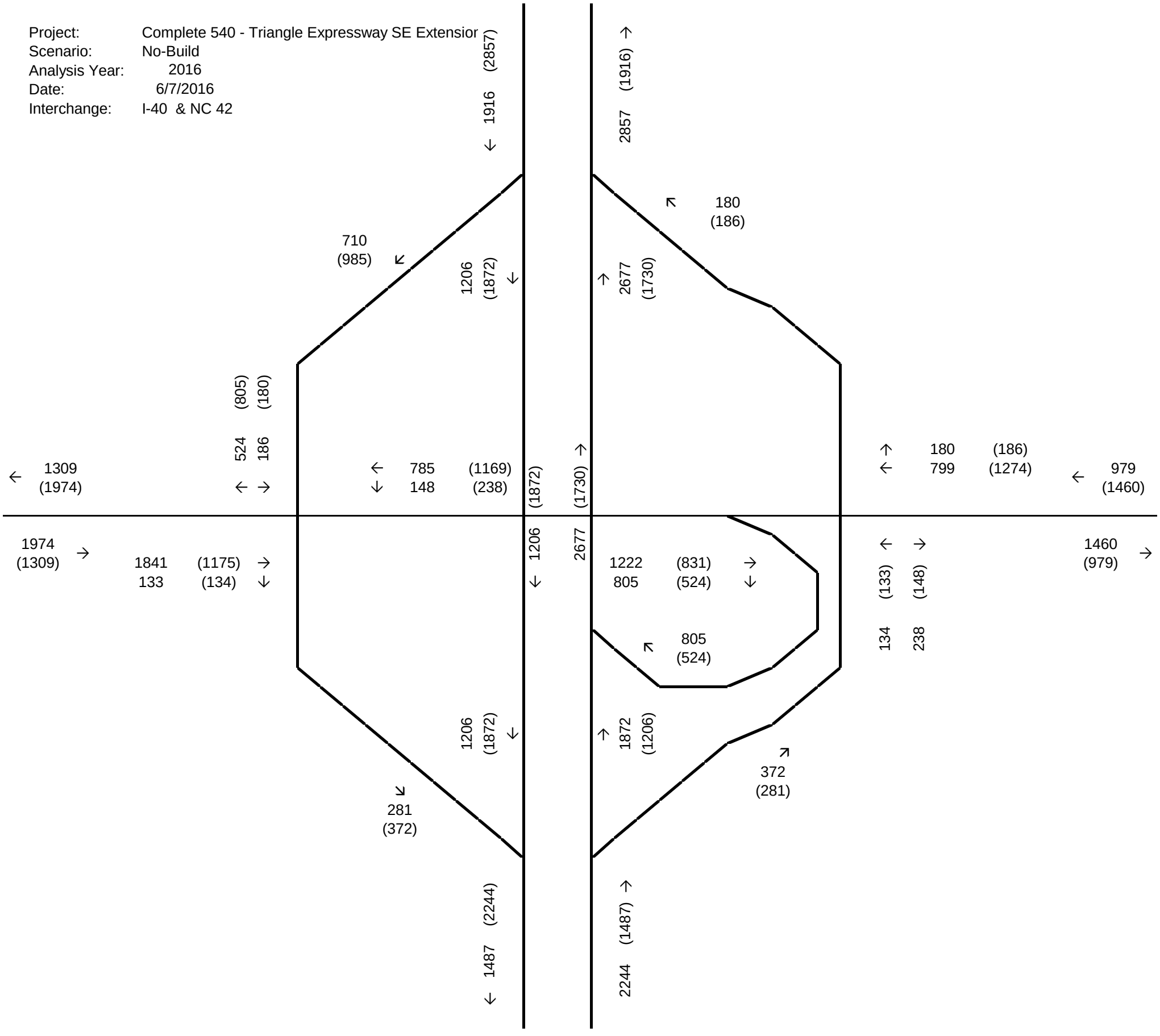


6/7/2016
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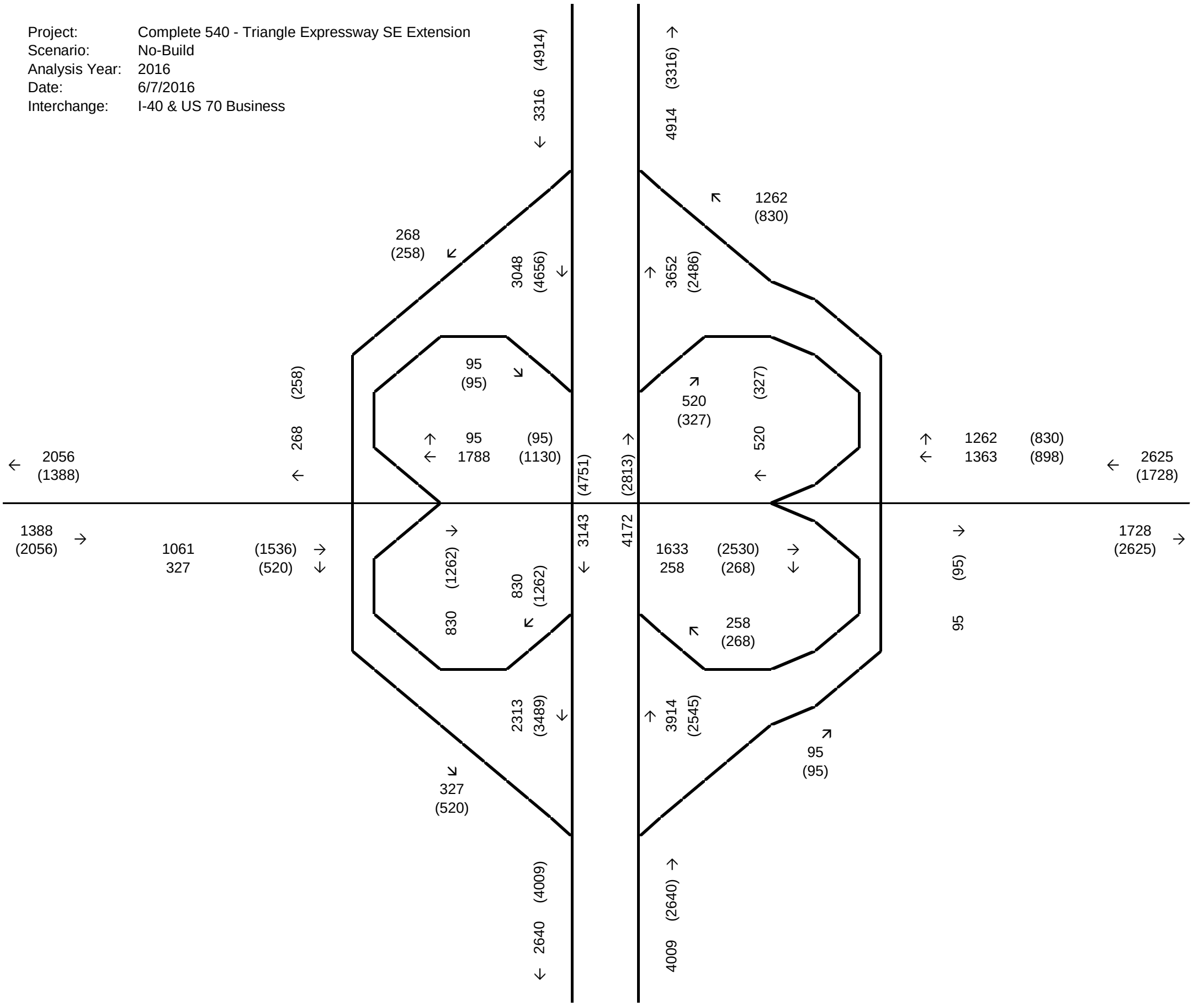
Project: Complete 540 - Triangle Expressway SE Extension
Scenario: No-Build
Analysis Year: 2016
Date: 6/7/2016
Interchange: US 64 BUS & East/West



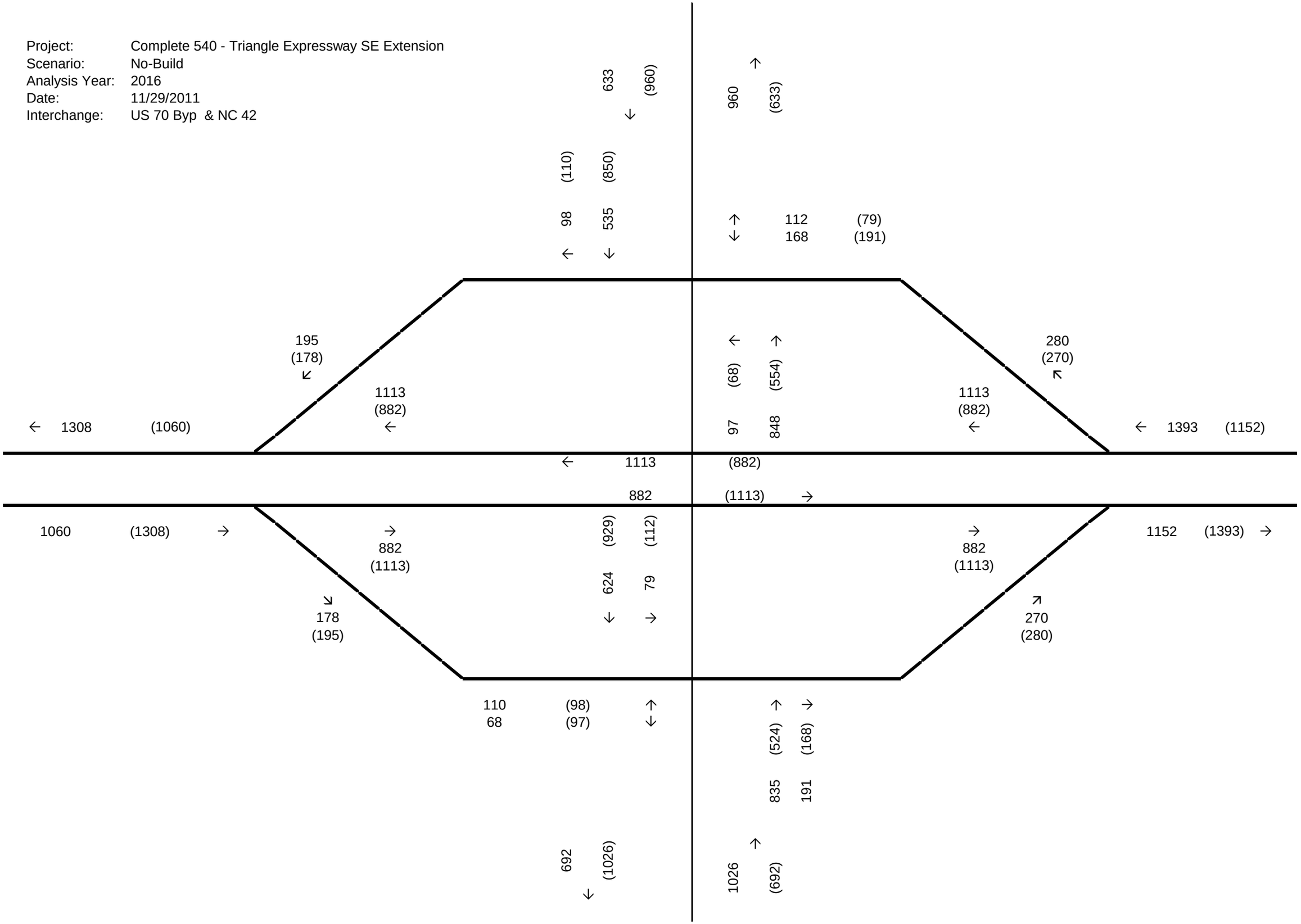
Project: Complete 540 - Triangle Expressway SE Extension
Scenario: No-Build
Analysis Year: 2016
Date: 6/7/2016
Interchange: I-40 & NC 42



Project: Complete 540 - Triangle Expressway SE Extension
Scenario: No-Build
Analysis Year: 2016
Date: 6/7/2016
Interchange: I-40 & US 70 Business

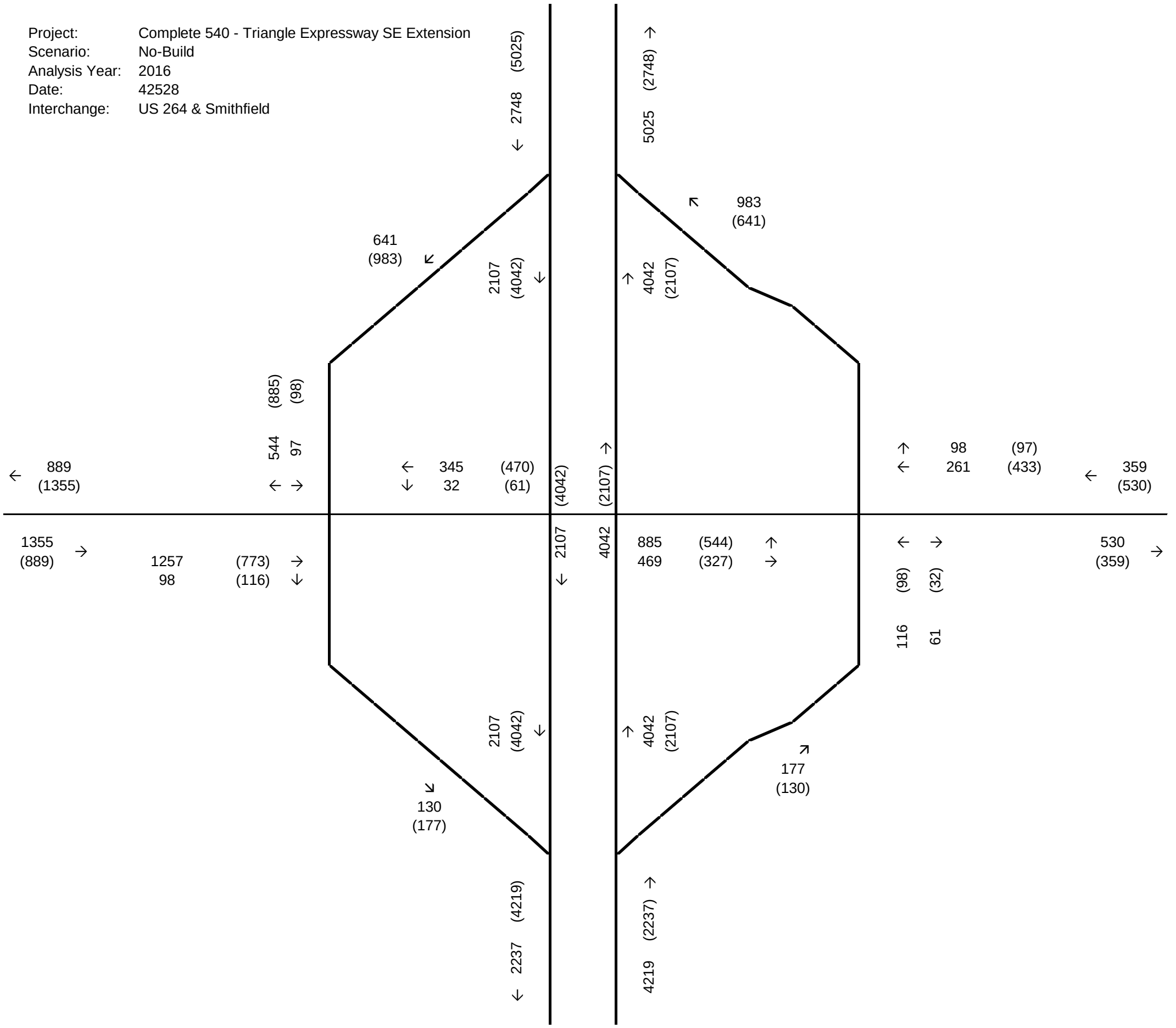


Project: Complete 540 - Triangle Expressway SE Extension
Scenario: No-Build
Analysis Year: 2016
Date: 11/29/2011
Interchange: US 70 Byp & NC 42

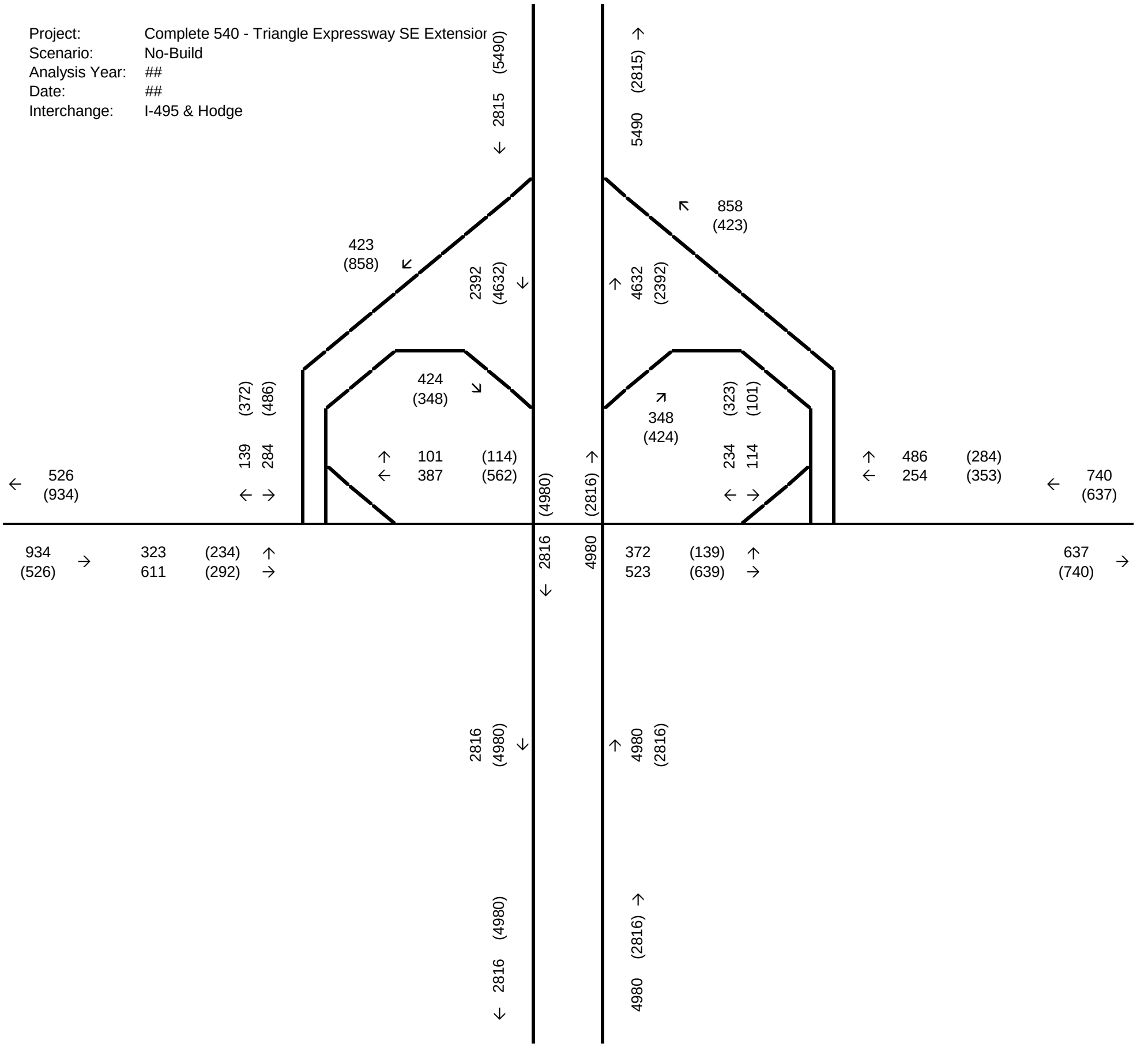


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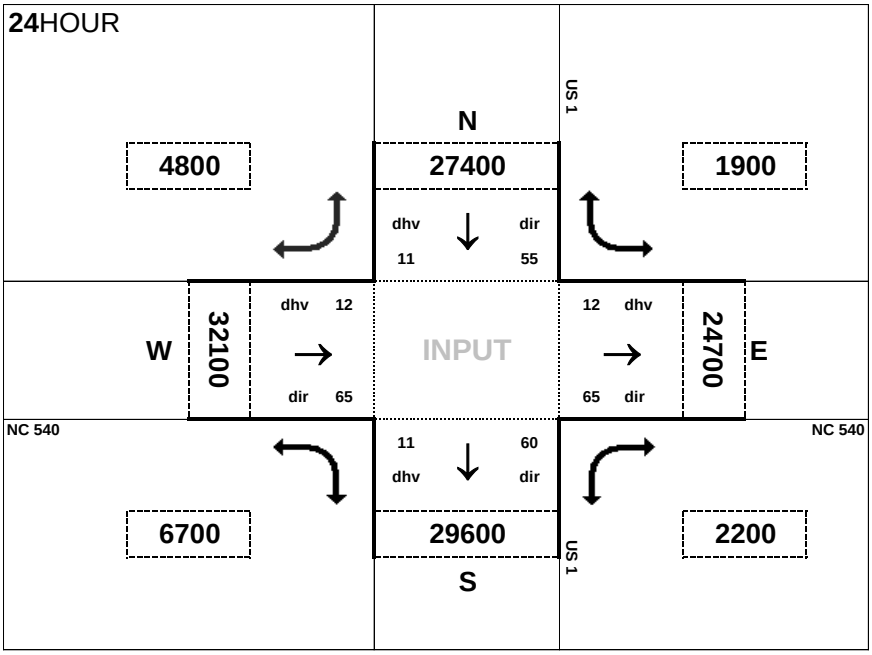
Project: Complete 540 - Triangle Expressway SE Extension
Scenario: No-Build
Analysis Year: 2016
Date: 42528
Interchange: US 264 & Smithfield



Project: Complete 540 - Triangle Expressway SE Extensior
Scenario: No-Build
Analysis Year: ##
Date: ##
Interchange: I-495 & Hodge



2016 Build

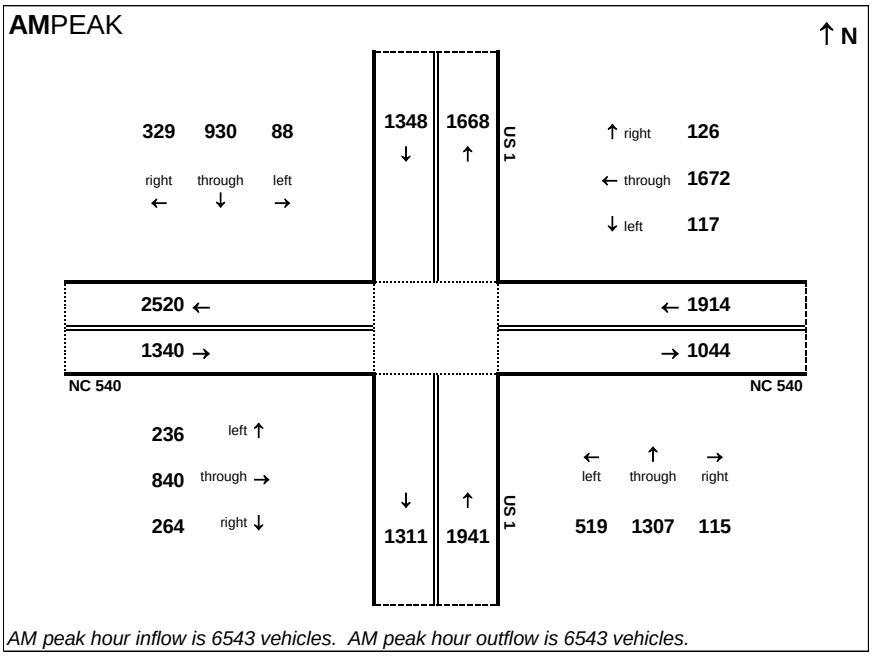


Peak Hour Volume Breakouts Report:
NC 540 & US 1

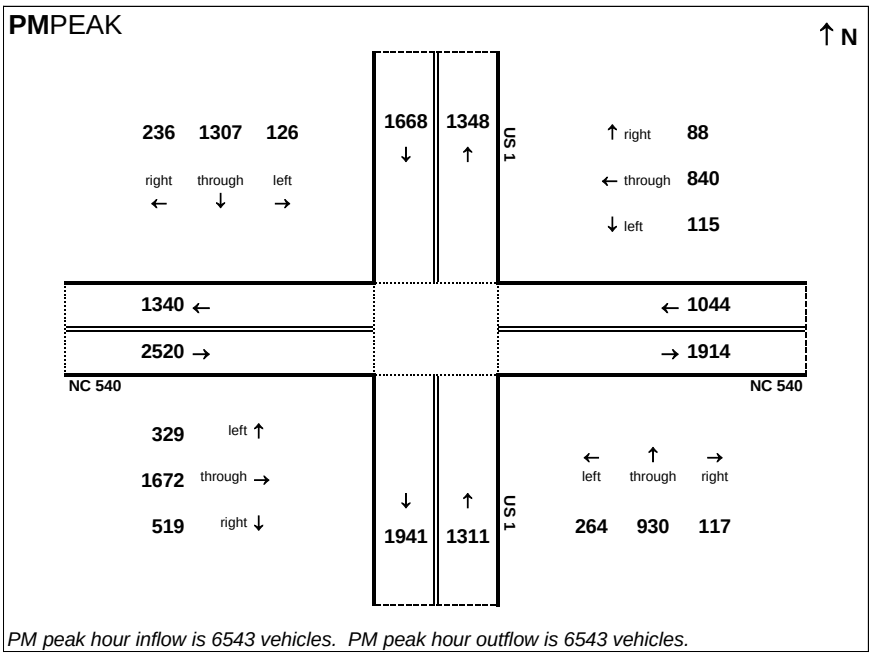
Traffic Forecast Release Date:
May-16

Traffic Data Year:
2016 Build

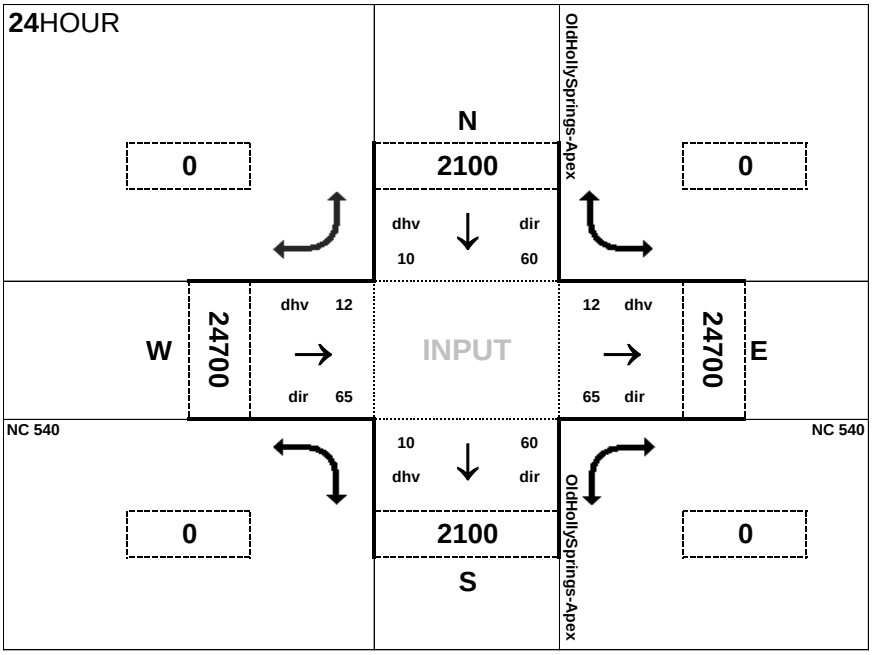
Project:
Complete 540 - Triangle Expressway Southeast Extension



AM peak hour inflow is 6543 vehicles. AM peak hour outflow is 6543 vehicles.



PM peak hour inflow is 6543 vehicles. PM peak hour outflow is 6543 vehicles.

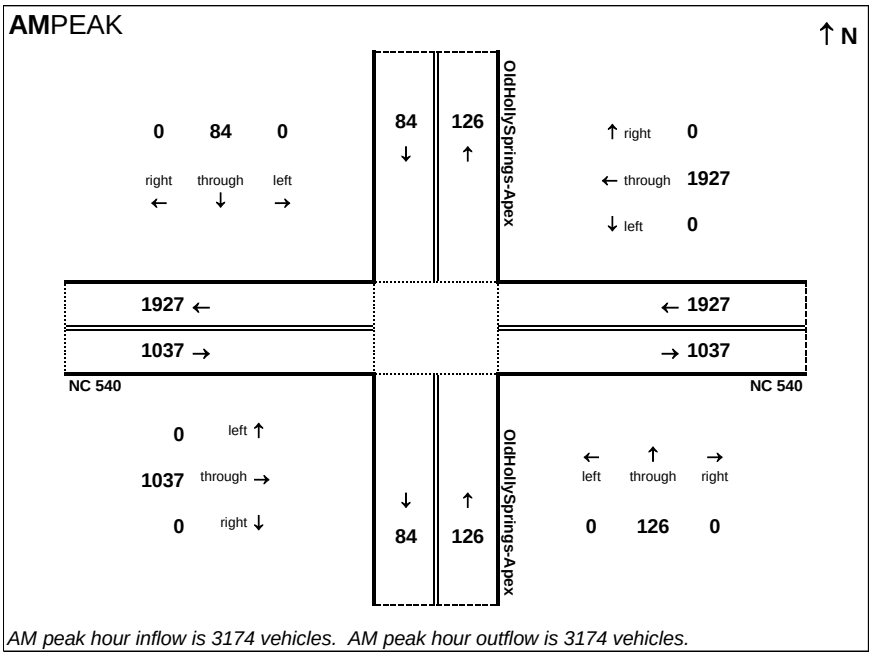


Peak Hour Volume Breakouts Report:
NC 540 & Old Holly Springs-Apex

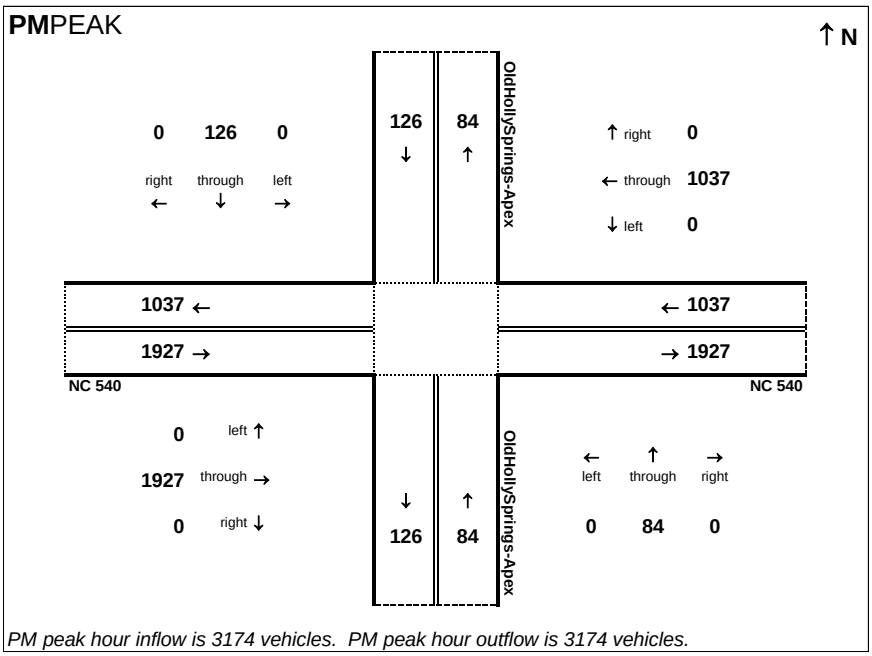
Traffic Forecast Release Date:
May-16

Traffic Data Year:
2016 Build

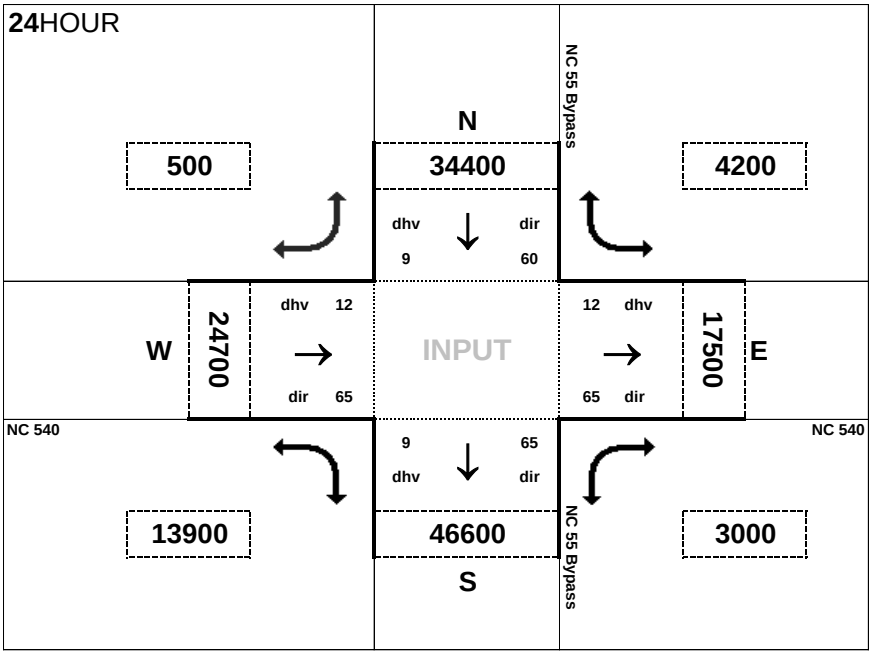
Project:
Complete 540 - Triangle Expressway Southeast Extension



AM peak hour inflow is 3174 vehicles. AM peak hour outflow is 3174 vehicles.



PM peak hour inflow is 3174 vehicles. PM peak hour outflow is 3174 vehicles.

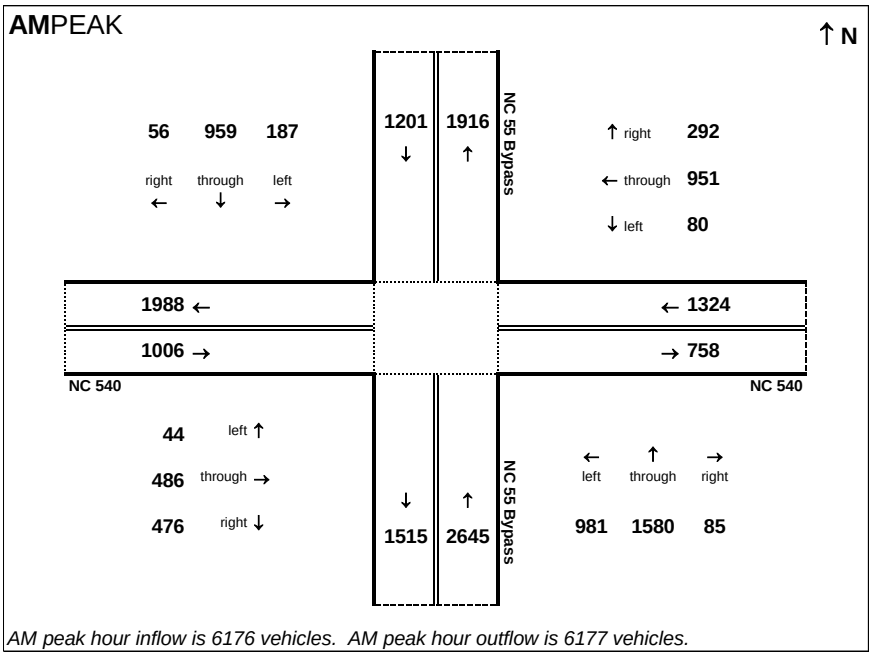


Peak Hour Volume Breakouts Report:
NC 540 & NC 55 Bypass

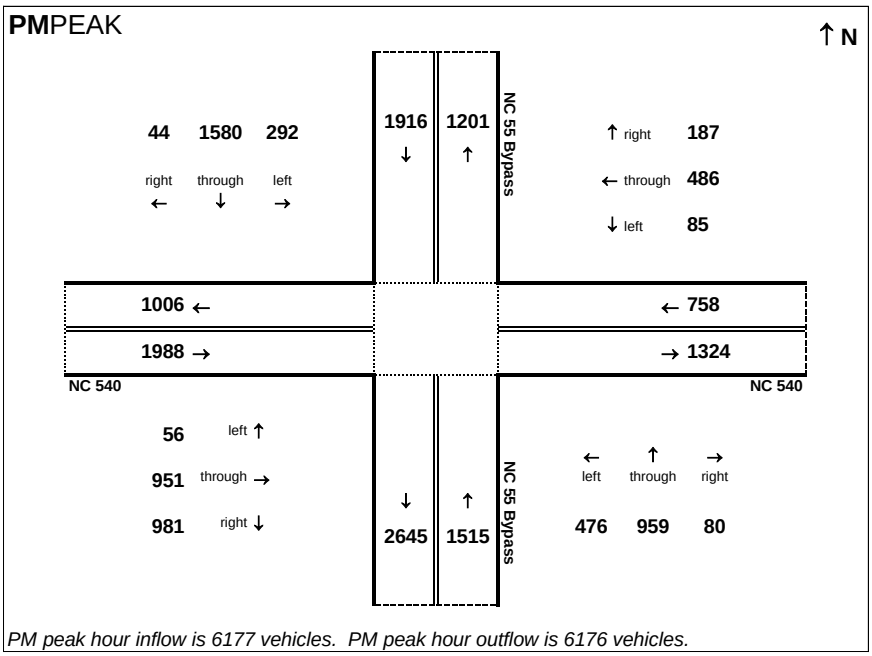
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May-16

Traffic Data Year:
2016 Build

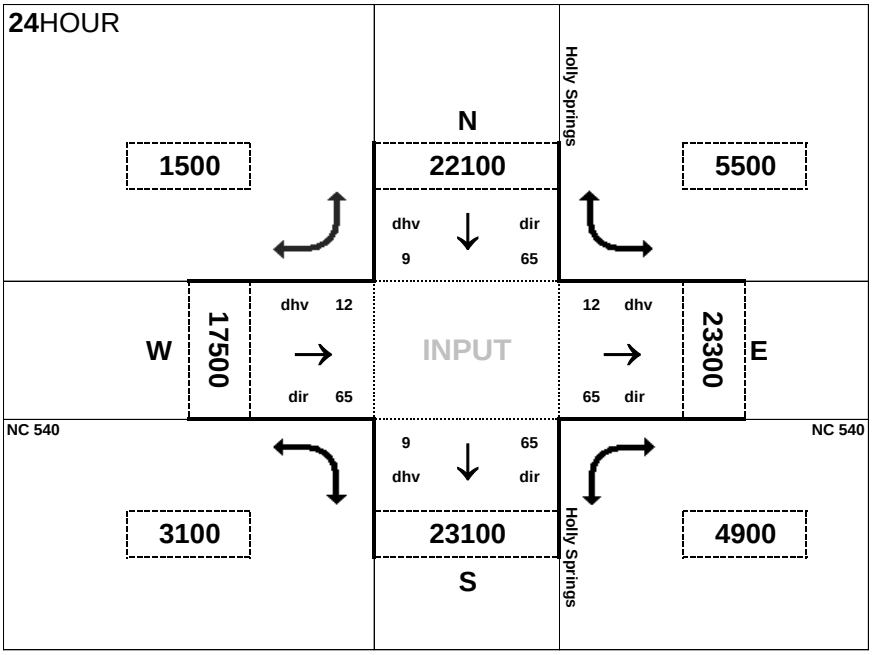
Project:
Complete 540 - Triangle Expressway Southeast Extension



AM peak hour inflow is 6176 vehicles. AM peak hour outflow is 6177 vehicles.



PM peak hour inflow is 6177 vehicles. PM peak hour outflow is 6176 vehicles.

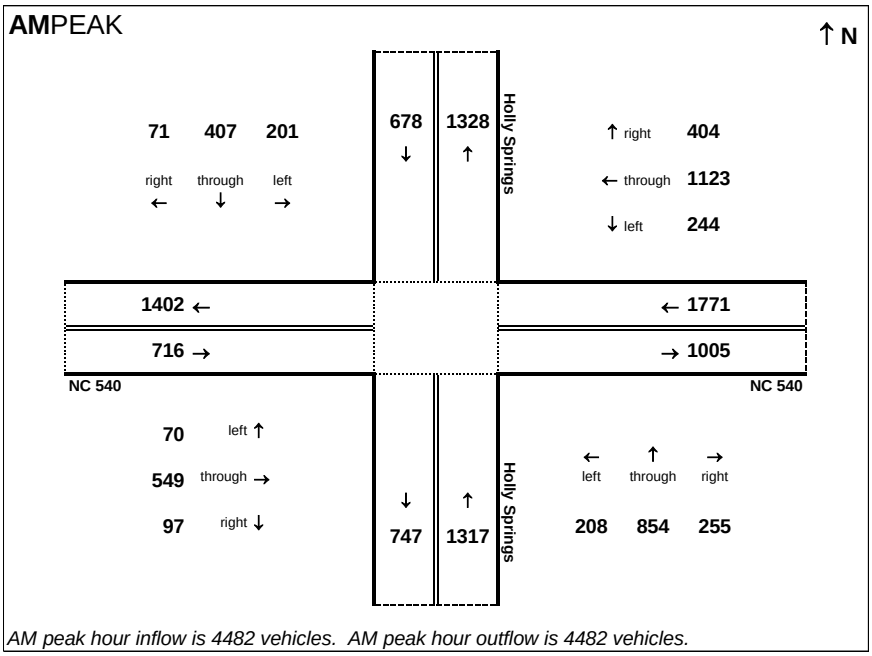


Peak Hour Volume Breakouts Report:
NC 540 & Holly Springs

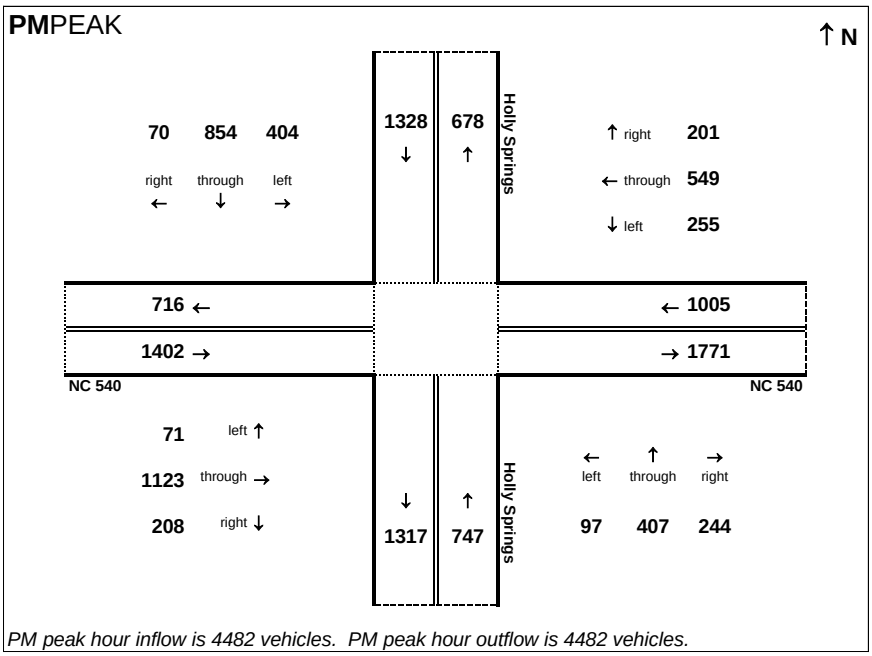
Traffic Forecast Release Date:
May-16

Traffic Data Year:
2016 Build

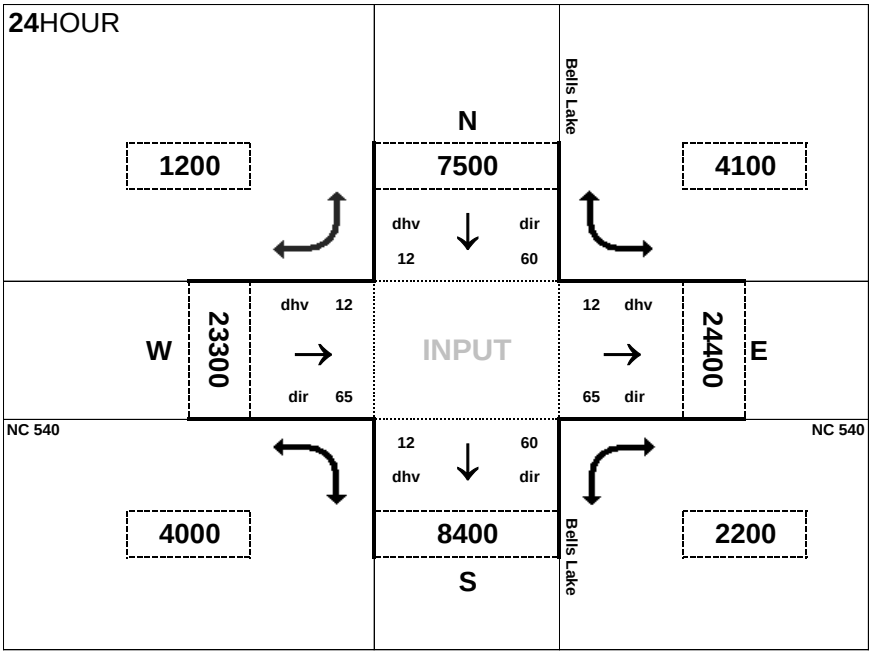
Project:
Complete 540 - Triangle Expressway Southeast Extension



AM peak hour inflow is 4482 vehicles. AM peak hour outflow is 4482 vehicles.



PM peak hour inflow is 4482 vehicles. PM peak hour outflow is 4482 vehicles.

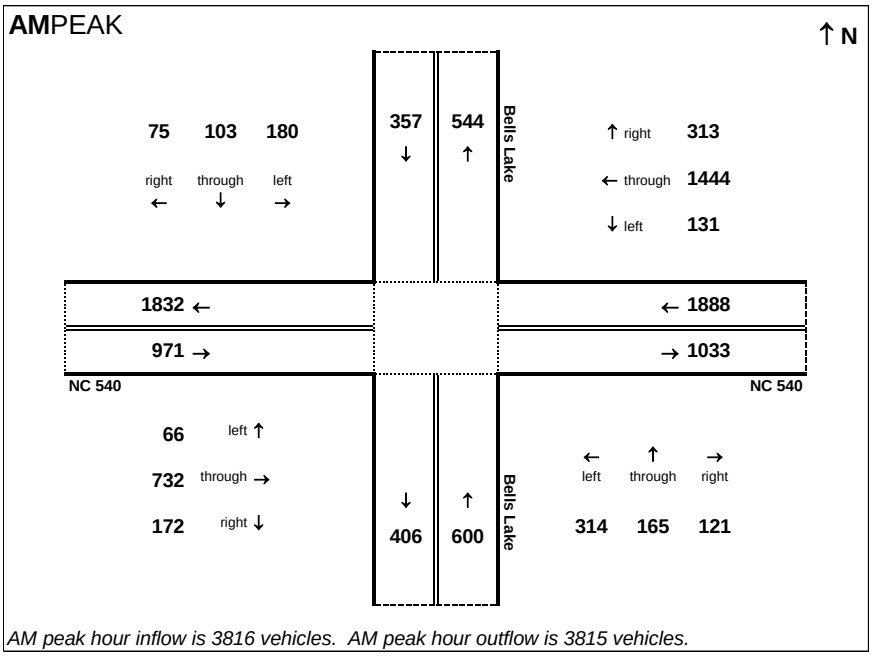


Peak Hour Volume Breakouts Report:
NC 540 & Bells Lake

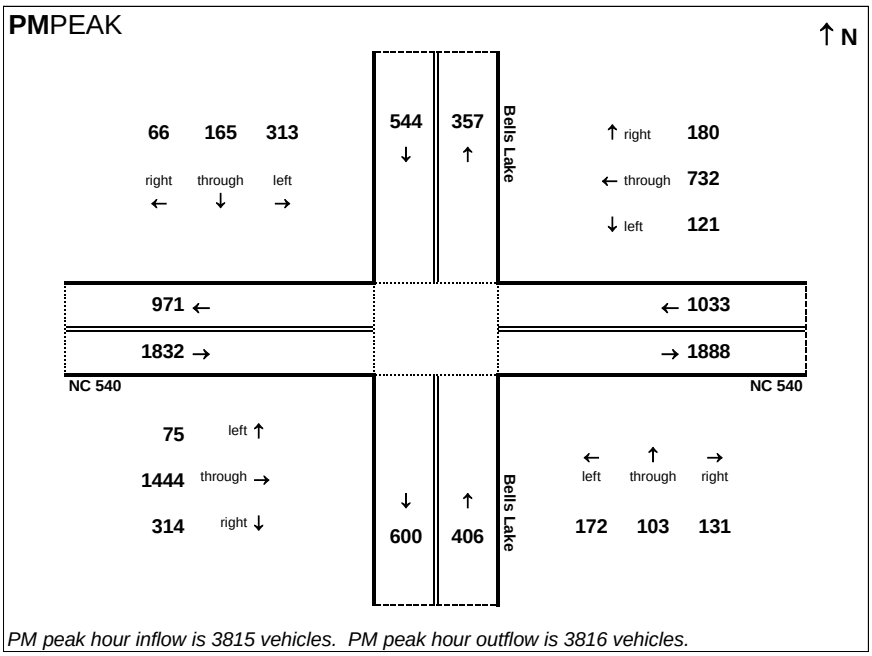
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May-16

Traffic Data Year:
2016 Build

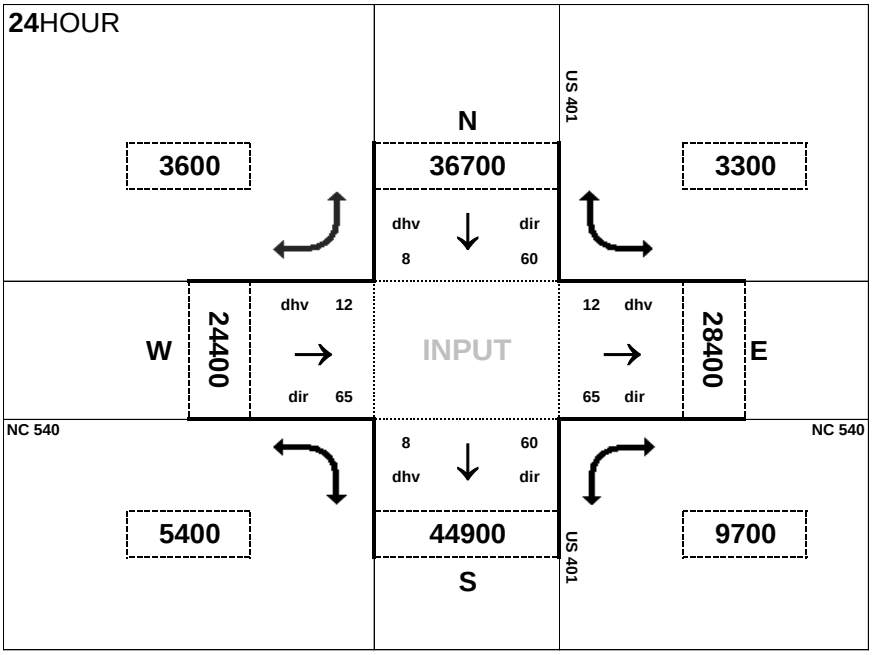
Project:
Complete 540 - Triangle Expressway Southeast Extension



AM peak hour inflow is 3816 vehicles. AM peak hour outflow is 3815 vehicles.



PM peak hour inflow is 3815 vehicles. PM peak hour outflow is 3816 vehicles.

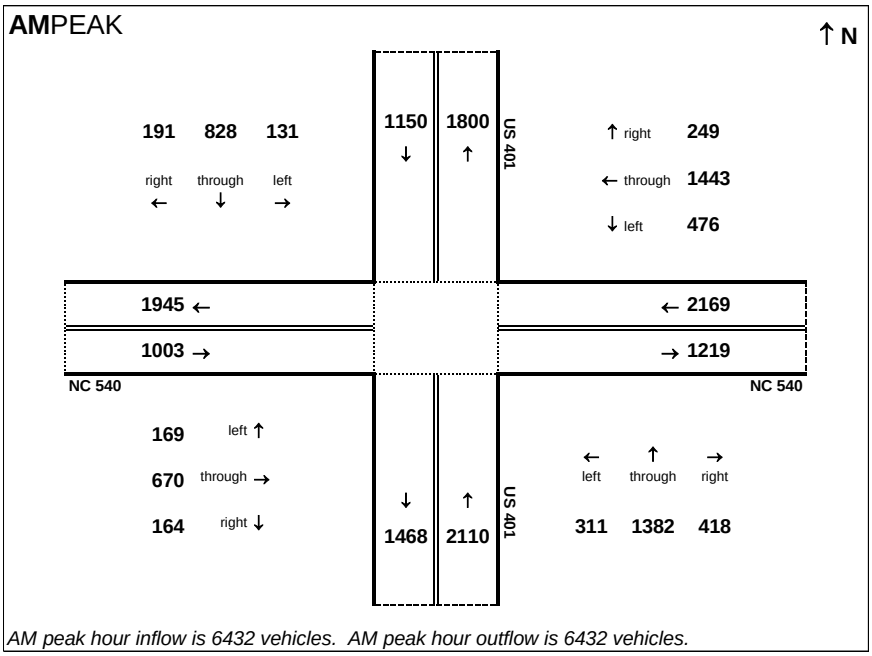


Peak Hour Volume Breakouts Report:
NC 540 & US 401

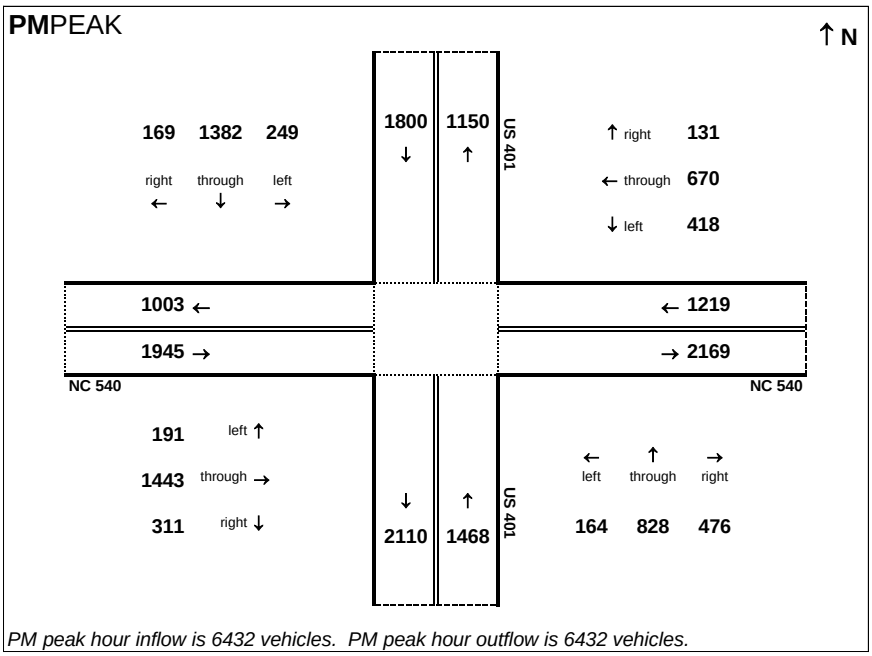
Traffic Forecast Release Date:
May-16

Traffic Data Year:
2016 Build

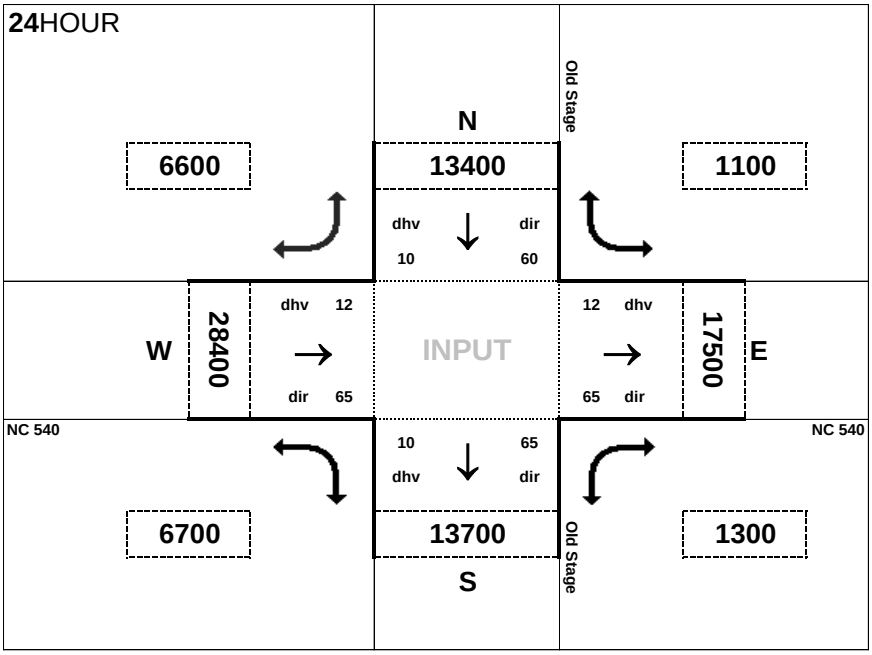
Project:
Complete 540 - Triangle Expressway Southeast Extension



AM peak hour inflow is 6432 vehicles. AM peak hour outflow is 6432 vehicles.



PM peak hour inflow is 6432 vehicles. PM peak hour outflow is 6432 vehicles.

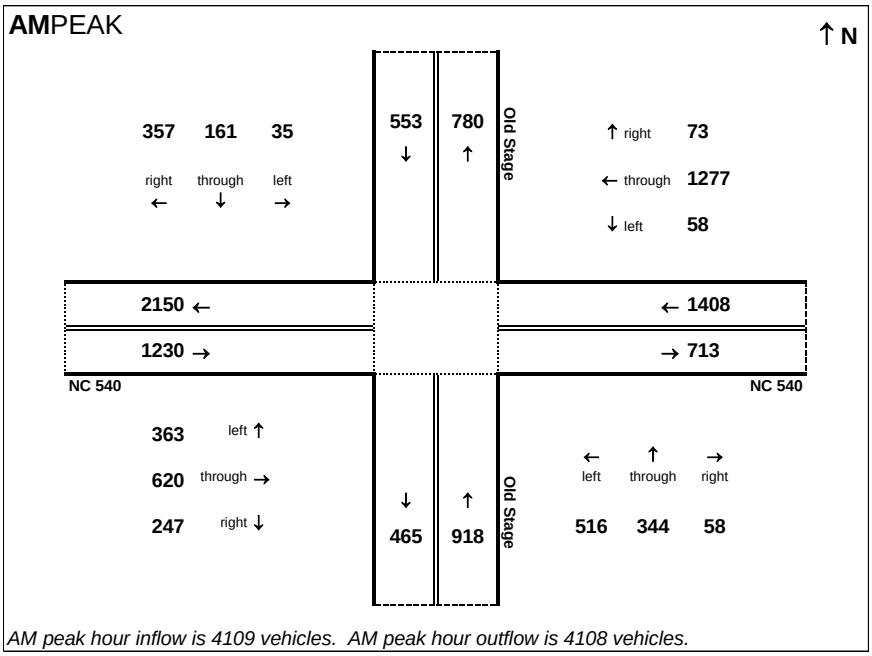


Peak Hour Volume Breakouts Report:
NC 540 & Old Stage

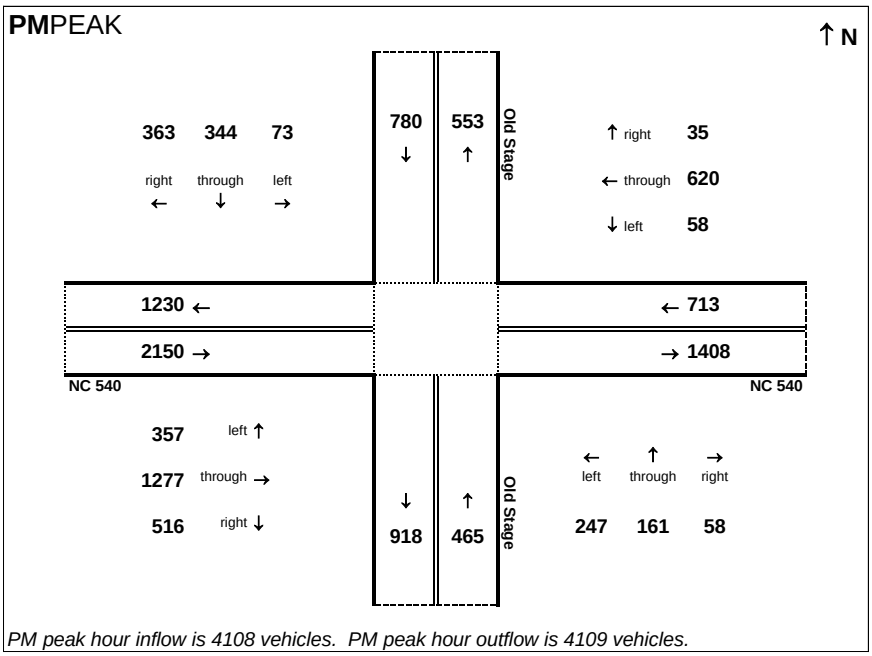
Traffic Forecast Release Date:
May-16

Traffic Data Year:
2016 Build

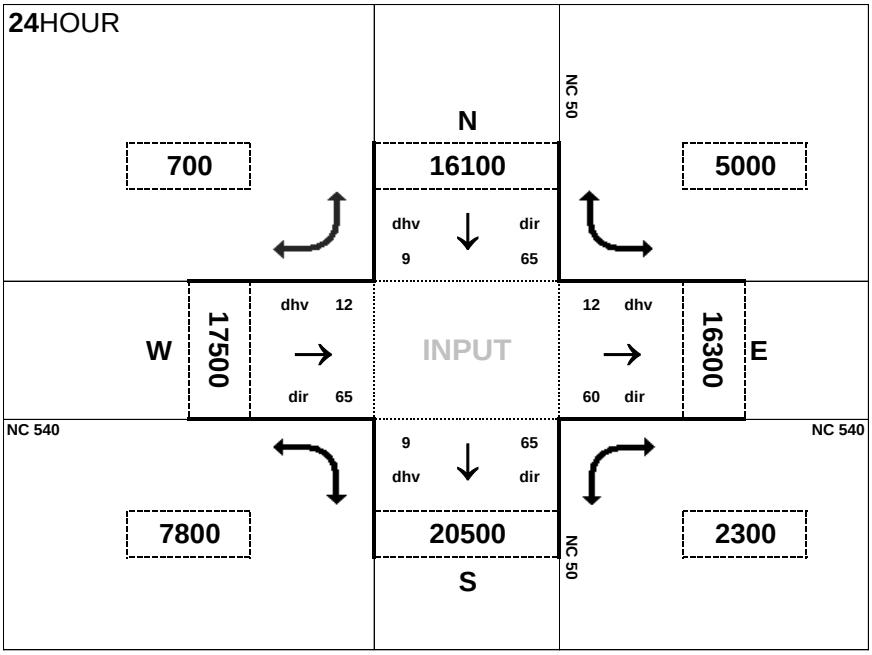
Project:
Complete 540 - Triangle Expressway Southeast Extension



AM peak hour inflow is 4109 vehicles. AM peak hour outflow is 4108 vehicles.



PM peak hour inflow is 4108 vehicles. PM peak hour outflow is 4109 vehicles.

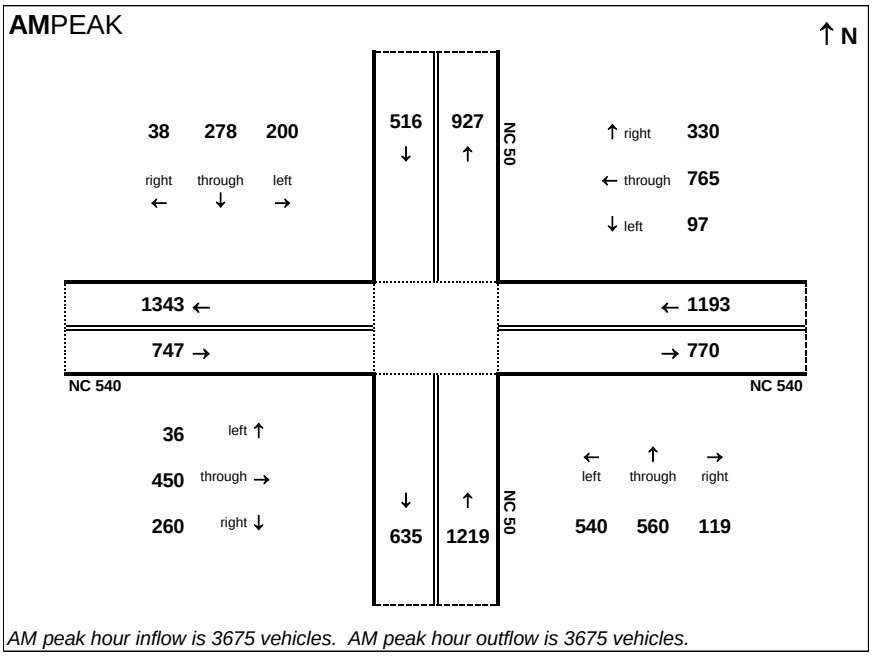


Peak Hour Volume Breakouts Report:
NC 540 & NC 50

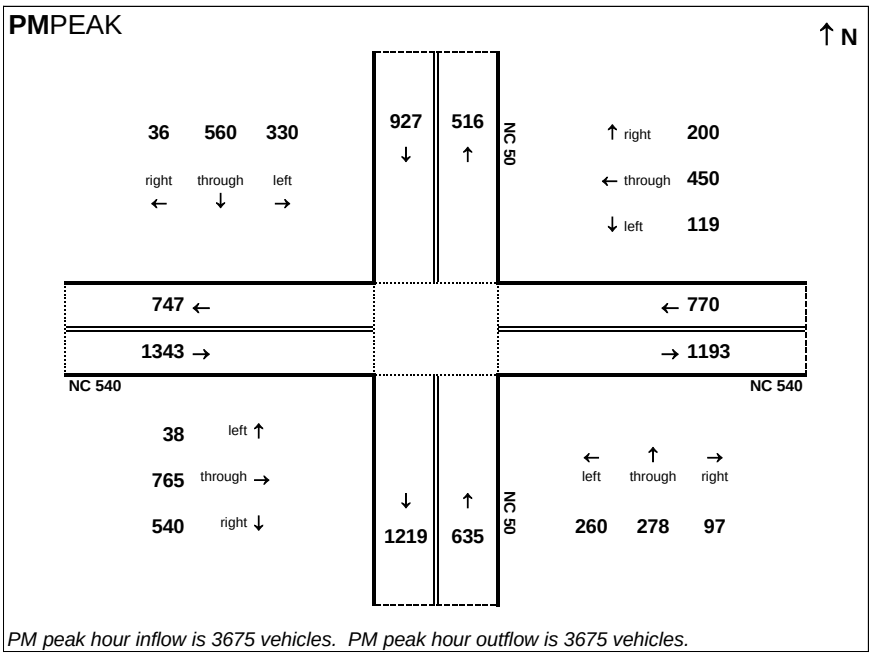
Traffic Forecast Release Date:
May-16

Traffic Data Year:
2016 Build

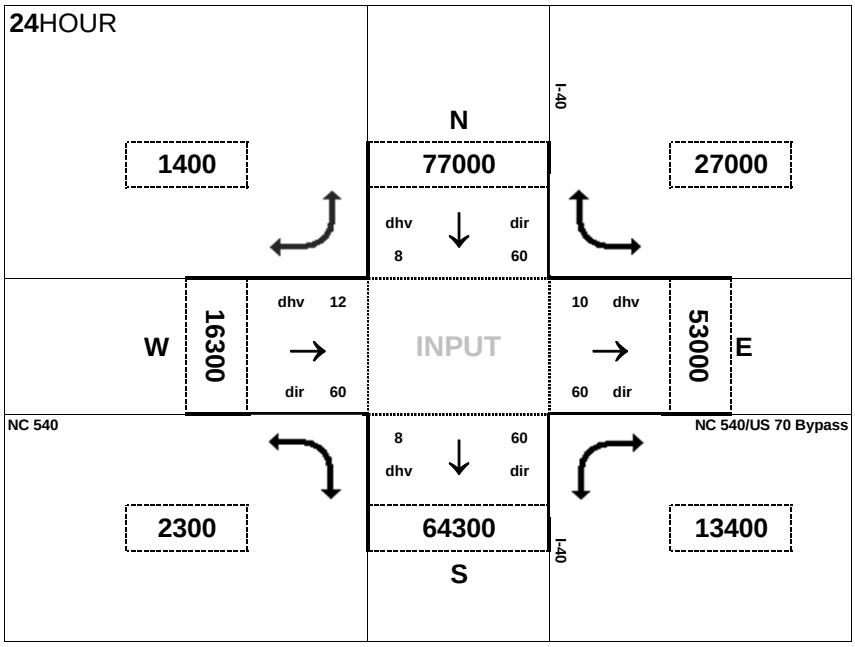
Project:
Complete 540 - Triangle Expressway Southeast Extension



AM peak hour inflow is 3675 vehicles. AM peak hour outflow is 3675 vehicles.



PM peak hour inflow is 3675 vehicles. PM peak hour outflow is 3675 vehicles.

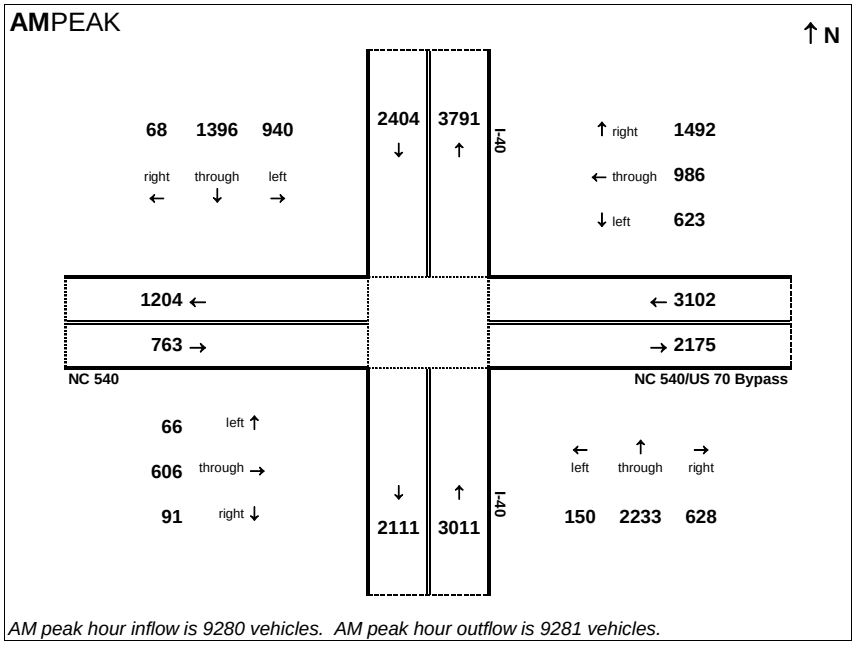


Peak Hour Volume Breakouts Report:
NC 540 & I-40 & US 70 Bypass

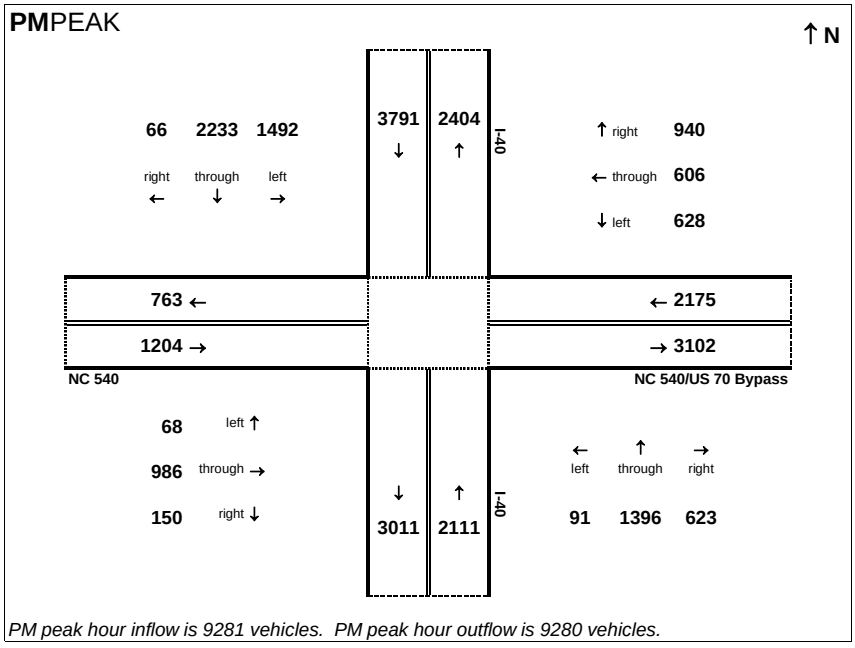
Traffic Forecast Release Date:
May-16

Traffic Data Year:
2016 Build

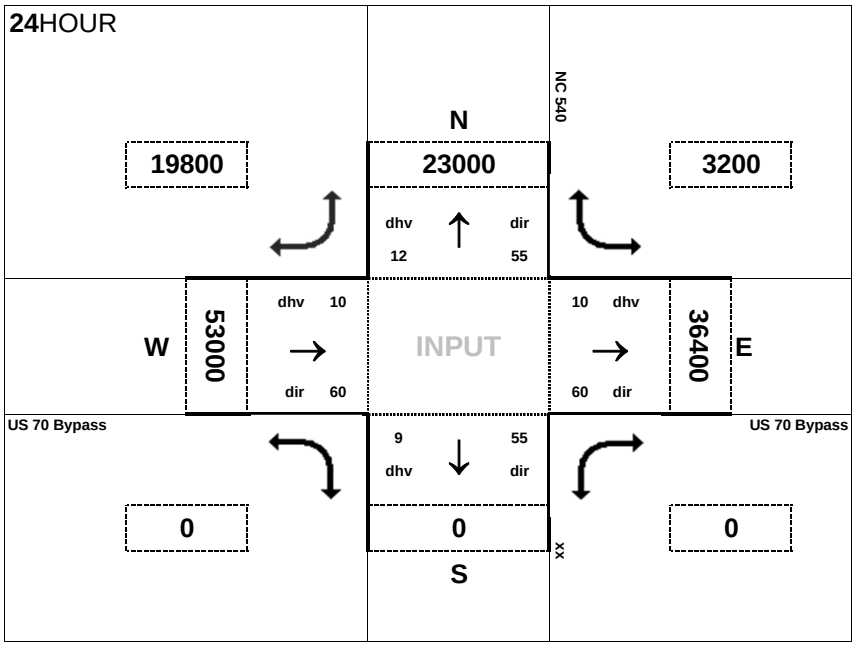
Project:
Complete 540 - Triangle Expressway Southeast Extension



AM peak hour inflow is 9280 vehicles. AM peak hour outflow is 9281 vehicles.



PM peak hour inflow is 9281 vehicles. PM peak hour outflow is 9280 vehicles.

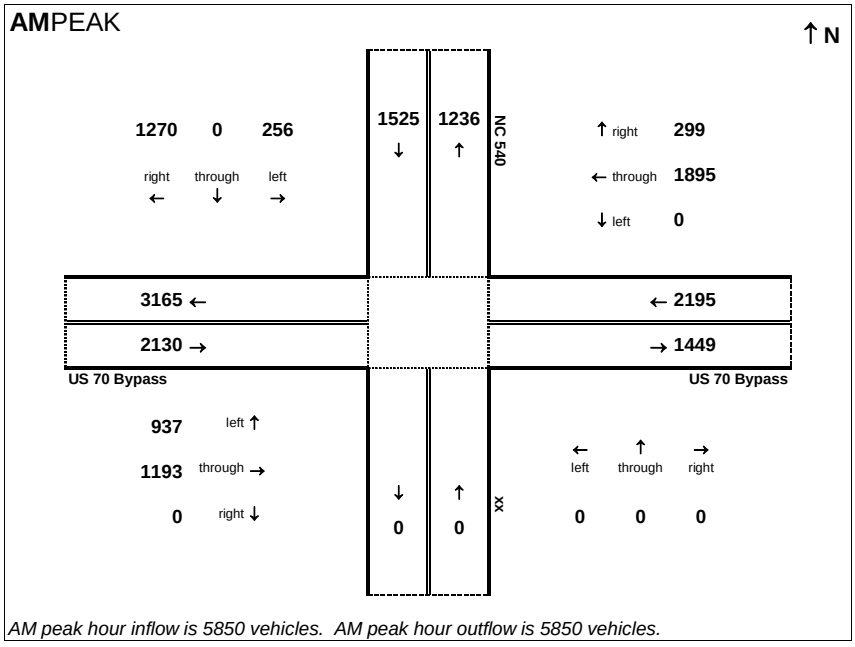


Peak Hour Volume Breakouts Report:
NC 540 & US 70 Bypass

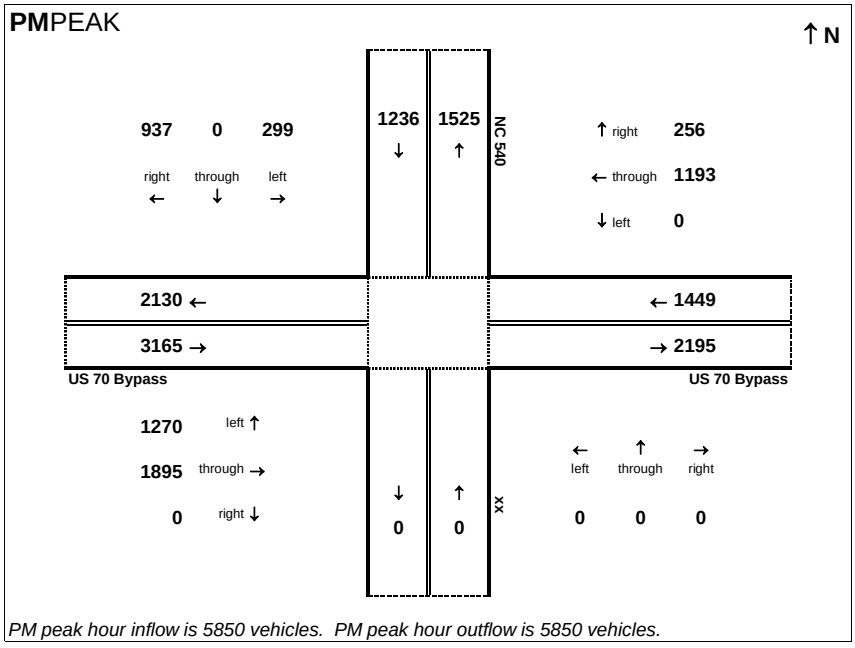
Traffic Forecast Release Date:
May-16

Traffic Data Year:
2016 Build

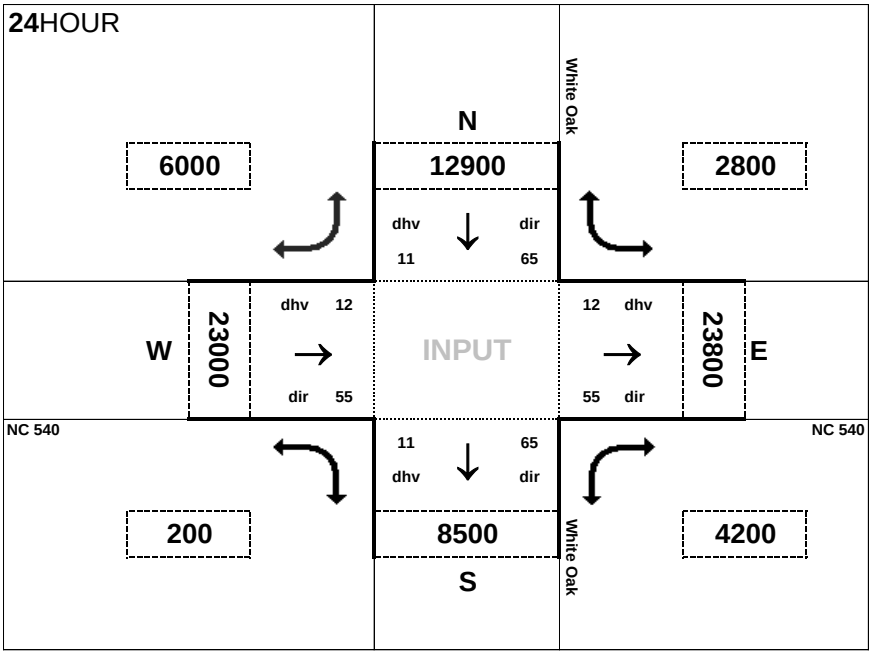
Project:
Complete 540 - Triangle Expressway Southeast Extension



AM peak hour inflow is 5850 vehicles. AM peak hour outflow is 5850 vehicles.



PM peak hour inflow is 5850 vehicles. PM peak hour outflow is 5850 vehicles.

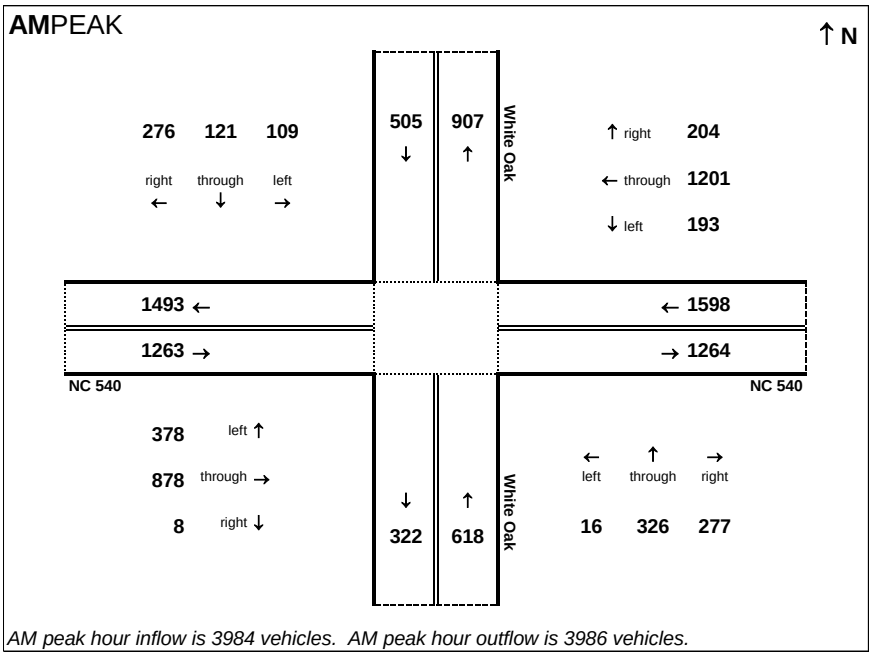


Peak Hour Volume Breakouts Report:
NC 540 & White Oak

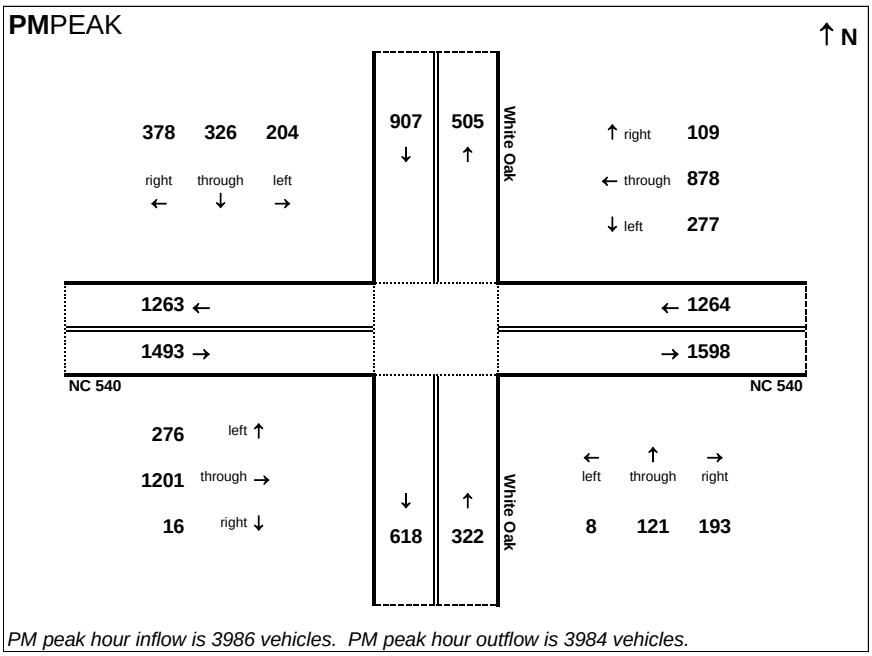
Traffic Forecast Release Date:
May-16

Traffic Data Year:
2016 Build

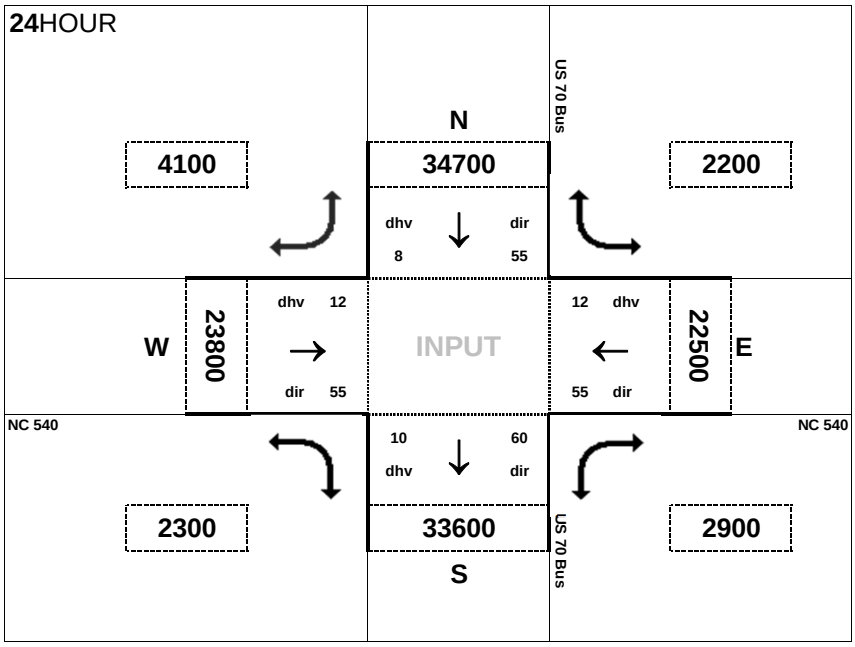
Project:
Complete 540 - Triangle Expressway Southeast Extension



AM peak hour inflow is 3984 vehicles. AM peak hour outflow is 3986 vehicles.



PM peak hour inflow is 3986 vehicles. PM peak hour outflow is 3984 vehicles.

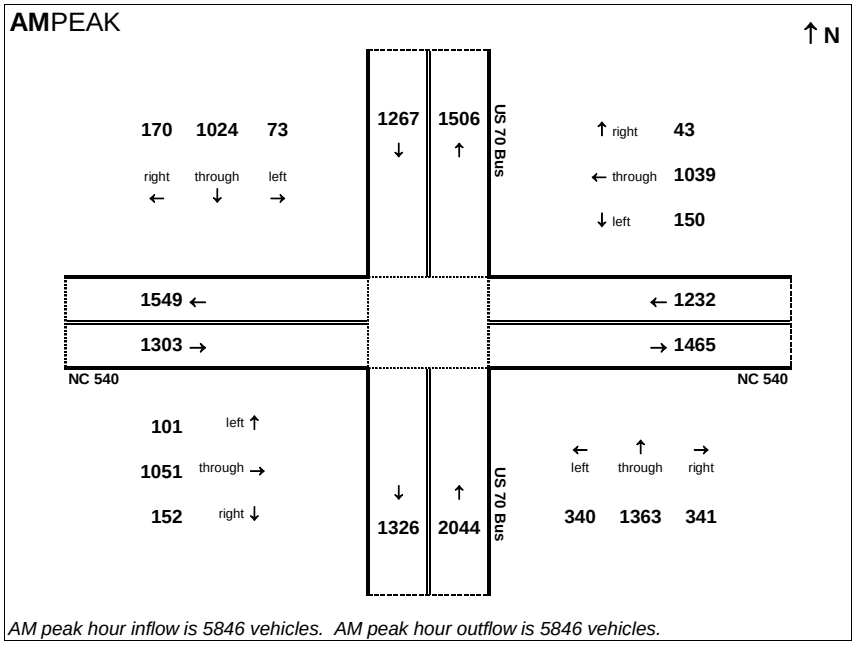


Peak Hour Volume Breakouts Report:
NC 540 & US 70 Bus

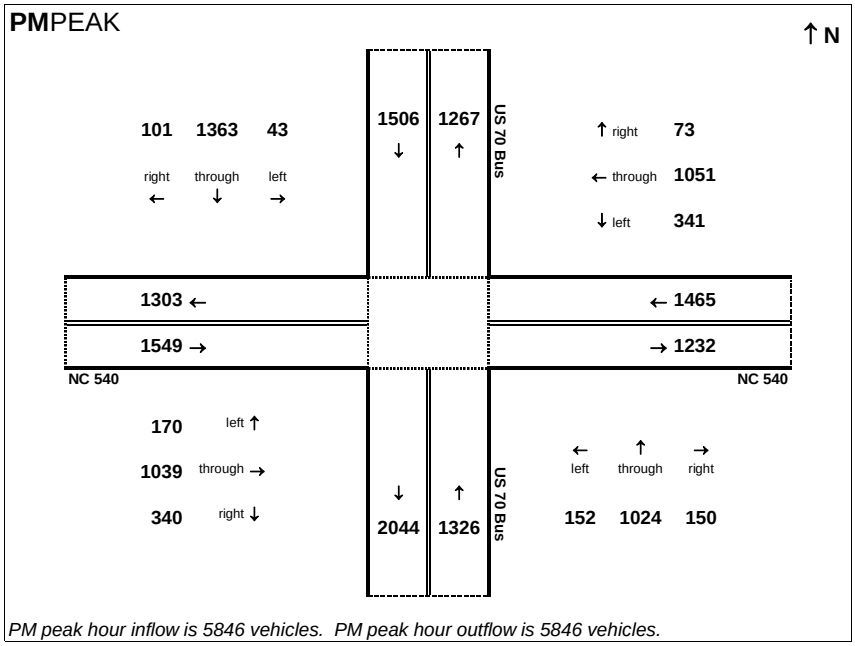
Traffic Forecast Release Date:
May-16

Traffic Data Year:
2016 Build

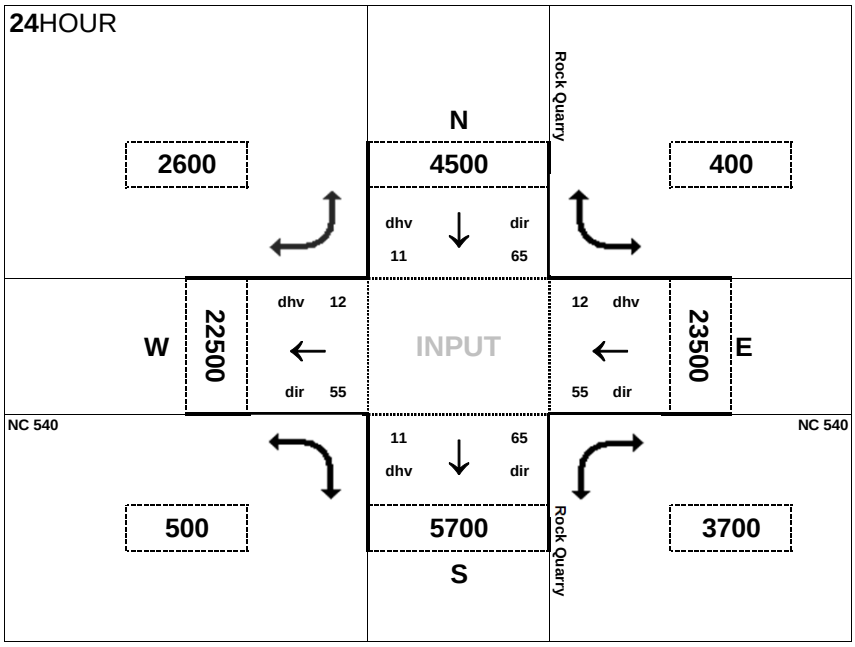
Project:
Complete 540 - Triangle Expressway Southeast Extension



AM peak hour inflow is 5846 vehicles. AM peak hour outflow is 5846 vehicles.



PM peak hour inflow is 5846 vehicles. PM peak hour outflow is 5846 vehicles.

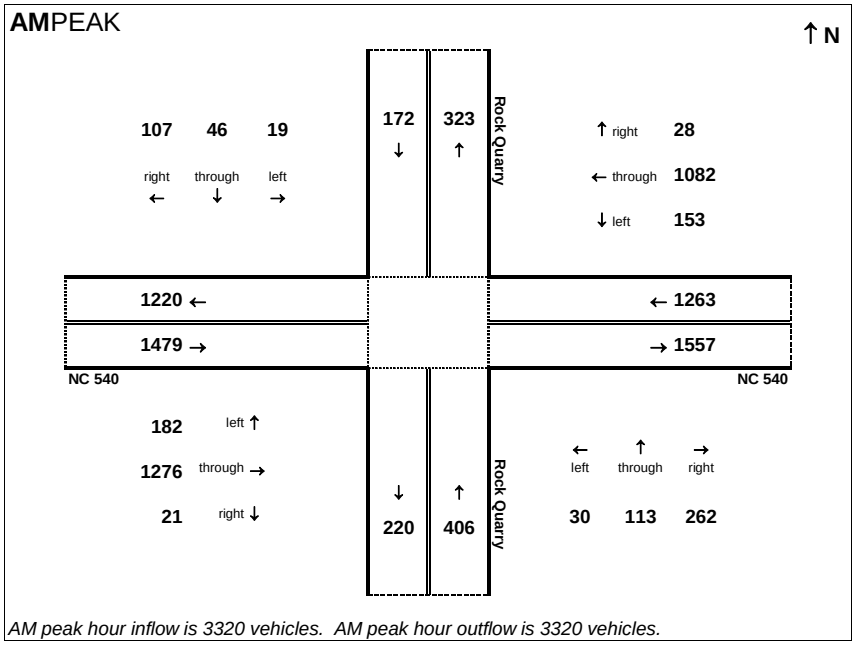


Peak Hour Volume Breakouts Report:
NC 540 & Rock Quarry

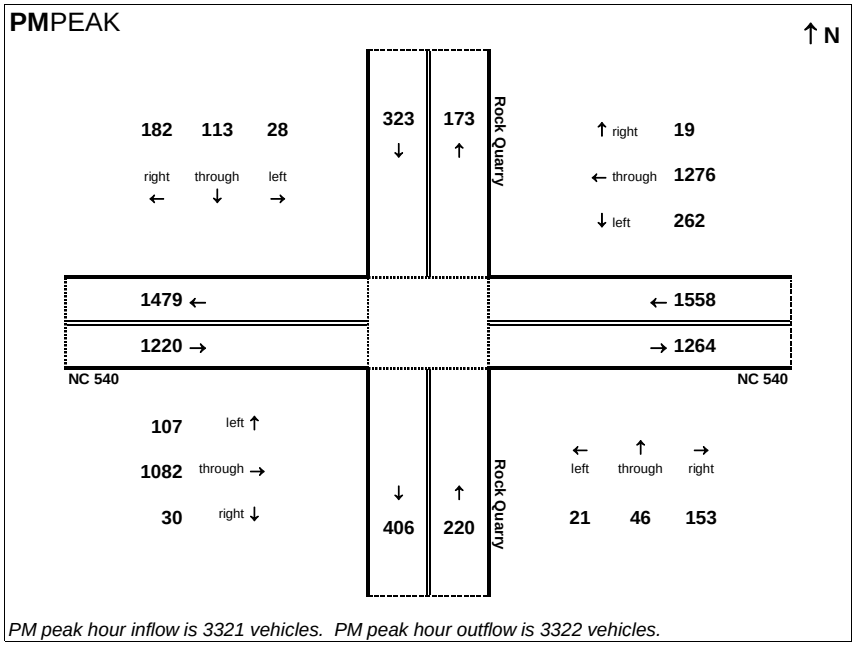
Traffic Forecast Release Date:
May-16

Traffic Data Year:
2016 Build

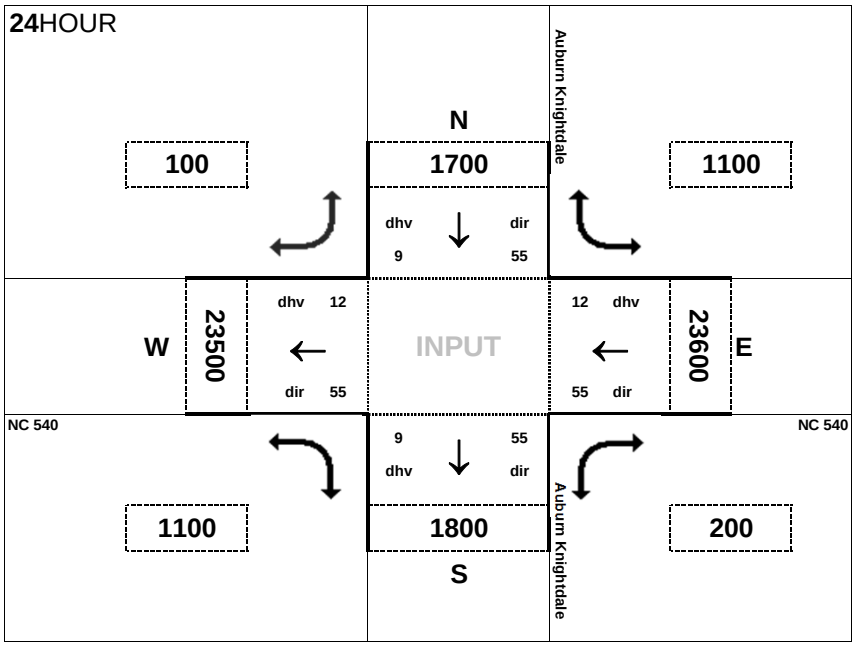
Project:
Complete 540 - Triangle Expressway Southeast Extension



AM peak hour inflow is 3320 vehicles. AM peak hour outflow is 3320 vehicles.



PM peak hour inflow is 3321 vehicles. PM peak hour outflow is 3322 vehicles.

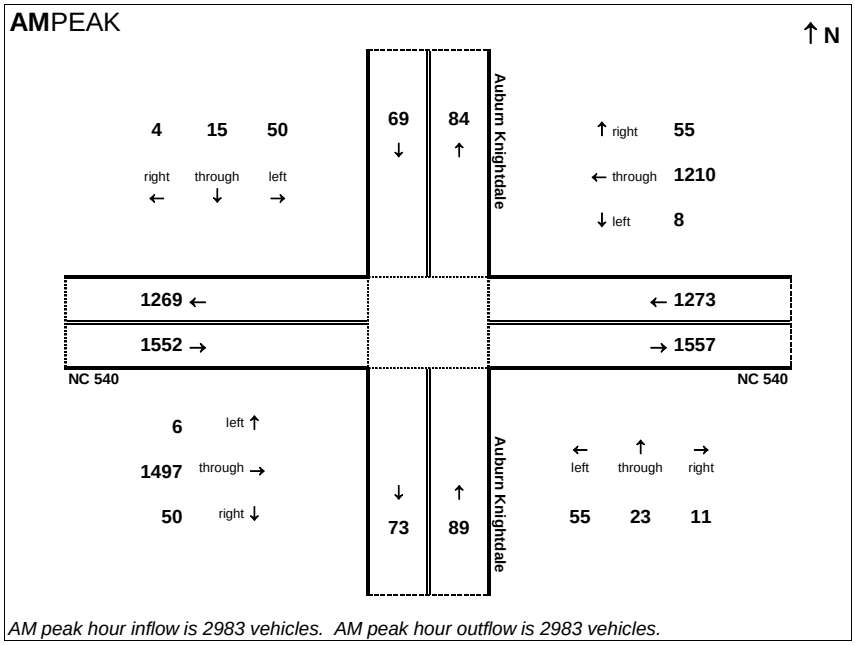


Peak Hour Volume Breakouts Report:
NC 540 & Auburn Knightdale

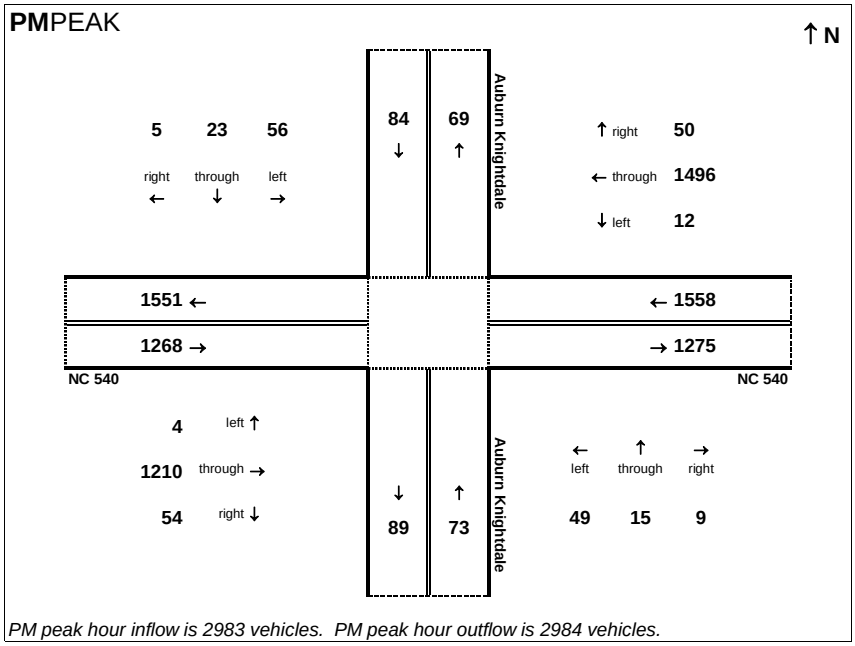
Traffic Forecast Release Date:
May-16

Traffic Data Year:
2016 Build

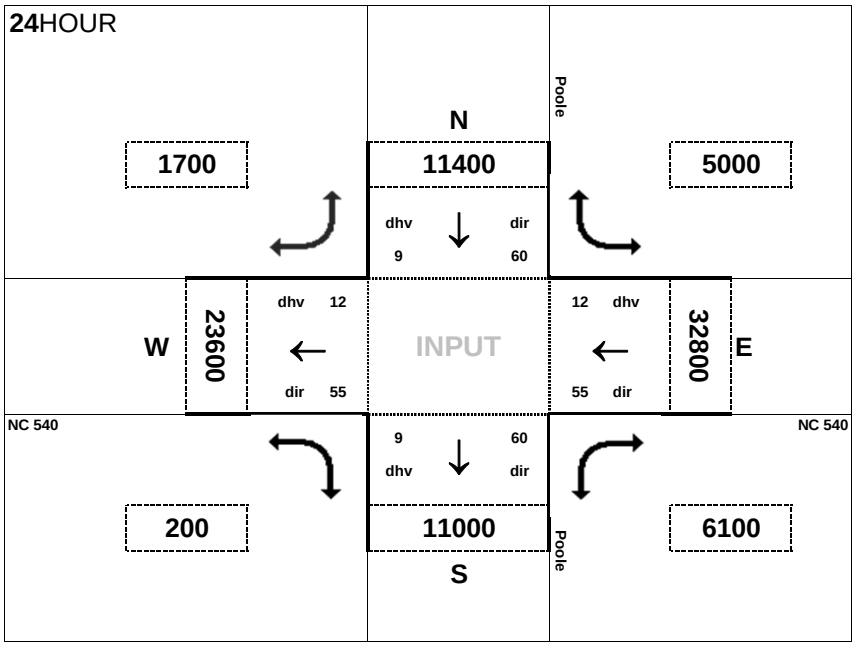
Project:
Complete 540 - Triangle Expressway Southeast Extension



AM peak hour inflow is 2983 vehicles. AM peak hour outflow is 2983 vehicles.



PM peak hour inflow is 2983 vehicles. PM peak hour outflow is 2984 vehicles.

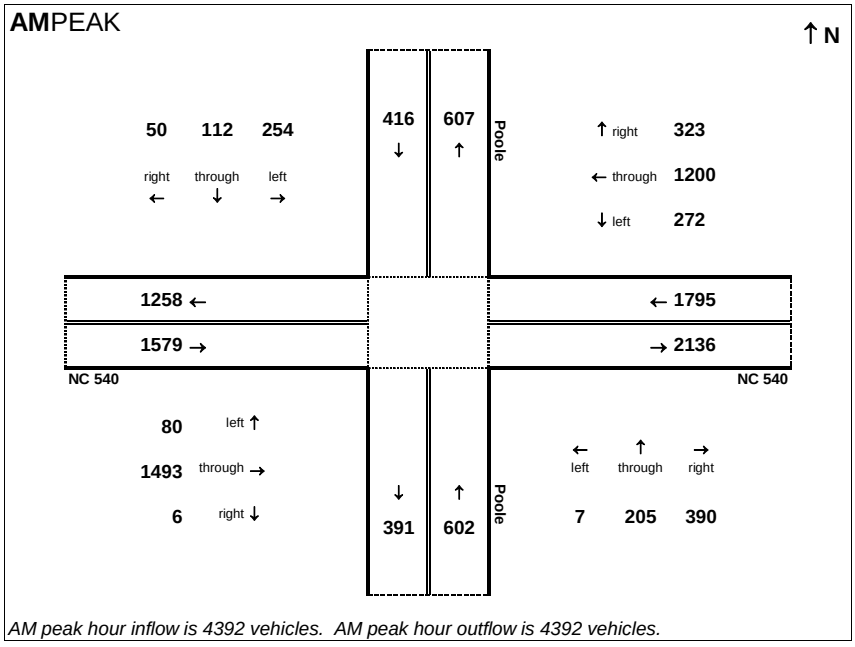


Peak Hour Volume Breakouts Report:
NC 540 & Poole

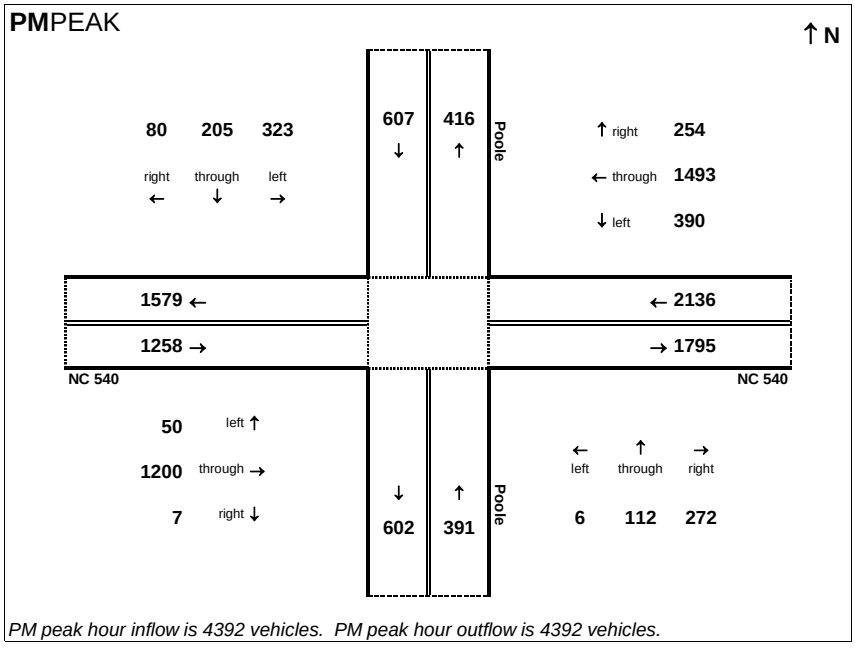
Traffic Forecast Release Date:
May-16

Traffic Data Year:
2016 Build

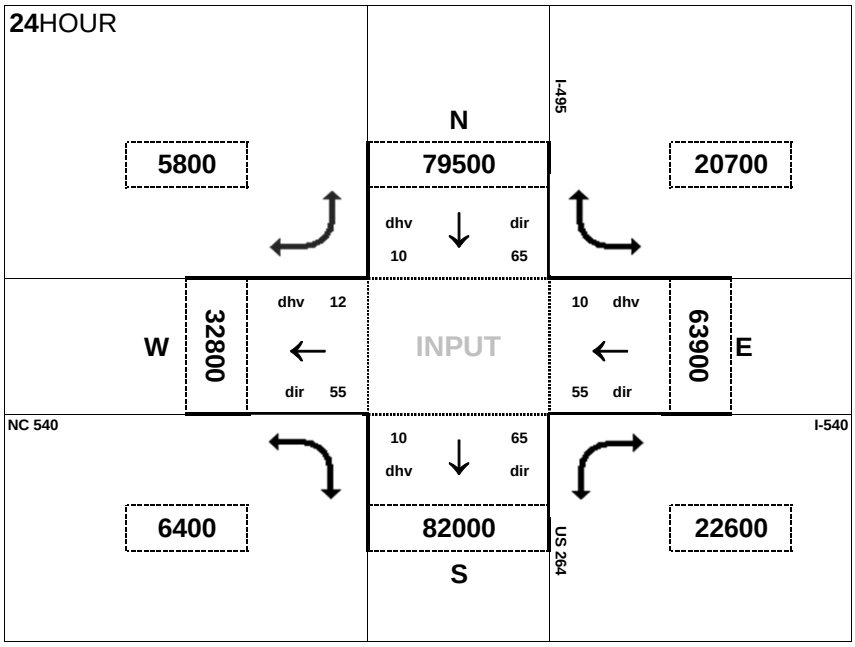
Project:
Complete 540 - Triangle Expressway Southeast Extension



AM peak hour inflow is 4392 vehicles. AM peak hour outflow is 4392 vehicles.



PM peak hour inflow is 4392 vehicles. PM peak hour outflow is 4392 vehicles.

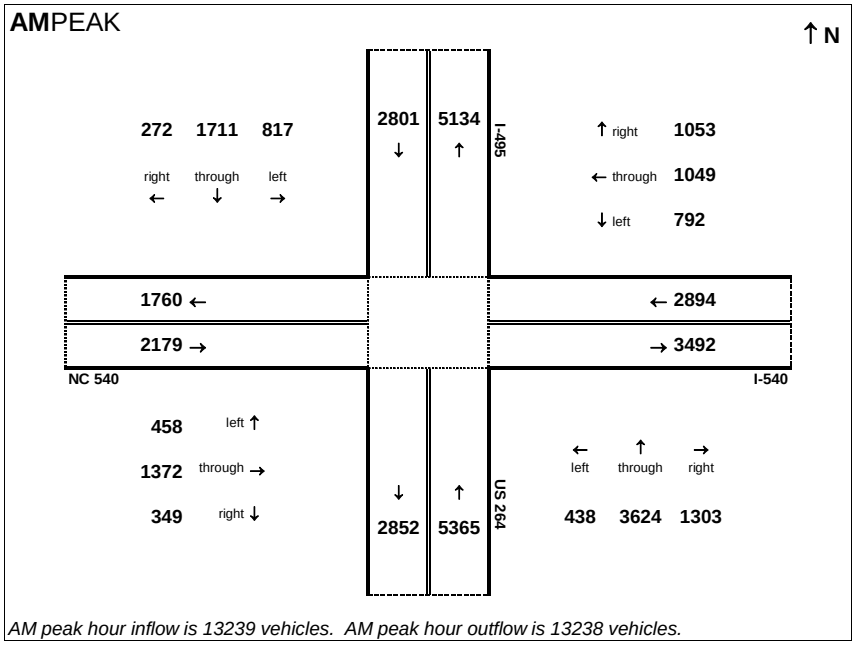


Peak Hour Volume Breakouts Report:
NC 540 & I-540 & I-495/US 264

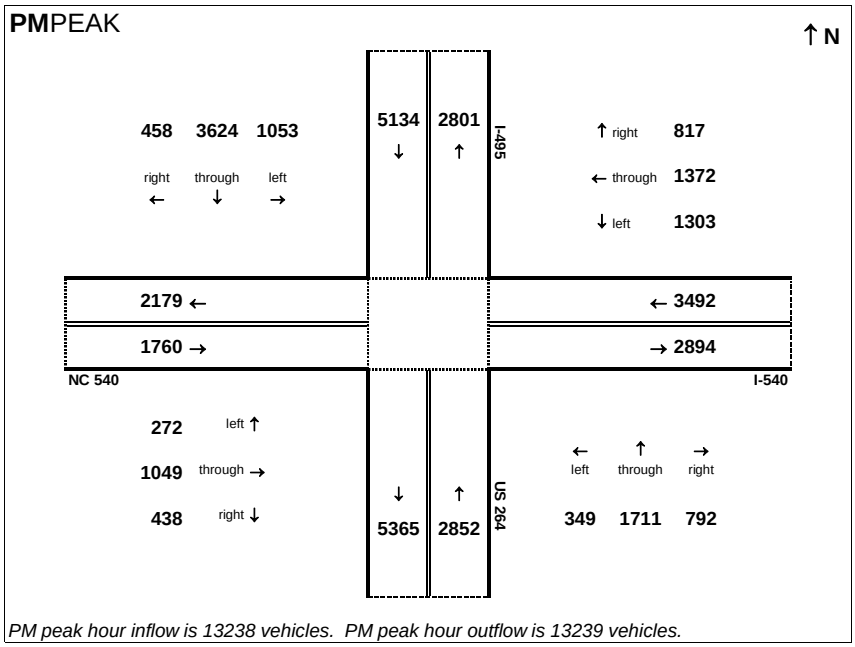
Traffic Forecast Release Date:
May-16

Traffic Data Year:
2016 Build

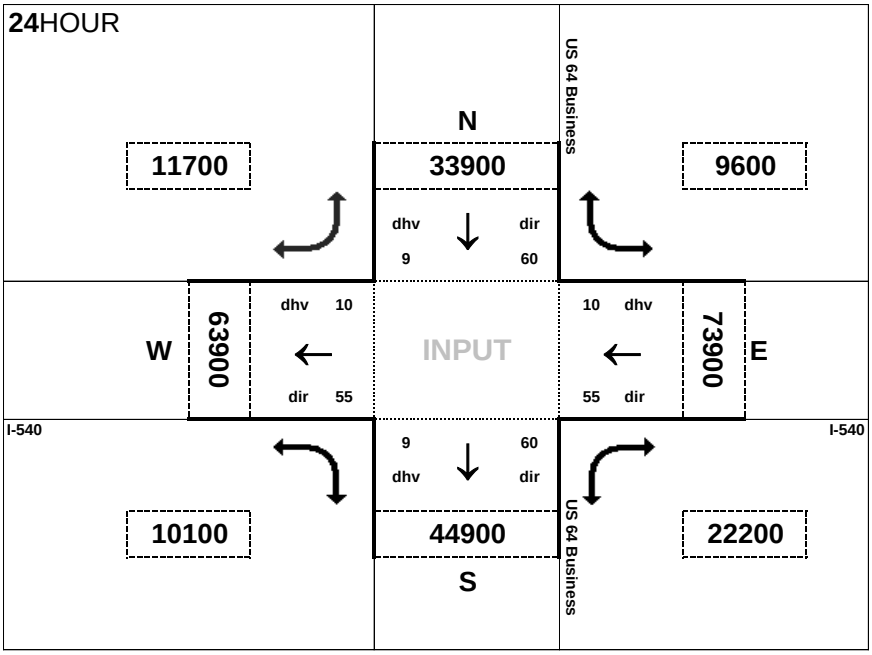
Project:
Complete 540 - Triangle Expressway Southeast Extension



AM peak hour inflow is 13239 vehicles. AM peak hour outflow is 13238 vehicles.



PM peak hour inflow is 13238 vehicles. PM peak hour outflow is 13239 vehicles.

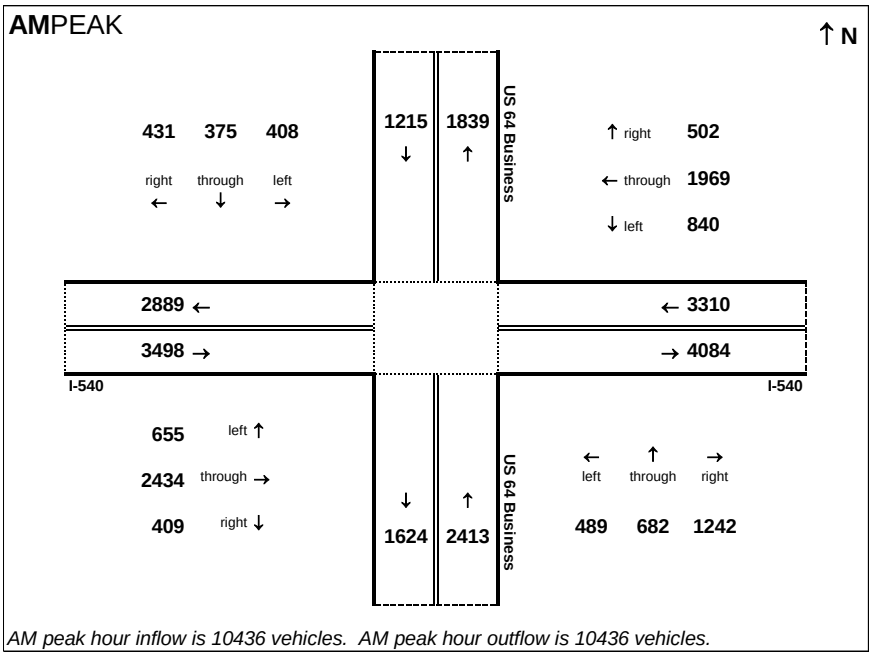


Peak Hour Volume Breakouts Report:
I-540 & US 64 Business

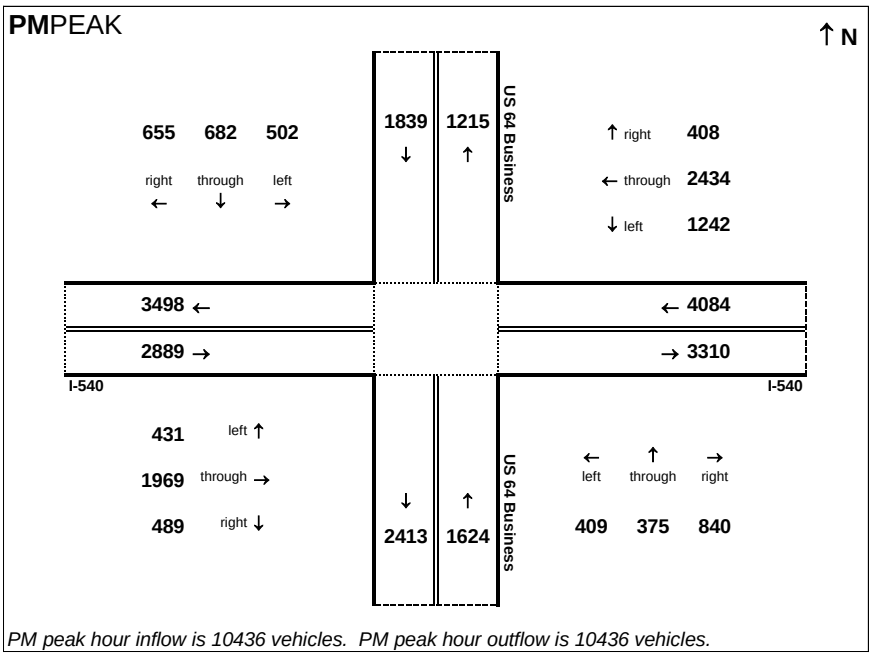
Traffic Forecast Release Date:
May-16

Traffic Data Year:
2016 Build

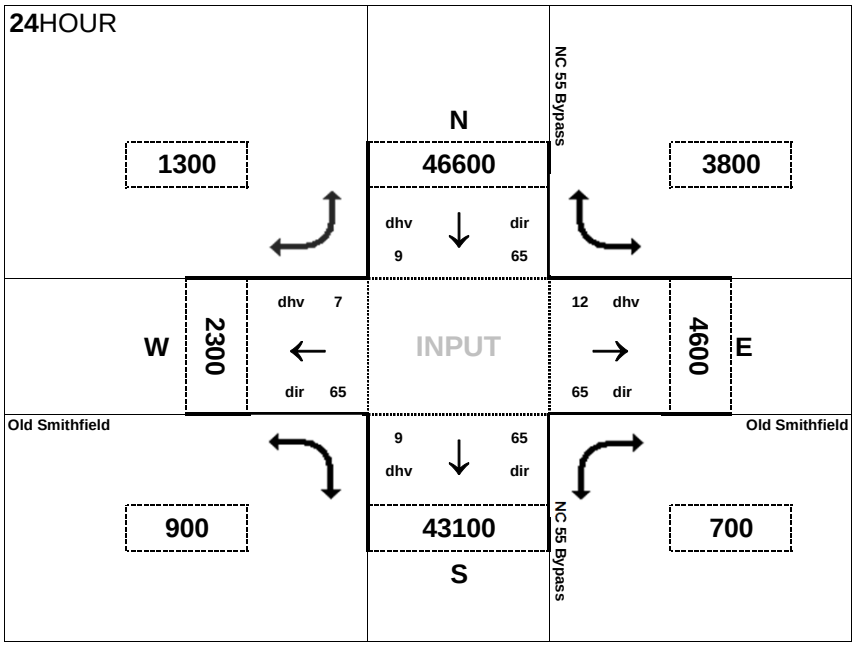
Project:
Complete 540 - Triangle Expressway Southeast Extension



AM peak hour inflow is 10436 vehicles. AM peak hour outflow is 10436 vehicles.



PM peak hour inflow is 10436 vehicles. PM peak hour outflow is 10436 vehicles.

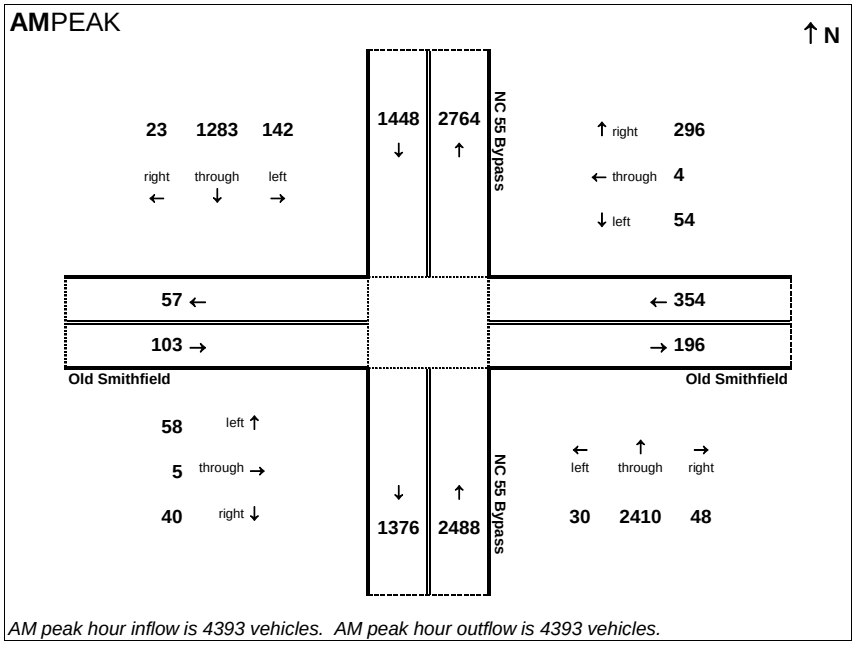


Peak Hour Volume Breakouts Report:
NC 55 Bypass & Old Smithfield

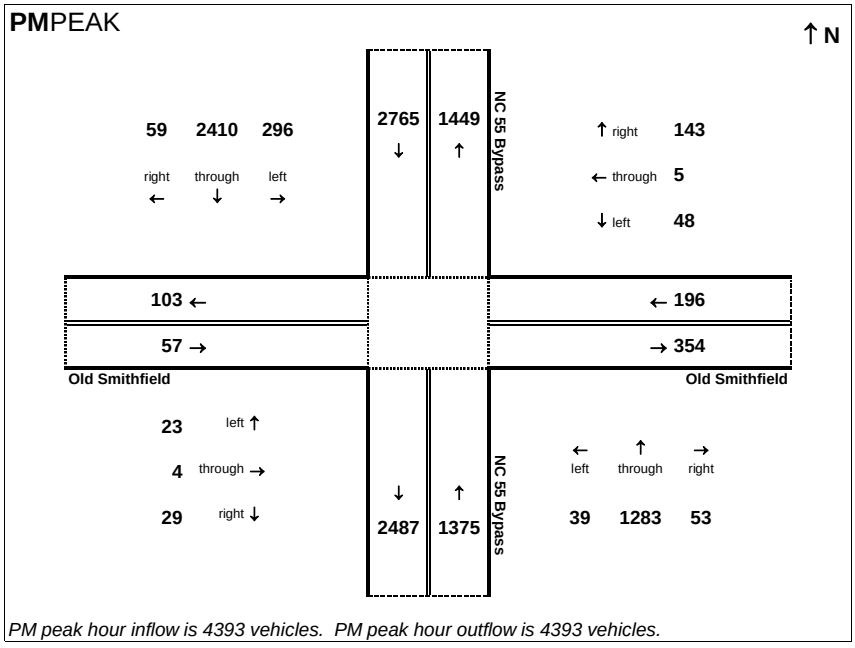
Traffic Forecast Release Date:
May-16

Traffic Data Year:
2016 Build

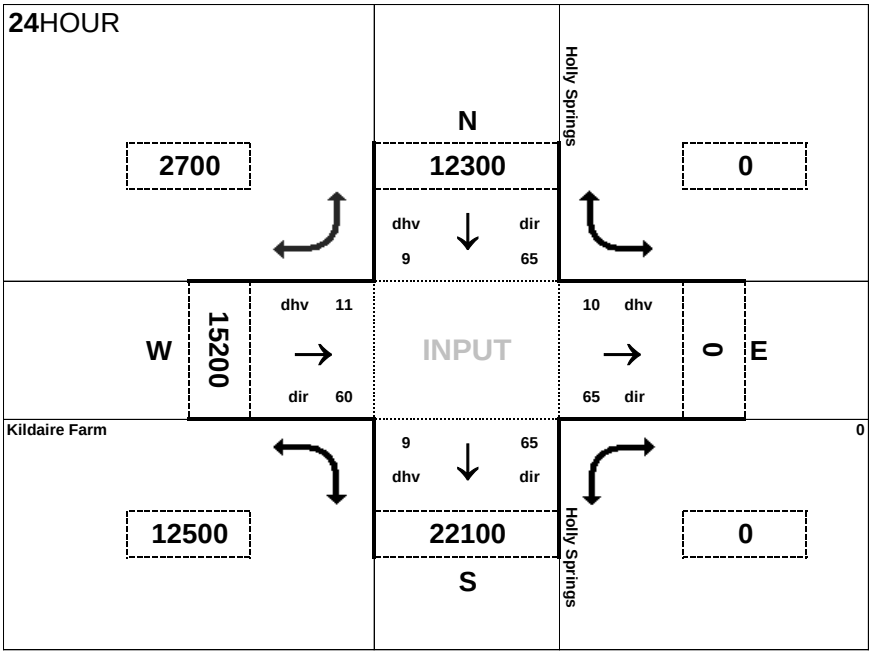
Project:
Complete 540 - Triangle Expressway Southeast Extension

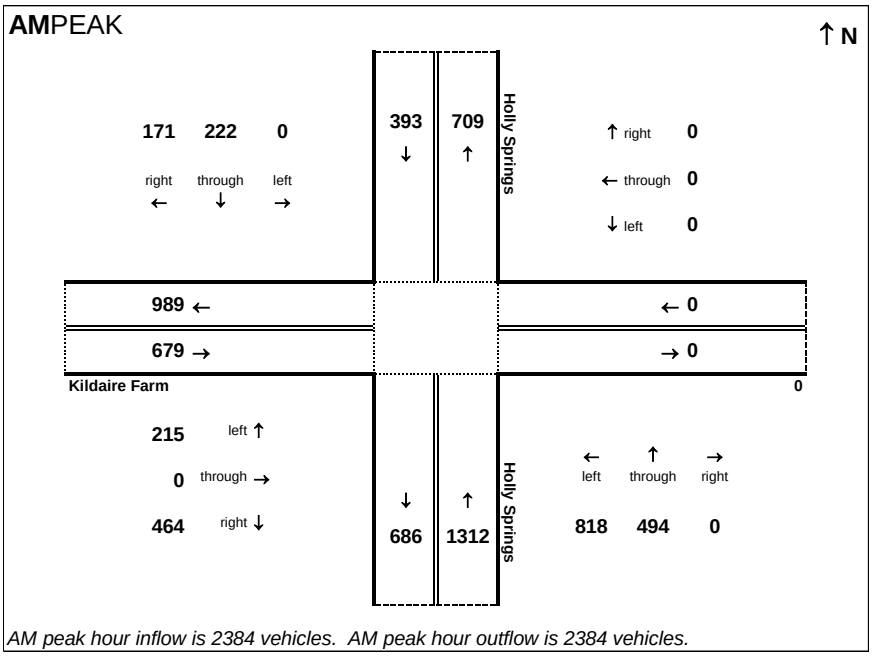


AM peak hour inflow is 4393 vehicles. AM peak hour outflow is 4393 vehicles.

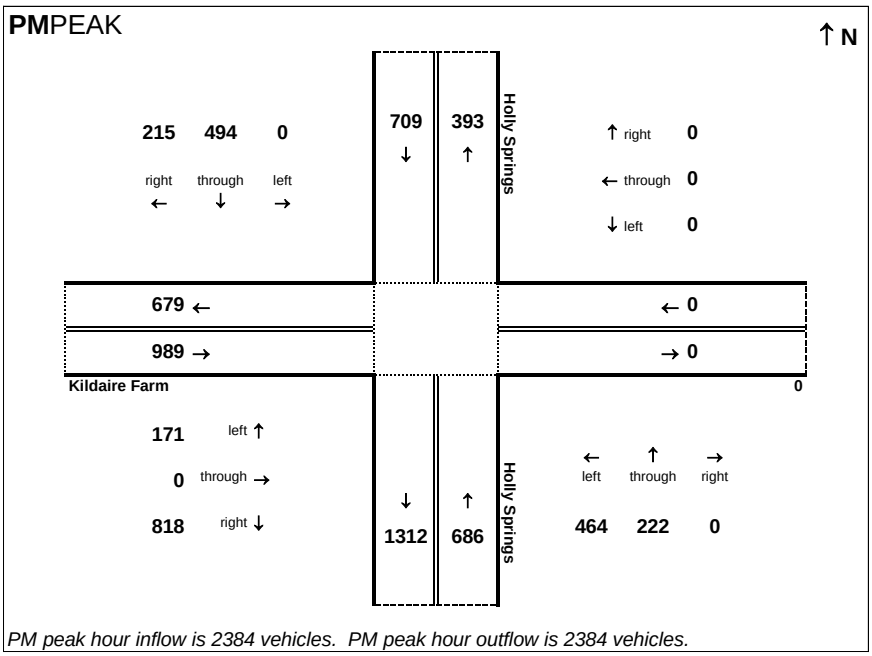


PM peak hour inflow is 4393 vehicles. PM peak hour outflow is 4393 vehicles.





AM peak hour inflow is 2384 vehicles. AM peak hour outflow is 2384 vehicles.



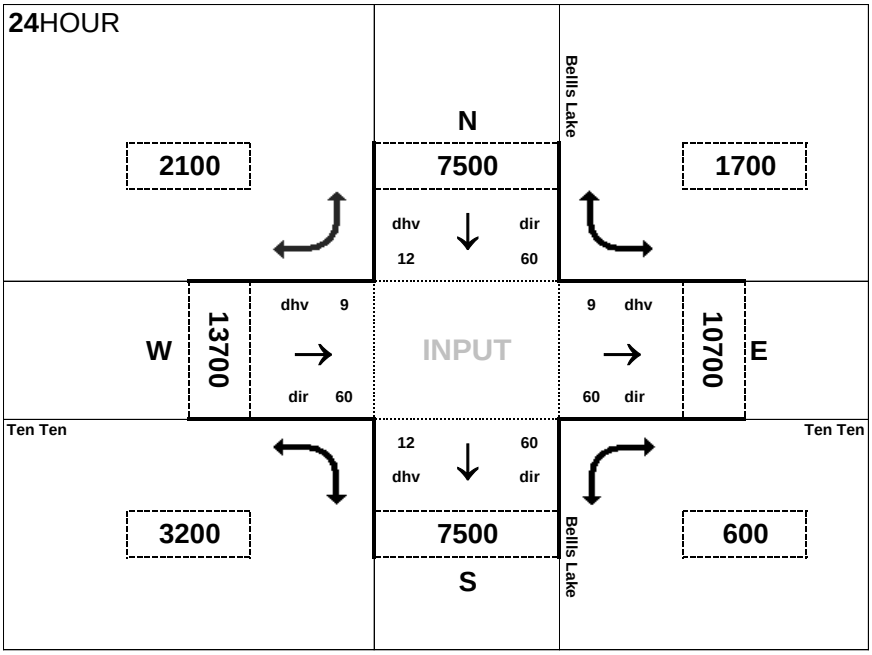
PM peak hour inflow is 2384 vehicles. PM peak hour outflow is 2384 vehicles.

Peak Hour Volume Breakouts Report:
Holly Springs & Kildaire Farm

Traffic Forecast Release Date:
May-16

Traffic Data Year:
2016 Build

Project:
Complete 540 - Triangle Expressway Southeast Extension

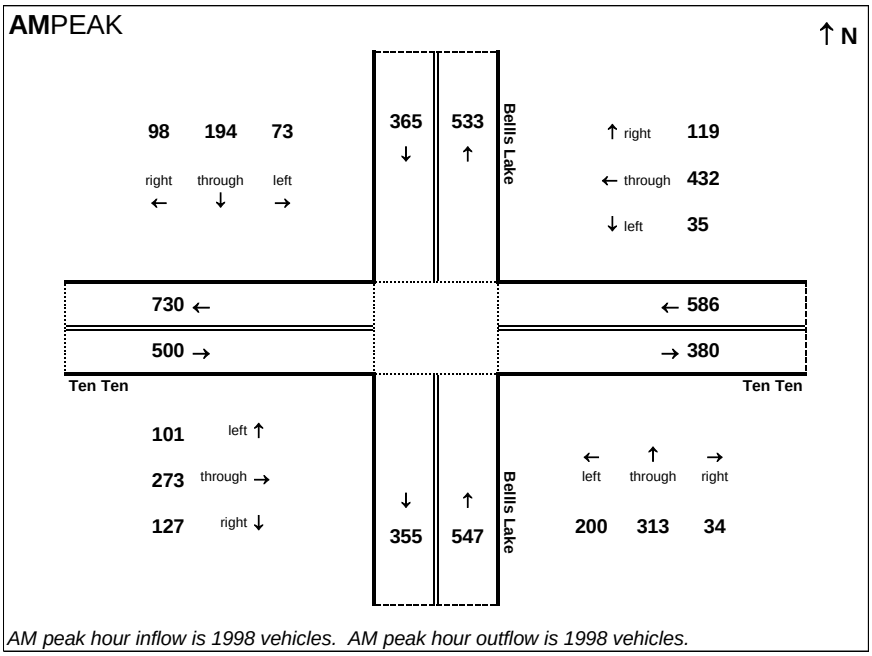


Peak Hour Volume Breakouts Report:
Bellls Lake & Ten Ten

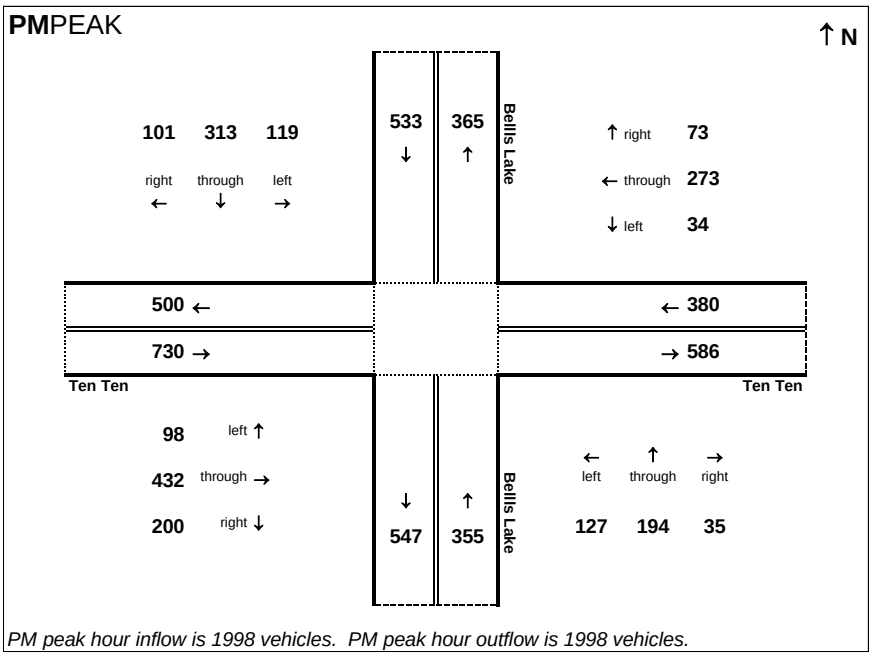
Traffic Forecast Release Date:
May-16

Traffic Data Year:
2016 Build

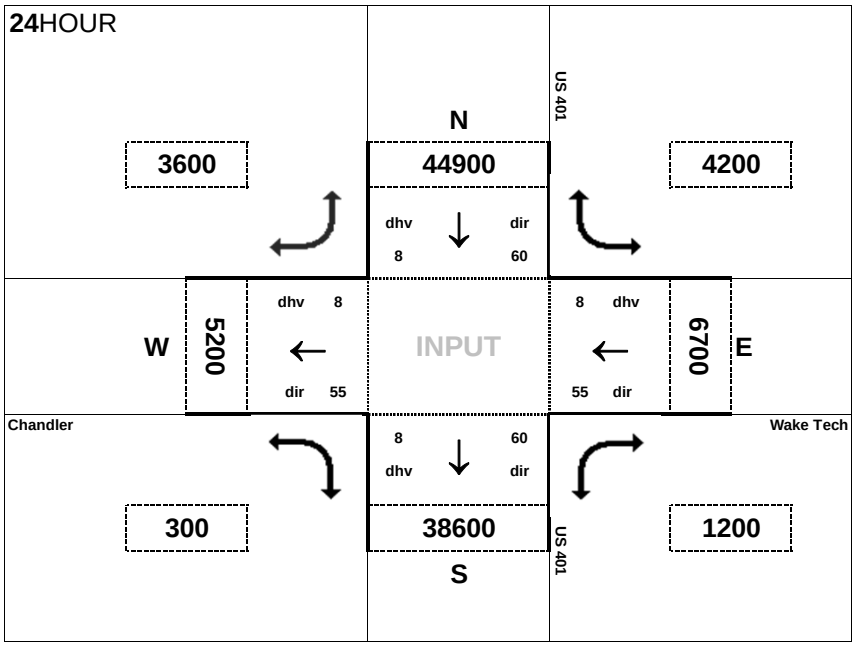
Project:
Complete 540 - Triangle Expressway Southeast Extension



AM peak hour inflow is 1998 vehicles. AM peak hour outflow is 1998 vehicles.



PM peak hour inflow is 1998 vehicles. PM peak hour outflow is 1998 vehicles.

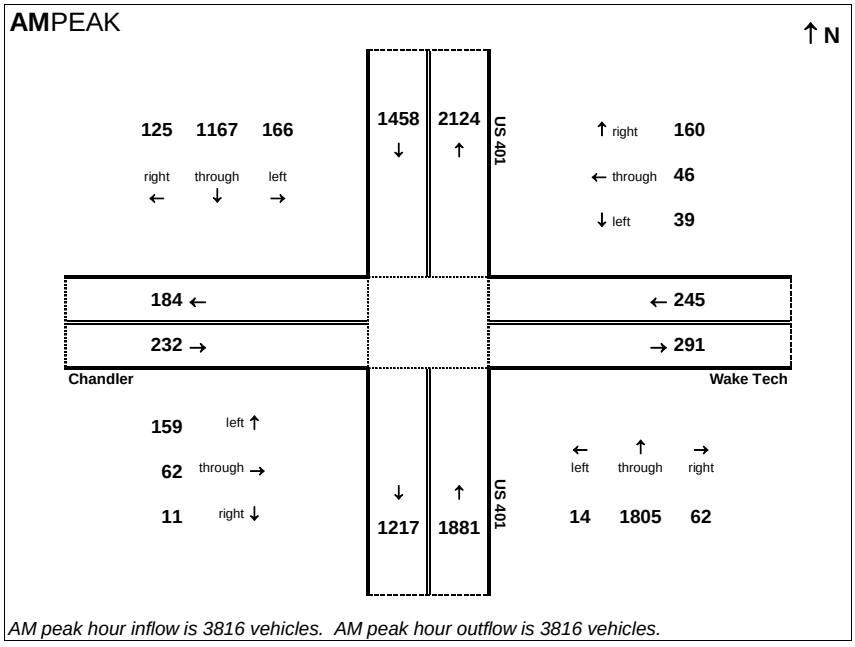


Peak Hour Volume Breakouts Report:
US 401 & Chandler & Wake Tech

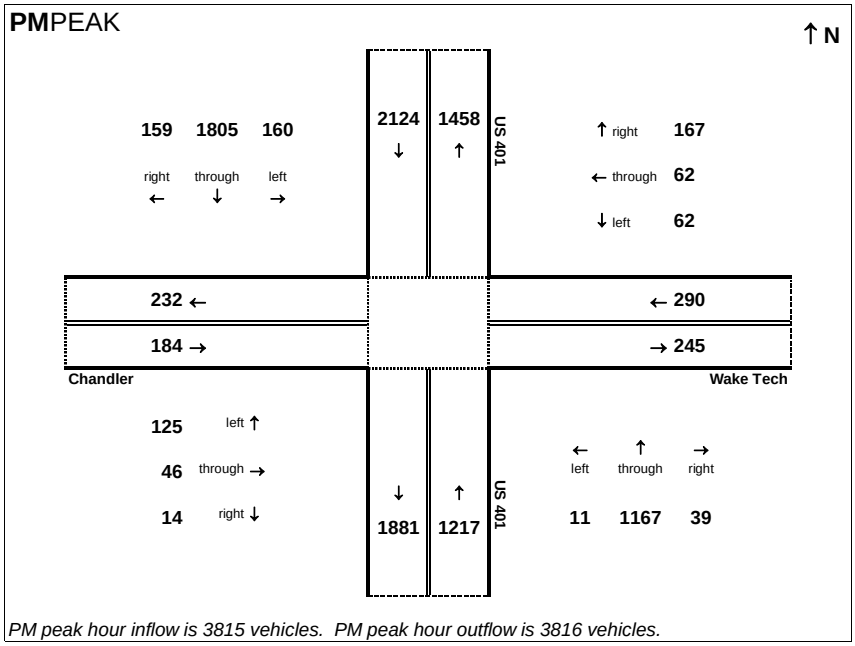
Traffic Forecast Release Date:
May-16

Traffic Data Year:
2016 Build

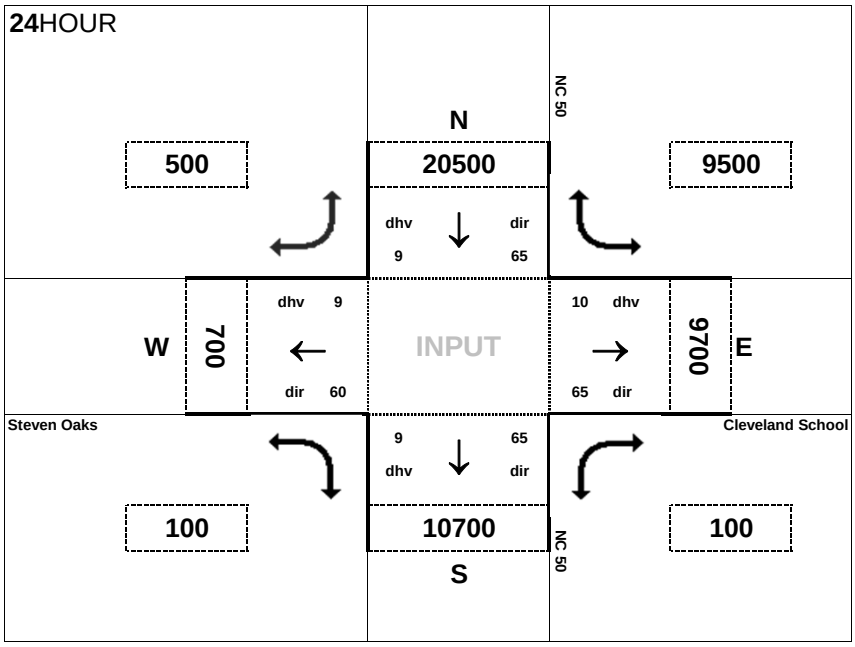
Project:
Complete 540 - Triangle Expressway Southeast Extension



AM peak hour inflow is 3816 vehicles. AM peak hour outflow is 3816 vehicles.



PM peak hour inflow is 3815 vehicles. PM peak hour outflow is 3816 vehicles.

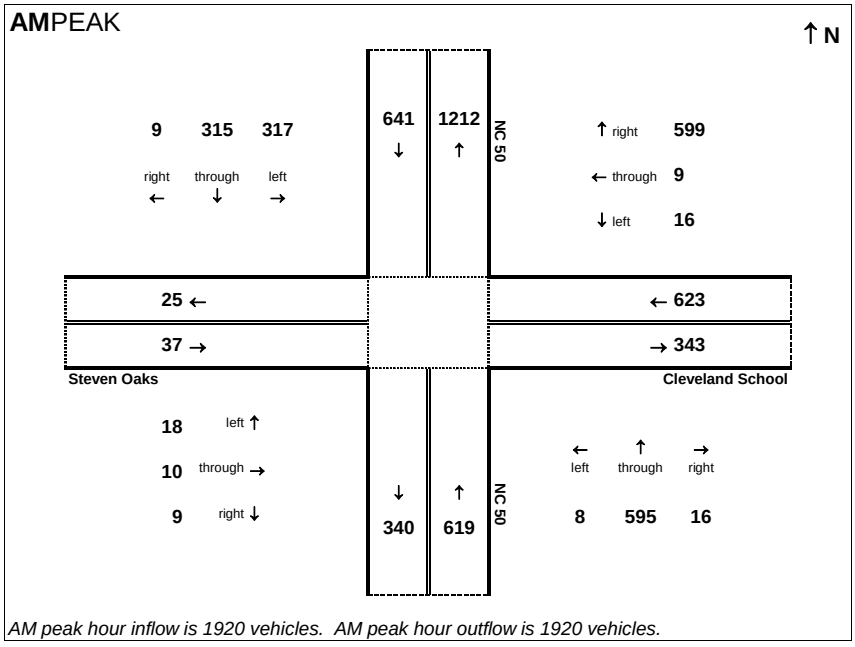


Peak Hour Volume Breakouts Report:
NC 50 & Cleveland School

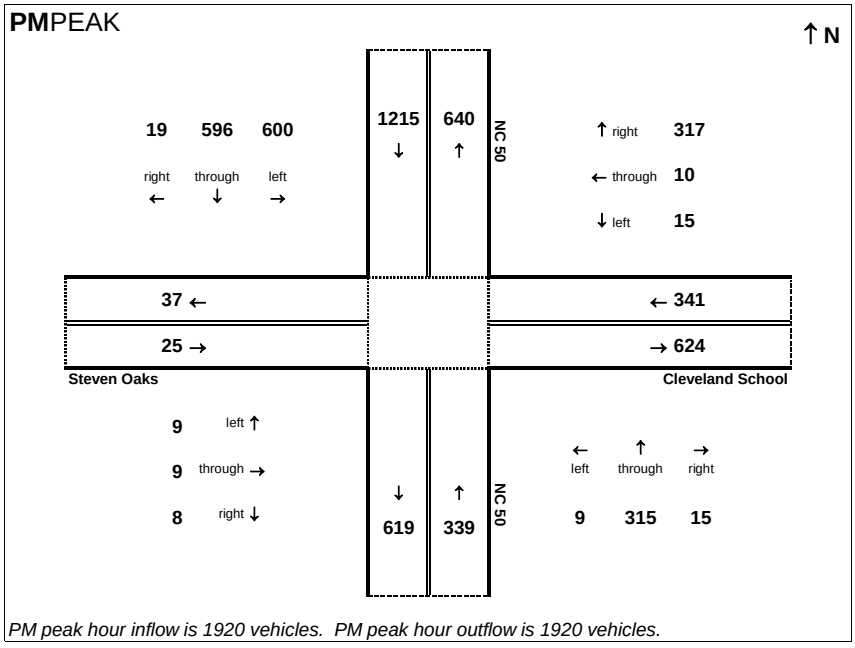
Traffic Forecast Release Date:
May-16

Traffic Data Year:
2016 Build

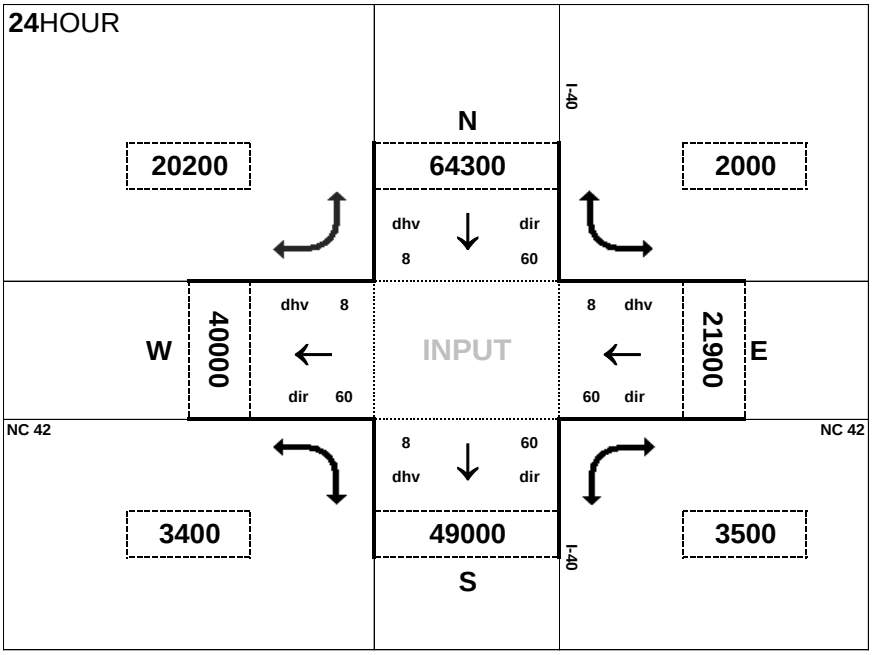
Project:
Complete 540 - Triangle Expressway Southeast Extension



AM peak hour inflow is 1920 vehicles. AM peak hour outflow is 1920 vehicles.



PM peak hour inflow is 1920 vehicles. PM peak hour outflow is 1920 vehicles.

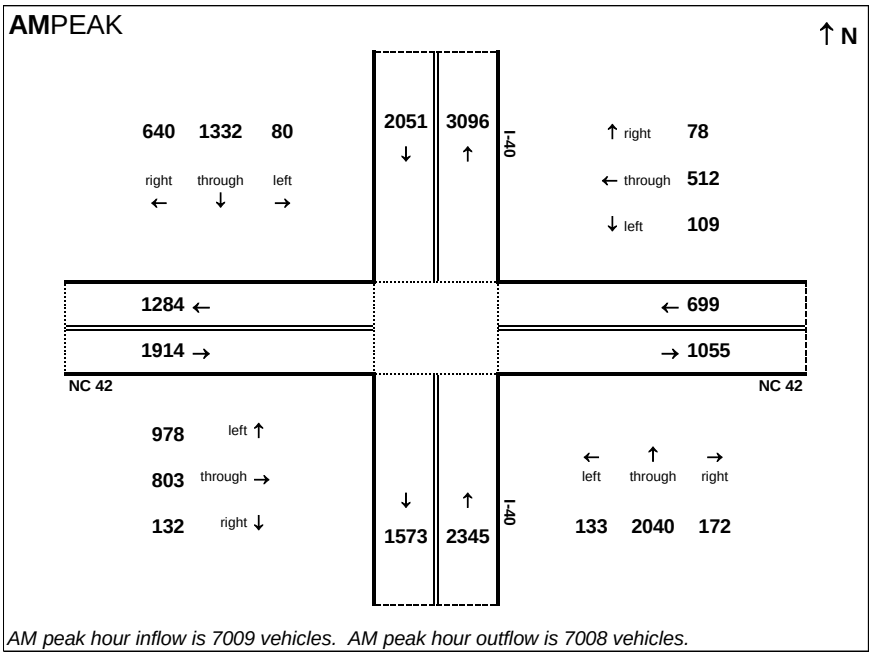


Peak Hour Volume Breakouts Report:
I-40 & NC 42

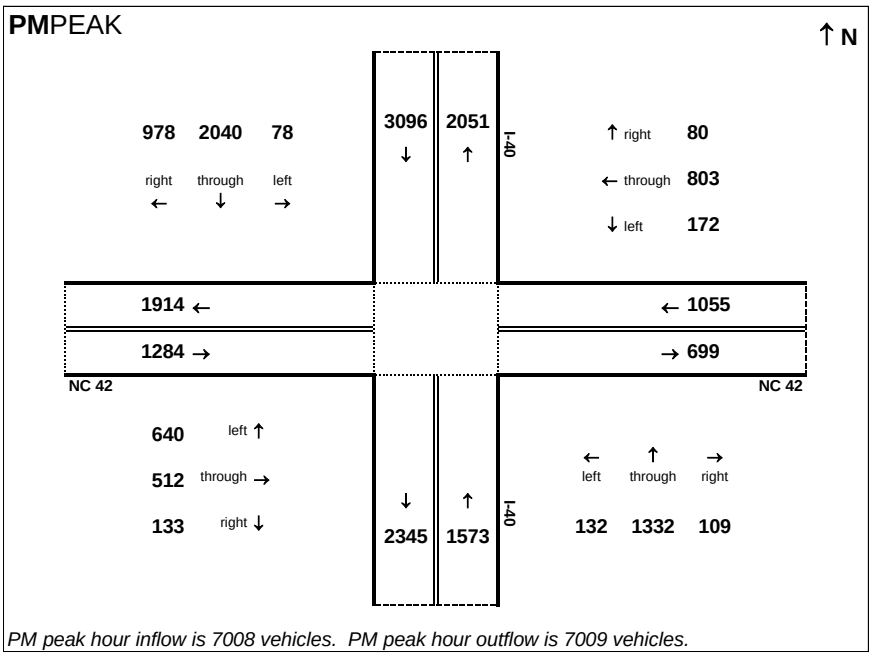
Traffic Forecast Release Date:
May-16

Traffic Data Year:
2016 Build

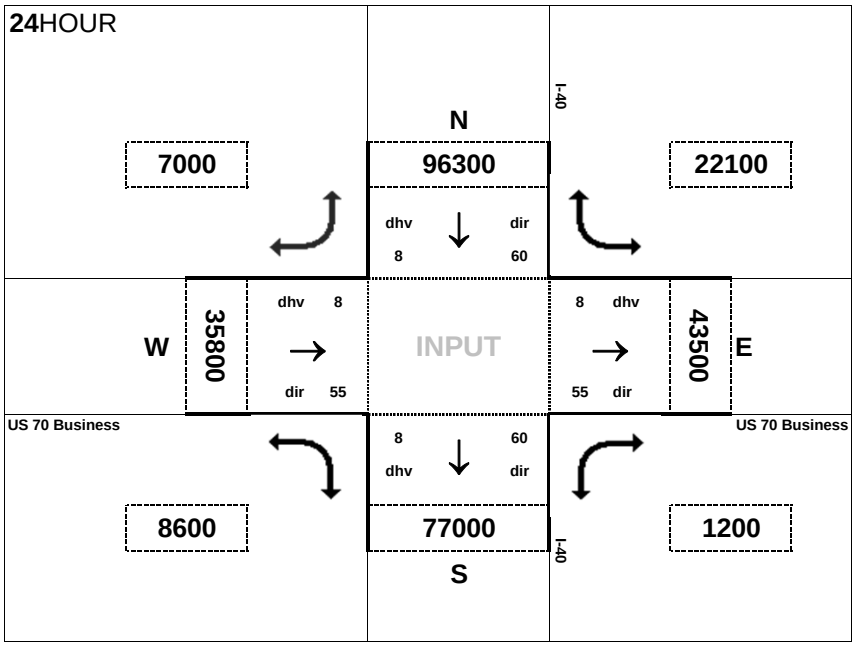
Project:
Complete 540 - Triangle Expressway Southeast Extension



AM peak hour inflow is 7009 vehicles. AM peak hour outflow is 7008 vehicles.



PM peak hour inflow is 7008 vehicles. PM peak hour outflow is 7009 vehicles.

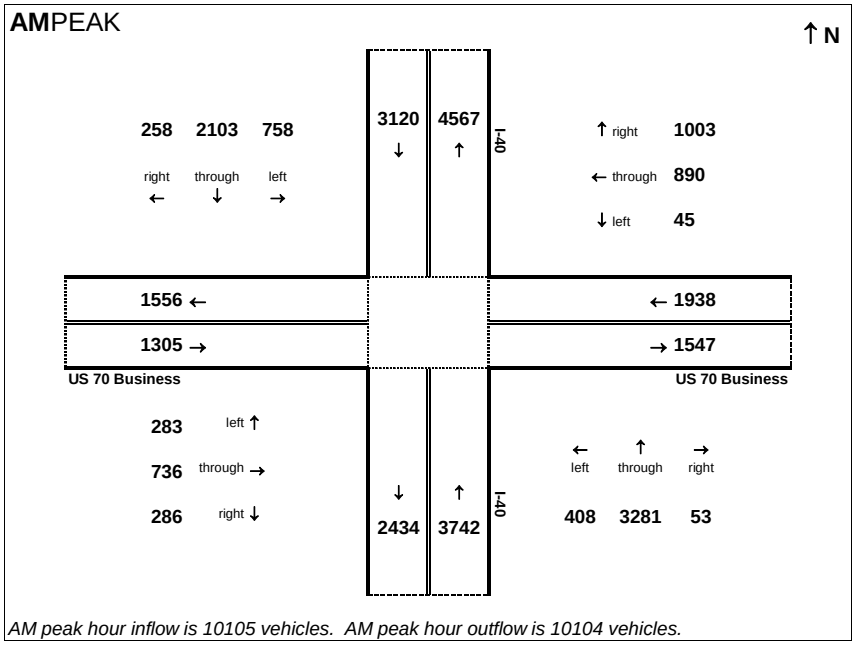


Peak Hour Volume Breakouts Report:
I-40 & US 70 Business

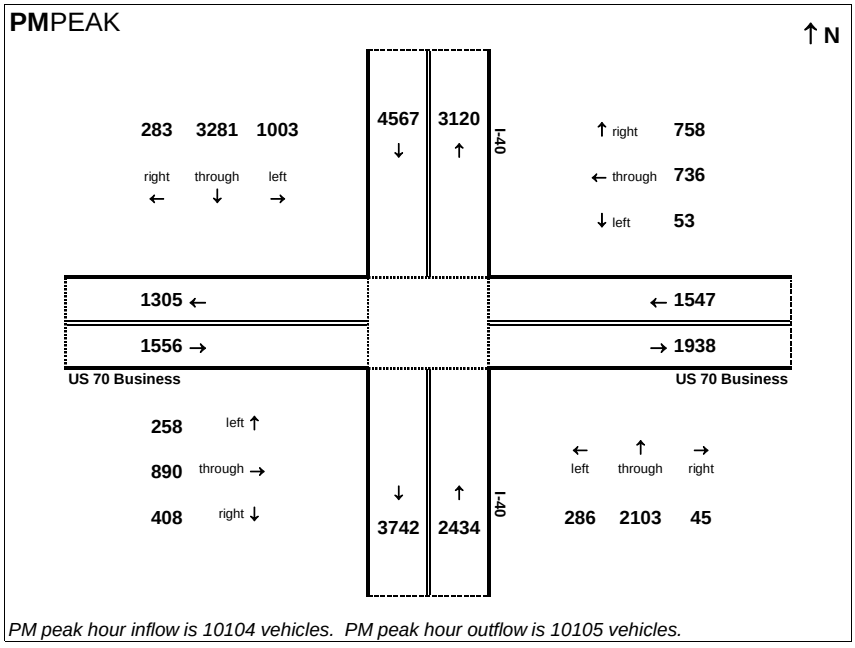
Traffic Forecast Release Date:
May-16

Traffic Data Year:
2016 Build

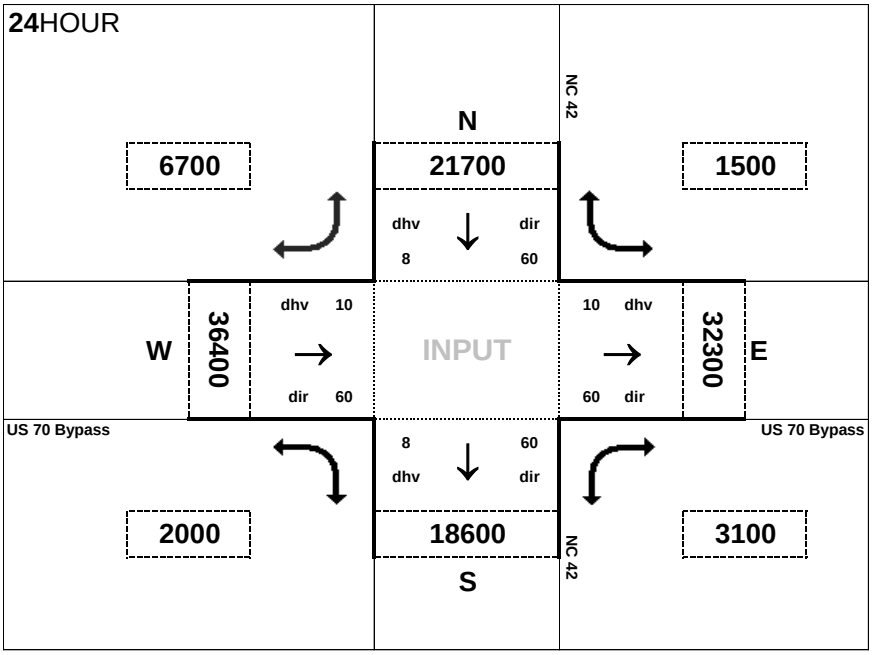
Project:
Complete 540 - Triangle Expressway Southeast Extension



AM peak hour inflow is 10105 vehicles. AM peak hour outflow is 10104 vehicles.



PM peak hour inflow is 10104 vehicles. PM peak hour outflow is 10105 vehicles.

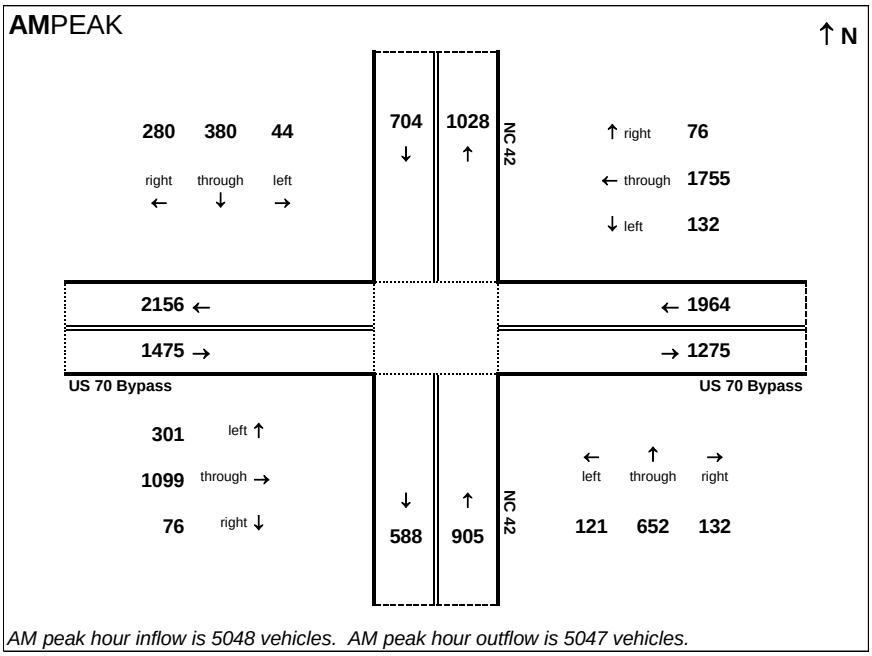


Peak Hour Volume Breakouts Report:
US 70 Bypass & NC 42

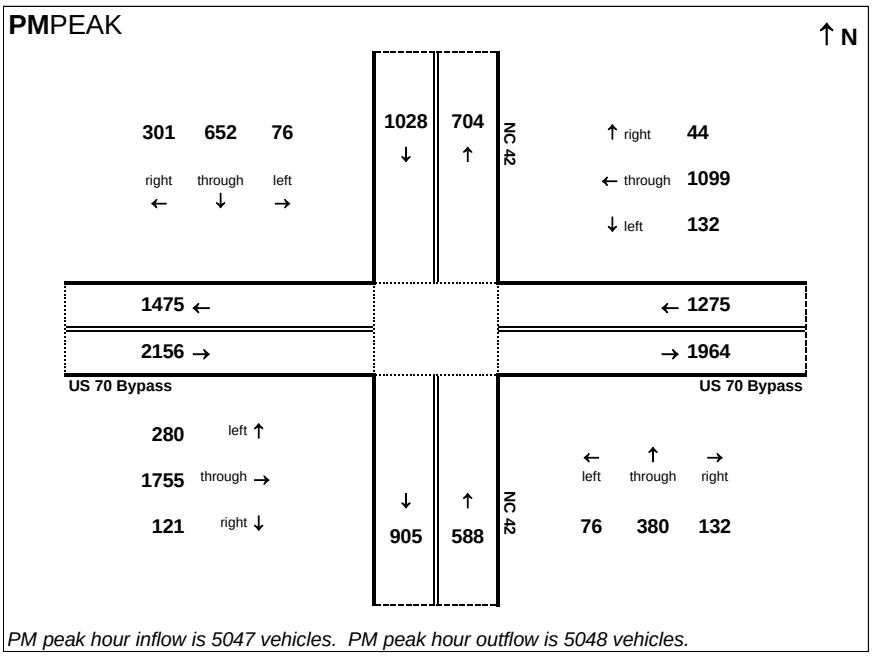
Traffic Forecast Release Date:
May-16

Traffic Data Year:
2016 Build

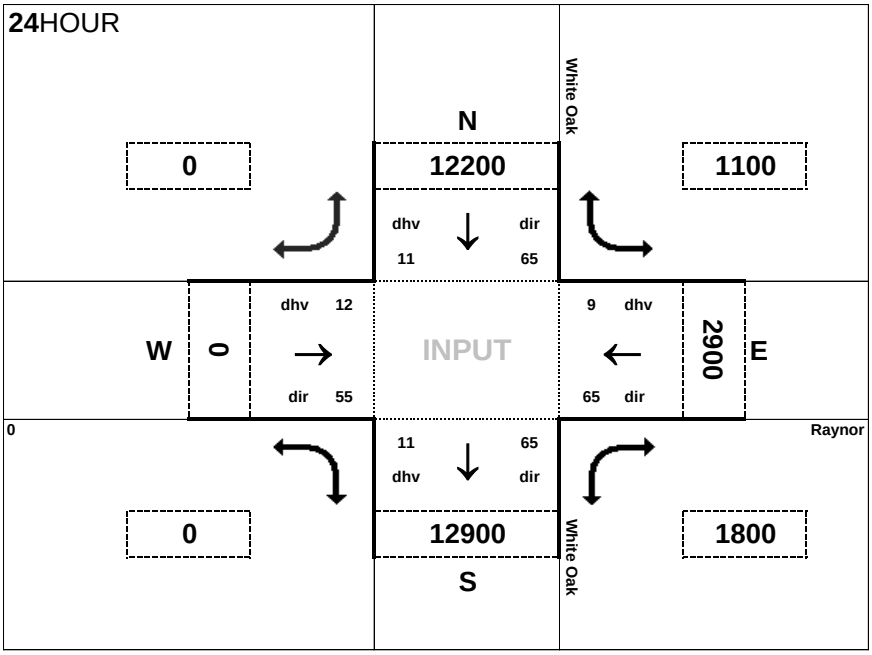
Project:
Complete 540 - Triangle Expressway Southeast Extension



AM peak hour inflow is 5048 vehicles. AM peak hour outflow is 5047 vehicles.



PM peak hour inflow is 5047 vehicles. PM peak hour outflow is 5048 vehicles.

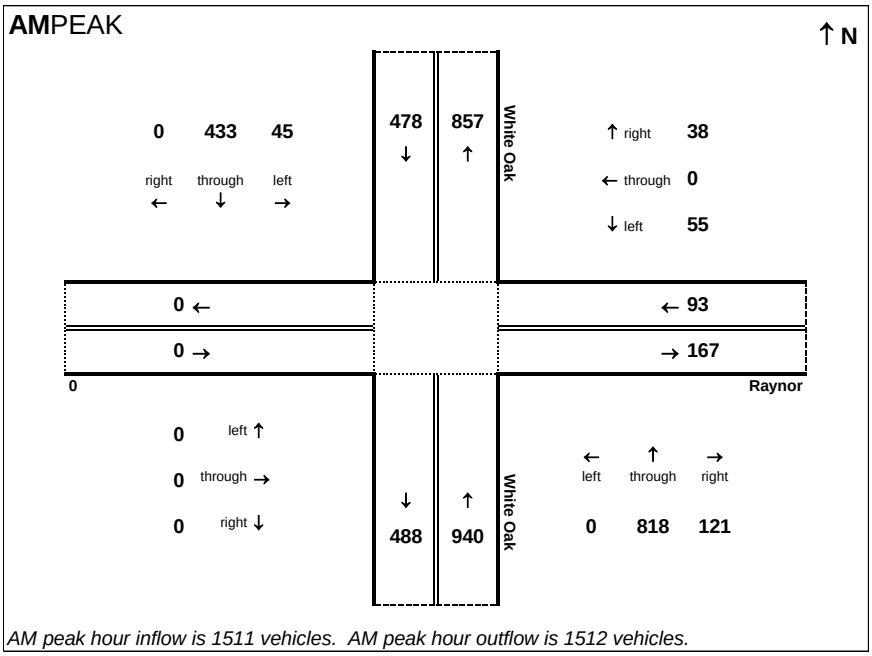


Peak Hour Volume Breakouts Report:
White Oak & Raynor

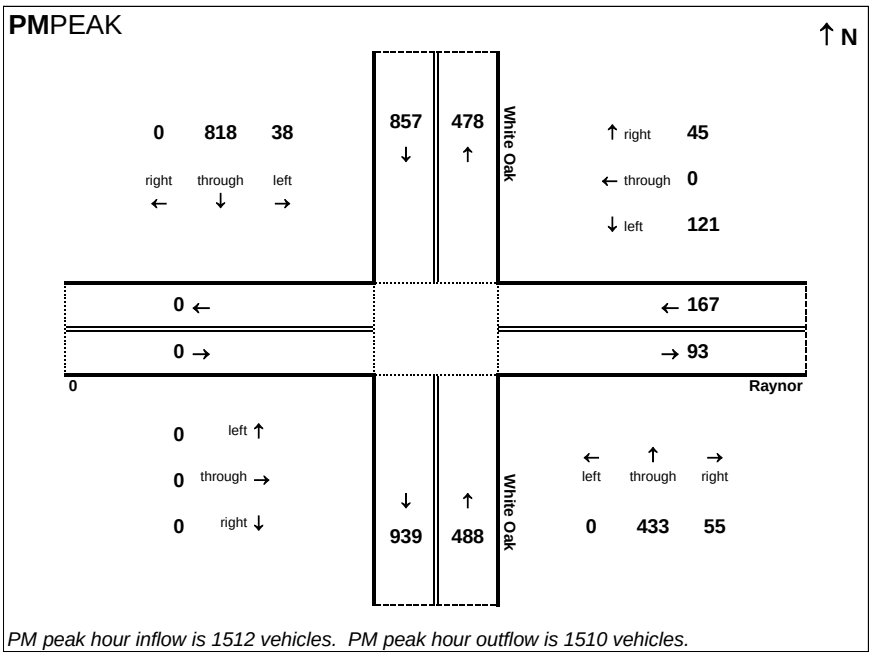
Traffic Forecast Release Date:
May-16

Traffic Data Year:
2016 Build

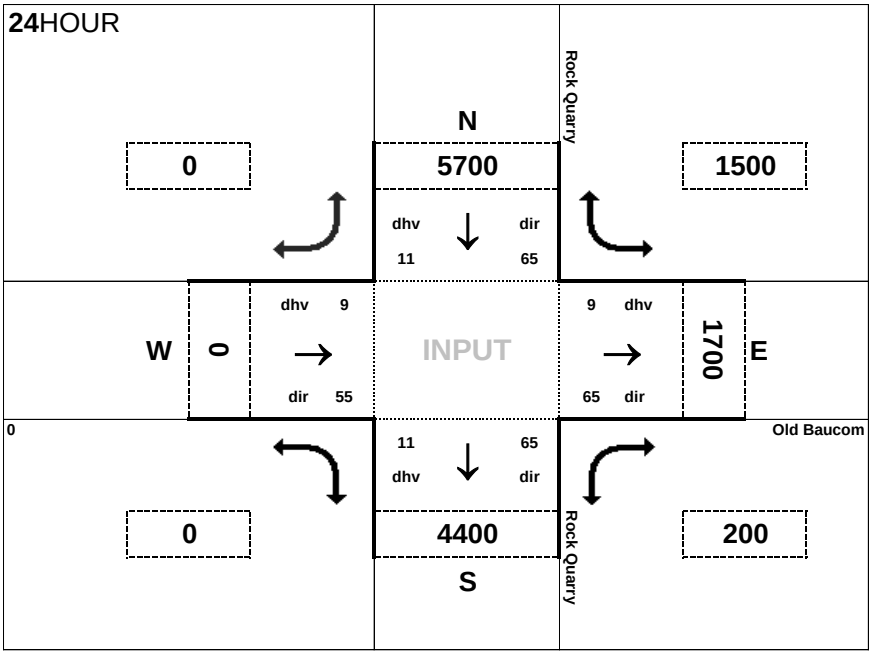
Project:
Complete 540 - Triangle Expressway Southeast Extension



AM peak hour inflow is 1511 vehicles. AM peak hour outflow is 1512 vehicles.



PM peak hour inflow is 1512 vehicles. PM peak hour outflow is 1510 vehicles.

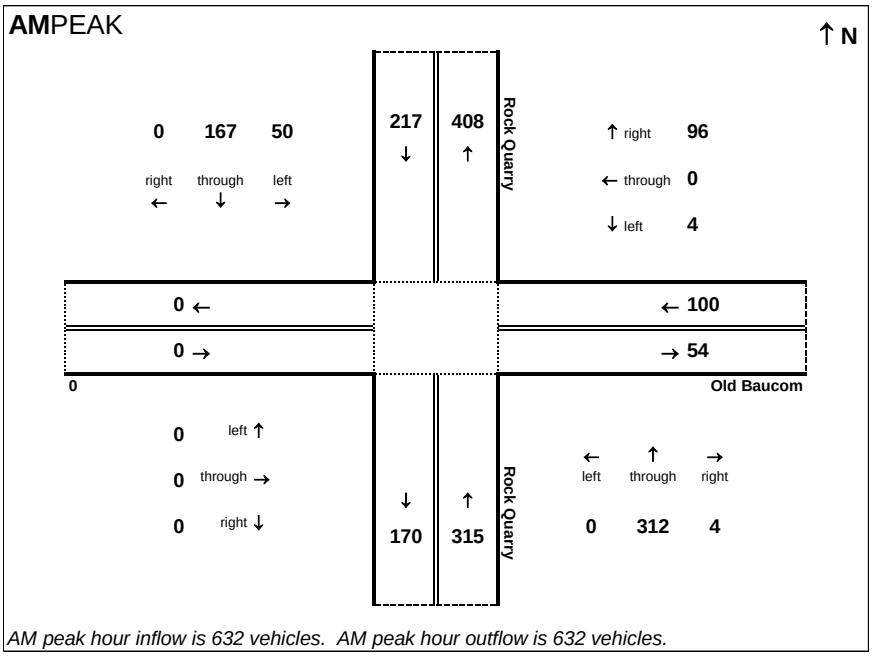


Peak Hour Volume Breakouts Report:
Rock Quarry & Old Baucom

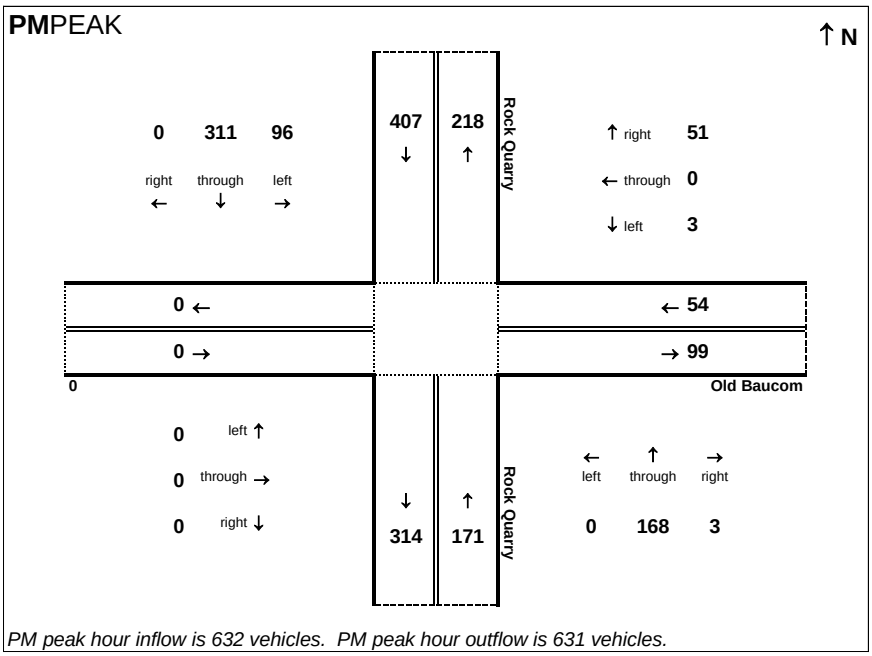
Traffic Forecast Release Date:
May-16

Traffic Data Year:
2016 Build

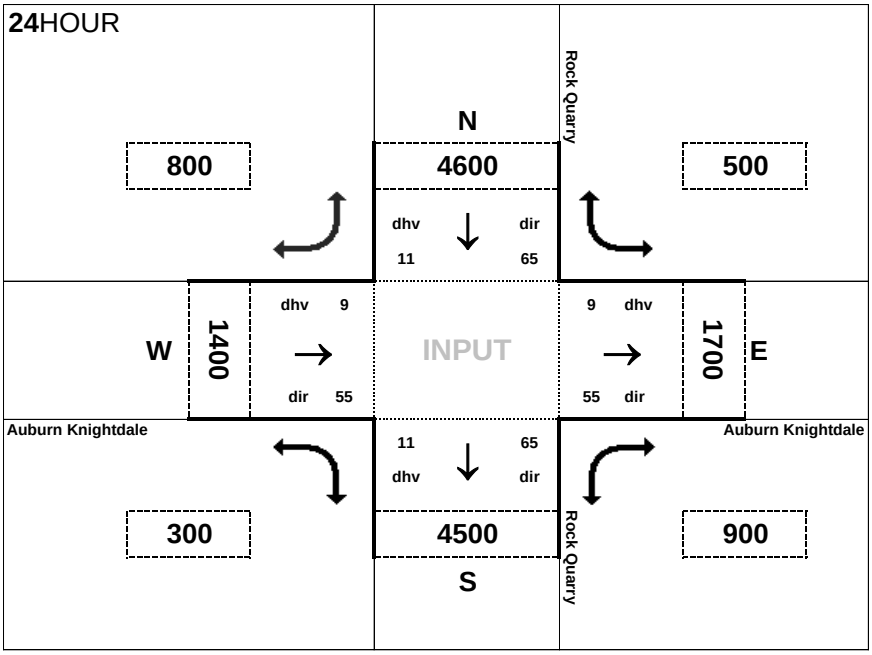
Project:
Complete 540 - Triangle Expressway Southeast Extension



AM peak hour inflow is 632 vehicles. AM peak hour outflow is 632 vehicles.



PM peak hour inflow is 632 vehicles. PM peak hour outflow is 631 vehicles.

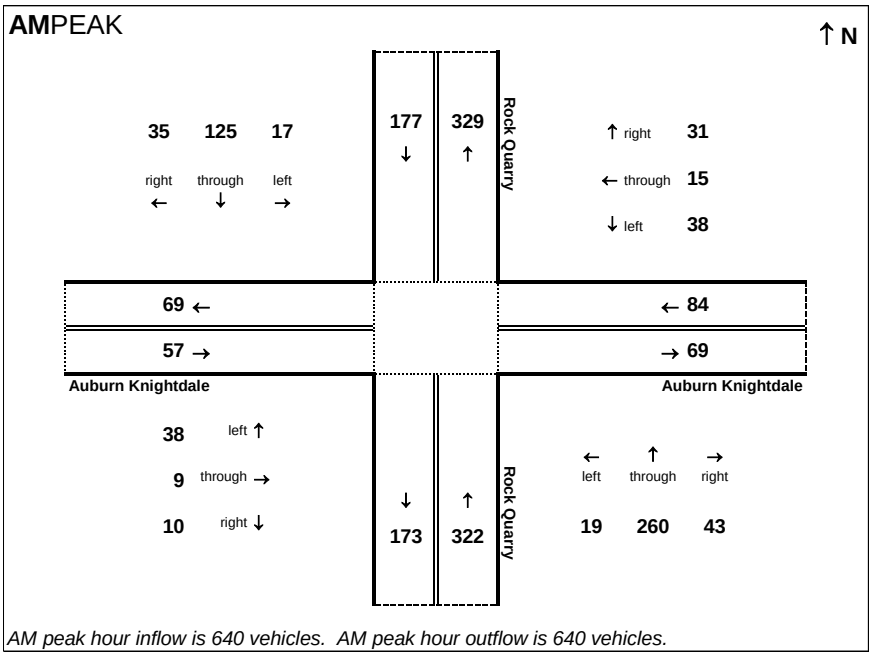


Peak Hour Volume Breakouts Report:
Rock Quarry & Auburn Knightdale

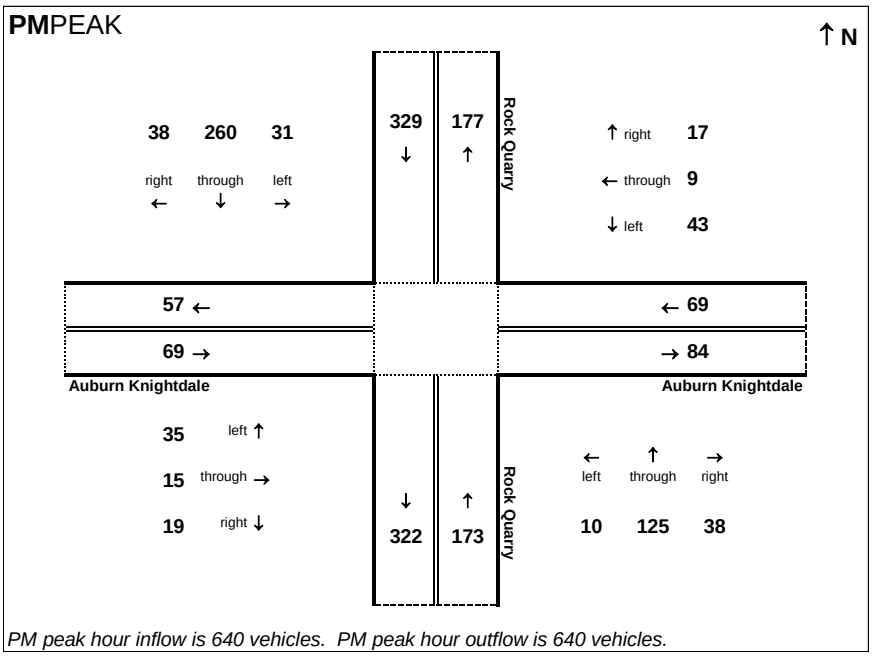
Traffic Forecast Release Date:
May-16

Traffic Data Year:
2016 Build

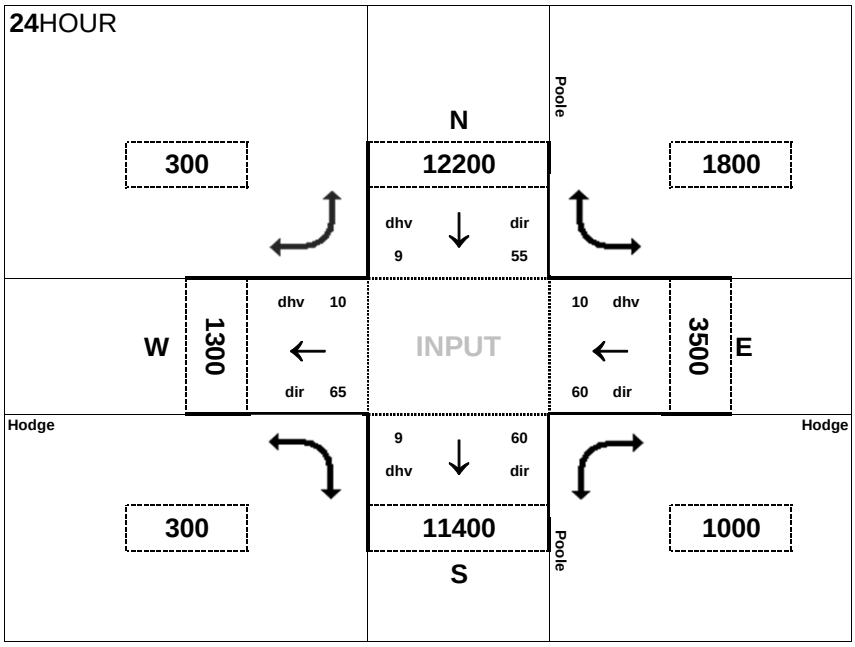
Project:
Complete 540 - Triangle Expressway Southeast Extension



AM peak hour inflow is 640 vehicles. AM peak hour outflow is 640 vehicles.



PM peak hour inflow is 640 vehicles. PM peak hour outflow is 640 vehicles.

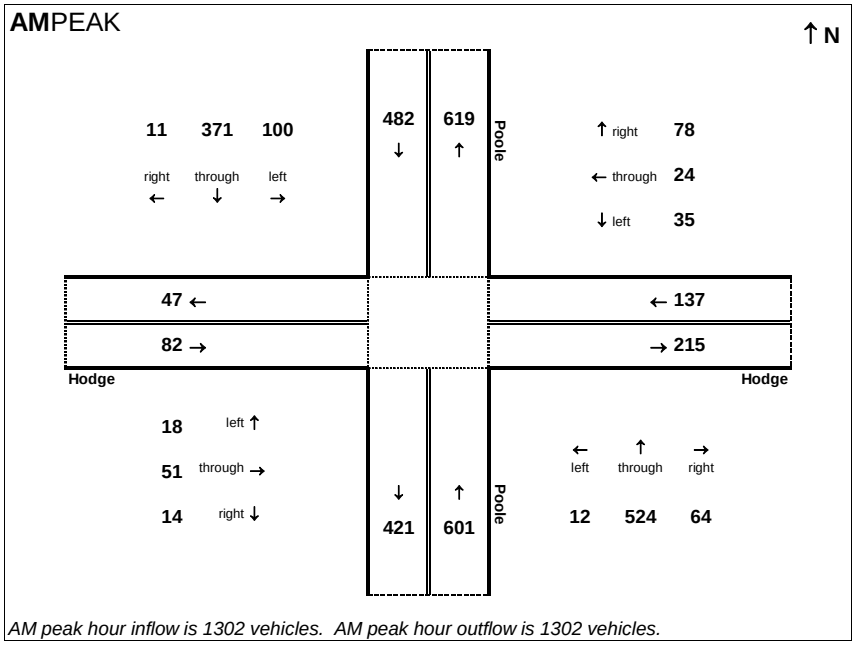


Peak Hour Volume Breakouts Report:
Poole & Hodge

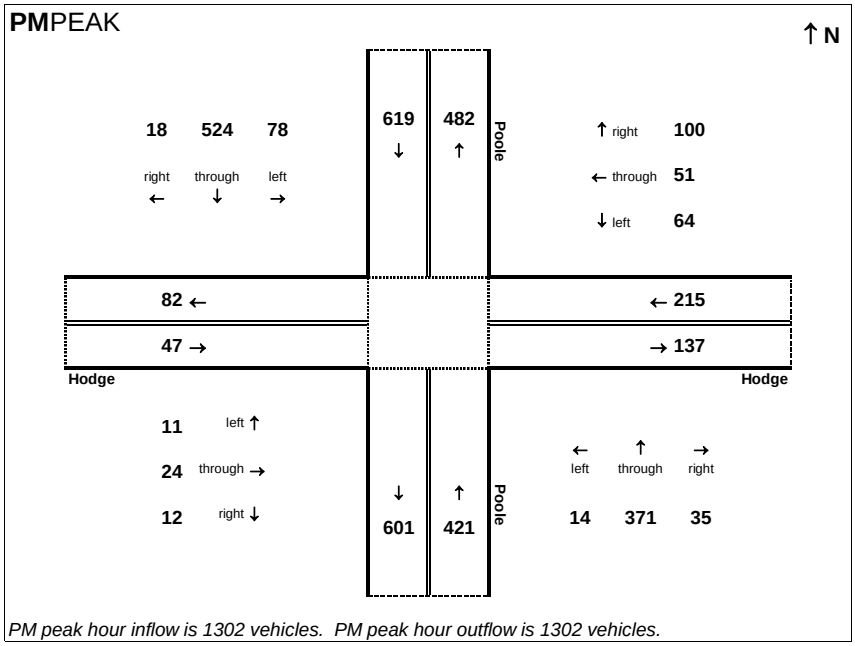
Traffic Forecast Release Date:
May-16

Traffic Data Year:
2016 Build

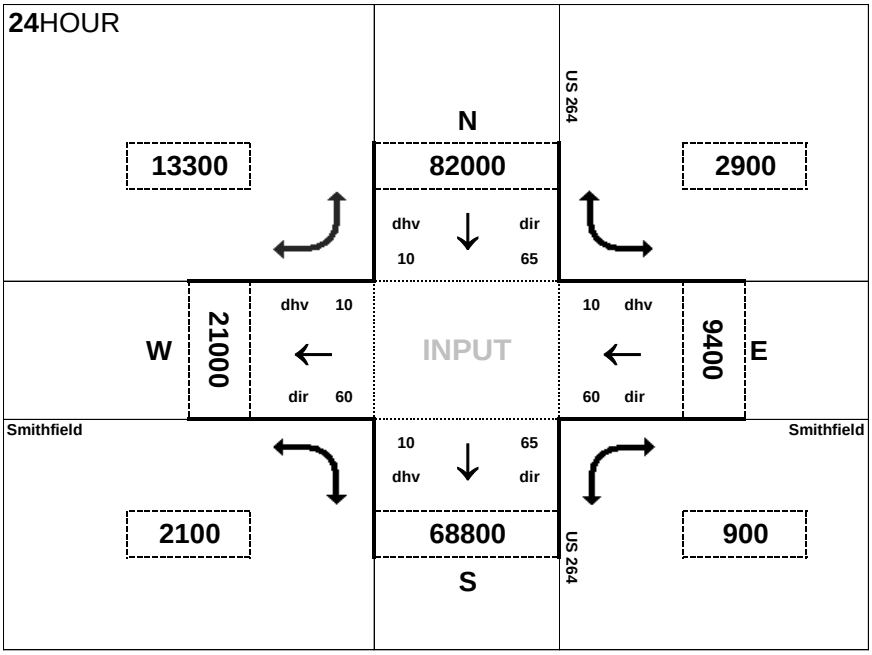
Project:
Complete 540 - Triangle Expressway Southeast Extension



AM peak hour inflow is 1302 vehicles. AM peak hour outflow is 1302 vehicles.



PM peak hour inflow is 1302 vehicles. PM peak hour outflow is 1302 vehicles.

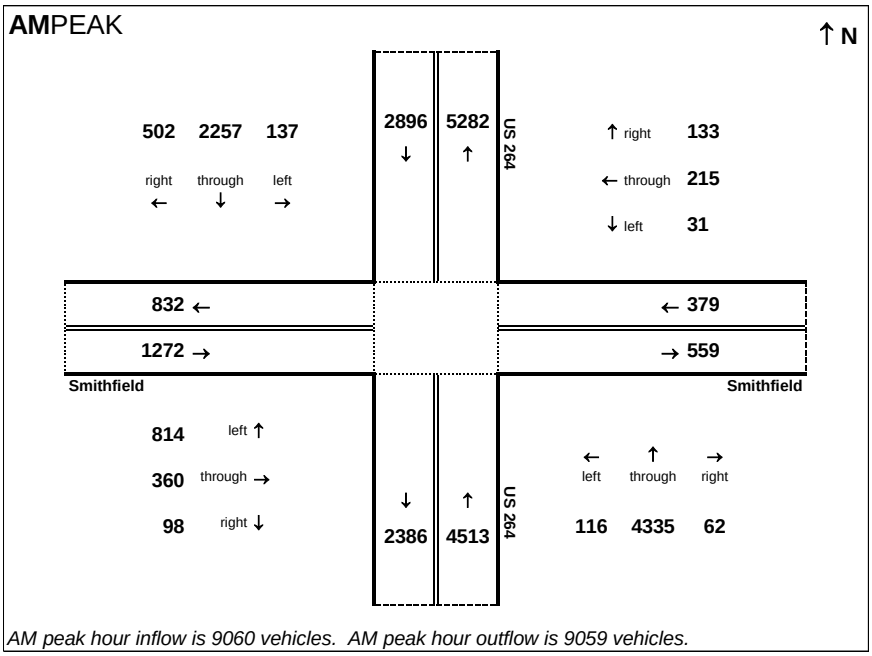


Peak Hour Volume Breakouts Report:
US 264 & Smithfield

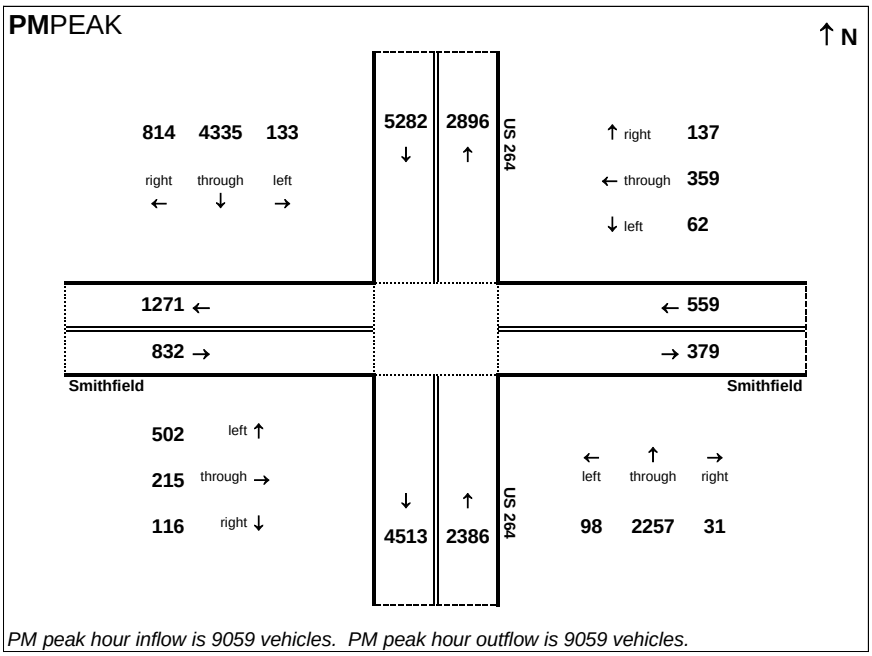
Traffic Forecast Release Date:
May-16

Traffic Data Year:
2016 Build

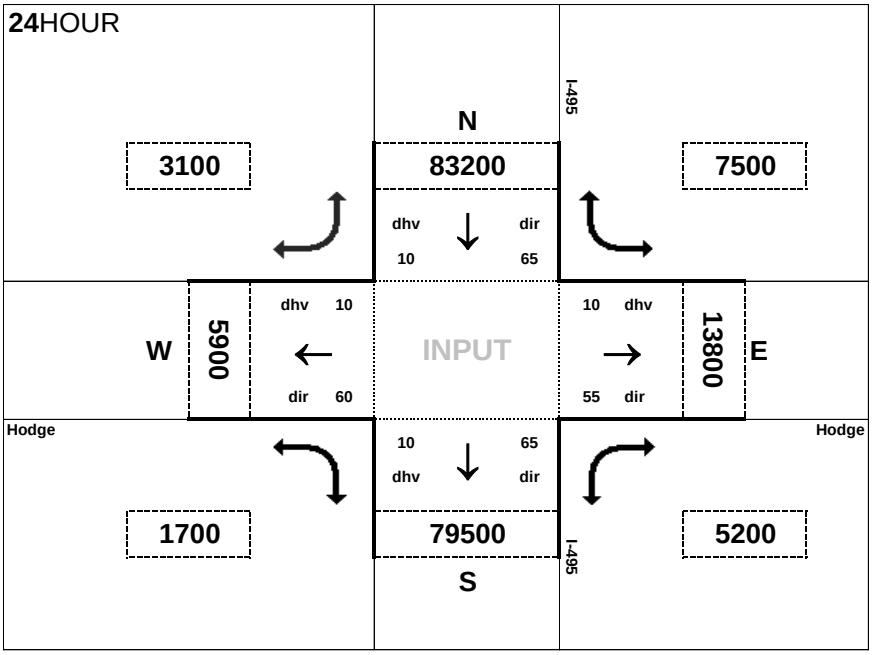
Project:
Complete 540 - Triangle Expressway Southeast Extension



AM peak hour inflow is 9060 vehicles. AM peak hour outflow is 9059 vehicles.



PM peak hour inflow is 9059 vehicles. PM peak hour outflow is 9059 vehicles.

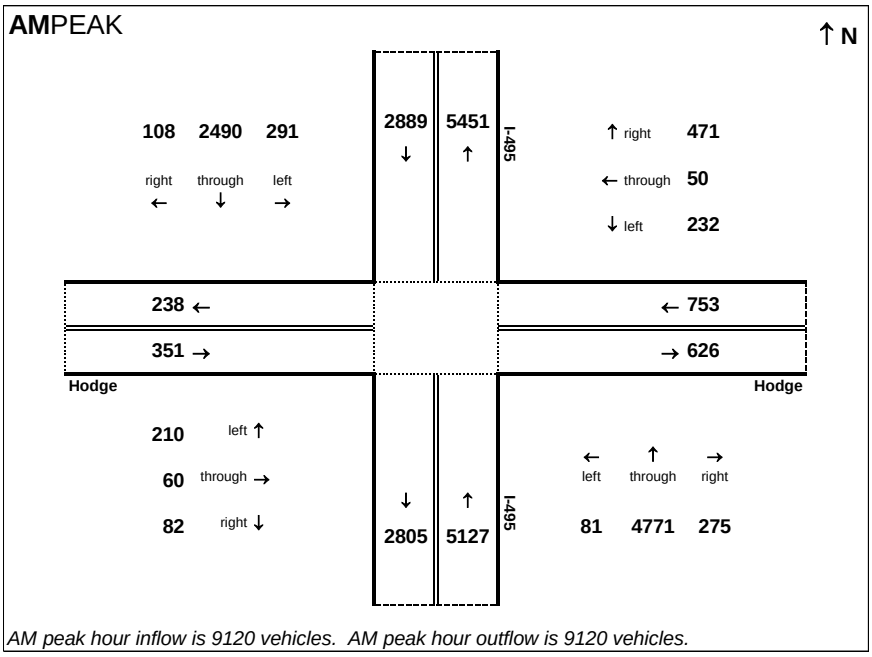


Peak Hour Volume Breakouts Report:
I-495 & Hodge

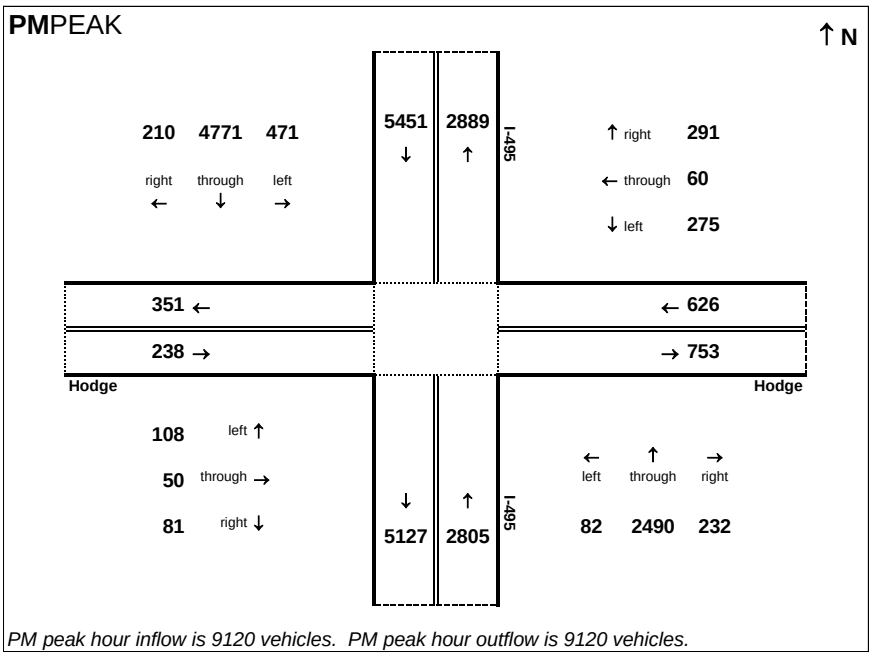
Traffic Forecast Release Date:
May-16

Traffic Data Year:
2016 Build

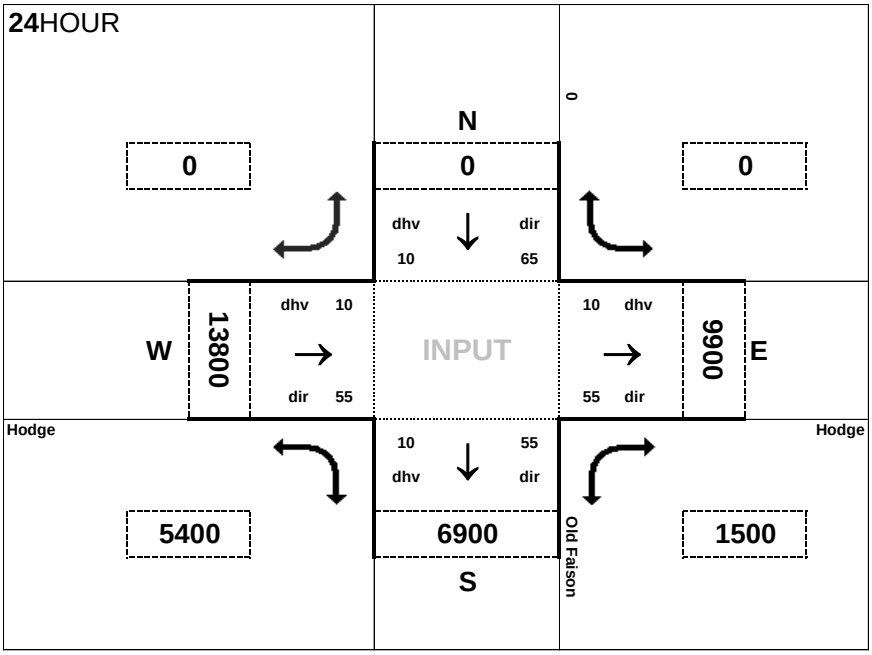
Project:
Complete 540 - Triangle Expressway Southeast Extension



AM peak hour inflow is 9120 vehicles. AM peak hour outflow is 9120 vehicles.



PM peak hour inflow is 9120 vehicles. PM peak hour outflow is 9120 vehicles.

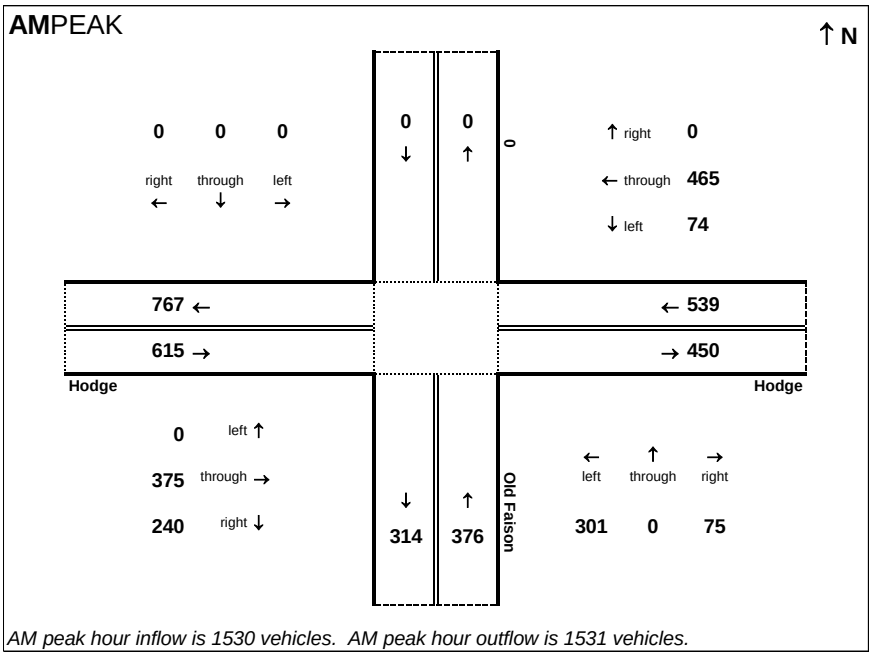


Peak Hour Volume Breakouts Report:
Hodge & Old Faison

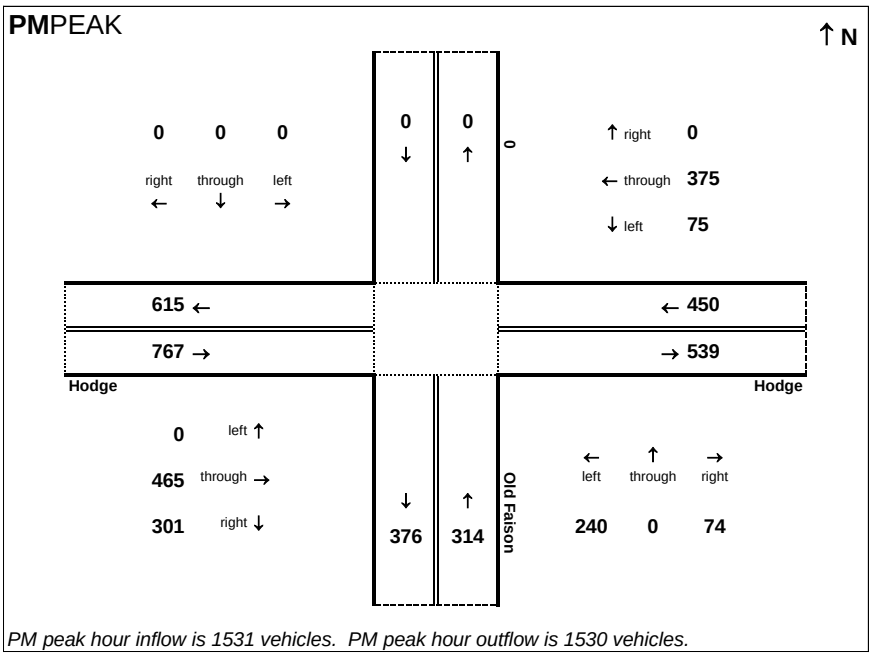
Traffic Forecast Release Date:
May-16

Traffic Data Year:
2016 Build

Project:
Complete 540 - Triangle Expressway Southeast Extension

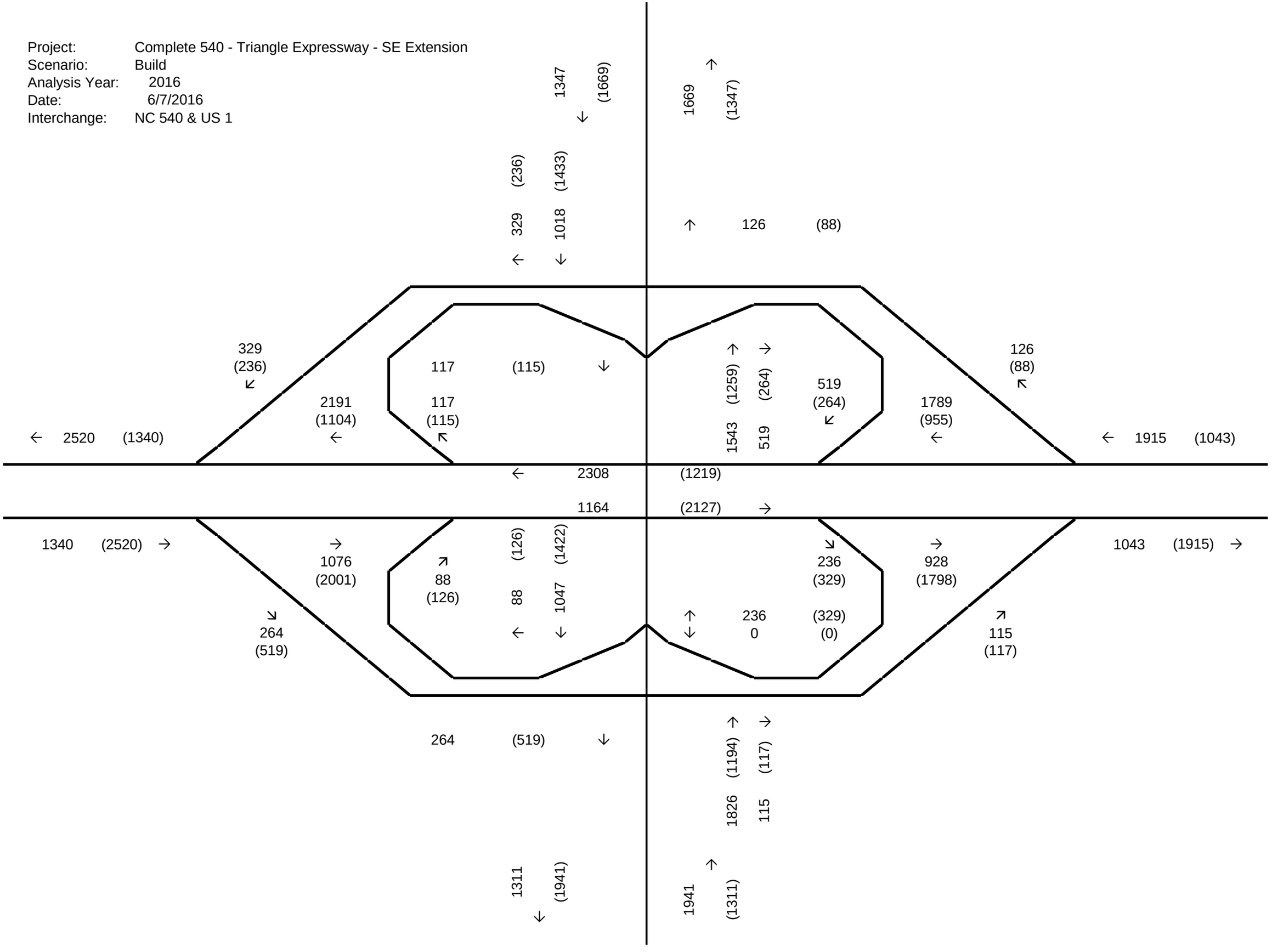


AM peak hour inflow is 1530 vehicles. AM peak hour outflow is 1531 vehicles.



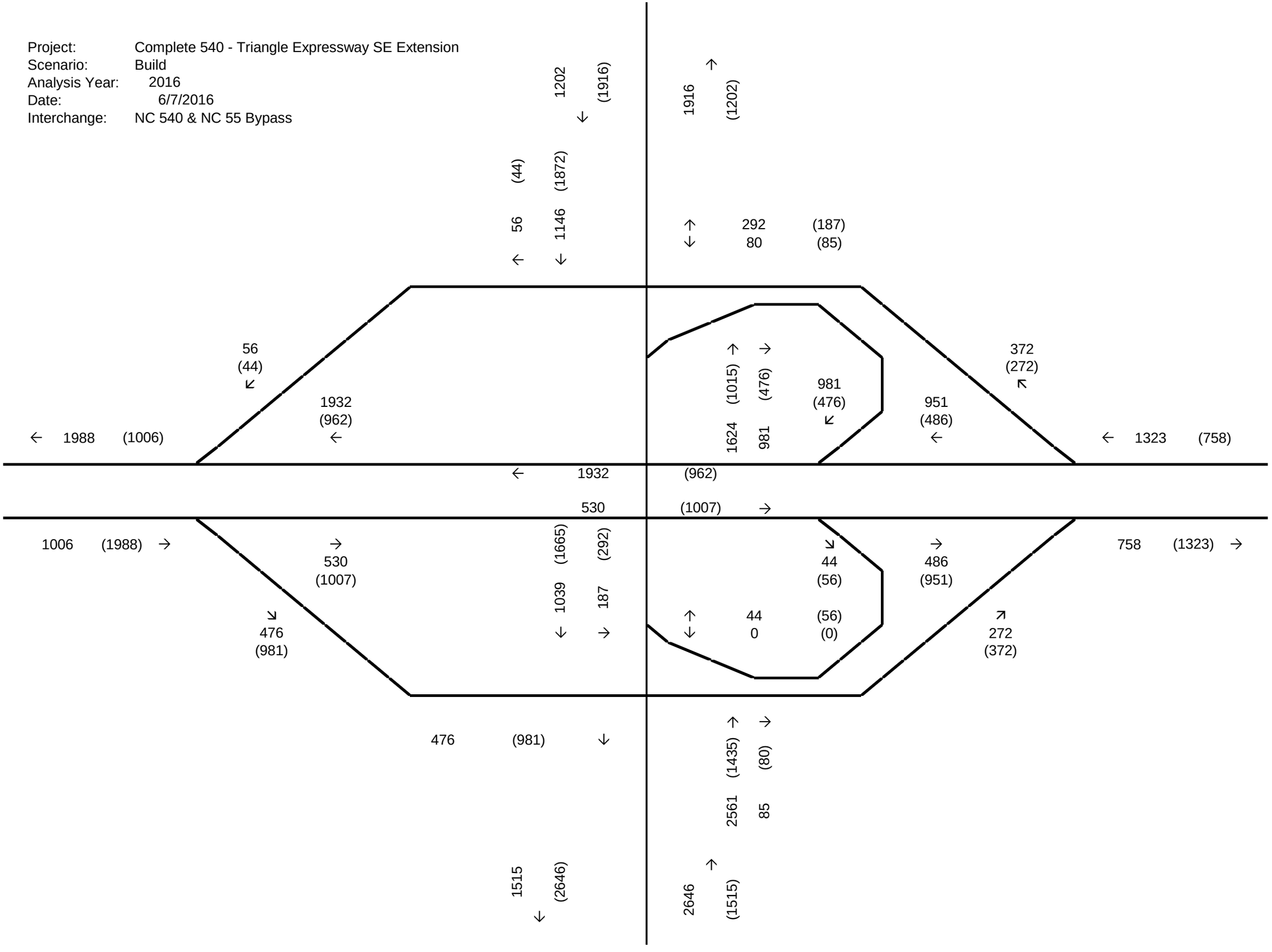
PM peak hour inflow is 1531 vehicles. PM peak hour outflow is 1530 vehicles.

Project: Complete 540 - Triangle Expressway - SE Extension
Scenario: Build
Analysis Year: 2016
Date: 6/7/2016
Interchange: NC 540 & US 1



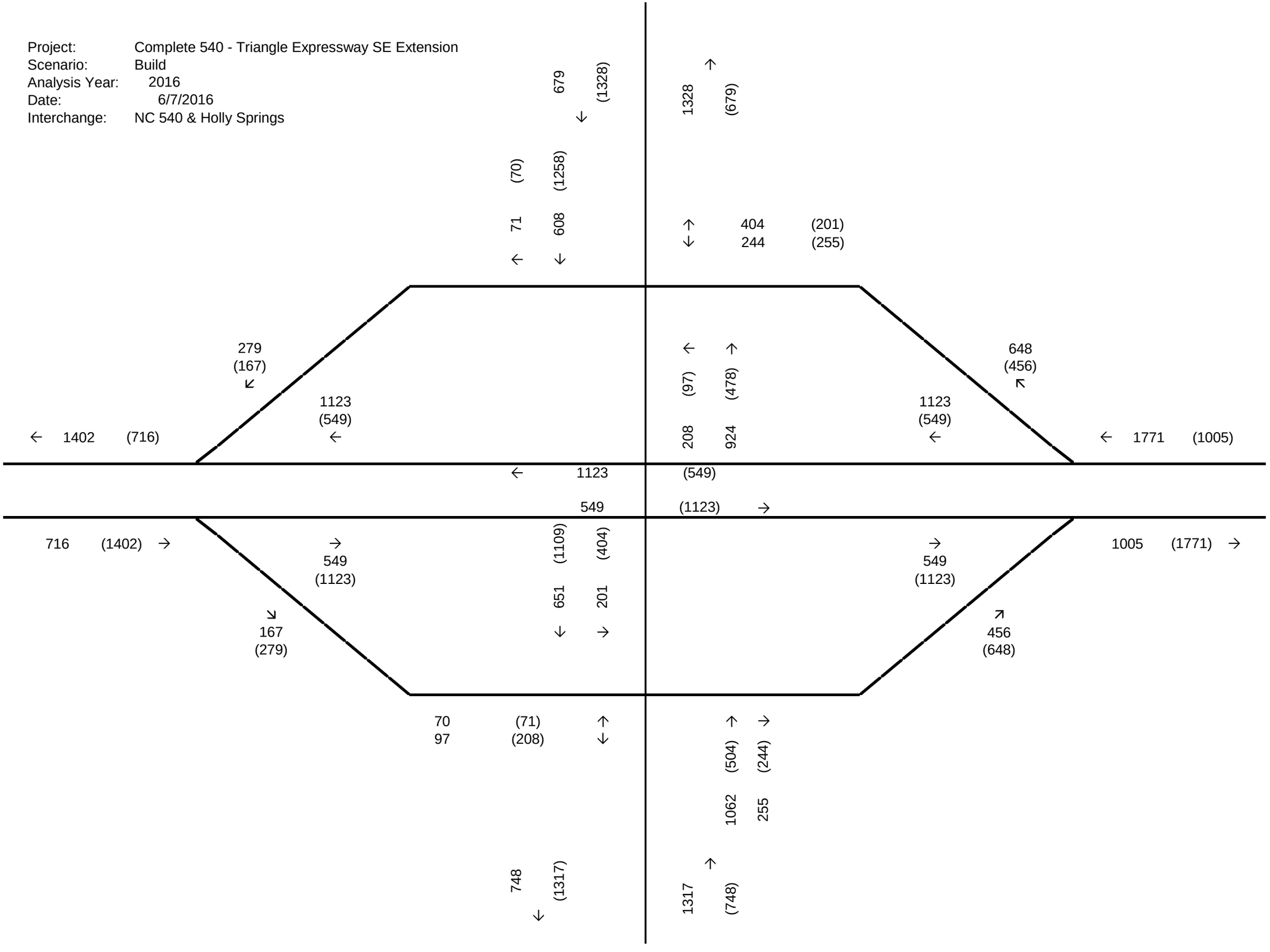
6/7/2016
P:\46816 - NCTA\Complete 540\Traffic\Analysis Preferred Alt\Breakouts\2016 Build\Interchange Breakouts\01 NC 540 & US 1 - 2016 Build Interchange Breakout.xlsm

Project: Complete 540 - Triangle Expressway SE Extension
Scenario: Build
Analysis Year: 2016
Date: 6/7/2016
Interchange: NC 540 & NC 55 Bypass



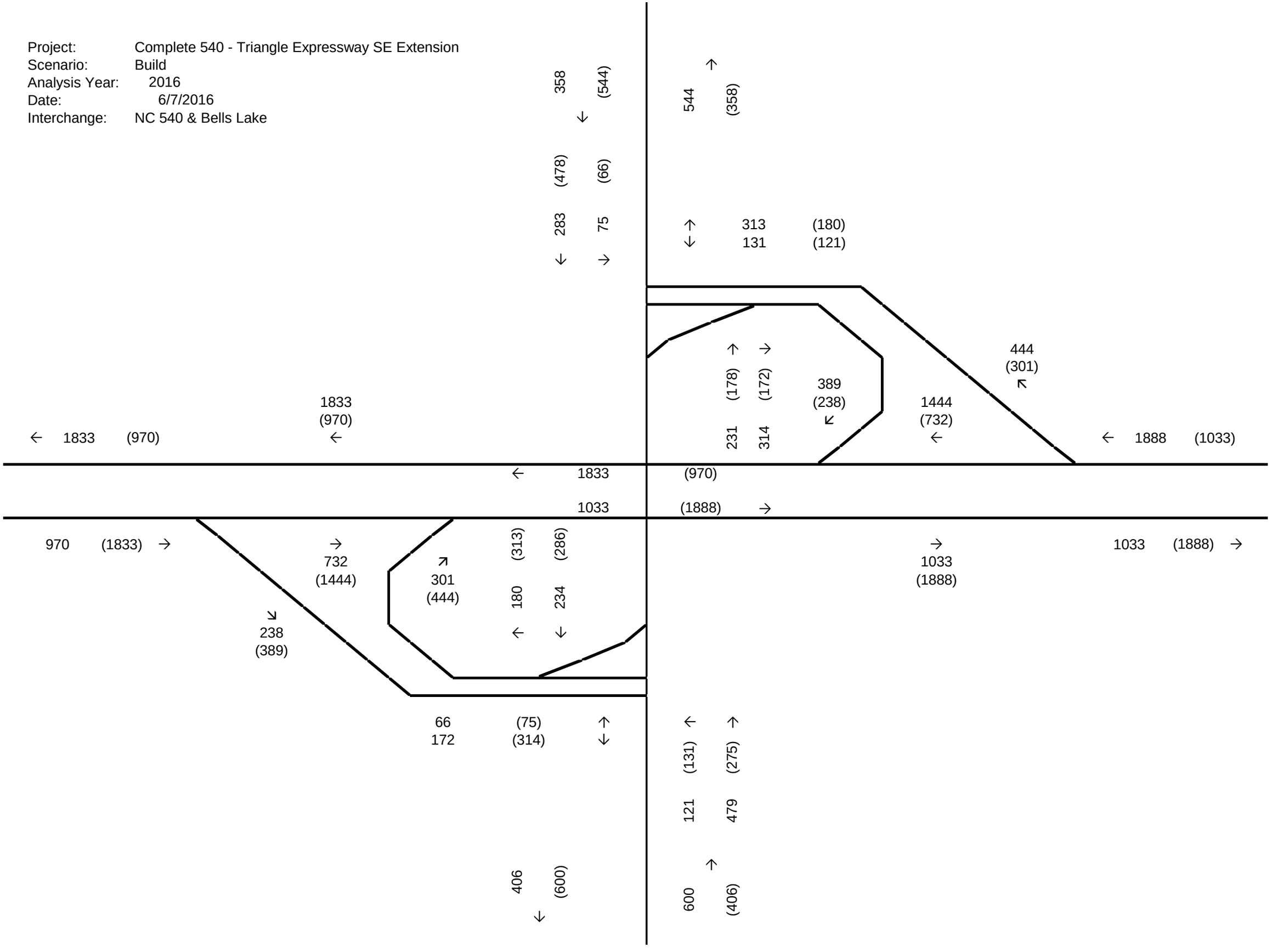
6/7/2016
P:\46816 - NCTA\Complete 540\Traffic\Analysis Preferred Alt\Breakouts\2016 Build\Interchange Breakouts\03 NC 540 & NC 55 - 2016 Build Interchange Breakout.xlsm

Project: Complete 540 - Triangle Expressway SE Extension
Scenario: Build
Analysis Year: 2016
Date: 6/7/2016
Interchange: NC 540 & Holly Springs



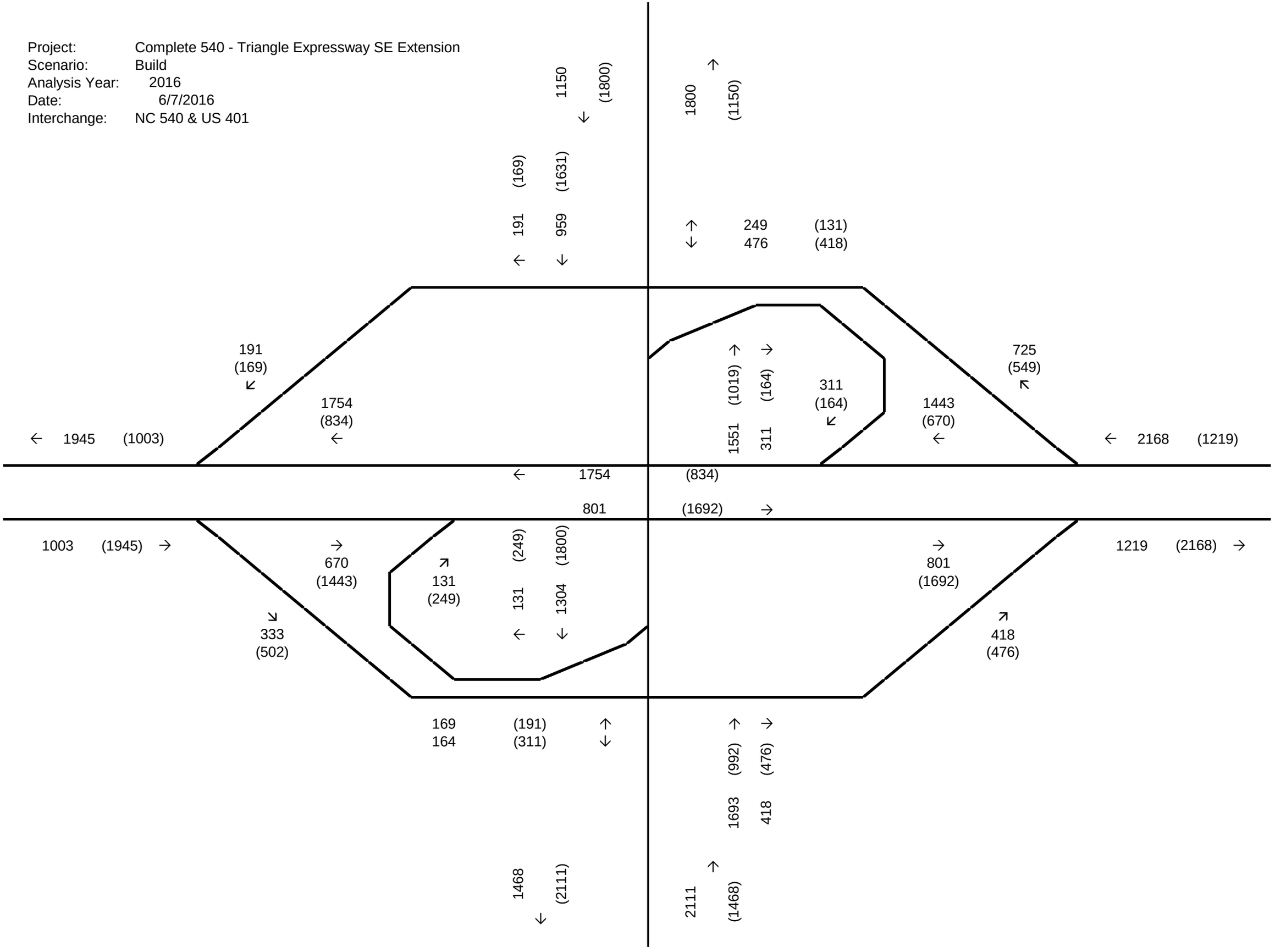
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P:\46816 - NCTA\Complete 540\Traffic\Analysis Preferred Alt\Breakouts\2016 Build\Interchange Breakouts\04 NC 540 & Holly Springs - 2016 Build Interchange Breakout.xlsm

Project: Complete 540 - Triangle Expressway SE Extension
Scenario: Build
Analysis Year: 2016
Date: 6/7/2016
Interchange: NC 540 & Bells Lake



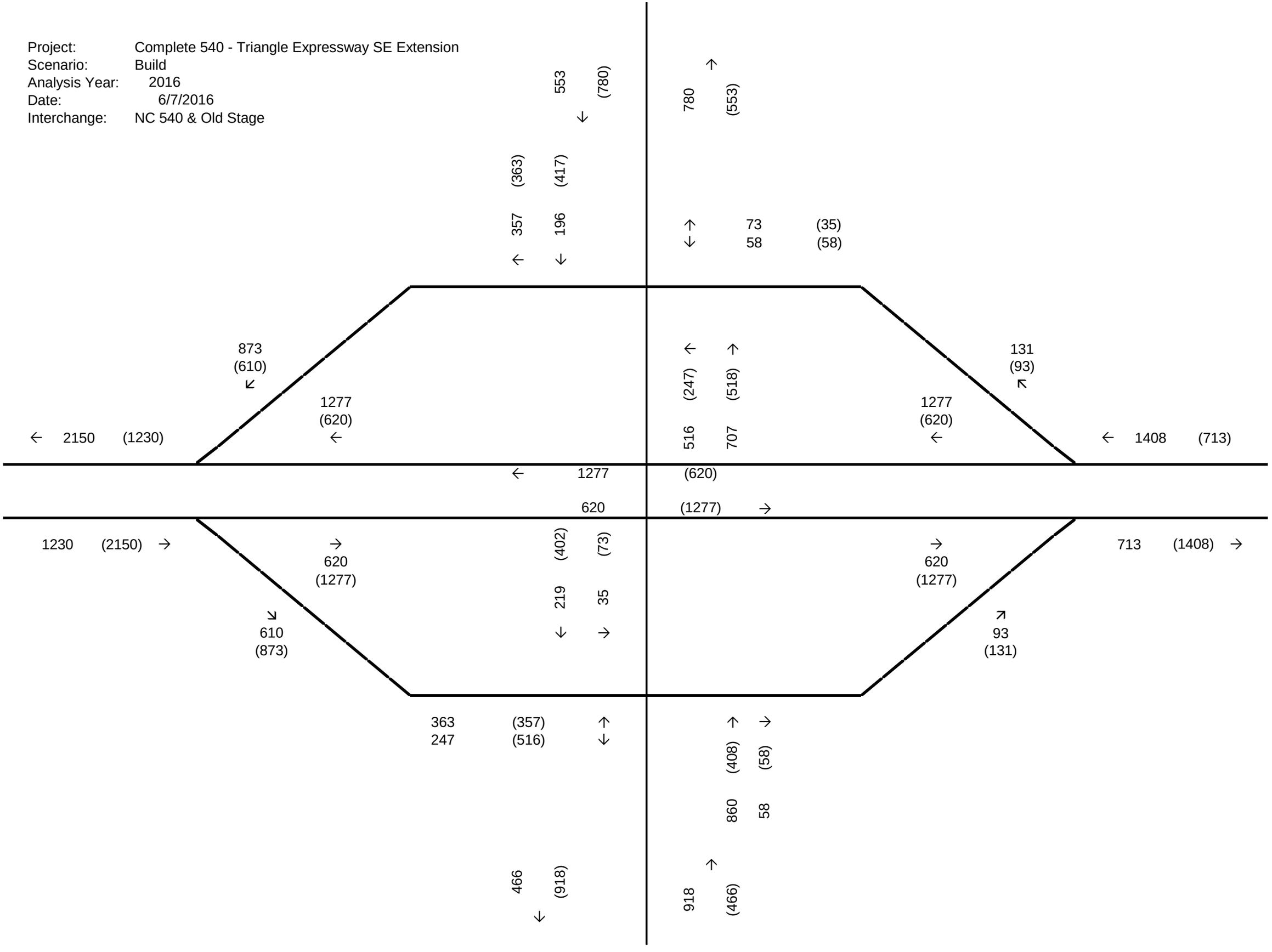
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Project: Complete 540 - Triangle Expressway SE Extension
Scenario: Build
Analysis Year: 2016
Date: 6/7/2016
Interchange: NC 540 & US 401



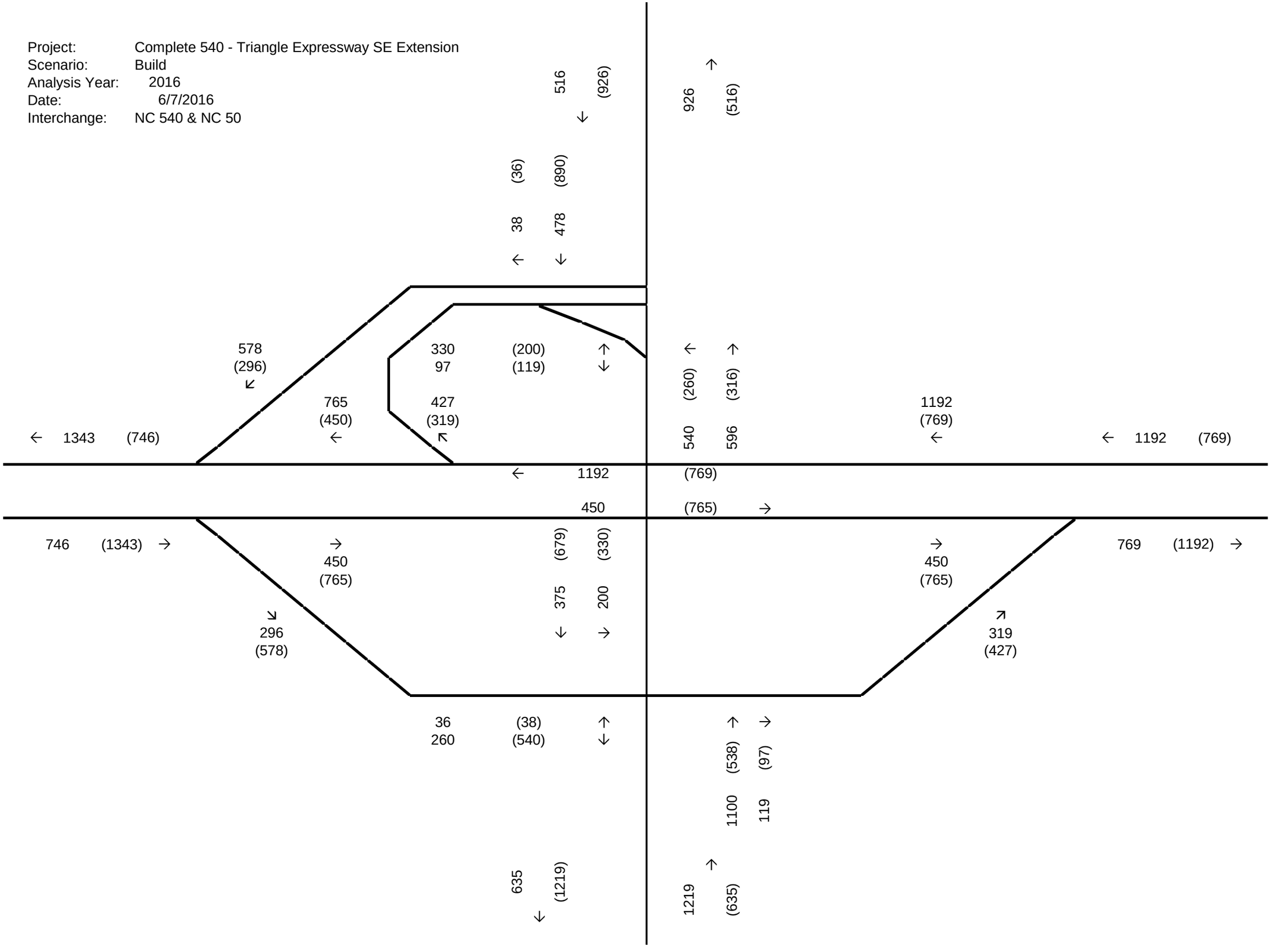
6/7/2016
P:\46816 - NCTA\Complete 540\Traffic\Analysis Preferred Alt\Breakouts\2016 Build\Interchange Breakouts\06 NC 540 & US 401 - 2016 Build Interchange Breakout.xlsm

Project: Complete 540 - Triangle Expressway SE Extension
Scenario: Build
Analysis Year: 2016
Date: 6/7/2016
Interchange: NC 540 & Old Stage

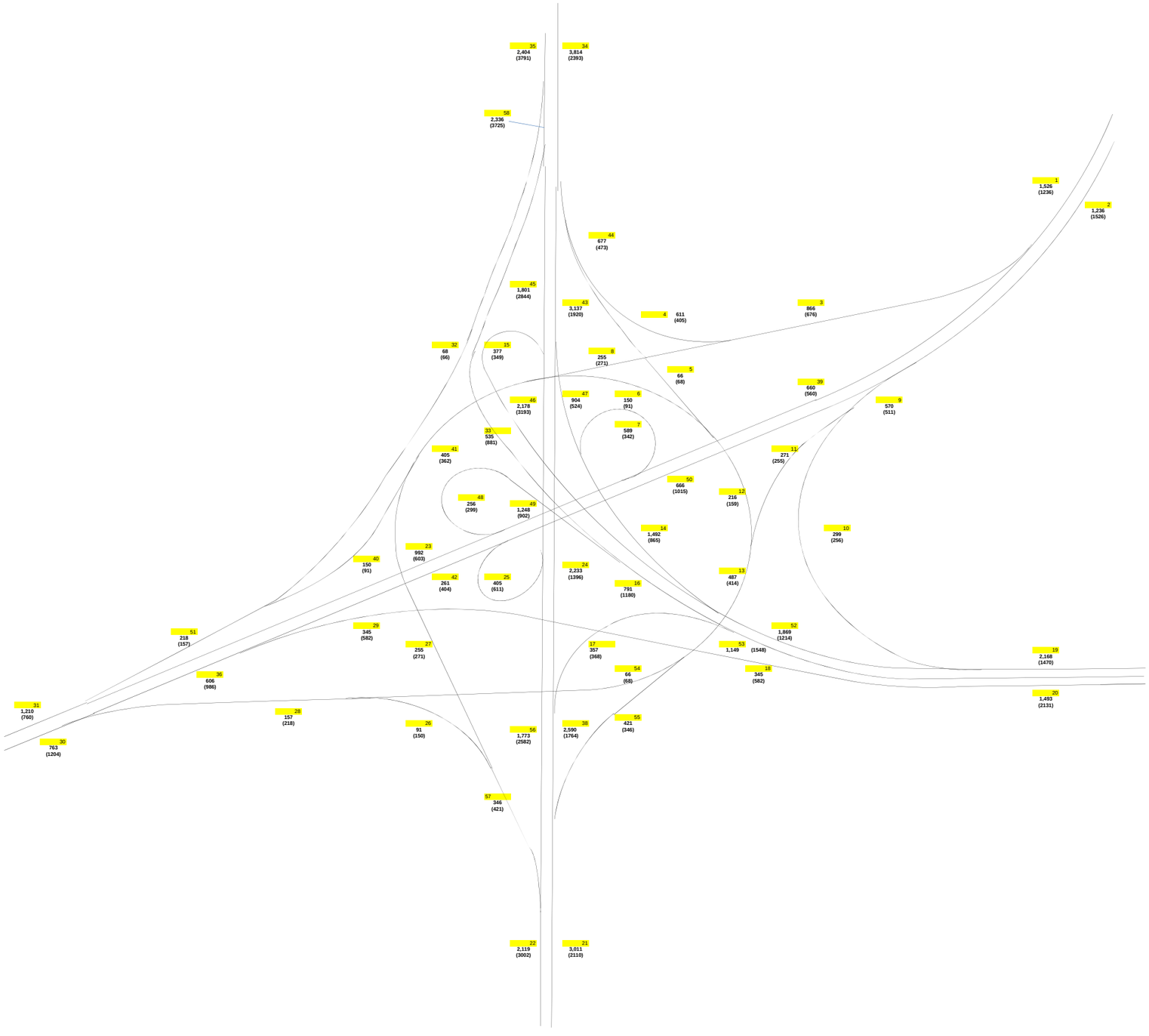


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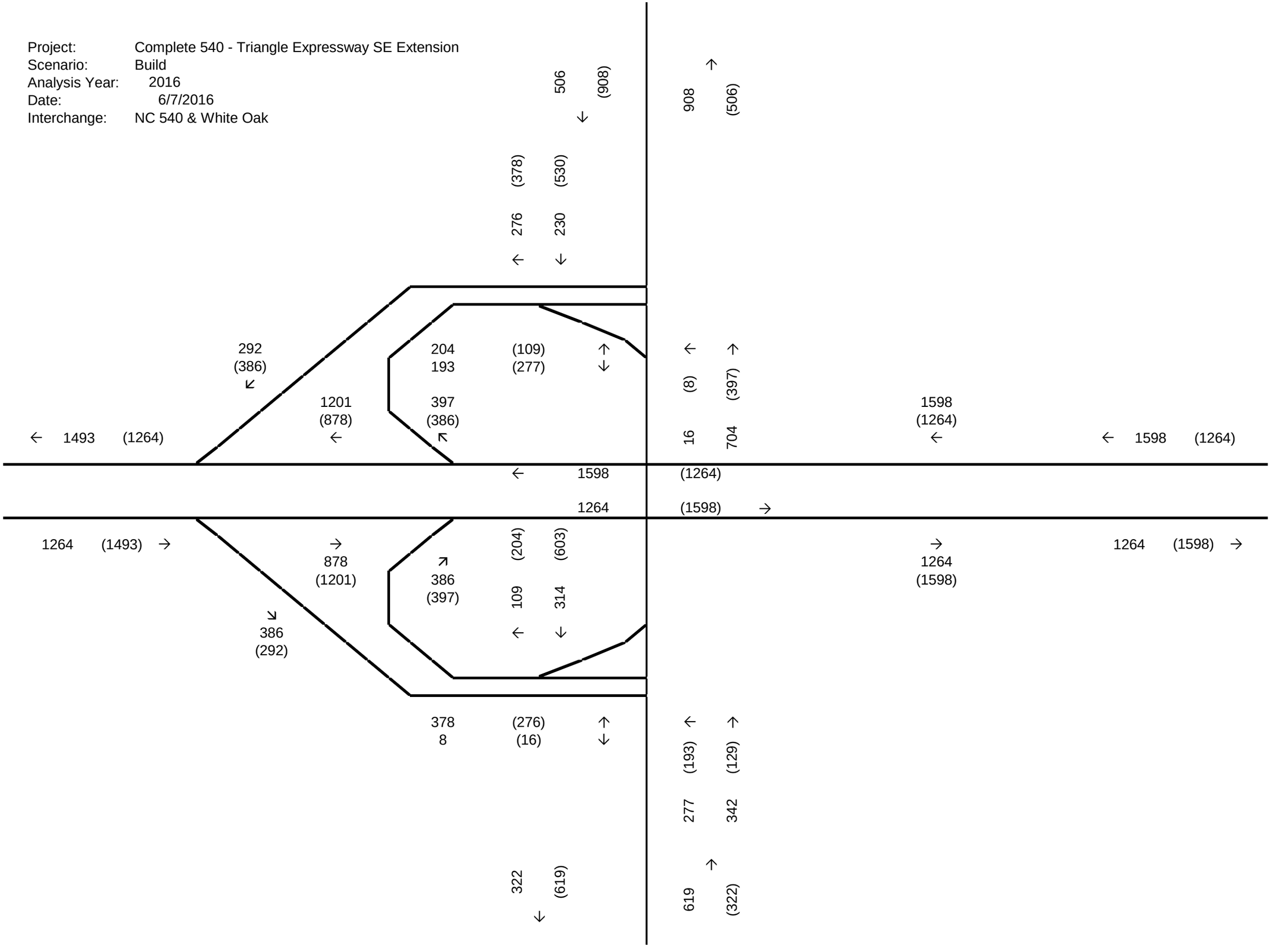
Project: Complete 540 - Triangle Expressway SE Extension
Scenario: Build
Analysis Year: 2016
Date: 6/7/2016
Interchange: NC 540 & NC 50



09 I-40-NC 540-US 70 Bypass - 2016 Build Dreamcatcher Interchange Breakout Calculated.xlsm

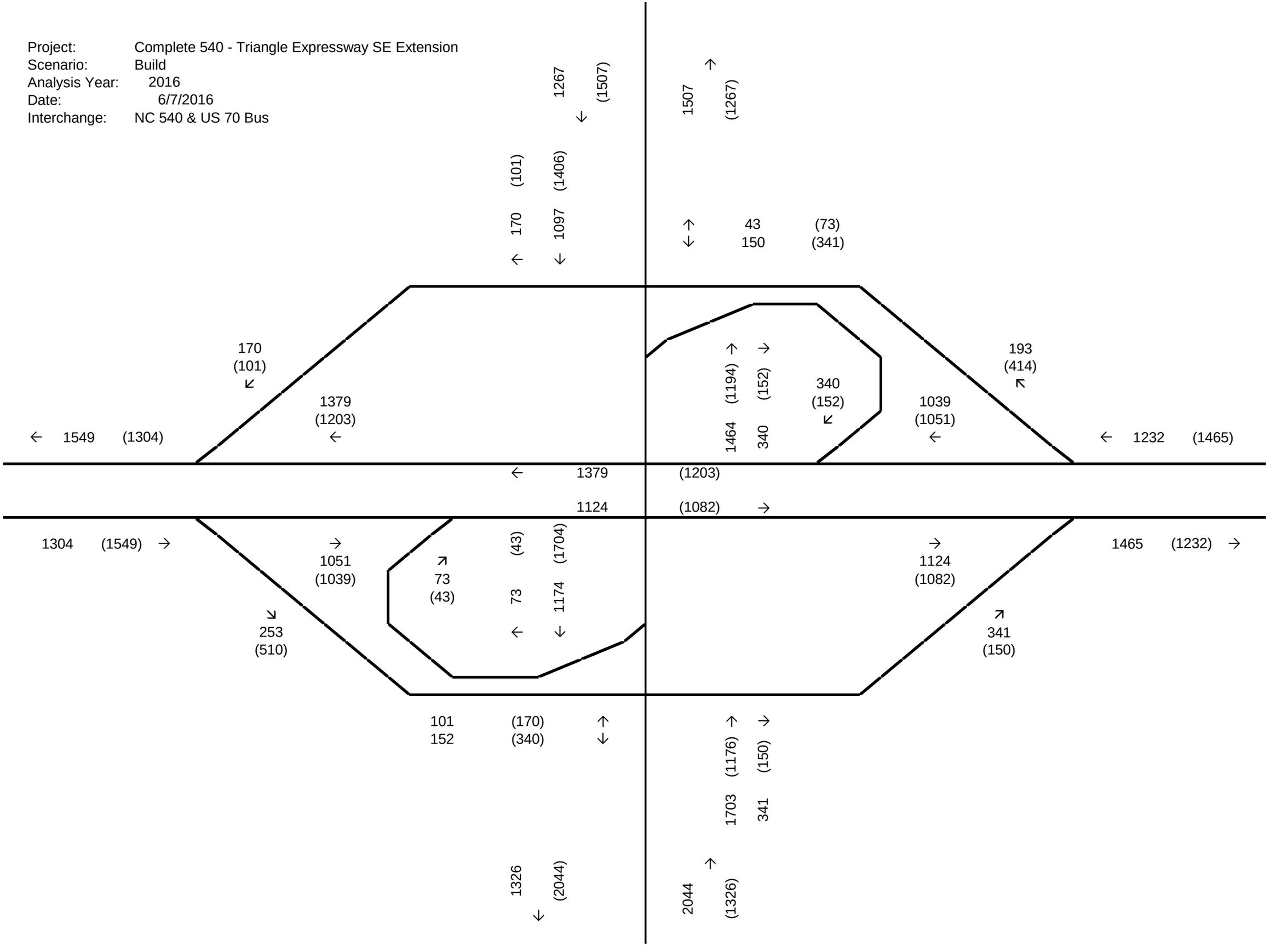


Project: Complete 540 - Triangle Expressway SE Extension
Scenario: Build
Analysis Year: 2016
Date: 6/7/2016
Interchange: NC 540 & White Oak



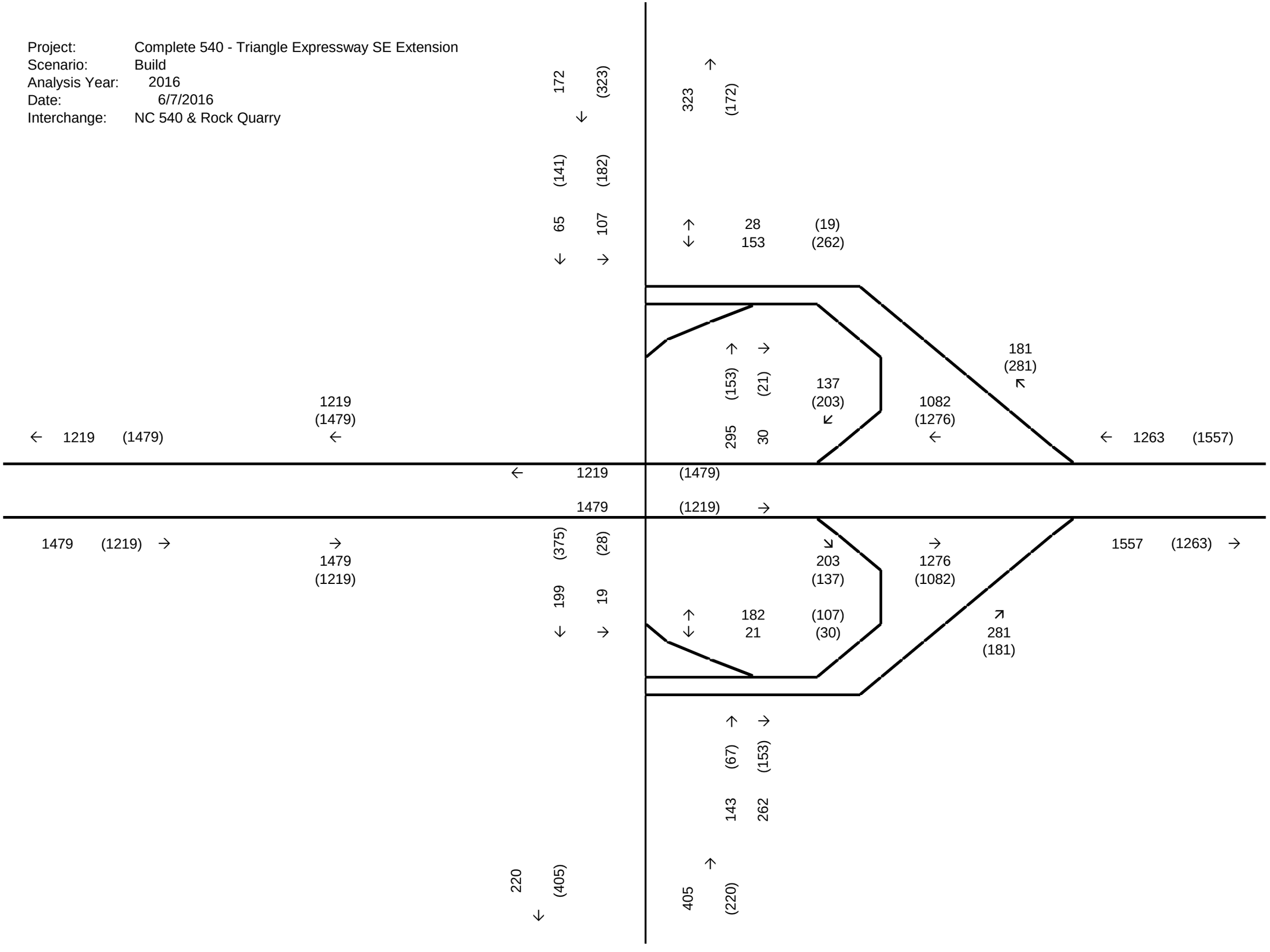
6/7/2016
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Project: Complete 540 - Triangle Expressway SE Extension
Scenario: Build
Analysis Year: 2016
Date: 6/7/2016
Interchange: NC 540 & US 70 Bus



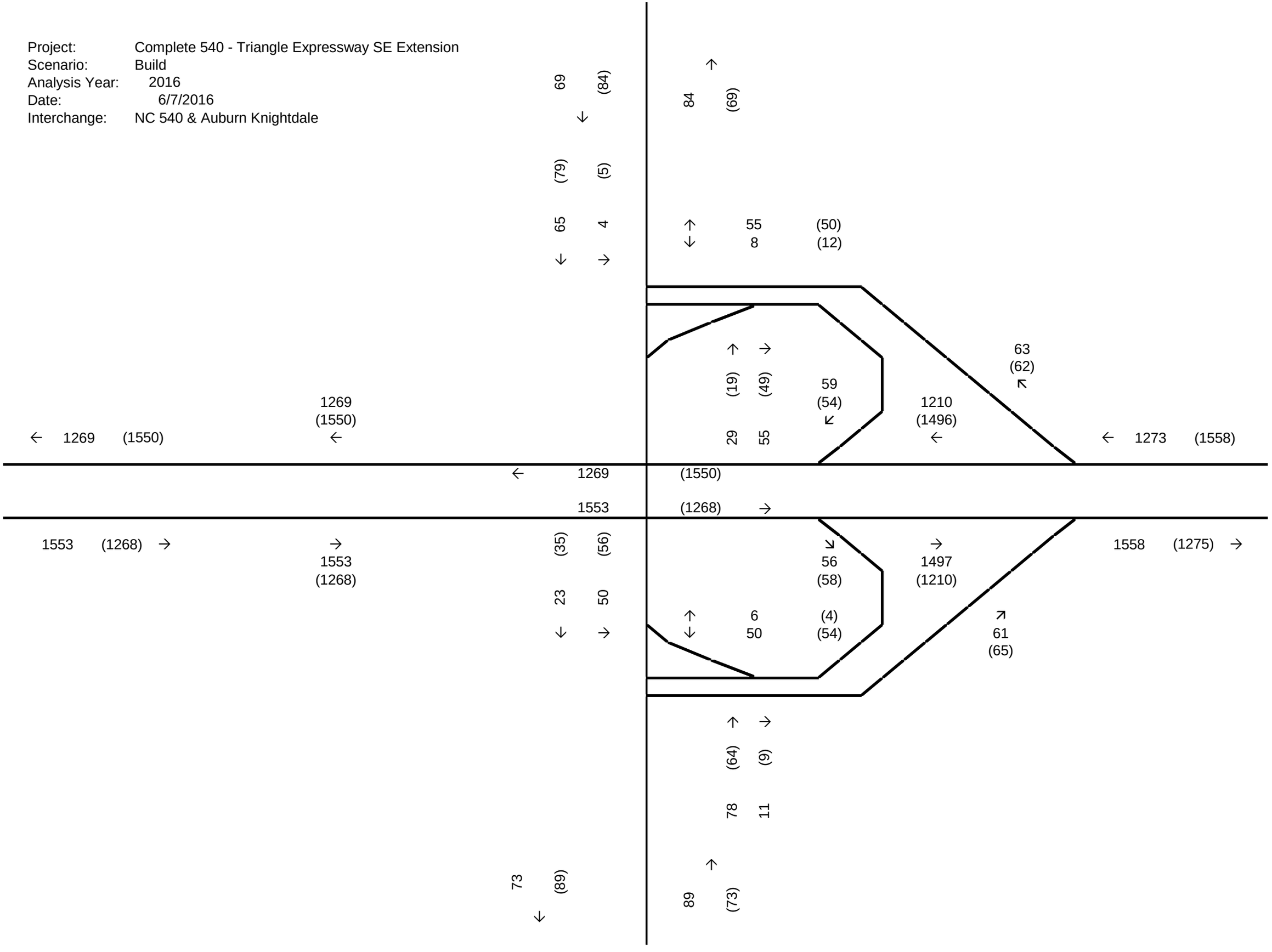
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Project: Complete 540 - Triangle Expressway SE Extension
Scenario: Build
Analysis Year: 2016
Date: 6/7/2016
Interchange: NC 540 & Rock Quarry



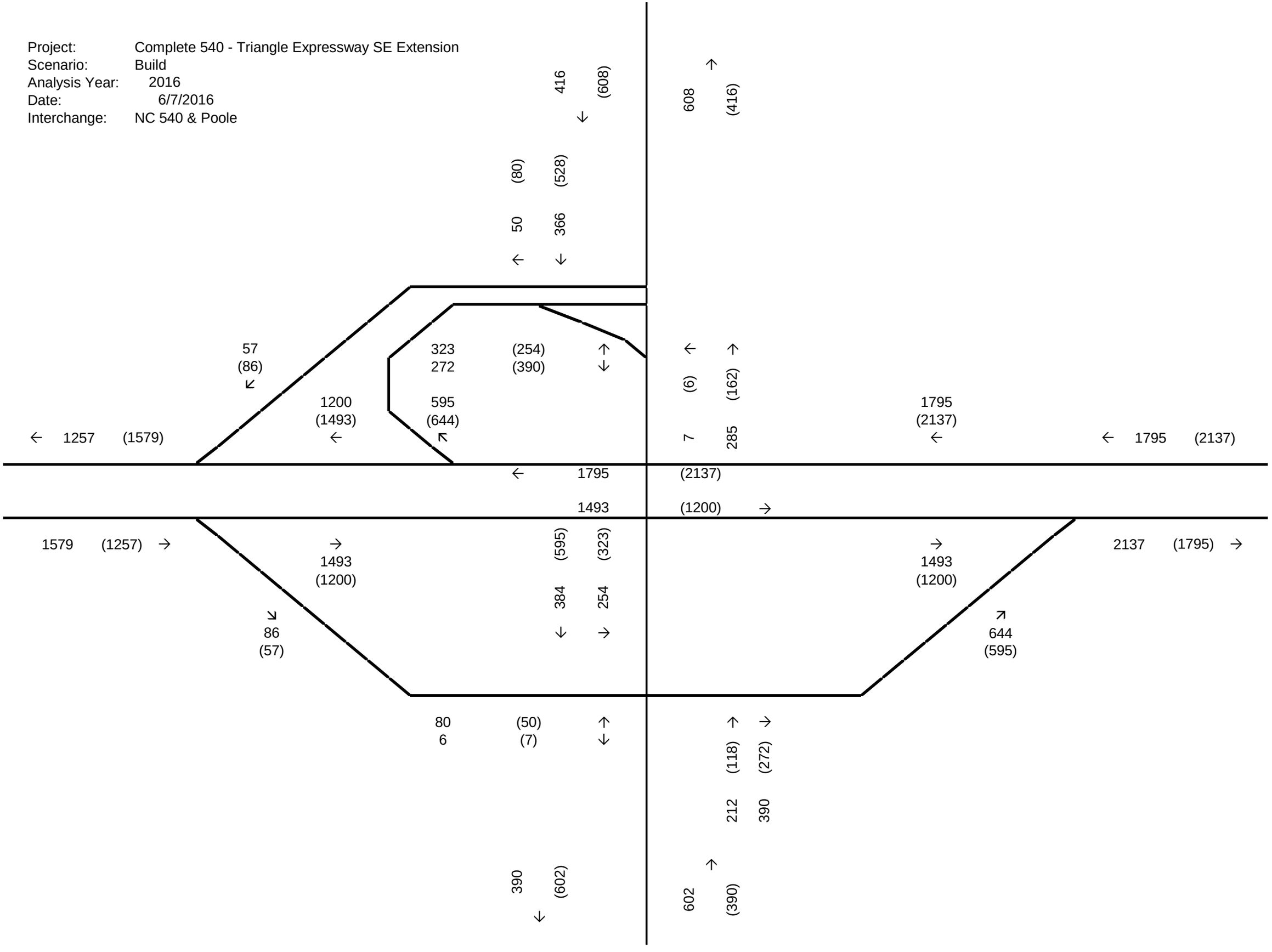
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Project: Complete 540 - Triangle Expressway SE Extension
Scenario: Build
Analysis Year: 2016
Date: 6/7/2016
Interchange: NC 540 & Auburn Knightdale



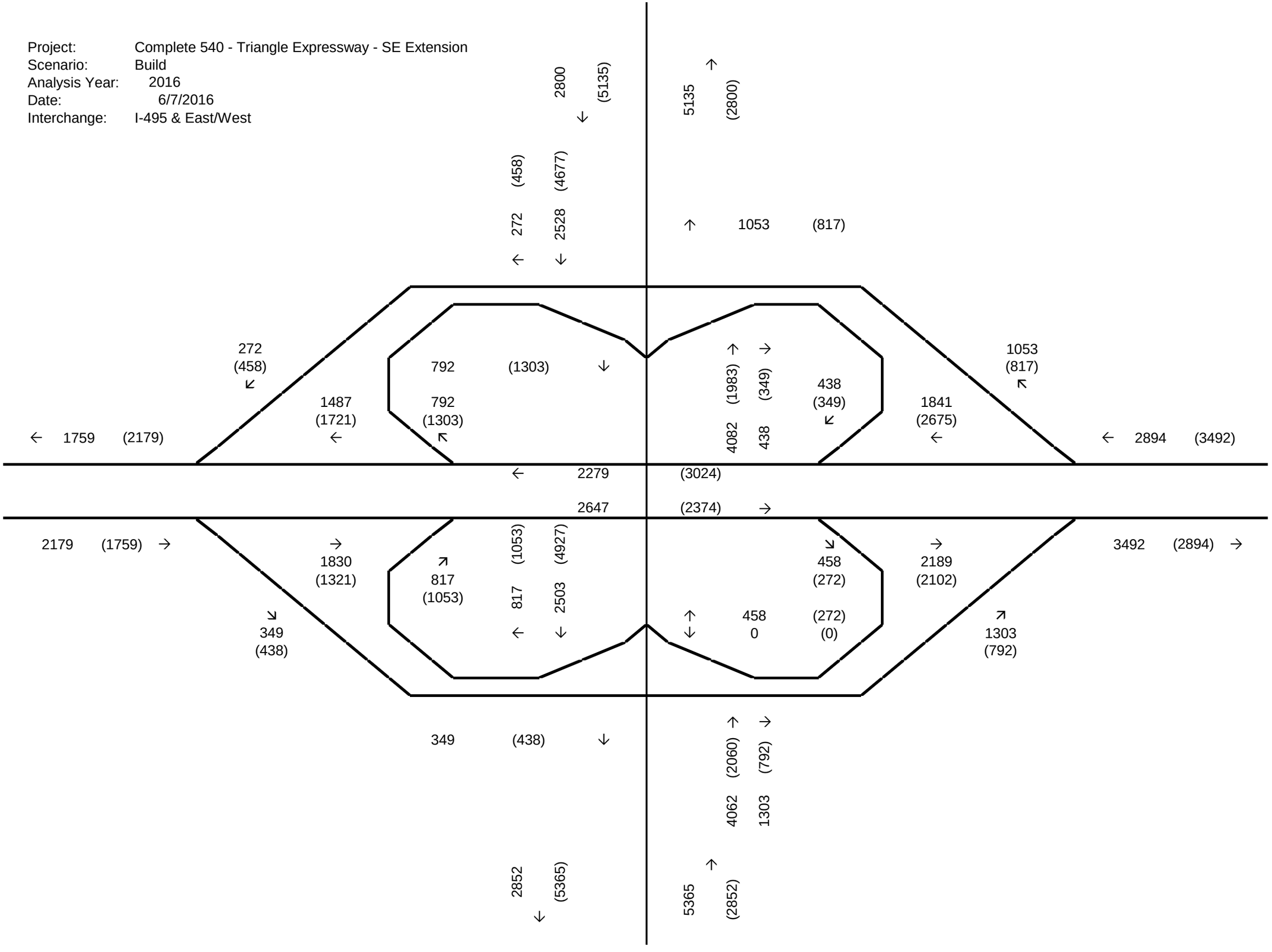
6/7/2016
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Project: Complete 540 - Triangle Expressway SE Extension
Scenario: Build
Analysis Year: 2016
Date: 6/7/2016
Interchange: NC 540 & Poole



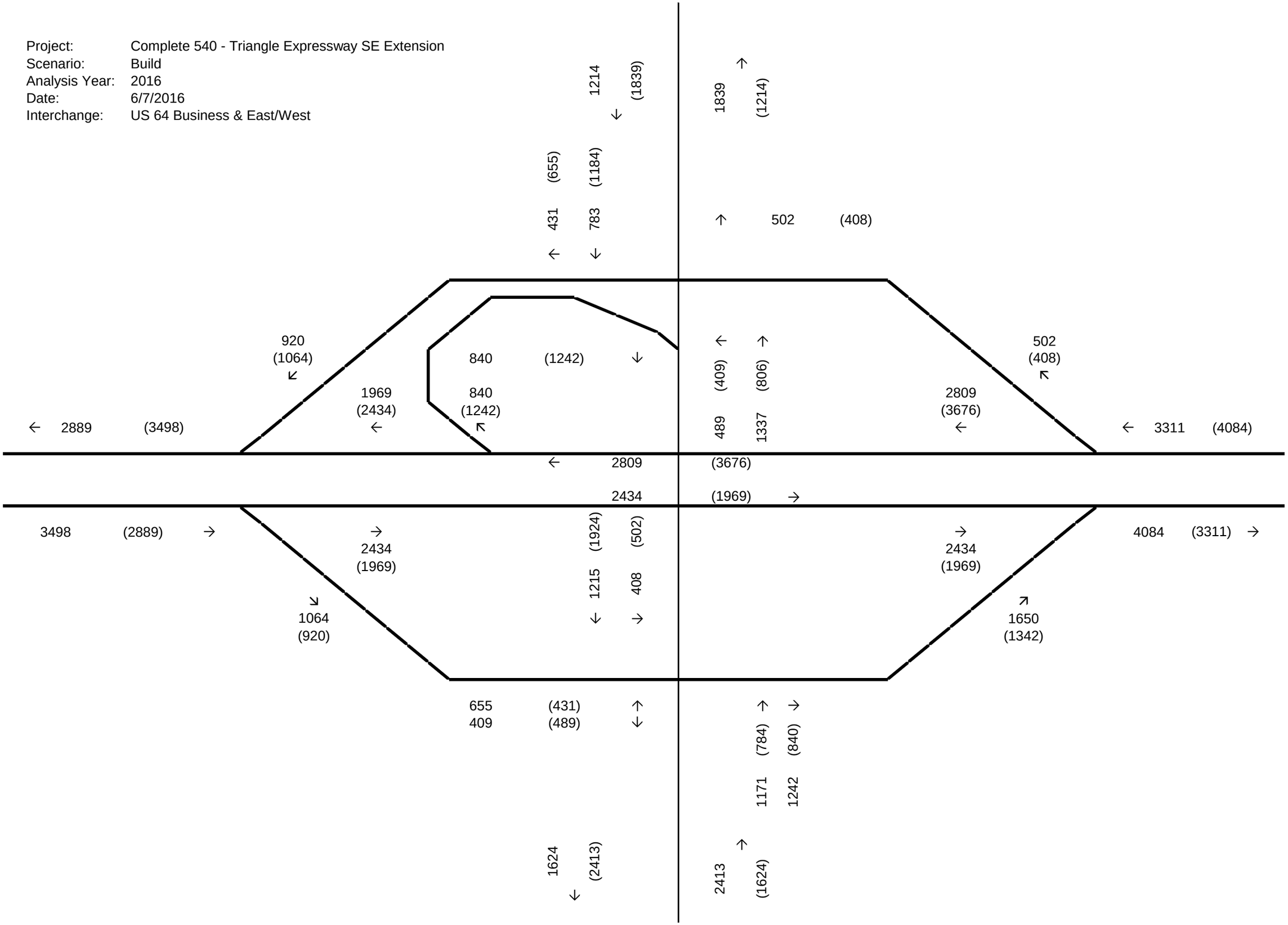
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Project: Complete 540 - Triangle Expressway - SE Extension
Scenario: Build
Analysis Year: 2016
Date: 6/7/2016
Interchange: I-495 & East/West

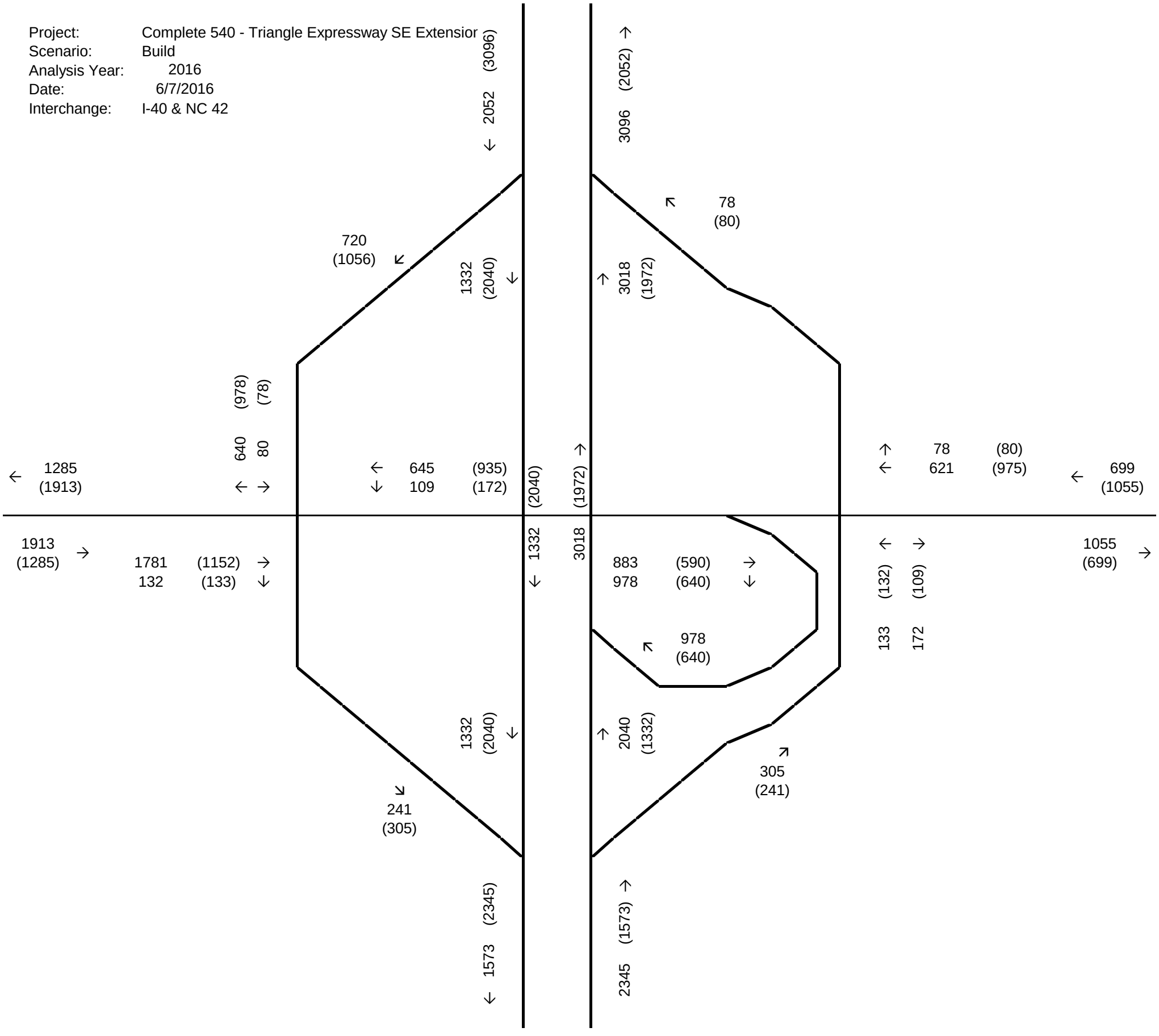


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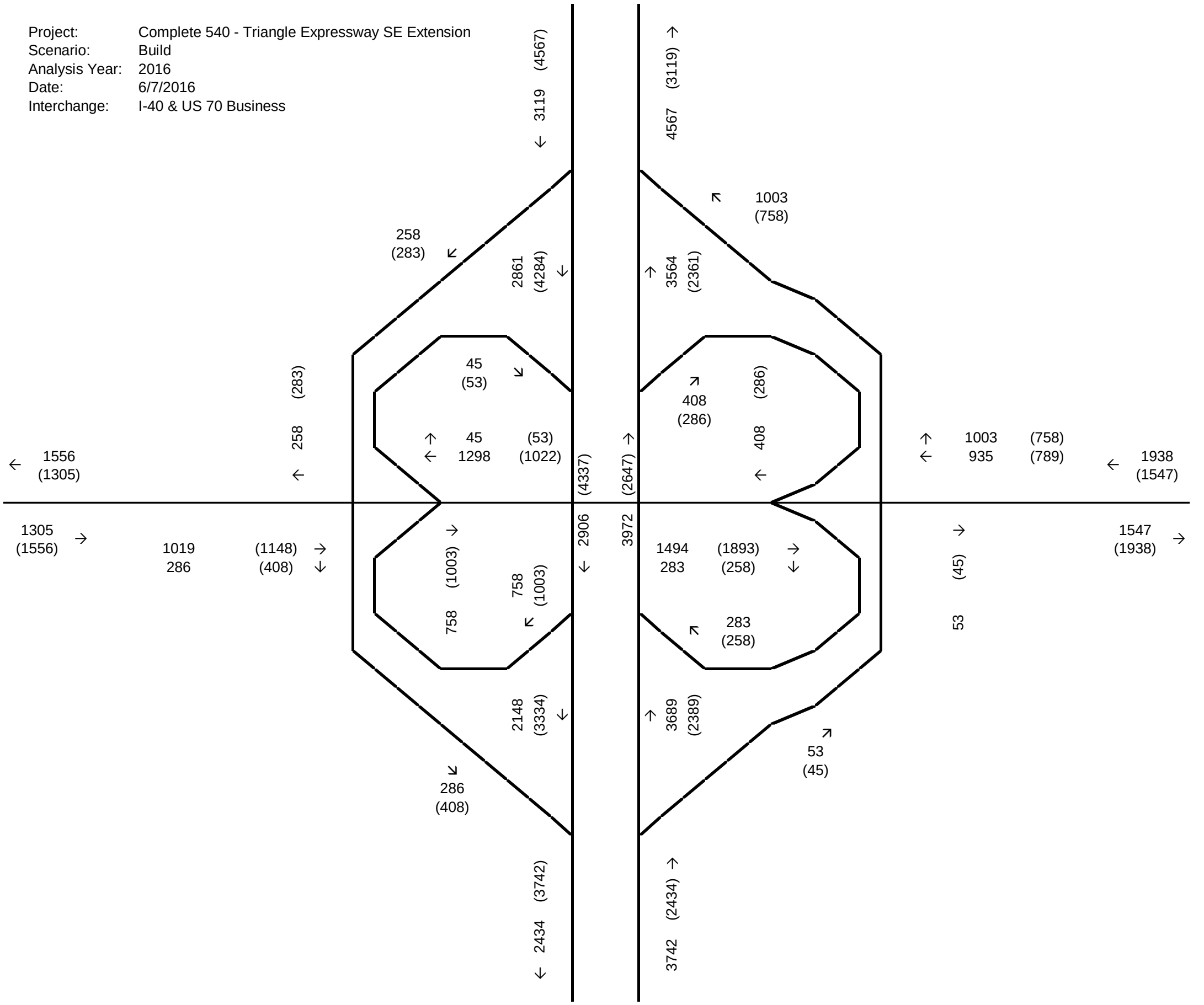
Project: Complete 540 - Triangle Expressway SE Extension
Scenario: Build
Analysis Year: 2016
Date: 6/7/2016
Interchange: US 64 Business & East/West



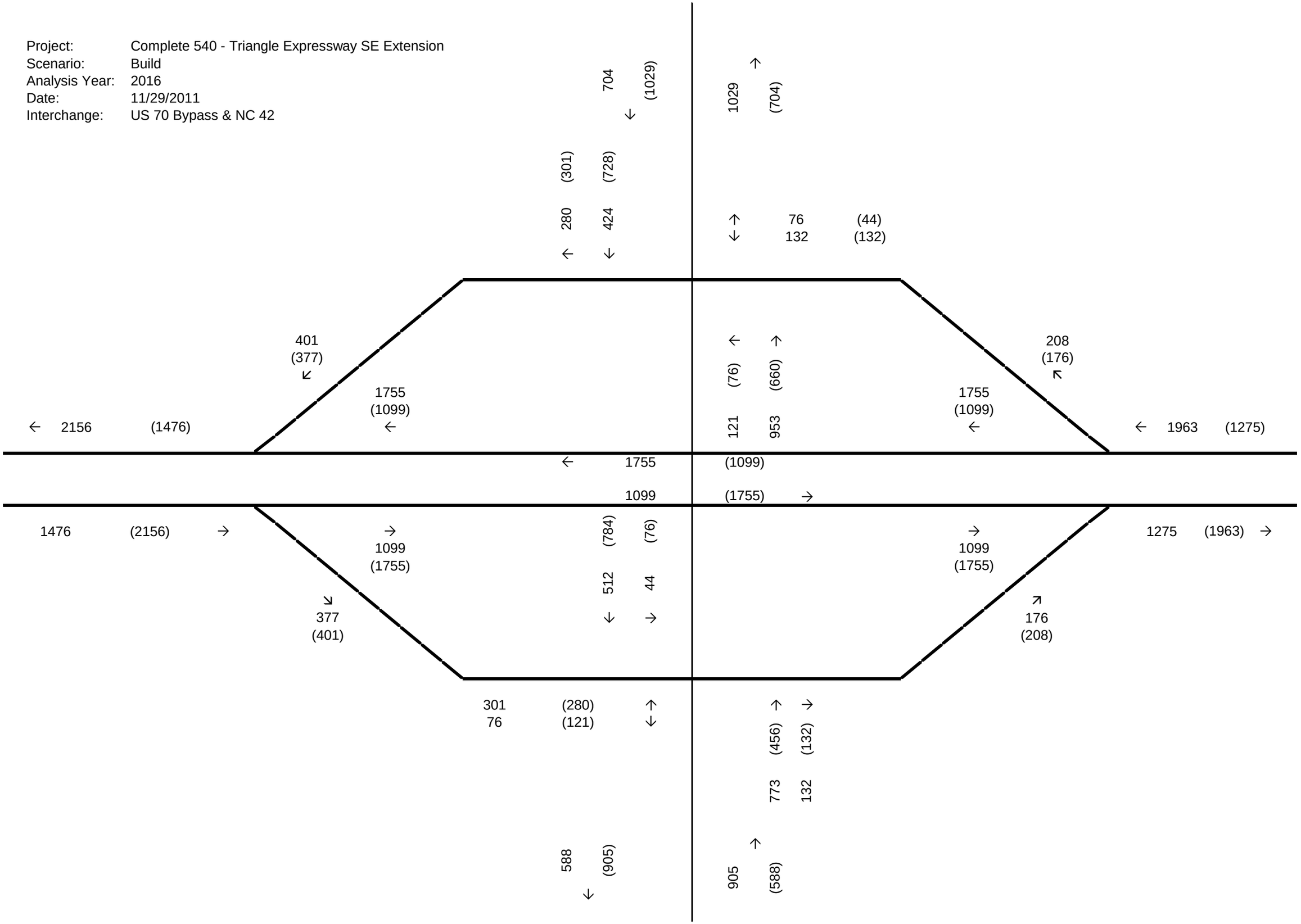
Project: Complete 540 - Triangle Expressway SE Extension
Scenario: Build
Analysis Year: 2016
Date: 6/7/2016
Interchange: I-40 & NC 42



Project: Complete 540 - Triangle Expressway SE Extension
Scenario: Build
Analysis Year: 2016
Date: 6/7/2016
Interchange: I-40 & US 70 Business

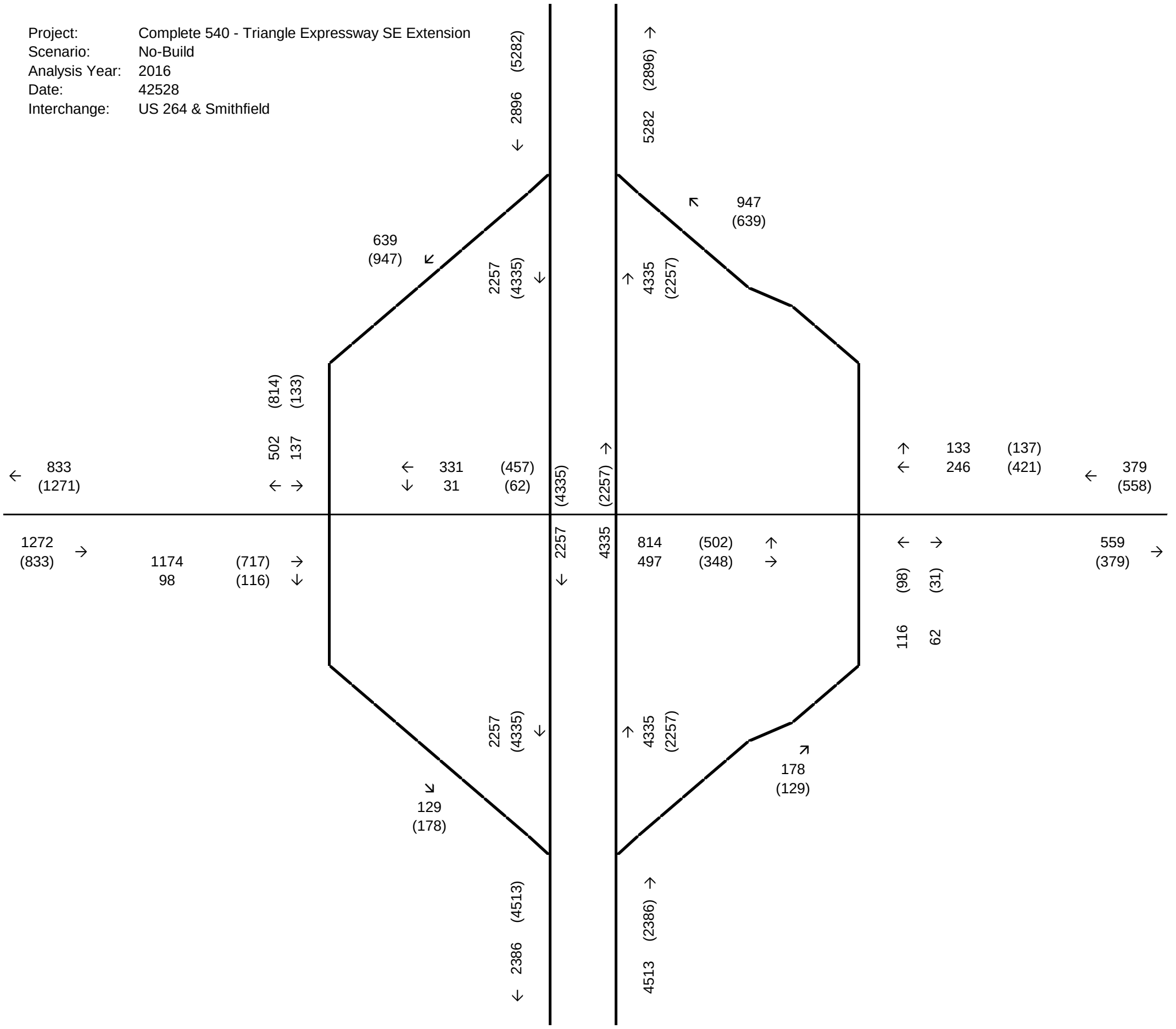


Project: Complete 540 - Triangle Expressway SE Extension
Scenario: Build
Analysis Year: 2016
Date: 11/29/2011
Interchange: US 70 Bypass & NC 42

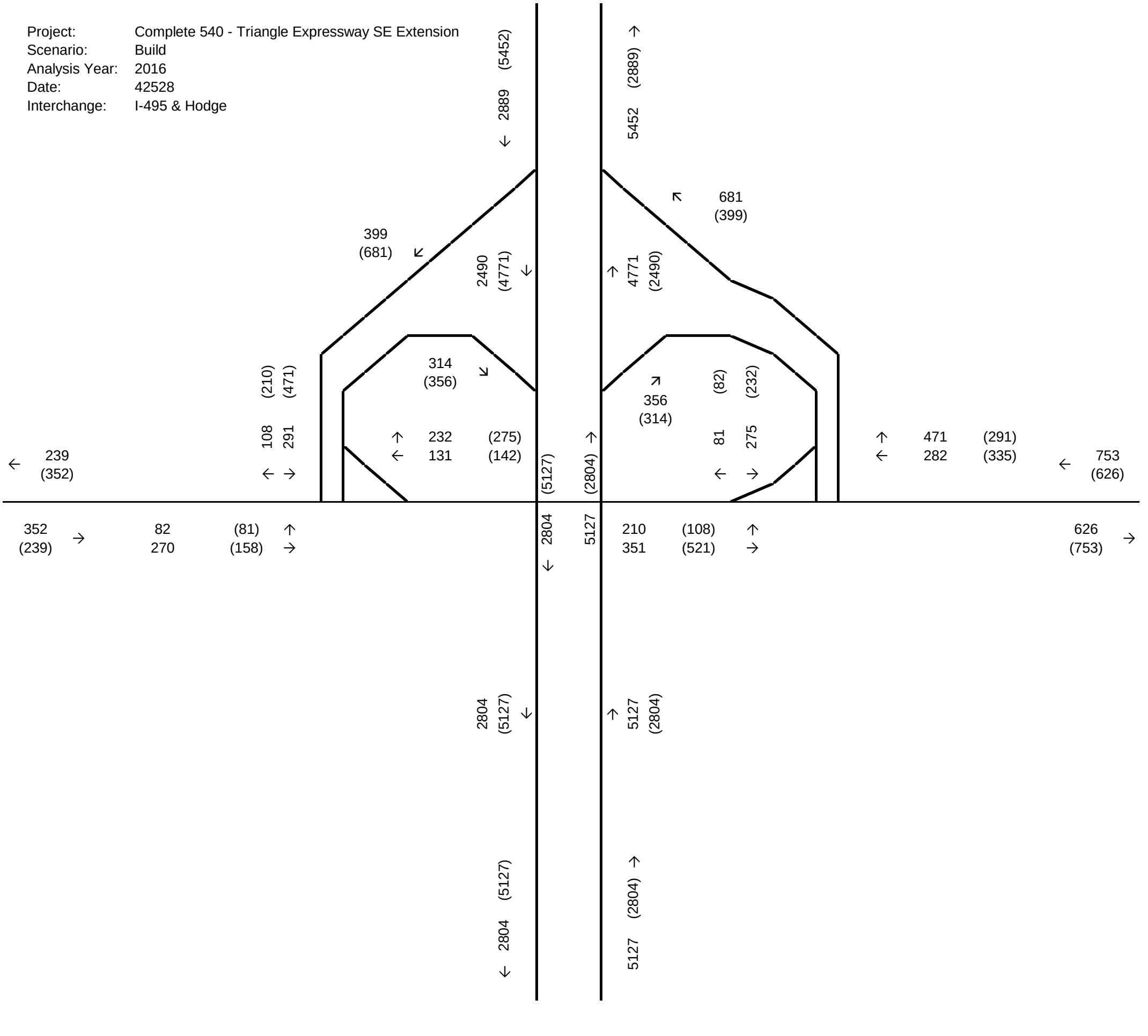


6/7/2016
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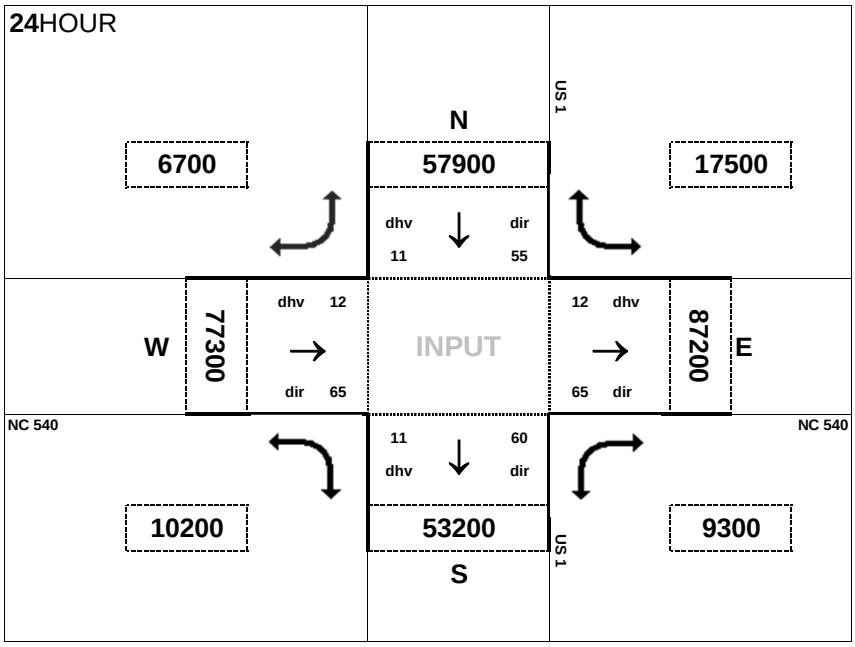
Project: Complete 540 - Triangle Expressway SE Extension
Scenario: No-Build
Analysis Year: 2016
Date: 42528
Interchange: US 264 & Smithfield



Project: Complete 540 - Triangle Expressway SE Extension
Scenario: Build
Analysis Year: 2016
Date: 42528
Interchange: I-495 & Hodge



2040 Build

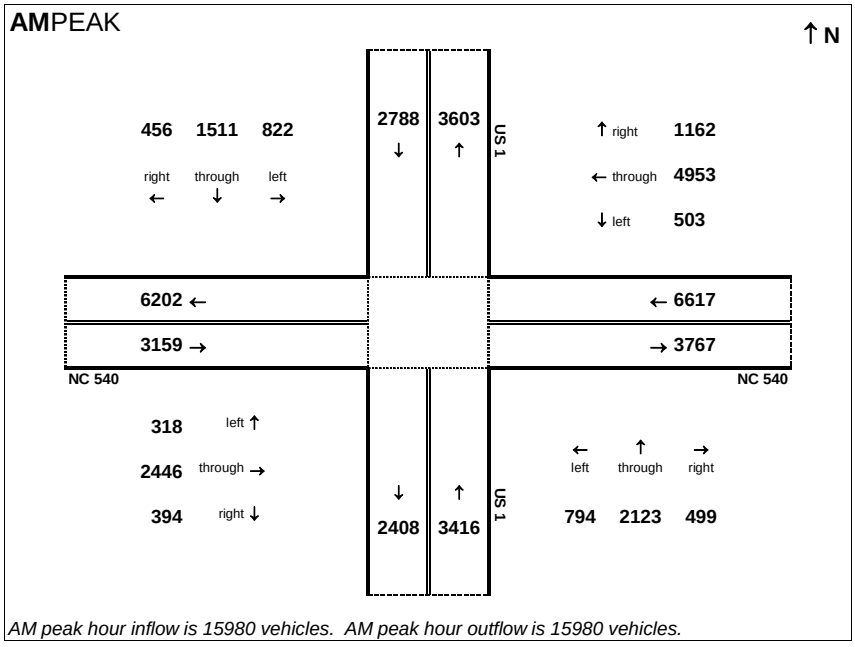


Peak Hour Volume Breakouts Report:
NC 540 & US 1

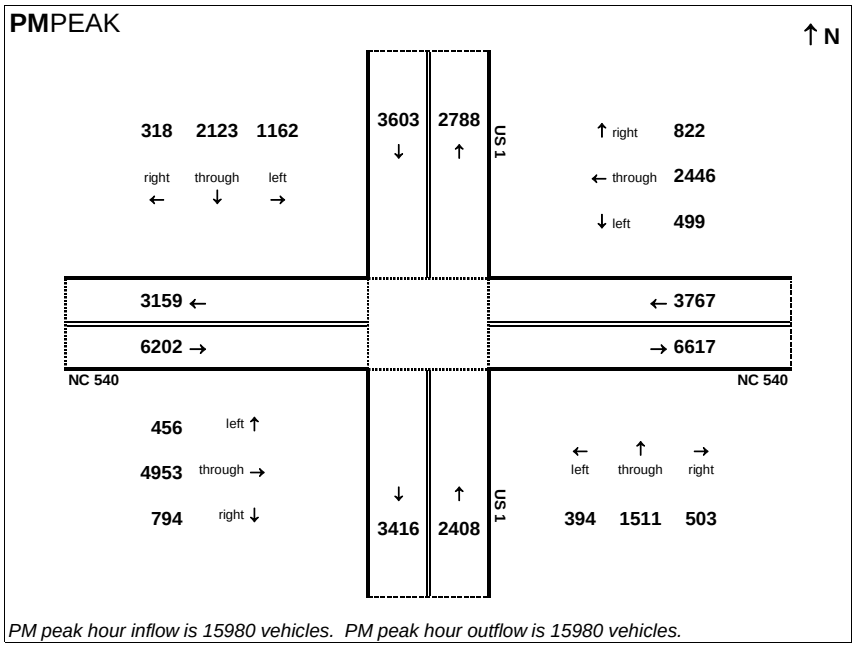
Traffic Forecast Release Date:
May-16

Traffic Data Year:
2040 Build

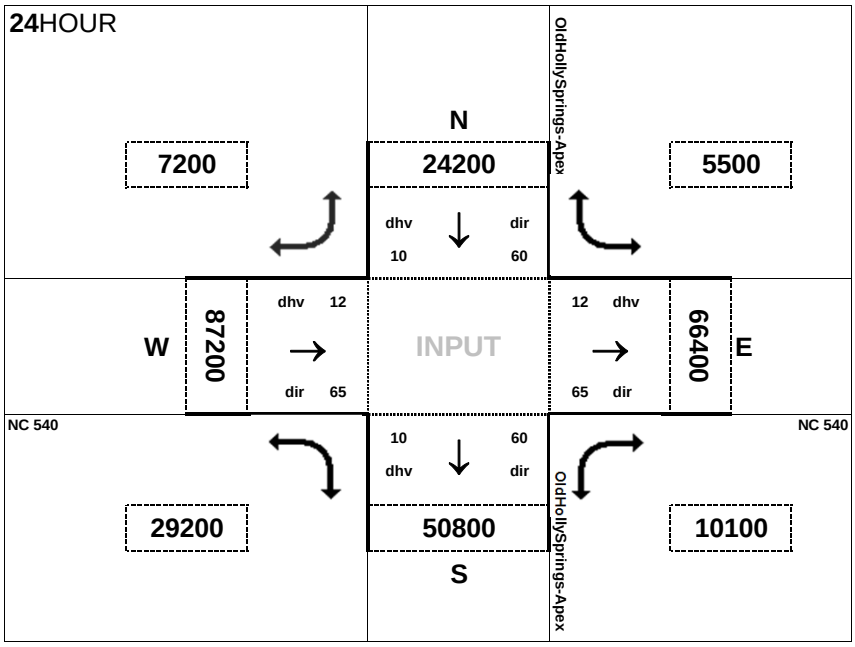
Project:
Complete 540 - Triangle Expressway Southeast Extension



AM peak hour inflow is 15980 vehicles. AM peak hour outflow is 15980 vehicles.



PM peak hour inflow is 15980 vehicles. PM peak hour outflow is 15980 vehicles.

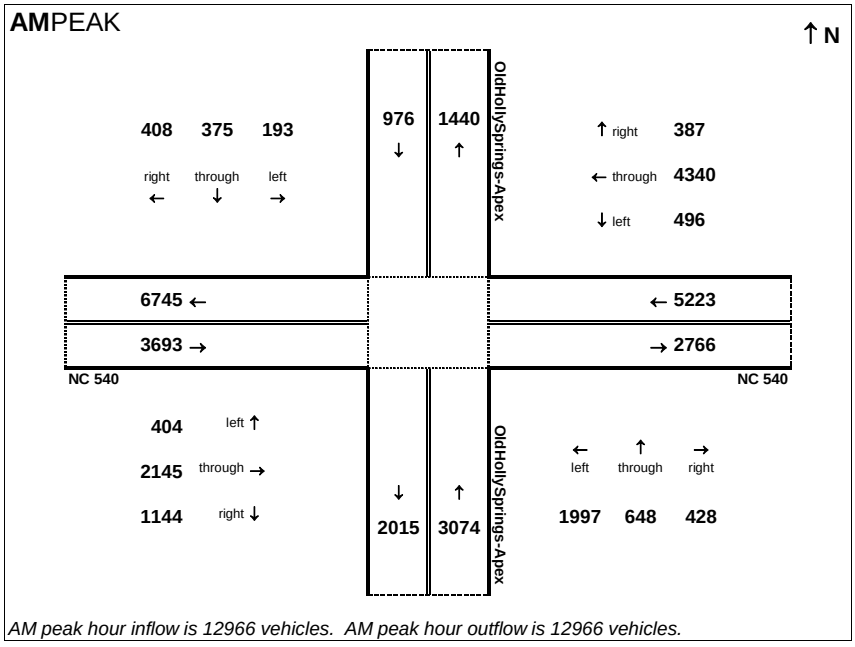


Peak Hour Volume Breakouts Report:
NC 540 & Old Holly Springs-Apex

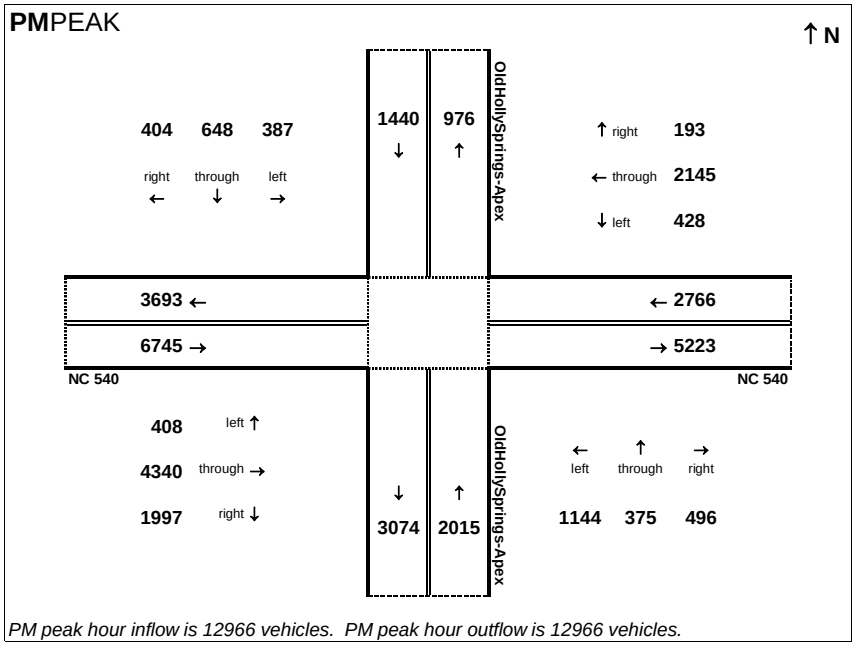
Traffic Forecast Release Date:
May-16

Traffic Data Year:
2040 Build

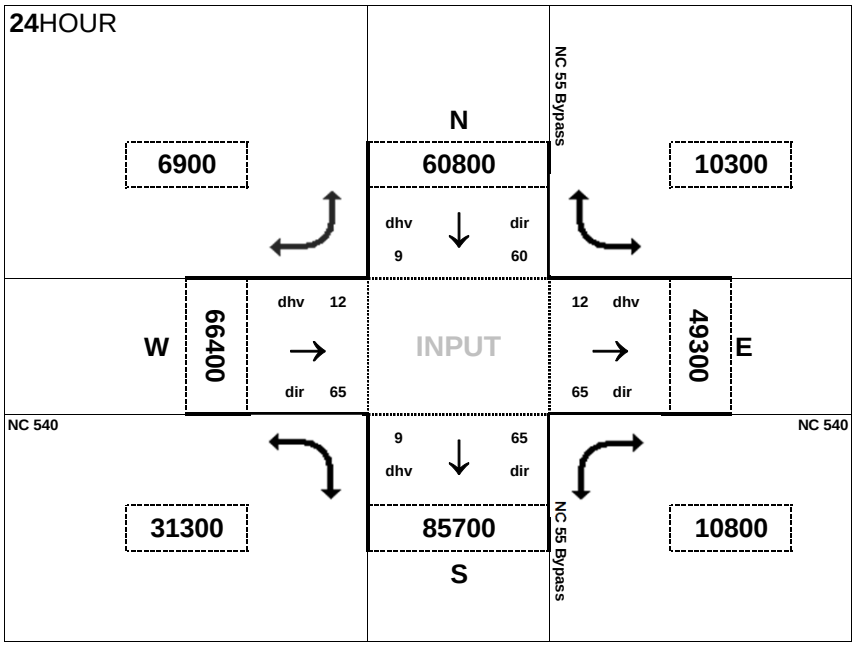
Project:
Complete 540 - Triangle Expressway Southeast Extension

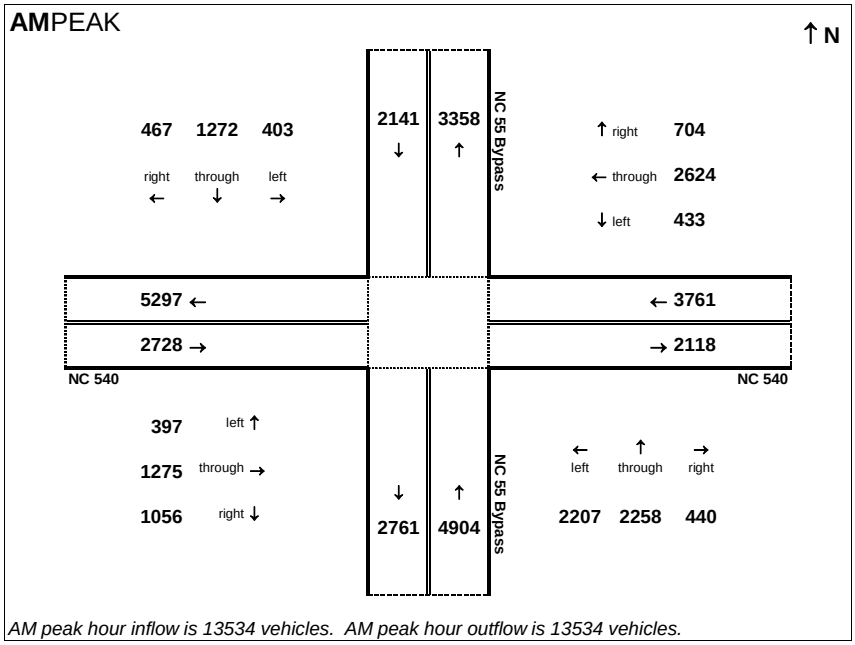


AM peak hour inflow is 12966 vehicles. AM peak hour outflow is 12966 vehicles.

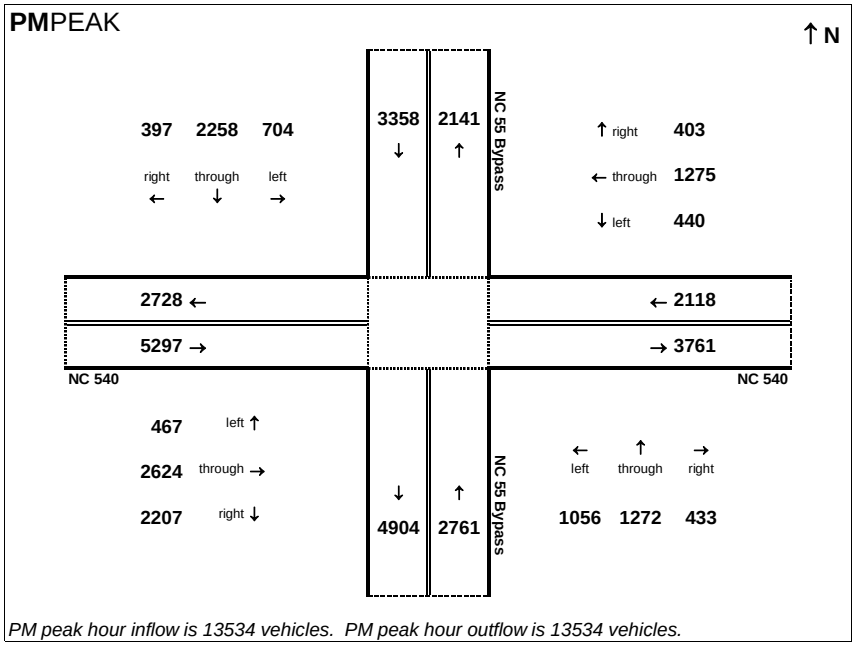


PM peak hour inflow is 12966 vehicles. PM peak hour outflow is 12966 vehicles.





AM peak hour inflow is 13534 vehicles. AM peak hour outflow is 13534 vehicles.



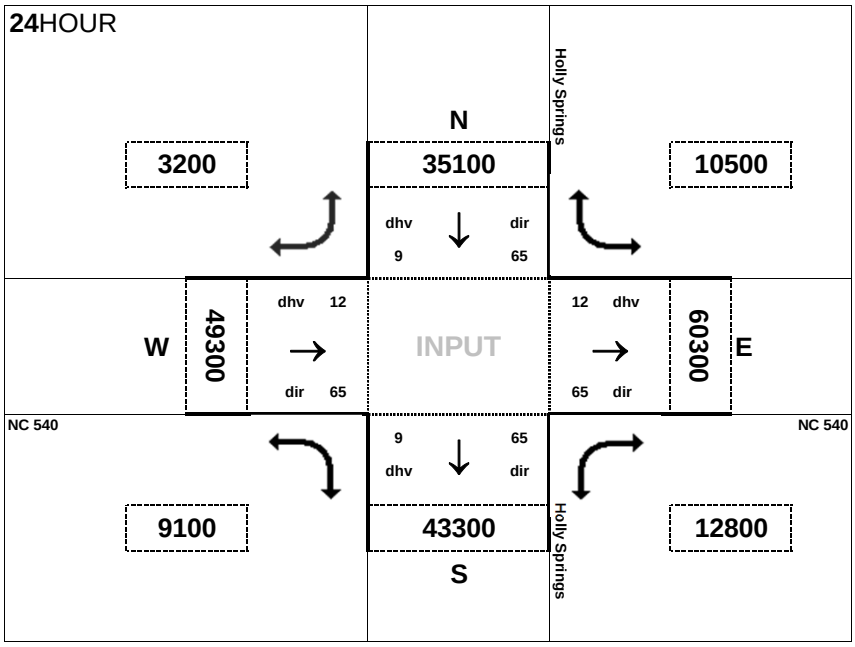
PM peak hour inflow is 13534 vehicles. PM peak hour outflow is 13534 vehicles.

Peak Hour Volume Breakouts Report:
NC 540 & NC 55 Bypass

Traffic Forecast Release Date:
May-16

Traffic Data Year:
2040 Build

Project:
Complete 540 - Triangle Expressway Southeast Extension

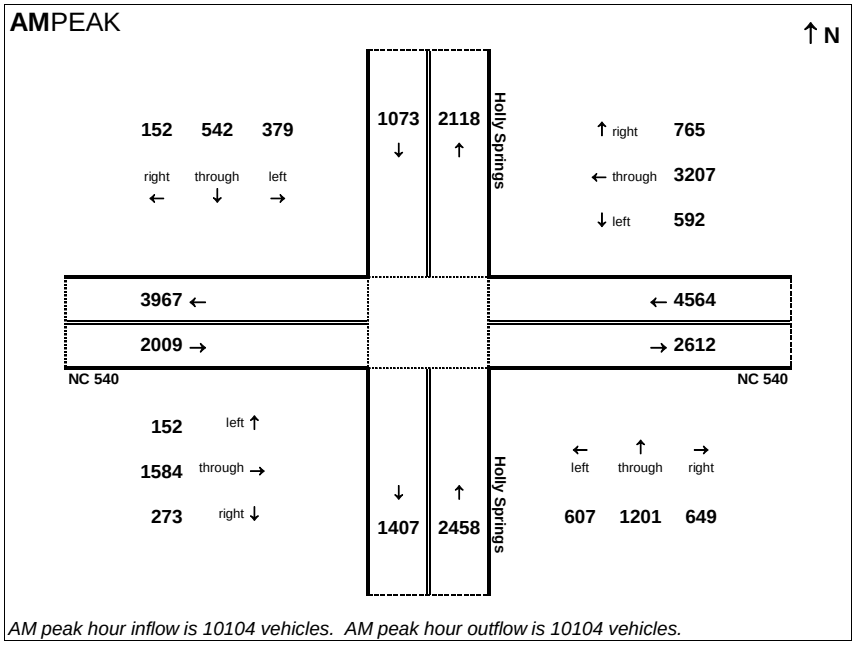


Peak Hour Volume Breakouts Report:
NC 540 & Holly Springs

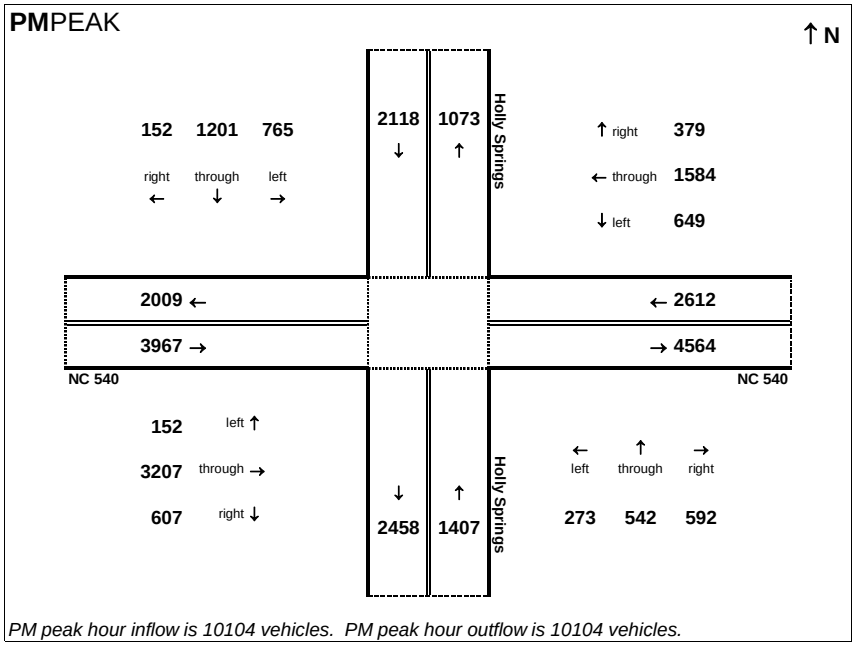
Traffic Forecast Release Date:
May-16

Traffic Data Year:
2040 Build

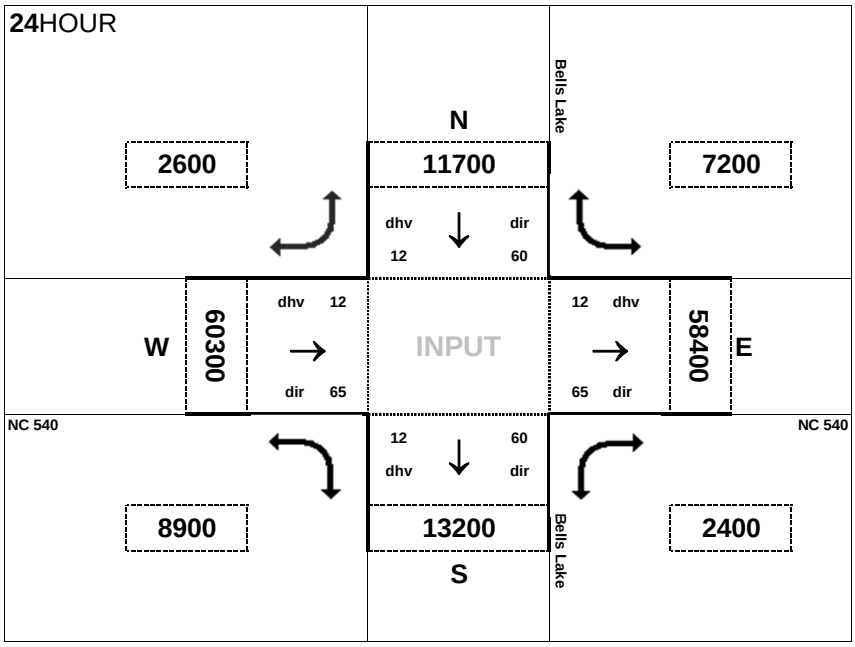
Project:
Complete 540 - Triangle Expressway Southeast Extension



AM peak hour inflow is 10104 vehicles. AM peak hour outflow is 10104 vehicles.



PM peak hour inflow is 10104 vehicles. PM peak hour outflow is 10104 vehicles.

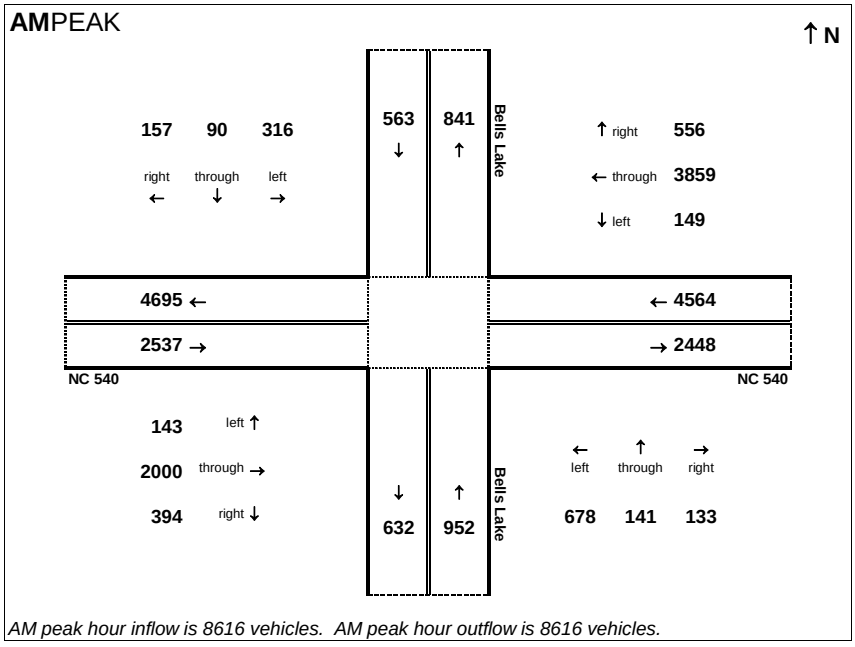


Peak Hour Volume Breakouts Report:
NC 540 & Bells Lake

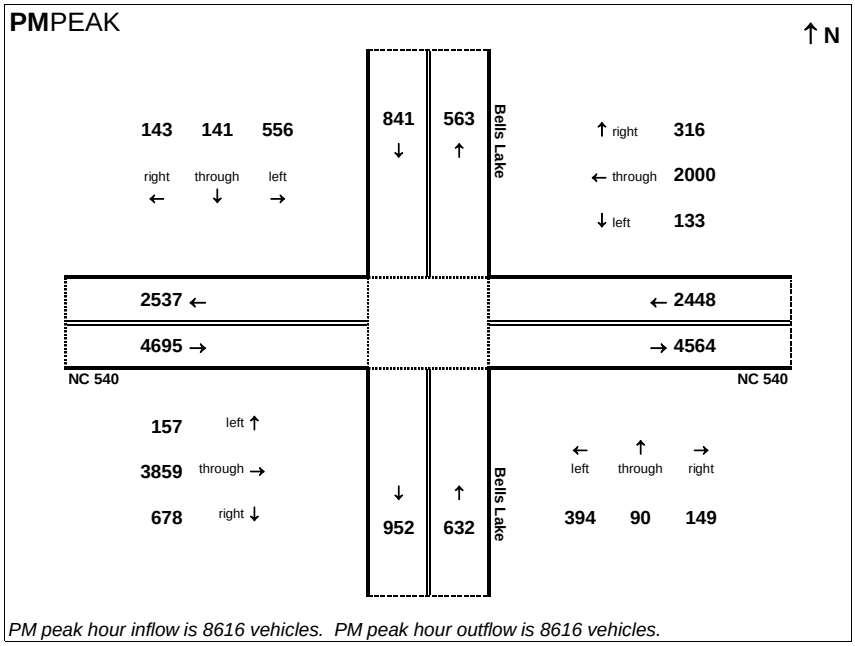
Traffic Forecast Release Date:
May-16

Traffic Data Year:
2040 Build

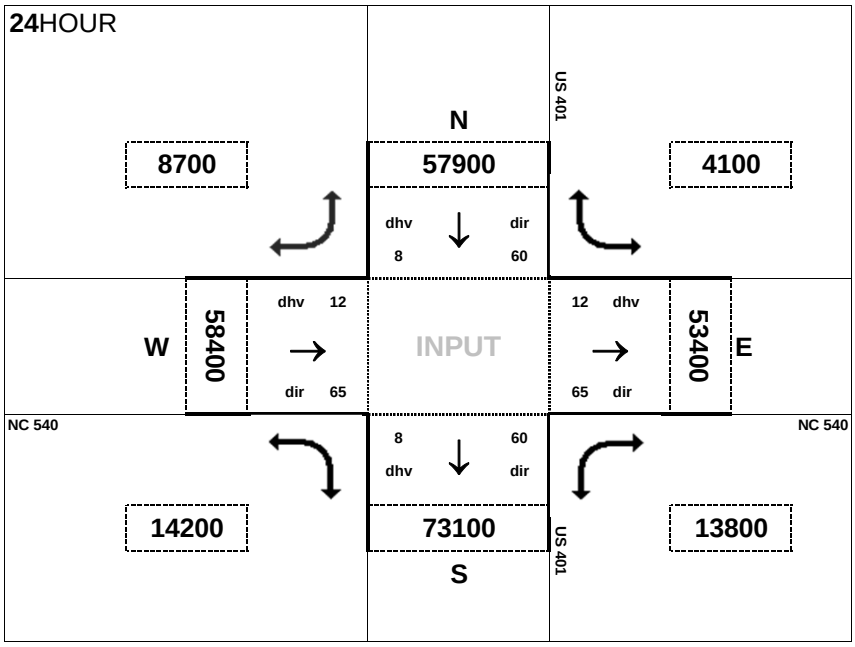
Project:
Complete 540 - Triangle Expressway Southeast Extension



AM peak hour inflow is 8616 vehicles. AM peak hour outflow is 8616 vehicles.



PM peak hour inflow is 8616 vehicles. PM peak hour outflow is 8616 vehicles.

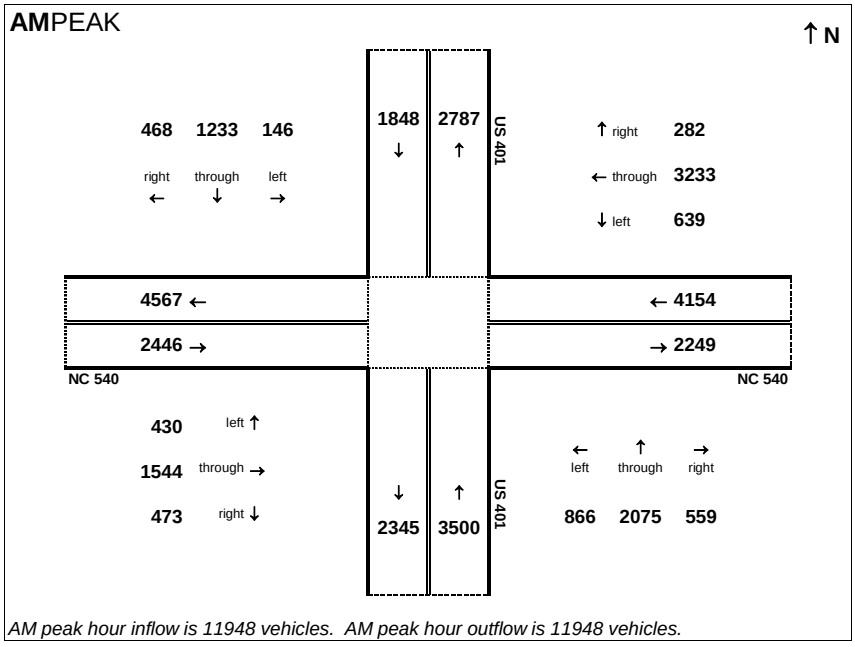


Peak Hour Volume Breakouts Report:
NC 540 & US 401

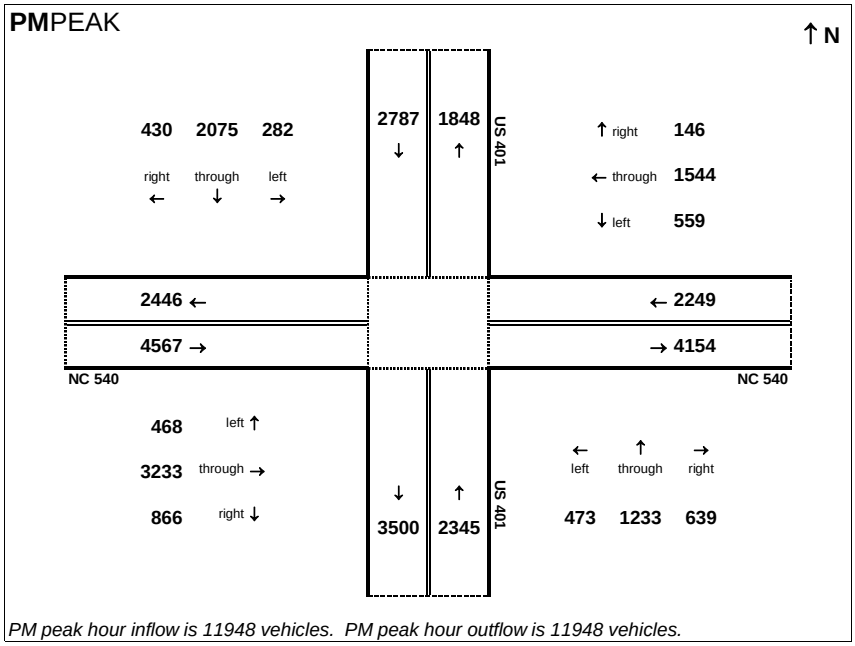
Traffic Forecast Release Date:
May-16

Traffic Data Year:
2040 Build

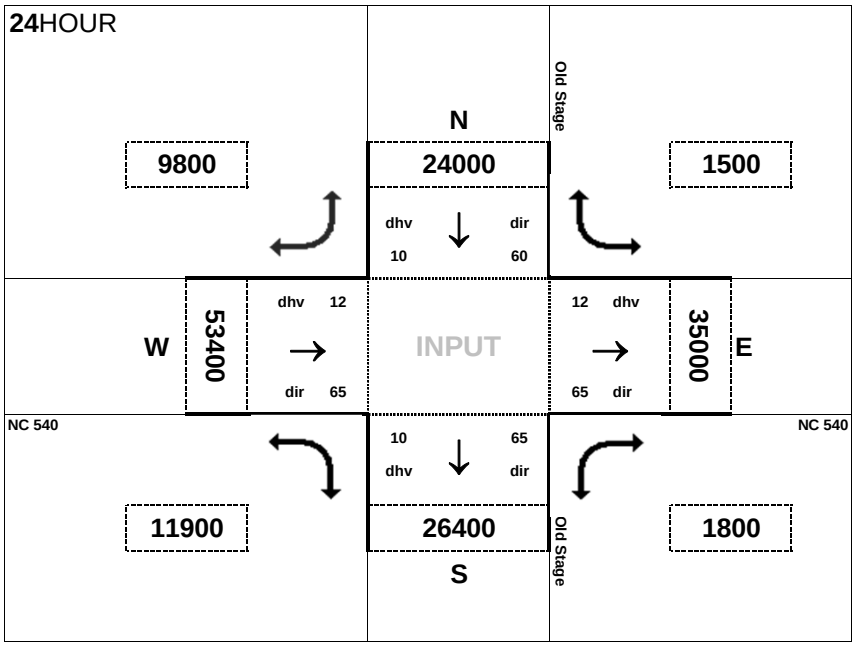
Project:
Complete 540 - Triangle Expressway Southeast Extension



AM peak hour inflow is 11948 vehicles. AM peak hour outflow is 11948 vehicles.



PM peak hour inflow is 11948 vehicles. PM peak hour outflow is 11948 vehicles.

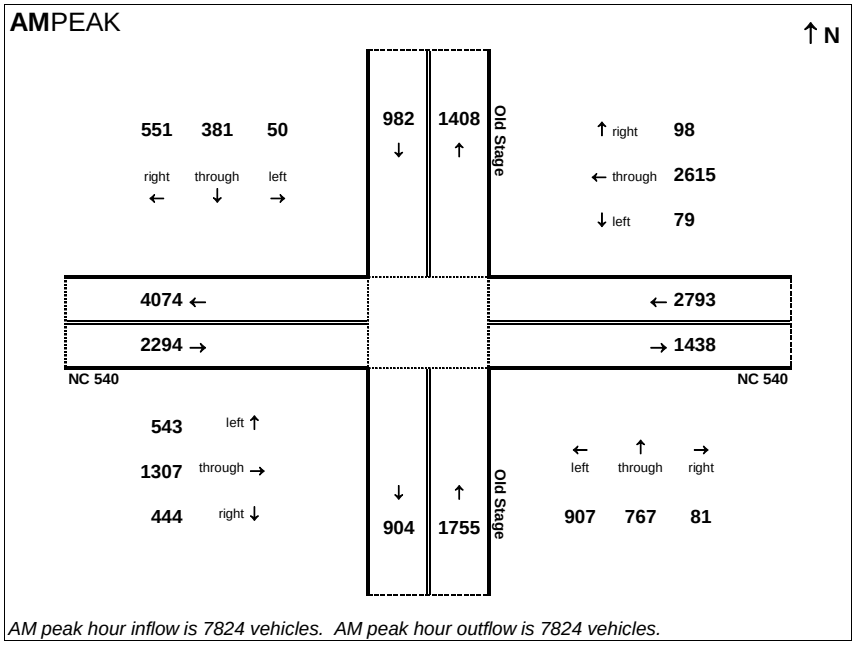


Peak Hour Volume Breakouts Report:
NC 540 & Old Stage

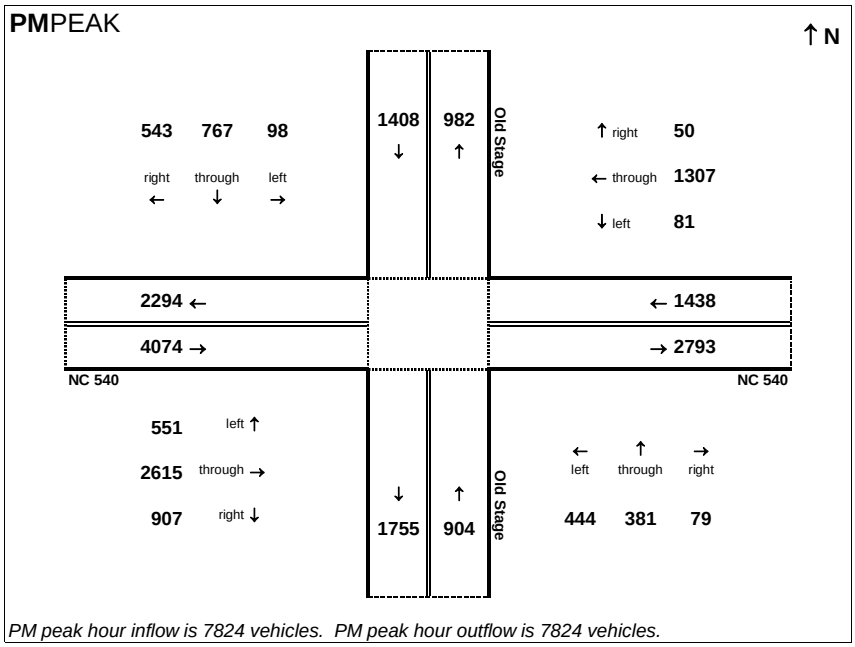
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May-16

Traffic Data Year:
2040 Build

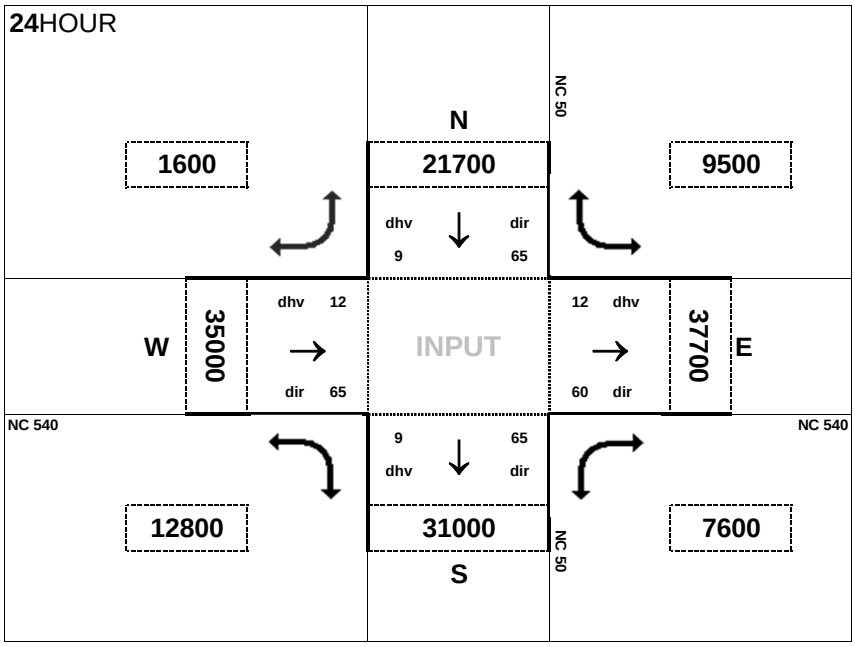
Project:
Complete 540 - Triangle Expressway Southeast Extension



AM peak hour inflow is 7824 vehicles. AM peak hour outflow is 7824 vehicles.



PM peak hour inflow is 7824 vehicles. PM peak hour outflow is 7824 vehicles.

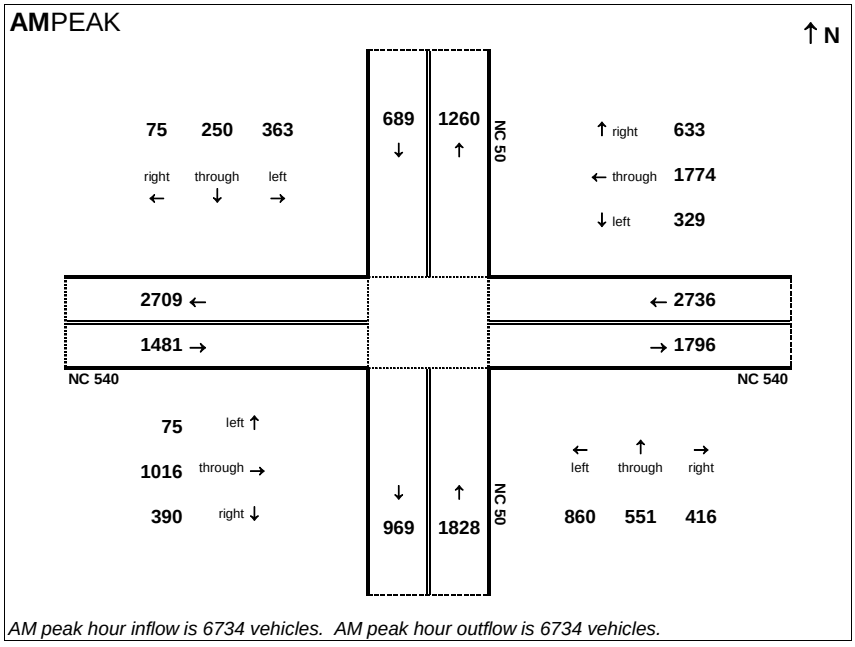


Peak Hour Volume Breakouts Report:
NC 540 & NC 50

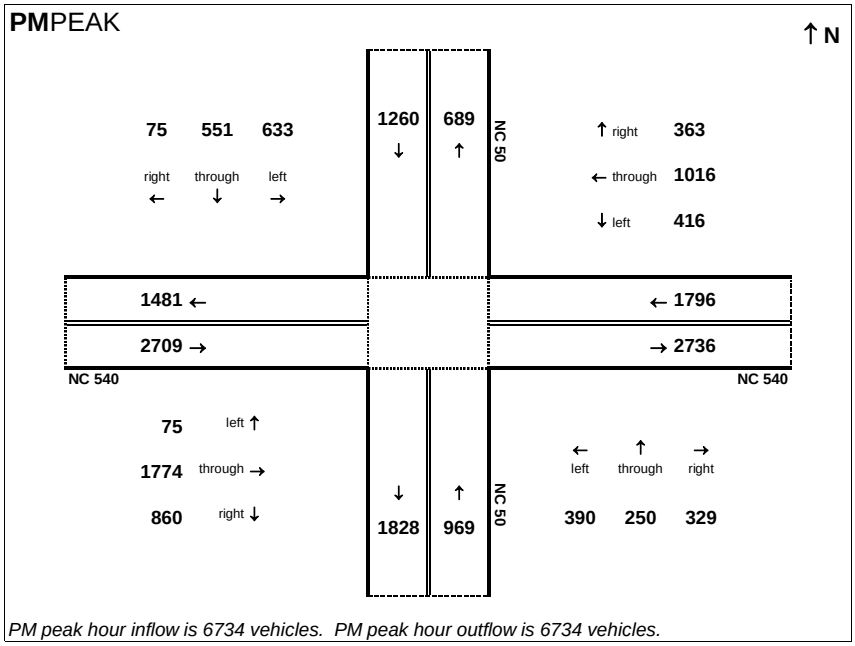
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May-16

Traffic Data Year:
2040 Build

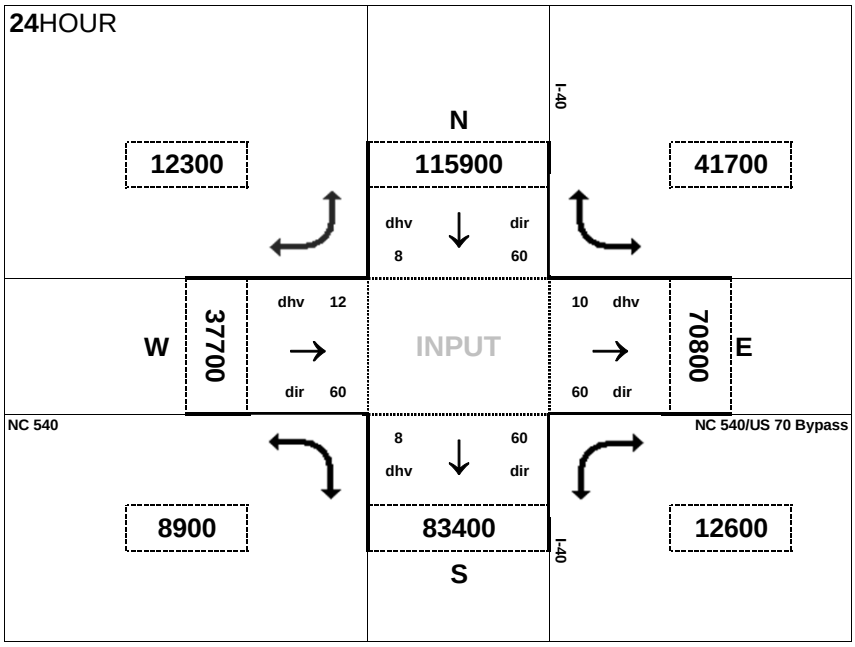
Project:
Complete 540 - Triangle Expressway Southeast Extension



AM peak hour inflow is 6734 vehicles. AM peak hour outflow is 6734 vehicles.



PM peak hour inflow is 6734 vehicles. PM peak hour outflow is 6734 vehicles.

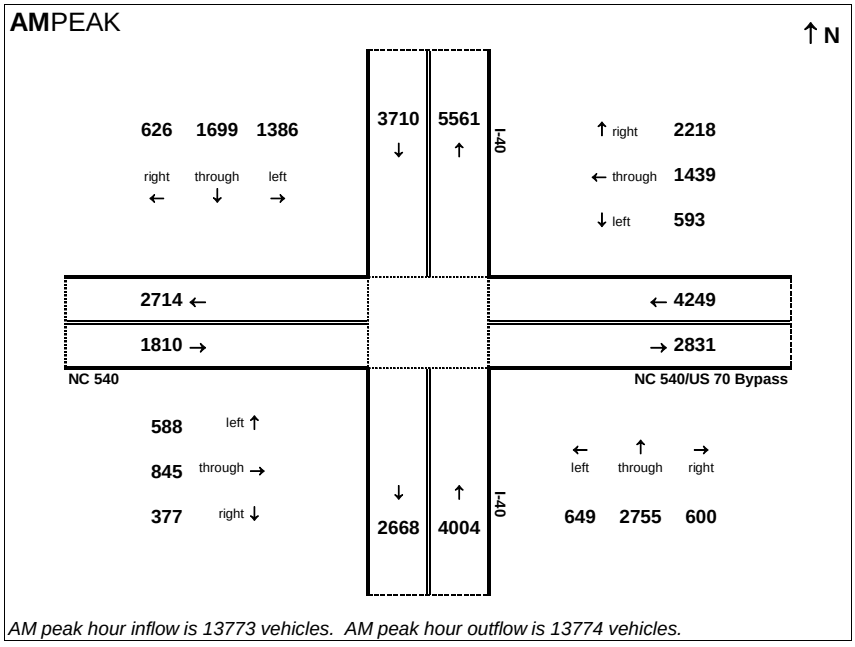


Peak Hour Volume Breakouts Report:
NC 540 & I-40 & US 70 Bypass

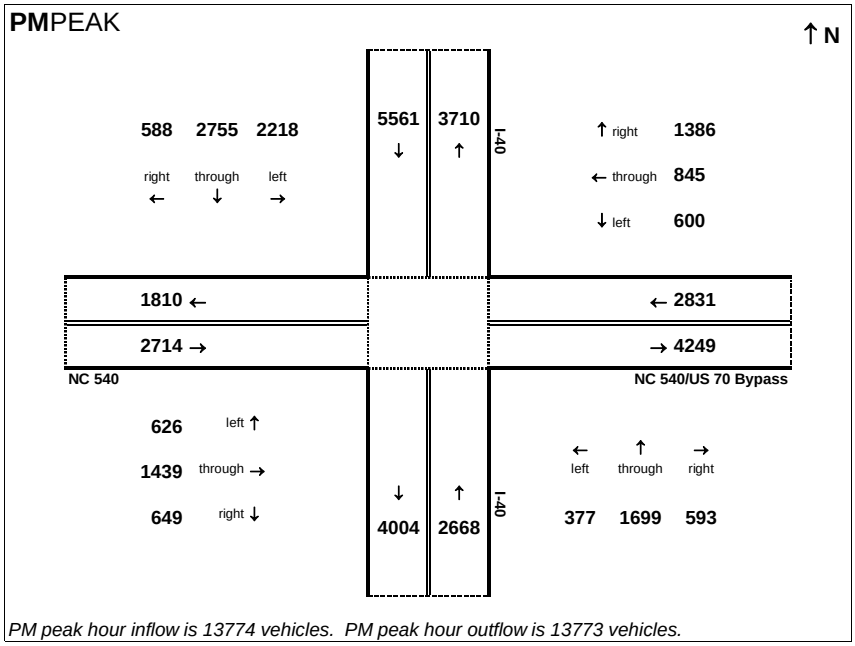
Traffic Forecast Release Date:
May-16

Traffic Data Year:
2040 Build

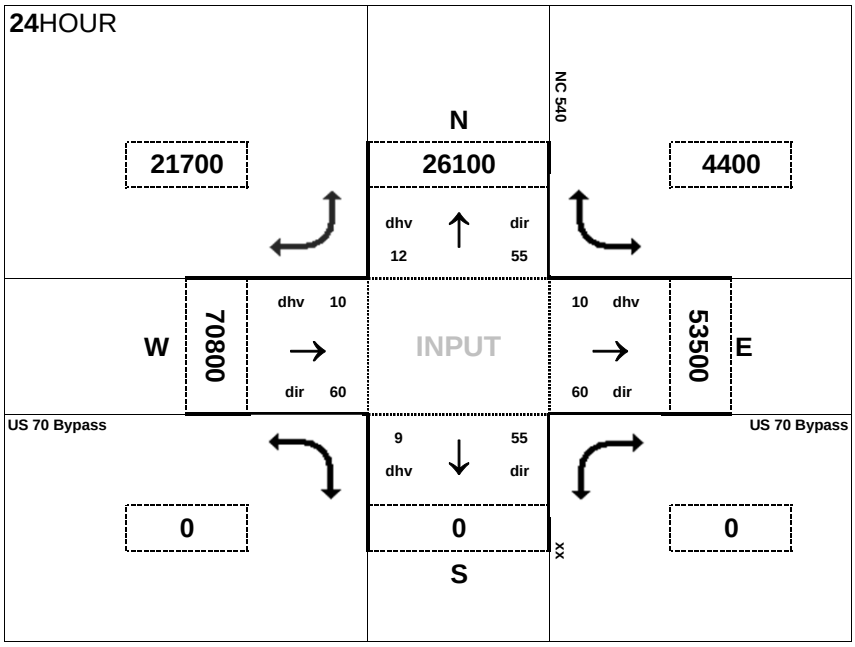
Project:
Complete 540 - Triangle Expressway Southeast Extension



AM peak hour inflow is 13773 vehicles. AM peak hour outflow is 13774 vehicles.



PM peak hour inflow is 13774 vehicles. PM peak hour outflow is 13773 vehicles.

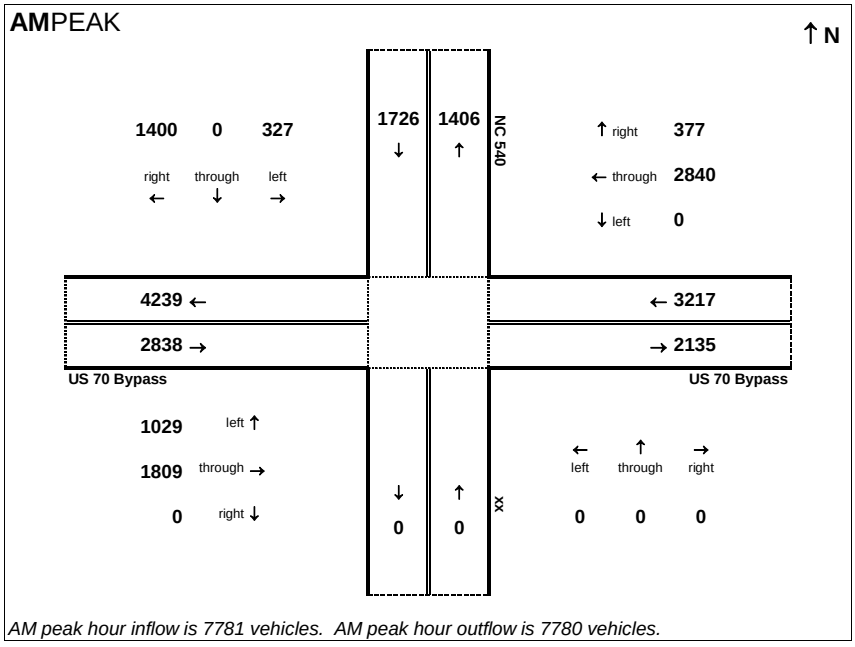


Peak Hour Volume Breakouts Report:
NC 540 & US 70 Bypass

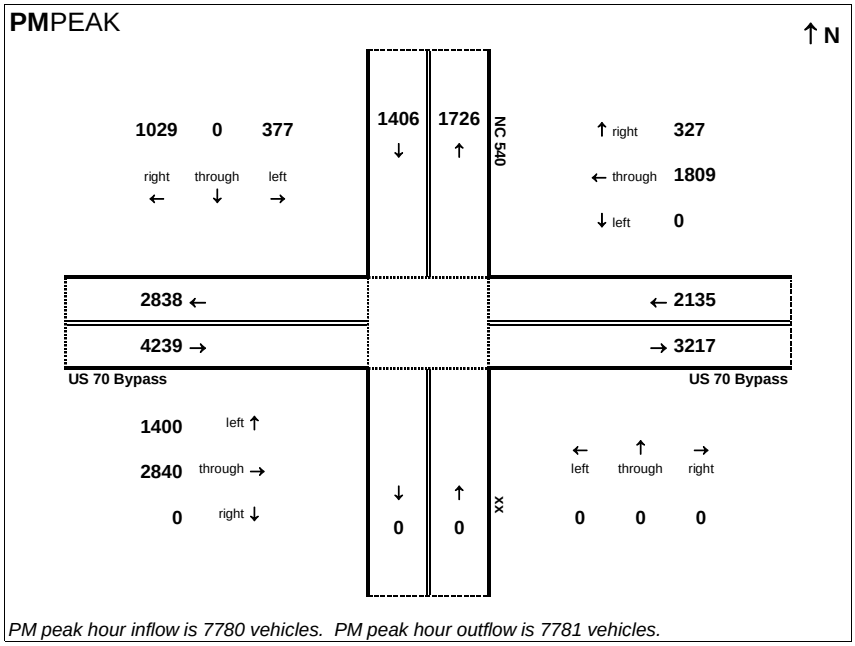
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May-16

Traffic Data Year:
2040 Build

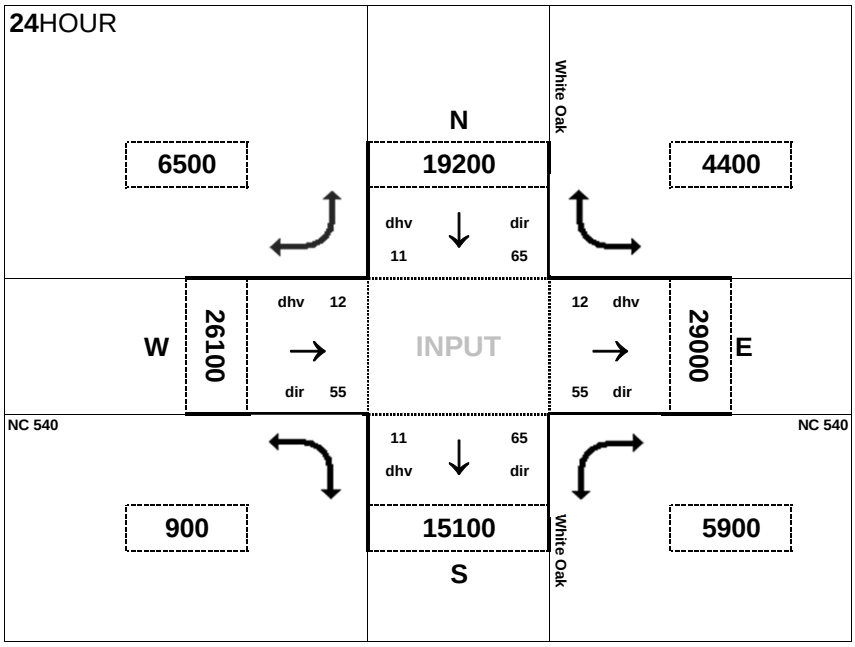
Project:
Complete 540 - Triangle Expressway Southeast Extension



AM peak hour inflow is 7781 vehicles. AM peak hour outflow is 7780 vehicles.



PM peak hour inflow is 7780 vehicles. PM peak hour outflow is 7781 vehicles.

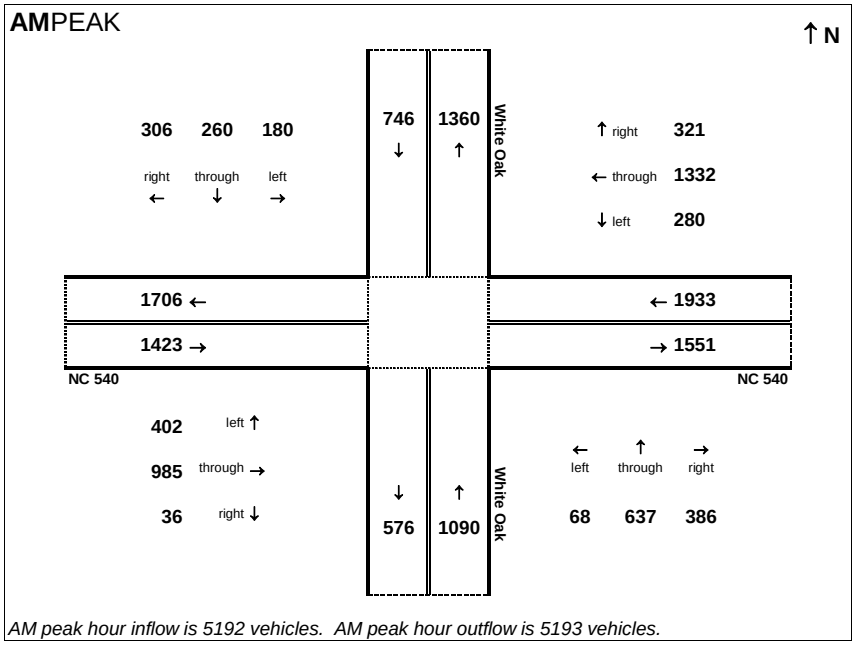


Peak Hour Volume Breakouts Report:
NC 540 & White Oak

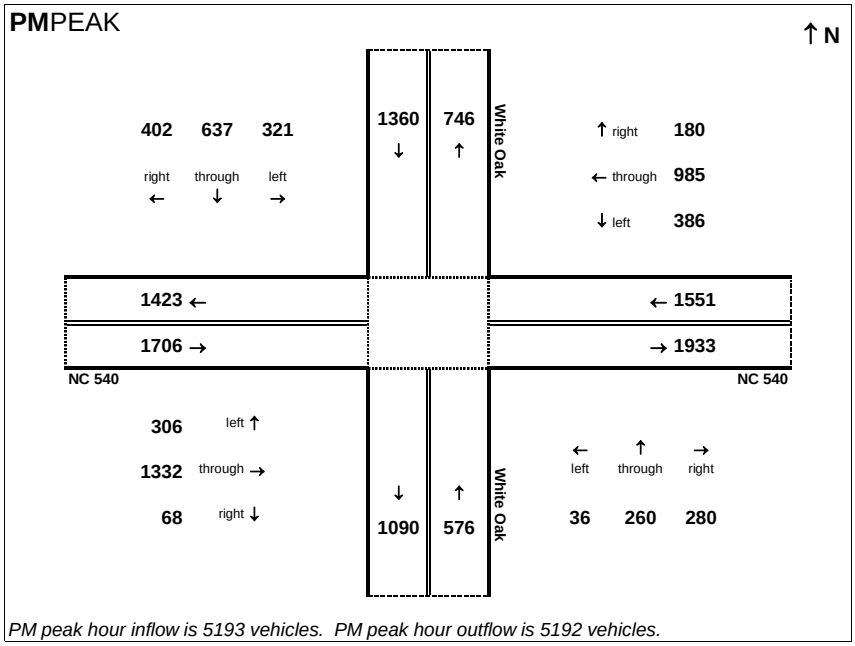
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May-16

Traffic Data Year:
2040 Build

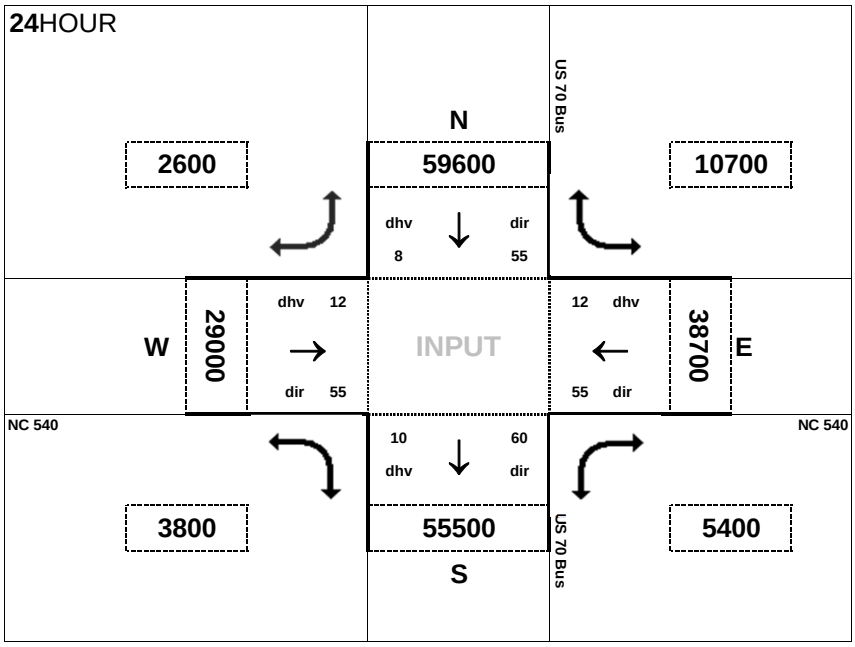
Project:
Complete 540 - Triangle Expressway Southeast Extension



AM peak hour inflow is 5192 vehicles. AM peak hour outflow is 5193 vehicles.



PM peak hour inflow is 5193 vehicles. PM peak hour outflow is 5192 vehicles.

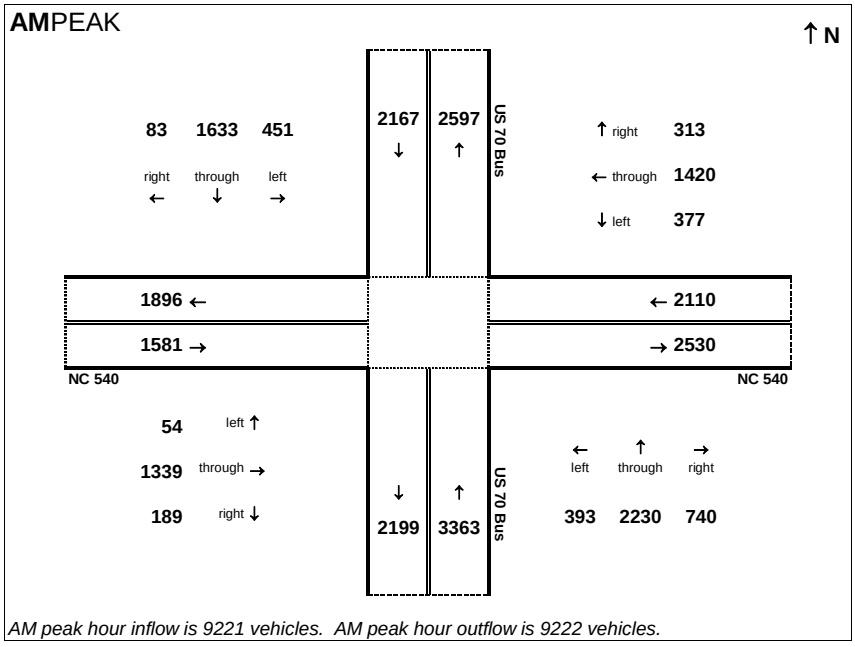


Peak Hour Volume Breakouts Report:
NC 540 & US 70 Bus

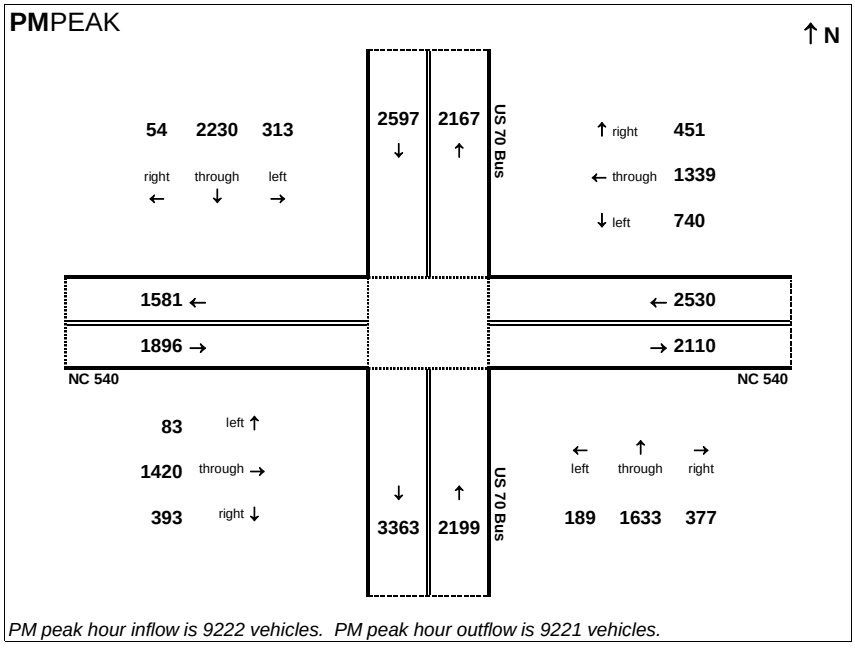
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May-16

Traffic Data Year:
2040 Build

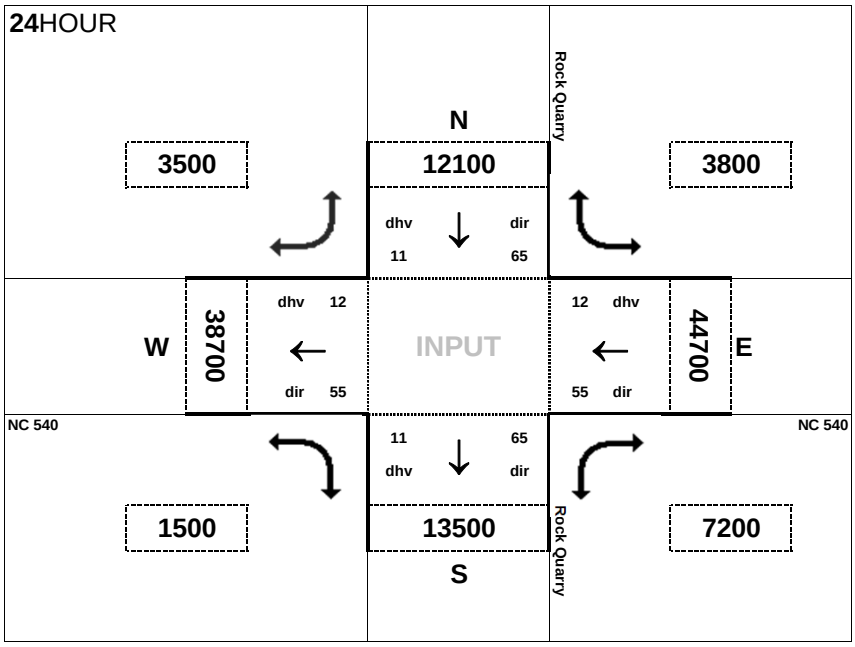
Project:
Complete 540 - Triangle Expressway Southeast Extension



AM peak hour inflow is 9221 vehicles. AM peak hour outflow is 9222 vehicles.



PM peak hour inflow is 9222 vehicles. PM peak hour outflow is 9221 vehicles.

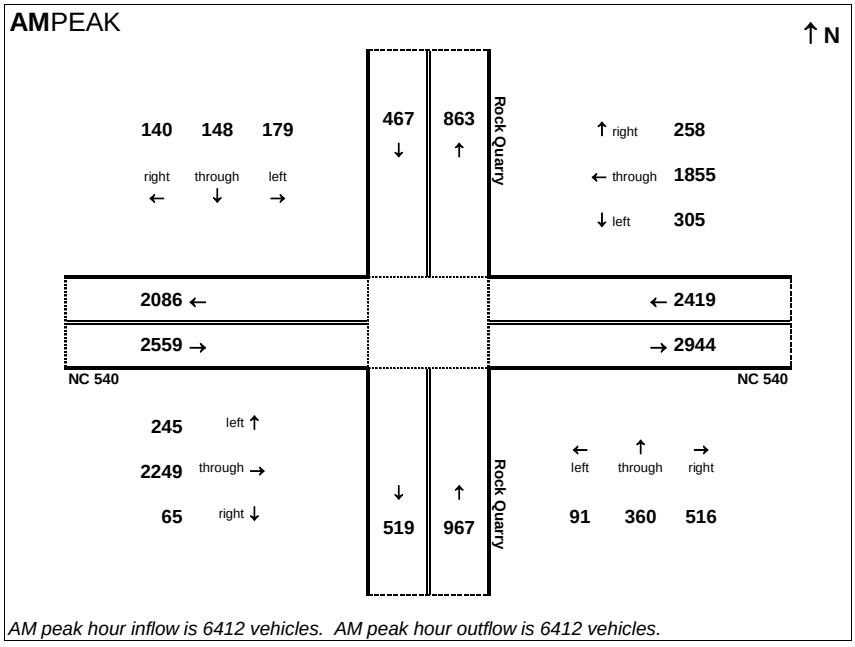


Peak Hour Volume Breakouts Report:
NC 540 & Rock Quarry

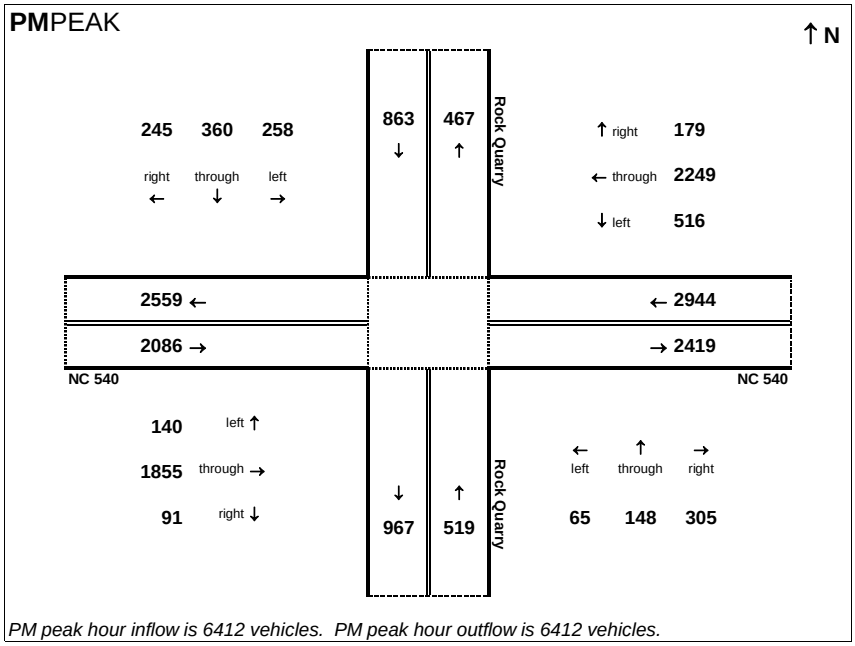
Traffic Forecast Release Date:
May-16

Traffic Data Year:
2040 Build

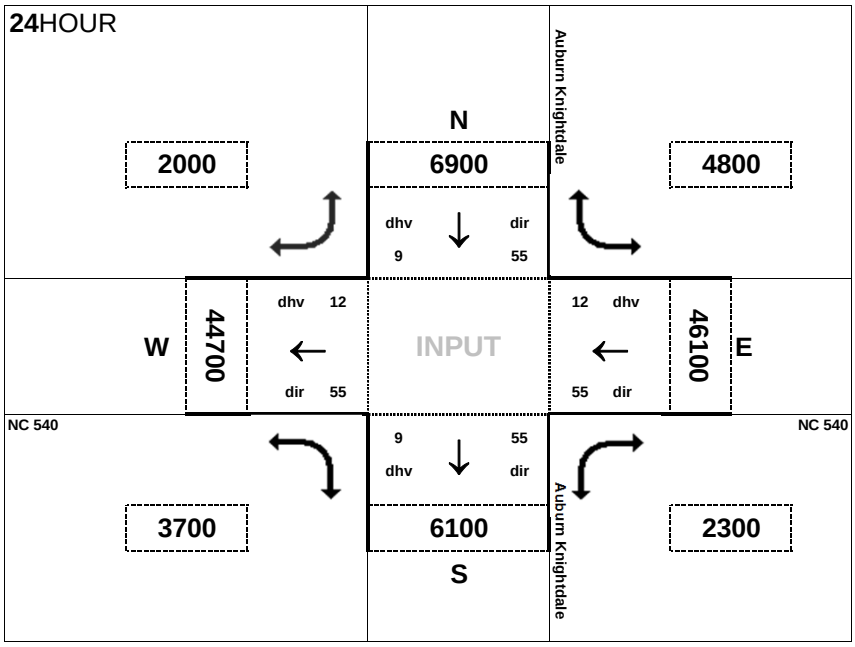
Project:
Complete 540 - Triangle Expressway Southeast Extension



AM peak hour inflow is 6412 vehicles. AM peak hour outflow is 6412 vehicles.



PM peak hour inflow is 6412 vehicles. PM peak hour outflow is 6412 vehicles.

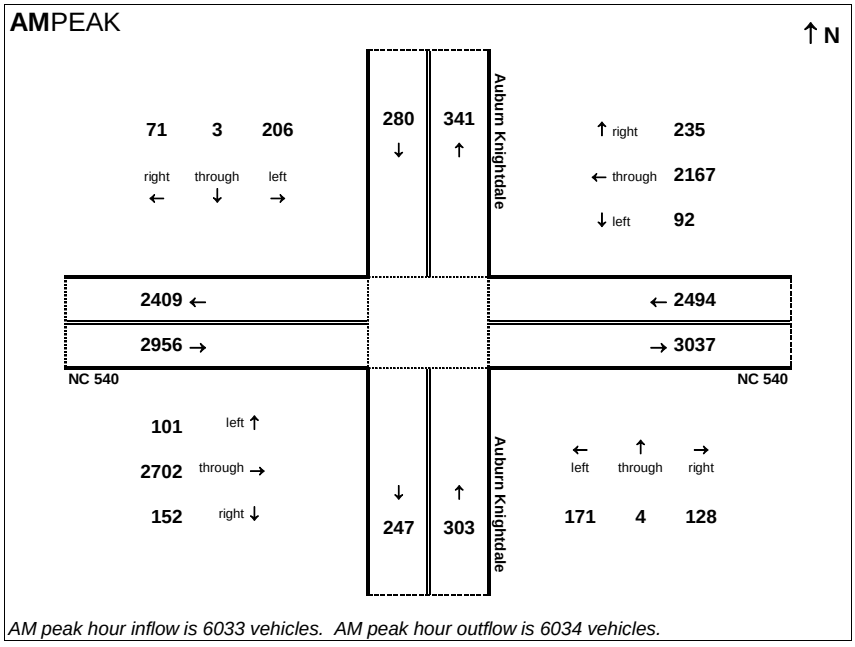


Peak Hour Volume Breakouts Report:
NC 540 & Auburn Knightdale

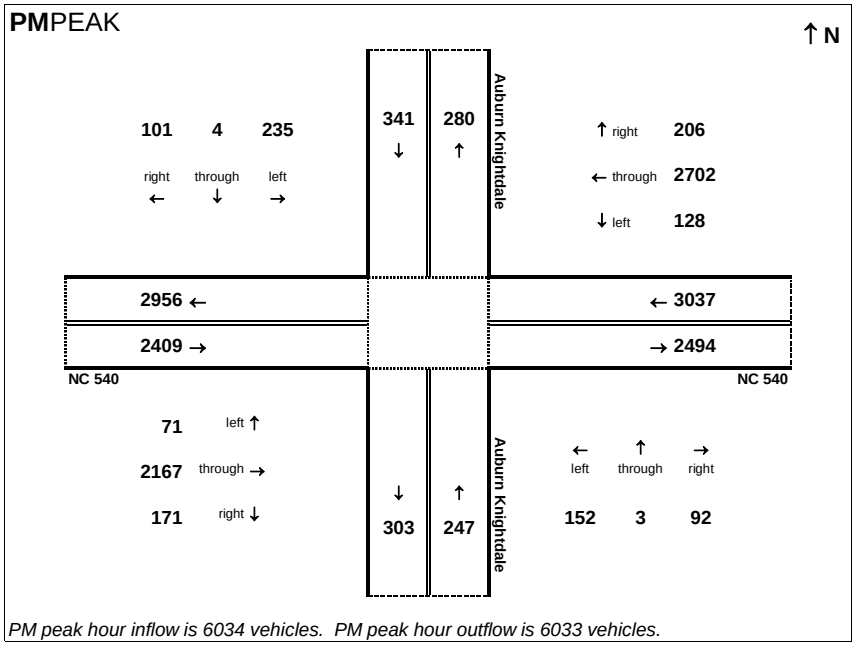
Traffic Forecast Release Date:
May-16

Traffic Data Year:
2040 Build

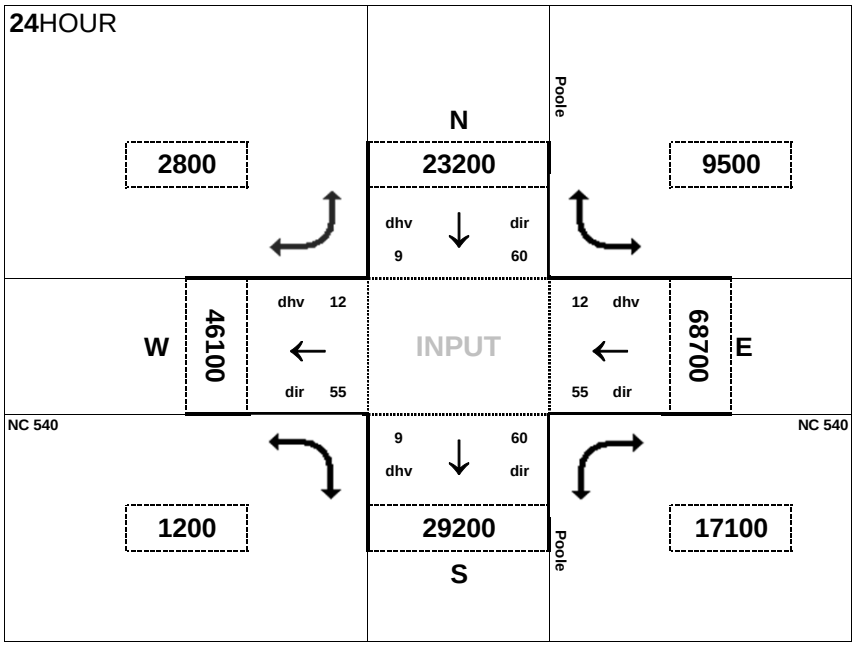
Project:
Complete 540 - Triangle Expressway Southeast Extension



AM peak hour inflow is 6033 vehicles. AM peak hour outflow is 6034 vehicles.



PM peak hour inflow is 6034 vehicles. PM peak hour outflow is 6033 vehicles.

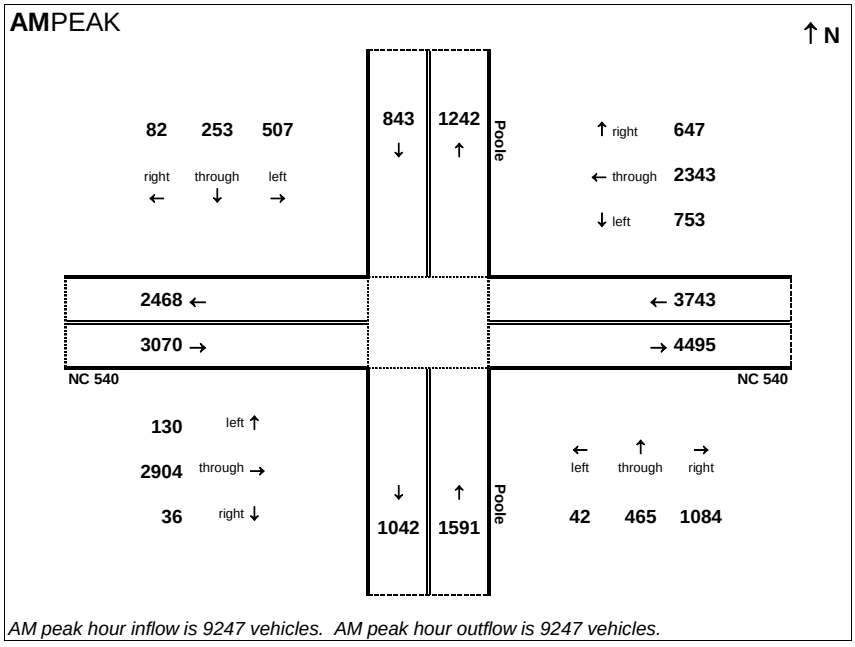


Peak Hour Volume Breakouts Report:
NC 540 & Poole

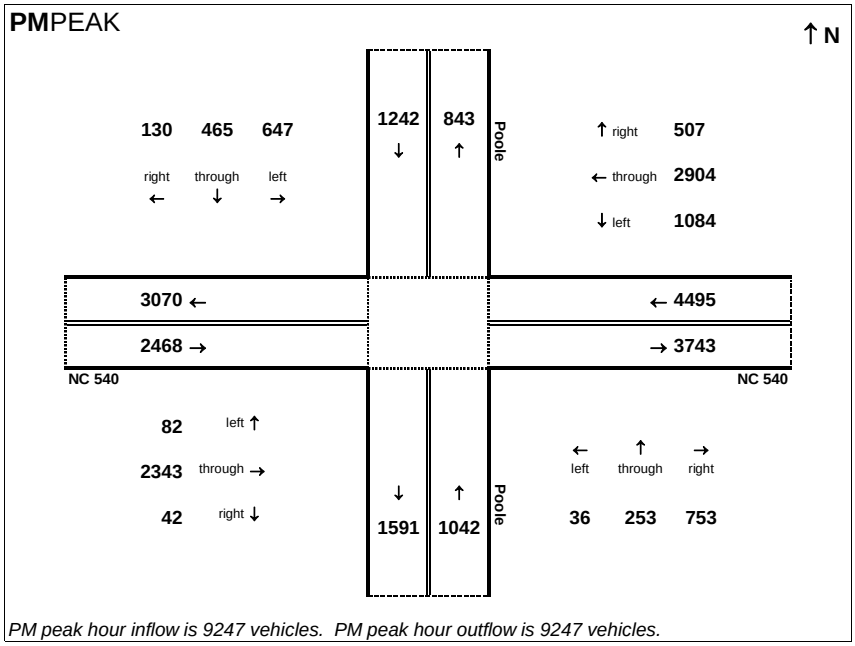
Traffic Forecast Release Date:
May-16

Traffic Data Year:
2040 Build

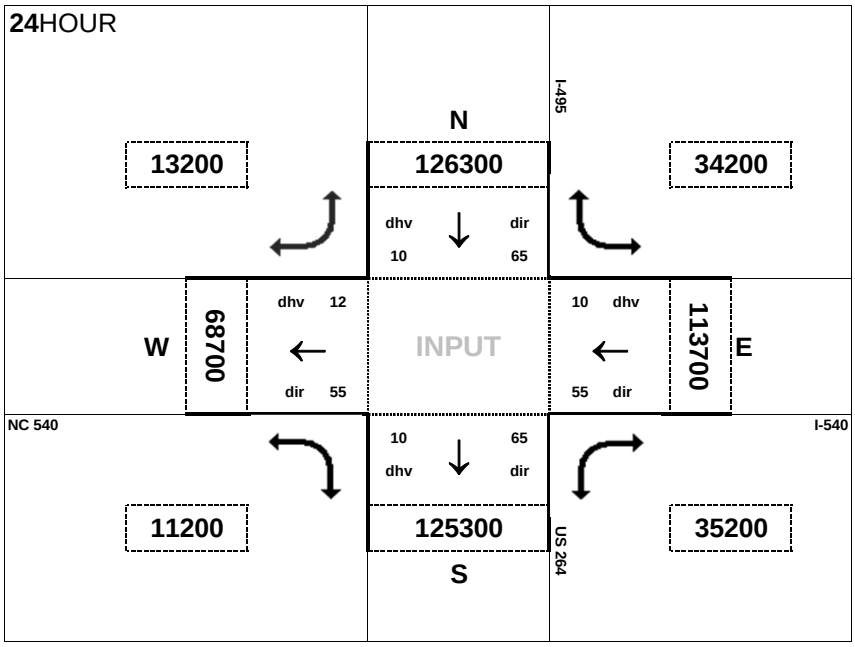
Project:
Complete 540 - Triangle Expressway Southeast Extension



AM peak hour inflow is 9247 vehicles. AM peak hour outflow is 9247 vehicles.



PM peak hour inflow is 9247 vehicles. PM peak hour outflow is 9247 vehicles.

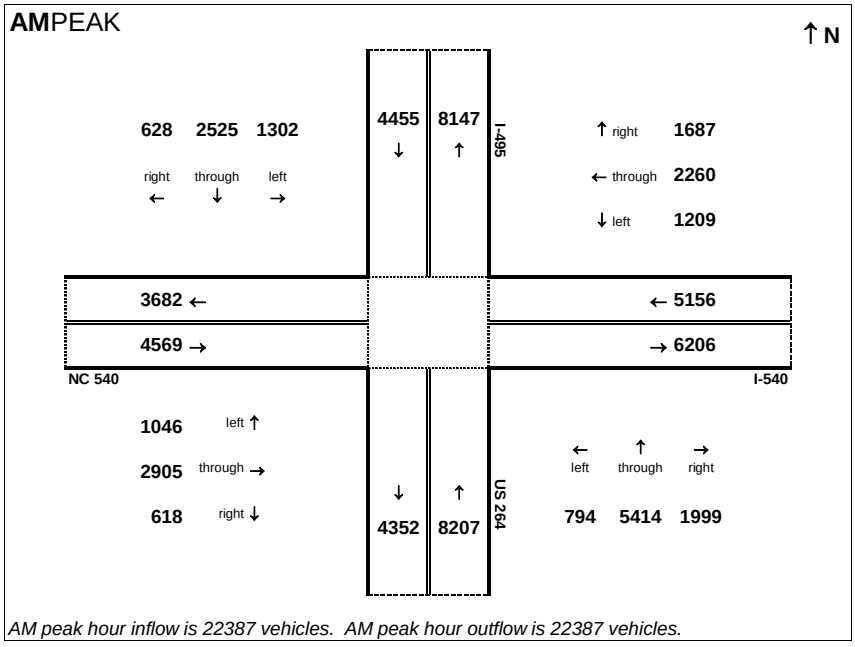


Peak Hour Volume Breakouts Report:
NC 540 & I-540 & I-495/US 264

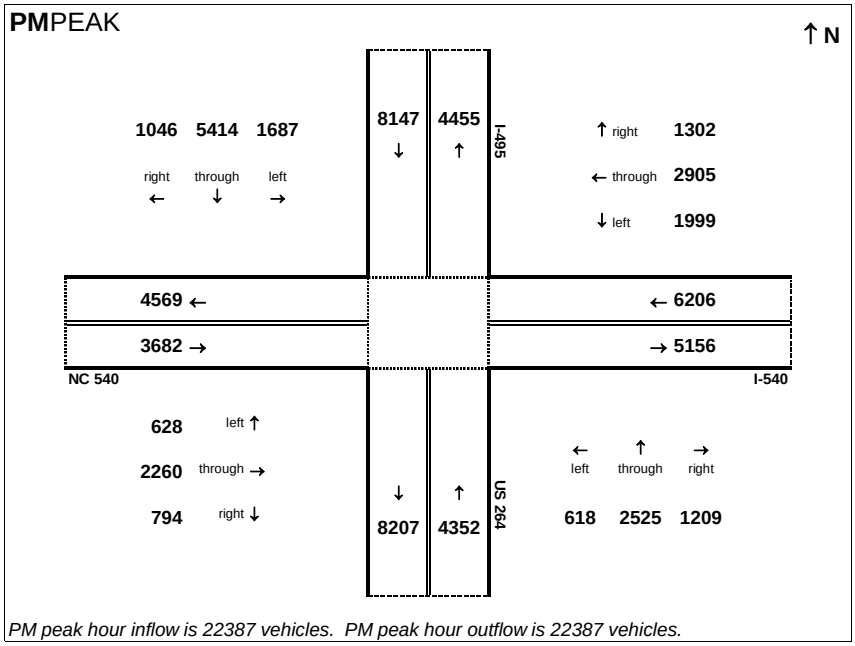
Traffic Forecast Release Date:
May-16

Traffic Data Year:
2040 Build

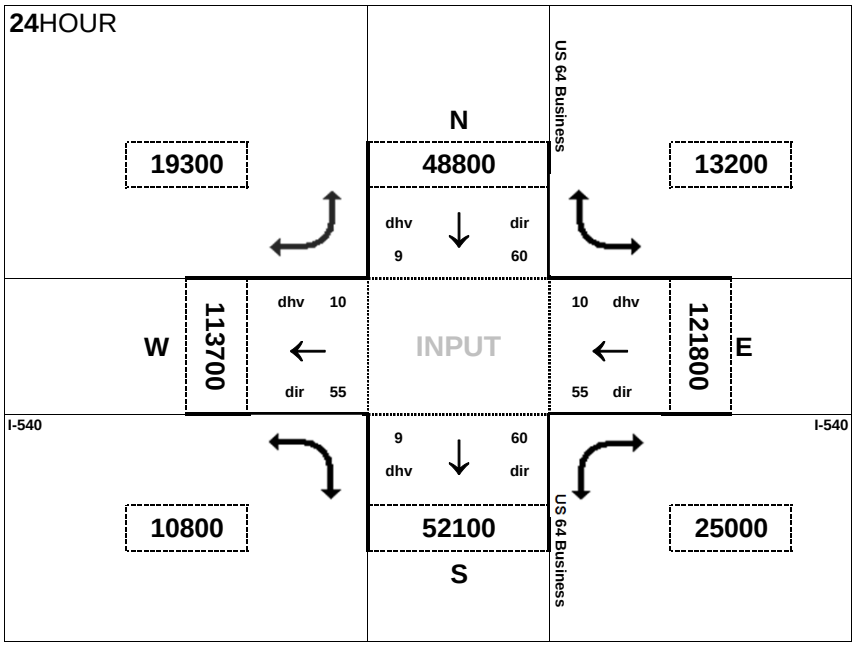
Project:
Complete 540 - Triangle Expressway Southeast Extension



AM peak hour inflow is 22387 vehicles. AM peak hour outflow is 22387 vehicles.



PM peak hour inflow is 22387 vehicles. PM peak hour outflow is 22387 vehicles.

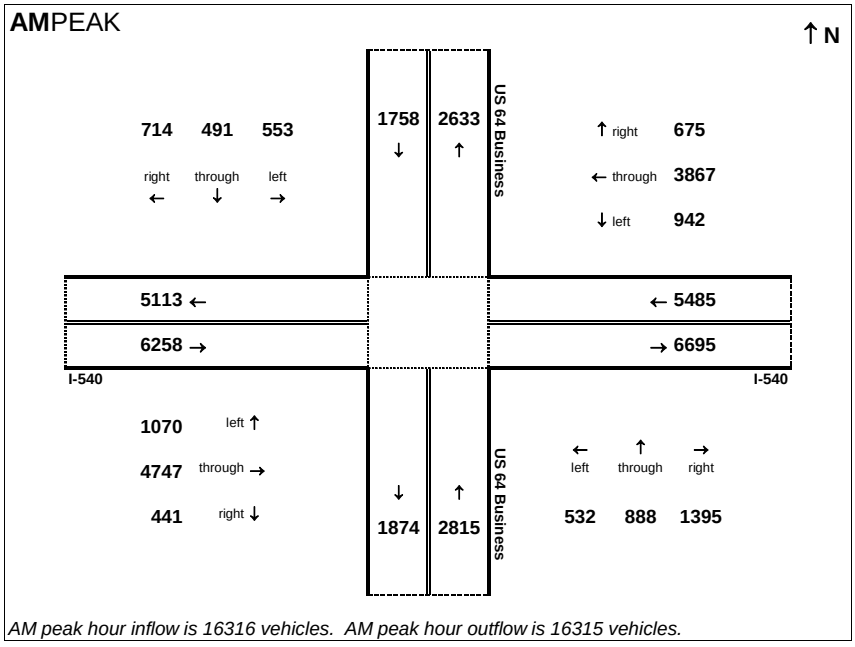


Peak Hour Volume Breakouts Report:
I-540 & US 64 Business

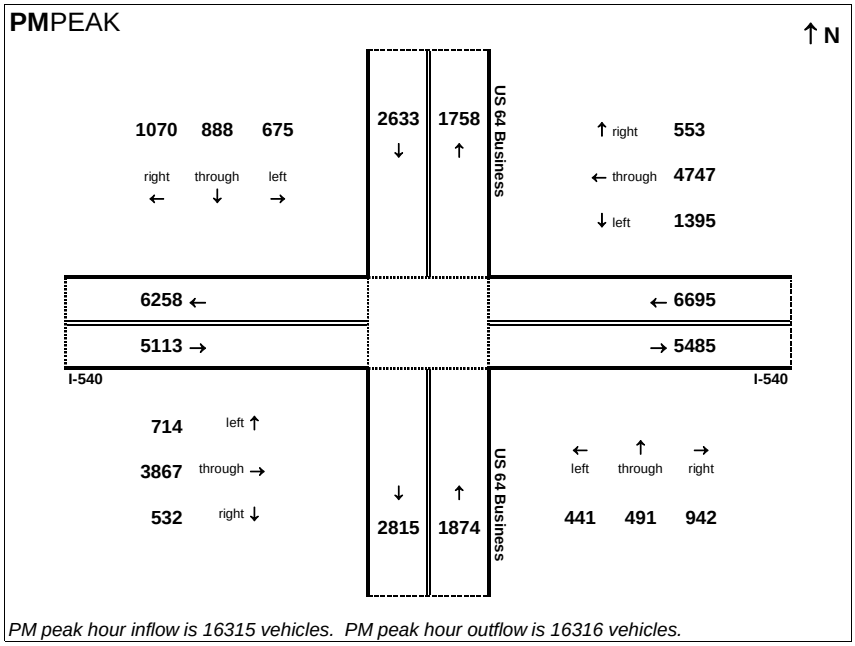
Traffic Forecast Release Date:
May-16

Traffic Data Year:
2040 Build

Project:
Complete 540 - Triangle Expressway Southeast Extension

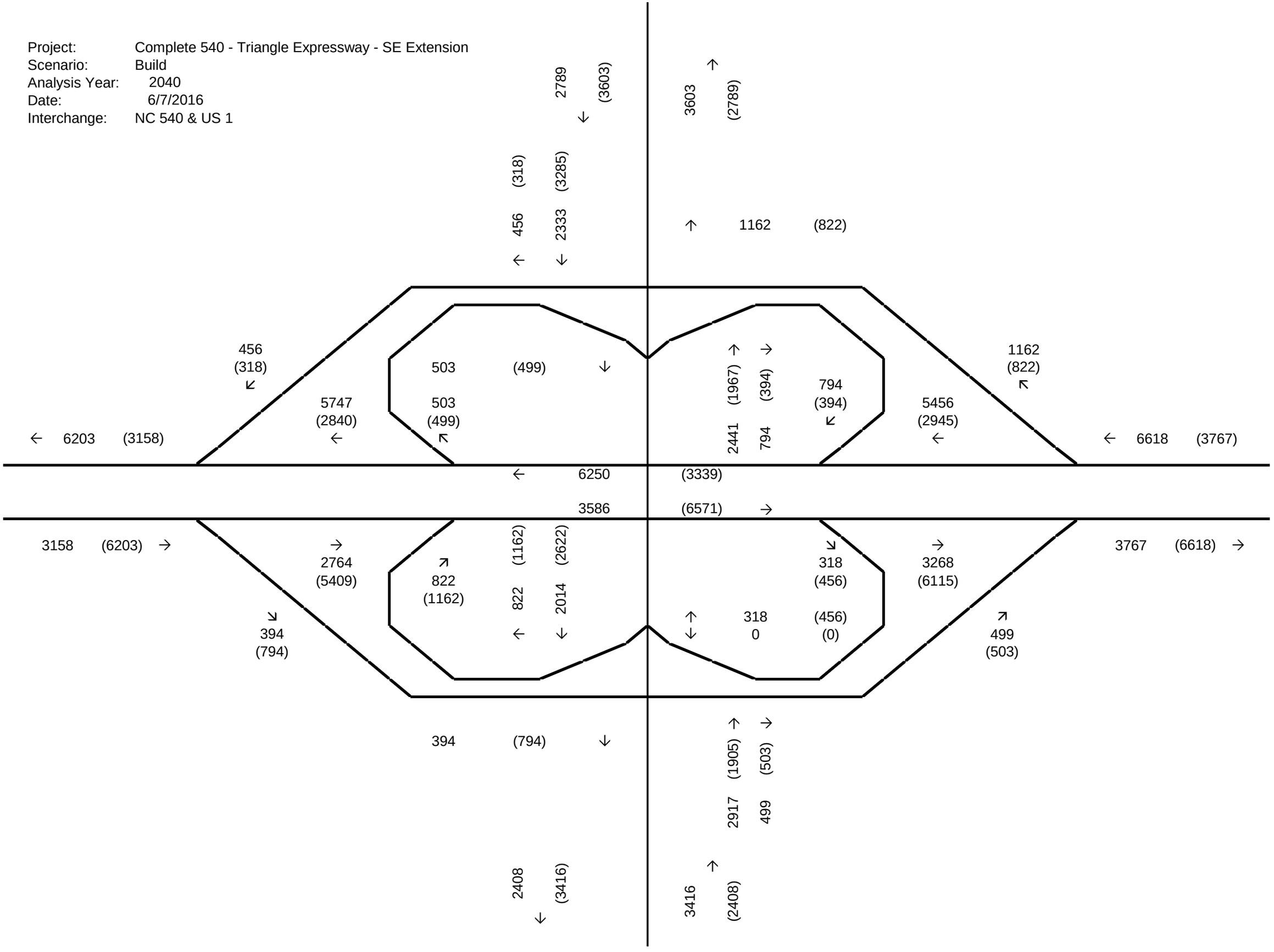


AM peak hour inflow is 16316 vehicles. AM peak hour outflow is 16315 vehicles.



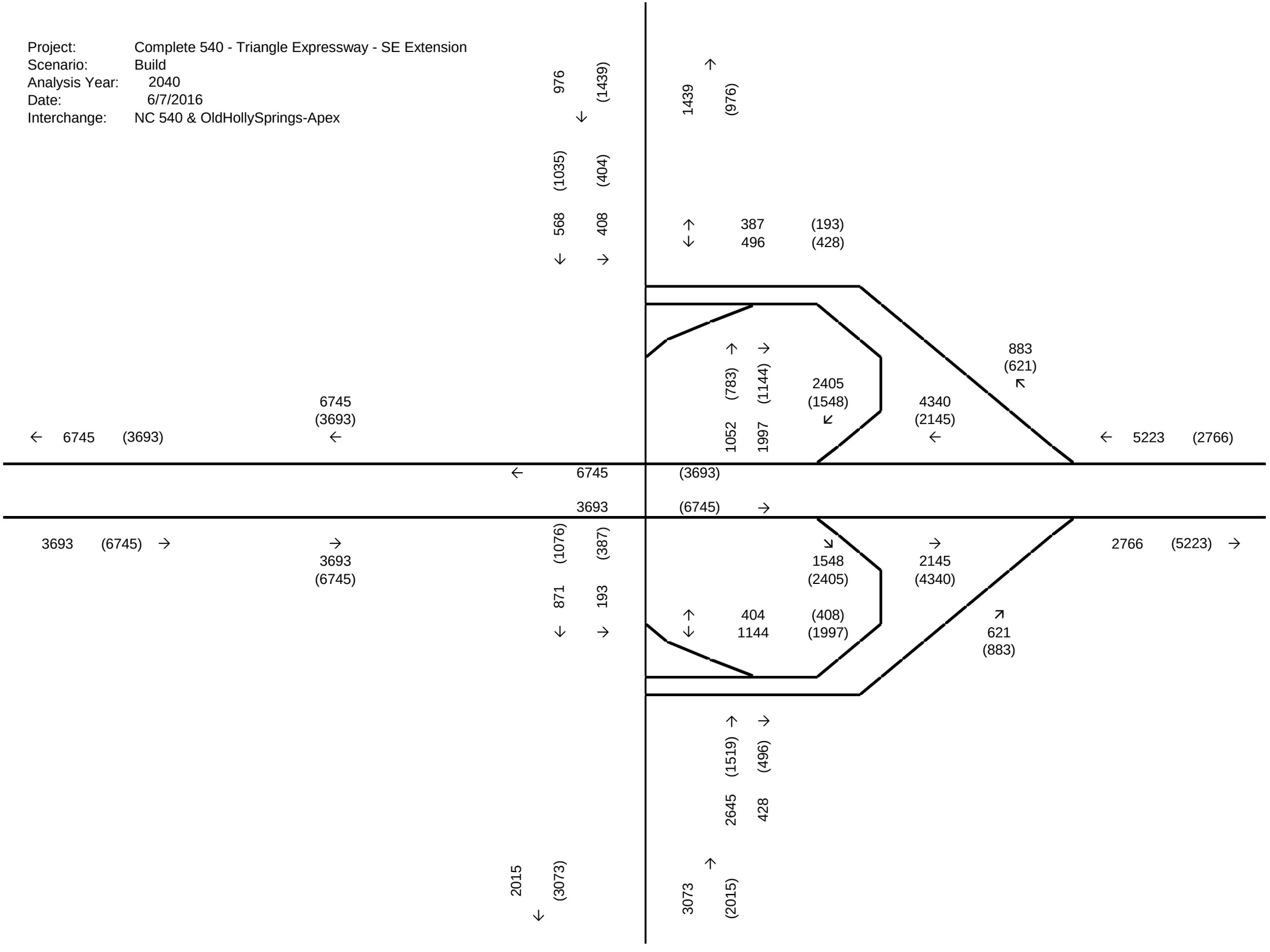
PM peak hour inflow is 16315 vehicles. PM peak hour outflow is 16316 vehicles.

Project: Complete 540 - Triangle Expressway - SE Extension
Scenario: Build
Analysis Year: 2040
Date: 6/7/2016
Interchange: NC 540 & US 1



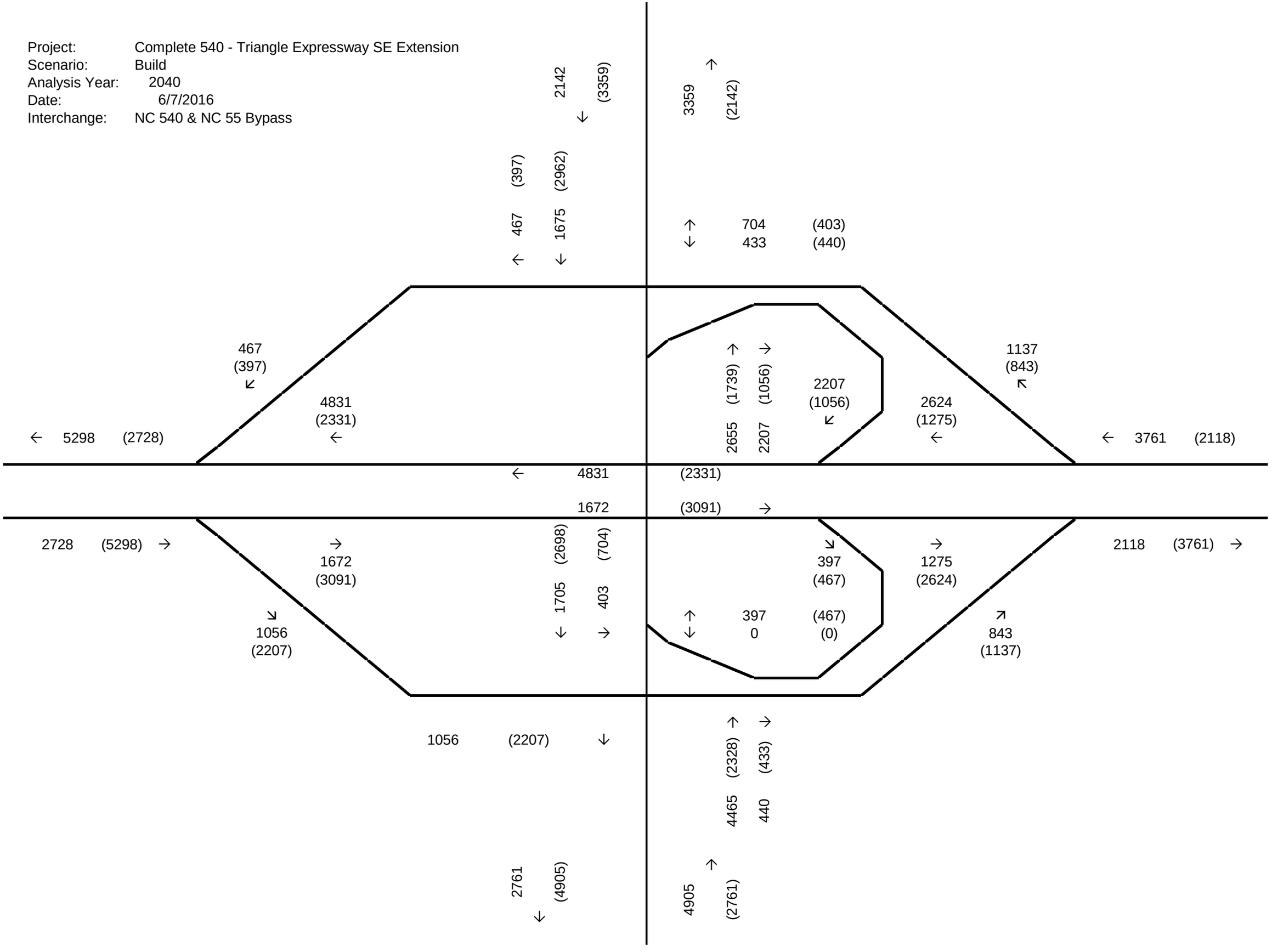
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Project: Complete 540 - Triangle Expressway - SE Extension
Scenario: Build
Analysis Year: 2040
Date: 6/7/2016
Interchange: NC 540 & OldHollySprings-Apex



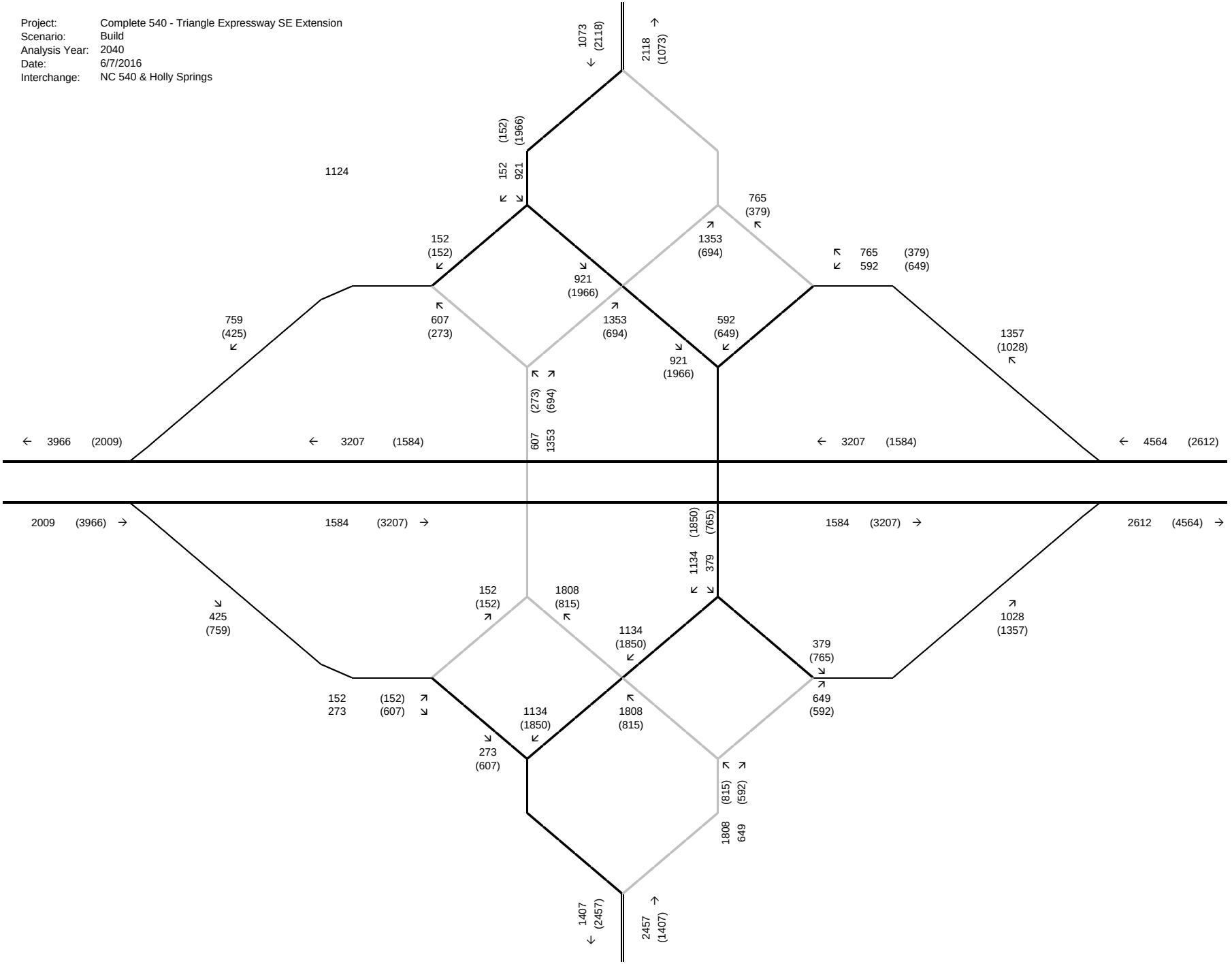
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Project: Complete 540 - Triangle Expressway SE Extension
Scenario: Build
Analysis Year: 2040
Date: 6/7/2016
Interchange: NC 540 & NC 55 Bypass



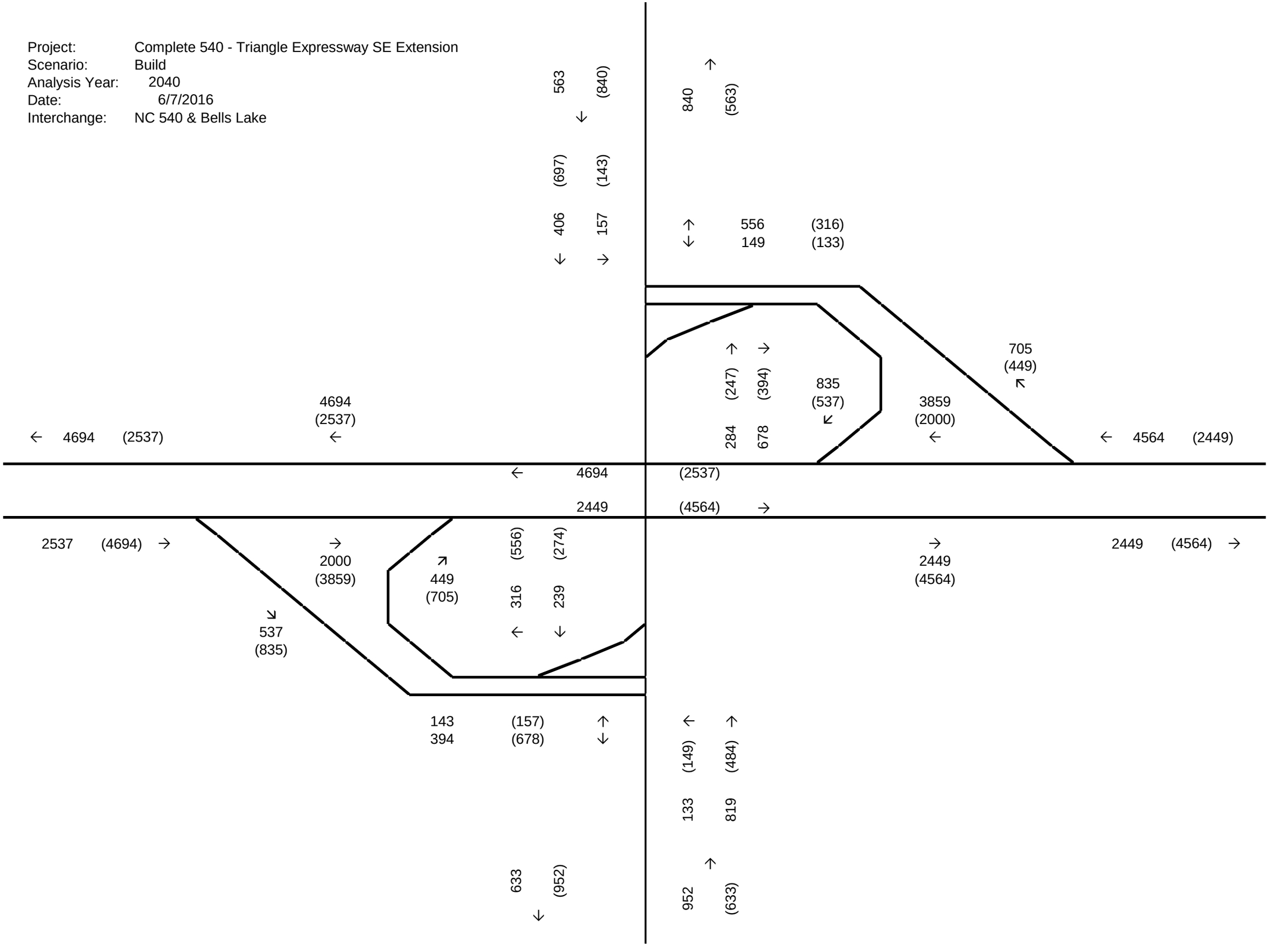
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Project: Complete 540 - Triangle Expressway SE Extension
Scenario: Build
Analysis Year: 2040
Date: 6/7/2016
Interchange: NC 540 & Holly Springs



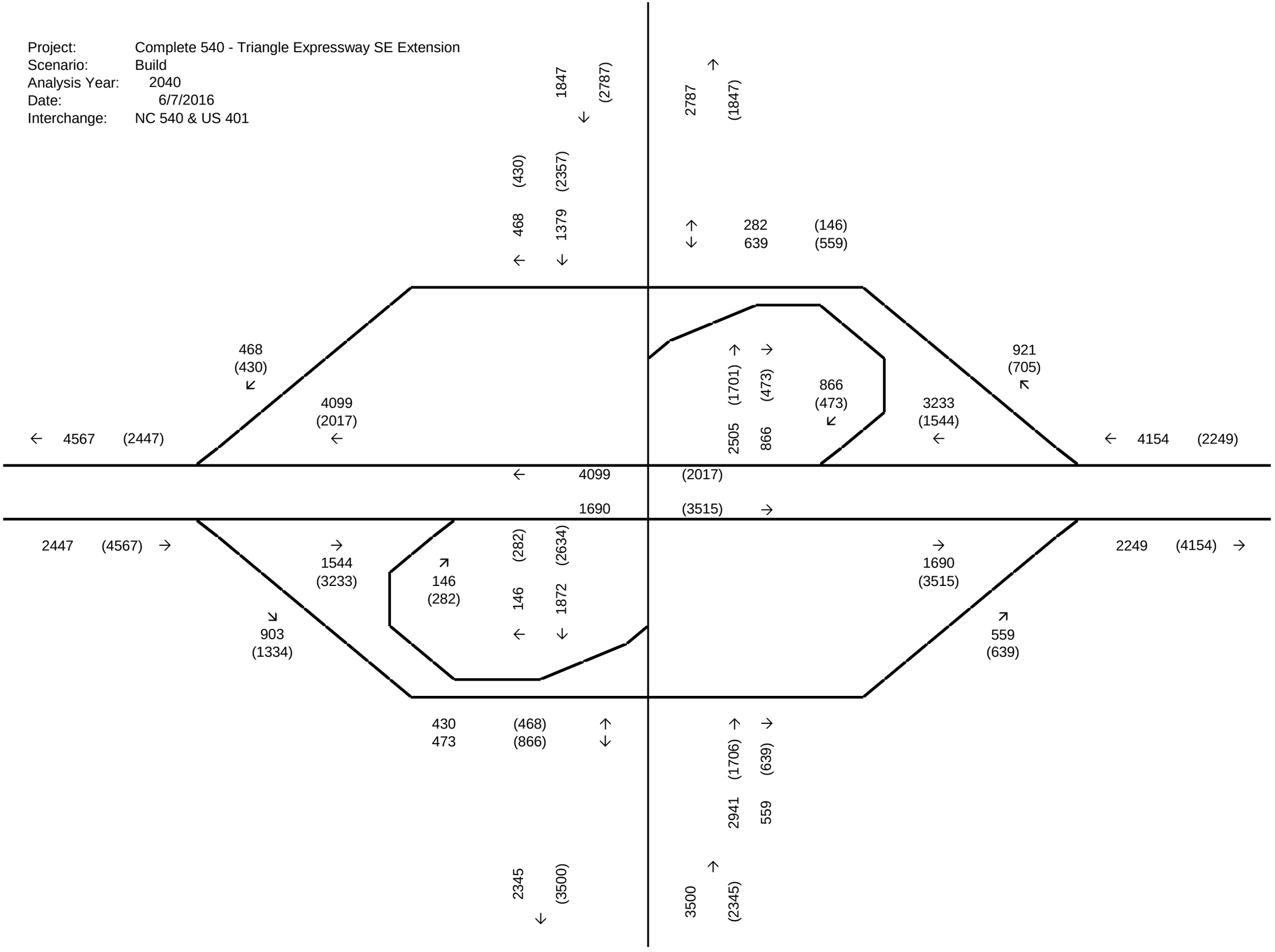
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Project: Complete 540 - Triangle Expressway SE Extension
Scenario: Build
Analysis Year: 2040
Date: 6/7/2016
Interchange: NC 540 & Bells Lake



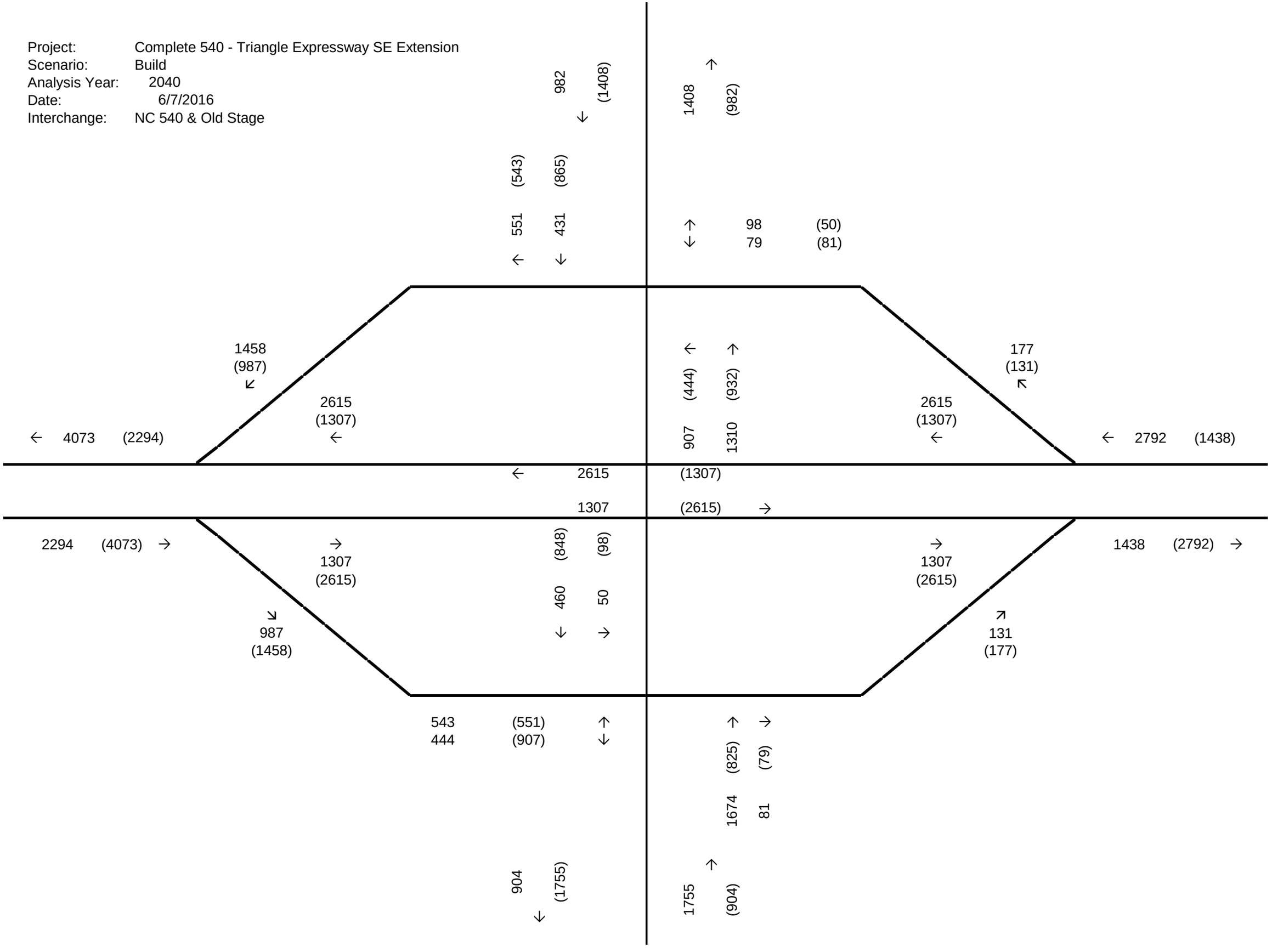
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Project: Complete 540 - Triangle Expressway SE Extension
Scenario: Build
Analysis Year: 2040
Date: 6/7/2016
Interchange: NC 540 & US 401



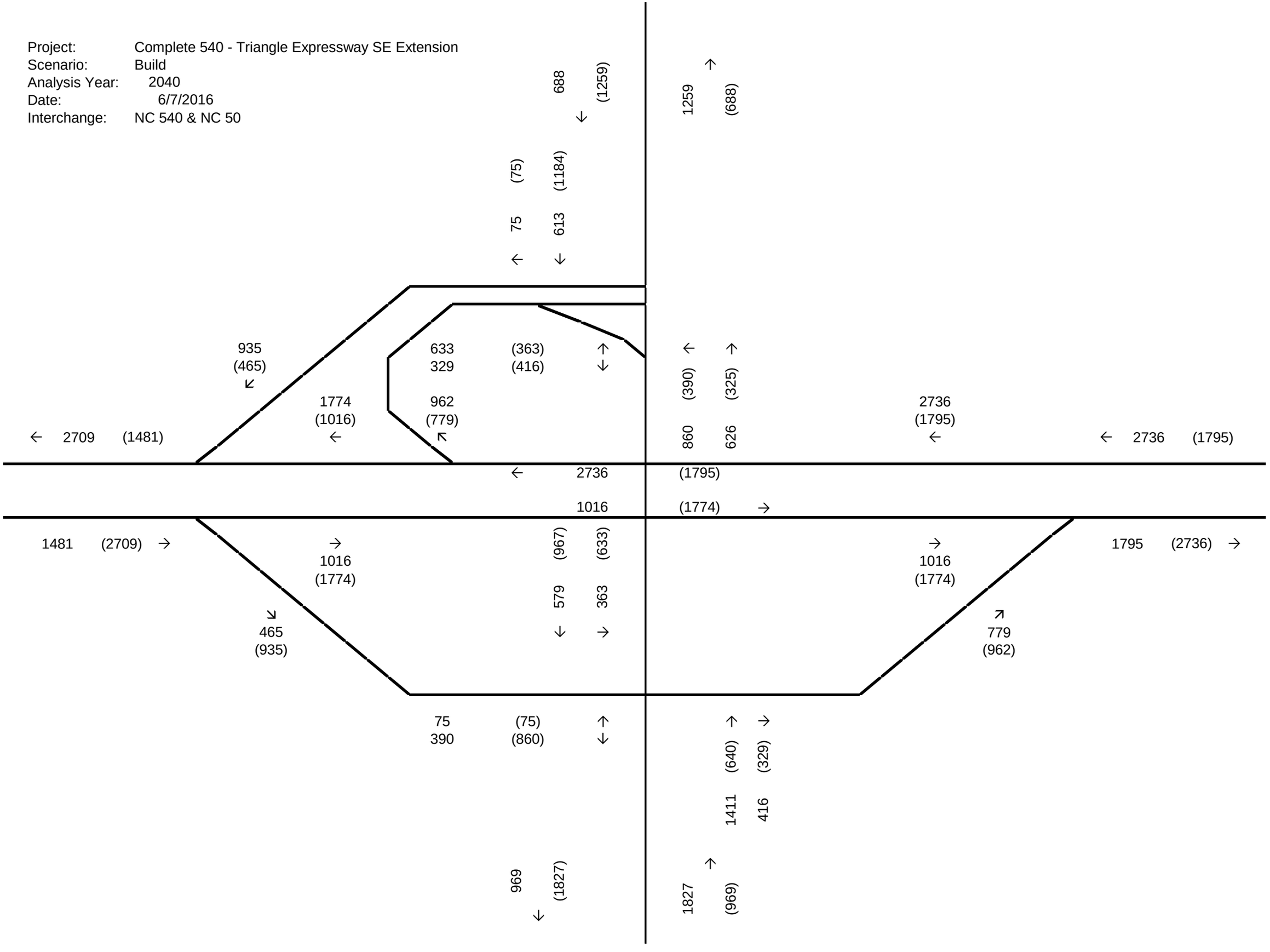
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Project: Complete 540 - Triangle Expressway SE Extension
Scenario: Build
Analysis Year: 2040
Date: 6/7/2016
Interchange: NC 540 & Old Stage



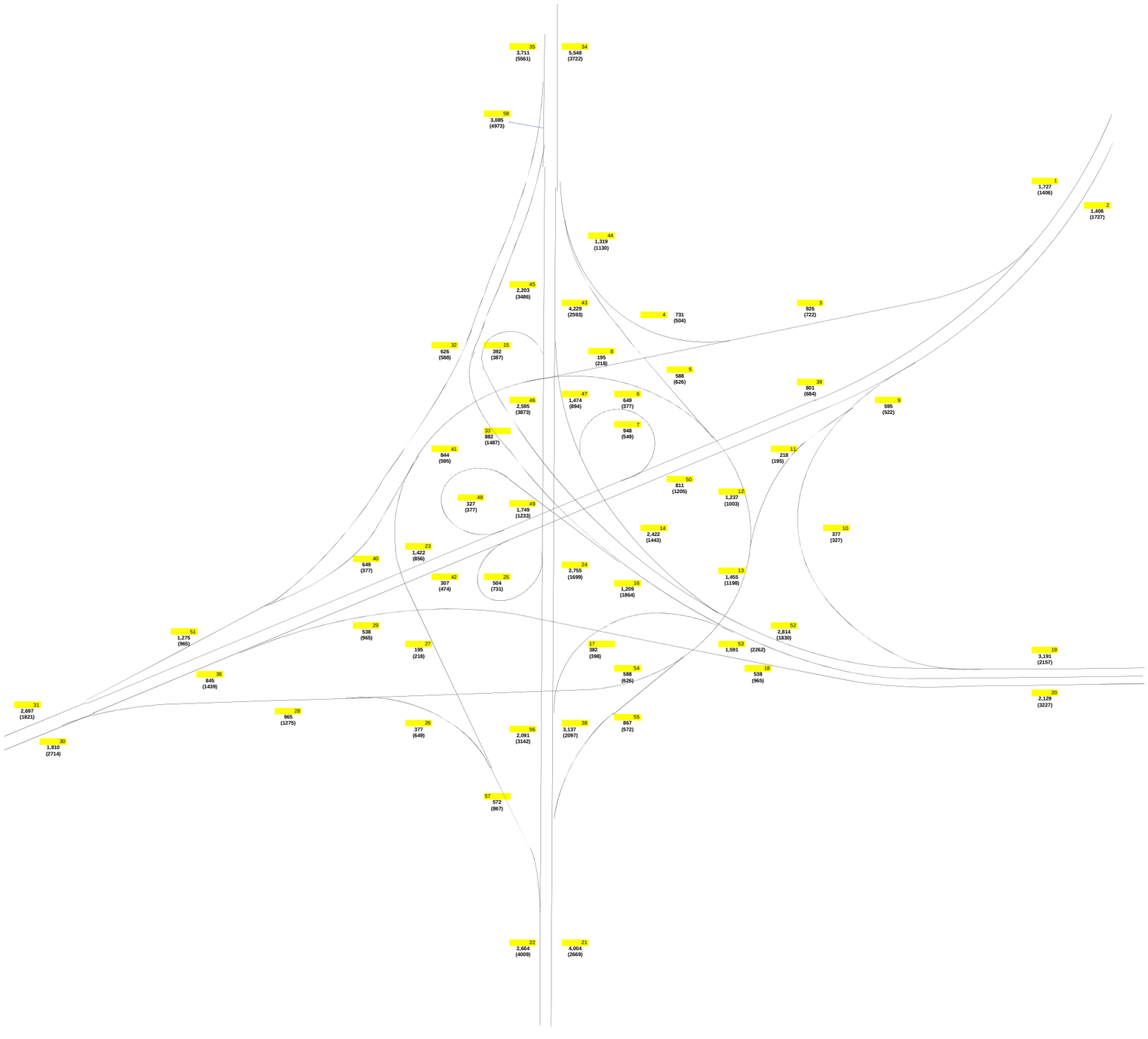
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Project: Complete 540 - Triangle Expressway SE Extension
Scenario: Build
Analysis Year: 2040
Date: 6/7/2016
Interchange: NC 540 & NC 50

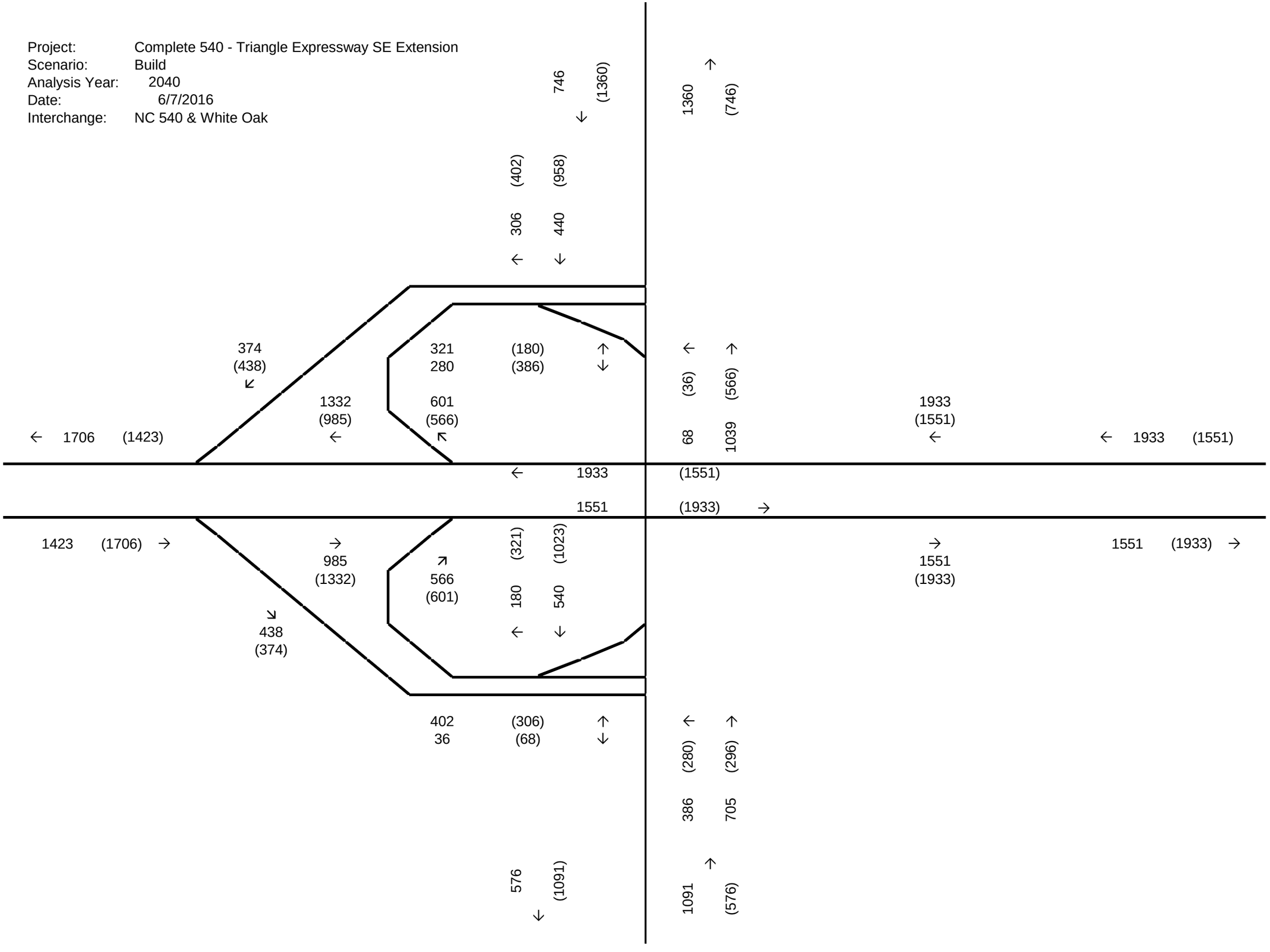


6/7/2016
P:\46816 - NCTA\Complete 540\Traffic\Analysis Preferred Alt\Breakouts\2040 Build\Interchange Breakouts\08 NC 540 & NC 50 - 2040 Build Interchange Breakout.xlsm

09 I-40-NC 540-US 70 Bypass - 2040 Build Dreamcatcher Interchange Breakout Calculated.xlsm

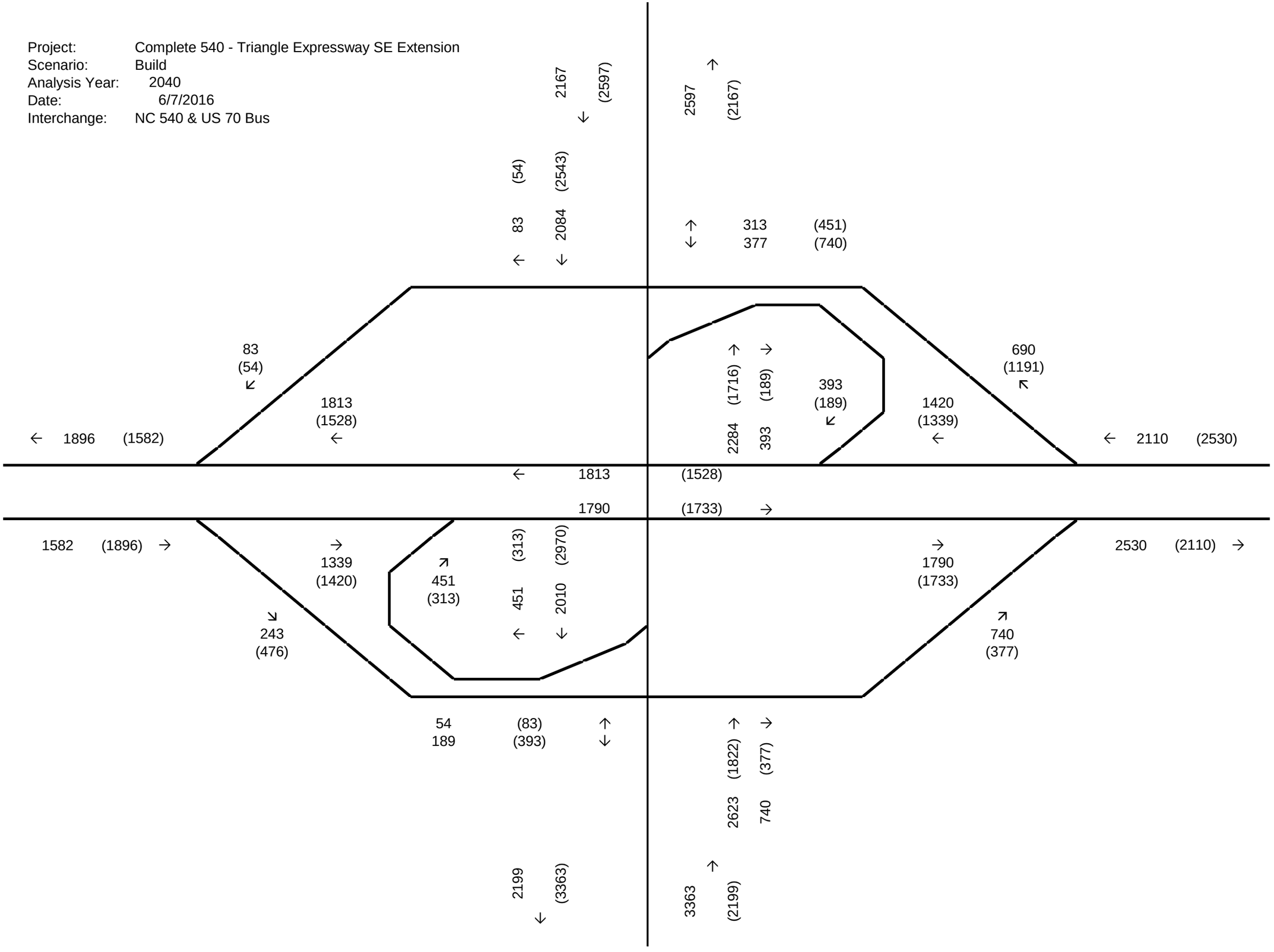


Project: Complete 540 - Triangle Expressway SE Extension
Scenario: Build
Analysis Year: 2040
Date: 6/7/2016
Interchange: NC 540 & White Oak



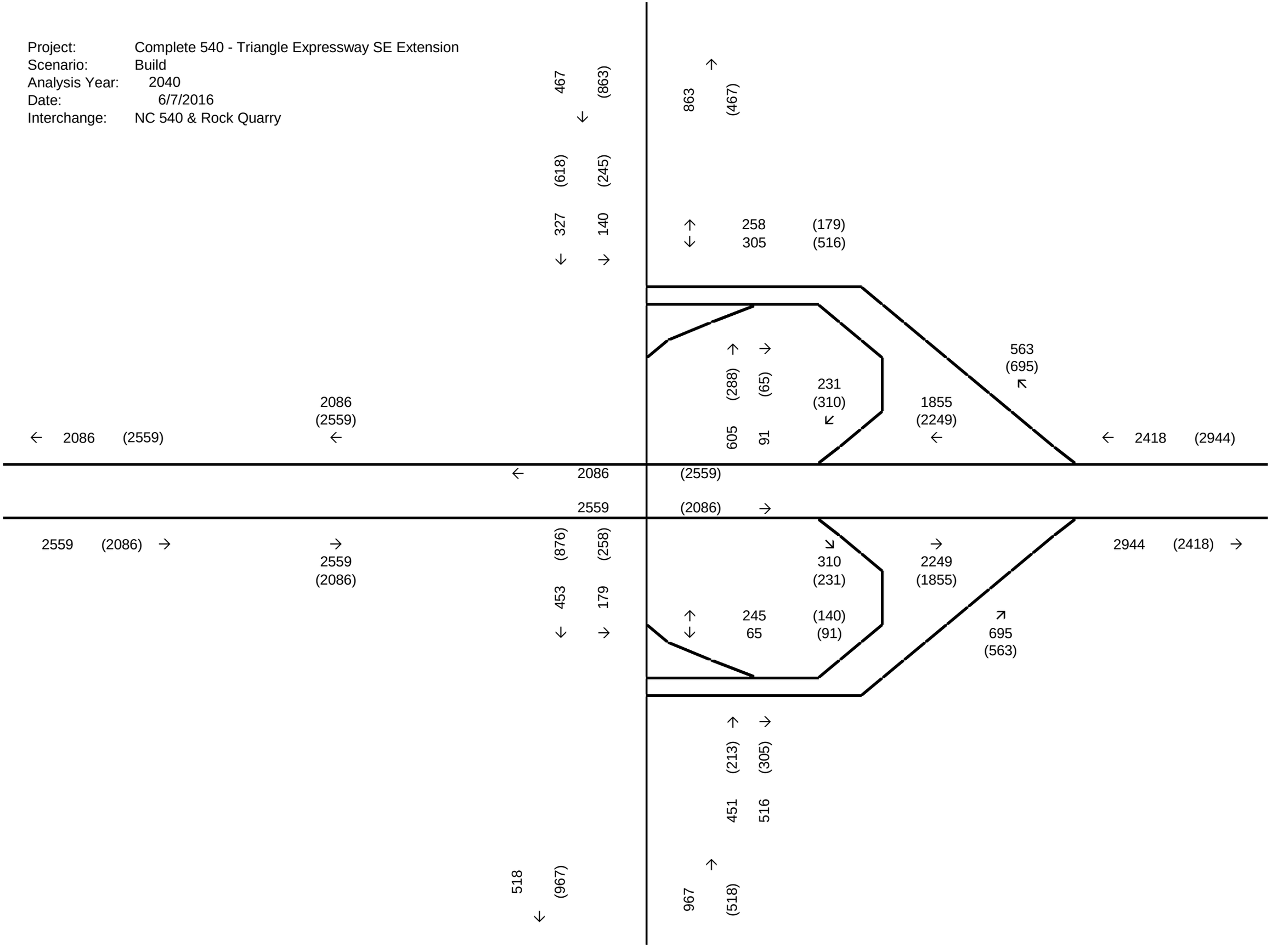
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Project: Complete 540 - Triangle Expressway SE Extension
Scenario: Build
Analysis Year: 2040
Date: 6/7/2016
Interchange: NC 540 & US 70 Bus



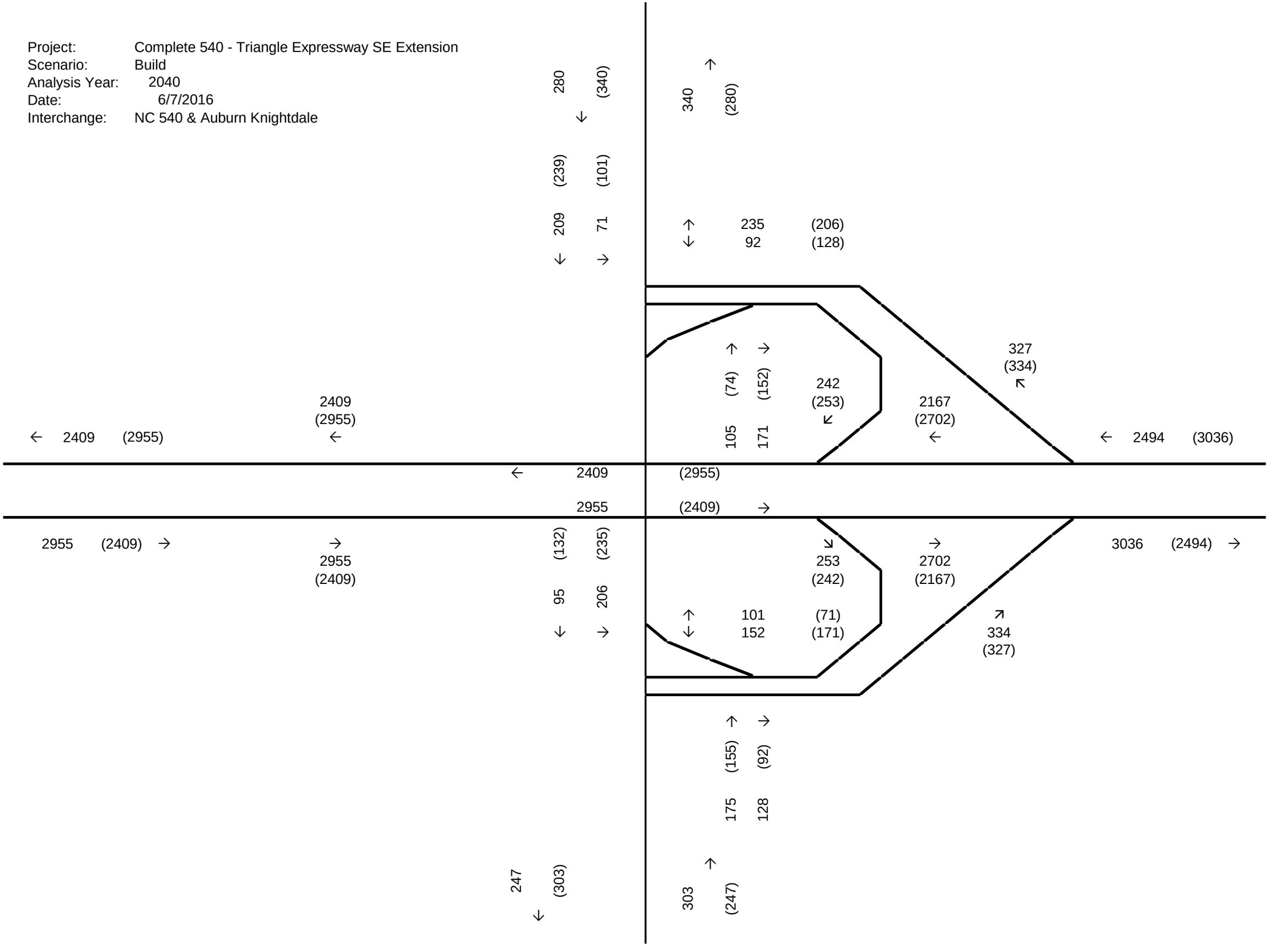
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Project: Complete 540 - Triangle Expressway SE Extension
Scenario: Build
Analysis Year: 2040
Date: 6/7/2016
Interchange: NC 540 & Rock Quarry



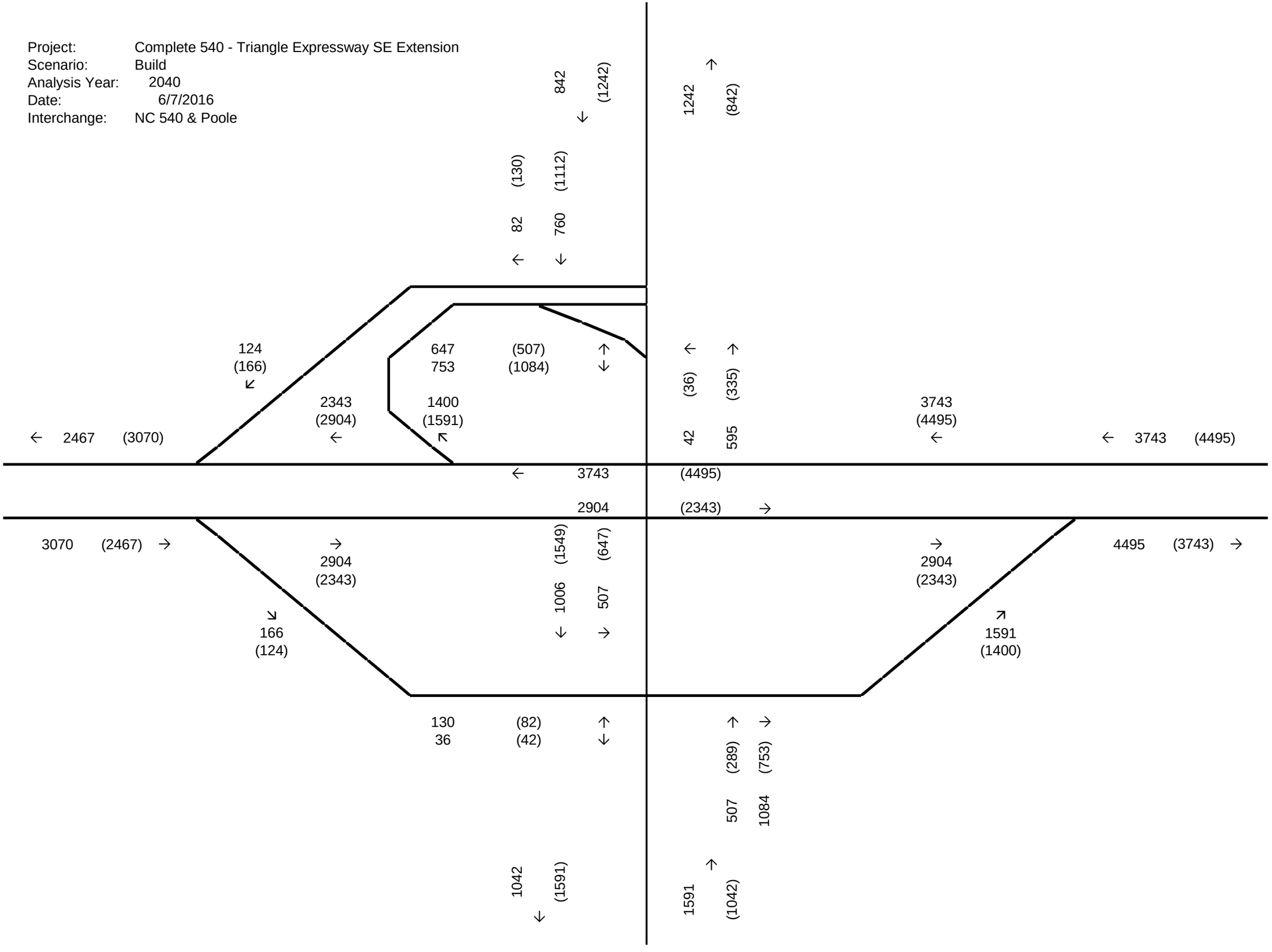
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Project: Complete 540 - Triangle Expressway SE Extension
Scenario: Build
Analysis Year: 2040
Date: 6/7/2016
Interchange: NC 540 & Auburn Knightdale



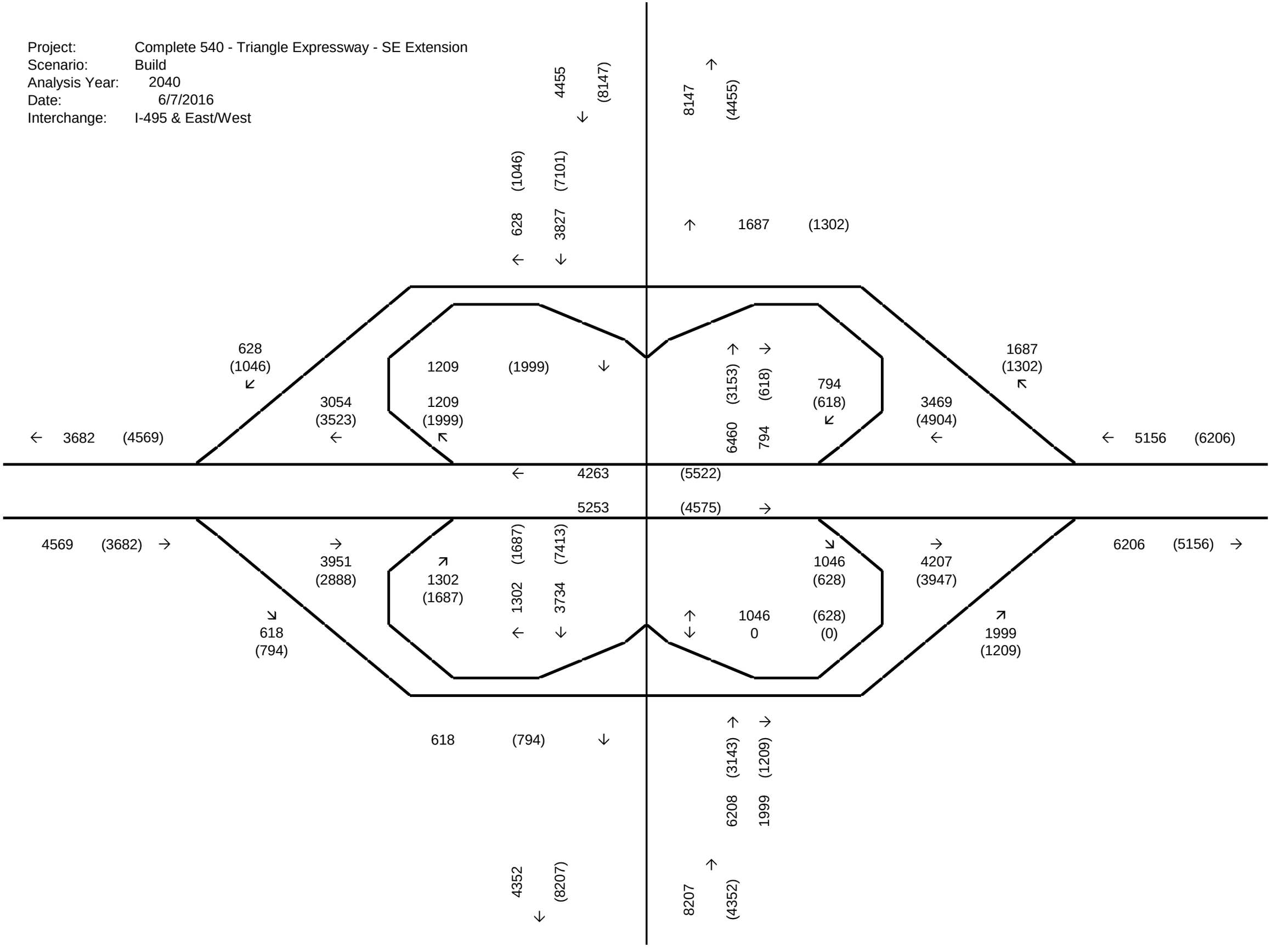
6/7/2016
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Project: Complete 540 - Triangle Expressway SE Extension
Scenario: Build
Analysis Year: 2040
Date: 6/7/2016
Interchange: NC 540 & Poole



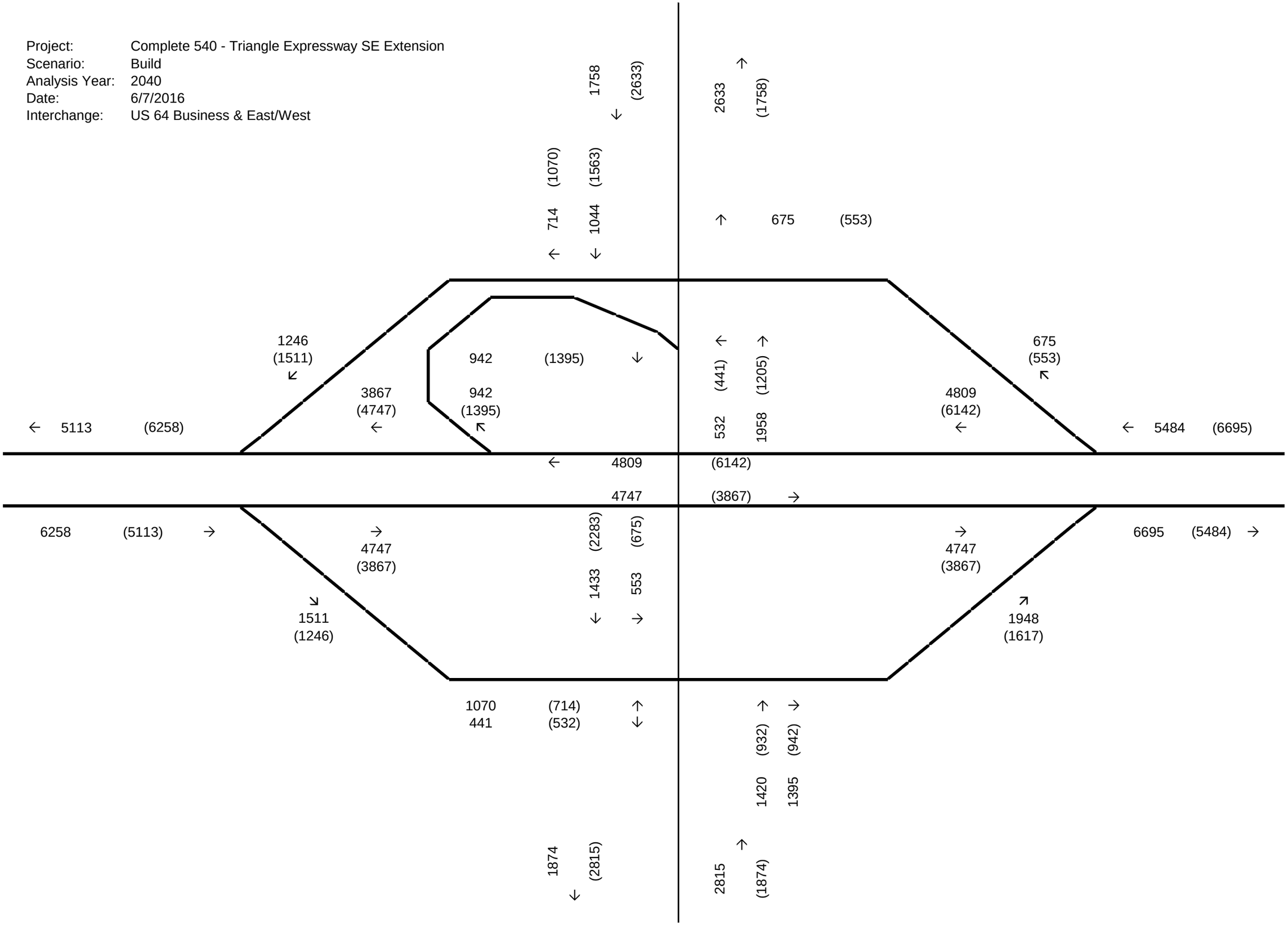
6/7/2016
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Project: Complete 540 - Triangle Expressway - SE Extension
Scenario: Build
Analysis Year: 2040
Date: 6/7/2016
Interchange: I-495 & East/West

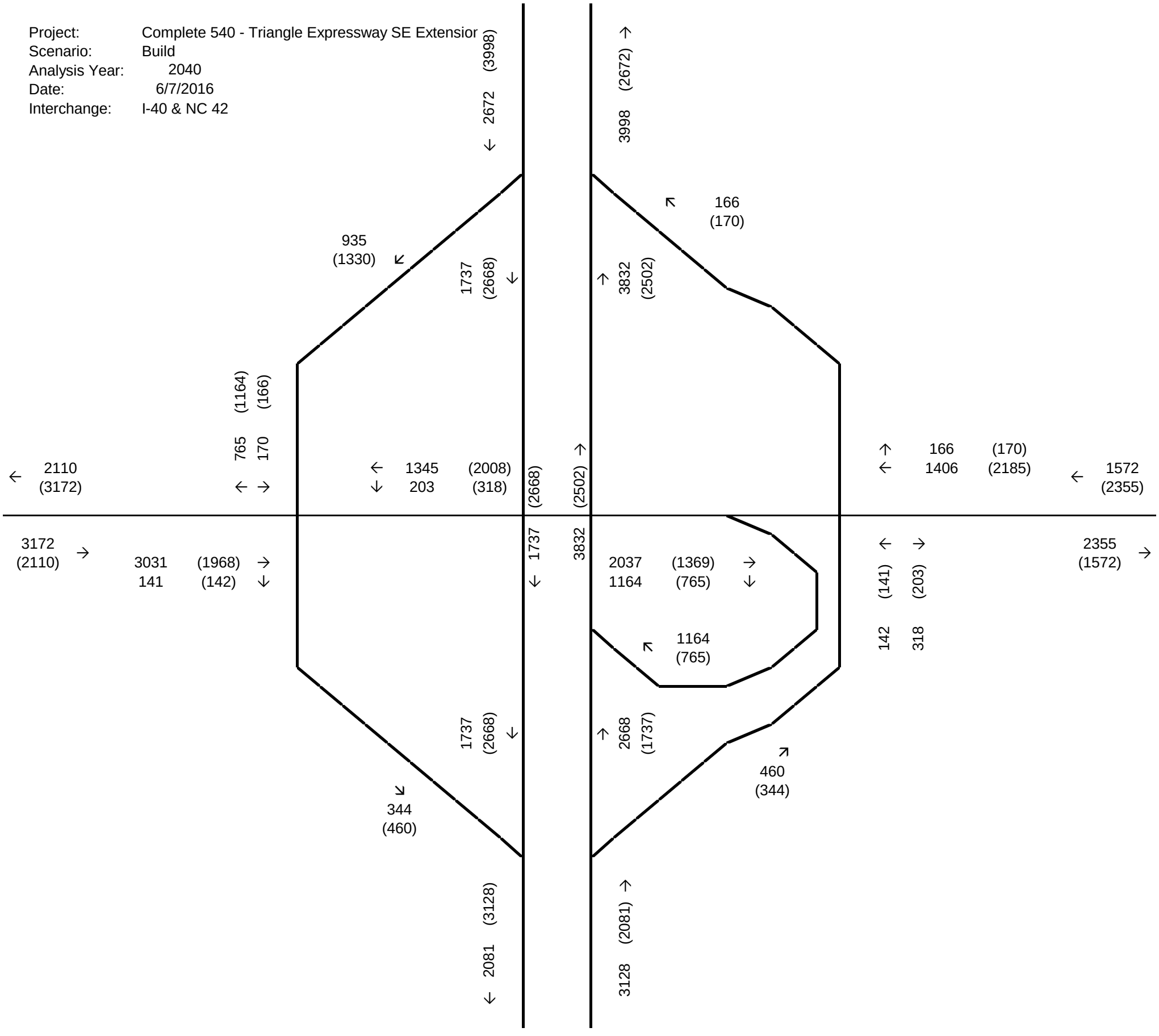


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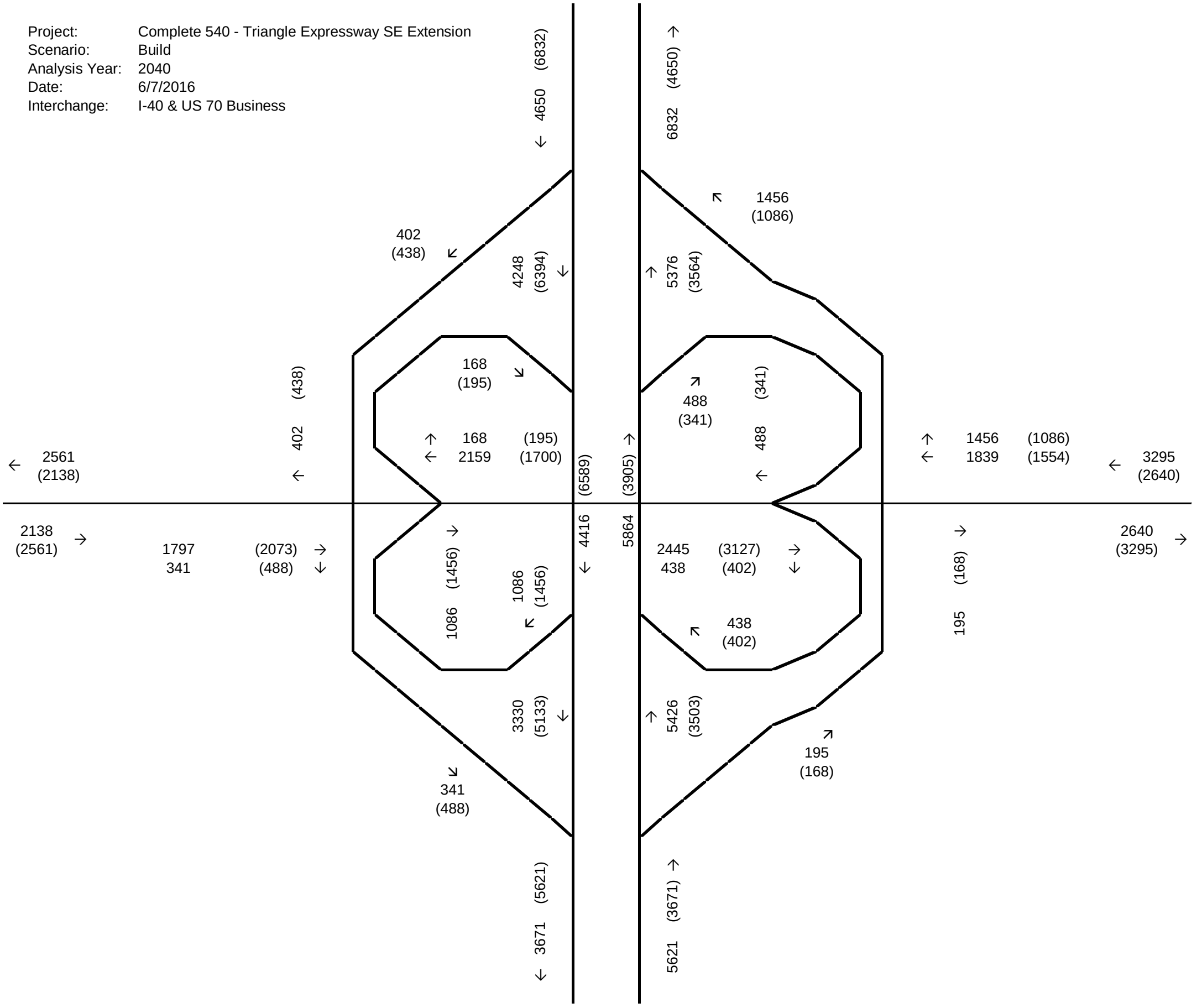
Project: Complete 540 - Triangle Expressway SE Extension
Scenario: Build
Analysis Year: 2040
Date: 6/7/2016
Interchange: US 64 Business & East/West



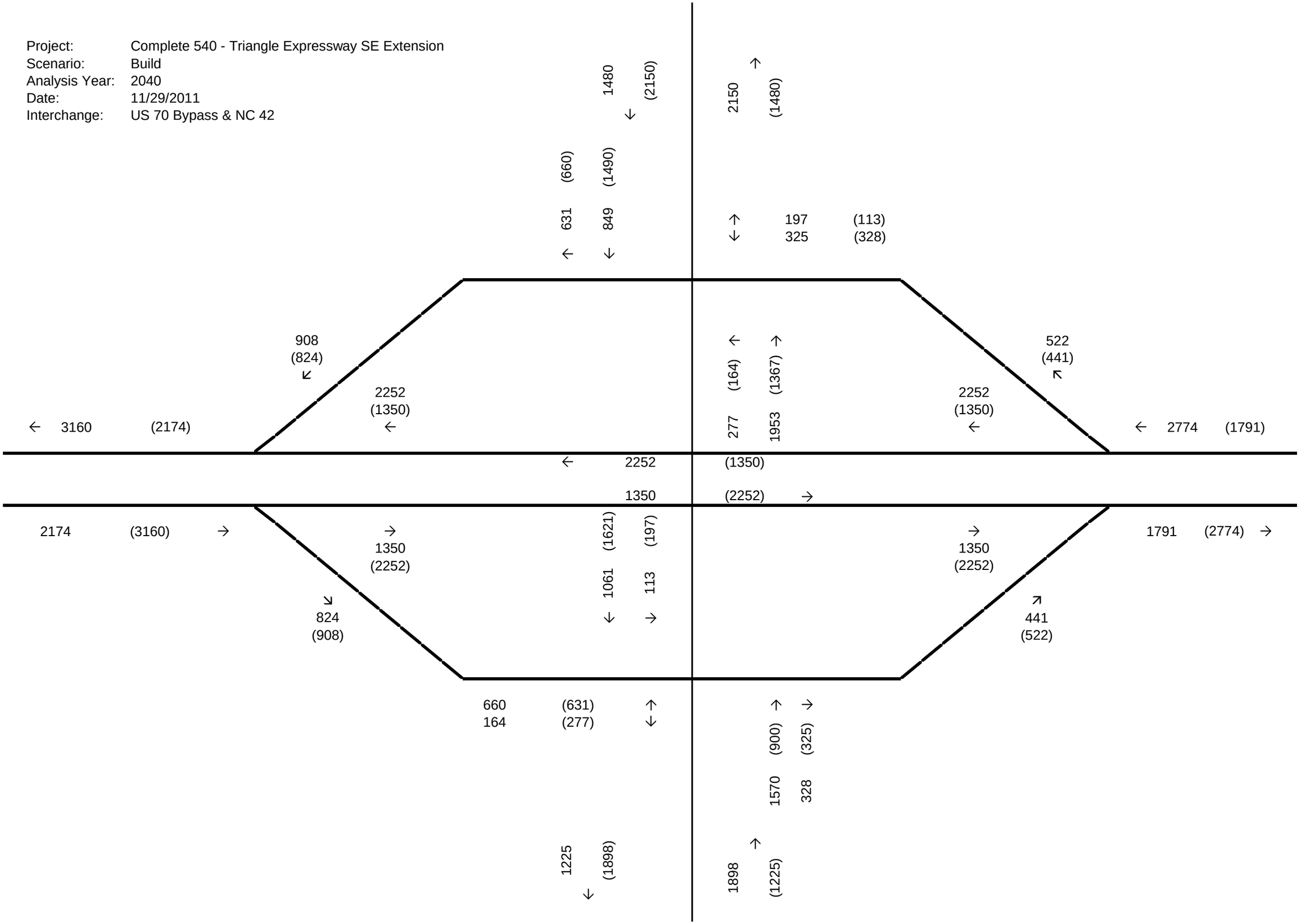
Project: Complete 540 - Triangle Expressway SE Extension
Scenario: Build
Analysis Year: 2040
Date: 6/7/2016
Interchange: I-40 & NC 42



Project: Complete 540 - Triangle Expressway SE Extension
Scenario: Build
Analysis Year: 2040
Date: 6/7/2016
Interchange: I-40 & US 70 Business

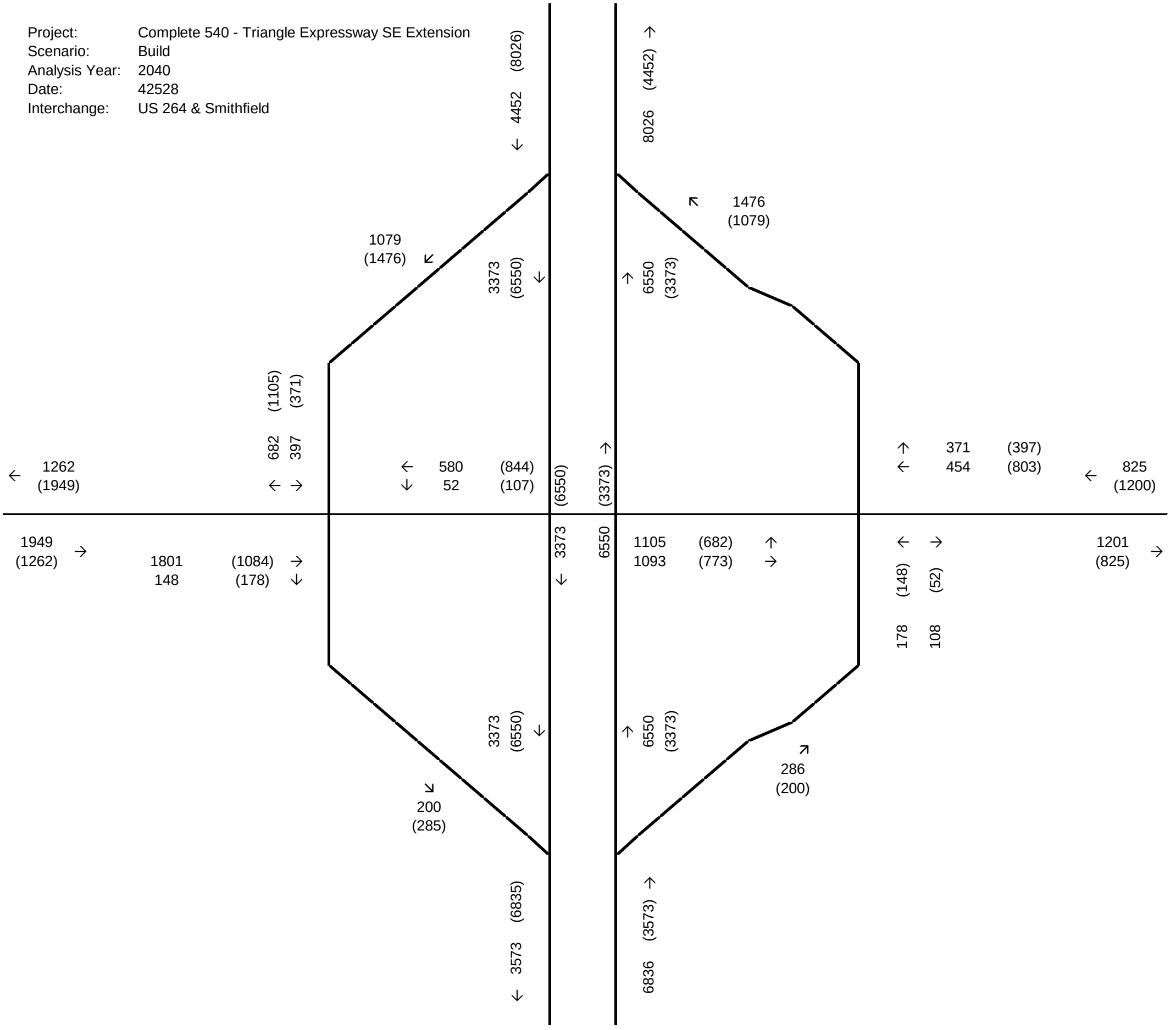


Project: Complete 540 - Triangle Expressway SE Extension
Scenario: Build
Analysis Year: 2040
Date: 11/29/2011
Interchange: US 70 Bypass & NC 42

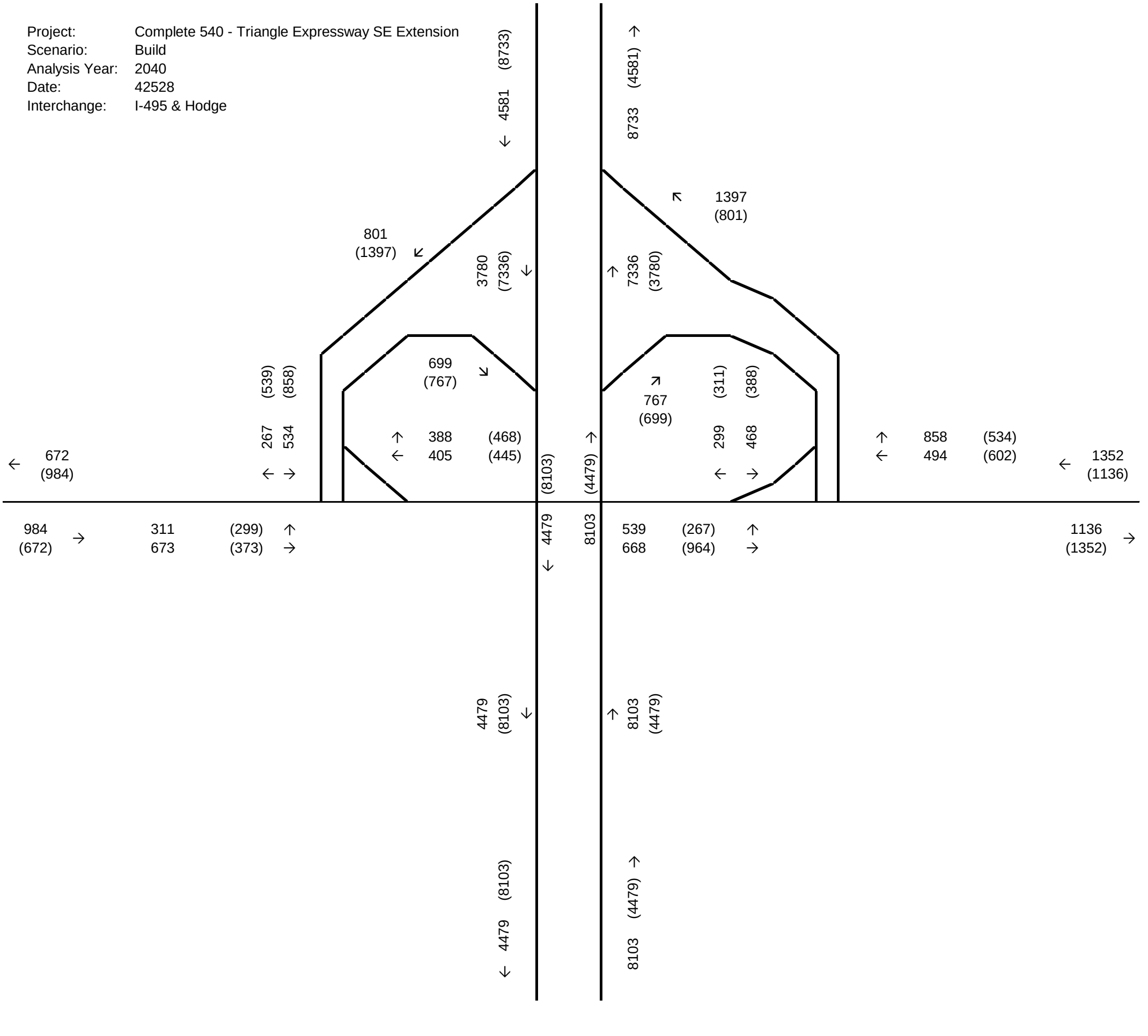


6/7/2016
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Project: Complete 540 - Triangle Expressway SE Extension
Scenario: Build
Analysis Year: 2040
Date: 42528
Interchange: US 264 & Smithfield



Project: Complete 540 - Triangle Expressway SE Extension
Scenario: Build
Analysis Year: 2040
Date: 42528
Interchange: I-495 & Hodge



Appendix D – Highway Capacity Software Freeway Analysis

1) HCS and Ramp Analysis Summary Tables
2) 2040 HCS Complete 540 Freeway Facilities Summary Table
3) 2016 No-Build
    a. NC 540 (Triangle Expressway Western Wake Freeway)
    b. I-540
    c. I-40
    d. US 70
    e. I-495 / US 64 / 264
4) 2016 Build
    a. Complete 540
    b. I-40
    c. US 70
    d. I-495 / US 64 / 264
5) 2040 Build
    a. Complete 540
    b. NC 540
    c. I-40
    d. US 70
    e. I-495 / US 64 / 264

HCS and Ramp Analysis Summary Tables

Table D - 1 Complete 540 LOS Summary Table
Table D - 2 NC 540 (Triangle Expressway) LOS Summary Table
Table D - 3 I-40 LOS Summary Table
Table D - 4 US 70 LOS Summary Table
Table D - 5 I-495 / US 64 / US 264 LOS Summary Table
Table D - 6 Complete 540 Detailed Freeway Operations Summary – AM Peak
Table D - 7 Complete 540 Detailed Freeway Operations Summary – PM Peak
Table D - 8 I-40 Detailed Freeway Operations Summary
Table D - 9 US 70 Detailed Freeway Operations Summary
Table D - 10 I-495 / US 64 / US 264 Detailed Freeway Operations Summary
Table D - 11 System Interchanges Ramps Demand-to-Capacity Ratios Summary Table*

Table D - 1 Complete 540 LOS Summary Table

Scenario	Complete 540											
	Eastbound						Westbound					
	LOS A	LOS B	LOS C	LOS D	LOS E	LOS F	LOS A	LOS B	LOS C	LOS D	LOS E	LOS F
2040 Build	12	35	16	2	0	0	10	28	25	2	0	0

Table D - 2 NC 540 (Triangle Expressway) LOS Summary Table

Scenario	NC 540											
	Eastbound						Westbound					
	LOS A	LOS B	LOS C	LOS D	LOS E	LOS F	LOS A	LOS B	LOS C	LOS D	LOS E	LOS F
2016 No-Build	4	0	0	0	0	0	3	0	0	0	0	0
2016 Build	1	0	0	0	0	0	1	0	0	0	0	0
2040 Build	0	0	0	1	1	1	0	2	1	4	0	0

Table D - 3 I-40 LOS Summary Table

Scenario	I-40											
	Eastbound						Westbound					
	LOS A	LOS B	LOS C	LOS D	LOS E	LOS F	LOS A	LOS B	LOS C	LOS D	LOS E	LOS F
2016 No-Build	0	5	5	3	2	0	0	2	8	0	4	3
2016 Build	2	10	3	2	1	1	3	6	5	1	4	2
2040 Build	2	14	3	0	0	0	3	13	5	0	0	0

Table D - 4 US 70 LOS Summary Table

Scenario	US 70											
	Eastbound						Westbound					
	LOS A	LOS B	LOS C	LOS D	LOS E	LOS F	LOS A	LOS B	LOS C	LOS D	LOS E	LOS F
2016 No-Build	4	3	0	0	0	0	5	3	0	0	0	0
2016 Build	3	8	0	0	0	0	2	8	0	0	0	0
2040 Build	1	5	5	0	0	0	2	1	7	0	0	0

Table D - 5 I-495 / US 64 / US 264 LOS Summary Table

Scenario	I-495 / US 64 / US 264											
	Eastbound						Westbound					
	LOS A	LOS B	LOS C	LOS D	LOS E	LOS F	LOS A	LOS B	LOS C	LOS D	LOS E	LOS F
2016 No-Build	0	1	6	4	0	0	0	1	5	5	0	0
2016 Build	0	1	9	3	0	0	0	1	7	5	0	0
2040 Build	0	1	8	0	2	2	0	0	4	6	3	0

Table D - 6 Complete 540 Detailed Freeway Operations Summary – AM Peak

2040 Build Eastbound AM				2016 Build Eastbound AM				2016 No-Build Eastbound AM					2016 No-Build Westbound AM				2016 Build Westbound AM				2040 Build Westbound AM			
Location	Segment ID	Density (pc/mi/ln)	LOS	Location	Segment ID	Density (pc/mi/ln)	LOS	Location	Segment ID	Density (pc/mi/ln)	LOS		Location	Segment ID	Density (pc/mi/ln)	LOS	Location	Segment ID	Density (pc/mi/ln)	LOS	Location	Segment ID	Density (pc/mi/ln)	LOS
N/A				West of NC 55 Bypass	B3	4.9	A	West of NC 55 Bypass	B3	3.7	A	Eastern Termini	West of NC 55 Bypass	B24	6.8	A	West of NC 55 Bypass	B135	10.4	A	West of NC 55 Bypass	B135	22.1	C
West of NC 55 Bypass	W4	12.3	B		D4	5.4	A	NC 55 Bypass	D4	4.1	A		NC 55 Bypass	M23	7.3	A		M134	11.3	B		M134	17.6	B
NC 55 Bypass	B5	8.7	A	NC 55 Bypass	B5	2.7	A		B5	1.1	A			B22	5.6	A	NC 55 Bypass	B133	10.3	A	NC 55 Bypass	B133	19.9	C
	D6	10.9	B		D6	3.1	A		D6	1.4	A							M132	10.5	B		M132	21.0	C
	B7	6.8	A		B7	2.5	A											B131	5.4	A		B131	15.1	B
	M8	11.3	B		M8	3.9	A											D130	7.7	A		D130	22.7	C
	B9	10.8	A		B9	3.7	A											B129	7.1	A		B129	21.2	C
Holly Springs Rd	D10	11.6	B	Holly Springs Rd	D10	4.0	A										Holly Springs Rd	M128	7.5	A	Holly Springs Rd	M128	22.4	C
	B11	8.8	A		B11	3.0	A											B127	5.8	A		B127	16.8	B
	M12	14.7	B		M12	5.4	A											D126	9.6	A		D126	25.3	C
	B13	13.8	B		B13	5.2	A											B125	8.7	A		B125	24.8	C
Bells Lake Rd	D14	14.9	B	Bells Lake Rd	D14	5.6	A										Bells Lake Rd	M124	9.3	A	Bells Lake Rd	M124	25.8	C
	B15	11.4	B		B15	4.1	A											B123	6.9	A		B123	19.3	C
	M16	14.6	B		M16	5.9	A											D122	9.6	A		D122	23.8	C
	B17	13.5	B		B17	5.6	A											B121	8.9	A		B121	23.6	C
US 401	D18	14.9	B	US 401	D18	6.0	A										US 401	M120	9.5	A	US 401	M120	24.6	C
	B19	9.4	A		B19	4.1	A											B119	8.1	A		B119	20.5	C
	M20	10.9	B		M20	5.0	A											M118	8.5	A		M118	21.8	C
	B21	10.2	A		B21	4.7	A											B117	6.5	A		B117	15.7	B
	M22	13.6	B		M22	7.0	A											D116	10.8	B		D116	21.7	C
	B23	12.8	B		B23	6.7	A											B115	9.8	A		B115	20.5	C
Old Stage Rd	D24	14.2	B	Old Stage Rd	D24	7.4	A										N/A				N/A			
	B25	8.3	A		B25	3.9	A										Old Stage Rd	M114	10.2	B	Old Stage Rd	M114	21.6	C
	M26	9.5	A		M26	4.6	A											B113	5.5	A		B113	12.7	B
N/A				N/A														D112	6.6	A		D112	14.3	B
	B27	8.9	A		B27	4.3	A											B111	6.1	A		B111	13.5	B
NC 50	D28	9.7	A	NC 50	D28	4.7	A										NC 50	M110	6.4	A	NC 50	M110	14.3	B
	B29	6.8	A		B29	3.0	A											B109	3.4	A		B109	9.1	A
	M30	11.1	B		M30	4.8	A											D108	6.5	A		D108	16.9	B
	B31	10.6	A		B31	4.6	A											B107	5.3	A		B107	13.4	B
I-40	D32	11.5	B	I-40	D32	4.7	A										I-40	M106	5.5	A	I-40	M106	13.7	B
	B33	6.0	A		B33	3.8	A											B105	4.2	A		B105	7.2	A
	D34	6.6	A		D34	4.2	A											W104	4.9	A		W104	7.7	A
	B35	3.4	A		B35	2.1	A											B103	3.0	A		B103	4.2	A
	M36	6.0	A		M36	4.2	A											D102	8.1	A		D102	9.7	A
	B37	5.8	A		B37	4.1	A											B101	7.2	A		B101	8.7	A
	M38	9.1	A		M38	7.2	A										White Oak Rd	M100	7.6	A	White Oak Rd	M100	9.1	A
	B39	8.8	A		B39	6.9	A											B99	5.8	A		B99	6.9	A
White Oak Rd	D40	9.5	A	White Oak Rd	D40	7.5	A											D98	9.2	A		D98	11.7	B
	B41	6.7	A		B41	5.1	A											B97	7.6	A		B97	9.6	A
	M42	9.9	A		M42	7.4	A										US 70 Business	M96	8.1	A	US 70 Business	M96	10.3	B
	B43	9.4	A		B43	7.0	A											B95	6.8	A		B95	9.3	A
US 70 Business	D44	10.1	B	US 70 Business	D44	7.5	A											M94	7.1	A		M94	9.7	A
	B45	8.3	A		B45	5.8	A											B93	5.1	A		B93	7.3	A
	M46	11.2	B		M46	6.5	A											D92	6.5	A		D92	11.6	B
	B47	10.6	A		B47	6.2	A											B91	6.0	A		B91	10.6	A
	M48	15.0	B		M48	8.2	A										Rock Quarry Rd	M90	6.4	A	Rock Quarry Rd	M90	11.3	B
	B49	14.2	B		B49	7.8	A											B89	5.4	A		B89	9.5	A
Rock Quarry Rd	D50	16.8	B	Rock Quarry Rd	D50	9.3	A											D88	6.6	A		D88	13.0	B
	B51	12.8	B		B51	6.9	A											B87	6.2	A		B87	12.0	B
	M52	17.3	B		M52	8.7	A										Auburn-Knightdale Rd	M86	6.6	A	Auburn-Knightdale Rd	M86	12.9	B
	B53	16.1	B		B53	8.2	A											B85	5.9	A		B85	10.9	A
Auburn-Knightdale Rd	D54	18.8	B	Auburn-Knightdale Rd	D54	9.6	A											D84	6.6	A		D84	13.2	B
	B55	15.0	B		B55	8.0	A											B83	6.2	A		B83	12.4	B
	M56	17.9	B		M56	8.8	A										Poole Rd	M82	6.6	A	Poole Rd	M82	13.4	B
	B57	16.6	B		B57	8.3	A											B81	5.9	A		B81	11.9	B
Poole Rd	D58	17.4	B	Poole Rd	D58	8.7	A											W80	7.4	A		W80	17.5	B
	B59	15.8	B		B59	7.8	A										US 64 / US 264	B79	5.2	A	US 64 / US 264	B79	11.3	B
	W60	23.4	C		W60	9.4	A						US 64 / US 264	D21	6.0	A		D78	11.2	B		D78	15.2	B
US 64 / US 264	D61	25.3	C	US 64 / US 264	D61	11.2	B							B20	4.5	A		B77	9.2	A		B77	13.0	B
	B62	15.3	B		B62	7.0	A							D19	12.6	B		D76	15.5	B		D76	20.5	C
	M63	30.6	D		M63	18.5	B							B18	10.9	A		B75	13.9	B		B75	19.2	C
	B64	25.7	C		B64	17.5	B	South of US 64 Business	B7	13.4	B			M17	11.5	B		M74	14.8	B		M74	20.1	C
US 64 Business	D65	25.3	C	US 64 Business	D65	19.7	B		D8	14.7	B		US 64 Business	B16	7.0	A	US 64 Business	B73	9.5	A	US 64 Business	B73	14.3	B
	B66	18.5	C		B66	12.3	B	US 64 Business	B9	8.9	A			D15	13.5	B		D72	16.3	B		D72	20.3	C
	M67	27.9	C		M67	22.4	C		M10	17.7	B			B14	11.0	B		B71	13.4	B		B71	17.9	B
North of US 64 Business	B68	28.4	D	North of US 64 Business	B68	21.0	C	North of US 64 Business	B11	16.4	B			D13	13.5	B		D70	16.7	B		D70	20.8	C
Facility		**13.5**	**B**	**Facility**		**6.8**	**A**	**Facility**		**N/A**	**N/A**		North of US 64 Business	B12	12.6	B	North of US 64 Business	B69	15.7	B	North of US 64 Business	B69	20.8	C
													Facility		**N/A**	**N/A**	**Facility**		**7.9**	**A**	**Facility**		**32.7**	**D**

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Table D - 7 Complete 540 Detailed Freeway Operations Summary – PM Peak

2040 Build Eastbound PM				2016 Build Eastbound PM				2016 No-Build Eastbound PM					2016 No-Build Westbound PM				2016 Build Westbound PM				2040 Build Westbound PM			
Location	Segment ID	Density (pc/mi/ln)	LOS	Location	Segment ID	Density (pc/mi/ln)	LOS	Location	Segment ID	Density (pc/mi/ln)	LOS		Location	Segment ID	Density (pc/mi/ln)	LOS	Location	Segment ID	Density (pc/mi/ln)	LOS	Location	Segment ID	Density (pc/mi/ln)	LOS
N/A				West of NC 55 Bypass	B3	9.6	A	West of NC 55 Bypass	B3	6.8	A	Eastern Termini	West of NC 55 Bypass	B24	3.7	A	West of NC 55 Bypass	B135	6.3	A	West of NC 55 Bypass	B135	12.6	B
West of NC 55 Bypass	W4	25.1	C		D4	10.8	B	NC 55 Bypass	D4	7.9	A		NC 55 Bypass	M23	3.9	A		M134	6.8	A		M134	10.2	B
NC 55 Bypass	B5	14.4	B	NC 55 Bypass	B5	5.2	A		B5	1.4	A			B22	2.6	A	NC 55 Bypass	B133	6.2	A	NC 55 Bypass	B133	11.2	B
	D6	16.5	B		D6	5.9	A		D6	1.8	A							M132	6.3	A		M132	11.1	B
	B7	12.0	B		B7	4.8	A											B131	3.8	A		B131	9.6	A
	M8	18.7	B		M8	6.9	A											D130	5.5	A		D130	15.2	B
	B9	17.7	B		B9	6.5	A											B129	5.1	A		B129	13.5	B
Holly Springs Rd	D10	19.9	B	Holly Springs Rd	D10	7.1	A										Holly Springs Rd	M128	5.4	A	Holly Springs Rd	M128	14.2	B
	B11	14.2	B		B11	5.3	A											B127	4.3	A		B127	11.5	B
	M12	22.8	C		M12	8.9	A											D126	6.9	A		D126	18.3	B
	B13	21.9	C		B13	8.4	A											B125	6.4	A		B125	16.3	B
Bells Lake Rd	D14	23.5	C	Bells Lake Rd	D14	9.1	A										Bells Lake Rd	M124	6.7	A	Bells Lake Rd	M124	17.3	B
	B15	17.2	B		B15	6.7	A											B123	5.2	A		B123	13.6	B
	M16	22.5	C		M16	9.3	A											D122	7.1	A		D122	17.1	B
	B17	21.4	C		B17	8.8	A											B121	6.6	A		B121	15.7	B
US 401	D18	23.7	C	US 401	D18	9.5	A										US 401	M120	7.0	A	US 401	M120	16.7	B
	B19	14.6	B		B19	6.5	A											B119	5.8	A		B119	13.8	B
	M20	17.9	B		M20	8.2	A											M118	6.1	A		M118	14.5	B
	B21	16.3	B		B21	7.8	A											B117	5.0	A		B117	11.3	B
	M22	20.5	C		M22	10.6	B											D116	8.2	A		D116	16.1	B
	B23	19.5	C		B23	10.0	A											B115	7.5	A		B115	14.5	B
Old Stage Rd	D24	22.1	C	Old Stage Rd	D24	11.1	B										N/A				N/A			
	B25	12.4	B		B25	6.0	A										Old Stage Rd	M114	7.8	A	Old Stage Rd	M114	15.0	B
	M26	14.3	B		M26	7.1	A											B113	4.5	A		B113	9.6	A
N/A				N/A														D112	5.3	A		D112	11.2	B
	B27	13.3	B		B27	6.6	A											B111	4.9	A		B111	10.3	A
NC 50	D28	15.3	B	NC 50	D28	7.3	A										NC 50	M110	5.2	A	NC 50	M110	10.6	B
	B29	9.1	A		B29	4.0	A											B109	3.6	A		B109	8.1	A
	M30	14.1	B		M30	6.3	A											D108	6.1	A		D108	13.9	B
	B31	13.9	B		B31	6.1	A											B107	5.0	A		B107	11.6	B
I-40	D32	15.8	B	I-40	D32	6.3	A										I-40	M106	5.2	A	I-40	M106	11.4	B
	B33	8.0	A		B33	5.0	A											B105	4.2	A		B105	6.9	A
	D34	9.2	A		D34	5.6	A											W104	4.6	A		W104	9.0	A
	B35	3.1	A		B35	2.2	A											B103	4.0	A		B103	6.0	A
	M36	5.5	A		M36	5.2	A											D102	8.0	A		D102	10.8	B
	B37	6.7	A		B37	5.2	A											B101	7.3	A		B101	9.5	A
	M38	9.2	A		M38	8.1	A										White Oak Rd	M100	7.6	A	White Oak Rd	M100	9.8	A
	B39	9.4	A		B39	7.7	A											B99	5.4	A		B99	7.4	A
White Oak Rd	D40	10.5	B	White Oak Rd	D40	8.3	A											D98	8.6	A		D98	11.8	B
	B41	7.7	A		B41	6.4	A											B97	7.1	A		B97	10.0	A
	M42	10.5	B		M42	8.7	A										US 70 Business	M96	7.6	A	US 70 Business	M96	10.8	B
	B43	10.6	A		B43	8.3	A											B95	6.7	A		B95	9.8	A
US 70 Business	D44	11.9	B	US 70 Business	D44	9.0	A											M94	7.1	A		M94	10.4	B
	B45	8.3	A		B45	5.9	A											B93	5.9	A		B93	8.8	A
	M46	10.1	B		M46	6.5	A											D92	8.5	A		D92	16.7	B
	B47	9.9	A		B47	6.1	A											B91	7.9	A		B91	14.6	B
	M48	12.0	B		M48	7.2	A										Rock Quarry Rd	M90	8.4	A	Rock Quarry Rd	M90	15.7	B
	B49	11.6	B		B49	6.8	A											B89	6.9	A		B89	13.0	B
Rock Quarry Rd	D50	13.1	B	Rock Quarry Rd	D50	8.0	A											D88	8.8	A		D88	18.0	B
	B51	10.6	A		B51	6.2	A											B87	8.2	A		B87	16.3	B
	M52	13.7	B		M52	7.5	A											M86	8.8	A		M86	17.6	B
	B53	13.3	B		B53	7.0	A										Auburn-Knightdale Rd	B85	7.9	A	Auburn-Knightdale Rd	B85	15.0	B
Auburn-Knightdale Rd	D54	15.0	B	Auburn-Knightdale Rd	D54	8.3	A											D84	8.7	A		D84	18.0	B
	B55	12.3	B		B55	6.8	A											B83	8.2	A		B83	16.6	B
	M56	14.5	B		M56	7.5	A										Poole Rd	M82	8.8	A	Poole Rd	M82	18.0	B
	B57	13.7	B		B57	7.1	A											B81	7.8	A		B81	15.9	B
Poole Rd	D58	15.0	B	Poole Rd	D58	7.5	A											W80	9.4	A		W80	29.9	D
	B59	13.1	B		B59	6.8	A										US 64 / US 264	B79	6.9	A	US 64 / US 264	B79	15.0	B
	W60	19.7	B		W60	8.4	A											D78	16.6	B		D78	22.2	C
US 64 / US 264	D61	18.4	B	US 64 / US 264	D61	8.4	A						US 64 / US 264	D21	11.1	B		B77	13.2	B		B77	18.7	C
	B62	12.9	B		B62	5.7	A							B20	8.0	A		D76	18.4	B		D76	25.1	C
	M63	18.4	B		M63	15.3	B							D19	14.8	B		B75	17.0	B		B75	24.8	C
	B64	17.8	B		B64	14.7	B	South of US 64 Business	B7	11.1	B			B18	13.1	B		M74	18.1	B		M74	25.2	C
US 64 Business	D65	19.4	B	US 64 Business	D65	16.5	B		D8	12.2	B		US 64 Business	M17	13.9	B	US 64 Business	B73	11.8	B	US 64 Business	B73	17.6	B
	B66	13.8	B		B66	10.3	A	US 64 Business	B9	7.3	A			B16	8.6	A		D72	21.7	C		D72	25.9	C
	M67	20.8	C		M67	18.1	B		M10	14.1	B			D15	17.9	B		B71	17.7	B		B71	24.2	C
North of US 64 Business	B68	20.2	C	North of US 64 Business	B68	16.9	B	North of US 64 Business	B11	13.1	B			B14	14.3	B		D70	20.5	C		D70	25.9	C
Facility		**16.5**	**B**	**Facility**		**7.9**	**A**	**Facility**		**N/A**	**N/A**			D13	16.6	B								
													North of US 64 Business	B12	15.7	B	North of US 64 Business	B69	19.9	C	North of US 64 Business	B69	27.3	D
													Facility		**N/A**	**N/A**	**Facility**		**7.6**	**A**	**Facility**		**16.3**	**B**

N/A

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Table D - 8 I-40 Detailed Freeway Operations Summary

2040 Build Eastbound AM				2016 Build Eastbound AM				2016 No-Build Eastbound AM					2016 No-Build Westbound AM				2016 Build Westbound AM				2040 Build Westbound AM			
Location	Segment ID	Density (pc/mi/ln)	LOS	Location	Segment ID	Density (pc/mi/ln)	LOS	Location	Segment ID	Density (pc/mi/ln)	LOS		Location	Segment ID	Density (pc/mi/ln)	LOS	Location	Segment ID	Density (pc/mi/ln)	LOS	Location	Segment ID	Density (pc/mi/ln)	LOS
North of US 70 Business	B1	14.3	B	North of US 70 Business	B1	16.0	B	North of US 70 Business	B1	17.0	B		North of US 70 Business	B32	23.6	C	North of US 70 Business	B40	23.5	C	North of US 70 Business	B40	21.9	C
US 70 Business	D2	15.2	B	US 70 Business	D2	27.6	C	US 70 Business	D2	29.5	D		US 70 Business	M31	43.7	E	US 70 Business	M39	44.5	E	US 70 Business	M39	23.1	C
	B3	9.7	A		B3	16.3	B		B3	17.1	B			B30	63.5	F		B38	64.5	F		B38	17.4	B
	M4	10.7	B		M4	18.7	B		M4	20.1	C			W29	73.6	E		W37	77.3	E		W37	18.9	B
	B5	10.4	A		B5	17.0	B		B5	18.3	C			B28	53.0	F		B36	58.0	F		B36	17.2	B
	M6	11.8	B		M6	20.8	C		M6	22.7	C			D27	51.4	E		D35	230.6	E		D35	17.8	B
	B7	10.5	A		B7	8.7	A		B7	19.5	C			B26	47.8	F		B34	35.8	E		B34	16.8	B
Complete 540	D8	10.9	B	Complete 540	D8	8.8	A	US 70	D8	13.9	B		N/A				Complete 540	M33	15.9	B	Complete 540	M33	17.5	B
	B9	8.7	A		B9	8.5	A		B9	8.3	A							B32	10.0	A		B32	13.1	B
	D10	9.3	A		D10	8.8	A		M10	9.5	A							M31	12.9	B		M31	13.6	B
	B11	6.2	A		B11	6.5	A	N/A										B30	9.0	A		B30	8.6	A
	M12	6.8	A		W12	7.1	A							M25	41.0	E		D29	10.9	B		D29	9.9	A
	B13	5.8	A		B13	6.4	A						US 70	B24	22.6	C		B28	10.5	A		B28	9.8	A
	M14	7.7	A		M14	8.0	A							D23	26.0	C		D27	12.5	B		D27	12.7	B
	B15	7.5	A		B15	10.2	A		B11	13.3	B			B22	23.6	C		B26	12.1	B		B26	12.4	B
NC 42	D16	13.8	B	NC 42	D16	17.6	B	NC 42	D12	15.3	B			M21	26.4	C		M25	29.1	D		M25	23.1	C
	B17	8.1	A		B17	10.4	A		B13	8.4	A			B20	21.8	C		B24	25.1	C		B24	20.3	C
	M18	10.3	B		M18	13.2	B		M14	11.3	B		NC 42	M19	23.0	C	NC 42	M23	25.9	C	NC 42	M23	21.2	C
South of NC 42	B19	9.9	A	South of NC 42	B19	12.2	B	South of NC 42	B15	10.5	A			B18	14.7	B		B22	15.9	B		B22	13.8	B
N/A				N/A				N/A						D17	20.2	C		D21	21.0	C		D21	16.9	B
													South of NC 42	B16	17.2	B	South of NC 42	B20	18.0	C	South of NC 42	B20	15.9	B
Facility		9.9	A	**Facility**		**10.6**	**A**	**Facility**		**15.5**	**B**		**Facility**		**34.5**	**D**	**Facility**		**29.3**	**D**	**Facility**		16.4	B

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2040 Build Eastbound PM				2016 Build Eastbound PM				2016 No-Build Eastbound PM					2016 No-Build Westbound PM				2016 Build Westbound PM				2040 Build Westbound PM			
Location	Segment ID	Density (pc/mi/ln)	LOS	Location	Segment ID	Density (pc/mi/ln)	LOS	Location	Segment ID	Density (pc/mi/ln)	LOS		Location	Segment ID	Density (pc/mi/ln)	LOS	Location	Segment ID	Density (pc/mi/ln)	LOS	Location	Segment ID	Density (pc/mi/ln)	LOS
North of US 70 Business	B1	21.3	C	North of US 70 Business	B1	48.5	F	North of US 70 Business	B1	44.1	E		North of US 70 Business	B32	18.1	C	North of US 70 Business	B40	16.1	B	North of US 70 Business	B40	14.7	B
US 70 Business	D2	22.3	C	US 70 Business	D2	40.9	E	US 70 Business	D2	42.0	E		US 70 Business	M31	30.7	D	US 70 Business	M39	27.1	C	US 70 Business	M39	15.7	B
	B3	15.2	B		B3	24.9	C		B3	24.2	C			B30	21.1	C		B38	18.6	C		B38	11.8	B
	M4	16.8	B		M4	28.6	D		M4	28.4	D			W29	18.1	B		W37	15.8	B		W37	12.3	B
	B5	16.0	B		B5	25.5	C		B5	25.3	C			B28	21.5	C		B36	18.7	C		B36	11.4	B
	M6	18.3	B		M6	32.6	D		M6	33.8	D			D27	24.2	C		D35	20.9	C		D35	12.0	B
	B7	16.2	B		B7	12.9	B		B7	31.0	D			B26	21.3	C		B34	18.0	C		B34	11.2	B
Complete 540	D8	16.4	B	Complete 540	D8	13.3	B	US 70	D8	20.4	C		N/A				Complete 540	M33	7.3	A	Complete 540	M33	11.6	B
	B9	14.4	B		B9	12.7	B		B9	12.4	B							B32	5.8	A		B32	8.1	A
	D10	15.4	B		D10	13.8	B		M10	14.2	B							M31	7.5	A		M31	8.3	A
	B11	10.1	A		B11	9.7	A	N/A										B30	5.3	A		B30	5.4	A
	M12	11.0	B		W12	12.4	B							M25	22.3	C		D29	6.8	A		D29	6.7	A
	B13	9.1	A		B13	8.7	A						US 70	B24	13.9	B		B28	6.6	A		B28	6.6	A
	M14	12.0	B		M14	10.6	B							D23	16.5	B		D27	8.1	A		D27	8.5	A
	B15	11.6	B		B15	13.6	B		B11	20.3	C			B22	14.8	B		B26	8.0	A		B26	8.3	A
NC 42	D16	21.6	C	NC 42	D16	25.1	C	NC 42	D12	24.2	C			M21	16.9	B		M25	18.3	B		M25	15.0	B
	B17	13.2	B		B17	13.4	B		B13	13.2	B			B20	13.7	B		B24	15.6	B		B24	13.1	B
	M18	16.5	B		M18	17.2	B		M14	17.7	B		NC 42	M19	14.4	B	NC 42	M23	16.4	B	NC 42	M23	13.5	B
South of NC 42	B19	15.6	B	South of NC 42	B19	15.8	B	South of NC 42	B15	16.3	B			B18	9.4	A		B22	10.4	A		B22	9.0	A
N/A				N/A				N/A						D17	12.7	B		D21	13.4	B		D21	11.3	B
													South of NC 42	B16	11.3	B	South of NC 42	B20	11.9	B	South of NC 42	B20	10.5	A
Facility		15.5	B	**Facility**		17.9	B	**Facility**		25.4	C		**Facility**		**18**	**C**	**Facility**		**13.0**	**B**	**Facility**		10.9	A

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Table D - 9 US 70 Detailed Freeway Operations Summary

2040 Build Eastbound AM				2016 Build Eastbound AM				2016 No-Build Eastbound AM					2016 No-Build Westbound AM				2016 Build Westbound AM				2040 Build Westbound AM			
Location	Segment ID	Density (pc/mi/ln)	LOS	Location	Segment ID	Density (pc/mi/ln)	LOS	Location	Segment ID	Density (pc/mi/ln)	LOS		Location	Segment ID	Density (pc/mi/ln)	LOS	Location	Segment ID	Density (pc/mi/ln)	LOS	Location	Segment ID	Density (pc/mi/ln)	LOS
North of I-40	B1	6.3	A	North of I-40	B1	3.8	A	North of I-40	B1	6.5	A		North of I-40	D15	1.2	A	North of I-40	D21	3.5	A	North of I-40	D21	3.6	A
I-40	M2	9.6	A	I-40	M2	6.2	A	I-40	M2	8.4	A		I-40	B14	0.9	A	I-40	B20	2.7	A	I-40	B20	2.8	A
	B3	8.9	A		B3	5.8	A	N/A						D13	11.2	B		D19	16.0	B		D19	25.3	C
	M4	12.7	B		M4	9.1	A							B12	9.5	A		B18	13.6	B		B18	21	C
	B5	11.4	B		B5	8.2	A						N/A					D17	17.5	B		D17	25.9	C
	M6	17.0	B		M6	11.8	B											B16	15.6	B		B16	24.8	C
	B7	15.3	B		B7	10.7	A		B3	7.6	A			M11	10.6	B		M15	17.6	B		M15	26.7	C
NC 42	D8	17.7	B	NC 42	D8	12.1	B	NC 42	D4	8.5	A		NC 42	B10	8.1	A	NC 42	B14	12.7	B	NC 42	B14	16.5	B
	B9	9.6	A		B9	8.1	A		B5	6.4	A			D9	11.3	B		D13	15.8	B		D13	22.7	C
	M10	14.3	B		M10	10.5	B		M6	9.2	A		East of NC 42	B8	10.0	A	East of NC 42	B12	14.1	B	East of NC 42	B12	20.7	C
East of NC 42	B11	12.8	B	East of NC 42	B11	9.4	A	East of NC 42	B7	8.3	A		N/A				N/A				N/A			
Facility		**11.9**	**B**	**Facility**		**8.5**	**A**	**Facility**		**7.5**	**A**		**Facility**		**7.8**	**A**	**Facility**		**13.2**	**B**	**Facility**		**19.6**	**C**

US 70

2040 Build Eastbound PM				2016 Build Eastbound PM				2016 No-Build Eastbound PM					2016 No-Build Westbound PM				2016 Build Westbound PM				2040 Build Westbound PM			
Location	Segment ID	Density (pc/mi/ln)	LOS	Location	Segment ID	Density (pc/mi/ln)	LOS	Location	Segment ID	Density (pc/mi/ln)	LOS		Location	Segment ID	Density (pc/mi/ln)	LOS	Location	Segment ID	Density (pc/mi/ln)	LOS	Location	Segment ID	Density (pc/mi/ln)	LOS
North of I-40	B1	10.7	A	North of I-40	B1	6.3	A	North of I-40	B1	8.6	A		North of I-40	D15	1.5	A	North of I-40	D21	3.4	A	North of I-40	D21	4.0	A
I-40	M2	15.0	B	I-40	M2	9.4	A	I-40	M2	10.6	B		I-40	B14	1.1	A	I-40	B20	2.6	A	I-40	B20	3.1	A
	B3	13.7	B		B3	8.7	A	N/A						D13	8.9	A		D19	10.2	B		D19	16.0	B
	M4	18.3	B		M4	12.3	B							B12	7.7	A		B18	9.0	A		B18	13.6	B
	B5	16.4	B		B5	11.1	B						N/A					D17	12.0	B		D17	17.8	B
	M6	26.8	C		M6	17.0	B											B16	10.6	A		B16	15.8	B
	B7	25.3	C		B7	15.3	B		B3	9.4	A			M11	8.6	A		M15	11.8	B		M15	17.5	B
NC 42	D8	26.9	C	NC 42	D8	17.3	B	NC 42	D4	10.6	B		NC 42	B10	6.4	A	NC 42	B14	7.9	A	NC 42	B14	9.8	A
	B9	17.1	B		B9	12.5	B		B5	8.1	A			D9	9.3	A		D13	10.3	B		D13	14.6	B
	M10	24.0	C		M10	15.9	B		M6	11.3	B		East of NC 42	B8	8.3	A	East of NC 42	B12	9.1	A	East of NC 42	B12	12.8	B
East of NC 42	B11	21.7	C	East of NC 42	B11	14.0	B	East of NC 42	B7	10.1	A		N/A				N/A				N/A			
Facility		**19.2**	**C**	**Facility**		**12.4**	**B**	**Facility**		**9.5**	**A**		**Facility**		**6.4**	**A**	**Facility**		**8.9**	**A**	**Facility**		**12.7**	**B**

US 70

Table D - 10 I-495 / US 64 / US 264 Detailed Freeway Operations Summary

2040 Build Eastbound AM				2016 Build Eastbound AM				2016 No-Build Eastbound AM					2016 No-Build Westbound AM				2016 Build Westbound AM				2040 Build Westbound AM			
Location	**Segment ID**	**Density (pc/mi/ln)**	**LOS**	**Location**	**Segment ID**	**Density (pc/mi/ln)**	**LOS**	**Location**	**Segment ID**	**Density (pc/mi/ln)**	**LOS**		**Location**	**Segment ID**	**Density (pc/mi/ln)**	**LOS**	**Location**	**Segment ID**	**Density (pc/mi/ln)**	**LOS**	**Location**	**Segment ID**	**Density (pc/mi/ln)**	**LOS**
West of Hodge Rd	B1	16.3	B	West of Hodge Rd	B1	13.6	B	West of Hodge Rd	B1	13.3	B		West of Hodge Rd	B22	30.0	D	West of Hodge Rd	B26	30.8	D	West of Hodge Rd	B26	41.9	E
Hodge Rd	D2	17.3	B	Hodge Rd	D2	14.6	B	Hodge Rd	D2	14.2	B		Hodge Rd	M21	30.2	D	Hodge Rd	M25	30.7	D	Hodge Rd	M25	35.8	E
	B3	13.5	B		B3	11.8	B		B3	11.4	B			B20	23.3	C		B24	25.1	C		B24	34.4	D
	W4	18.8	B		W4	12.0	B		W4	12.1	B			W19	22.4	C		W23	23.3	C		W23	30.3	D
I-540	B5	8.9	A	I-540	B5	8.0	A	I-540	B5	8.0	A		N/A				I-540	B22	20.5	C	I-540	B22	25.4	C
	M6	14.0	B		M6	12.5	B		M6	13.3	B							M21	22.2	C		M21	25.7	C
	B7	13.3	B		B7	11.8	B	N/A					I-540	B18	17.2	B		B20	17.7	B		B20	20.0	C
	M8	16.6	B		M8	14.6	B							D17	28.0	D		D19	29.8	D		D19	34.4	D
	B9	15.4	B		B9	13.4	B		B7	12.5	B			B16	28.0	D		B18	30.3	D		B18	38.5	E
Smithfield Rd	D10	16.7	B	Smithfield Rd	D10	14.5	B	Smithfield Rd	D8	13.6	B		Smithfield Rd	M15	28.3	D	Smithfield Rd	M17	30.9	D	Smithfield Rd	M17	33.6	D
	B11	11.7	B		B11	10.5	A		B9	9.6	A			B14	20.7	C		B16	22.7	C		B16	27.0	D
	M12	13.2	B		M12	11.9	B		M10	11.0	B			D13	21.9	C		D15	23.5	C		D15	26.6	C
East of Smithfield Rd	B13	12.4	B	East of Smithfield Rd	B13	11.1	B	East of Smithfield Rd	B11	10.3	A		East of Smithfield Rd	B12	21.8	C	East of Smithfield Rd	B14	23.8	C	East of Smithfield Rd	B14	28.8	D
Facility		**14.3**	**B**	Facility		12.2	B	Facility		11.7	B		Facility		24.3	C	Facility		25.6	C	**Facility**		**31.7**	**D**

I-495

2040 Build Eastbound PM				2016 Build Eastbound PM				2016 No-Build Eastbound PM					2016 No-Build Westbound PM				2016 Build Westbound PM				2040 Build Westbound PM			
Location	**Segment ID**	**Density (pc/mi/ln)**	**LOS**	**Location**	**Segment ID**	**Density (pc/mi/ln)**	**LOS**	**Location**	**Segment ID**	**Density (pc/mi/ln)**	**LOS**		**Location**	**Segment ID**	**Density (pc/mi/ln)**	**LOS**	**Location**	**Segment ID**	**Density (pc/mi/ln)**	**LOS**	**Location**	**Segment ID**	**Density (pc/mi/ln)**	**LOS**
West of Hodge Rd	B1	167.6	F	West of Hodge Rd	B1	29.7	D	West of Hodge Rd	B1	30.0	D		West of Hodge Rd	B22	14.2	B	West of Hodge Rd	B26	14.3	B	West of Hodge Rd	B26	17.3	B
Hodge Rd	D2	82.0	E	Hodge Rd	D2	27.8	C	Hodge Rd	D2	28.2	D		Hodge Rd	M21	15.4	B	Hodge Rd	M25	15.6	B	Hodge Rd	M25	18.4	B
	B3	101.0	F		B3	24.4	C		B3	23.5	C			B20	12.2	B		B24	12.4	B		B24	14.3	B
	W4	37.2	E		W4	24.2	C		W4	23.2	C			W19	12.6	B		W23	12.1	B		W23	16.8	B
I-540	B5	13.7	B	I-540	B5	17.0	B	I-540	B5	17.1	B		N/A				I-540	B22	10.2	A	I-540	B22	12.2	B
	M6	22.6	C		M6	26.3	C		M6	28.6	D							M21	10.8	B		M21	12.7	B
	B7	21.1	C		B7	25.0	C	N/A					I-540	B18	8.9	A		B20	8.7	A		B20	9.8	A
	M8	26.0	C		M8	29.1	D							D17	15.0	B		D19	16.0	B		D19	18.4	B
	B9	25.2	C		B9	28.6	D		B7	27.8	D			B16	13.6	B		B18	14.3	B		B18	16.6	B
Smithfield Rd	D10	26.1	C	Smithfield Rd	D10	27.4	C	Smithfield Rd	D8	27.0	C		Smithfield Rd	M15	14.5	B	Smithfield Rd	M17	15.3	B	Smithfield Rd	M17	17.5	B
	B11	19.6	C		B11	21.9	C		B9	21.0	C			B14	10.4	A		B16	11.1	B		B16	12.5	B
	M12	21.9	C		M12	24.2	C		M10	23.4	C			D13	11.6	B		D15	12.4	B		D15	13.3	B
East of Smithfield Rd	B13	20.9	C	East of Smithfield Rd	B13	23.1	C	East of Smithfield Rd	B11	22.2	C		East of Smithfield Rd	B12	11.0	B	East of Smithfield Rd	B14	11.7	B	East of Smithfield Rd	B14	13.2	B
Facility		**51.7**	**F**	Facility		25.5	C	Facility		25.2	C		Facility		12.3	B	Facility		12.8	B	**Facility**		**14.9**	**B**

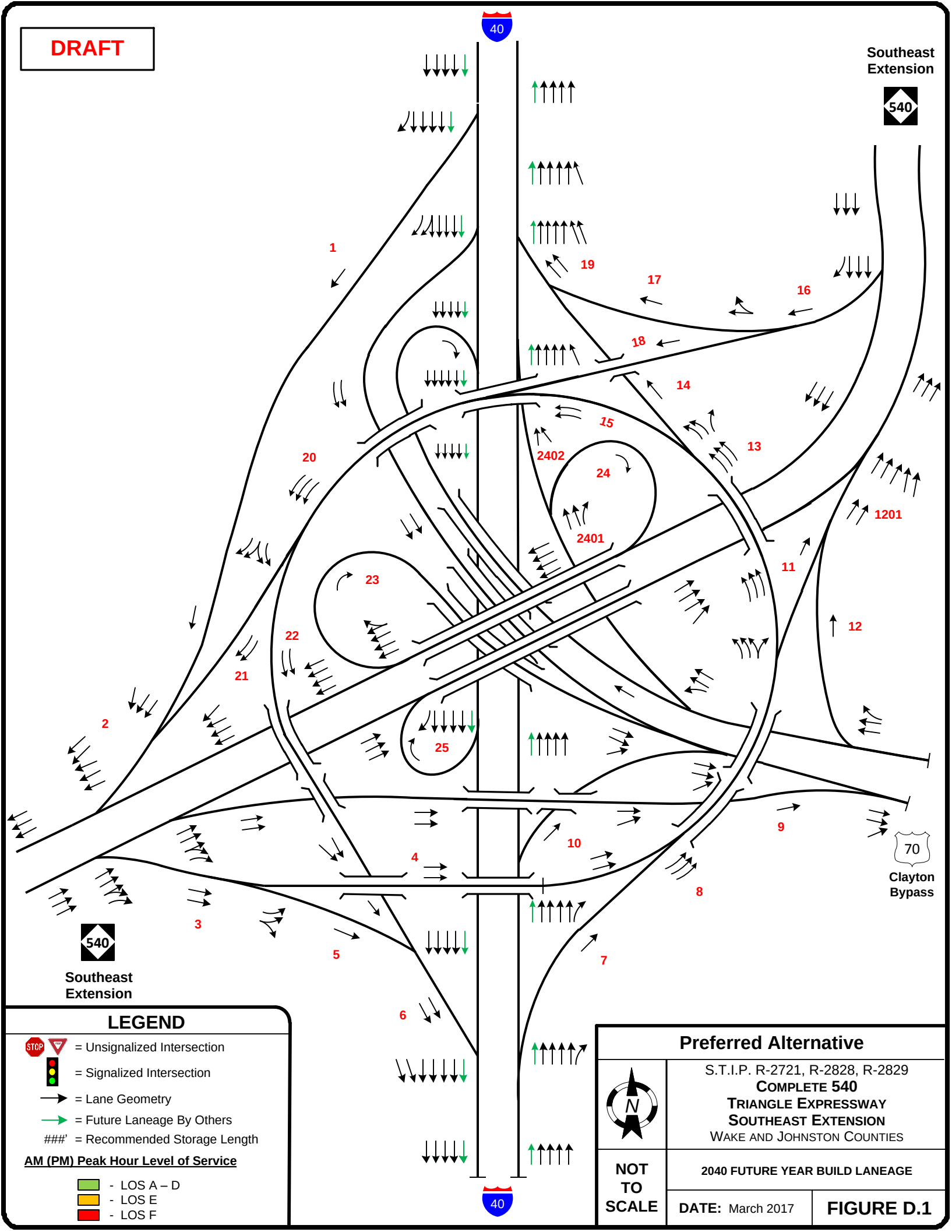
I-495

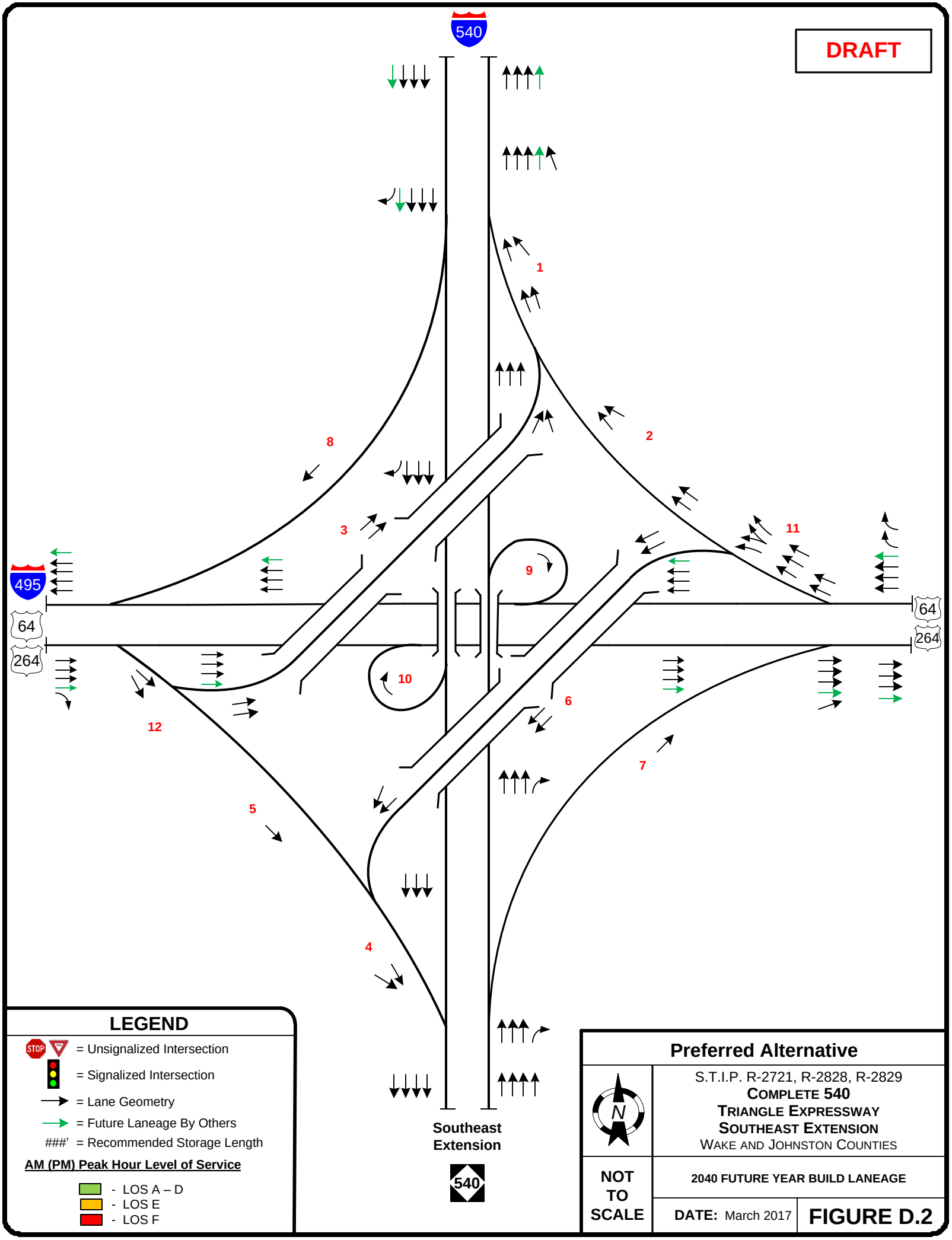
Table D - 11 System Interchanges Ramps Demand-to-Capacity Ratios Summary Table*

NC 540 at I-495/ US 64 / US 264						2040 BUILD									d/C Ratios	
						Volume				Adj. Demand Volume				Capacity		2040 Build
Location	Description	Type	From	To	Direction	AM Peak	PM Peak	HV%	f_{HV}	AM Peak	PM Peak	f_p	No. of Lanes	Per Lane	Total	AM	PM
1	EB and WB I-495 / US 64 / US 264 Ramps to NB I-540	Ramp	I-495	I-540	EB/WB/NB	3301	2896	7%	0.966	3796	3330	1.000	2	2200	4400	0.863	0.757
2	WB US 64/US 264 to NB I-540	Ramp	US 64/264	I-540	WB/NB	1999	1209	7%	0.966	2299	1390	1.000	1	2200	2200	1.045	0.632
3	EB I-495 Ramp to NB I-540	Ramp	I-495	I-540	EB/NB	1302	1687	7%	0.966	1497	1940	1.000	1	2200	2200	0.68	0.882
4	EB I-495 Ramp to SB NC 540	Ramp	I-495	NC 540	EB/SB	1422	1664	6%	0.971	1627	1904	1.000	2	2200	4400	0.37	0.433
5	WB I-495 Ramp to SB NC 540	Ramp	I-495	NC 540	WB/SB	628	1046	6%	0.971	719	1197	1.000	1	2200	2200	0.327	0.544
6	WB I-495 Ramp to SB NC 540	Ramp	I-495	NC 540	WB/SB	794	618	6%	0.971	909	707	1.000	2	2200	4400	0.207	0.161
7	NB NC 540 to EB US 64/264	Ramp	NC 540	US 64/264	NB/EB	618	794	7%	0.966	711	913	1.000	1	2200	2200	0.323	0.415
8	SB I-540 to WB I-495	Ramp	I-540	I-495	SB/WB	1687	1302	4%	0.980	1912	1476	1.000	1	2200	2200	0.869	0.671
9	NB NC 540 to WB I-495	Loop	NC 540	I-495	NB/WB	1046	628	4%	0.980	1185	712	1.000	1	2000	2000	0.593	0.356
10	SB I-540 to EB US 64/264	Loop	I-540	US 64/264	SB/EB	1209	1999	7%	0.966	1390	2299	1.000	1	2000	2000	0.695	1.15
11	WB US 64/US 264 to NB I-540 & SB NC 540	Ramp	US 64/264	I-540/NC 540	WB/NB/SB	2793	1827	7%	0.966	3212	2101	1.000	2	2200	4400	0.73	0.478
12	EB I-495 to NB I-540 & SB NC 540	Ramp	I-495	I-540/NC 540	EB/NB/SB	1930	2733	6%	0.971	2209	3128	1.000	2	2200	4400	0.502	0.711

NC 540 at I-40 / US 70 Bypass (Dreamcatcher Interchange)						2040 BUILD									d/C Ratios	
						Volume				Adj. Demand Volume				Capacity		2040 Build
Location	Description	Type	From	To	Direction	AM Peak	PM Peak	HV%	f_{HV}	AM Peak	PM Peak	f_p	No. of Lanes	Per Lane	Total	AM	PM
1	SB I-40 to WB NC 540	Ramp	I-40	NC 540	SB/WB	626	588	6%	0.971	716	673	1.000	1	2200	2200	0.325	0.306
2	SB I-40/NB I-40 to WB NC 540 Merge	Ramp	I-40	NC 540	SB/NB/WB	1275	965	6%	0.971	1459	1104	1.000	2	2200	4400	0.332	0.251
3	EB NC 540 to SB/NB I-40	Ramp	NC 540	I-40	EB/NB/SB	965	1275	5%	0.976	1099	1452	1.000	2	2200	4400	0.25	0.33
4	EB NC 540 to NB I-40	Ramp	NC 540	I-40	EB/NB	588	626	5%	0.976	670	713	1.000	2	2200	4400	0.152	0.162
5	EB NC 540 to SB I-40	Ramp	NC 540	I-40	EB/SB	377	649	5%	0.976	429	739	1.000	1	2200	2200	0.195	0.336
6	EB/WB NC 540 to SB I-40 Merge	Ramp	NC 540	I-40	EB/WB/SB	572	867	5%	0.976	651	987	1.000	2	2200	4400	0.148	0.224
7	NB I-40 to EB/WB NC 540	Ramp	I-40	NC 540	NB/EB/WB	867	572	6%	0.971	992	655	1.000	1	2200	2200	0.451	0.298
8	NB I-40 to EB/WB NC 540 & EB NC 540 to NB I-40/NC 540	Ramp	I-40/NC 540	I-40/NC 540	EB/NB/WB	1455	1198	6%	0.971	1665	1371	1.000	3	2200	6600	0.252	0.208
9	EB NC 540 to EB US 70 Bypass	Ramp	NC 540	US 70 Byp	EB/EB	538	965	5%	0.976	613	1099	1.000	2	2200	4400	0.139	0.25
10	NB I-40 to EB US 70 Bypass	Ramp	I-40	US 70 Byp	NB/EB	382	398	5%	0.976	435	453	1.000	1	2200	2200	0.198	0.206
11	NB I-40/EB NC 540 to WB NC 540/NB I-40	Ramp	I-40/NC 540	NC 540/I-40	NB/EB/WB	218	195	6%	0.971	249	223	1.000	1	2200	2200	0.113	0.101
12	WB US 70 Bypass to NB NC 540	Ramp	US 70 Byp	NC 540	WB/NB	377	327	6%	0.971	431	374	1.000	1	2200	2200	0.196	0.17
1201	NB NC 540 Merge Ramps	Ramp	I-40/US 70 Byp	NC 540	NB/WB/NB	595	522	6%	0.971	681	597	1.000	2	2200	4400	0.155	0.136
13	NB I-40/WB NC 540 Merge Ramps to WB NC 540/NB I-40	Ramp	I-40/NC 540	NC 540/I-40	NB/WB	1237	1003	6%	0.971	1416	1148	1.000	3	2200	6600	0.215	0.174
14	EB NC 540 to NB I-40 after diverge	Ramp	NC 540	I-40	EB/NB	588	626	5%	0.976	670	713	1.000	1	2200	2200	0.305	0.324
15	NB I-40 to WB NC 540	Ramp	I-40	NC 540	NB/WB	649	377	6%	0.971	743	431	1.000	2	2200	4400	0.169	0.098
16	WB NC 540 to SB I-40 at merge	Ramp	NC 540	I-40	WB/SB	926	722	5%	0.976	1055	822	1.000	1	2200	2200	0.48	0.374
17	WB NC 540 to NB I-40	Ramp	NC 540	I-40	WB/NB	731	504	5%	0.976	833	574	1.000	1	2200	2200	0.379	0.261
18	WB NC 540 to SB I-40	Ramp	NC 540	I-40	WB/SB	195	218	5%	0.976	222	248	1.000	1	2200	2200	0.101	0.113
19	NB I-40 Merge Ramps	Ramp	NC 540	I-40	EB/WB/NB	1319	1130	5%	0.976	1502	1287	1.000	2	2200	4400	0.341	0.293
20	WB NC 540/NB I-40 to WB NB I-40/WB NC 540	Ramp	NC 540	I-40	WB/NB	844	595	5%	0.976	961	678	1.000	3	2200	6600	0.146	0.103
21	NB I-40 to WB NC 540	Ramp	I-40	NC 540	NB/WB	649	377	6%	0.971	743	431	1.000	2	2200	4400	0.169	0.098
22	WB NC 540 to SB I-40	Ramp	NC 540	I-40	WB/SB	195	218	5%	0.976	222	248	1.000	2	2200	4400	0.05	0.056
23	WB NC 540 to EB US 70 Bypass Loop	Loop	NC 540	US 70 Byp	WB/EB	327	377	5%	0.976	372	429	1.000	1	2000	2000	0.186	0.215
24	EB US 70 Bypass to WB NC 540 Loop	Loop	US 70 Byp	NC 540	EB/WB	948	549	6%	0.971	1085	628	1.000	1	2000	2000	0.543	0.314
2401	EB US 70 Bypass to WB NC 540/NB I-40	Ramp	US 70 Byp	NC 540/I-40	WB/NB	2422	1433	6%	0.971	2772	1640	1.000	3	2200	6600	0.42	0.248
2402	EB US 70 Bypass to NB I-40	Ramp	US 70 Byp	I-40	WB/NB	1474	894	6%	0.971	1687	1023	1.000	2	2200	4400	0.383	0.233
25	SB I-40 to EB NC 540	Loop	I-40	NC 540	SB/EB	504	731	6%	0.971	577	837	1.000	1	2000	2000	0.289	0.419

*The location numbers referred to in the table are shown in the Figures D-1 and D-2


DRAFT
40
Southeast Extension
540
1
19
17
16
18
14
15
2402
13
20
24
1201
2401
11
23
12
22
21
2
25
9
10
4
70
Clayton Bypass
8
3
5
7
6
540
Southeast Extension
40
LEGEND
= Unsignalized Intersection
= Signalized Intersection
= Lane Geometry
= Future Laneage By Others
###' = Recommended Storage Length
AM (PM) Peak Hour Level of Service
- LOS A – D
- LOS E
- LOS F
Preferred Alternative
N
S.T.I.P. R-2721, R-2828, R-2829
COMPLETE 540
TRIANGLE EXPRESSWAY
SOUTHEAST EXTENSION
WAKE AND JOHNSTON COUNTIES
NOT TO SCALE
2040 FUTURE YEAR BUILD LANEAGE
DATE: March 2017
FIGURE D.1


DRAFT
540
495
64
264
64
264
1
2
3
4
5
6
7
8
9
10
11
12
Southeast Extension
540
LEGEND
= Unsignalized Intersection
= Signalized Intersection
= Lane Geometry
= Future Laneage By Others
###' = Recommended Storage Length
AM (PM) Peak Hour Level of Service
- LOS A – D
- LOS E
- LOS F
Preferred Alternative
N
S.T.I.P. R-2721, R-2828, R-2829
COMPLETE 540
TRIANGLE EXPRESSWAY
SOUTHEAST EXTENSION
WAKE AND JOHNSTON COUNTIES
NOT TO SCALE
2040 FUTURE YEAR BUILD LANEAGE
DATE: March 2017
FIGURE D.2

2040 HCS Complete 540
Freeway Facilities Summary Table

2040 Complete 540 Facility Summary Table											
Scenario	Length (mi)	Avg. Speed (mi/h)	Density (pc/mi/ln)	Density (veh/mi/ln)	Avg. Travel Time (min/veh)	Free-Flow Travel Time (min/veh)	VMT Demand (veh-min)[1]	VMT Volume (veh-min)[2]	VHT (veh-hrs)[3]	VHD (veh-hrs)[4]	LOS
2040 Build EB AM	33.17	70.4	13.5	11.5	27.8	26.5	85,204	85,204	1,210	73.5	B
2040 Build EB PM	33.17	67.6	16.5	13.7	28.7	26.5	102,471	98,704	1,460	143.7	B
2040 Build WB AM	33.02	69.9	17.0	14.2	28.0	26.4	104,951	104,951	1,502	102.5	B
2040 Build WB PM	33.02	70.7	15.0	12.4	27.7	26.4	92,033	92,118	1,303	74.3	B

[1]VMT (Vehicle Miles of Travel) Demand is based on demand volume.

[2]VHT (Vehicle Hours of Travel) Demand is based on actual volume served.

[3]VHT (Vehicle Hours of Travel) represents the average total time spent by vehicles traversing a highway segment.

[4]VHD (Vehicle Hours of Delay) represents the additional number of hours spent traveling by the driver due to their inability to travel at the desired speed.

2016 No-Build

1) NC 540 (Triangle Expressway Western Wake Freeway)
2) I-540
3) I-40
4) US 70
5) I-495 / US 64 / 264

HCS 2010 Freeway Facilities

Project Properties

Analyst	HNTB	**Freeway Name**	NC 540 - 2016 No-Build EB AM	**Analysis Period**	AM Peak
Analysis Date	9/19/2014 3:59:03 PM	**From**	NC 55 BYP	**Version Date**	1/20/16
Agency	HNTB	**To**	NC 55 BYP		
Location	Complete 540	**Analysis Direction**	Eastbound/Northbound		
User Notes					
File Name	C:\Temp\preview.xml				

Facility-wide Values

Jam Density (pc/h/ln)	190	**Time Period Duration (min)**	15	**Facility Length (mi)**	**1.60100**

Segment Input Data

Time Period 1

Mainline Data

Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin NC 540 EB	B3	Basic Segment	5280	Rolling	670	6.00	0.00	3	75
2	B3	D4	Off Ramp	1500	Rolling	670	6.00	0.00	3	75
3	D4	B5	Basic Segment	175	Rolling	183	11.32	0.00	3	75
4	End NC 540 EB	D6	Off Ramp	1500	Rolling	183	11.32	0.00	3	75

RampData

Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	Off Ramp	487	4.00	0.00	1	700	50
4	Off Ramp	184	4.00	0.00	1	925	30

Weaving Segment Data

Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp				
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS

Time Period 2

Mainline Data

Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin NC 540 EB	B3	Basic Segment	5280	Rolling	754	6.00	0.00	3	75
2	B3	D4	Off Ramp	1500	Rolling	722	9.00	0.00	3	75
3	D4	B5	Basic Segment	175	Rolling	265	14.17	0.00	3	75
4	End NC 540 EB	D6	Off Ramp	1500	Rolling	265	14.17	0.00	3	75

RampData

Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	Off Ramp	547	4.00	0.00	1	700	50
4	Off Ramp	207	4.00	0.00	1	925	30

Weaving Segment Data

Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp				
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS

Time Period 3

Mainline Data

Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin NC 540 EB	B3	Basic Segment	5280	Rolling	838	6.00	0.00	3	75
2	B3	D4	Off Ramp	1500	Rolling	802	9.00	0.00	3	75
3	D4	B5	Basic Segment	175	Rolling	294	14.18	0.00	3	75
4	End NC	D6	Off	1500	Rolling	294	14.18	0.00	3	75

RampData

Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	Off Ramp	607	4.00	0.00	1	700	50
4	Off Ramp	230	4.00	0.00	1	925	30

Weaving Segment Data

Seg #	Ramp to Ramp	On-Ramp					Off-Ramp				
		Adj.	%	%	Lanes	FFS	Adj.	%	%	Lanes	FFS

	540 EB		Ramp							

	Prop.	Demand	Trucks	RVs			Demand	Trucks	RVs		

Time Period 4

Mainline Data

Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin NC 540 EB	B3	Basic Segment	5280	Rolling	754	6.00	0.00	3	75
2	B3	D4	Off Ramp	1500	Rolling	722	9.00	0.00	3	75
3	D4	B5	Basic Segment	175	Rolling	265	14.17	0.00	3	75
4	End NC 540 EB	D6	Off Ramp	1500	Rolling	265	14.17	0.00	3	75

RampData

Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	Off Ramp	547	4.00	0.00	1	700	50
4	Off Ramp	207	4.00	0.00	1	925	30

Weaving Segment Data

Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp				
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS

Time Period Independent Weaving Segment Data

Seg #	Configuration	Short Length	# Weaving Lanes	Min. Lane Changes Freeway-Ramp	Min. Lane Changes Ramp-Freeway	Min. Lane Changes Ramp-Ramp

HCS 2010 Freeway Facilities

Project Properties

Analyst	HNTB	**Freeway Name**	NC 540 - 2016 No-Build EB PM	**Analysis Period**	PM Peak
Analysis Date	9/19/2014 3:59:03 PM	**From**	NC 55 BYP	**Version Date**	1/20/16
Agency	HNTB	**To**	NC 55 BYP		
Location	Complete 540	**Analysis Direction**	Eastbound/Northbound		
User Notes					
File Name	C:\Temp\preview.xml				

Facility-wide Values

Jam Density (pc/h/ln)	190	**Time Period Duration (min)**	15	**Facility Length (mi)**	**1.60100**

Segment Input Data

Time Period 1

Mainline Data										
Seg #	**From**	**To**	**Type**	**Length**	**Terrain**	**Adj. Demand**	**% Trucks**	**% RVs**	**# Lanes**	**FFS**
1	Begin NC 540 EB	B3	Basic Segment	5280	Rolling	1252	6.00	0.00	3	75
2	B3	D4	Off Ramp	1500	Rolling	1252	6.00	0.00	3	75
3	D4	B5	Basic Segment	175	Rolling	227	15.03	0.00	3	75
4	End NC 540 EB	D6	Off Ramp	1500	Rolling	227	15.03	0.00	3	75

RampData							
Seg #	**Type**	**Adj. Demand**	**% Trucks**	**% RVs**	**Lanes**	**Accel/Decel Length**	**FFS**
2	Off Ramp	1025	4.00	0.00	1	700	50
4	Off Ramp	228	4.00	0.00	1	925	30

Weaving Segment Data											
Seg #	**Ramp to Ramp Prop.**	**On-Ramp**					**Off-Ramp**				
		Adj. Demand	**% Trucks**	**% RVs**	**Lanes**	**FFS**	**Adj. Demand**	**% Trucks**	**% RVs**	**Lanes**	**FFS**

Time Period 2

Mainline Data										
Seg #	**From**	**To**	**Type**	**Length**	**Terrain**	**Adj. Demand**	**% Trucks**	**% RVs**	**# Lanes**	**FFS**
1	Begin NC 540 EB	B3	Basic Segment	5280	Rolling	1408	6.00	0.00	3	75
2	B3	D4	Off Ramp	1500	Rolling	1408	6.00	0.00	3	75
3	D4	B5	Basic Segment	175	Rolling	256	6.00	0.00	3	75
4	End NC 540 EB	D6	Off Ramp	1500	Rolling	256	6.00	0.00	3	75

RampData							
Seg #	**Type**	**Adj. Demand**	**% Trucks**	**% RVs**	**Lanes**	**Accel/Decel Length**	**FFS**
2	Off Ramp	1152	4.00	0.00	1	700	50
4	Off Ramp	256	4.00	0.00	1	925	30

Weaving Segment Data											
Seg #	**Ramp to Ramp Prop.**	**On-Ramp**					**Off-Ramp**				
		Adj. Demand	**% Trucks**	**% RVs**	**Lanes**	**FFS**	**Adj. Demand**	**% Trucks**	**% RVs**	**Lanes**	**FFS**

Time Period 3

Mainline Data										
Seg #	**From**	**To**	**Type**	**Length**	**Terrain**	**Adj. Demand**	**% Trucks**	**% RVs**	**# Lanes**	**FFS**
1	Begin NC 540 EB	B3	Basic Segment	5280	Rolling	1564	6.00	0.00	3	75
2	B3	D4	Off Ramp	1500	Rolling	1375	9.00	0.00	3	75
3	D4	B5	Basic Segment	175	Rolling	314	19.14	0.00	3	75
4	End NC	D6	Off	1500	Rolling	314	19.14	0.00	3	75

RampData							
Seg #	**Type**	**Adj. Demand**	**% Trucks**	**% RVs**	**Lanes**	**Accel/Decel Length**	**FFS**
2	Off Ramp	1279	4.00	0.00	1	700	50
4	Off Ramp	284	4.00	0.00	1	925	30

Weaving Segment Data											
Seg #	**Ramp to Ramp**	**On-Ramp**					**Off-Ramp**				
		Adj.	**%**	**%**	**Lanes**	**FFS**	**Adj.**	**%**	**%**	**Lanes**	**FFS**

	540 EB		Ramp							

	Prop.	Demand	Trucks	RVs			Demand	Trucks	RVs		

Time Period 4

Mainline Data

Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin NC 540 EB	B3	Basic Segment	5280	Rolling	1408	6.00	0.00	3	75
2	B3	D4	Off Ramp	1500	Rolling	1238	9.00	0.00	3	75
3	D4	B5	Basic Segment	175	Rolling	282	19.17	0.00	3	75
4	End NC 540 EB	D6	Off Ramp	1500	Rolling	282	19.17	0.00	3	75

RampData

Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	Off Ramp	1152	4.00	0.00	1	700	50
4	Off Ramp	256	4.00	0.00	1	925	30

Weaving Segment Data

Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp				
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS

Time Period Independent Weaving Segment Data

Seg #	Configuration	Short Length	# Weaving Lanes	Min. Lane Changes Freeway-Ramp	Min. Lane Changes Ramp-Freeway	Min. Lane Changes Ramp-Ramp

HCS 2010 Freeway Facilities

Project Properties

Analyst	HNTB	**Freeway Name**	NC 540 - 2016 No-Build WB AM	**Analysis Period**	AM Peak
Analysis Date	9/19/2014 3:59:03 PM	**From**	NC 55	**Version Date**	1/20/16
Agency	HNTB	**To**	NC 55		
Location	Complete 540	**Analysis Direction**	Westbound/Southbound		
User Notes					
File Name	C:\Temp\preview.xml				

Facility-wide Values

Jam Density (pc/h/ln)	190	**Time Period Duration (min)**	15	**Facility Length (mi)**	**2.28400**

Segment Input Data

Time Period 1

Mainline Data

Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin NC 540 WB	B22	Basic Segment	5280	Rolling	1024	6.00	0.00	3	75
2	B22	M23	On Ramp	1500	Rolling	1252	6.00	0.00	3	75
3	End NC 540 WB	B24	Basic Segment	5280	Rolling	1252	6.00	0.00	3	75

RampData

Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	On Ramp	228	6.00	0.00	1	700	50

Weaving Segment Data

Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp				
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS

Time Period 2

Mainline Data

Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin NC 540 WB	B22	Basic Segment	5280	Rolling	1152	6.00	0.00	3	75
2	B22	M23	On Ramp	1500	Rolling	1408	6.00	0.00	3	75
3	End NC 540 WB	B24	Basic Segment	5280	Rolling	1408	6.00	0.00	3	75

RampData

Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	On Ramp	256	6.00	0.00	1	700	50

Weaving Segment Data

Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp				
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS

Time Period 3

Mainline Data

Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin NC 540 WB	B22	Basic Segment	5280	Rolling	1280	6.00	0.00	3	75
2	B22	M23	On Ramp	1500	Rolling	1564	6.00	0.00	3	75
3	End NC 540 WB	B24	Basic Segment	5280	Rolling	1564	6.00	0.00	3	75

RampData

Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	On Ramp	284	6.00	0.00	1	700	50

Weaving Segment Data

Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp				
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS

Time Period 4

Mainline Data										
Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin NC 540 WB	B22	Basic Segment	5280	Rolling	1152	6.00	0.00	3	75
2	B22	M23	On Ramp	1500	Rolling	1408	6.00	0.00	3	75
3	End NC 540 WB	B24	Basic Segment	5280	Rolling	1408	6.00	0.00	3	75

RampData							
Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	On Ramp	256	6.00	0.00	1	700	50

Weaving Segment Data										
Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp			
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS

Time Period Independent Weaving Segment Data

Seg #	Configuration	Short Length	# Weaving Lanes	Min. Lane Changes Freeway-Ramp	Min. Lane Changes Ramp-Freeway	Min. Lane Changes Ramp-Ramp

HCS 2010 Freeway Facilities

Project Properties

Analyst	HNTB	**Freeway Name**	NC 540 - 2016 No-Build WB PM	**Analysis Period**	PM Peak
Analysis Date	9/19/2014 3:59:03 PM	**From**	NC 55	**Version Date**	1/20/16
Agency	HNTB	**To**	NC 55		
Location	Complete 540	**Analysis Direction**	Westbound/Southbound		
User Notes					
File Name	C:\Temp\preview.xml				

Facility-wide Values

Jam Density (pc/h/ln)	190	**Time Period Duration (min)**	15	**Facility Length (mi)**	**2.28400**

Segment Input Data

Time Period 1

Mainline Data

Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin NC 540 WB	B22	Basic Segment	5280	Rolling	486	6.00	0.00	3	75
2	B22	M23	On Ramp	1500	Rolling	670	6.00	0.00	3	75
3	End NC 540 WB	B24	Basic Segment	5280	Rolling	670	6.00	0.00	3	75

RampData

Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	On Ramp	184	6.00	0.00	1	700	50

Weaving Segment Data

Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp				
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS

Time Period 2

Mainline Data

Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin NC 540 WB	B22	Basic Segment	5280	Rolling	547	6.00	0.00	3	75
2	B22	M23	On Ramp	1500	Rolling	722	6.00	0.00	3	75
3	End NC 540 WB	B24	Basic Segment	5280	Rolling	722	6.00	0.00	3	75

RampData

Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	On Ramp	207	6.00	0.00	1	700	50

Weaving Segment Data

Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp				
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS

Time Period 3

Mainline Data

Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin NC 540 WB	B22	Basic Segment	5280	Rolling	608	6.00	0.00	3	75
2	B22	M23	On Ramp	1500	Rolling	802	6.00	0.00	3	75
3	End NC 540 WB	B24	Basic Segment	5280	Rolling	802	6.00	0.00	3	75

RampData

Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	On Ramp	230	6.00	0.00	1	700	50

Weaving Segment Data

Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp				
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS

Time Period 4

Mainline Data										
Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin NC 540 WB	B22	Basic Segment	5280	Rolling	547	6.00	0.00	3	75
2	B22	M23	On Ramp	1500	Rolling	722	6.00	0.00	3	75
3	End NC 540 WB	B24	Basic Segment	5280	Rolling	722	6.00	0.00	3	75

RampData							
Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	On Ramp	207	6.00	0.00	1	700	50

Weaving Segment Data											
Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp				
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS

Time Period Independent Weaving Segment Data

Seg #	Configuration	Short Length	# Weaving Lanes	Min. Lane Changes Freeway-Ramp	Min. Lane Changes Ramp-Freeway	Min. Lane Changes Ramp-Ramp

HCS 2010 Freeway Facilities

Project Properties

Analyst	HNTB	**Freeway Name**	I-540 - 2016 No-Build EB AM	**Analysis Period**	AM Peak
Analysis Date	9/19/2014 8:37:42 AM	**From**	US 64 264	**Version Date**	1/20/16
Agency	HNTB	**To**	US 64 264		
Location	Complete 540	**Analysis Direction**	Eastbound/Northbound		
User Notes					
File Name	C:\Temp\preview.xml				

Facility-wide Values

Jam Density (pc/h/ln)	190	**Time Period Duration (min)**	15	**Facility Length (mi)**	**3.37300**

Segment Input Data

Time Period 1

Mainline Data

Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin I-540 EB	B7	Basic Segment	5280	Rolling	2375	7.00	0.00	3	75
2	US 64 BUS - B7	D8	Off Ramp	1500	Rolling	2375	7.00	0.00	3	75
3	US 64 BUS - D8	B9	Basic Segment	4250	Rolling	1529	9.21	0.00	3	75
4	US 64 BUS - B9	M10	On Ramp	1500	Rolling	2909	6.74	0.00	3	75
5	M10	End I-540 EB	Basic Segment	5280	Rolling	2909	6.74	0.00	3	75

RampData

Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	Off Ramp	846	3.00	0.00	1	200	50
4	On Ramp	1380	4.00	0.00	1	875	50

Weaving Segment Data

Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp				
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS

Time Period 2

Mainline Data

Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin I-540 EB	B7	Basic Segment	5280	Rolling	2672	7.00	0.00	3	75
2	US 64 BUS - B7	D8	Off Ramp	1500	Rolling	2672	7.00	0.00	3	75
3	US 64 BUS - D8	B9	Basic Segment	4250	Rolling	1721	9.21	0.00	3	75
4	US 64 BUS - B9	M10	On Ramp	1500	Rolling	3271	6.74	0.00	3	75
5	M10	End I-540 EB	Basic Segment	5280	Rolling	3271	6.74	0.00	3	75

RampData

Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	Off Ramp	951	3.00	0.00	1	200	50
4	On Ramp	1550	4.00	0.00	1	875	50

Weaving Segment Data

Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp				
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS

Time Period 3

Mainline Data

RampData

Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin I-540 EB	B7	Basic Segment	5280	Rolling	2969	7.00	0.00	3	75
2	US 64 BUS - B7	D8	Off Ramp	1500	Rolling	2784	8.00	0.00	3	75
3	US 64 BUS - D8	B9	Basic Segment	4250	Rolling	1000	9.26	0.00	3	75
4	US 64 BUS - B9	M10	On Ramp	1500	Rolling	3379	7.30	0.00	3	75
5	M10	End I-540 EB	Basic Segment	5280	Rolling	3379	7.30	0.00	3	75

Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	Off Ramp	1056	3.00	0.00	1	200	50
4	On Ramp	1721	4.00	0.00	1	875	50

Weaving Segment Data										
Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp			
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS

Time Period 4

Mainline Data										
Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin I-540 EB	B7	Basic Segment	5280	Rolling	2672	7.00	0.00	3	75
2	US 64 BUS - B7	D8	Off Ramp	1500	Rolling	2506	8.00	0.00	3	75
3	US 64 BUS - D8	B9	Basic Segment	4250	Rolling	1000	9.26	0.00	3	75
4	US 64 BUS - B9	M10	On Ramp	1500	Rolling	3042	7.30	0.00	3	75
5	M10	End I-540 EB	Basic Segment	5280	Rolling	3042	7.30	0.00	3	75

RampData							
Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	Off Ramp	951	3.00	0.00	1	200	50
4	On Ramp	1550	4.00	0.00	1	875	50

Weaving Segment Data										
Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp			
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS

Time Period Independent Weaving Segment Data

Seg #	Configuration	Short Length	# Weaving Lanes	Min. Lane Changes Freeway-Ramp	Min. Lane Changes Ramp-Freeway	Min. Lane Changes Ramp-Ramp

HCS 2010 Freeway Facilities

Project Properties

Analyst	HNTB	**Freeway Name**	I-540 - 2016 No-Build EB PM	**Analysis Period**	PM Peak
Analysis Date	9/19/2014 8:37:42 AM	**From**	US 64 264	**Version Date**	1/20/16
Agency	HNTB	**To**	US 64 264		
Location	Complete 540	**Analysis Direction**	Eastbound/Northbound		
User Notes					
File Name	C:\Temp\preview.xml				

Facility-wide Values

Jam Density (pc/h/ln)	190	**Time Period Duration (min)**	15	**Facility Length (mi)**	**3.37300**

Segment Input Data

Time Period 1

Mainline Data

Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin I-540 EB	B7	Basic Segment	5280	Rolling	2043	7.00	0.00	3	75
2	US 64 BUS - B7	D8	Off Ramp	1500	Rolling	2043	7.00	0.00	3	75
3	US 64 BUS - D8	B9	Basic Segment	4250	Rolling	1317	9.21	0.00	3	75
4	US 64 BUS - B9	M10	On Ramp	1500	Rolling	2416	6.84	0.00	3	75
5	M10	End I-540 EB	Basic Segment	5280	Rolling	2416	6.84	0.00	3	75

RampData

Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	Off Ramp	726	3.00	0.00	1	200	50
4	On Ramp	1099	4.00	0.00	1	875	50

Weaving Segment Data

Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp				
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS

Time Period 2

Mainline Data

Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin I-540 EB	B7	Basic Segment	5280	Rolling	2298	7.00	0.00	3	75
2	US 64 BUS - B7	D8	Off Ramp	1500	Rolling	2298	7.00	0.00	3	75
3	US 64 BUS - D8	B9	Basic Segment	4250	Rolling	1482	9.20	0.00	3	75
4	US 64 BUS - B9	M10	On Ramp	1500	Rolling	2717	6.84	0.00	3	75
5	M10	End I-540 EB	Basic Segment	5280	Rolling	2717	6.84	0.00	3	75

RampData

Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	Off Ramp	816	3.00	0.00	1	200	50
4	On Ramp	1235	4.00	0.00	1	875	50

Weaving Segment Data

Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp				
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS

Time Period 3

Mainline Data

RampData

Mainline Data										
Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin I-540 EB	B7	Basic Segment	5280	Rolling	2553	7.00	0.00	3	75
2	US 64 BUS - B7	D8	Off Ramp	1500	Rolling	1970	8.00	0.00	3	75
3	US 64 BUS - D8	B9	Basic Segment	4250	Rolling	1000	9.45	0.00	3	75
4	US 64 BUS - B9	M10	On Ramp	1500	Rolling	2435	7.24	0.00	3	75
5	M10	End I-540 EB	Basic Segment	5280	Rolling	2435	7.24	0.00	3	75

RampData							
Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	Off Ramp	906	3.00	0.00	1	200	50
4	On Ramp	1371	4.00	0.00	1	875	50

Weaving Segment Data										
Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp			
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS

Time Period 4

Mainline Data										
Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin I-540 EB	B7	Basic Segment	5280	Rolling	2298	7.00	0.00	3	75
2	US 64 BUS - B7	D8	Off Ramp	1500	Rolling	1773	8.00	0.00	3	75
3	US 64 BUS - D8	B9	Basic Segment	4250	Rolling	1000	9.46	0.00	3	75
4	US 64 BUS - B9	M10	On Ramp	1500	Rolling	2192	7.24	0.00	3	75
5	M10	End I-540 EB	Basic Segment	5280	Rolling	2192	7.24	0.00	3	75

RampData							
Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	Off Ramp	816	3.00	0.00	1	200	50
4	On Ramp	1235	4.00	0.00	1	875	50

Weaving Segment Data										
Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp			
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS

Time Period Independent Weaving Segment Data

Seg #	Configuration	Short Length	# Weaving Lanes	Min. Lane Changes Freeway-Ramp	Min. Lane Changes Ramp-Freeway	Min. Lane Changes Ramp-Ramp

HCS 2010 Freeway Facilities

Project Properties

Analyst	HNTB	**Freeway Name**	I-540 - 2016 No-Build WB AM	**Analysis Period**	AM Peak
Analysis Date	9/19/2014 8:37:42 AM	**From**	US 64 264	**Version Date**	1/20/16
Agency	HNTB	**To**	US 64 264		
Location	Complete 540	**Analysis Direction**	Westbound/Southbound		
User Notes					
File Name	C:\Temp\preview.xml				

Facility-wide Values

Jam Density (pc/h/ln)	190	**Time Period Duration (min)**	15	**Facility Length (mi)**	**3.91200**

Segment Input Data

Time Period 1

Mainline Data

Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin I-540 WB	B12	Basic Segment	5280	Rolling	2379	4.00	0.00	3	75
2	US 64 BUS - B12	D13	Off Ramp	1500	Rolling	2379	4.00	0.00	3	75
3	US 64 BUS - D13	B14	Basic Segment	575	Rolling	2039	4.17	0.00	3	75
4	US 64 BUS - B14	D15	Off Ramp	1500	Rolling	2039	4.17	0.00	3	75
5	US 64 BUS - D15	B16	Basic Segment	1725	Rolling	1280	4.86	0.00	3	75
6	US 64 BUS - B16	M17	On Ramp	1500	Rolling	2006	5.63	0.00	3	75
7	M17	B18	Basic Segment	4125	Rolling	2006	5.63	0.00	3	75
8	US 64/264 - B18	D19	Off Ramp	1500	Rolling	2006	5.63	0.00	3	75
9	US 64/264 - D19	B20	Basic Segment	1450	Rolling	794	8.13	0.00	3	75
10	B20	End I-540 WB	Off Ramp	1500	Rolling	794	8.13	0.00	3	75

RampData

Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	Off Ramp	340	3.00	0.00	1	200	50
4	Off Ramp	759	3.00	0.00	1	1500	30
6	On Ramp	726	7.00	0.00	1	950	50
8	Off Ramp	1212	4.00	0.00	1	250	50
10	Off Ramp	833	7.00	0.00	1	1500	30

Weaving Segment Data

Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp				
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS

Time Period 2

Mainline Data

Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin I-540 WB	B12	Basic Segment	5280	Rolling	2676	4.00	0.00	3	75
2	US 64 BUS - B12	D13	Off Ramp	1500	Rolling	2192	8.00	0.00	3	75
3	US 64 BUS - D13	B14	Basic Segment	575	Rolling	1731	9.07	0.00	3	75
4	US 64 BUS - B14	D15	Off Ramp	1500	Rolling	1731	9.07	0.00	3	75
5	US 64 BUS - D15	B16	Basic Segment	1725	Rolling	1300	10.74	0.00	3	75

RampData

Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	Off Ramp	382	3.00	0.00	1	200	50
4	Off Ramp	853	3.00	0.00	1	1500	30
6	On Ramp	816	7.00	0.00	1	950	50
8	Off Ramp	1362	4.00	0.00	1	250	50
10	Off Ramp	936	7.00	0.00	1	1500	30

6	US 64 BUS - B16	M17	On Ramp	1500	Rolling	1773	8.95	0.00	3	75
7	M17	B18	Basic Segment	4125	Rolling	1773	8.95	0.00	3	75
8	US 64/264 - B18	D19	Off Ramp	1500	Rolling	1773	8.95	0.00	3	75
9	US 64/264 - D19	B20	Basic Segment	1450	Rolling	956	9.75	0.00	3	75
10	B20	End I-540 WB	Off Ramp	1500	Rolling	956	9.75	0.00	3	75

Weaving Segment Data											
Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp				
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS

Time Period 3

Mainline Data										
Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin I-540 WB	B12	Basic Segment	5280	Rolling	2973	4.00	0.00	3	75
2	US 64 BUS - B12	D13	Off Ramp	1500	Rolling	2435	8.00	0.00	3	75
3	US 64 BUS - D13	B14	Basic Segment	575	Rolling	1923	9.07	0.00	3	75
4	US 64 BUS - B14	D15	Off Ramp	1500	Rolling	1923	9.07	0.00	3	75
5	US 64 BUS - D15	B16	Basic Segment	1725	Rolling	1445	10.74	0.00	3	75
6	US 64 BUS - B16	M17	On Ramp	1500	Rolling	1970	8.94	0.00	3	75
7	M17	B18	Basic Segment	4125	Rolling	1970	8.94	0.00	3	75
8	US 64/264 - B18	D19	Off Ramp	1500	Rolling	1970	8.94	0.00	3	75
9	US 64/264 - D19	B20	Basic Segment	1450	Rolling	1063	9.75	0.00	3	75
10	B20	End I-540 WB	Off Ramp	1500	Rolling	1063	9.75	0.00	3	75

RampData							
Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	Off Ramp	424	3.00	0.00	1	200	50
4	Off Ramp	947	3.00	0.00	1	1500	30
6	On Ramp	906	7.00	0.00	1	950	50
8	Off Ramp	1512	4.00	0.00	1	250	50
10	Off Ramp	1039	7.00	0.00	1	1500	30

Weaving Segment Data											
Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp				
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS

Time Period 4

Mainline Data										
Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin I-540 WB	B12	Basic Segment	5280	Rolling	2676	4.00	0.00	3	75
2	US 64 BUS - B12	D13	Off Ramp	1500	Rolling	2192	8.00	0.00	3	75
3	US 64 BUS - D13	B14	Basic Segment	575	Rolling	1731	9.07	0.00	3	75
4	US 64 BUS - B14	D15	Off Ramp	1500	Rolling	1731	9.07	0.00	3	75
5	US 64 BUS - D15	B16	Basic Segment	1725	Rolling	1300	10.74	0.00	3	75
6	US 64 BUS - B16	M17	On Ramp	1500	Rolling	1773	8.95	0.00	3	75
7	M17	B18	Basic Segment	4125	Rolling	1773	8.95	0.00	3	75
8	US 64/264 - B18	D19	Off Ramp	1500	Rolling	1773	8.95	0.00	3	75

RampData							
Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	Off Ramp	382	3.00	0.00	1	200	50
4	Off Ramp	853	3.00	0.00	1	1500	30
6	On Ramp	816	7.00	0.00	1	950	50
8	Off Ramp	1362	4.00	0.00	1	250	50
10	Off Ramp	936	7.00	0.00	1	1500	30

Weaving Segment Data

9	US 64/264 - D19	B20	Basic Segment	1450	Rolling	956	9.75	0.00	3	75
10	B20	End I-540 WB	Off Ramp	1500	Rolling	956	9.75	0.00	3	75

Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp				
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS

Time Period Independent Weaving Segment Data

Seg #	Configuration	Short Length	# Weaving Lanes	Min. Lane Changes Freeway-Ramp	Min. Lane Changes Ramp-Freeway	Min. Lane Changes Ramp-Ramp

HCS 2010 Freeway Facilities

Project Properties

Analyst	HNTB	**Freeway Name**	I-540 - 2016 No-Build WB PM	**Analysis Period**	PM Peak
Analysis Date	9/19/2014 8:37:42 AM	**From**	US 64 264	**Version Date**	1/20/16
Agency	HNTB	**To**	US 64 264		
Location	Complete 540	**Analysis Direction**	Westbound/Southbound		
User Notes					
File Name	C:\Temp\preview.xml				

Facility-wide Values

Jam Density (pc/h/ln)	190	**Time Period Duration (min)**	15	**Facility Length (mi)**	**3.91200**

Segment Input Data

Time Period 1

Mainline Data

Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin I-540 WB	B12	Basic Segment	5280	Rolling	2954	4.00	0.00	3	75
2	US 64 BUS - B12	D13	Off Ramp	1500	Rolling	2954	4.00	0.00	3	75
3	US 64 BUS - D13	B14	Basic Segment	575	Rolling	2674	4.10	0.00	3	75
4	US 64 BUS - B14	D15	Off Ramp	1500	Rolling	2674	4.10	0.00	3	75
5	US 64 BUS - D15	B16	Basic Segment	1725	Rolling	1575	4.88	0.00	3	75
6	US 64 BUS - M16	M17	On Ramp	1500	Rolling	2421	5.62	0.00	3	75
7	M17	B18	Basic Segment	4125	Rolling	2421	5.62	0.00	3	75
8	US 64/264 - B18	D19	Off Ramp	1500	Rolling	2421	5.62	0.00	3	75
9	US 64/264 - D19	B20	Basic Segment	1450	Rolling	1447	6.71	0.00	3	75
10	B20	End I-540 WB	Off Ramp	1500	Rolling	1447	6.71	0.00	3	75

RampData

Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	Off Ramp	280	3.00	0.00	1	200	50
4	Off Ramp	1099	3.00	0.00	1	1500	30
6	On Ramp	846	7.00	0.00	1	950	50
8	Off Ramp	974	4.00	0.00	1	250	50
10	Off Ramp	1404	7.00	0.00	1	1500	30

Weaving Segment Data

Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp				
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS

Time Period 2

Mainline Data

Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin I-540 WB	B12	Basic Segment	5280	Rolling	3319	4.00	0.00	3	75
2	US 64 BUS - B12	D13	Off Ramp	1500	Rolling	3319	4.00	0.00	3	75
3	US 64 BUS - D13	B14	Basic Segment	575	Rolling	3004	4.10	0.00	3	75
4	US 64 BUS - B14	D15	Off Ramp	1500	Rolling	3004	4.10	0.00	3	75
5	US 64 BUS - D15	B16	Basic Segment	1725	Rolling	1769	4.88	0.00	3	75

RampData

Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	Off Ramp	315	3.00	0.00	1	200	50
4	Off Ramp	1235	3.00	0.00	1	1500	30
6	On Ramp	951	7.00	0.00	1	950	50
8	Off Ramp	1094	4.00	0.00	1	250	50
10	Off Ramp	1578	7.00	0.00	1	1500	30

6	US 64 BUS - M16	M17	On Ramp	1500	Rolling	2720	5.62	0.00	3	75
7	M17	B18	Basic Segment	4125	Rolling	2720	5.62	0.00	3	75
8	US 64/264 - B18	D19	Off Ramp	1500	Rolling	2720	5.62	0.00	3	75
9	US 64/264 - D19	B20	Basic Segment	1450	Rolling	1626	4.02	0.00	3	75
10	B20	End I-540 WB	Off Ramp	1500	Rolling	1626	4.02	0.00	3	75

Weaving Segment Data											
Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp				
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS

Time Period 3

Mainline Data										
Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin I-540 WB	B12	Basic Segment	5280	Rolling	3684	4.00	0.00	3	75
2	US 64 BUS - B12	D13	Off Ramp	1500	Rolling	3377	8.00	0.00	3	75
3	US 64 BUS - D13	B14	Basic Segment	575	Rolling	2890	8.67	0.00	3	75
4	US 64 BUS - B14	D15	Off Ramp	1500	Rolling	2890	8.67	0.00	3	75
5	US 64 BUS - D15	B16	Basic Segment	1725	Rolling	2115	10.39	0.00	3	75
6	US 64 BUS - M16	M17	On Ramp	1500	Rolling	2782	8.86	0.00	3	75
7	M17	B18	Basic Segment	4125	Rolling	2782	8.86	0.00	3	75
8	US 64/264 - B18	D19	Off Ramp	1500	Rolling	2782	8.86	0.00	3	75
9	US 64/264 - D19	B20	Basic Segment	1450	Rolling	1962	9.21	0.00	3	75
10	B20	End I-540 WB	Off Ramp	1500	Rolling	1962	9.21	0.00	3	75

RampData							
Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	Off Ramp	350	3.00	0.00	1	200	50
4	Off Ramp	1371	3.00	0.00	1	1500	30
6	On Ramp	1056	7.00	0.00	1	950	50
8	Off Ramp	1214	4.00	0.00	1	250	50
10	Off Ramp	1752	7.00	0.00	1	1500	30

Weaving Segment Data											
Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp				
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS

Time Period 4

Mainline Data										
Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin I-540 WB	B12	Basic Segment	5280	Rolling	3319	4.00	0.00	3	75
2	US 64 BUS - B12	D13	Off Ramp	1500	Rolling	3042	8.00	0.00	3	75
3	US 64 BUS - D13	B14	Basic Segment	575	Rolling	2603	8.67	0.00	3	75
4	US 64 BUS - B14	D15	Off Ramp	1500	Rolling	2603	8.67	0.00	3	75
5	US 64 BUS - D15	B16	Basic Segment	1725	Rolling	1905	10.39	0.00	3	75
6	US 64 BUS - M16	M17	On Ramp	1500	Rolling	2506	8.86	0.00	3	75
7	M17	B18	Basic Segment	4125	Rolling	2506	8.86	0.00	3	75
8	US 64/264 - B18	D19	Off Ramp	1500	Rolling	2506	8.86	0.00	3	75

RampData							
Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	Off Ramp	315	3.00	0.00	1	200	50
4	Off Ramp	1235	3.00	0.00	1	1500	30
6	On Ramp	951	7.00	0.00	1	950	50
8	Off Ramp	1094	4.00	0.00	1	250	50
10	Off Ramp	1578	7.00	0.00	1	1500	30

Weaving Segment Data

9	US 64/264 - D19	B20	Basic Segment	1450	Rolling	1767	9.21	0.00	3	75
10	B20	End I-540 WB	Off Ramp	1500	Rolling	1767	9.21	0.00	3	75

Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp				
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS

Time Period Independent Weaving Segment Data

Seg #	Configuration	Short Length	# Weaving Lanes	Min. Lane Changes Freeway-Ramp	Min. Lane Changes Ramp-Freeway	Min. Lane Changes Ramp-Ramp

HCS 2010 Freeway Facilities

Project Properties

Analyst	HNTB	**Freeway Name**	I-40 - 2016 No-Build EB AM	**Analysis Period**	AM Peak
Analysis Date	9/19/2014 1:46:28 PM	**From**	US 70 Business	**Version Date**	1/20/16
Agency	HNTB	**To**	NC 42		
Location	Complete 540	**Analysis Direction**	Eastbound/Northbound		
User Notes					
File Name	C:\Temp\preview.xml				

Facility-wide Values

Jam Density (pc/h/ln)	190	**Time Period Duration (min)**	15	**Facility Length (mi)**	**9.63300**

Segment Input Data

Time Period 1

Mainline Data

Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin of I-40 EB	B1	Basic Segment	5280	Rolling	2948	5.00	0.00	3	70
2	US 70 BUS - B1	D2	Off Ramp	1500	Rolling	2948	5.00	0.00	2	70
3	US 70 BUS - D2	B3	Basic Segment	2200	Rolling	1971	5.00	0.00	2	70
4	US 70 BUS - M4	M4	On Ramp	1500	Rolling	2056	5.00	0.00	2	70
5	US 70 BUS - M4	B5	Basic Segment	175	Rolling	2056	5.00	0.00	2	70
6	US 70 BUS - B5	M6	On Ramp	1500	Rolling	2347	5.00	0.00	2	70
7	M6	B7	Basic Segment	14550	Rolling	2347	5.00	0.00	2	75
8	US 70 - B7	D8	Off Ramp	1500	Rolling	2347	5.00	0.00	3	75
9	US 70 - D8	B9	Basic Segment	2125	Rolling	1535	5.00	0.00	3	75
10	US 70 - B9	M10	On Ramp	1500	Rolling	1642	5.00	0.00	3	75
11	M10	B11	Basic Segment	7450	Rolling	1642	5.00	0.00	2	75
12	NC 42 - B11	D12	Off Ramp	1500	Rolling	1642	5.00	0.00	2	75
13	NC 42 - D12	B13	Basic Segment	3300	Rolling	1010	6.88	0.00	2	75
14	NC 42 - B13	M14	On Ramp	1500	Rolling	1260	7.30	0.00	2	75
15	M14	End of I-40 EB	Basic Segment	5280	Rolling	1260	7.30	0.00	2	75

RampData

Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	Off Ramp	977	5.00	0.00	1	1500	50
4	On Ramp	85	5.00	0.00	1	1125	30
6	On Ramp	291	5.00	0.00	1	975	50
8	Off Ramp	812	5.00	0.00	1	1500	50
10	On Ramp	107	5.00	0.00	1	1500	30
12	Off Ramp	632	2.00	0.00	1	1500	50
14	On Ramp	250	9.00	0.00	1	1300	50

Weaving Segment Data

Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp				
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS

Time Period 2

Mainline Data										
Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin of I-40 EB	B1	Basic Segment	5280	Rolling	3316	5.00	0.00	3	70
2	US 70 BUS - B1	D2	Off Ramp	1500	Rolling	3316	5.00	0.00	2	70
3	US 70 BUS - D2	B3	Basic Segment	2200	Rolling	2218	5.00	0.00	2	70
4	US 70 BUS - M4	M4	On Ramp	1500	Rolling	2313	5.00	0.00	2	70
5	US 70 BUS - M4	B5	Basic Segment	175	Rolling	2313	5.00	0.00	2	70
6	US 70 BUS - B5	M6	On Ramp	1500	Rolling	2640	5.00	0.00	2	70
7	M6	B7	Basic Segment	14550	Rolling	2640	5.00	0.00	2	75
8	US 70 - B7	D8	Off Ramp	1500	Rolling	2640	5.00	0.00	3	75
9	US 70 - D8	B9	Basic Segment	2125	Rolling	1728	5.00	0.00	3	75
10	US 70 - B9	M10	On Ramp	1500	Rolling	1848	5.00	0.00	3	75
11	M10	B11	Basic Segment	7450	Rolling	1848	5.00	0.00	2	75
12	NC 42 - B11	D12	Off Ramp	1500	Rolling	1848	5.00	0.00	2	75
13	NC 42 - D12	B13	Basic Segment	3300	Rolling	1138	6.87	0.00	2	75
14	NC 42 - B13	M14	On Ramp	1500	Rolling	1419	7.29	0.00	2	75
15	M14	End of I-40 EB	Basic Segment	5280	Rolling	1419	7.29	0.00	2	75

RampData							
Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	Off Ramp	1098	5.00	0.00	1	1500	50
4	On Ramp	95	5.00	0.00	1	1125	30
6	On Ramp	327	5.00	0.00	1	975	50
8	Off Ramp	912	5.00	0.00	1	1500	50
10	On Ramp	120	5.00	0.00	1	1500	30
12	Off Ramp	710	2.00	0.00	1	1500	50
14	On Ramp	281	9.00	0.00	1	1300	50

Weaving Segment Data											
Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp				
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS

Time Period 3

Mainline Data										
Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin of I-40 EB	B1	Basic Segment	5280	Rolling	3684	5.00	0.00	3	70
2	US 70 BUS - B1	D2	Off Ramp	1500	Rolling	3684	9.00	0.00	2	70
3	US 70 BUS - D2	B3	Basic Segment	2200	Rolling	1000	11.47	0.00	2	70
4	US 70 BUS - M4	M4	On Ramp	1500	Rolling	2570	11.17	0.00	2	70
5	US 70 BUS - M4	B5	Basic Segment	175	Rolling	1000	11.17	0.00	2	70
6	US 70 BUS	M6	On Ramp	1500	Rolling	2933	10.28	0.00	2	70

RampData							
Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	Off Ramp	1219	5.00	0.00	1	1500	50
4	On Ramp	105	5.00	0.00	1	1125	30
6	On Ramp	363	5.00	0.00	1	975	50
8	Off Ramp	1012	5.00	0.00	1	1500	50
10	On Ramp	133	5.00	0.00	1	1500	30
12	Off Ramp	788	2.00	0.00	1	1500	50
14	On Ramp	312	9.00	0.00	1	1300	50

	- B5									
7	M6	B7	Basic Segment	14550	Rolling	1000	10.28	0.00	2	75
8	US 70 - B7	D8	Off Ramp	1500	Rolling	2933	10.28	0.00	3	75
9	US 70 - D8	B9	Basic Segment	2125	Rolling	1000	14.12	0.00	3	75
10	US 70 - B9	M10	On Ramp	1500	Rolling	2054	13.40	0.00	3	75
11	M10	B11	Basic Segment	7450	Rolling	1000	13.40	0.00	2	75
12	NC 42 - B11	D12	Off Ramp	1500	Rolling	2054	13.40	0.00	2	75
13	NC 42 - D12	B13	Basic Segment	3300	Rolling	1000	19.87	0.00	2	75
14	NC 42 - B13	M14	On Ramp	1500	Rolling	1578	16.53	0.00	2	75
15	M14	End of I-40 EB	Basic Segment	5280	Rolling	1000	16.53	0.00	2	75

Weaving Segment Data											
Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp				
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS

Time Period 4

Mainline Data										
Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin of I-40 EB	B1	Basic Segment	5280	Rolling	3316	5.00	0.00	3	70
2	US 70 BUS - B1	D2	Off Ramp	1500	Rolling	3737	9.00	0.00	2	70
3	US 70 BUS - D2	B3	Basic Segment	2200	Rolling	1000	12.29	0.00	2	70
4	US 70 BUS - M4	M4	On Ramp	1500	Rolling	2328	12.03	0.00	2	70
5	US 70 BUS - M4	B5	Basic Segment	175	Rolling	1000	12.03	0.00	2	70
6	US 70 BUS - B5	M6	On Ramp	1500	Rolling	2644	11.07	0.00	2	70
7	M6	B7	Basic Segment	14550	Rolling	1000	11.07	0.00	2	75
8	US 70 - B7	D8	Off Ramp	1500	Rolling	2644	11.07	0.00	3	75
9	US 70 - D8	B9	Basic Segment	2125	Rolling	1000	14.00	0.00	3	75
10	US 70 - B9	M10	On Ramp	1500	Rolling	2084	13.23	0.00	3	75
11	M10	B11	Basic Segment	7450	Rolling	1000	13.23	0.00	2	75
12	NC 42 - B11	D12	Off Ramp	1500	Rolling	2084	13.23	0.00	2	75
13	NC 42 - D12	B13	Basic Segment	3300	Rolling	1000	19.18	0.00	2	75
14	NC 42 - B13	M14	On Ramp	1500	Rolling	1926	14.07	0.00	2	75
		End of	Basic							

RampData							
Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	Off Ramp	1098	5.00	0.00	1	1500	50
4	On Ramp	95	5.00	0.00	1	1125	30
6	On Ramp	327	5.00	0.00	1	975	50
8	Off Ramp	912	5.00	0.00	1	1500	50
10	On Ramp	120	5.00	0.00	1	1500	30
12	Off Ramp	710	2.00	0.00	1	1500	50
14	On Ramp	281	9.00	0.00	1	1300	50

Weaving Segment Data											
Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp				
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS

15	M14	I-40 EB	Segment	5280	Rolling	1000	14.07	0.00	2	75

Time Period Independent Weaving Segment Data

Seg #	Configuration	Short Length	# Weaving Lanes	Min. Lane Changes Freeway-Ramp	Min. Lane Changes Ramp-Freeway	Min. Lane Changes Ramp-Ramp

HCS 2010 Freeway Facilities

Project Properties

Analyst	HNTB	**Freeway Name**	I-40 - 2016 No-Build EB PM	**Analysis Period**	PM Peak
Analysis Date	9/19/2014 1:46:28 PM	**From**	US 70 Business	**Version Date**	1/20/16
Agency	HNTB	**To**	NC 42		
Location	Complete 540	**Analysis Direction**	Eastbound/Northbound		
User Notes					
File Name	C:\Temp\preview.xml				

Facility-wide Values

Jam Density (pc/h/ln)	190	**Time Period Duration (min)**	15	**Facility Length (mi)**	**9.63300**

Segment Input Data

Time Period 1

Mainline Data

Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin of I-40 EB	B1	Basic Segment	5280	Rolling	4369	5.00	0.00	2	70
2	US 70 BUS - B1	D2	Off Ramp	1500	Rolling	4369	5.00	0.00	2	70
3	US 70 BUS - D2	B3	Basic Segment	2200	Rolling	3016	5.00	0.00	2	70
4	US 70 BUS - M4	M4	On Ramp	1500	Rolling	3101	5.00	0.00	2	70
5	US 70 BUS - M4	B5	Basic Segment	175	Rolling	3101	5.00	0.00	2	70
6	US 70 BUS - B5	M6	On Ramp	1500	Rolling	3564	5.00	0.00	2	70
7	M6	B7	Basic Segment	14550	Rolling	3564	5.00	0.00	2	75
8	US 70 - B7	D8	Off Ramp	1500	Rolling	3564	5.00	0.00	3	75
9	US 70 - D8	B9	Basic Segment	2125	Rolling	2500	5.00	0.00	3	75
10	US 70 - B9	M10	On Ramp	1500	Rolling	2626	5.00	0.00	3	75
11	M10	B11	Basic Segment	7450	Rolling	2626	5.00	0.00	2	75
12	NC 42 - B11	D12	Off Ramp	1500	Rolling	2626	5.00	0.00	2	75
13	NC 42 - D12	B13	Basic Segment	3300	Rolling	1749	6.50	0.00	2	75
14	NC 42 - B13	M14	On Ramp	1500	Rolling	2080	6.90	0.00	2	75
15	M14	End of I-40 EB	Basic Segment	5280	Rolling	2080	6.90	0.00	2	75

RampData

Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	Off Ramp	1353	5.00	0.00	1	1500	50
4	On Ramp	85	5.00	0.00	1	1125	30
6	On Ramp	463	5.00	0.00	1	975	50
8	Off Ramp	1064	5.00	0.00	1	1500	50
10	On Ramp	126	5.00	0.00	1	1500	30
12	Off Ramp	877	2.00	0.00	1	1500	50
14	On Ramp	331	9.00	0.00	1	1300	50

Weaving Segment Data

Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp				
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS

Time Period 2

Mainline Data										
Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin of I-40 EB	B1	Basic Segment	5280	Rolling	4914	5.00	0.00	2	70
2	US 70 BUS - B1	D2	Off Ramp	1500	Rolling	4914	5.00	0.00	2	70
3	US 70 BUS - D2	B3	Basic Segment	2200	Rolling	3394	5.00	0.00	2	70
4	US 70 BUS - M4	M4	On Ramp	1500	Rolling	3489	5.00	0.00	2	70
5	US 70 BUS - M4	B5	Basic Segment	175	Rolling	3489	5.00	0.00	2	70
6	US 70 BUS - B5	M6	On Ramp	1500	Rolling	4009	5.00	0.00	2	70
7	M6	B7	Basic Segment	14550	Rolling	4009	5.00	0.00	2	75
8	US 70 - B7	D8	Off Ramp	1500	Rolling	4009	5.00	0.00	3	75
9	US 70 - D8	B9	Basic Segment	2125	Rolling	2814	5.00	0.00	3	75
10	US 70 - B9	M10	On Ramp	1500	Rolling	2956	5.00	0.00	3	75
11	M10	B11	Basic Segment	7450	Rolling	2956	5.00	0.00	2	75
12	NC 42 - B11	D12	Off Ramp	1500	Rolling	2956	5.00	0.00	2	75
13	NC 42 - D12	B13	Basic Segment	3300	Rolling	1971	6.50	0.00	2	75
14	NC 42 - B13	M14	On Ramp	1500	Rolling	2343	6.90	0.00	2	75
15	M14	End of I-40 EB	Basic Segment	5280	Rolling	2343	6.90	0.00	2	75

RampData							
Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	Off Ramp	1520	5.00	0.00	1	1500	50
4	On Ramp	95	5.00	0.00	1	1125	30
6	On Ramp	520	5.00	0.00	1	975	50
8	Off Ramp	1195	5.00	0.00	1	1500	50
10	On Ramp	142	5.00	0.00	1	1500	30
12	Off Ramp	985	2.00	0.00	1	1500	50
14	On Ramp	372	9.00	0.00	1	1300	50

Weaving Segment Data											
Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp				
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS

Time Period 3

Mainline Data										
Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin of I-40 EB	B1	Basic Segment	5280	Rolling	5459	5.00	0.00	2	70
2	US 70 BUS - B1	D2	Off Ramp	1500	Rolling	5843	9.00	0.00	2	70
3	US 70 BUS - D2	B3	Basic Segment	2200	Rolling	1000	11.36	0.00	2	70
4	US 70 BUS - M4	M4	On Ramp	1500	Rolling	4071	11.18	0.00	2	70
5	US 70 BUS - M4	B5	Basic Segment	175	Rolling	1000	11.18	0.00	2	70
6	US 70 BUS	M6	On Ramp	1500	Rolling	4698	10.22	0.00	2	70

RampData							
Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	Off Ramp	1687	5.00	0.00	1	1500	50
4	On Ramp	105	5.00	0.00	1	1125	30
6	On Ramp	577	5.00	0.00	1	975	50
8	Off Ramp	1326	5.00	0.00	1	1500	50
10	On Ramp	158	5.00	0.00	1	1500	30
12	Off Ramp	1093	2.00	0.00	1	1500	50
14	On Ramp	413	9.00	0.00	1	1300	50

	- B5									
7	M6	B7	Basic Segment	14550	Rolling	1000	10.22	0.00	2	75
8	US 70 - B7	D8	Off Ramp	1500	Rolling	4698	10.22	0.00	3	75
9	US 70 - D8	B9	Basic Segment	2125	Rolling	1000	13.44	0.00	3	75
10	US 70 - B9	M10	On Ramp	1500	Rolling	3376	13.05	0.00	3	75
11	M10	B11	Basic Segment	7450	Rolling	1000	13.05	0.00	2	75
12	NC 42 - B11	D12	Off Ramp	1500	Rolling	3376	13.05	0.00	2	75
13	NC 42 - D12	B13	Basic Segment	3300	Rolling	1000	19.11	0.00	2	75
14	NC 42 - B13	M14	On Ramp	1500	Rolling	2872	14.81	0.00	2	75
15	M14	End of I-40 EB	Basic Segment	5280	Rolling	1000	14.81	0.00	2	75

Weaving Segment Data											
Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp				
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS

Time Period 4

Mainline Data										
Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin of I-40 EB	B1	Basic Segment	5280	Rolling	4914	5.00	0.00	2	70
2	US 70 BUS - B1	D2	Off Ramp	1500	Rolling	5259	9.00	0.00	2	70
3	US 70 BUS - D2	B3	Basic Segment	2200	Rolling	1000	11.37	0.00	2	70
4	US 70 BUS - M4	M4	On Ramp	1500	Rolling	3663	11.18	0.00	2	70
5	US 70 BUS - M4	B5	Basic Segment	175	Rolling	1000	11.18	0.00	2	70
6	US 70 BUS - B5	M6	On Ramp	1500	Rolling	4228	10.22	0.00	2	70
7	M6	B7	Basic Segment	14550	Rolling	1000	10.22	0.00	2	75
8	US 70 - B7	D8	Off Ramp	1500	Rolling	4228	10.22	0.00	3	75
9	US 70 - D8	B9	Basic Segment	2125	Rolling	1000	13.45	0.00	3	75
10	US 70 - B9	M10	On Ramp	1500	Rolling	3037	13.05	0.00	3	75
11	M10	B11	Basic Segment	7450	Rolling	1000	13.05	0.00	2	75
12	NC 42 - B11	D12	Off Ramp	1500	Rolling	3037	13.05	0.00	2	75
13	NC 42 - D12	B13	Basic Segment	3300	Rolling	1000	19.13	0.00	2	75
14	NC 42 - B13	M14	On Ramp	1500	Rolling	2583	14.82	0.00	2	75
		End of	Basic							

RampData							
Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	Off Ramp	1520	5.00	0.00	1	1500	50
4	On Ramp	95	5.00	0.00	1	1125	30
6	On Ramp	520	5.00	0.00	1	975	50
8	Off Ramp	1195	5.00	0.00	1	1500	50
10	On Ramp	142	5.00	0.00	1	1500	30
12	Off Ramp	985	2.00	0.00	1	1500	50
14	On Ramp	372	9.00	0.00	1	1300	50

Weaving Segment Data											
Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp				
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS

15	M14	I-40 EB	Segment	5280	Rolling	1000	14.82	0.00	2	75

Time Period Independent Weaving Segment Data

Seg #	Configuration	Short Length	# Weaving Lanes	Min. Lane Changes Freeway-Ramp	Min. Lane Changes Ramp-Freeway	Min. Lane Changes Ramp-Ramp

HCS 2010 Freeway Facilities

Project Properties

Analyst	HNTB	**Freeway Name**	I-40 - 2016 No-Build WB AM	**Analysis Period**	AM Peak
Analysis Date	9/19/2014 1:46:28 PM	**From**	NC 42	**Version Date**	1/20/16
Agency	HNTB	**To**	US 70 Business		
Location	Complete 540	**Analysis Direction**	Westbound/Southbound		
User Notes					
File Name	C:\Temp\preview.xml				

Facility-wide Values

Jam Density (pc/h/ln)	190	**Time Period Duration (min)**	15	**Facility Length (mi)**	**9.52900**

Segment Input Data

Time Period 1

Mainline Data

Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin I-40 WB	B16	Basic Segment	5280	Rolling	1995	9.00	0.00	2	75
2	NC 42 - B16	D17	Off Ramp	1500	Rolling	1995	9.00	0.00	2	75
3	NC 42 - D17	B18	Basic Segment	1350	Rolling	1664	10.39	0.00	2	75
4	NC 42 - B18	M19	On Ramp	1500	Rolling	2380	9.97	0.00	2	75
5	NC 42 - M19	B20	Basic Segment	175	Rolling	2380	9.97	0.00	2	75
6	NC 42 - B20	M21	On Ramp	1500	Rolling	2540	9.91	0.00	2	75
7	M21	B22	Basic Segment	3250	Rolling	2540	9.91	0.00	2	75
8	US 70 - B22	D23	Off Ramp	1500	Rolling	2540	9.91	0.00	2	75
9	US 70 - D23	B24	Basic Segment	5280	Rolling	2413	10.17	0.00	2	75
10	US 70 - B24	M25	On Ramp	1500	Rolling	3476	8.59	0.00	2	75
11	M25	B26	Basic Segment	14725	Rolling	3476	8.59	0.00	2	75
12	US 70 BUS - B26	D27	Off Ramp	1500	Rolling	3476	8.59	0.00	2	70
13	US 70 BUS - D27	B28	Basic Segment	1825	Rolling	3391	8.68	0.00	2	70
14	US 70 BUS - B28	W29	Weaving	525	Rolling	3621	8.45	0.00	3	70
15	US 70 BUS - W29	B30	Basic Segment	2125	Rolling	3158	8.95	0.00	2	70
16	US 70 BUS - B30	M31	On Ramp	1500	Rolling	4281	7.91	0.00	2	70
17	M31	End I-40 WB	Basic Segment	5280	Rolling	4281	7.91	0.00	3	70

RampData

Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	Off Ramp	331	2.00	0.00	1	275	50
4	On Ramp	716	9.00	0.00	1	1350	30
6	On Ramp	160	9.00	0.00	1	325	50
8	Off Ramp	127	5.00	0.00	1	875	50
10	On Ramp	1063	5.00	0.00	1	1500	50
12	Off Ramp	85	5.00	0.00	1	325	50
16	On Ramp	1123	5.00	0.00	1	1500	50

Weaving Segment Data

Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp				
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS
14	0.120	230	5.00	0.00	1	50	463	5.00	0.00	1	40

Time Period 2

Mainline Data										
Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin I-40 WB	B16	Basic Segment	5280	Rolling	2244	9.00	0.00	2	75
2	NC 42 - B16	D17	Off Ramp	1500	Rolling	2683	9.00	0.00	2	75
3	NC 42 - D17	B18	Basic Segment	1350	Rolling	1000	11.08	0.00	2	75
4	NC 42 - B18	M19	On Ramp	1500	Rolling	2843	8.66	0.00	2	75
5	NC 42 - M19	B20	Basic Segment	175	Rolling	1000	8.66	0.00	2	75
6	NC 42 - B20	M21	On Ramp	1500	Rolling	3137	8.13	0.00	2	75
7	M21	B22	Basic Segment	3250	Rolling	1000	8.13	0.00	2	75
8	US 70 - B22	D23	Off Ramp	1500	Rolling	3137	8.13	0.00	2	75
9	US 70 - D23	B24	Basic Segment	5280	Rolling	3022	8.29	0.00	2	75
10	US 70 - B24	M25	On Ramp	1500	Rolling	4328	6.99	0.00	2	75
11	M25	B26	Basic Segment	14725	Rolling	4328	6.99	0.00	2	75
12	US 70 BUS - B26	D27	Off Ramp	1500	Rolling	4328	6.99	0.00	2	70
13	US 70 BUS - D27	B28	Basic Segment	1825	Rolling	1000	7.06	0.00	2	70
14	US 70 BUS - B28	W29	Weaving	525	Rolling	4728	6.74	0.00	3	70
15	US 70 BUS - W29	B30	Basic Segment	2125	Rolling	1000	7.11	0.00	2	70
16	US 70 BUS - B30	M31	On Ramp	1500	Rolling	5359	6.42	0.00	2	70
17	M31	End I-40 WB	Basic Segment	5280	Rolling	1000	6.42	0.00	3	70

RampData							
Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	Off Ramp	372	2.00	0.00	1	275	50
4	On Ramp	805	9.00	0.00	1	1350	30
6	On Ramp	180	9.00	0.00	1	325	50
8	Off Ramp	143	5.00	0.00	1	875	50
10	On Ramp	1194	5.00	0.00	1	1500	50
12	Off Ramp	95	5.00	0.00	1	325	50
16	On Ramp	1262	5.00	0.00	1	1500	50

Weaving Segment Data											
Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp				
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS
14	0.120	258	5.00	0.00	1	50	520	5.00	0.00	1	40

Time Period 3

Mainline Data										
Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin I-40 WB	B16	Basic Segment	5280	Rolling	2493	9.00	0.00	2	75
2	NC 42 - B16	D17	Off Ramp	1500	Rolling	2981	9.00	0.00	2	75
3	NC 42 - D17	B18	Basic Segment	1350	Rolling	1000	11.08	0.00	2	75
4	NC 42 - B18	M19	On Ramp	1500	Rolling	3159	8.66	0.00	2	75
5	NC 42 - M19	B20	Basic Segment	175	Rolling	1000	8.66	0.00	2	75
6	NC 42 -	M21	On	1500	Rolling	3485	8.13	0.00	2	75

RampData							
Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	Off Ramp	413	2.00	0.00	1	275	50
4	On Ramp	894	9.00	0.00	1	1350	30
6	On Ramp	200	9.00	0.00	1	325	50
8	Off Ramp	159	5.00	0.00	1	875	50
10	On Ramp	1325	5.00	0.00	1	1500	50
12	Off Ramp	105	5.00	0.00	1	325	50
16	On Ramp	1401	5.00	0.00	1	1500	50

	B20		Ramp							
7	M21	B22	Basic Segment	3250	Rolling	1000	8.13	0.00	2	75
8	US 70 - B22	D23	Off Ramp	1500	Rolling	3485	8.13	0.00	2	75
9	US 70 - D23	B24	Basic Segment	5280	Rolling	3357	8.29	0.00	2	75
10	US 70 - B24	M25	On Ramp	1500	Rolling	4807	7.00	0.00	2	75
11	M25	B26	Basic Segment	14725	Rolling	4807	7.00	0.00	2	75
12	US 70 BUS - B26	D27	Off Ramp	1500	Rolling	4807	7.00	0.00	2	70
13	US 70 BUS - D27	B28	Basic Segment	1825	Rolling	1000	7.06	0.00	2	70
14	US 70 BUS - B28	W29	Weaving	525	Rolling	5251	6.74	0.00	3	70
15	US 70 BUS - W29	B30	Basic Segment	2125	Rolling	1000	7.11	0.00	2	70
16	US 70 BUS - B30	M31	On Ramp	1500	Rolling	5952	6.42	0.00	2	70
17	M31	End I-40 WB	Basic Segment	5280	Rolling	1000	6.42	0.00	3	70

Weaving Segment Data

Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp				
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS
14	0.120	286	5.00	0.00	1	50	577	5.00	0.00	1	40

Time Period 4

Mainline Data

Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin I-40 WB	B16	Basic Segment	5280	Rolling	2244	9.00	0.00	2	75
2	NC 42 - B16	D17	Off Ramp	1500	Rolling	2683	9.00	0.00	2	75
3	NC 42 - D17	B18	Basic Segment	1350	Rolling	1000	11.08	0.00	2	75
4	NC 42 - B18	M19	On Ramp	1500	Rolling	2843	8.66	0.00	2	75
5	NC 42 - M19	B20	Basic Segment	175	Rolling	1000	8.66	0.00	2	75
6	NC 42 - B20	M21	On Ramp	1500	Rolling	3137	8.13	0.00	2	75
7	M21	B22	Basic Segment	3250	Rolling	1000	8.13	0.00	2	75
8	US 70 - B22	D23	Off Ramp	1500	Rolling	3137	8.13	0.00	2	75
9	US 70 - D23	B24	Basic Segment	5280	Rolling	3022	8.29	0.00	2	75
10	US 70 - B24	M25	On Ramp	1500	Rolling	4328	6.99	0.00	2	75
11	M25	B26	Basic Segment	14725	Rolling	4328	6.99	0.00	2	75
12	US 70 BUS - B26	D27	Off Ramp	1500	Rolling	4328	6.99	0.00	2	70
13	US 70 BUS - D27	B28	Basic Segment	1825	Rolling	1000	7.06	0.00	2	70

RampData

Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	Off Ramp	372	2.00	0.00	1	275	50
4	On Ramp	805	9.00	0.00	1	1350	30
6	On Ramp	180	9.00	0.00	1	325	50
8	Off Ramp	143	5.00	0.00	1	875	50
10	On Ramp	1194	5.00	0.00	1	1500	50
12	Off Ramp	95	5.00	0.00	1	325	50
16	On Ramp	1262	5.00	0.00	1	1500	50

14	US 70 BUS - B28	W29	Weaving	525	Rolling	4728	6.74	0.00	3	70
15	US 70 BUS - W29	B30	Basic Segment	2125	Rolling	1000	7.11	0.00	2	70
16	US 70 BUS - B30	M31	On Ramp	1500	Rolling	5359	6.42	0.00	2	70
17	M31	End I-40 WB	Basic Segment	5280	Rolling	1000	6.42	0.00	3	70

Weaving Segment Data

Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp				
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS
14	0.120	258	5.00	0.00	1	50	520	5.00	0.00	1	40

Time Period Independent Weaving Segment Data

Seg #	Configuration	Short Length	# Weaving Lanes	Min. Lane Changes Freeway-Ramp	Min. Lane Changes Ramp-Freeway	Min. Lane Changes Ramp-Ramp
14	OneSide	525	2	1	1	0

HCS 2010 Freeway Facilities

Project Properties

Analyst	HNTB	**Freeway Name**	I-40 - 2016 No-Build WB PM	**Analysis Period**	PM Peak
Analysis Date	9/19/2014 1:46:28 PM	**From**	NC 42	**Version Date**	1/20/16
Agency	HNTB	**To**	US 70 Business		
Location	Complete 540	**Analysis Direction**	Westbound/Southbound		
User Notes					
File Name	C:\Temp\preview.xml				

Facility-wide Values

Jam Density (pc/h/ln)	190	**Time Period Duration (min)**	15	**Facility Length (mi)**	**9.52900**

Segment Input Data

Time Period 1

Mainline Data

Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin I-40 WB	B16	Basic Segment	5280	Rolling	1322	9.00	0.00	2	75
2	NC 42 - B16	D17	Off Ramp	1500	Rolling	1322	9.00	0.00	2	75
3	NC 42 - D17	B18	Basic Segment	1350	Rolling	1072	10.63	0.00	2	75
4	NC 42 - B18	M19	On Ramp	1500	Rolling	1538	10.14	0.00	2	75
5	NC 42 - M19	B20	Basic Segment	175	Rolling	1538	10.14	0.00	2	75
6	NC 42 - B20	M21	On Ramp	1500	Rolling	1704	10.03	0.00	2	75
7	M21	B22	Basic Segment	3250	Rolling	1704	10.03	0.00	2	75
8	US 70 - B22	D23	Off Ramp	1500	Rolling	1704	10.03	0.00	2	75
9	US 70 - D23	B24	Basic Segment	5280	Rolling	1597	10.36	0.00	2	75
10	US 70 - B24	M25	On Ramp	1500	Rolling	2409	8.56	0.00	2	75
11	M25	B26	Basic Segment	14725	Rolling	2409	8.56	0.00	2	75
12	US 70 BUS - B26	D27	Off Ramp	1500	Rolling	2409	8.56	0.00	2	70
13	US 70 BUS - D27	B28	Basic Segment	1825	Rolling	2324	8.69	0.00	2	70
14	US 70 BUS - B28	W29	Weaving	525	Rolling	2563	8.34	0.00	3	70
15	US 70 BUS - W29	B30	Basic Segment	2125	Rolling	2272	8.77	0.00	2	70
16	US 70 BUS - B30	M31	On Ramp	1500	Rolling	3011	7.84	0.00	2	70
17	M31	End I-40 WB	Basic Segment	5280	Rolling	3011	7.84	0.00	3	70

RampData

Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	Off Ramp	250	2.00	0.00	1	275	50
4	On Ramp	466	9.00	0.00	1	1350	30
6	On Ramp	166	9.00	0.00	1	325	50
8	Off Ramp	107	5.00	0.00	1	875	50
10	On Ramp	812	5.00	0.00	1	1500	50
12	Off Ramp	85	5.00	0.00	1	325	50
16	On Ramp	739	5.00	0.00	1	1500	50

Weaving Segment Data

Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp				
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS
14	0.103	239	5.00	0.00	1	50	291	5.00	0.00	1	40

Time Period 2

Mainline Data

Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin I-40 WB	B16	Basic Segment	5280	Rolling	1487	9.00	0.00	2	75
2	NC 42 - B16	D17	Off Ramp	1500	Rolling	1487	9.00	0.00	2	75
3	NC 42 - D17	B18	Basic Segment	1350	Rolling	1206	10.63	0.00	2	75
4	NC 42 - B18	M19	On Ramp	1500	Rolling	1730	10.14	0.00	2	75
5	NC 42 - M19	B20	Basic Segment	175	Rolling	1730	10.14	0.00	2	75
6	NC 42 - B20	M21	On Ramp	1500	Rolling	1916	10.03	0.00	2	75
7	M21	B22	Basic Segment	3250	Rolling	1916	10.03	0.00	2	75
8	US 70 - B22	D23	Off Ramp	1500	Rolling	1916	10.03	0.00	2	75
9	US 70 - D23	B24	Basic Segment	5280	Rolling	1796	10.36	0.00	2	75
10	US 70 - B24	M25	On Ramp	1500	Rolling	2708	8.56	0.00	2	75
11	M25	B26	Basic Segment	14725	Rolling	2708	8.56	0.00	2	75
12	US 70 BUS - B26	D27	Off Ramp	1500	Rolling	2708	8.56	0.00	2	70
13	US 70 BUS - D27	B28	Basic Segment	1825	Rolling	2613	8.69	0.00	2	70
14	US 70 BUS - B28	W29	Weaving	525	Rolling	2881	8.34	0.00	3	70
15	US 70 BUS - W29	B30	Basic Segment	2125	Rolling	2554	8.77	0.00	2	70
16	US 70 BUS - B30	M31	On Ramp	1500	Rolling	3384	7.85	0.00	2	70
17	M31	End I-40 WB	Basic Segment	5280	Rolling	3384	7.85	0.00	3	70

RampData

Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	Off Ramp	281	2.00	0.00	1	275	50
4	On Ramp	524	9.00	0.00	1	1350	30
6	On Ramp	186	9.00	0.00	1	325	50
8	Off Ramp	120	5.00	0.00	1	875	50
10	On Ramp	912	5.00	0.00	1	1500	50
12	Off Ramp	95	5.00	0.00	1	325	50
16	On Ramp	830	5.00	0.00	1	1500	50

Weaving Segment Data

Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp				
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS
14	0.103	268	5.00	0.00	1	50	327	5.00	0.00	1	40

Time Period 3

Mainline Data

Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin I-40 WB	B16	Basic Segment	5280	Rolling	1652	9.00	0.00	2	75
2	NC 42 - B16	D17	Off Ramp	1500	Rolling	2063	9.00	0.00	2	75
3	NC 42 - D17	B18	Basic Segment	1350	Rolling	1388	11.92	0.00	2	75
4	NC 42 - B18	M19	On Ramp	1500	Rolling	1951	9.34	0.00	2	75
5	NC 42 - M19	B20	Basic Segment	175	Rolling	1951	9.34	0.00	2	75
6	NC 42 -	M21	On	1500	Rolling	2238	8.53	0.00	2	75

RampData

Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	Off Ramp	312	2.00	0.00	1	275	50
4	On Ramp	582	9.00	0.00	1	1350	30
6	On Ramp	206	9.00	0.00	1	325	50
8	Off Ramp	133	5.00	0.00	1	875	50
10	On Ramp	1012	5.00	0.00	1	1500	50
12	Off Ramp	105	5.00	0.00	1	325	50
16	On Ramp	921	5.00	0.00	1	1500	50

	B20		Ramp							
7	M21	B22	Basic Segment	3250	Rolling	2238	8.53	0.00	2	75
8	US 70 - B22	D23	Off Ramp	1500	Rolling	2238	8.53	0.00	2	75
9	US 70 - D23	B24	Basic Segment	5280	Rolling	2078	8.88	0.00	2	75
10	US 70 - B24	M25	On Ramp	1500	Rolling	2861	7.54	0.00	2	75
11	M25	B26	Basic Segment	14725	Rolling	2861	7.54	0.00	2	75
12	US 70 BUS - B26	D27	Off Ramp	1500	Rolling	2861	7.54	0.00	2	70
13	US 70 BUS - D27	B28	Basic Segment	1825	Rolling	1000	7.65	0.00	2	70
14	US 70 BUS - B28	W29	Weaving	525	Rolling	3395	6.99	0.00	3	70
15	US 70 BUS - W29	B30	Basic Segment	2125	Rolling	1000	7.33	0.00	2	70
16	US 70 BUS - B30	M31	On Ramp	1500	Rolling	4074	6.49	0.00	2	70
17	M31	End I-40 WB	Basic Segment	5280	Rolling	1000	6.49	0.00	3	70

Weaving Segment Data

Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp				
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS
14	0.103	297	5.00	0.00	1	50	363	5.00	0.00	1	40

Time Period 4

Mainline Data

Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin I-40 WB	B16	Basic Segment	5280	Rolling	1487	9.00	0.00	2	75
2	NC 42 - B16	D17	Off Ramp	1500	Rolling	1857	9.00	0.00	2	75
3	NC 42 - D17	B18	Basic Segment	1350	Rolling	1249	11.92	0.00	2	75
4	NC 42 - B18	M19	On Ramp	1500	Rolling	1756	9.35	0.00	2	75
5	NC 42 - M19	B20	Basic Segment	175	Rolling	1756	9.35	0.00	2	75
6	NC 42 - B20	M21	On Ramp	1500	Rolling	2015	8.53	0.00	2	75
7	M21	B22	Basic Segment	3250	Rolling	2015	8.53	0.00	2	75
8	US 70 - B22	D23	Off Ramp	1500	Rolling	2015	8.53	0.00	2	75
9	US 70 - D23	B24	Basic Segment	5280	Rolling	1871	8.88	0.00	2	75
10	US 70 - B24	M25	On Ramp	1500	Rolling	2576	7.54	0.00	2	75
11	M25	B26	Basic Segment	14725	Rolling	2576	7.54	0.00	2	75
12	US 70 BUS - B26	D27	Off Ramp	1500	Rolling	2576	7.54	0.00	2	70
13	US 70 BUS - D27	B28	Basic Segment	1825	Rolling	1000	7.65	0.00	2	70

RampData

Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	Off Ramp	281	2.00	0.00	1	275	50
4	On Ramp	524	9.00	0.00	1	1350	30
6	On Ramp	186	9.00	0.00	1	325	50
8	Off Ramp	120	5.00	0.00	1	875	50
10	On Ramp	912	5.00	0.00	1	1500	50
12	Off Ramp	95	5.00	0.00	1	325	50
16	On Ramp	830	5.00	0.00	1	1500	50

14	US 70 BUS - B28	W29	Weaving	525	Rolling	3057	6.99	0.00	3	70
15	US 70 BUS - W29	B30	Basic Segment	2125	Rolling	1000	7.33	0.00	2	70
16	US 70 BUS - B30	M31	On Ramp	1500	Rolling	3669	6.49	0.00	2	70
17	M31	End I-40 WB	Basic Segment	5280	Rolling	1000	6.49	0.00	3	70

Weaving Segment Data

Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp				
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS
14	0.103	268	5.00	0.00	1	50	327	5.00	0.00	1	40

Time Period Independent Weaving Segment Data

Seg #	Configuration	Short Length	# Weaving Lanes	Min. Lane Changes Freeway-Ramp	Min. Lane Changes Ramp-Freeway	Min. Lane Changes Ramp-Ramp
14	OneSide	525	2	1	1	0

HCS 2010 Freeway Facilities

Project Properties

Analyst	HNTB	**Freeway Name**	US 70 - 2016 No-Build EB AM	**Analysis Period**	AM Peak
Analysis Date	9/19/2014 11:24:07 AM	**From**	US 70	**Version Date**	1/20/16
Agency	HNTB	**To**	NC 42		
Location	Complete 540	**Analysis Direction**	Eastbound/Northbound		
User Notes					
File Name	C:\Temp\preview.xml				

Facility-wide Values

Jam Density (pc/h/ln)	190	**Time Period Duration (min)**	15	**Facility Length (mi)**	**5.49400**

Segment Input Data

Time Period 1

Mainline Data

Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin of US 70 EB	B1	Basic Segment	5280	Rolling	811	5.00	0.00	2	75
2	US 70 - B1	M2	On Ramp	1500	Rolling	938	5.00	0.00	2	75
3	M2	B3	Basic Segment	10550	Rolling	938	5.00	0.00	2	75
4	NC 42 - B3	D4	Off Ramp	1500	Rolling	938	5.00	0.00	2	75
5	NC 42 - D4	B5	Basic Segment	3400	Rolling	780	5.61	0.00	2	75
6	NC 42 - B5	M6	On Ramp	1500	Rolling	1050	5.45	0.00	2	75
7	M6	End of US 70 EB	Basic Segment	5280	Rolling	1050	5.45	0.00	2	75

RampData

Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	On Ramp	127	5.00	0.00	1	750	50
4	Off Ramp	158	2.00	0.00	1	275	50
6	On Ramp	270	5.00	0.00	1	650	50

Weaving Segment Data

Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp				
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS

Time Period 2

Mainline Data

Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin of US 70 EB	B1	Basic Segment	5280	Rolling	912	5.00	0.00	2	75
2	US 70 - B1	M2	On Ramp	1500	Rolling	820	4.70	0.00	2	75
3	M2	B3	Basic Segment	10550	Rolling	820	4.70	0.00	2	75
4	NC 42 - B3	D4	Off Ramp	1500	Rolling	820	4.70	0.00	2	75
5	NC 42 - D4	B5	Basic Segment	3400	Rolling	700	4.82	0.00	2	75
6	NC 42 - B5	M6	On Ramp	1500	Rolling	1087	4.53	0.00	2	75
7	M6	End of US	Basic Segment	5280	Rolling	1087	4.53	0.00	2	75

RampData

Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	On Ramp	143	5.00	0.00	1	750	50
4	Off Ramp	178	2.00	0.00	1	275	50
6	On Ramp	270	5.00	0.00	1	650	50

Weaving Segment Data

Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp				
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS

		70 EB								

Time Period 3

Mainline Data										
Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin of US 70 EB	B1	Basic Segment	5280	Rolling	1013	5.00	0.00	2	75
2	US 70 - B1	M2	On Ramp	1500	Rolling	911	4.70	0.00	2	75
3	M2	B3	Basic Segment	10550	Rolling	911	4.70	0.00	2	75
4	NC 42 - B3	D4	Off Ramp	1500	Rolling	911	4.70	0.00	2	75
5	NC 42 - D4	B5	Basic Segment	3400	Rolling	778	4.82	0.00	2	75
6	NC 42 - B5	M6	On Ramp	1500	Rolling	1165	4.55	0.00	2	75
7	M6	End of US 70 EB	Basic Segment	5280	Rolling	1165	4.55	0.00	2	75

RampData							
Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	On Ramp	159	5.00	0.00	1	750	50
4	Off Ramp	198	2.00	0.00	1	275	50
6	On Ramp	270	5.00	0.00	1	650	50

Weaving Segment Data										
Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp			
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS

Time Period 4

Mainline Data										
Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin of US 70 EB	B1	Basic Segment	5280	Rolling	912	5.00	0.00	2	75
2	US 70 - B1	M2	On Ramp	1500	Rolling	820	4.70	0.00	2	75
3	M2	B3	Basic Segment	10550	Rolling	820	4.70	0.00	2	75
4	NC 42 - B3	D4	Off Ramp	1500	Rolling	820	4.70	0.00	2	75
5	NC 42 - D4	B5	Basic Segment	3400	Rolling	700	4.82	0.00	2	75
6	NC 42 - B5	M6	On Ramp	1500	Rolling	1087	4.53	0.00	2	75
7	M6	End of US 70 EB	Basic Segment	5280	Rolling	1087	4.53	0.00	2	75

RampData							
Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	On Ramp	143	5.00	0.00	1	750	50
4	Off Ramp	178	2.00	0.00	1	275	50
6	On Ramp	270	5.00	0.00	1	650	50

Weaving Segment Data										
Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp			
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS

Time Period Independent Weaving Segment Data

Seg #	Configuration	Short Length	# Weaving Lanes	Min. Lane Changes Freeway-Ramp	Min. Lane Changes Ramp-Freeway	Min. Lane Changes Ramp-Ramp

HCS 2010 Freeway Facilities

Project Properties

Analyst	HNTB	**Freeway Name**	US 70 - 2016 No-Build EB PM	**Analysis Period**	PM Peak
Analysis Date	9/19/2014 11:24:07 AM	**From**	US 70	**Version Date**	1/20/16
Agency	HNTB	**To**	NC 42		
Location	Complete 540	**Analysis Direction**	Eastbound/Northbound		
User Notes					
File Name	C:\Temp\preview.xml				

Facility-wide Values

Jam Density (pc/h/ln)	190	**Time Period Duration (min)**	15	**Facility Length (mi)**	**5.49400**

Segment Input Data

Time Period 1

Mainline Data

Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin of US 70 EB	B1	Basic Segment	5280	Rolling	1062	5.00	0.00	2	75
2	US 70 - B1	M2	On Ramp	1500	Rolling	1169	5.00	0.00	2	75
3	M2	B3	Basic Segment	10550	Rolling	1169	5.00	0.00	2	75
4	NC 42 - B3	D4	Off Ramp	1500	Rolling	1169	5.00	0.00	2	75
5	NC 42 - D4	B5	Basic Segment	3400	Rolling	995	5.52	0.00	2	75
6	NC 42 - B5	M6	On Ramp	1500	Rolling	1275	5.41	0.00	2	75
7	M6	End of US 70 EB	Basic Segment	5280	Rolling	1275	5.41	0.00	2	75

RampData

Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	On Ramp	107	5.00	0.00	1	750	50
4	Off Ramp	174	2.00	0.00	1	275	50
6	On Ramp	280	5.00	0.00	1	650	50

Weaving Segment Data

Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp				
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS

Time Period 2

Mainline Data

Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin of US 70 EB	B1	Basic Segment	5280	Rolling	1195	5.00	0.00	2	75
2	US 70 - B1	M2	On Ramp	1500	Rolling	1450	4.50	0.00	2	75
3	M2	B3	Basic Segment	10550	Rolling	1450	4.50	0.00	2	75
4	NC 42 - B3	D4	Off Ramp	1500	Rolling	1450	4.50	0.00	2	75
5	NC 42 - D4	B5	Basic Segment	3400	Rolling	1263	4.57	0.00	2	75
6	NC 42 - B5	M6	On Ramp	1500	Rolling	1749	4.41	0.00	2	75
7	M6	End of US	Basic Segment	5280	Rolling	1749	4.41	0.00	2	75

RampData

Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	On Ramp	120	5.00	0.00	1	750	50
4	Off Ramp	195	2.00	0.00	1	275	50
6	On Ramp	280	5.00	0.00	1	650	50

Weaving Segment Data

Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp				
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS

		70 EB								

Time Period 3

Mainline Data										
Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin of US 70 EB	B1	Basic Segment	5280	Rolling	1328	5.00	0.00	2	75
2	US 70 - B1	M2	On Ramp	1500	Rolling	1611	4.50	0.00	2	75
3	M2	B3	Basic Segment	10550	Rolling	1611	4.50	0.00	2	75
4	NC 42 - B3	D4	Off Ramp	1500	Rolling	1611	4.50	0.00	2	75
5	NC 42 - D4	B5	Basic Segment	3400	Rolling	1403	4.57	0.00	2	75
6	NC 42 - B5	M6	On Ramp	1500	Rolling	1889	4.42	0.00	2	75
7	M6	End of US 70 EB	Basic Segment	5280	Rolling	1889	4.42	0.00	2	75

RampData							
Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	On Ramp	133	5.00	0.00	1	750	50
4	Off Ramp	216	2.00	0.00	1	275	50
6	On Ramp	280	5.00	0.00	1	650	50

Weaving Segment Data										
Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp			
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS

Time Period 4

Mainline Data										
Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin of US 70 EB	B1	Basic Segment	5280	Rolling	1195	5.00	0.00	2	75
2	US 70 - B1	M2	On Ramp	1500	Rolling	1450	4.50	0.00	2	75
3	M2	B3	Basic Segment	10550	Rolling	1450	4.50	0.00	2	75
4	NC 42 - B3	D4	Off Ramp	1500	Rolling	1450	4.50	0.00	2	75
5	NC 42 - D4	B5	Basic Segment	3400	Rolling	1263	4.57	0.00	2	75
6	NC 42 - B5	M6	On Ramp	1500	Rolling	1749	4.41	0.00	2	75
7	M6	End of US 70 EB	Basic Segment	5280	Rolling	1749	4.41	0.00	2	75

RampData							
Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	On Ramp	120	5.00	0.00	1	750	50
4	Off Ramp	195	2.00	0.00	1	275	50
6	On Ramp	280	5.00	0.00	1	650	50

Weaving Segment Data										
Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp			
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS

Time Period Independent Weaving Segment Data

Seg #	Configuration	Short Length	# Weaving Lanes	Min. Lane Changes Freeway-Ramp	Min. Lane Changes Ramp-Freeway	Min. Lane Changes Ramp-Ramp

HCS 2010 Freeway Facilities

Project Properties

Analyst	HNTB	**Freeway Name**	US 70 - 2016 No-Build WB AM	**Analysis Period**	AM Peak
Analysis Date	9/19/2014 11:24:07 AM	**From**	NC 42	**Version Date**	1/20/16
Agency	HNTB	**To**	US 70		
Location	Complete 540	**Analysis Direction**	Westbound/Southbound		
User Notes					
File Name	C:\Temp\preview.xml				

Facility-wide Values

Jam Density (pc/h/ln)	190	**Time Period Duration (min)**	15	**Facility Length (mi)**	**5.84000**

Segment Input Data

Time Period 1

Mainline Data

Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin US 70 WB	B8	Basic Segment	5280	Rolling	1238	5.00	0.00	2	75
2	NC 42 - B8	D9	Off Ramp	1500	Rolling	1238	5.00	0.00	2	75
3	NC 42 - D9	B10	Basic Segment	3375	Rolling	989	5.76	0.00	2	75
4	NC 42 - B10	M11	On Ramp	1500	Rolling	1163	5.64	0.00	2	75
5	M11	B12	Basic Segment	10900	Rolling	1163	5.64	0.00	2	75
6	US 70 - B12	D13	Off Ramp	1500	Rolling	1163	5.64	0.00	2	75
7	US 70 - D13	B14	Basic Segment	5280	Rolling	100	12.47	0.00	2	75
8	B14	End US 70 WB	Off Ramp	1500	Rolling	100	12.47	0.00	2	75

RampData

Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	Off Ramp	249	2.00	0.00	1	325	50
4	On Ramp	174	5.00	0.00	1	675	50
6	Off Ramp	1063	5.00	0.00	1	475	50
8	Off Ramp	101	5.00	0.00	1	475	30

Weaving Segment Data

Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp				
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS

Time Period 2

Mainline Data

Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin US 70 WB	B8	Basic Segment	5280	Rolling	1393	5.00	0.00	2	75
2	NC 42 - B8	D9	Off Ramp	1500	Rolling	1393	5.00	0.00	2	75
3	NC 42 - D9	B10	Basic Segment	3375	Rolling	1113	5.75	0.00	2	75
4	NC 42 - B10	M11	On Ramp	1500	Rolling	1308	5.64	0.00	2	75
5	M11	B12	Basic Segment	10900	Rolling	1308	5.64	0.00	2	75
6	US 70 - B12	D13	Off Ramp	1500	Rolling	1308	5.64	0.00	2	75
	US									

RampData

Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	Off Ramp	280	2.00	0.00	1	325	50
4	On Ramp	195	5.00	0.00	1	675	50
6	Off Ramp	1194	5.00	0.00	1	475	50
8	Off Ramp	114	5.00	0.00	1	475	30

Weaving Segment Data

	Ramp	On-Ramp	Off-Ramp

7	70 - D13	B14	Basic Segment	5280	Rolling	114	12.37	0.00	2	75
8	B14	End US 70 WB	Off Ramp	1500	Rolling	114	12.37	0.00	2	75

Seg #	to Ramp Prop.	Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS

Time Period 3

Mainline Data										
Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin US 70 WB	B8	Basic Segment	5280	Rolling	1548	5.00	0.00	2	75
2	NC 42 - B8	D9	Off Ramp	1500	Rolling	1548	5.00	0.00	2	75
3	NC 42 - D9	B10	Basic Segment	3375	Rolling	1237	5.75	0.00	2	75
4	NC 42 - B10	M11	On Ramp	1500	Rolling	1453	5.64	0.00	2	75
5	M11	B12	Basic Segment	10900	Rolling	1453	5.64	0.00	2	75
6	US 70 - B12	D13	Off Ramp	1500	Rolling	1453	5.64	0.00	2	75
7	US 70 - D13	B14	Basic Segment	5280	Rolling	128	12.29	0.00	2	75
8	B14	End US 70 WB	Off Ramp	1500	Rolling	128	12.29	0.00	2	75

RampData							
Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	Off Ramp	311	2.00	0.00	1	325	50
4	On Ramp	216	5.00	0.00	1	675	50
6	Off Ramp	1325	5.00	0.00	1	475	50
8	Off Ramp	127	5.00	0.00	1	475	30

Weaving Segment Data										
Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp			
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS

Time Period 4

Mainline Data										
Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin US 70 WB	B8	Basic Segment	5280	Rolling	1393	5.00	0.00	2	75
2	NC 42 - B8	D9	Off Ramp	1500	Rolling	1393	5.00	0.00	2	75
3	NC 42 - D9	B10	Basic Segment	3375	Rolling	1113	5.75	0.00	2	75
4	NC 42 - B10	M11	On Ramp	1500	Rolling	1308	5.64	0.00	2	75
5	M11	B12	Basic Segment	10900	Rolling	1308	5.64	0.00	2	75
6	US 70 - B12	D13	Off Ramp	1500	Rolling	1308	5.64	0.00	2	75
7	US 70 - D13	B14	Basic Segment	5280	Rolling	114	12.37	0.00	2	75
8	B14	End US 70 WB	Off Ramp	1500	Rolling	114	12.37	0.00	2	75

RampData							
Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	Off Ramp	280	2.00	0.00	1	325	50
4	On Ramp	195	5.00	0.00	1	675	50
6	Off Ramp	1194	5.00	0.00	1	475	50
8	Off Ramp	114	5.00	0.00	1	475	30

Weaving Segment Data										
Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp			
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS

Time Period Independent Weaving Segment Data

Seg #	Configuration	Short Length	# Weaving Lanes	Min. Lane Changes Freeway-Ramp	Min. Lane Changes Ramp-Freeway	Min. Lane Changes Ramp-Ramp

HCS 2010 Freeway Facilities

Project Properties

Analyst	HNTB	**Freeway Name**	US 70 - 2016 No-Build WB PM	**Analysis Period**	PM Peak
Analysis Date	9/19/2014 11:24:07 AM	**From**	NC 42	**Version Date**	1/20/16
Agency	HNTB	**To**	US 70		
Location	Complete 540	**Analysis Direction**	Westbound/Southbound		
User Notes					
File Name	C:\Temp\preview.xml				

Facility-wide Values

Jam Density (pc/h/ln)	190	**Time Period Duration (min)**	15	**Facility Length (mi)**	**5.84000**

Segment Input Data

Time Period 1

Mainline Data

Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin US 70 WB	B8	Basic Segment	5280	Rolling	1024	5.00	0.00	2	75
2	NC 42 - B8	D9	Off Ramp	1500	Rolling	1024	5.00	0.00	2	75
3	NC 42 - D9	B10	Basic Segment	3375	Rolling	784	5.92	0.00	2	75
4	NC 42 - B10	M11	On Ramp	1500	Rolling	942	5.76	0.00	2	75
5	M11	B12	Basic Segment	10900	Rolling	942	5.76	0.00	2	75
6	US 70 - B12	D13	Off Ramp	1500	Rolling	942	5.76	0.00	2	75
7	US 70 - D13	B14	Basic Segment	5280	Rolling	130	10.54	0.00	2	75
8	B14	End US 70 WB	Off Ramp	1500	Rolling	130	10.54	0.00	2	75

RampData

Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	Off Ramp	240	2.00	0.00	1	325	50
4	On Ramp	158	5.00	0.00	1	675	50
6	Off Ramp	812	5.00	0.00	1	475	50
8	Off Ramp	132	5.00	0.00	1	475	30

Weaving Segment Data

Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp				
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS

Time Period 2

Mainline Data

Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin US 70 WB	B8	Basic Segment	5280	Rolling	1152	5.00	0.00	2	75
2	NC 42 - B8	D9	Off Ramp	1500	Rolling	1152	5.00	0.00	2	75
3	NC 42 - D9	B10	Basic Segment	3375	Rolling	882	5.92	0.00	2	75
4	NC 42 - B10	M11	On Ramp	1500	Rolling	1060	5.76	0.00	2	75
5	M11	B12	Basic Segment	10900	Rolling	1060	5.76	0.00	2	75
6	US 70 - B12	D13	Off Ramp	1500	Rolling	1060	5.76	0.00	2	75
	US									

RampData

Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	Off Ramp	270	2.00	0.00	1	325	50
4	On Ramp	178	5.00	0.00	1	675	50
6	Off Ramp	912	5.00	0.00	1	475	50
8	Off Ramp	148	5.00	0.00	1	475	30

Weaving Segment Data

	Ramp	On-Ramp	Off-Ramp

7	70 - D13	B14	Basic Segment	5280	Rolling	148	10.47	0.00	2	75
8	B14	End US 70 WB	Off Ramp	1500	Rolling	148	10.47	0.00	2	75

Seg #	to Ramp Prop.	Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS

Time Period 3

Mainline Data										
Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin US 70 WB	B8	Basic Segment	5280	Rolling	1280	5.00	0.00	2	75
2	NC 42 - B8	D9	Off Ramp	1500	Rolling	1280	5.00	0.00	2	75
3	NC 42 - D9	B10	Basic Segment	3375	Rolling	980	5.92	0.00	2	75
4	NC 42 - B10	M11	On Ramp	1500	Rolling	1178	5.76	0.00	2	75
5	M11	B12	Basic Segment	10900	Rolling	1178	5.76	0.00	2	75
6	US 70 - B12	D13	Off Ramp	1500	Rolling	1178	5.76	0.00	2	75
7	US 70 - D13	B14	Basic Segment	5280	Rolling	166	10.42	0.00	2	75
8	B14	End US 70 WB	Off Ramp	1500	Rolling	166	10.42	0.00	2	75

RampData							
Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	Off Ramp	300	2.00	0.00	1	325	50
4	On Ramp	198	5.00	0.00	1	675	50
6	Off Ramp	1012	5.00	0.00	1	475	50
8	Off Ramp	164	5.00	0.00	1	475	30

Weaving Segment Data										
Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp			
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS

Time Period 4

Mainline Data										
Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin US 70 WB	B8	Basic Segment	5280	Rolling	1152	5.00	0.00	2	75
2	NC 42 - B8	D9	Off Ramp	1500	Rolling	1152	5.00	0.00	2	75
3	NC 42 - D9	B10	Basic Segment	3375	Rolling	882	5.92	0.00	2	75
4	NC 42 - B10	M11	On Ramp	1500	Rolling	1060	5.76	0.00	2	75
5	M11	B12	Basic Segment	10900	Rolling	1060	5.76	0.00	2	75
6	US 70 - B12	D13	Off Ramp	1500	Rolling	1060	5.76	0.00	2	75
7	US 70 - D13	B14	Basic Segment	5280	Rolling	148	10.47	0.00	2	75
8	B14	End US 70 WB	Off Ramp	1500	Rolling	148	10.47	0.00	2	75

RampData							
Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	Off Ramp	270	2.00	0.00	1	325	50
4	On Ramp	178	5.00	0.00	1	675	50
6	Off Ramp	912	5.00	0.00	1	475	50
8	Off Ramp	148	5.00	0.00	1	475	30

Weaving Segment Data										
Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp			
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS

Time Period Independent Weaving Segment Data

Seg #	Configuration	Short Length	# Weaving Lanes	Min. Lane Changes Freeway-Ramp	Min. Lane Changes Ramp-Freeway	Min. Lane Changes Ramp-Ramp

HCS 2010 Freeway Facilities

Project Properties

Analyst	HNTB	**Freeway Name**	I-495 - 2016 No-Build EB AM	**Analysis Period**	AM Peak
Analysis Date	9/19/2014 9:50:57 AM	**From**	Hodge Road	**Version Date**	1/20/16
Agency	HNTB	**To**	Smithfield Road		
Location	Complete 540	**Analysis Direction**	Eastbound/Northbound		
User Notes					
File Name	C:\Temp\preview.xml				

Facility-wide Values

Jam Density (pc/h/ln)	190	**Time Period Duration (min)**	15	**Facility Length (mi)**	**6.38900**

Segment Input Data

Time Period 1

Mainline Data

Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin US 64 EB	B1	Basic Segment	5280	Rolling	2503	4.00	0.00	3	75
2	Hodge Rd - B1	D2	Off Ramp	1500	Rolling	2503	4.00	0.00	3	75
3	Hodge Rd - D2	B3	Basic Segment	1650	Rolling	2127	4.35	0.00	3	75
4	B3	W4	Weaving	1575	Rolling	2504	4.30	0.00	4	75
5	I-540 - W4	B5	Basic Segment	2750	Rolling	1530	2.58	0.00	3	75
6	I-540 - B5	M6	On Ramp	1500	Rolling	2363	4.14	0.00	3	75
7	M6	B7	Basic Segment	8175	Rolling	2363	4.14	0.00	3	75
8	Smithfield Rd - B7	D8	Off Ramp	1500	Rolling	2363	4.14	0.00	3	75
9	Hodge - D8	B9	Basic Segment	3025	Rolling	1793	4.82	0.00	3	75
10	Hodge - B9	M10	On Ramp	1500	Rolling	1909	4.95	0.00	3	75
11	M10	End US 64 EB	Basic Segment	5280	Rolling	1909	4.95	0.00	3	75

RampData

Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	Off Ramp	376	2.00	0.00	1	350	50
6	On Ramp	833	7.00	0.00	1	1475	30
8	Off Ramp	570	2.00	0.00	1	225	50
10	On Ramp	116	7.00	0.00	1	1050	50

Weaving Segment Data

Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp				
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS
4	0.373	377	4.00	0.00	1	50	974	7.00	0.00	1	50

Time Period 2

Mainline Data

Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin US 64 EB	B1	Basic Segment	5280	Rolling	2815	4.00	0.00	3	75
2	Hodge Rd - B1	D2	Off Ramp	1500	Rolling	2815	4.00	0.00	3	75
3	Hodge Rd - D2	B3	Basic Segment	1650	Rolling	2392	4.35	0.00	3	75
4	B3	W4	Weaving	1575	Rolling	2816	4.30	0.00	4	75
5	I-540 - W4	B5	Basic Segment	2750	Rolling	1722	2.59	0.00	3	75
6	I-540 - B5	M6	On Ramp	1500	Rolling	2658	4.14	0.00	3	75
7	M6	B7	Basic Segment	8175	Rolling	2658	4.14	0.00	3	75
8	Smithfield Rd - B7	D8	Off Ramp	1500	Rolling	2658	4.14	0.00	3	75
9	Hodge - D8	B9	Basic Segment	3025	Rolling	2017	4.82	0.00	3	75
10	Hodge - B9	M10	On Ramp	1500	Rolling	2147	4.95	0.00	3	75
		End								

RampData

Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	Off Ramp	423	2.00	0.00	1	350	50
6	On Ramp	936	7.00	0.00	1	1475	30
8	Off Ramp	641	2.00	0.00	1	225	50
10	On Ramp	130	7.00	0.00	1	1050	50

Weaving Segment Data

Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp				
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS
4	0.373	424	4.00	0.00	1	50	1094	7.00	0.00	1	50

11	M10	US 64 EB	Basic Segment	5280	Rolling	2147	4.95	0.00	3	75

Time Period 3

Mainline Data										
Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin US 64 EB	B1	Basic Segment	5280	Rolling	3127	4.00	0.00	3	75
2	Hodge Rd - B1	D2	Off Ramp	1500	Rolling	2518	8.00	0.00	3	75
3	Hodge Rd - D2	B3	Basic Segment	1650	Rolling	2106	9.17	0.00	3	75
4	B3	W4	Weaving	1575	Rolling	2664	7.67	0.00	4	75
5	I-540 - W4	B5	Basic Segment	2750	Rolling	1844	7.52	0.00	3	75
6	I-540 - B5	M6	On Ramp	1500	Rolling	2905	7.70	0.00	3	75
7	M6	B7	Basic Segment	8175	Rolling	2905	7.70	0.00	3	75
8	Smithfield Rd - B7	D8	Off Ramp	1500	Rolling	2905	7.70	0.00	3	75
9	Hodge - D8	B9	Basic Segment	3025	Rolling	2229	9.12	0.00	3	75
10	Hodge - B9	M10	On Ramp	1500	Rolling	2410	8.66	0.00	3	75
11	M10	End US 64 EB	Basic Segment	5280	Rolling	2410	8.66	0.00	3	75

RampData							
Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	Off Ramp	470	2.00	0.00	1	350	50
6	On Ramp	1039	7.00	0.00	1	1475	30
8	Off Ramp	712	2.00	0.00	1	225	50
10	On Ramp	144	7.00	0.00	1	1050	50

Weaving Segment Data											
Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp				
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS
4	0.373	471	4.00	0.00	1	50	1214	7.00	0.00	1	50

Time Period 4

Mainline Data										
Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin US 64 EB	B1	Basic Segment	5280	Rolling	2815	4.00	0.00	3	75
2	Hodge Rd - B1	D2	Off Ramp	1500	Rolling	2266	8.00	0.00	3	75
3	Hodge Rd - D2	B3	Basic Segment	1650	Rolling	1895	9.17	0.00	3	75
4	B3	W4	Weaving	1575	Rolling	2398	7.67	0.00	4	75
5	I-540 - W4	B5	Basic Segment	2750	Rolling	1659	7.52	0.00	3	75
6	I-540 - B5	M6	On Ramp	1500	Rolling	2615	7.70	0.00	3	75
7	M6	B7	Basic Segment	8175	Rolling	2615	7.70	0.00	3	75
8	Smithfield Rd - B7	D8	Off Ramp	1500	Rolling	2615	7.70	0.00	3	75
9	Hodge - D8	B9	Basic Segment	3025	Rolling	2006	9.12	0.00	3	75
10	Hodge - B9	M10	On Ramp	1500	Rolling	2169	8.66	0.00	3	75
11	M10	End US 64 EB	Basic Segment	5280	Rolling	2169	8.66	0.00	3	75

RampData							
Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	Off Ramp	423	2.00	0.00	1	350	50
6	On Ramp	936	7.00	0.00	1	1475	30
8	Off Ramp	641	2.00	0.00	1	225	50
10	On Ramp	130	7.00	0.00	1	1050	50

Weaving Segment Data											
Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp				
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS
4	0.373	424	4.00	0.00	1	50	1094	7.00	0.00	1	50

Time Period Independent Weaving Segment Data

Seg #	Configuration	Short Length	# Weaving Lanes	Min. Lane Changes Freeway-Ramp	Min. Lane Changes Ramp-Freeway	Min. Lane Changes Ramp-Ramp
4	OneSide	1575	2	1	1	0

HCS 2010 Freeway Facilities

Project Properties

Analyst	HNTB	**Freeway Name**	I-495 - 2016 No-Build EB PM	**Analysis Period**	PM Peak
Analysis Date	9/19/2014 9:50:57 AM	**From**	Hodge Road	**Version Date**	1/20/16
Agency	HNTB	**To**	Smithfield Road		
Location	Complete 540	**Analysis Direction**	Eastbound/Northbound		
User Notes					
File Name	C:\Temp\preview.xml				

Facility-wide Values

Jam Density (pc/h/ln)	190	**Time Period Duration (min)**	15	**Facility Length (mi)**	**6.38900**

Segment Input Data

Time Period 1

Mainline Data

Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin of US 64 EB	B1	Basic Segment	5280	Rolling	4881	4.00	0.00	3	75
2	Hodge Rd - B1	D2	Off Ramp	1500	Rolling	4881	4.00	0.00	3	75
3	Hodge Rd - D2	B3	Basic Segment	1650	Rolling	4117	4.37	0.00	3	75
4	B3	W4	Weaving	1575	Rolling	4427	4.35	0.00	4	75
5	I-540 - W4	B5	Basic Segment	2750	Rolling	3215	3.34	0.00	3	75
6	I-540 - B5	M6	On Ramp	1500	Rolling	4619	4.46	0.00	3	75
7	M6	B7	Basic Segment	8175	Rolling	4619	4.46	0.00	3	75
8	Smithfield Rd - B7	D8	Off Ramp	1500	Rolling	4619	4.46	0.00	3	75
9	Hodge - D8	B9	Basic Segment	3025	Rolling	3744	5.03	0.00	3	75
10	Hodge - B9	M10	On Ramp	1500	Rolling	3902	5.11	0.00	3	75
11	M10	End of US 64 EB	Basic Segment	5280	Rolling	3902	5.11	0.00	3	75

RampData

Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	Off Ramp	764	2.00	0.00	1	350	50
6	On Ramp	1404	7.00	0.00	1	1475	30
8	Off Ramp	875	2.00	0.00	1	225	50
10	On Ramp	158	7.00	0.00	1	1050	50

Weaving Segment Data

Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp				
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS
4	0.273	310	4.00	0.00	1	50	1212	7.00	0.00	1	50

Time Period 2

Mainline Data

Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin of US 64 EB	B1	Basic Segment	5280	Rolling	5490	4.00	0.00	3	75
2	Hodge Rd - B1	D2	Off Ramp	1500	Rolling	5490	4.00	0.00	3	75
3	Hodge Rd - D2	B3	Basic Segment	1650	Rolling	4632	4.37	0.00	3	75
4	B3	W4	Weaving	1575	Rolling	4980	4.34	0.00	4	75
5	I-540 - W4	B5	Basic Segment	2750	Rolling	3618	3.34	0.00	3	75
6	I-540 - B5	M6	On Ramp	1500	Rolling	5196	4.45	0.00	3	75
7	M6	B7	Basic Segment	8175	Rolling	5196	4.45	0.00	3	75
8	Smithfield Rd - B7	D8	Off Ramp	1500	Rolling	5196	4.45	0.00	3	75
9	Hodge - D8	B9	Basic Segment	3025	Rolling	4213	5.03	0.00	3	75
10	Hodge - B9	M10	On Ramp	1500	Rolling	4390	5.11	0.00	3	75

RampData

Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	Off Ramp	858	2.00	0.00	1	350	50
6	On Ramp	1578	7.00	0.00	1	1475	30
8	Off Ramp	983	2.00	0.00	1	225	50
10	On Ramp	177	7.00	0.00	1	1050	50

Weaving Segment Data

Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp				
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS

11	M10	End of US 64 EB	Basic Segment	5280	Rolling	4390	5.11	0.00	3	75

4	0.273	348	4.00	0.00	1	50	1362	7.00	0.00	1	50

Time Period 3

Mainline Data										
Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin of US 64 EB	B1	Basic Segment	5280	Rolling	6099	4.00	0.00	3	75
2	Hodge Rd - B1	D2	Off Ramp	1500	Rolling	5075	8.00	0.00	3	75
3	Hodge Rd - D2	B3	Basic Segment	1650	Rolling	4112	9.41	0.00	3	75
4	B3	W4	Weaving	1575	Rolling	4558	8.68	0.00	4	75
5	I-540 - W4	B5	Basic Segment	2750	Rolling	3651	8.85	0.00	3	75
6	I-540 - B5	M6	On Ramp	1500	Rolling	5612	8.55	0.00	3	75
7	M6	B7	Basic Segment	8175	Rolling	5612	8.55	0.00	3	75
8	Smithfield Rd - B7	D8	Off Ramp	1500	Rolling	5612	8.55	0.00	3	75
9	Hodge - D8	B9	Basic Segment	3025	Rolling	4294	10.26	0.00	3	75
10	Hodge - B9	M10	On Ramp	1500	Rolling	4482	9.95	0.00	3	75
11	M10	End of US 64 EB	Basic Segment	5280	Rolling	4482	9.95	0.00	3	75

RampData							
Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	Off Ramp	952	2.00	0.00	1	350	50
6	On Ramp	1752	7.00	0.00	1	1475	30
8	Off Ramp	1091	2.00	0.00	1	225	50
10	On Ramp	196	7.00	0.00	1	1050	50

Weaving Segment Data											
Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp				
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS
4	0.273	386	4.00	0.00	1	50	1512	7.00	0.00	1	50

Time Period 4

Mainline Data										
Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin of US 64 EB	B1	Basic Segment	5280	Rolling	5490	4.00	0.00	3	75
2	Hodge Rd - B1	D2	Off Ramp	1500	Rolling	4568	8.00	0.00	3	75
3	Hodge Rd - D2	B3	Basic Segment	1650	Rolling	3700	9.41	0.00	3	75
4	B3	W4	Weaving	1575	Rolling	4102	8.68	0.00	4	75
5	I-540 - W4	B5	Basic Segment	2750	Rolling	3285	8.85	0.00	3	75
6	I-540 - B5	M6	On Ramp	1500	Rolling	5052	8.55	0.00	3	75
7	M6	B7	Basic Segment	8175	Rolling	5052	8.55	0.00	3	75
8	Smithfield Rd - B7	D8	Off Ramp	1500	Rolling	5052	8.55	0.00	3	75
9	Hodge - D8	B9	Basic Segment	3025	Rolling	3865	10.26	0.00	3	75
10	Hodge - B9	M10	On Ramp	1500	Rolling	4034	9.95	0.00	3	75
11	M10	End of US 64 EB	Basic Segment	5280	Rolling	4034	9.95	0.00	3	75

RampData							
Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	Off Ramp	858	2.00	0.00	1	350	50
6	On Ramp	1578	7.00	0.00	1	1475	30
8	Off Ramp	983	2.00	0.00	1	225	50
10	On Ramp	177	7.00	0.00	1	1050	50

Weaving Segment Data											
Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp				
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS
4	0.273	348	4.00	0.00	1	50	1362	7.00	0.00	1	50

Time Period Independent Weaving Segment Data

Seg #	Configuration	Short Length	# Weaving Lanes	Min. Lane Changes Freeway-Ramp	Min. Lane Changes Ramp-Freeway	Min. Lane Changes Ramp-Ramp
4	OneSide	1575	2	1	1	0

HCS 2010 Freeway Facilities

Project Properties

Analyst	HNTB	**Freeway Name**	I-495 - 2016 No-Build WB AM	**Analysis Period**	AM Peak
Analysis Date	9/19/2014 9:50:57 AM	**From**	Smithfield Road	**Version Date**	1/20/16
Agency	HNTB	**To**	Hodge Road		
Location	Complete 540	**Analysis Direction**	Westbound/Southbound		
User Notes					
File Name	C:\Temp\preview.xml				

Facility-wide Values

Jam Density (pc/h/ln)	190	**Time Period Duration (min)**	15	**Facility Length (mi)**	**6.50300**

Segment Input Data

Time Period 1

Mainline Data

Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin US 64 WB	B12	Basic Segment	5280	Rolling	3751	7.00	0.00	3	75
2	Smithfield - B12	D13	Off Ramp	1500	Rolling	3751	7.00	0.00	3	75
3	Smithfield - D13	B14	Basic Segment	2925	Rolling	3593	7.22	0.00	3	75
4	Smithfield - B14	M15	On Ramp	1500	Rolling	4468	7.18	0.00	3	75
5	M15	B16	Basic Segment	5175	Rolling	4468	7.18	0.00	3	75
6	I-540 - B16	D17	Off Ramp	1500	Rolling	4468	7.18	0.00	3	75
7	I-540 - D17	B18	Basic Segment	4600	Rolling	3064	7.26	0.00	3	75
8	B18	W19	Weaving	3200	Rolling	4276	6.33	0.00	4	75
9	Hodge - W19	B20	Basic Segment	1875	Rolling	3966	6.67	0.00	3	75
10	Hodge - B20	M21	On Ramp	1500	Rolling	4730	6.24	0.00	3	75
11	M21	End US 64 WB	Basic Segment	5280	Rolling	4730	6.24	0.00	3	75

RampData

Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	Off Ramp	158	2.00	0.00	1	175	50
4	On Ramp	875	7.00	0.00	1	900	50
6	Off Ramp	1404	7.00	0.00	1	425	50
10	On Ramp	764	4.00	0.00	1	850	50

Weaving Segment Data

Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp				
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS
8	0.072	1212	4.00	0.00	1	50	310	2.00	0.00	1	30

Time Period 2

Mainline Data

Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin US 64 WB	B12	Basic Segment	5280	Rolling	4219	7.00	0.00	3	75
2	Smithfield - B12	D13	Off Ramp	1500	Rolling	4219	7.00	0.00	3	75
3	Smithfield - D13	B14	Basic Segment	2925	Rolling	4042	7.22	0.00	3	75
4	Smithfield - B14	M15	On Ramp	1500	Rolling	5025	7.18	0.00	3	75
5	M15	B16	Basic Segment	5175	Rolling	5025	7.18	0.00	3	75
6	I-540 - B16	D17	Off Ramp	1500	Rolling	5025	7.18	0.00	3	75
7	I-540 - D17	B18	Basic Segment	4600	Rolling	3447	7.26	0.00	3	75
8	B18	W19	Weaving	3200	Rolling	4809	6.33	0.00	4	75
9	Hodge - W19	B20	Basic Segment	1875	Rolling	4461	6.67	0.00	3	75
10	Hodge - B20	M21	On Ramp	1500	Rolling	5319	6.24	0.00	3	75
		End								

RampData

Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	Off Ramp	177	2.00	0.00	1	175	50
4	On Ramp	983	7.00	0.00	1	900	50
6	Off Ramp	1578	7.00	0.00	1	425	50
10	On Ramp	858	4.00	0.00	1	850	50

Weaving Segment Data

Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp				
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS
8	0.072	1362	4.00	0.00	1	50	348	2.00	0.00	1	30

11	M21	US 64 WB	Basic Segment	5280	Rolling	5319	6.24	0.00	3	75

Time Period 3

Mainline Data										
Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin US 64 WB	B12	Basic Segment	5280	Rolling	4687	7.00	0.00	3	75
2	Smithfield - B12	D13	Off Ramp	1500	Rolling	4424	8.00	0.00	3	75
3	Smithfield - D13	B14	Basic Segment	2925	Rolling	4236	8.22	0.00	3	75
4	Smithfield - B14	M15	On Ramp	1500	Rolling	5555	6.98	0.00	3	75
5	M15	B16	Basic Segment	5175	Rolling	5555	6.98	0.00	3	75
6	I-540 - B16	D17	Off Ramp	1500	Rolling	5555	6.98	0.00	3	75
7	I-540 - D17	B18	Basic Segment	4600	Rolling	3592	6.43	0.00	3	75
8	B18	W19	Weaving	3200	Rolling	4499	6.74	0.00	4	75
9	Hodge - W19	B20	Basic Segment	1875	Rolling	4053	7.26	0.00	3	75
10	Hodge - B20	M21	On Ramp	1500	Rolling	5017	6.25	0.00	3	75
11	M21	End US 64 WB	Basic Segment	5280	Rolling	5017	6.25	0.00	3	75

RampData							
Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	Off Ramp	196	2.00	0.00	1	175	50
4	On Ramp	1091	7.00	0.00	1	900	50
6	Off Ramp	1752	7.00	0.00	1	425	50
10	On Ramp	952	4.00	0.00	1	850	50

Weaving Segment Data											
Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp				
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS
8	0.072	1512	4.00	0.00	1	50	386	2.00	0.00	1	30

Time Period 4

Mainline Data										
Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin US 64 WB	B12	Basic Segment	5280	Rolling	4219	7.00	0.00	3	75
2	Smithfield - B12	D13	Off Ramp	1500	Rolling	3982	8.00	0.00	3	75
3	Smithfield - D13	B14	Basic Segment	2925	Rolling	3813	8.22	0.00	3	75
4	Smithfield - B14	M15	On Ramp	1500	Rolling	5000	6.98	0.00	3	75
5	M15	B16	Basic Segment	5175	Rolling	5000	6.98	0.00	3	75
6	I-540 - B16	D17	Off Ramp	1500	Rolling	5000	6.98	0.00	3	75
7	I-540 - D17	B18	Basic Segment	4600	Rolling	3233	6.43	0.00	3	75
8	B18	W19	Weaving	3200	Rolling	4050	6.74	0.00	4	75
9	Hodge - W19	B20	Basic Segment	1875	Rolling	3648	7.27	0.00	3	75
10	Hodge - B20	M21	On Ramp	1500	Rolling	4516	6.25	0.00	3	75
11	M21	End US 64 WB	Basic Segment	5280	Rolling	4516	6.25	0.00	3	75

RampData							
Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	Off Ramp	177	2.00	0.00	1	175	50
4	On Ramp	983	7.00	0.00	1	900	50
6	Off Ramp	1578	7.00	0.00	1	425	50
10	On Ramp	858	4.00	0.00	1	850	50

Weaving Segment Data											
Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp				
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS
8	0.072	1362	4.00	0.00	1	50	348	2.00	0.00	1	30

Time Period Independent Weaving Segment Data

Seg #	Configuration	Short Length	# Weaving Lanes	Min. Lane Changes Freeway-Ramp	Min. Lane Changes Ramp-Freeway	Min. Lane Changes Ramp-Ramp
8	OneSide	3200	2	1	1	0

HCS 2010 Freeway Facilities

Project Properties

Analyst	HNTB	**Freeway Name**	I-495 - 2016 No-Build WB PM	**Analysis Period**	PM Peak
Analysis Date	9/19/2014 9:50:57 AM	**From**	Smithfield Road	**Version Date**	1/20/16
Agency	HNTB	**To**	Hodge Road		
Location	Complete 540	**Analysis Direction**	Westbound/Southbound		
User Notes					
File Name	C:\Temp\preview.xml				

Facility-wide Values

Jam Density (pc/h/ln)	190	**Time Period Duration (min)**	15	**Facility Length (mi)**	**6.50300**

Segment Input Data

Time Period 1

Mainline Data

Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin US 64 WB	B12	Basic Segment	5280	Rolling	1989	7.00	0.00	3	75
2	Smithfield - B12	D13	Off Ramp	1500	Rolling	1989	7.00	0.00	3	75
3	Smithfield - D13	B14	Basic Segment	2925	Rolling	1873	7.31	0.00	3	75
4	Smithfield - B14	M15	On Ramp	1500	Rolling	2443	7.24	0.00	3	75
5	M15	B16	Basic Segment	5175	Rolling	2443	7.24	0.00	3	75
6	I-540 - B16	D17	Off Ramp	1500	Rolling	2443	7.24	0.00	3	75
7	I-540 - D17	B18	Basic Segment	4600	Rolling	1610	7.36	0.00	3	75
8	B18	W19	Weaving	3200	Rolling	2584	6.09	0.00	4	75
9	Hodge - W19	B20	Basic Segment	1875	Rolling	2207	6.79	0.00	3	75
10	Hodge - B20	M21	On Ramp	1500	Rolling	2583	6.39	0.00	3	75
11	M21	End US 64 WB	Basic Segment	5280	Rolling	2583	6.39	0.00	3	75

RampData

Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	Off Ramp	116	2.00	0.00	1	175	50
4	On Ramp	570	7.00	0.00	1	900	50
6	Off Ramp	833	7.00	0.00	1	425	50
10	On Ramp	376	4.00	0.00	1	850	50

Weaving Segment Data

Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp				
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS
8	0.146	974	4.00	0.00	1	50	377	2.00	0.00	1	30

Time Period 2

Mainline Data

Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin US 64 WB	B12	Basic Segment	5280	Rolling	2237	7.00	0.00	3	75
2	Smithfield - B12	D13	Off Ramp	1500	Rolling	2237	7.00	0.00	3	75
3	Smithfield - D13	B14	Basic Segment	2925	Rolling	2107	7.31	0.00	3	75
4	Smithfield - B14	M15	On Ramp	1500	Rolling	2748	7.24	0.00	3	75
5	M15	B16	Basic Segment	5175	Rolling	2748	7.24	0.00	3	75
6	I-540 - B16	D17	Off Ramp	1500	Rolling	2748	7.24	0.00	3	75
7	I-540 - D17	B18	Basic Segment	4600	Rolling	1812	7.36	0.00	3	75
8	B18	W19	Weaving	3200	Rolling	2906	6.09	0.00	4	75
9	Hodge - W19	B20	Basic Segment	1875	Rolling	2482	6.79	0.00	3	75
10	Hodge - B20	M21	On Ramp	1500	Rolling	2905	6.39	0.00	3	75
		End								

RampData

Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	Off Ramp	130	2.00	0.00	1	175	50
4	On Ramp	641	7.00	0.00	1	900	50
6	Off Ramp	936	7.00	0.00	1	425	50
10	On Ramp	423	4.00	0.00	1	850	50

Weaving Segment Data

Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp				
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS
8	0.146	1094	4.00	0.00	1	50	424	2.00	0.00	1	30

11	M21	US 64 WB	Basic Segment	5280	Rolling	2905	6.39	0.00	3	75

Time Period 3

Mainline Data										
Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin US 64 WB	B12	Basic Segment	5280	Rolling	2485	7.00	0.00	3	75
2	Smithfield - B12	D13	Off Ramp	1500	Rolling	2433	8.00	0.00	3	75
3	Smithfield - D13	B14	Basic Segment	2925	Rolling	2252	8.40	0.00	3	75
4	Smithfield - B14	M15	On Ramp	1500	Rolling	2928	7.15	0.00	3	75
5	M15	B16	Basic Segment	5175	Rolling	2928	7.15	0.00	3	75
6	I-540 - B16	D17	Off Ramp	1500	Rolling	2928	7.15	0.00	3	75
7	I-540 - D17	B18	Basic Segment	4600	Rolling	1867	6.67	0.00	3	75
8	B18	W19	Weaving	3200	Rolling	2687	7.08	0.00	4	75
9	Hodge - W19	B20	Basic Segment	1875	Rolling	2129	8.41	0.00	3	75
10	Hodge - B20	M21	On Ramp	1500	Rolling	2541	7.37	0.00	3	75
11	M21	End US 64 WB	Basic Segment	5280	Rolling	2541	7.37	0.00	3	75

RampData							
Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	Off Ramp	144	2.00	0.00	1	175	50
4	On Ramp	712	7.00	0.00	1	900	50
6	Off Ramp	1039	7.00	0.00	1	425	50
10	On Ramp	470	4.00	0.00	1	850	50

Weaving Segment Data											
Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp				
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS
8	0.146	1214	4.00	0.00	1	50	471	2.00	0.00	1	30

Time Period 4

Mainline Data										
Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin US 64 WB	B12	Basic Segment	5280	Rolling	2237	7.00	0.00	3	75
2	Smithfield - B12	D13	Off Ramp	1500	Rolling	2190	8.00	0.00	3	75
3	Smithfield - D13	B14	Basic Segment	2925	Rolling	2027	8.40	0.00	3	75
4	Smithfield - B14	M15	On Ramp	1500	Rolling	2636	7.15	0.00	3	75
5	M15	B16	Basic Segment	5175	Rolling	2636	7.15	0.00	3	75
6	I-540 - B16	D17	Off Ramp	1500	Rolling	2636	7.15	0.00	3	75
7	I-540 - D17	B18	Basic Segment	4600	Rolling	1680	6.67	0.00	3	75
8	B18	W19	Weaving	3200	Rolling	2419	7.08	0.00	4	75
9	Hodge - W19	B20	Basic Segment	1875	Rolling	1916	8.41	0.00	3	75
10	Hodge - B20	M21	On Ramp	1500	Rolling	2287	7.37	0.00	3	75
11	M21	End US 64 WB	Basic Segment	5280	Rolling	2287	7.37	0.00	3	75

RampData							
Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	Off Ramp	130	2.00	0.00	1	175	50
4	On Ramp	641	7.00	0.00	1	900	50
6	Off Ramp	936	7.00	0.00	1	425	50
10	On Ramp	423	4.00	0.00	1	850	50

Weaving Segment Data											
Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp				
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS
8	0.146	1094	4.00	0.00	1	50	424	2.00	0.00	1	30

Time Period Independent Weaving Segment Data

Seg #	Configuration	Short Length	# Weaving Lanes	Min. Lane Changes Freeway-Ramp	Min. Lane Changes Ramp-Freeway	Min. Lane Changes Ramp-Ramp
8	OneSide	3200	2	1	1	0

2016 Build

1) Complete 540 (includes I-540)
2) NC 540 (Triangle Expressway Western Wake Freeway)
3) I-40
4) US 70
5) I-495 / US 64 / 264

HCS 2010 Freeway Facilities

Project Properties

Analyst	HNTB	**Freeway Name**	Complete 540 - 2016 Build EB AM	**Analysis Period**	AM Peak
Analysis Date	9/19/2014 10:24:18 AM	**From**	Old Holly Springs-Apex	**Version Date**	1/20/16
Agency	HNTB	**To**	US 64 Business		
Location	Complete 540	**Analysis Direction**	Eastbound/Northbound		
User Notes					
File Name	C:\Temp\preview.xml				

Facility-wide Values

Jam Density (pc/h/ln)	190	**Time Period Duration (min)**	15	**Facility Length (mi)**	**32.23700**

Segment Input Data

Time Period 1

Mainline Data

Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin NC540 EB	B3	Basic Segment	5280	Rolling	894	6.00	0.00	3	75
2	NC 55 BYP - B3	D4	Off Ramp	1500	Rolling	894	6.00	0.00	3	75
3	NC 55 BYP - D4	B5	Basic Segment	175	Rolling	470	7.80	0.00	3	75
4	NC 55 BYP- B5	D6	Off Ramp	1500	Rolling	470	7.80	0.00	3	75
5	NC 55 BYP - D6	B7	Basic Segment	1675	Rolling	431	8.15	0.00	3	75
6	NC 55 BYP - B7	M8	On Ramp	1500	Rolling	673	7.38	0.00	3	75
7	M8	B9	Basic Segment	8800	Rolling	673	7.38	0.00	3	75
8	Holly Springs - B9	D10	Off Ramp	1500	Rolling	673	7.38	0.00	3	75
9	Holly Springs - D10	B11	Basic Segment	4050	Rolling	524	8.90	0.00	3	75
10	Holly Springs - B11	M12	On Ramp	1500	Rolling	930	7.64	0.00	3	75
11	M12	B13	Basic Segment	7625	Rolling	930	7.64	0.00	3	75
12	Bells Lake - B13	D14	Off Ramp	1500	Rolling	930	7.64	0.00	3	75
13	Bells Lake - D14	B15	Basic Segment	2200	Rolling	718	9.30	0.00	3	75
14	Bells Lake - B15	M16	On Ramp	1500	Rolling	986	8.40	0.00	3	75
15	M16	B17	Basic Segment	9275	Rolling	986	8.40	0.00	3	75
16	US 401 - B17	D18	Off Ramp	1500	Rolling	986	8.40	0.00	3	75
17	US 401 - D18	B19	Basic Segment	1750	Rolling	690	11.15	0.00	3	75
18	US 401 - B19	M20	On Ramp	1500	Rolling	807	10.40	0.00	3	75
19	US 401 - M20	B21	Basic Segment	575	Rolling	807	10.40	0.00	3	75
20	US 401 - B21	M22	On Ramp	1500	Rolling	1179	9.01	0.00	3	75
21	M22	B23	Basic Segment	4200	Rolling	1179	9.01	0.00	3	75
22	Old Stage - B23	D24	Off Ramp	1500	Rolling	1179	9.01	0.00	3	75
23	Old Stage - D24	B25	Basic Segment	3750	Rolling	636	15.00	0.00	3	75
24	Old Stage - B25	M26	On Ramp	1500	Rolling	719	13.96	0.00	3	75
25	M26	B27	Basic Segment	15000	Rolling	719	13.96	0.00	3	75
26	NC 50 - B27	D28	Off Ramp	1500	Rolling	719	13.96	0.00	3	75
27	NC 50 - D28	B29	Basic Segment	4150	Rolling	456	20.86	0.00	3	75
28	NC 50 - B29	M30	On Ramp	1500	Rolling	740	15.16	0.00	3	75

RampData

Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	Off Ramp	424	4.00	0.00	1	700	50
4	Off Ramp	39	4.00	0.00	1	925	30
6	On Ramp	242	6.00	0.00	1	1000	50
8	Off Ramp	149	2.00	0.00	1	900	50
10	On Ramp	406	6.00	0.00	1	900	50
12	Off Ramp	212	2.00	0.00	1	225	50
14	On Ramp	268	6.00	0.00	1	1500	30
16	Off Ramp	296	2.00	0.00	1	900	50
18	On Ramp	117	6.00	0.00	1	1500	30
20	On Ramp	372	6.00	0.00	1	1025	50
22	Off Ramp	543	2.00	0.00	1	300	50
24	On Ramp	83	6.00	0.00	1	900	50
26	Off Ramp	263	2.00	0.00	1	1025	50
28	On Ramp	284	6.00	0.00	1	900	50
30	Off Ramp	140	5.00	0.00	2	1500	50
32	Off Ramp	307	5.00	0.00	1	225	50
34	On Ramp	360	6.00	0.00	1	1500	30
36	On Ramp	507	6.00	0.00	1	900	50
38	Off Ramp	344	2.00	0.00	1	300	50
40	On Ramp	344	6.00	0.00	1	1500	30
42	Off Ramp	225	5.00	0.00	1	900	50
44	On Ramp	65	6.00	0.00	1	1425	30
46	On Ramp	303	6.00	0.00	1	900	50
48	Off Ramp	181	2.00	0.00	1	1500	30
50	On Ramp	250	6.00	0.00	1	900	50
52	Off Ramp	50	3.00	3.00	1	1500	30
54	On Ramp	54	6.00	0.00	1	900	50
56	Off Ramp	77	2.00	0.00	1	175	50
59	Off Ramp	408	7.00	0.00	1	525	30
61	On Ramp	1887	6.00	0.00	1	950	50
63	Off Ramp	947	3.00	0.00	1	200	50
65	On Ramp	1468	4.00	0.00	1	875	50

29	M30	B31	Basic Segment	1500	Rolling	740	15.16	0.00	3	75
30	I-40 - B31	D32	Off Ramp	1500	Rolling	740	15.16	0.00	3	75
31	I-40 - D32	B33	Basic Segment	375	Rolling	600	17.53	0.00	3	75
32	I-40 - B33	D34	Off Ramp	1500	Rolling	600	17.53	0.00	3	75
33	I-40 - D34	B35	Basic Segment	2600	Rolling	293	30.66	0.00	3	75
34	I-40 - B35	M36	On Ramp	1500	Rolling	653	17.06	0.00	3	75
35	I-40 - M36	B37	Basic Segment	4450	Rolling	653	17.06	0.00	3	75
36	I-40 - B37	M38	On Ramp	1500	Rolling	1160	12.23	0.00	3	75
37	M38	B39	Basic Segment	1025	Rolling	1160	12.23	0.00	3	75
38	White Oak - B39	D40	Off Ramp	1500	Rolling	1160	12.23	0.00	3	75
39	White Oak - D40	B41	Basic Segment	1850	Rolling	816	16.54	0.00	3	75
40	White Oak - B41	M42	On Ramp	1500	Rolling	1160	13.41	0.00	3	75
41	M42	B43	Basic Segment	3000	Rolling	1160	13.41	0.00	3	75
42	US 70 - B43	D44	Off Ramp	1500	Rolling	1160	13.41	0.00	3	75
43	US 70 - D44	B45	Basic Segment	1825	Rolling	935	15.44	0.00	3	75
44	US 70 - B45	M46	On Ramp	1500	Rolling	1000	14.83	0.00	3	75
45	US 70 - M46	B47	Basic Segment	775	Rolling	1000	14.83	0.00	3	75
46	US 70 - B47	M48	On Ramp	1500	Rolling	1303	12.77	0.00	3	75
47	M48	B49	Basic Segment	1275	Rolling	1303	12.77	0.00	3	75
48	Rock Quarry - B49	D50	Off Ramp	1500	Rolling	1303	12.77	0.00	3	75
49	Rock Quarry - D50	B51	Basic Segment	1825	Rolling	1122	14.51	0.00	3	75
50	Rock Quarry - B51	M52	On Ramp	1500	Rolling	1372	12.96	0.00	3	75
51	M52	B53	Basic Segment	8550	Rolling	1372	12.96	0.00	3	75
52	Auburn Knight - B53	D54	Off Ramp	1500	Rolling	1372	12.96	0.00	3	75
53	Auburn Knight - D54	B55	Basic Segment	1575	Rolling	1322	13.34	-0.11	3	75
54	Auburn Knight - B55	M56	On Ramp	1500	Rolling	1376	13.05	-0.11	3	75
55	M56	B57	Basic Segment	2200	Rolling	1376	13.05	-0.11	3	75
56	Poole - B57	D58	Off Ramp	1500	Rolling	1376	13.05	-0.11	3	75
57	Poole - B59	B59	Basic Segment	3800	Rolling	1299	13.70	-0.12	3	75
58	B59	W60	Weaving	1650	Rolling	1872	11.35	-0.08	4	75
59	US 64 - 264 - W60	D61	Off Ramp	1500	Rolling	1561	12.21	-0.10	3	75
60	US 64 - 264 - D61	B62	Basic Segment	3550	Rolling	1153	14.06	-0.13	3	75
61	US 64 - 264 - B62	M63	On Ramp	1500	Rolling	3040	9.06	-0.05	3	75
62	M63	B64	Basic Segment	2350	Rolling	3040	9.06	-0.05	3	75
63	US 64 - B64	D65	Off Ramp	1500	Rolling	3040	9.06	-0.05	3	75
64	US 64 - D65	B66	Basic Segment	4250	Rolling	2093	11.80	-0.07	3	75
65	US 64 - B66	M67	On Ramp	1500	Rolling	3561	8.58	-0.04	3	75
66	M67	End NC540 EB	Basic Segment	5280	Rolling	3561	8.58	-0.04	3	75

Weaving Segment Data

Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp				
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS
58	0.166	573	6.00	0.00	1	50	311	7.00	0.00	1	50

Time Period 2

Mainline Data

Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin NC540 EB	B3	Basic Segment	5280	Rolling	1006	6.00	0.00	3	75

RampData

Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	Off Ramp	476	4.00	0.00	1	700	50
4	Off Ramp	44	4.00	0.00	1	925	30
6	On Ramp	272	6.00	0.00	1	1000	50

2	NC 55 BYP - B3	D4	Off Ramp	1500	Rolling	1006	6.00	0.00	3	75
3	NC 55 BYP - D4	B5	Basic Segment	175	Rolling	530	7.80	0.00	3	75
4	NC 55 BYP- B5	D6	Off Ramp	1500	Rolling	530	7.80	0.00	3	75
5	NC 55 BYP - D6	B7	Basic Segment	1675	Rolling	486	8.14	0.00	3	75
6	NC 55 BYP - B7	M8	On Ramp	1500	Rolling	758	7.37	0.00	3	75
7	M8	B9	Basic Segment	8800	Rolling	758	7.37	0.00	3	75
8	Holly Springs - B9	D10	Off Ramp	1500	Rolling	758	7.37	0.00	3	75
9	Holly Springs - D10	B11	Basic Segment	4050	Rolling	591	8.89	0.00	3	75
10	Holly Springs - B11	M12	On Ramp	1500	Rolling	1047	7.63	0.00	3	75
11	M12	B13	Basic Segment	7625	Rolling	1047	7.63	0.00	3	75
12	Bells Lake - B13	D14	Off Ramp	1500	Rolling	1047	7.63	0.00	3	75
13	Bells Lake - D14	B15	Basic Segment	2200	Rolling	809	9.29	0.00	3	75
14	Bells Lake - B15	M16	On Ramp	1500	Rolling	1110	8.40	0.00	3	75
15	M16	B17	Basic Segment	9275	Rolling	1110	8.40	0.00	3	75
16	US 401 - B17	D18	Off Ramp	1500	Rolling	1110	8.40	0.00	3	75
17	US 401 - D18	B19	Basic Segment	1750	Rolling	777	11.14	0.00	3	75
18	US 401 - B19	M20	On Ramp	1500	Rolling	908	10.40	0.00	3	75
19	US 401 - M20	B21	Basic Segment	575	Rolling	908	10.40	0.00	3	75
20	US 401 - B21	M22	On Ramp	1500	Rolling	1326	9.01	0.00	3	75
21	M22	B23	Basic Segment	4200	Rolling	1326	9.01	0.00	3	75
22	Old Stage - B23	D24	Off Ramp	1500	Rolling	1326	9.01	0.00	3	75
23	Old Stage - D24	B25	Basic Segment	3750	Rolling	716	14.98	0.00	3	75
24	Old Stage - B25	M26	On Ramp	1500	Rolling	809	13.95	0.00	3	75
25	M26	B27	Basic Segment	15000	Rolling	809	13.95	0.00	3	75
26	NC 50 - B27	D28	Off Ramp	1500	Rolling	809	13.95	0.00	3	75
27	NC 50 - D28	B29	Basic Segment	4150	Rolling	513	20.85	0.00	3	75
28	NC 50 - B29	M30	On Ramp	1500	Rolling	832	15.15	0.00	3	75
29	M30	B31	Basic Segment	1500	Rolling	832	15.15	0.00	3	75
30	I-40 - B31	D32	Off Ramp	1500	Rolling	832	15.15	0.00	3	75
31	I-40 - D32	B33	Basic Segment	375	Rolling	675	17.52	0.00	3	75
32	I-40 - B33	D34	Off Ramp	1500	Rolling	675	17.52	0.00	3	75
33	I-40 - D34	B35	Basic Segment	2600	Rolling	330	30.60	0.00	3	75
34	I-40 - B35	M36	On Ramp	1500	Rolling	735	17.04	0.00	3	75
35	I-40 - M36	B37	Basic Segment	4450	Rolling	735	17.04	0.00	3	75
36	I-40 - B37	M38	On Ramp	1500	Rolling	1305	12.22	0.00	3	75
37	M38	B39	Basic Segment	1025	Rolling	1305	12.22	0.00	3	75
38	White Oak - B39	D40	Off Ramp	1500	Rolling	1305	12.22	0.00	3	75
39	White Oak - D40	B41	Basic Segment	1850	Rolling	919	16.51	0.00	3	75
40	White Oak - B41	M42	On Ramp	1500	Rolling	1305	13.40	0.00	3	75
41	M42	B43	Basic Segment	3000	Rolling	1305	13.40	0.00	3	75
42	US 70 - B43	D44	Off Ramp	1500	Rolling	1305	13.40	0.00	3	75
43	US 70 - D44	B45	Basic Segment	1825	Rolling	1052	15.42	0.00	3	75

8	Off Ramp	167	2.00	0.00	1	900	50
10	On Ramp	456	6.00	0.00	1	900	50
12	Off Ramp	238	2.00	0.00	1	225	50
14	On Ramp	301	6.00	0.00	1	1500	30
16	Off Ramp	333	2.00	0.00	1	900	50
18	On Ramp	131	6.00	0.00	1	1500	30
20	On Ramp	418	6.00	0.00	1	1025	50
22	Off Ramp	610	2.00	0.00	1	300	50
24	On Ramp	93	6.00	0.00	1	900	50
26	Off Ramp	296	2.00	0.00	1	1025	50
28	On Ramp	319	6.00	0.00	1	900	50
30	Off Ramp	157	5.00	0.00	2	1500	50
32	Off Ramp	345	5.00	0.00	1	225	50
34	On Ramp	405	6.00	0.00	1	1500	30
36	On Ramp	570	6.00	0.00	1	900	50
38	Off Ramp	386	2.00	0.00	1	300	50
40	On Ramp	386	6.00	0.00	1	1500	30
42	Off Ramp	253	5.00	0.00	1	900	50
44	On Ramp	73	6.00	0.00	1	1425	30
46	On Ramp	341	6.00	0.00	1	900	50
48	Off Ramp	203	2.00	0.00	1	1500	30
50	On Ramp	281	6.00	0.00	1	900	50
52	Off Ramp	56	3.00	3.00	1	1500	30
54	On Ramp	61	6.00	0.00	1	900	50
56	Off Ramp	86	2.00	0.00	1	175	50
59	Off Ramp	458	7.00	0.00	1	525	30
61	On Ramp	2120	6.00	0.00	1	950	50
63	Off Ramp	1064	3.00	0.00	1	200	50
65	On Ramp	1650	4.00	0.00	1	875	50

44	US 70 - B45	M46	On Ramp	1500	Rolling	1125	14.81	0.00	3	75
45	US 70 - M46	B47	Basic Segment	775	Rolling	1125	14.81	0.00	3	75
46	US 70 - B47	M48	On Ramp	1500	Rolling	1466	12.76	0.00	3	75
47	M48	B49	Basic Segment	1275	Rolling	1466	12.76	0.00	3	75
48	Rock Quarry - B49	D50	Off Ramp	1500	Rolling	1466	12.76	0.00	3	75
49	Rock Quarry - D50	B51	Basic Segment	1825	Rolling	1263	14.49	0.00	3	75
50	Rock Quarry - B51	M52	On Ramp	1500	Rolling	1544	12.95	0.00	3	75
51	M52	B53	Basic Segment	8550	Rolling	1544	12.95	0.00	3	75
52	Auburn Knight - B53	D54	Off Ramp	1500	Rolling	1544	12.95	0.00	3	75
53	Auburn Knight - D54	B55	Basic Segment	1575	Rolling	1488	13.32	-0.11	3	75
54	Auburn Knight - B55	M56	On Ramp	1500	Rolling	1549	13.03	-0.11	3	75
55	M56	B57	Basic Segment	2200	Rolling	1549	13.03	-0.11	3	75
56	Poole - B57	D58	Off Ramp	1500	Rolling	1549	13.03	-0.11	3	75
57	Poole - B59	B59	Basic Segment	3800	Rolling	1463	13.68	-0.11	3	75
58	B59	W60	Weaving	1650	Rolling	2107	11.33	-0.08	4	75
59	US 64 - 264 - W60	D61	Off Ramp	1500	Rolling	1758	12.19	-0.10	3	75
60	US 64 - 264 - D61	B62	Basic Segment	3550	Rolling	1300	14.02	-0.13	3	75
61	US 64 - 264 - B62	M63	On Ramp	1500	Rolling	3420	9.05	-0.05	3	75
62	M63	B64	Basic Segment	2350	Rolling	3420	9.05	-0.05	3	75
63	US 64 - B64	D65	Off Ramp	1500	Rolling	3420	9.05	-0.05	3	75
64	US 64 - D65	B66	Basic Segment	4250	Rolling	2356	11.78	-0.07	3	75
65	US 64 - B66	M67	On Ramp	1500	Rolling	4006	8.58	-0.04	3	75
66	M67	End NC540 EB	Basic Segment	5280	Rolling	4006	8.58	-0.04	3	75

Weaving Segment Data

Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp				
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS
58	0.166	644	6.00	0.00	1	50	349	7.00	0.00	1	50

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Mainline Data

Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin NC540 EB	B3	Basic Segment	5280	Rolling	1118	6.00	0.00	3	75
2	NC 55 BYP - B3	D4	Off Ramp	1500	Rolling	1118	6.00	0.00	3	75
3	NC 55 BYP - D4	B5	Basic Segment	175	Rolling	590	7.79	0.00	3	75
4	NC 55 BYP- B5	D6	Off Ramp	1500	Rolling	590	7.79	0.00	3	75
5	NC 55 BYP - D6	B7	Basic Segment	1675	Rolling	541	8.13	0.00	3	75
6	NC 55 BYP - B7	M8	On Ramp	1500	Rolling	843	7.37	0.00	3	75
7	M8	B9	Basic Segment	8800	Rolling	843	7.37	0.00	3	75
8	Holly Springs - B9	D10	Off Ramp	1500	Rolling	843	7.37	0.00	3	75
9	Holly Springs - D10	B11	Basic Segment	4050	Rolling	658	8.88	0.00	3	75
10	Holly Springs - B11	M12	On Ramp	1500	Rolling	1164	7.63	0.00	3	75
11	M12	B13	Basic Segment	7625	Rolling	1164	7.63	0.00	3	75
12	Bells Lake - B13	D14	Off Ramp	1500	Rolling	1164	7.63	0.00	3	75
13	Bells Lake - D14	B15	Basic Segment	2200	Rolling	900	9.28	0.00	3	75
	Bells									

RampData

Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	Off Ramp	528	4.00	0.00	1	700	50
4	Off Ramp	49	4.00	0.00	1	925	30
6	On Ramp	302	6.00	0.00	1	1000	50
8	Off Ramp	185	2.00	0.00	1	900	50
10	On Ramp	506	6.00	0.00	1	900	50
12	Off Ramp	264	2.00	0.00	1	225	50
14	On Ramp	334	6.00	0.00	1	1500	30
16	Off Ramp	370	2.00	0.00	1	900	50
18	On Ramp	145	6.00	0.00	1	1500	30
20	On Ramp	464	6.00	0.00	1	1025	50
22	Off Ramp	677	2.00	0.00	1	300	50
24	On Ramp	103	6.00	0.00	1	900	50
26	Off Ramp	329	2.00	0.00	1	1025	50
28	On Ramp	354	6.00	0.00	1	900	50
30	Off Ramp	174	5.00	0.00	2	1500	50
32	Off Ramp	383	5.00	0.00	1	225	50
34	On Ramp	450	6.00	0.00	1	1500	30
36	On Ramp	633	6.00	0.00	1	900	50
38	Off Ramp	428	2.00	0.00	1	300	50
40	On Ramp	428	6.00	0.00	1	1500	30
42	Off Ramp	281	5.00	0.00	1	900	50
44	On Ramp	81	6.00	0.00	1	1425	30
46	On Ramp	379	6.00	0.00	1	900	50
48	Off Ramp	225	2.00	0.00	1	1500	30
50	On Ramp	312	6.00	0.00	1	900	50
52	Off Ramp	62	3.00	3.00	1	1500	30
54	On Ramp	68	6.00	0.00	1	900	50
56	Off Ramp	95	2.00	0.00	1	175	50
59	Off Ramp	508	7.00	0.00	1	525	30
61	On Ramp	2353	6.00	0.00	1	950	50

14	Lake - B15	M16	On Ramp	1500	Rolling	1234	8.39	0.00	3	75
15	M16	B17	Basic Segment	9275	Rolling	1234	8.39	0.00	3	75
16	US 401 - B17	D18	Off Ramp	1500	Rolling	1234	8.39	0.00	3	75
17	US 401 - D18	B19	Basic Segment	1750	Rolling	864	11.13	0.00	3	75
18	US 401 - B19	M20	On Ramp	1500	Rolling	1009	10.39	0.00	3	75
19	US 401 - M20	B21	Basic Segment	575	Rolling	1009	10.39	0.00	3	75
20	US 401 - B21	M22	On Ramp	1500	Rolling	1473	9.01	0.00	3	75
21	M22	B23	Basic Segment	4200	Rolling	1473	9.01	0.00	3	75
22	Old Stage - B23	D24	Off Ramp	1500	Rolling	1473	9.01	0.00	3	75
23	Old Stage - D24	B25	Basic Segment	3750	Rolling	796	14.97	0.00	3	75
24	Old Stage - B25	M26	On Ramp	1500	Rolling	899	13.94	0.00	3	75
25	M26	B27	Basic Segment	15000	Rolling	899	13.94	0.00	3	75
26	NC 50 - B27	D28	Off Ramp	1500	Rolling	899	13.94	0.00	3	75
27	NC 50 - D28	B29	Basic Segment	4150	Rolling	570	20.83	0.00	3	75
28	NC 50 - B29	M30	On Ramp	1500	Rolling	924	15.15	0.00	3	75
29	M30	B31	Basic Segment	1500	Rolling	924	15.15	0.00	3	75
30	I-40 - B31	D32	Off Ramp	1500	Rolling	924	15.15	0.00	3	75
31	I-40 - D32	B33	Basic Segment	375	Rolling	750	17.50	0.00	3	75
32	I-40 - B33	D34	Off Ramp	1500	Rolling	750	17.50	0.00	3	75
33	I-40 - D34	B35	Basic Segment	2600	Rolling	367	30.55	0.00	3	75
34	I-40 - B35	M36	On Ramp	1500	Rolling	817	17.03	0.00	3	75
35	I-40 - M36	B37	Basic Segment	4450	Rolling	817	17.03	0.00	3	75
36	I-40 - B37	M38	On Ramp	1500	Rolling	1450	12.21	0.00	3	75
37	M38	B39	Basic Segment	1025	Rolling	1450	12.21	0.00	3	75
38	White Oak - B39	D40	Off Ramp	1500	Rolling	1450	12.21	0.00	3	75
39	White Oak - D40	B41	Basic Segment	1850	Rolling	1022	16.49	0.00	3	75
40	White Oak - B41	M42	On Ramp	1500	Rolling	1450	13.40	0.00	3	75
41	M42	B43	Basic Segment	3000	Rolling	1450	13.40	0.00	3	75
42	US 70 - B43	D44	Off Ramp	1500	Rolling	1450	13.40	0.00	3	75
43	US 70 - D44	B45	Basic Segment	1825	Rolling	1169	15.41	0.00	3	75
44	US 70 - B45	M46	On Ramp	1500	Rolling	1250	14.80	0.00	3	75
45	US 70 - M46	B47	Basic Segment	775	Rolling	1250	14.80	0.00	3	75
46	US 70 - B47	M48	On Ramp	1500	Rolling	1629	12.76	0.00	3	75
47	M48	B49	Basic Segment	1275	Rolling	1629	12.76	0.00	3	75
48	Rock Quarry - B49	D50	Off Ramp	1500	Rolling	1629	12.76	0.00	3	75
49	Rock Quarry - D50	B51	Basic Segment	1825	Rolling	1404	14.48	0.00	3	75
50	Rock Quarry - B51	M52	On Ramp	1500	Rolling	1716	12.94	0.00	3	75
51	M52	B53	Basic Segment	8550	Rolling	1716	12.94	0.00	3	75
52	Auburn Knight - B53	D54	Off Ramp	1500	Rolling	1716	12.94	0.00	3	75
53	Auburn Knight - D54	B55	Basic Segment	1575	Rolling	1654	13.31	-0.11	3	75
54	Auburn Knight - B55	M56	On Ramp	1500	Rolling	1722	13.02	-0.11	3	75
55	M56	B57	Basic Segment	2200	Rolling	1722	13.02	-0.11	3	75
56	Poole - B57	D58	Off Ramp	1500	Rolling	1722	13.02	-0.11	3	75
57	Poole - B59	B59	Basic Segment	3800	Rolling	1627	13.66	-0.11	3	75

63	Off Ramp	1181	3.00	0.00	1	200	50
65	On Ramp	1832	4.00	0.00	1	875	50

Weaving Segment Data											
Seg #	Ramp to Ramp	On-Ramp					Off-Ramp				
		Adj.	%	% RVs	Lanes	FFS	Adj.	%	% RVs	Lanes	FFS

58	B59	W60	Weaving	1650	Rolling	2342	11.32	-0.08	4	75
59	US 64 - 264 - W60	D61	Off Ramp	1500	Rolling	1955	12.18	-0.10	3	75
60	US 64 - 264 - D61	B62	Basic Segment	3550	Rolling	1447	14.00	-0.13	3	75
61	US 64 - 264 - B62	M63	On Ramp	1500	Rolling	3800	9.05	-0.05	3	75
62	M63	B64	Basic Segment	2350	Rolling	3800	9.05	-0.05	3	75
63	US 64 - B64	D65	Off Ramp	1500	Rolling	3800	9.05	-0.05	3	75
64	US 64 - D65	B66	Basic Segment	4250	Rolling	2619	11.77	-0.07	3	75
65	US 64 - B66	M67	On Ramp	1500	Rolling	4451	8.57	-0.04	3	75
66	M67	End NC540 EB	Basic Segment	5280	Rolling	4451	8.57	-0.04	3	75

	Prop.	Demand	Trucks				Demand	Trucks		
58	0.166	715	6.00	0.00	1	50	387	7.00	0.00	1	50

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Mainline Data

Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin NC540 EB	B3	Basic Segment	5280	Rolling	1006	6.00	0.00	3	75
2	NC 55 BYP - B3	D4	Off Ramp	1500	Rolling	1006	6.00	0.00	3	75
3	NC 55 BYP - D4	B5	Basic Segment	175	Rolling	530	7.80	0.00	3	75
4	NC 55 BYP- B5	D6	Off Ramp	1500	Rolling	530	7.80	0.00	3	75
5	NC 55 BYP - D6	B7	Basic Segment	1675	Rolling	486	8.14	0.00	3	75
6	NC 55 BYP - B7	M8	On Ramp	1500	Rolling	758	7.37	0.00	3	75
7	M8	B9	Basic Segment	8800	Rolling	758	7.37	0.00	3	75
8	Holly Springs - B9	D10	Off Ramp	1500	Rolling	758	7.37	0.00	3	75
9	Holly Springs - D10	B11	Basic Segment	4050	Rolling	591	8.89	0.00	3	75
10	Holly Springs - B11	M12	On Ramp	1500	Rolling	1047	7.63	0.00	3	75
11	M12	B13	Basic Segment	7625	Rolling	1047	7.63	0.00	3	75
12	Bells Lake - B13	D14	Off Ramp	1500	Rolling	1047	7.63	0.00	3	75
13	Bells Lake - D14	B15	Basic Segment	2200	Rolling	809	9.29	0.00	3	75
14	Bells Lake - B15	M16	On Ramp	1500	Rolling	1110	8.40	0.00	3	75
15	M16	B17	Basic Segment	9275	Rolling	1110	8.40	0.00	3	75
16	US 401 - B17	D18	Off Ramp	1500	Rolling	1110	8.40	0.00	3	75
17	US 401 - D18	B19	Basic Segment	1750	Rolling	777	11.14	0.00	3	75
18	US 401 - B19	M20	On Ramp	1500	Rolling	908	10.40	0.00	3	75
19	US 401 - M20	B21	Basic Segment	575	Rolling	908	10.40	0.00	3	75
20	US 401 - B21	M22	On Ramp	1500	Rolling	1326	9.01	0.00	3	75
21	M22	B23	Basic Segment	4200	Rolling	1326	9.01	0.00	3	75
22	Old Stage - B23	D24	Off Ramp	1500	Rolling	1326	9.01	0.00	3	75
23	Old Stage - D24	B25	Basic Segment	3750	Rolling	716	14.98	0.00	3	75
24	Old Stage - B25	M26	On Ramp	1500	Rolling	809	13.95	0.00	3	75
25	M26	B27	Basic Segment	15000	Rolling	809	13.95	0.00	3	75
26	NC 50 - B27	D28	Off Ramp	1500	Rolling	809	13.95	0.00	3	75
27	NC 50 - D28	B29	Basic Segment	4150	Rolling	513	20.85	0.00	3	75
28	NC 50 - B29	M30	On Ramp	1500	Rolling	832	15.15	0.00	3	75

RampData

Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	Off Ramp	476	4.00	0.00	1	700	50
4	Off Ramp	44	4.00	0.00	1	925	30
6	On Ramp	272	6.00	0.00	1	1000	50
8	Off Ramp	167	2.00	0.00	1	900	50
10	On Ramp	456	6.00	0.00	1	900	50
12	Off Ramp	238	2.00	0.00	1	225	50
14	On Ramp	301	6.00	0.00	1	1500	30
16	Off Ramp	333	2.00	0.00	1	900	50
18	On Ramp	131	6.00	0.00	1	1500	30
20	On Ramp	418	6.00	0.00	1	1025	50
22	Off Ramp	610	2.00	0.00	1	300	50
24	On Ramp	93	6.00	0.00	1	900	50
26	Off Ramp	296	2.00	0.00	1	1025	50
28	On Ramp	319	6.00	0.00	1	900	50
30	Off Ramp	157	5.00	0.00	2	1500	50
32	Off Ramp	345	5.00	0.00	1	225	50
34	On Ramp	405	6.00	0.00	1	1500	30
36	On Ramp	570	6.00	0.00	1	900	50
38	Off Ramp	386	2.00	0.00	1	300	50
40	On Ramp	386	6.00	0.00	1	1500	30
42	Off Ramp	253	5.00	0.00	1	900	50
44	On Ramp	73	6.00	0.00	1	1425	30
46	On Ramp	341	6.00	0.00	1	900	50
48	Off Ramp	203	2.00	0.00	1	1500	30
50	On Ramp	281	6.00	0.00	1	900	50
52	Off Ramp	56	3.00	3.00	1	1500	30
54	On Ramp	61	6.00	0.00	1	900	50
56	Off Ramp	86	2.00	0.00	1	175	50
59	Off Ramp	458	7.00	0.00	1	525	30
61	On Ramp	2120	6.00	0.00	1	950	50
63	Off Ramp	1064	3.00	0.00	1	200	50
65	On Ramp	1650	4.00	0.00	1	875	50

29	M30	B31	Basic Segment	1500	Rolling	832	15.15	0.00	3	75
30	I-40 - B31	D32	Off Ramp	1500	Rolling	832	15.15	0.00	3	75
31	I-40 - D32	B33	Basic Segment	375	Rolling	675	17.52	0.00	3	75
32	I-40 - B33	D34	Off Ramp	1500	Rolling	675	17.52	0.00	3	75
33	I-40 - D34	B35	Basic Segment	2600	Rolling	330	30.60	0.00	3	75
34	I-40 - B35	M36	On Ramp	1500	Rolling	735	17.04	0.00	3	75
35	I-40 - M36	B37	Basic Segment	4450	Rolling	735	17.04	0.00	3	75
36	I-40 - B37	M38	On Ramp	1500	Rolling	1305	12.22	0.00	3	75
37	M38	B39	Basic Segment	1025	Rolling	1305	12.22	0.00	3	75
38	White Oak - B39	D40	Off Ramp	1500	Rolling	1305	12.22	0.00	3	75
39	White Oak - D40	B41	Basic Segment	1850	Rolling	919	16.51	0.00	3	75
40	White Oak - B41	M42	On Ramp	1500	Rolling	1305	13.40	0.00	3	75
41	M42	B43	Basic Segment	3000	Rolling	1305	13.40	0.00	3	75
42	US 70 - B43	D44	Off Ramp	1500	Rolling	1305	13.40	0.00	3	75
43	US 70 - D44	B45	Basic Segment	1825	Rolling	1052	15.42	0.00	3	75
44	US 70 - B45	M46	On Ramp	1500	Rolling	1125	14.81	0.00	3	75
45	US 70 - M46	B47	Basic Segment	775	Rolling	1125	14.81	0.00	3	75
46	US 70 - B47	M48	On Ramp	1500	Rolling	1466	12.76	0.00	3	75
47	M48	B49	Basic Segment	1275	Rolling	1466	12.76	0.00	3	75
48	Rock Quarry - B49	D50	Off Ramp	1500	Rolling	1466	12.76	0.00	3	75
49	Rock Quarry - D50	B51	Basic Segment	1825	Rolling	1263	14.49	0.00	3	75
50	Rock Quarry - B51	M52	On Ramp	1500	Rolling	1544	12.95	0.00	3	75
51	M52	B53	Basic Segment	8550	Rolling	1544	12.95	0.00	3	75
52	Auburn Knight - B53	D54	Off Ramp	1500	Rolling	1544	12.95	0.00	3	75
53	Auburn Knight - D54	B55	Basic Segment	1575	Rolling	1488	13.32	-0.11	3	75
54	Auburn Knight - B55	M56	On Ramp	1500	Rolling	1549	13.03	-0.11	3	75
55	M56	B57	Basic Segment	2200	Rolling	1549	13.03	-0.11	3	75
56	Poole - B57	D58	Off Ramp	1500	Rolling	1549	13.03	-0.11	3	75
57	Poole - B59	B59	Basic Segment	3800	Rolling	1463	13.68	-0.11	3	75
58	B59	W60	Weaving	1650	Rolling	2107	11.33	-0.08	4	75
59	US 64 - 264 - W60	D61	Off Ramp	1500	Rolling	1758	12.19	-0.10	3	75
60	US 64 - 264 - D61	B62	Basic Segment	3550	Rolling	1300	14.02	-0.13	3	75
61	US 64 - 264 - B62	M63	On Ramp	1500	Rolling	3420	9.05	-0.05	3	75
62	M63	B64	Basic Segment	2350	Rolling	3420	9.05	-0.05	3	75
63	US 64 - B64	D65	Off Ramp	1500	Rolling	3420	9.05	-0.05	3	75
64	US 64 - D65	B66	Basic Segment	4250	Rolling	2356	11.78	-0.07	3	75
65	US 64 - B66	M67	On Ramp	1500	Rolling	4006	8.58	-0.04	3	75
66	M67	End NC540 EB	Basic Segment	5280	Rolling	4006	8.58	-0.04	3	75

Weaving Segment Data

Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp				
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS
58	0.166	644	6.00	0.00	1	50	349	7.00	0.00	1	50

Time Period Independent Weaving Segment Data

Seg #	Configuration	Short Length	# Weaving Lanes	Min. Lane Changes Freeway-Ramp	Min. Lane Changes Ramp-Freeway	Min. Lane Changes Ramp-Ramp
58	OneSide	1650	2	1	1	0

Time Period Results

Time Period 1

Seg #	From	To	Type	Adj. Demand	Vol. Served	Capacity (pc/h)	Capacity (veh/h)	d/c Ratio	v/c ratio	Queue Length (ft)	Avg. Speed (mi/h)	Density (pc/mi/ln)	Density (veh/mi/ln)	Avg. Travel Time (min/veh)	Free-Flow Travel Time (min/veh)	Mainline Delay (min/veh)	System Delay (min/veh)	VMT Demand (veh-min)	VMT Volume (veh-min)	VHT (veh-hrs)	VHD (veh-hrs)	L
1	Begin NC540 EB	B3	Basic Segment	894	894	7200	6606	0.14	0.14	0	75.0	4.3	4.0	0.80	0.80	0.0	0.0	223.5	223.5	3.0	0.0	
2	NC 55 BYP - B3	D4	Off Ramp	894	894	7200	6606	0.14	0.14	0	68.0	4.8	4.4	0.25	0.23	0.0	0.0	63.5	63.5	0.9	0.1	
3	NC 55 BYP - D4	B5	Basic Segment	470	470	7200	6445	0.07	0.07	0	73.2	2.4	2.1	0.03	0.03	0.0	0.0	3.9	3.9	0.1	0.0	
4	NC 55 BYP- B5	D6	Off Ramp	470	470	7200	6445	0.07	0.07	0	62.9	2.8	2.5	0.27	0.23	0.0	0.0	33.4	33.4	0.5	0.1	
5	NC 55 BYP - D6	B7	Basic Segment	431	431	7200	6416	0.07	0.07	0	74.1	2.2	1.9	0.26	0.25	0.0	0.0	34.2	34.2	0.5	0.0	
6	NC 55 BYP - B7	M8	On Ramp	673	673	7200	6483	0.10	0.10	0	69.2	3.5	3.1	0.25	0.23	0.0	0.0	47.8	47.8	0.7	0.1	
7	M8	B9	Basic Segment	673	673	7200	6483	0.10	0.10	0	75.0	3.3	3.0	1.33	1.33	0.0	0.0	280.4	280.4	3.7	0.0	
8	Holly Springs - B9	D10	Off Ramp	673	673	7200	6483	0.10	0.10	0	69.6	3.6	3.2	0.24	0.23	0.0	0.0	47.8	47.8	0.7	0.0	
9	Holly Springs - D10	B11	Basic Segment	524	524	7200	6352	0.08	0.08	0	74.9	2.6	2.3	0.61	0.61	0.0	0.0	100.5	100.5	1.3	0.0	
10	Holly Springs - B11	M12	On Ramp	930	930	7200	6460	0.14	0.14	0	68.7	4.8	4.3	0.25	0.23	0.0	0.0	66.1	66.1	1.0	0.1	
11	M12	B13	Basic Segment	930	930	7200	6460	0.14	0.14	0	75.0	4.6	4.1	1.16	1.16	0.0	0.0	335.8	335.8	4.5	0.0	
12	Bells Lake - B13	D14	Off Ramp	930	930	7200	6460	0.14	0.14	0	69.5	5.0	4.5	0.25	0.23	0.0	0.0	66.1	66.1	0.9	0.1	
13	Bells Lake - D14	B15	Basic Segment	718	718	7200	6318	0.11	0.11	0	74.7	3.6	3.2	0.33	0.33	0.0	0.0	74.8	74.8	1.0	0.0	
14	Bells Lake - B15	M16	On Ramp	986	986	7200	6394	0.15	0.15	0	69.1	5.2	4.6	0.25	0.23	0.0	0.0	70.0	70.0	1.0	0.1	
15	M16	B17	Basic Segment	986	986	7200	6394	0.15	0.15	0	75.0	4.9	4.4	1.41	1.41	0.0	0.0	433.0	433.0	5.8	0.0	
16	US 401 - B17	D18	Off Ramp	986	986	7200	6394	0.15	0.15	0	69.1	5.4	4.8	0.25	0.23	0.0	0.0	70.0	70.0	1.0	0.1	
17	US 401 - D18	B19	Basic Segment	690	690	7200	6168	0.11	0.11	0	74.6	3.6	3.1	0.27	0.27	0.0	0.0	57.2	57.2	0.8	0.0	
18	US 401 - B19	M20	On Ramp	807	807	7200	6228	0.13	0.13	0	69.5	4.4	3.8	0.25	0.23	0.0	0.0	57.3	57.3	0.8	0.1	
19	US 401 - M20	B21	Basic Segment	807	807	7200	6228	0.13	0.13	0	74.0	4.2	3.6	0.09	0.09	0.0	0.0	22.0	22.0	0.3	0.0	
20	US 401 - B21	M22	On Ramp	1179	1179	7200	6342	0.19	0.19	0	69.3	6.2	5.5	0.25	0.23	0.0	0.0	83.7	83.7	1.2	0.1	
21	M22	B23	Basic Segment	1179	1179	7200	6342	0.19	0.19	0	74.9	6.0	5.2	0.64	0.64	0.0	0.0	234.5	234.5	3.1	0.0	
22	Old Stage - B23	D24	Off Ramp	1179	1179	7200	6342	0.19	0.19	0	68.0	6.6	5.8	0.25	0.23	0.0	0.0	83.7	83.7	1.2	0.1	
23	Old Stage - D24	B25	Basic Segment	636	636	7200	5877	0.11	0.11	0	74.9	3.5	2.8	0.57	0.57	0.0	0.0	112.9	112.9	1.5	0.0	
24	Old Stage - B25	M26	On Ramp	719	719	7200	5953	0.12	0.12	0	69.7	4.1	3.4	0.24	0.23	0.0	0.0	51.1	51.1	0.7	0.1	
25	M26	B27	Basic Segment	719	719	7200	5953	0.12	0.12	0	75.0	3.9	3.2	2.27	2.27	0.0	0.0	510.7	510.7	6.8	0.0	
26	NC 50 - B27	D28	Off Ramp	719	719	7200	5953	0.12	0.12	0	69.0	4.2	3.5	0.25	0.23	0.0	0.0	51.1	51.1	0.7	0.1	
27	NC 50 - D28	B29	Basic Segment	456	456	7200	5484	0.08	0.08	0	74.9	2.7	2.0	0.63	0.63	0.0	0.0	89.6	89.6	1.2	0.0	
28	NC 50 - B29	M30	On Ramp	740	740	7200	5866	0.13	0.13	0	69.0	4.2	3.4	0.25	0.23	0.0	0.0	52.6	52.6	0.8	0.1	
29	M30	B31	Basic Segment	740	740	7200	5866	0.13	0.13	0	74.5	4.1	3.3	0.23	0.23	0.0	0.0	52.6	52.6	0.7	0.0	
30	I-40 - B31	D32	Off Ramp	740	740	7200	5866	0.13	0.13	0	72.7	4.2	3.4	0.23	0.23	0.0	0.0	52.6	52.6	0.7	0.0	
31	I-40 - D32	B33	Basic Segment	600	600	7200	5701	0.11	0.11	0	74.5	3.4	2.7	0.06	0.06	0.0	0.0	10.7	10.7	0.1	0.0	
32	I-40 - B33	D34	Off Ramp	600	600	7200	5701	0.11	0.11	0	68.4	3.7	2.9	0.25	0.23	0.0	0.0	42.6	42.6	0.6	0.1	
33	I-40 - D34	B35	Basic Segment	293	293	7200	4932	0.06	0.06	0	74.8	1.9	1.3	0.40	0.39	0.0	0.0	36.1	36.1	0.5	0.0	
34	I-40 - B35	M36	On Ramp	653	653	7200	5733	0.11	0.11	0	68.5	3.8	3.0	0.25	0.23	0.0	0.0	46.4	46.4	0.7	0.1	
35	I-40 - M36	B37	Basic Segment	653	653	7200	5733	0.11	0.11	0	74.9	3.6	2.9	0.67	0.67	0.0	0.0	137.6	137.6	1.8	0.0	
36	I-40 - B37	M38	On Ramp	1160	1160	7200	6084	0.19	0.19	0	68.7	6.4	5.4	0.25	0.23	0.0	0.0	82.4	82.4	1.2	0.1	
37	M38	B39	Basic Segment	1160	1160	7200	6084	0.19	0.19	0	74.2	6.2	5.2	0.16	0.16	0.0	0.0	56.3	56.3	0.8	0.0	
38	White Oak - B39	D40	Off Ramp	1160	1160	7200	6084	0.19	0.19	0	68.8	6.7	5.6	0.25	0.23	0.0	0.0	82.4	82.4	1.2	0.1	
39	White Oak - D40	B41	Basic Segment	816	816	7200	5769	0.14	0.14	0	74.6	4.6	3.6	0.28	0.28	0.0	0.0	71.5	71.5	1.0	0.0	
	White		On																			

40	Oak - B41	M42	Ramp	1160	1160	7200	5994	0.19	0.19	0	69.1	6.5	5.4	0.25	0.23	0.0	0.0	82.4	82.4	1.2	0.1
41	M42	B43	Basic Segment	1160	1160	7200	5994	0.19	0.19	0	74.8	6.2	5.2	0.46	0.45	0.0	0.0	164.8	164.8	2.2	0.0
42	US 70 - B43	D44	Off Ramp	1160	1160	7200	5994	0.19	0.19	0	69.7	6.7	5.5	0.24	0.23	0.0	0.0	82.4	82.4	1.2	0.1
43	US 70 - D44	B45	Basic Segment	935	935	7200	5846	0.16	0.16	0	74.6	5.1	4.2	0.28	0.28	0.0	0.0	80.8	80.8	1.1	0.0
44	US 70 - B45	M46	On Ramp	1000	1000	7200	5890	0.17	0.17	0	69.6	5.8	4.8	0.24	0.23	0.0	0.0	71.0	71.0	1.0	0.1
45	US 70 - M46	B47	Basic Segment	1000	1000	7200	5890	0.17	0.17	0	74.2	5.5	4.5	0.12	0.12	0.0	0.0	36.7	36.7	0.5	0.0
46	US 70 - B47	M48	On Ramp	1303	1303	7200	6042	0.22	0.22	0	69.3	7.3	6.1	0.25	0.23	0.0	0.0	92.5	92.5	1.3	0.1
47	M48	B49	Basic Segment	1303	1303	7200	6042	0.22	0.22	0	74.4	7.0	5.8	0.19	0.19	0.0	0.0	78.7	78.7	1.1	0.0
48	Rock Quarry - B49	D50	Off Ramp	1303	1303	7200	6042	0.22	0.22	0	62.8	8.2	6.9	0.27	0.23	0.0	0.0	92.5	92.5	1.5	0.2
49	Rock Quarry - D50	B51	Basic Segment	1122	1122	7200	5913	0.19	0.19	0	74.2	6.1	5.0	0.28	0.28	0.0	0.0	97.0	97.0	1.3	0.0
50	Rock Quarry - B51	M52	On Ramp	1372	1372	7200	6028	0.23	0.23	0	69.4	7.7	6.5	0.25	0.23	0.0	0.0	97.4	97.4	1.4	0.1
51	M52	B53	Basic Segment	1372	1372	7200	6028	0.23	0.23	0	75.0	7.3	6.1	1.30	1.30	0.0	0.0	555.4	555.4	7.4	0.0
52	Auburn Knight - B53	D54	Off Ramp	1372	1372	7200	6028	0.23	0.23	0	63.6	8.6	7.2	0.27	0.23	0.0	0.0	97.4	97.4	1.5	0.2
53	Auburn Knight - D54	B55	Basic Segment	1322	1322	7200	6005	0.22	0.22	0	74.1	7.1	6.0	0.24	0.24	0.0	0.0	98.6	98.6	1.3	0.0
54	Auburn Knight - B55	M56	On Ramp	1376	1376	7200	6027	0.23	0.23	0	69.7	7.8	6.6	0.24	0.23	0.0	0.0	97.7	97.7	1.4	0.1
55	M56	B57	Basic Segment	1376	1376	7200	6027	0.23	0.23	0	74.7	7.3	6.1	0.33	0.33	0.0	0.0	143.3	143.3	1.9	0.0
56	Poole - B57	D58	Off Ramp	1376	1376	7200	6027	0.23	0.23	0	70.6	7.8	6.5	0.24	0.23	0.0	0.0	97.7	97.7	1.4	0.1
57	Poole - B59	B59	Basic Segment	1299	1299	7200	5978	0.22	0.22	0	74.9	7.0	5.8	0.58	0.58	0.0	0.0	233.7	233.7	3.1	0.0
58	B59	W60	Weaving	1872	1872	6913	5912	0.32	0.32	0	66.1	8.3	7.1	0.28	0.25	0.0	0.0	146.3	146.3	2.2	0.3
59	US 64 - 264 - W60	D61	Off Ramp	1561	1561	7200	6090	0.26	0.26	0	61.7	10.0	8.4	0.28	0.23	0.0	0.0	110.9	110.9	1.8	0.3
60	US 64 - 264 - D61	B62	Basic Segment	1153	1153	7200	5953	0.19	0.19	0	74.8	6.2	5.1	0.54	0.54	0.0	0.0	193.8	193.8	2.6	0.0
61	US 64 - 264 - B62	M63	On Ramp	3040	3040	7200	6342	0.48	0.48	0	66.7	16.2	14.3	0.26	0.23	0.0	0.0	215.9	215.9	3.2	0.4
62	M63	B64	Basic Segment	3040	3040	7200	6342	0.48	0.48	0	74.6	15.4	13.6	0.36	0.36	0.0	0.0	338.3	338.3	4.5	0.0
63	US 64 - B64	D65	Off Ramp	3040	3040	7200	6342	0.48	0.48	0	66.3	17.4	15.3	0.26	0.23	0.0	0.0	215.9	215.9	3.3	0.4
64	US 64 - D65	B66	Basic Segment	2093	2093	7200	6121	0.34	0.34	0	74.9	11.0	9.3	0.64	0.64	0.0	0.0	421.2	421.2	5.6	0.0
65	US 64 - B66	M67	On Ramp	3561	3561	7200	6381	0.56	0.56	0	66.7	19.6	17.3	0.26	0.23	0.0	0.0	252.9	252.9	3.8	0.4
66	M67	End NC540 EB	Basic Segment	3561	3561	7200	6381	0.56	0.56	0	73.7	18.2	16.1	0.81	0.80	0.0	0.0	890.3	890.3	12.1	0.2

Time Period 2

Seg #	From	To	Type	Adj. Demand	Vol. Served	Capacity (pc/h)	Capacity (veh/h)	d/c Ratio	v/c ratio	Queue Length (ft)	Avg. Speed (mi/h)	Density (pc/mi/ln)	Density (veh/mi/ln)	Avg. Travel Time (min/veh)	Free-Flow Travel Time (min/veh)	Mainline Delay (min/veh)	System Delay (min/veh)	VMT Demand (veh-min)	VMT Volume (veh-min)	VHT (veh-hrs)	VHD (veh-hrs)	L
1	Begin NC540 EB	B3	Basic Segment	1006	1006	7200	6606	0.15	0.15	0	75.0	4.9	4.5	0.80	0.80	0.0	0.0	251.5	251.5	3.4	0.0	
2	NC 55 BYP - B3	D4	Off Ramp	1006	1006	7200	6606	0.15	0.15	0	67.9	5.4	4.9	0.25	0.23	0.0	0.0	71.4	71.4	1.1	0.1	
3	NC 55 BYP - D4	B5	Basic Segment	530	530	7200	6446	0.08	0.08	0	73.2	2.7	2.4	0.03	0.03	0.0	0.0	4.4	4.4	0.1	0.0	
4	NC 55 BYP- B5	D6	Off Ramp	530	530	7200	6446	0.08	0.08	0	62.9	3.1	2.8	0.27	0.23	0.0	0.0	37.6	37.6	0.6	0.1	
5	NC 55 BYP - D6	B7	Basic Segment	486	486	7200	6417	0.08	0.08	0	74.1	2.5	2.2	0.26	0.25	0.0	0.0	38.5	38.5	0.5	0.0	
6	NC 55 BYP - B7	M8	On Ramp	758	758	7200	6483	0.12	0.12	0	69.2	3.9	3.5	0.25	0.23	0.0	0.0	53.8	53.8	0.8	0.1	
7	M8	B9	Basic Segment	758	758	7200	6483	0.12	0.12	0	75.0	3.7	3.4	1.33	1.33	0.0	0.0	315.8	315.8	4.2	0.0	
8	Holly Springs - B9	D10	Off Ramp	758	758	7200	6483	0.12	0.12	0	69.6	4.0	3.6	0.24	0.23	0.0	0.0	53.8	53.8	0.8	0.1	
9	Holly Springs - D10	B11	Basic Segment	591	591	7200	6353	0.09	0.09	0	74.9	3.0	2.6	0.61	0.61	0.0	0.0	113.3	113.3	1.5	0.0	
10	Holly Springs - B11	M12	On Ramp	1047	1047	7200	6460	0.16	0.16	0	68.7	5.4	4.9	0.25	0.23	0.0	0.0	74.4	74.4	1.1	0.1	
11	M12	B13	Basic Segment	1047	1047	7200	6460	0.16	0.16	0	75.0	5.2	4.7	1.16	1.16	0.0	0.0	378.0	378.0	5.0	0.0	
	Bells																					

12	Lake - B13	D14	Off Ramp	1047	1047	7200	6460	0.16	0.16	0	69.5	5.6	5.0	0.25	0.23	0.0	0.0	74.4	74.4	1.1	0.1
13	Bells Lake - D14	B15	Basic Segment	809	809	7200	6320	0.13	0.13	0	74.7	4.1	3.6	0.33	0.33	0.0	0.0	84.3	84.3	1.1	0.0
14	Bells Lake - B15	M16	On Ramp	1110	1110	7200	6395	0.17	0.17	0	69.1	5.9	5.2	0.25	0.23	0.0	0.0	78.8	78.8	1.1	0.1
15	M16	B17	Basic Segment	1110	1110	7200	6395	0.17	0.17	0	75.0	5.6	4.9	1.41	1.41	0.0	0.0	487.5	487.5	6.5	0.0
16	US 401 - B17	D18	Off Ramp	1110	1110	7200	6395	0.17	0.17	0	69.1	6.0	5.4	0.25	0.23	0.0	0.0	78.8	78.8	1.1	0.1
17	US 401 - D18	B19	Basic Segment	777	777	7200	6169	0.13	0.13	0	74.6	4.1	3.5	0.27	0.27	0.0	0.0	64.4	64.4	0.9	0.0
18	US 401 - B19	M20	On Ramp	908	908	7200	6229	0.15	0.15	0	69.5	5.0	4.3	0.25	0.23	0.0	0.0	64.5	64.5	0.9	0.1
19	US 401 - M20	B21	Basic Segment	908	908	7200	6229	0.15	0.15	0	74.0	4.7	4.1	0.09	0.09	0.0	0.0	24.7	24.7	0.3	0.0
20	US 401 - B21	M22	On Ramp	1326	1326	7200	6343	0.21	0.21	0	69.3	7.0	6.2	0.25	0.23	0.0	0.0	94.2	94.2	1.4	0.1
21	M22	B23	Basic Segment	1326	1326	7200	6343	0.21	0.21	0	74.9	6.7	5.9	0.64	0.64	0.0	0.0	263.7	263.7	3.5	0.0
22	Old Stage - B23	D24	Off Ramp	1326	1326	7200	6343	0.21	0.21	0	67.9	7.4	6.5	0.25	0.23	0.0	0.0	94.2	94.2	1.4	0.1
23	Old Stage - D24	B25	Basic Segment	716	716	7200	5879	0.12	0.12	0	74.9	3.9	3.2	0.57	0.57	0.0	0.0	127.1	127.1	1.7	0.0
24	Old Stage - B25	M26	On Ramp	809	809	7200	5954	0.14	0.14	0	69.7	4.6	3.8	0.24	0.23	0.0	0.0	57.5	57.5	0.8	0.1
25	M26	B27	Basic Segment	809	809	7200	5954	0.14	0.14	0	75.0	4.3	3.6	2.27	2.27	0.0	0.0	574.6	574.6	7.7	0.0
26	NC 50 - B27	D28	Off Ramp	809	809	7200	5954	0.14	0.14	0	69.0	4.7	3.9	0.25	0.23	0.0	0.0	57.5	57.5	0.8	0.1
27	NC 50 - D28	B29	Basic Segment	513	513	7200	5485	0.09	0.09	0	74.9	3.0	2.3	0.63	0.63	0.0	0.0	100.8	100.8	1.3	0.0
28	NC 50 - B29	M30	On Ramp	832	832	7200	5866	0.14	0.14	0	69.0	4.8	3.9	0.25	0.23	0.0	0.0	59.1	59.1	0.9	0.1
29	M30	B31	Basic Segment	832	832	7200	5866	0.14	0.14	0	74.5	4.6	3.7	0.23	0.23	0.0	0.0	59.1	59.1	0.8	0.0
30	I-40 - B31	D32	Off Ramp	832	832	7200	5866	0.14	0.14	0	72.7	4.7	3.8	0.23	0.23	0.0	0.0	59.1	59.1	0.8	0.0
31	I-40 - D32	B33	Basic Segment	675	675	7200	5702	0.12	0.12	0	74.5	3.8	3.0	0.06	0.06	0.0	0.0	12.0	12.0	0.2	0.0
32	I-40 - B33	D34	Off Ramp	675	675	7200	5702	0.12	0.12	0	68.3	4.2	3.3	0.25	0.23	0.0	0.0	47.9	47.9	0.7	0.1
33	I-40 - D34	B35	Basic Segment	330	330	7200	4935	0.07	0.07	0	74.8	2.1	1.5	0.40	0.39	0.0	0.0	40.6	40.6	0.5	0.0
34	I-40 - B35	M36	On Ramp	735	735	7200	5734	0.13	0.13	0	68.5	4.2	3.4	0.25	0.23	0.0	0.0	52.2	52.2	0.8	0.1
35	I-40 - M36	B37	Basic Segment	735	735	7200	5734	0.13	0.13	0	74.9	4.1	3.3	0.67	0.67	0.0	0.0	154.9	154.9	2.1	0.0
36	I-40 - B37	M38	On Ramp	1305	1305	7200	6085	0.21	0.21	0	68.7	7.2	6.1	0.25	0.23	0.0	0.0	92.7	92.7	1.3	0.1
37	M38	B39	Basic Segment	1305	1305	7200	6085	0.21	0.21	0	74.2	6.9	5.9	0.16	0.16	0.0	0.0	63.3	63.3	0.9	0.0
38	White Oak - B39	D40	Off Ramp	1305	1305	7200	6085	0.21	0.21	0	68.6	7.5	6.3	0.25	0.23	0.0	0.0	92.7	92.7	1.4	0.1
39	White Oak - D40	B41	Basic Segment	919	919	7200	5771	0.16	0.16	0	74.6	5.1	4.1	0.28	0.28	0.0	0.0	80.5	80.5	1.1	0.0
40	White Oak - B41	M42	On Ramp	1305	1305	7200	5995	0.22	0.22	0	69.0	7.4	6.1	0.25	0.23	0.0	0.0	92.7	92.7	1.3	0.1
41	M42	B43	Basic Segment	1305	1305	7200	5995	0.22	0.22	0	74.8	7.0	5.8	0.46	0.45	0.0	0.0	185.4	185.4	2.5	0.0
42	US 70 - B43	D44	Off Ramp	1305	1305	7200	5995	0.22	0.22	0	69.7	7.5	6.2	0.24	0.23	0.0	0.0	92.7	92.7	1.3	0.1
43	US 70 - D44	B45	Basic Segment	1052	1052	7200	5847	0.18	0.18	0	74.6	5.8	4.7	0.28	0.28	0.0	0.0	90.9	90.9	1.2	0.0
44	US 70 - B45	M46	On Ramp	1125	1125	7200	5891	0.19	0.19	0	69.6	6.5	5.4	0.24	0.23	0.0	0.0	79.9	79.9	1.1	0.1
45	US 70 - M46	B47	Basic Segment	1125	1125	7200	5891	0.19	0.19	0	74.1	6.2	5.1	0.12	0.12	0.0	0.0	41.3	41.3	0.6	0.0
46	US 70 - B47	M48	On Ramp	1466	1466	7200	6043	0.24	0.24	0	69.2	8.2	6.9	0.25	0.23	0.0	0.0	104.1	104.1	1.5	0.1
47	M48	B49	Basic Segment	1466	1466	7200	6043	0.24	0.24	0	74.4	7.8	6.6	0.19	0.19	0.0	0.0	88.5	88.5	1.2	0.0
48	Rock Quarry - B49	D50	Off Ramp	1466	1466	7200	6043	0.24	0.24	0	62.9	9.3	7.8	0.27	0.23	0.0	0.0	104.1	104.1	1.7	0.3
49	Rock Quarry - D50	B51	Basic Segment	1263	1263	7200	5914	0.21	0.21	0	74.2	6.9	5.7	0.28	0.28	0.0	0.0	109.1	109.1	1.5	0.0
50	Rock Quarry - B51	M52	On Ramp	1544	1544	7200	6029	0.26	0.26	0	69.3	8.7	7.3	0.25	0.23	0.0	0.0	109.7	109.7	1.6	0.1
51	M52	B53	Basic Segment	1544	1544	7200	6029	0.26	0.26	0	75.0	8.2	6.9	1.30	1.30	0.0	0.0	625.1	625.1	8.3	0.0
52	Auburn Knight - B53	D54	Off Ramp	1544	1544	7200	6029	0.26	0.26	0	63.7	9.7	8.1	0.27	0.23	0.0	0.0	109.7	109.7	1.7	0.3
53	Auburn Knight - D54	B55	Basic Segment	1488	1488	7200	6007	0.25	0.25	0	74.1	8.0	6.7	0.24	0.24	0.0	0.0	111.0	111.0	1.5	0.0
54	Auburn Knight - B55	M56	On Ramp	1549	1549	7200	6028	0.26	0.26	0	69.6	8.8	7.4	0.24	0.23	0.0	0.0	110.0	110.0	1.6	0.1
55	M56	B57	Basic Segment	1549	1549	7200	6028	0.26	0.26	0	74.7	8.3	6.9	0.33	0.33	0.0	0.0	161.4	161.4	2.2	0.0

56	Poole - B57	D58	Off Ramp	1549	1549	7200	6028	0.26	0.26	0	70.7	8.7	7.3	0.24	0.23	0.0	0.0	110.0	110.0	1.6	0.1
57	Poole - B59	B59	Basic Segment	1463	1463	7200	5980	0.24	0.24	0	74.9	7.8	6.5	0.58	0.58	0.0	0.0	263.2	263.2	3.5	0.0
58	B59	W60	Weaving	2107	2107	6927	5924	0.36	0.36	0	65.2	9.4	8.1	0.29	0.25	0.0	0.0	164.6	164.6	2.5	0.3
59	US 64 - 264 - W60	D61	Off Ramp	1758	1758	7200	6092	0.29	0.29	0	61.7	11.2	9.5	0.28	0.23	0.0	0.0	124.9	124.9	2.0	0.4
60	US 64 - 264 - D61	B62	Basic Segment	1300	1300	7200	5955	0.22	0.22	0	74.8	7.0	5.8	0.54	0.54	0.0	0.0	218.5	218.5	2.9	0.0
61	US 64 - 264 - B62	M63	On Ramp	3420	3420	7200	6342	0.54	0.54	0	65.9	18.5	16.3	0.26	0.23	0.0	0.0	242.9	242.9	3.7	0.4
62	M63	B64	Basic Segment	3420	3420	7200	6342	0.54	0.54	0	74.0	17.5	15.4	0.36	0.36	0.0	0.0	380.5	380.5	5.1	0.1
63	US 64 - B64	D65	Off Ramp	3420	3420	7200	6342	0.54	0.54	0	65.8	19.7	17.3	0.26	0.23	0.0	0.0	242.9	242.9	3.7	0.5
64	US 64 - D65	B66	Basic Segment	2356	2356	7200	6122	0.38	0.38	0	74.9	12.3	10.5	0.64	0.64	0.0	0.0	474.1	474.1	6.3	0.0
65	US 64 - B66	M67	On Ramp	4006	4006	7200	6382	0.63	0.63	0	65.7	22.4	19.8	0.26	0.23	0.0	0.0	284.5	284.5	4.3	0.5
66	M67	End NC540 EB	Basic Segment	4006	4006	7200	6382	0.63	0.63	0	72.2	20.9	18.5	0.83	0.80	0.0	0.0	1001.5	1001.5	13.9	0.5

Time Period 3

Seg #	From	To	Type	Adj. Demand	Vol. Served	Capacity (pc/h)	Capacity (veh/h)	d/c Ratio	v/c ratio	Queue Length (ft)	Avg. Speed (mi/h)	Density (pc/mi/ln)	Density (veh/mi/ln)	Avg. Travel Time (min/veh)	Free-Flow Travel Time (min/veh)	Mainline Delay (min/veh)	System Delay (min/veh)	VMT Demand (veh-min)	VMT Volume (veh-min)	VHT (veh-hrs)	VHD (veh-hrs)	L
1	Begin NC540 EB	B3	Basic Segment	1118	1118	7200	6606	0.17	0.17	0	75.0	5.4	5.0	0.80	0.80	0.0	0.0	279.5	279.5	3.7	0.0	
2	NC 55 BYP - B3	D4	Off Ramp	1118	1118	7200	6606	0.17	0.17	0	67.8	6.0	5.5	0.25	0.23	0.0	0.0	79.4	79.4	1.2	0.1	
3	NC 55 BYP - D4	B5	Basic Segment	590	590	7200	6447	0.09	0.09	0	73.2	3.0	2.7	0.03	0.03	0.0	0.0	4.9	4.9	0.1	0.0	
4	NC 55 BYP- B5	D6	Off Ramp	590	590	7200	6447	0.09	0.09	0	62.9	3.5	3.1	0.27	0.23	0.0	0.0	41.9	41.9	0.7	0.1	
5	NC 55 BYP - D6	B7	Basic Segment	541	541	7200	6417	0.08	0.08	0	74.1	2.7	2.4	0.26	0.25	0.0	0.0	42.9	42.9	0.6	0.0	
6	NC 55 BYP - B7	M8	On Ramp	843	843	7200	6483	0.13	0.13	0	69.2	4.4	3.9	0.25	0.23	0.0	0.0	59.9	59.9	0.9	0.1	
7	M8	B9	Basic Segment	843	843	7200	6483	0.13	0.13	0	75.0	4.2	3.7	1.33	1.33	0.0	0.0	351.3	351.3	4.7	0.0	
8	Holly Springs - B9	D10	Off Ramp	843	843	7200	6483	0.13	0.13	0	69.6	4.5	4.0	0.24	0.23	0.0	0.0	59.9	59.9	0.9	0.1	
9	Holly Springs - D10	B11	Basic Segment	658	658	7200	6354	0.10	0.10	0	74.9	3.3	2.9	0.61	0.61	0.0	0.0	126.2	126.2	1.7	0.0	
10	Holly Springs - B11	M12	On Ramp	1164	1164	7200	6461	0.18	0.18	0	68.7	6.0	5.4	0.25	0.23	0.0	0.0	82.7	82.7	1.2	0.1	
11	M12	B13	Basic Segment	1164	1164	7200	6461	0.18	0.18	0	75.0	5.8	5.2	1.16	1.16	0.0	0.0	420.2	420.2	5.6	0.0	
12	Bells Lake - B13	D14	Off Ramp	1164	1164	7200	6461	0.18	0.18	0	69.5	6.2	5.6	0.25	0.23	0.0	0.0	82.7	82.7	1.2	0.1	
13	Bells Lake - D14	B15	Basic Segment	900	900	7200	6320	0.14	0.14	0	74.7	4.6	4.0	0.33	0.33	0.0	0.0	93.8	93.8	1.3	0.0	
14	Bells Lake - B15	M16	On Ramp	1234	1234	7200	6395	0.19	0.19	0	69.1	6.5	5.8	0.25	0.23	0.0	0.0	87.6	87.6	1.3	0.1	
15	M16	B17	Basic Segment	1234	1234	7200	6395	0.19	0.19	0	75.0	6.2	5.5	1.41	1.41	0.0	0.0	541.9	541.9	7.2	0.0	
16	US 401 - B17	D18	Off Ramp	1234	1234	7200	6395	0.19	0.19	0	69.0	6.7	6.0	0.25	0.23	0.0	0.0	87.6	87.6	1.3	0.1	
17	US 401 - D18	B19	Basic Segment	864	864	7200	6170	0.14	0.14	0	74.6	4.5	3.9	0.27	0.27	0.0	0.0	71.6	71.6	1.0	0.0	
18	US 401 - B19	M20	On Ramp	1009	1009	7200	6229	0.16	0.16	0	69.5	5.5	4.8	0.25	0.23	0.0	0.0	71.7	71.7	1.0	0.1	
19	US 401 - M20	B21	Basic Segment	1009	1009	7200	6229	0.16	0.16	0	74.0	5.3	4.5	0.09	0.09	0.0	0.0	27.5	27.5	0.4	0.0	
20	US 401 - B21	M22	On Ramp	1473	1473	7200	6343	0.23	0.23	0	69.3	7.8	6.9	0.25	0.23	0.0	0.0	104.6	104.6	1.5	0.1	
21	M22	B23	Basic Segment	1473	1473	7200	6343	0.23	0.23	0	74.9	7.4	6.6	0.64	0.64	0.0	0.0	292.9	292.9	3.9	0.0	
22	Old Stage - B23	D24	Off Ramp	1473	1473	7200	6343	0.23	0.23	0	67.7	8.2	7.2	0.25	0.23	0.0	0.0	104.6	104.6	1.5	0.1	
23	Old Stage - D24	B25	Basic Segment	796	796	7200	5880	0.14	0.14	0	74.9	4.3	3.5	0.57	0.57	0.0	0.0	141.3	141.3	1.9	0.0	
24	Old Stage - B25	M26	On Ramp	899	899	7200	5955	0.15	0.15	0	69.7	5.1	4.3	0.24	0.23	0.0	0.0	63.8	63.8	0.9	0.1	
25	M26	B27	Basic Segment	899	899	7200	5955	0.15	0.15	0	75.0	4.8	4.0	2.27	2.27	0.0	0.0	638.5	638.5	8.5	0.0	
26	NC 50 - B27	D28	Off Ramp	899	899	7200	5955	0.15	0.15	0	68.9	5.3	4.3	0.25	0.23	0.0	0.0	63.8	63.8	0.9	0.1	
27	NC 50 - D28	B29	Basic Segment	570	570	7200	5486	0.10	0.10	0	74.9	3.3	2.5	0.63	0.63	0.0	0.0	112.0	112.0	1.5	0.0	
	NC 50		On																			

28	- B29	M30	Ramp	924	924	7200	5867	0.16	0.16	0	69.0	5.3	4.3	0.25	0.23	0.0	0.0	65.6	65.6	1.0	0.1
29	M30	B31	Basic Segment	924	924	7200	5867	0.16	0.16	0	74.5	5.1	4.1	0.23	0.23	0.0	0.0	65.6	65.6	0.9	0.0
30	I-40 - B31	D32	Off Ramp	924	924	7200	5867	0.16	0.16	0	72.6	5.2	4.2	0.23	0.23	0.0	0.0	65.6	65.6	0.9	0.0
31	I-40 - D32	B33	Basic Segment	750	750	7200	5703	0.13	0.13	0	74.5	4.2	3.4	0.06	0.06	0.0	0.0	13.3	13.3	0.2	0.0
32	I-40 - B33	D34	Off Ramp	750	750	7200	5703	0.13	0.13	0	68.2	4.6	3.7	0.25	0.23	0.0	0.0	53.3	53.3	0.8	0.1
33	I-40 - D34	B35	Basic Segment	367	367	7200	4937	0.07	0.07	0	74.8	2.4	1.6	0.40	0.39	0.0	0.0	45.2	45.2	0.6	0.0
34	I-40 - B35	M36	On Ramp	817	817	7200	5735	0.14	0.14	0	68.4	4.7	3.7	0.25	0.23	0.0	0.0	58.0	58.0	0.8	0.1
35	I-40 - M36	B37	Basic Segment	817	817	7200	5735	0.14	0.14	0	74.9	4.6	3.6	0.67	0.67	0.0	0.0	172.1	172.1	2.3	0.0
36	I-40 - B37	M38	On Ramp	1450	1450	7200	6085	0.24	0.24	0	68.6	8.0	6.7	0.25	0.23	0.0	0.0	103.0	103.0	1.5	0.1
37	M38	B39	Basic Segment	1450	1450	7200	6085	0.24	0.24	0	74.2	7.7	6.5	0.16	0.16	0.0	0.0	70.4	70.4	0.9	0.0
38	White Oak - B39	D40	Off Ramp	1450	1450	7200	6085	0.24	0.24	0	68.5	8.4	7.1	0.25	0.23	0.0	0.0	103.0	103.0	1.5	0.1
39	White Oak - D40	B41	Basic Segment	1022	1022	7200	5772	0.18	0.18	0	74.6	5.7	4.6	0.28	0.28	0.0	0.0	89.5	89.5	1.2	0.0
40	White Oak - B41	M42	On Ramp	1450	1450	7200	5995	0.24	0.24	0	69.0	8.2	6.8	0.25	0.23	0.0	0.0	103.0	103.0	1.5	0.1
41	M42	B43	Basic Segment	1450	1450	7200	5995	0.24	0.24	0	74.8	7.8	6.5	0.46	0.45	0.0	0.0	206.0	206.0	2.8	0.0
42	US 70 - B43	D44	Off Ramp	1450	1450	7200	5995	0.24	0.24	0	69.7	8.3	6.9	0.24	0.23	0.0	0.0	103.0	103.0	1.5	0.1
43	US 70 - D44	B45	Basic Segment	1169	1169	7200	5848	0.20	0.20	0	74.6	6.4	5.2	0.28	0.28	0.0	0.0	101.0	101.0	1.4	0.0
44	US 70 - B45	M46	On Ramp	1250	1250	7200	5892	0.21	0.21	0	69.5	7.3	6.0	0.25	0.23	0.0	0.0	88.8	88.8	1.3	0.1
45	US 70 - M46	B47	Basic Segment	1250	1250	7200	5892	0.21	0.21	0	74.1	6.9	5.6	0.12	0.12	0.0	0.0	45.9	45.9	0.6	0.0
46	US 70 - B47	M48	On Ramp	1629	1629	7200	6044	0.27	0.27	0	69.1	9.2	7.7	0.25	0.23	0.0	0.0	115.7	115.7	1.7	0.1
47	M48	B49	Basic Segment	1629	1629	7200	6044	0.27	0.27	0	74.4	8.7	7.3	0.19	0.19	0.0	0.0	98.3	98.3	1.3	0.0
48	Rock Quarry - B49	D50	Off Ramp	1629	1629	7200	6044	0.27	0.27	0	62.9	10.3	8.6	0.27	0.23	0.0	0.0	115.7	115.7	1.8	0.3
49	Rock Quarry - D50	B51	Basic Segment	1404	1404	7200	5915	0.24	0.24	0	74.2	7.7	6.3	0.28	0.28	0.0	0.0	121.3	121.3	1.6	0.0
50	Rock Quarry - B51	M52	On Ramp	1716	1716	7200	6030	0.28	0.28	0	69.2	9.7	8.1	0.25	0.23	0.0	0.0	121.9	121.9	1.8	0.1
51	M52	B53	Basic Segment	1716	1716	7200	6030	0.28	0.28	0	75.0	9.1	7.6	1.30	1.30	0.0	0.0	694.7	694.7	9.3	0.0
52	Auburn Knight - B53	D54	Off Ramp	1716	1716	7200	6030	0.28	0.28	0	63.8	10.7	9.0	0.27	0.23	0.0	0.0	121.9	121.9	1.9	0.3
53	Auburn Knight - D54	B55	Basic Segment	1654	1654	7200	6007	0.28	0.28	0	74.1	8.9	7.4	0.24	0.24	0.0	0.0	123.3	123.3	1.7	0.0
54	Auburn Knight - B55	M56	On Ramp	1722	1722	7200	6029	0.29	0.29	0	69.5	9.8	8.2	0.25	0.23	0.0	0.0	122.3	122.3	1.8	0.1
55	M56	B57	Basic Segment	1722	1722	7200	6029	0.29	0.29	0	74.7	9.2	7.7	0.33	0.33	0.0	0.0	179.4	179.4	2.4	0.0
56	Poole - B57	D58	Off Ramp	1722	1722	7200	6029	0.29	0.29	0	70.7	9.7	8.1	0.24	0.23	0.0	0.0	122.3	122.3	1.7	0.1
57	Poole - B59	B59	Basic Segment	1627	1627	7200	5981	0.27	0.27	0	74.9	8.7	7.2	0.58	0.58	0.0	0.0	292.7	292.7	3.9	0.0
58	B59	W60	Weaving	2342	2342	6936	5933	0.39	0.39	0	64.4	10.6	9.1	0.29	0.25	0.0	0.0	183.0	183.0	2.8	0.4
59	US 64 - 264 - W60	D61	Off Ramp	1955	1955	7200	6093	0.32	0.32	0	61.7	12.5	10.6	0.28	0.23	0.0	0.0	138.8	138.8	2.3	0.4
60	US 64 - 264 - D61	B62	Basic Segment	1447	1447	7200	5957	0.24	0.24	0	74.8	7.8	6.5	0.54	0.54	0.0	0.0	243.2	243.2	3.3	0.0
61	US 64 - 264 - B62	M63	On Ramp	3800	3800	7200	6342	0.60	0.60	0	64.8	20.9	18.4	0.26	0.23	0.0	0.0	269.9	269.9	4.2	0.6
62	M63	B64	Basic Segment	3800	3800	7200	6342	0.60	0.60	0	72.9	19.7	17.4	0.37	0.36	0.0	0.0	422.8	422.8	5.8	0.2
63	US 64 - B64	D65	Off Ramp	3800	3800	7200	6342	0.60	0.60	0	65.4	22.0	19.4	0.26	0.23	0.0	0.0	269.9	269.9	4.1	0.5
64	US 64 - D65	B66	Basic Segment	2619	2619	7200	6123	0.43	0.43	0	74.9	13.7	11.7	0.64	0.64	0.0	0.0	527.0	527.0	7.0	0.0
65	US 64 - B66	M67	On Ramp	4451	4451	7200	6382	0.70	0.70	0	64.2	25.4	22.5	0.27	0.23	0.0	0.0	316.1	316.1	4.9	0.7
66	M67	End NC540 EB	Basic Segment	4451	4451	7200	6382	0.70	0.70	0	70.0	23.9	21.2	0.86	0.80	0.1	0.1	1112.8	1112.8	15.9	1.1

Time Period 4

Seg #	From	To	Type	Adj. Demand	Vol. Served	Capacity (pc/h)	Capacity (veh/h)	d/c Ratio	v/c ratio	Queue Length (ft)	Avg. Speed (mi/h)	Density (pc/mi/ln)	Density (veh/mi/ln)	Avg. Travel Time (min/veh)	Free-Flow Travel Time (min/veh)	Mainline Delay (min/veh)	System Delay (min/veh)	VMT Demand (veh-min)	VMT Volume (veh-min)	VHT (veh-hrs)	VHD (veh-hrs)	L
1	Begin NC540 EB	B3	Basic Segment	1006	1006	7200	6606	0.15	0.15	0	75.0	4.9	4.5	0.80	0.80	0.0	0.0	251.5	251.5	3.4	0.0	
2	NC 55 BYP -	D4	Off	1006	1006	7200	6606	0.15	0.15	0	67.9	5.4	4.9	0.25	0.23	0.0	0.0	71.4	71.4	1.1	0.1	

	B3		Ramp																			
3	NC 55 BYP - D4	B5	Basic Segment	530	530	7200	6446	0.08	0.08	0	73.2	2.7	2.4	0.03	0.03	0.0	0.0	4.4	4.4	0.1	0.0	
4	NC 55 BYP- B5	D6	Off Ramp	530	530	7200	6446	0.08	0.08	0	62.9	3.1	2.8	0.27	0.23	0.0	0.0	37.6	37.6	0.6	0.1	
5	NC 55 BYP - D6	B7	Basic Segment	486	486	7200	6417	0.08	0.08	0	74.1	2.5	2.2	0.26	0.25	0.0	0.0	38.5	38.5	0.5	0.0	
6	NC 55 BYP - B7	M8	On Ramp	758	758	7200	6483	0.12	0.12	0	69.2	3.9	3.5	0.25	0.23	0.0	0.0	53.8	53.8	0.8	0.1	
7	M8	B9	Basic Segment	758	758	7200	6483	0.12	0.12	0	75.0	3.7	3.4	1.33	1.33	0.0	0.0	315.8	315.8	4.2	0.0	
8	Holly Springs - B9	D10	Off Ramp	758	758	7200	6483	0.12	0.12	0	69.6	4.0	3.6	0.24	0.23	0.0	0.0	53.8	53.8	0.8	0.1	
9	Holly Springs - D10	B11	Basic Segment	591	591	7200	6353	0.09	0.09	0	74.9	3.0	2.6	0.61	0.61	0.0	0.0	113.3	113.3	1.5	0.0	
10	Holly Springs - B11	M12	On Ramp	1047	1047	7200	6460	0.16	0.16	0	68.7	5.4	4.9	0.25	0.23	0.0	0.0	74.4	74.4	1.1	0.1	
11	M12	B13	Basic Segment	1047	1047	7200	6460	0.16	0.16	0	75.0	5.2	4.7	1.16	1.16	0.0	0.0	378.0	378.0	5.0	0.0	
12	Bells Lake - B13	D14	Off Ramp	1047	1047	7200	6460	0.16	0.16	0	69.5	5.6	5.0	0.25	0.23	0.0	0.0	74.4	74.4	1.1	0.1	
13	Bells Lake - D14	B15	Basic Segment	809	809	7200	6320	0.13	0.13	0	74.7	4.1	3.6	0.33	0.33	0.0	0.0	84.3	84.3	1.1	0.0	
14	Bells Lake - B15	M16	On Ramp	1110	1110	7200	6395	0.17	0.17	0	69.1	5.9	5.2	0.25	0.23	0.0	0.0	78.8	78.8	1.1	0.1	
15	M16	B17	Basic Segment	1110	1110	7200	6395	0.17	0.17	0	75.0	5.6	4.9	1.41	1.41	0.0	0.0	487.5	487.5	6.5	0.0	
16	US 401 - B17	D18	Off Ramp	1110	1110	7200	6395	0.17	0.17	0	69.1	6.0	5.4	0.25	0.23	0.0	0.0	78.8	78.8	1.1	0.1	
17	US 401 - D18	B19	Basic Segment	777	777	7200	6169	0.13	0.13	0	74.6	4.1	3.5	0.27	0.27	0.0	0.0	64.4	64.4	0.9	0.0	
18	US 401 - B19	M20	On Ramp	908	908	7200	6229	0.15	0.15	0	69.5	5.0	4.3	0.25	0.23	0.0	0.0	64.5	64.5	0.9	0.1	
19	US 401 - M20	B21	Basic Segment	908	908	7200	6229	0.15	0.15	0	74.0	4.7	4.1	0.09	0.09	0.0	0.0	24.7	24.7	0.3	0.0	
20	US 401 - B21	M22	On Ramp	1326	1326	7200	6343	0.21	0.21	0	69.3	7.0	6.2	0.25	0.23	0.0	0.0	94.2	94.2	1.4	0.1	
21	M22	B23	Basic Segment	1326	1326	7200	6343	0.21	0.21	0	74.9	6.7	5.9	0.64	0.64	0.0	0.0	263.7	263.7	3.5	0.0	
22	Old Stage - B23	D24	Off Ramp	1326	1326	7200	6343	0.21	0.21	0	67.9	7.4	6.5	0.25	0.23	0.0	0.0	94.2	94.2	1.4	0.1	
23	Old Stage - D24	B25	Basic Segment	716	716	7200	5879	0.12	0.12	0	74.9	3.9	3.2	0.57	0.57	0.0	0.0	127.1	127.1	1.7	0.0	
24	Old Stage - B25	M26	On Ramp	809	809	7200	5954	0.14	0.14	0	69.7	4.6	3.8	0.24	0.23	0.0	0.0	57.5	57.5	0.8	0.1	
25	M26	B27	Basic Segment	809	809	7200	5954	0.14	0.14	0	75.0	4.3	3.6	2.27	2.27	0.0	0.0	574.6	574.6	7.7	0.0	
26	NC 50 - B27	D28	Off Ramp	809	809	7200	5954	0.14	0.14	0	69.0	4.7	3.9	0.25	0.23	0.0	0.0	57.5	57.5	0.8	0.1	
27	NC 50 - D28	B29	Basic Segment	513	513	7200	5485	0.09	0.09	0	74.9	3.0	2.3	0.63	0.63	0.0	0.0	100.8	100.8	1.3	0.0	
28	NC 50 - B29	M30	On Ramp	832	832	7200	5866	0.14	0.14	0	69.0	4.8	3.9	0.25	0.23	0.0	0.0	59.1	59.1	0.9	0.1	
29	M30	B31	Basic Segment	832	832	7200	5866	0.14	0.14	0	74.5	4.6	3.7	0.23	0.23	0.0	0.0	59.1	59.1	0.8	0.0	
30	I-40 - B31	D32	Off Ramp	832	832	7200	5866	0.14	0.14	0	72.7	4.7	3.8	0.23	0.23	0.0	0.0	59.1	59.1	0.8	0.0	
31	I-40 - D32	B33	Basic Segment	675	675	7200	5702	0.12	0.12	0	74.5	3.8	3.0	0.06	0.06	0.0	0.0	12.0	12.0	0.2	0.0	
32	I-40 - B33	D34	Off Ramp	675	675	7200	5702	0.12	0.12	0	68.3	4.2	3.3	0.25	0.23	0.0	0.0	47.9	47.9	0.7	0.1	
33	I-40 - D34	B35	Basic Segment	330	330	7200	4935	0.07	0.07	0	74.8	2.1	1.5	0.40	0.39	0.0	0.0	40.6	40.6	0.5	0.0	
34	I-40 - B35	M36	On Ramp	735	735	7200	5734	0.13	0.13	0	68.5	4.2	3.4	0.25	0.23	0.0	0.0	52.2	52.2	0.8	0.1	
35	I-40 - M36	B37	Basic Segment	735	735	7200	5734	0.13	0.13	0	74.9	4.1	3.3	0.67	0.67	0.0	0.0	154.9	154.9	2.1	0.0	
36	I-40 - B37	M38	On Ramp	1305	1305	7200	6085	0.21	0.21	0	68.7	7.2	6.1	0.25	0.23	0.0	0.0	92.7	92.7	1.3	0.1	
37	M38	B39	Basic Segment	1305	1305	7200	6085	0.21	0.21	0	74.2	6.9	5.9	0.16	0.16	0.0	0.0	63.3	63.3	0.9	0.0	
38	White Oak - B39	D40	Off Ramp	1305	1305	7200	6085	0.21	0.21	0	68.6	7.5	6.3	0.25	0.23	0.0	0.0	92.7	92.7	1.4	0.1	
39	White Oak - D40	B41	Basic Segment	919	919	7200	5771	0.16	0.16	0	74.6	5.1	4.1	0.28	0.28	0.0	0.0	80.5	80.5	1.1	0.0	
40	White Oak - B41	M42	On Ramp	1305	1305	7200	5995	0.22	0.22	0	69.0	7.4	6.1	0.25	0.23	0.0	0.0	92.7	92.7	1.3	0.1	
41	M42	B43	Basic Segment	1305	1305	7200	5995	0.22	0.22	0	74.8	7.0	5.8	0.46	0.45	0.0	0.0	185.4	185.4	2.5	0.0	
42	US 70 - B43	D44	Off Ramp	1305	1305	7200	5995	0.22	0.22	0	69.7	7.5	6.2	0.24	0.23	0.0	0.0	92.7	92.7	1.3	0.1	
43	US 70 - D44	B45	Basic Segment	1052	1052	7200	5847	0.18	0.18	0	74.6	5.8	4.7	0.28	0.28	0.0	0.0	90.9	90.9	1.2	0.0	
44	US 70 - B45	M46	On Ramp	1125	1125	7200	5891	0.19	0.19	0	69.6	6.5	5.4	0.24	0.23	0.0	0.0	79.9	79.9	1.1	0.1	
	US 70		Basic																			

45	- M46	B47	Segment	1125	1125	7200	5891	0.19	0.19	0	74.1	6.2	5.1	0.12	0.12	0.0	0.0	41.3	41.3	0.6	0.0
46	US 70 - B47	M48	On Ramp	1466	1466	7200	6043	0.24	0.24	0	69.2	8.2	6.9	0.25	0.23	0.0	0.0	104.1	104.1	1.5	0.1
47	M48	B49	Basic Segment	1466	1466	7200	6043	0.24	0.24	0	74.4	7.8	6.6	0.19	0.19	0.0	0.0	88.5	88.5	1.2	0.0
48	Rock Quarry - B49	D50	Off Ramp	1466	1466	7200	6043	0.24	0.24	0	62.9	9.3	7.8	0.27	0.23	0.0	0.0	104.1	104.1	1.7	0.3
49	Rock Quarry - D50	B51	Basic Segment	1263	1263	7200	5914	0.21	0.21	0	74.2	6.9	5.7	0.28	0.28	0.0	0.0	109.1	109.1	1.5	0.0
50	Rock Quarry - B51	M52	On Ramp	1544	1544	7200	6029	0.26	0.26	0	69.3	8.7	7.3	0.25	0.23	0.0	0.0	109.7	109.7	1.6	0.1
51	M52	B53	Basic Segment	1544	1544	7200	6029	0.26	0.26	0	75.0	8.2	6.9	1.30	1.30	0.0	0.0	625.1	625.1	8.3	0.0
52	Auburn Knight - B53	D54	Off Ramp	1544	1544	7200	6029	0.26	0.26	0	63.7	9.7	8.1	0.27	0.23	0.0	0.0	109.7	109.7	1.7	0.3
53	Auburn Knight - D54	B55	Basic Segment	1488	1488	7200	6007	0.25	0.25	0	74.1	8.0	6.7	0.24	0.24	0.0	0.0	111.0	111.0	1.5	0.0
54	Auburn Knight - B55	M56	On Ramp	1549	1549	7200	6028	0.26	0.26	0	69.6	8.8	7.4	0.24	0.23	0.0	0.0	110.0	110.0	1.6	0.1
55	M56	B57	Basic Segment	1549	1549	7200	6028	0.26	0.26	0	74.7	8.3	6.9	0.33	0.33	0.0	0.0	161.4	161.4	2.2	0.0
56	Poole - B57	D58	Off Ramp	1549	1549	7200	6028	0.26	0.26	0	70.7	8.7	7.3	0.24	0.23	0.0	0.0	110.0	110.0	1.6	0.1
57	Poole - B59	B59	Basic Segment	1463	1463	7200	5980	0.24	0.24	0	74.9	7.8	6.5	0.58	0.58	0.0	0.0	263.2	263.2	3.5	0.0
58	B59	W60	Weaving	2107	2107	6927	5924	0.36	0.36	0	65.2	9.4	8.1	0.29	0.25	0.0	0.0	164.6	164.6	2.5	0.3
59	US 64 - 264 - W60	D61	Off Ramp	1758	1758	7200	6092	0.29	0.29	0	61.7	11.2	9.5	0.28	0.23	0.0	0.0	124.9	124.9	2.0	0.4
60	US 64 - 264 - D61	B62	Basic Segment	1300	1300	7200	5955	0.22	0.22	0	74.8	7.0	5.8	0.54	0.54	0.0	0.0	218.5	218.5	2.9	0.0
61	US 64 - 264 - B62	M63	On Ramp	3420	3420	7200	6342	0.54	0.54	0	65.9	18.5	16.3	0.26	0.23	0.0	0.0	242.9	242.9	3.7	0.4
62	M63	B64	Basic Segment	3420	3420	7200	6342	0.54	0.54	0	74.0	17.5	15.4	0.36	0.36	0.0	0.0	380.5	380.5	5.1	0.1
63	US 64 - B64	D65	Off Ramp	3420	3420	7200	6342	0.54	0.54	0	65.8	19.7	17.3	0.26	0.23	0.0	0.0	242.9	242.9	3.7	0.5
64	US 64 - D65	B66	Basic Segment	2356	2356	7200	6122	0.38	0.38	0	74.9	12.3	10.5	0.64	0.64	0.0	0.0	474.1	474.1	6.3	0.0
65	US 64 - B66	M67	On Ramp	4006	4006	7200	6382	0.63	0.63	0	65.7	22.4	19.8	0.26	0.23	0.0	0.0	284.5	284.5	4.3	0.5
66	M67	End NC540 EB	Basic Segment	4006	4006	7200	6382	0.63	0.63	0	72.2	20.9	18.5	0.83	0.80	0.0	0.0	1001.5	1001.5	13.9	0.5

Overall Results

Segment	Segment Type	Maximum d/c Ratio	Avg. Speed (mi/h)	Density (pc/mi/ln)	Density (veh/mi/ln)	Avg. Travel Time (min/veh)	Free-Flow Travel Time (min/veh)	VMT Demand (veh-min)	VMT Volume (veh-min)	VHT (veh-hrs)	VHD (veh-hrs)
Begin NC540 EB-B3	Basic	0.17	75.0	4.9	4.5	0.80	0.80	1,006.0	1,006.0	13.41	0.00
NC 55 BYP - B3-D4	OffRamp	0.17	67.9	5.4	4.9	0.25	0.23	0,285.8	0,285.8	4.21	0.40
NC 55 BYP - D4-B5	Basic	0.09	73.2	2.7	2.4	0.03	0.03	0,017.6	0,017.6	0.24	0.01
NC 55 BYP- B5-D6	OffRamp	0.09	62.9	3.1	2.8	0.27	0.23	0,150.6	0,150.6	2.39	0.39
NC 55 BYP - D6-B7	Basic	0.08	74.1	2.5	2.2	0.26	0.25	0,154.2	0,154.2	2.08	0.03
NC 55 BYP - B7-M8	OnRamp	0.13	69.2	3.9	3.5	0.25	0.23	0,215.3	0,215.3	3.11	0.24
M8-B9	Basic	0.13	75.0	3.7	3.4	1.33	1.33	1,263.3	1,263.3	16.84	0.00
Holly Springs - B9-D10	OffRamp	0.13	69.6	4.0	3.6	0.24	0.23	0,215.3	0,215.3	3.09	0.22
Holly Springs - D10-B11	Basic	0.10	74.9	3.0	2.6	0.61	0.61	0,453.3	0,453.3	6.05	0.00
Holly Springs - B11-M12	OnRamp	0.18	68.7	5.4	4.9	0.25	0.23	0,297.4	0,297.4	4.33	0.37
M12-B13	Basic	0.18	75.0	5.2	4.7	1.16	1.16	1,512.0	1,512.0	20.16	0.00
Bells Lake - B13-D14	OffRamp	0.18	69.5	5.6	5.0	0.25	0.23	0,297.4	0,297.4	4.28	0.31
Bells Lake - D14-B15	Basic	0.14	74.7	4.1	3.6	0.33	0.33	0,337.1	0,337.1	4.51	0.02
Bells Lake - B15-M16	OnRamp	0.19	69.1	5.9	5.2	0.25	0.23	0,315.3	0,315.3	4.56	0.36
M16-B17	Basic	0.19	75.0	5.6	4.9	1.41	1.41	1,949.9	1,949.9	26.00	0.00
US 401 - B17-D18	OffRamp	0.19	69.1	6.0	5.4	0.25	0.23	0,315.3	0,315.3	4.56	0.36
US 401 - D18-B19	Basic	0.14	74.6	4.1	3.5	0.27	0.27	0,257.5	0,257.5	3.45	0.02

US 401 - B19-M20	OnRamp	0.16	69.5	5.0	4.3	0.25	0.23	0,258.0	0,258.0	3.71	0.27
US 401 - M20-B21	Basic	0.16	74.0	4.7	4.1	0.09	0.09	0,098.9	0,098.9	1.34	0.02
US 401 - B21-M22	OnRamp	0.23	69.3	7.0	6.2	0.25	0.23	0,376.7	0,376.7	5.43	0.41
M22-B23	Basic	0.23	74.9	6.7	5.9	0.64	0.64	1,054.8	1,054.8	14.07	0.01
Old Stage - B23-D24	OffRamp	0.23	67.9	7.4	6.5	0.25	0.23	0,376.7	0,376.7	5.55	0.53
Old Stage - D24-B25	Basic	0.14	74.9	3.9	3.2	0.57	0.57	0,508.5	0,508.5	6.79	0.01
Old Stage - B25-M26	OnRamp	0.15	69.7	4.6	3.8	0.24	0.23	0,229.8	0,229.8	3.30	0.23
M26-B27	Basic	0.15	75.0	4.3	3.6	2.27	2.27	2,298.3	2,298.3	30.64	0.00
NC 50 - B27-D28	OffRamp	0.15	69.0	4.7	3.9	0.25	0.23	0,229.8	0,229.8	3.33	0.27
NC 50 - D28-B29	Basic	0.10	74.9	3.0	2.3	0.63	0.63	0,403.2	0,403.2	5.38	0.00
NC 50 - B29-M30	OnRamp	0.16	69.0	4.8	3.9	0.25	0.23	0,236.4	0,236.4	3.43	0.28
M30-B31	Basic	0.16	74.5	4.6	3.7	0.23	0.23	0,236.4	0,236.4	3.17	0.02
I-40 - B31-D32	OffRamp	0.16	72.7	4.7	3.8	0.23	0.23	0,236.4	0,236.4	3.25	0.10
I-40 - D32-B33	Basic	0.13	74.5	3.8	3.0	0.06	0.06	0,047.9	0,047.9	0.64	0.00
I-40 - B33-D34	OffRamp	0.13	68.3	4.2	3.3	0.25	0.23	0,191.8	0,191.8	2.81	0.25
I-40 - D34-B35	Basic	0.07	74.8	2.1	1.5	0.40	0.39	0,162.5	0,162.5	2.17	0.01
I-40 - B35-M36	OnRamp	0.14	68.5	4.2	3.4	0.25	0.23	0,208.8	0,208.8	3.05	0.27
I-40 - M36-B37	Basic	0.14	74.9	4.1	3.3	0.67	0.67	0,619.5	0,619.5	8.27	0.01
I-40 - B37-M38	OnRamp	0.24	68.7	7.2	6.1	0.25	0.23	0,370.7	0,370.7	5.40	0.46
M38-B39	Basic	0.24	74.2	6.9	5.9	0.16	0.16	0,253.3	0,253.3	3.42	0.04
White Oak - B39-D40	OffRamp	0.24	68.6	7.5	6.3	0.25	0.23	0,370.7	0,370.7	5.40	0.46
White Oak - D40-B41	Basic	0.18	74.6	5.1	4.1	0.28	0.28	0,322.0	0,322.0	4.32	0.02
White Oak - B41-M42	OnRamp	0.24	69.0	7.4	6.1	0.25	0.23	0,370.7	0,370.7	5.37	0.43
M42-B43	Basic	0.24	74.8	7.0	5.8	0.46	0.45	0,741.5	0,741.5	9.91	0.02
US 70 - B43-D44	OffRamp	0.24	69.7	7.5	6.2	0.24	0.23	0,370.7	0,370.7	5.32	0.37
US 70 - D44-B45	Basic	0.20	74.6	5.8	4.7	0.28	0.28	0,363.6	0,363.6	4.87	0.02
US 70 - B45-M46	OnRamp	0.21	69.6	6.5	5.4	0.24	0.23	0,319.6	0,319.6	4.59	0.33
US 70 - M46-B47	Basic	0.21	74.1	6.2	5.1	0.12	0.12	0,165.1	0,165.1	2.23	0.03
US 70 - B47-M48	OnRamp	0.27	69.2	8.2	6.9	0.25	0.23	0,416.5	0,416.5	6.02	0.46
M48-B49	Basic	0.27	74.4	7.8	6.6	0.19	0.19	0,354.0	0,354.0	4.76	0.04
Rock Quarry - B49-D50	OffRamp	0.27	62.9	9.3	7.8	0.27	0.23	0,416.5	0,416.5	6.62	1.07
Rock Quarry - D50-B51	Basic	0.24	74.2	6.9	5.7	0.28	0.28	0,436.5	0,436.5	5.88	0.06
Rock Quarry - B51-M52	OnRamp	0.28	69.3	8.7	7.3	0.25	0.23	0,438.6	0,438.6	6.33	0.48
M52-B53	Basic	0.28	75.0	8.2	6.9	1.30	1.30	2,500.2	2,500.2	33.34	0.00
Auburn Knight - B53-D54	OffRamp	0.28	63.7	9.6	8.1	0.27	0.23	0,438.6	0,438.6	6.89	1.04
Auburn Knight - D54-B55	Basic	0.28	74.1	8.0	6.7	0.24	0.24	0,443.9	0,443.9	5.99	0.07
Auburn Knight - B55-M56	OnRamp	0.29	69.6	8.8	7.4	0.24	0.23	0,440.1	0,440.1	6.32	0.46
M56-B57	Basic	0.29	74.7	8.3	6.9	0.33	0.33	0,645.4	0,645.4	8.64	0.03
Poole - B57-D58	OffRamp	0.29	70.7	8.7	7.3	0.24	0.23	0,440.1	0,440.1	6.23	0.36
Poole - B59-B59	Basic	0.27	74.9	7.8	6.5	0.58	0.58	1,052.9	1,052.9	14.05	0.01
B59-W60	Weaving	0.39	65.2	9.4	8.1	0.29	0.25	0,658.4	0,658.4	10.10	1.32
US 64 - 264 - W60-D61	OffRamp	0.32	61.7	11.2	9.5	0.28	0.23	0,499.4	0,499.4	8.09	1.43
US 64 - 264 - D61-B62	Basic	0.24	74.8	7.0	5.8	0.54	0.54	0,874.1	0,874.1	11.69	0.03
US 64 - 264 - B62-M63	OnRamp	0.60	65.8	18.5	16.3	0.26	0.23	0,971.6	0,971.6	14.77	1.81
M63-B64	Basic	0.60	73.8	17.5	15.4	0.36	0.36	1,522.2	1,522.2	20.61	0.32
US 64 - B64-D65	OffRamp	0.60	65.8	19.7	17.3	0.26	0.23	0,971.6	0,971.6	14.77	1.81
US 64 - D65-B66	Basic	0.43	74.9	12.3	10.5	0.64	0.64	1,896.4	1,896.4	25.31	0.03
US 64 -											

B66-M67	OnRamp	0.70	65.5	22.4	19.9	0.26	0.23	1,138.1	1,138.1	17.38	2.21
M67-End NC540 EB	Basic	0.70	71.9	21.0	18.6	0.83	0.80	4,006.0	4,006.0	55.74	2.32
Freeway			72.0	6.8	5.8	26.65	25.79	41,026.9	41,026.9	0,570.0	0,023.0

	Density-Based LOS by Segment														
Segment	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Time Step	Basic	Off Ramp	Basic	Off Ramp	Basic	On Ramp	Basic	Off Ramp	Basic	On Ramp	Basic	Off Ramp	Basic	On Ramp	Basic
1	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
2	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
3	A	A	A	A	A	A	A	A	A	A	A	B	A	A	A
4	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A

	Density-Based LOS by Segment														
Segment	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Time Step	Off Ramp	Basic	On Ramp	Basic	On Ramp	Basic	Off Ramp	Basic	On Ramp	Basic	Off Ramp	Basic	On Ramp	Basic	Off Ramp
1	A	A	A	A	A	A	B	A	A	A	A	A	A	A	A
2	A	A	A	A	A	A	B	A	A	A	A	A	A	A	A
3	A	A	A	A	A	A	B	A	A	A	A	A	A	A	A
4	A	A	A	A	A	A	B	A	A	A	A	A	A	A	A

	Density-Based LOS by Segment														
Segment	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45
Time Step	Basic	Off Ramp	Basic	On Ramp	Basic	On Ramp	Basic	Off Ramp	Basic	On Ramp	Basic	Off Ramp	Basic	On Ramp	Basic
1	A	A	A	A	A	A	A	B	A	A	A	A	A	A	A
2	A	A	A	A	A	A	A	B	A	A	A	A	A	A	A
3	A	A	A	A	A	A	A	B	A	A	A	A	A	A	A
4	A	A	A	A	A	A	A	B	A	A	A	A	A	A	A

	Density-Based LOS by Segment														
Segment	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
Time Step	On Ramp	Basic	Off Ramp	Basic	On Ramp	Basic	Off Ramp	Basic	On Ramp	Basic	Off Ramp	Basic	Weaving	Off Ramp	Basic
1	A	A	A	A	A	A	A	A	A	A	B	A	A	B	A
2	A	A	A	A	A	A	A	A	A	A	B	A	A	B	A
3	A	A	A	A	B	A	A	A	A	A	B	A	B	B	A
4	A	A	A	A	A	A	A	A	A	A	B	A	A	B	A

	Density-Based LOS by Segment					
Segment	61	62	63	64	65	66
Time Step	On Ramp	Basic	Off Ramp	Basic	On Ramp	Basic
1	C	B	D	A	C	C
2	C	B	D	B	C	C
3	C	C	E	B	C	C
4	C	B	D	B	C	C

	Demand-Based LOS by Segment														
Time Step	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
3	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
4	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

	Demand-Based LOS by Segment														
Time Step	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
3	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
4	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

	Demand-Based LOS by Segment														
Time Step	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45
1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
3	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
4	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

	Demand-Based LOS by Segment														
Time Step	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
3	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
4	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

	Demand-Based LOS by Segment					
Time Step	61	62	63	64	65	66
1	.	.	.	.	.	.
2	.	.	.	.	.	.
3	.	.	.	.	.	.
4	.	.	.	.	.	.

HCS 2010 Freeway Facilities

Project Properties

Analyst	HNTB	**Freeway Name**	Complete 540 - 2016 Build EB PM	**Analysis Period**	PM Peak
Analysis Date	9/19/2014 10:24:18 AM	**From**	Old Holly Springs-Apex	**Version Date**	1/20/16
Agency	HNTB	**To**	US Business 64		
Location	Complete 540	**Analysis Direction**	Eastbound/Northbound		
User Notes					
File Name	C:\Temp\preview.xml				

Facility-wide Values

Jam Density (pc/h/ln)	190	**Time Period Duration (min)**	15	**Facility Length (mi)**	**32.23700**

Segment Input Data

Time Period 1

Mainline Data

Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin NC540 EB	B3	Basic Segment	5280	Rolling	1767	6.00	0.00	3	75
2	NC 55 BYP - B3	M4	Off Ramp	1500	Rolling	1767	6.00	0.00	3	75
3	NC 55 BYP - W4	B5	Basic Segment	175	Rolling	894	7.95	0.00	3	75
4	NC 55 BYP- B5	D6	Off Ramp	1500	Rolling	894	7.95	0.00	3	75
5	NC 55 BYP - D6	B7	Basic Segment	1675	Rolling	844	8.19	0.00	3	75
6	NC 55 BYP - B7	M8	On Ramp	1500	Rolling	1175	7.57	0.00	3	75
7	M8	B9	Basic Segment	8800	Rolling	1175	7.57	0.00	3	75
8	Holly Springs - B9	D10	Off Ramp	1500	Rolling	1175	7.57	0.00	3	75
9	Holly Springs - D10	B11	Basic Segment	4050	Rolling	927	9.06	0.00	3	75
10	Holly Springs - B11	M12	On Ramp	1500	Rolling	1504	7.89	0.00	3	75
11	M12	B13	Basic Segment	7625	Rolling	1504	7.89	0.00	3	75
12	Bells Lake - B13	D14	Off Ramp	1500	Rolling	1504	7.89	0.00	3	75
13	Bells Lake - D14	B15	Basic Segment	2200	Rolling	1158	9.65	0.00	3	75
14	Bells Lake - B15	M16	On Ramp	1500	Rolling	1553	8.72	0.00	3	75
15	M16	B17	Basic Segment	9275	Rolling	1553	8.72	0.00	3	75
16	US 401 - B17	D18	Off Ramp	1500	Rolling	1553	8.72	0.00	3	75
17	US 401 - D18	B19	Basic Segment	1750	Rolling	1106	11.43	0.00	3	75
18	US 401 - B19	M20	On Ramp	1500	Rolling	1328	10.53	0.00	3	75
19	US 401 - M20	B21	Basic Segment	575	Rolling	1328	10.53	0.00	3	75
20	US 401 - B21	M22	On Ramp	1500	Rolling	1752	9.43	0.00	3	75
21	M22	B23	Basic Segment	4200	Rolling	1752	9.43	0.00	3	75

RampData

Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	Off Ramp	873	4.00	0.00	1	700	50
4	Off Ramp	50	4.00	0.00	1	925	30
6	On Ramp	331	6.00	0.00	1	1000	50
8	Off Ramp	248	2.00	0.00	1	900	50
10	On Ramp	577	6.00	0.00	1	900	50
12	Off Ramp	346	2.00	0.00	1	225	50
14	On Ramp	395	6.00	0.00	1	1500	30
16	Off Ramp	447	2.00	0.00	1	900	50
18	On Ramp	222	6.00	0.00	1	1500	30
20	On Ramp	424	6.00	0.00	1	1025	50
22	Off Ramp	777	2.00	0.00	1	300	50
24	On Ramp	117	6.00	0.00	1	900	50
26	Off Ramp	514	2.00	0.00	1	1025	50
28	On Ramp	380	6.00	0.00	1	900	50
30	Off Ramp	194	5.00	0.00	2	1500	50
32	Off Ramp	518	5.00	0.00	1	225	50
34	On Ramp	544	6.00	0.00	1	1500	30
36	On Ramp	455	6.00	0.00	1	900	50
38	Off Ramp	260	2.00	0.00	1	300	50
40	On Ramp	353	6.00	0.00	1	1500	30
42	Off Ramp	454	5.00	0.00	1	900	50
44	On Ramp	38	6.00	0.00	1	1425	30
46	On Ramp	134	6.00	0.00	1	900	50
48	Off Ramp	122	2.00	0.00	1	1500	30
50	On Ramp	161	6.00	0.00	1	900	50
52	Off Ramp	52	3.00	0.00	1	1500	30

22	Old Stage - B23	D24	Off Ramp	1500	Rolling	1752	9.43	0.00	3	75
23	Old Stage - D24	B25	Basic Segment	3750	Rolling	975	15.35	0.00	3	75
24	Old Stage - B25	M26	On Ramp	1500	Rolling	1092	14.35	0.00	3	75
25	M26	B27	Basic Segment	15000	Rolling	1092	14.35	0.00	3	75
26	NC 50 - B27	D28	Off Ramp	1500	Rolling	1092	14.35	0.00	3	75
27	NC 50 - D28	B29	Basic Segment	4150	Rolling	578	25.33	0.00	3	75
28	NC 50 - B29	M30	On Ramp	1500	Rolling	958	17.66	0.00	3	75
29	M30	B31	Basic Segment	1500	Rolling	958	17.66	0.00	3	75
30	I-40 - B31	D32	Off Ramp	1500	Rolling	958	17.66	0.00	3	75
31	I-40 - D32	B33	Basic Segment	375	Rolling	764	20.88	0.00	3	75
32	I-40 - B33	D34	Off Ramp	1500	Rolling	764	20.88	0.00	3	75
33	I-40 - D34	B35	Basic Segment	2600	Rolling	246	54.32	0.00	3	75
34	I-40 - B35	M36	On Ramp	1500	Rolling	790	21.05	0.00	3	75
35	I-40 - M36	B37	Basic Segment	4450	Rolling	790	21.05	0.00	3	75
36	I-40 - B37	M38	On Ramp	1500	Rolling	1245	15.55	0.00	3	75
37	M38	B39	Basic Segment	1025	Rolling	1245	15.55	0.00	3	75
38	White Oak - B39	D40	Off Ramp	1500	Rolling	1245	15.55	0.00	3	75
39	White Oak - D40	B41	Basic Segment	1850	Rolling	985	19.12	0.00	3	75
40	White Oak - B41	M42	On Ramp	1500	Rolling	1338	15.66	0.00	3	75
41	M42	B43	Basic Segment	3000	Rolling	1338	15.66	0.00	3	75
42	US 70 - B43	D44	Off Ramp	1500	Rolling	1338	15.66	0.00	3	75
43	US 70 - D44	B45	Basic Segment	1825	Rolling	884	21.14	0.00	3	75
44	US 70 - B45	M46	On Ramp	1500	Rolling	922	20.51	0.00	3	75
45	US 70 - M46	B47	Basic Segment	775	Rolling	922	20.51	0.00	3	75
46	US 70 - B47	M48	On Ramp	1500	Rolling	1056	18.67	0.00	3	75
47	M48	B49	Basic Segment	1275	Rolling	1056	18.67	0.00	3	75
48	Rock Quarry - B49	D50	Off Ramp	1500	Rolling	1056	18.67	0.00	3	75
49	Rock Quarry - D50	B51	Basic Segment	1825	Rolling	934	20.85	0.00	3	75
50	Rock Quarry - B51	M52	On Ramp	1500	Rolling	1095	18.66	0.00	3	75
51	M52	B53	Basic Segment	8550	Rolling	1095	18.66	0.00	3	75
52	Auburn Knight - B53	D54	Off Ramp	1500	Rolling	1095	18.66	0.00	3	75
53	Auburn Knight - D54	B55	Basic Segment	1575	Rolling	1043	19.45	0.00	3	75
54	Auburn Knight - B55	M56	On Ramp	1500	Rolling	1101	18.74	0.00	3	75
55	M56	B57	Basic Segment	2200	Rolling	1101	18.74	0.00	3	75
56	Poole - B57	D58	Off Ramp	1500	Rolling	1101	18.74	0.00	3	75
57	Poole - B59	B59	Basic Segment	3800	Rolling	1050	19.55	0.00	3	75

54	On Ramp	58	6.00	0.00	1	900	50
56	Off Ramp	51	2.00	0.00	1	175	50
59	Off Ramp	242	7.00	0.00	1	525	30
61	On Ramp	1642	6.00	0.00	1	950	50
63	Off Ramp	819	3.00	0.00	1	200	50
65	On Ramp	1194	4.00	0.00	1	875	50

58	B59	W60	Weaving	1650	Rolling	1580	15.01	0.00	4	75
59	US 64 - 264 - W60	D61	Off Ramp	1500	Rolling	752	23.82	0.00	3	75
60	US 64 - 264 - D61	B62	Basic Segment	3550	Rolling	510	31.80	0.00	3	75
61	US 64 - 264 - B62	M63	On Ramp	1500	Rolling	2152	12.11	0.00	3	75
62	M63	B64	Basic Segment	2350	Rolling	2152	12.11	0.00	3	75
63	US 64 - B64	D65	Off Ramp	1500	Rolling	2152	12.11	0.00	3	75
64	US 64 - D65	B66	Basic Segment	4250	Rolling	1333	17.71	0.00	3	75
65	US 64 - B66	M67	On Ramp	1500	Rolling	2527	11.23	0.00	3	75
66	M67	End NC540 EB	Basic Segment	5280	Rolling	2527	11.23	0.00	3	75

Weaving Segment Data

Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp				
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS
58	0.247	530	6.00	0.00	1	50	828	7.00	0.00	1	50

Time Period 2

Mainline Data

Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin NC540 EB	B3	Basic Segment	5280	Rolling	1988	6.00	0.00	3	75
2	NC 55 BYP - B3	M4	Off Ramp	1500	Rolling	1988	6.00	0.00	3	75
3	NC 55 BYP - W4	B5	Basic Segment	175	Rolling	1007	7.95	0.00	3	75
4	NC 55 BYP- B5	D6	Off Ramp	1500	Rolling	1007	7.95	0.00	3	75
5	NC 55 BYP - D6	B7	Basic Segment	1675	Rolling	951	8.18	0.00	3	75
6	NC 55 BYP - B7	M8	On Ramp	1500	Rolling	1323	7.57	0.00	3	75
7	M8	B9	Basic Segment	8800	Rolling	1323	7.57	0.00	3	75
8	Holly Springs - B9	D10	Off Ramp	1500	Rolling	1323	7.57	0.00	3	75
9	Holly Springs - D10	B11	Basic Segment	4050	Rolling	1044	9.06	0.00	3	75
10	Holly Springs - B11	M12	On Ramp	1500	Rolling	1692	7.89	0.00	3	75
11	M12	B13	Basic Segment	7625	Rolling	1692	7.89	0.00	3	75
12	Bells Lake - B13	D14	Off Ramp	1500	Rolling	1692	7.89	0.00	3	75
13	Bells Lake - D14	B15	Basic Segment	2200	Rolling	1303	9.64	0.00	3	75
14	Bells Lake - B15	M16	On Ramp	1500	Rolling	1747	8.72	0.00	3	75
15	M16	B17	Basic Segment	9275	Rolling	1747	8.72	0.00	3	75
16	US 401 - B17	D18	Off Ramp	1500	Rolling	1747	8.72	0.00	3	75
17	US 401 - D18	B19	Basic Segment	1750	Rolling	1245	11.42	0.00	3	75
18	US 401 - B19	M20	On Ramp	1500	Rolling	1494	10.52	0.00	3	75
19	US 401 - M20	B21	Basic Segment	575	Rolling	1494	10.52	0.00	3	75
20	US 401 - B21	M22	On Ramp	1500	Rolling	1970	9.43	0.00	3	75
21	M22	B23	Basic Segment	4200	Rolling	1970	9.43	0.00	3	75
	Old		Off							

RampData

Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	Off Ramp	981	4.00	0.00	1	700	50
4	Off Ramp	56	4.00	0.00	1	925	30
6	On Ramp	372	6.00	0.00	1	1000	50
8	Off Ramp	279	2.00	0.00	1	900	50
10	On Ramp	648	6.00	0.00	1	900	50
12	Off Ramp	389	2.00	0.00	1	225	50
14	On Ramp	444	6.00	0.00	1	1500	30
16	Off Ramp	502	2.00	0.00	1	900	50
18	On Ramp	249	6.00	0.00	1	1500	30
20	On Ramp	476	6.00	0.00	1	1025	50
22	Off Ramp	873	2.00	0.00	1	300	50
24	On Ramp	131	6.00	0.00	1	900	50
26	Off Ramp	578	2.00	0.00	1	1025	50
28	On Ramp	427	6.00	0.00	1	900	50
30	Off Ramp	218	5.00	0.00	2	1500	50
32	Off Ramp	582	5.00	0.00	1	225	50
34	On Ramp	611	6.00	0.00	1	1500	30
36	On Ramp	511	6.00	0.00	1	900	50
38	Off Ramp	292	2.00	0.00	1	300	50
40	On Ramp	397	6.00	0.00	1	1500	30
42	Off Ramp	510	5.00	0.00	1	900	50
44	On Ramp	43	6.00	0.00	1	1425	30
46	On Ramp	150	6.00	0.00	1	900	50
48	Off Ramp	137	2.00	0.00	1	1500	30
50	On Ramp	181	6.00	0.00	1	900	50
52	Off Ramp	58	3.00	0.00	1	1500	30
	On						

22	Stage - B23	D24	Ramp	1500	Rolling	1970	9.43	0.00	3	75
23	Old Stage - D24	B25	Basic Segment	3750	Rolling	1097	15.34	0.00	3	75
24	Old Stage - B25	M26	On Ramp	1500	Rolling	1228	14.34	0.00	3	75
25	M26	B27	Basic Segment	15000	Rolling	1228	14.34	0.00	3	75
26	NC 50 - B27	D28	Off Ramp	1500	Rolling	1228	14.34	0.00	3	75
27	NC 50 - D28	B29	Basic Segment	4150	Rolling	650	25.32	0.00	3	75
28	NC 50 - B29	M30	On Ramp	1500	Rolling	1077	17.66	0.00	3	75
29	M30	B31	Basic Segment	1500	Rolling	1077	17.66	0.00	3	75
30	I-40 - B31	D32	Off Ramp	1500	Rolling	1077	17.66	0.00	3	75
31	I-40 - D32	B33	Basic Segment	375	Rolling	859	20.87	0.00	3	75
32	I-40 - B33	D34	Off Ramp	1500	Rolling	859	20.87	0.00	3	75
33	I-40 - D34	B35	Basic Segment	2600	Rolling	277	54.22	0.00	3	75
34	I-40 - B35	M36	On Ramp	1500	Rolling	888	21.04	0.00	3	75
35	I-40 - M36	B37	Basic Segment	4450	Rolling	888	21.04	0.00	3	75
36	I-40 - B37	M38	On Ramp	1500	Rolling	1399	15.55	0.00	3	75
37	M38	B39	Basic Segment	1025	Rolling	1399	15.55	0.00	3	75
38	White Oak - B39	D40	Off Ramp	1500	Rolling	1399	15.55	0.00	3	75
39	White Oak - D40	B41	Basic Segment	1850	Rolling	1107	19.12	0.00	3	75
40	White Oak - B41	M42	On Ramp	1500	Rolling	1504	15.66	0.00	3	75
41	M42	B43	Basic Segment	3000	Rolling	1504	15.66	0.00	3	75
42	US 70 - B43	D44	Off Ramp	1500	Rolling	1504	15.66	0.00	3	75
43	US 70 - D44	B45	Basic Segment	1825	Rolling	994	21.13	0.00	3	75
44	US 70 - B45	M46	On Ramp	1500	Rolling	1037	20.50	0.00	3	75
45	US 70 - M46	B47	Basic Segment	775	Rolling	1037	20.50	0.00	3	75
46	US 70 - B47	M48	On Ramp	1500	Rolling	1187	18.67	0.00	3	75
47	M48	B49	Basic Segment	1275	Rolling	1187	18.67	0.00	3	75
48	Rock Quarry - B49	D50	Off Ramp	1500	Rolling	1187	18.67	0.00	3	75
49	Rock Quarry - D50	B51	Basic Segment	1825	Rolling	1050	20.84	0.00	3	75
50	Rock Quarry - B51	M52	On Ramp	1500	Rolling	1231	18.66	0.00	3	75
51	M52	B53	Basic Segment	8550	Rolling	1231	18.66	0.00	3	75
52	Auburn Knight - B53	D54	Off Ramp	1500	Rolling	1231	18.66	0.00	3	75
53	Auburn Knight - D54	B55	Basic Segment	1575	Rolling	1173	19.43	0.00	3	75
54	Auburn Knight - B55	M56	On Ramp	1500	Rolling	1238	18.73	0.00	3	75
55	M56	B57	Basic Segment	2200	Rolling	1238	18.73	0.00	3	75
56	Poole - B57	D58	Off Ramp	1500	Rolling	1238	18.73	0.00	3	75
57	Poole - B59	B59	Basic Segment	3800	Rolling	1181	19.54	0.00	3	75
58	B59	W60	Weaving	1650	Rolling	1776	15.00	0.00	4	75

54	Ramp	65	6.00	0.00	1	900	50
56	Off Ramp	57	2.00	0.00	1	175	50
59	Off Ramp	272	7.00	0.00	1	525	30
61	On Ramp	1845	6.00	0.00	1	950	50
63	Off Ramp	920	3.00	0.00	1	200	50
65	On Ramp	1342	4.00	0.00	1	875	50

59	US 64 - 264 - W60	D61	Off Ramp	1500	Rolling	1338	17.62	0.00	3	75
60	US 64 - 264 - D61	B62	Basic Segment	3550	Rolling	1066	20.33	0.00	3	75
61	US 64 - 264 - B62	M63	On Ramp	1500	Rolling	2911	11.25	0.00	3	75
62	M63	B64	Basic Segment	2350	Rolling	2911	11.25	0.00	3	75
63	US 64 - B64	D65	Off Ramp	1500	Rolling	2911	11.25	0.00	3	75
64	US 64 - D65	B66	Basic Segment	4250	Rolling	1991	15.06	0.00	3	75
65	US 64 - B66	M67	On Ramp	1500	Rolling	3333	10.61	0.00	3	75
66	M67	End NC540 EB	Basic Segment	5280	Rolling	3333	10.61	0.00	3	75

Weaving Segment Data

Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp				
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS
58	0.247	595	6.00	0.00	1	50	438	7.00	0.00	1	50

Time Period 3

Mainline Data

Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin NC540 EB	B3	Basic Segment	5280	Rolling	2209	6.00	0.00	3	75
2	NC 55 BYP - B3	M4	Off Ramp	1500	Rolling	2209	6.00	0.00	3	75
3	NC 55 BYP - W4	B5	Basic Segment	175	Rolling	1120	7.94	0.00	3	75
4	NC 55 BYP- B5	D6	Off Ramp	1500	Rolling	1120	7.94	0.00	3	75
5	NC 55 BYP - D6	B7	Basic Segment	1675	Rolling	1058	8.18	0.00	3	75
6	NC 55 BYP - B7	M8	On Ramp	1500	Rolling	1471	7.56	0.00	3	75
7	M8	B9	Basic Segment	8800	Rolling	1471	7.56	0.00	3	75
8	Holly Springs - B9	D10	Off Ramp	1500	Rolling	1471	7.56	0.00	3	75
9	Holly Springs - D10	B11	Basic Segment	4050	Rolling	1161	9.05	0.00	3	75
10	Holly Springs - B11	M12	On Ramp	1500	Rolling	1880	7.88	0.00	3	75
11	M12	B13	Basic Segment	7625	Rolling	1880	7.88	0.00	3	75
12	Bells Lake - B13	D14	Off Ramp	1500	Rolling	1880	7.88	0.00	3	75
13	Bells Lake - D14	B15	Basic Segment	2200	Rolling	1448	9.64	0.00	3	75
14	Bells Lake - B15	M16	On Ramp	1500	Rolling	1941	8.72	0.00	3	75
15	M16	B17	Basic Segment	9275	Rolling	1941	8.72	0.00	3	75
16	US 401 - B17	D18	Off Ramp	1500	Rolling	1941	8.72	0.00	3	75
17	US 401 - D18	B19	Basic Segment	1750	Rolling	1384	11.42	0.00	3	75
18	US 401 - B19	M20	On Ramp	1500	Rolling	1660	10.52	0.00	3	75
19	US 401 - M20	B21	Basic Segment	575	Rolling	1660	10.52	0.00	3	75
20	US 401 - B21	M22	On Ramp	1500	Rolling	2188	9.43	0.00	3	75
21	M22	B23	Basic Segment	4200	Rolling	2188	9.43	0.00	3	75
22	Old Stage - B23	D24	Off Ramp	1500	Rolling	2188	9.43	0.00	3	75

RampData

Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	Off Ramp	1089	4.00	0.00	1	700	50
4	Off Ramp	62	4.00	0.00	1	925	30
6	On Ramp	413	6.00	0.00	1	1000	50
8	Off Ramp	310	2.00	0.00	1	900	50
10	On Ramp	719	6.00	0.00	1	900	50
12	Off Ramp	432	2.00	0.00	1	225	50
14	On Ramp	493	6.00	0.00	1	1500	30
16	Off Ramp	557	2.00	0.00	1	900	50
18	On Ramp	276	6.00	0.00	1	1500	30
20	On Ramp	528	6.00	0.00	1	1025	50
22	Off Ramp	969	2.00	0.00	1	300	50
24	On Ramp	145	6.00	0.00	1	900	50
26	Off Ramp	642	2.00	0.00	1	1025	50
28	On Ramp	474	6.00	0.00	1	900	50
30	Off Ramp	242	5.00	0.00	2	1500	50
32	Off Ramp	646	5.00	0.00	1	225	50
34	On Ramp	678	6.00	0.00	1	1500	30
36	On Ramp	567	6.00	0.00	1	900	50
38	Off Ramp	324	2.00	0.00	1	300	50
40	On Ramp	441	6.00	0.00	1	1500	30
42	Off Ramp	566	5.00	0.00	1	900	50
44	On Ramp	48	6.00	0.00	1	1425	30
46	On Ramp	167	6.00	0.00	1	900	50
48	Off Ramp	152	2.00	0.00	1	1500	30
50	On Ramp	201	6.00	0.00	1	900	50
52	Off Ramp	64	3.00	0.00	1	1500	30
54	On Ramp	72	6.00	0.00	1	900	50

23	Old Stage - D24	B25	Basic Segment	3750	Rolling	1219	15.33	0.00	3	75
24	Old Stage - B25	M26	On Ramp	1500	Rolling	1364	14.34	0.00	3	75
25	M26	B27	Basic Segment	15000	Rolling	1364	14.34	0.00	3	75
26	NC 50 - B27	D28	Off Ramp	1500	Rolling	1364	14.34	0.00	3	75
27	NC 50 - D28	B29	Basic Segment	4150	Rolling	722	25.31	0.00	3	75
28	NC 50 - B29	M30	On Ramp	1500	Rolling	1196	17.66	0.00	3	75
29	M30	B31	Basic Segment	1500	Rolling	1196	17.66	0.00	3	75
30	I-40 - B31	D32	Off Ramp	1500	Rolling	1196	17.66	0.00	3	75
31	I-40 - D32	B33	Basic Segment	375	Rolling	954	20.87	0.00	3	75
32	I-40 - B33	D34	Off Ramp	1500	Rolling	954	20.87	0.00	3	75
33	I-40 - D34	B35	Basic Segment	2600	Rolling	308	54.15	0.00	3	75
34	I-40 - B35	M36	On Ramp	1500	Rolling	986	21.04	0.00	3	75
35	I-40 - M36	B37	Basic Segment	4450	Rolling	986	21.04	0.00	3	75
36	I-40 - B37	M38	On Ramp	1500	Rolling	1553	15.55	0.00	3	75
37	M38	B39	Basic Segment	1025	Rolling	1553	15.55	0.00	3	75
38	White Oak - B39	D40	Off Ramp	1500	Rolling	1553	15.55	0.00	3	75
39	White Oak - D40	B41	Basic Segment	1850	Rolling	1229	19.12	0.00	3	75
40	White Oak - B41	M42	On Ramp	1500	Rolling	1670	15.66	0.00	3	75
41	M42	B43	Basic Segment	3000	Rolling	1670	15.66	0.00	3	75
42	US 70 - B43	D44	Off Ramp	1500	Rolling	1670	15.66	0.00	3	75
43	US 70 - D44	B45	Basic Segment	1825	Rolling	1104	21.12	0.00	3	75
44	US 70 - B45	M46	On Ramp	1500	Rolling	1152	20.49	0.00	3	75
45	US 70 - M46	B47	Basic Segment	775	Rolling	1152	20.49	0.00	3	75
46	US 70 - B47	M48	On Ramp	1500	Rolling	1319	18.66	0.00	3	75
47	M48	B49	Basic Segment	1275	Rolling	1319	18.66	0.00	3	75
48	Rock Quarry - B49	D50	Off Ramp	1500	Rolling	1319	18.66	0.00	3	75
49	Rock Quarry - D50	B51	Basic Segment	1825	Rolling	1167	20.82	0.00	3	75
50	Rock Quarry - B51	M52	On Ramp	1500	Rolling	1368	18.65	0.00	3	75
51	M52	B53	Basic Segment	8550	Rolling	1368	18.65	0.00	3	75
52	Auburn Knight - B53	D54	Off Ramp	1500	Rolling	1368	18.65	0.00	3	75
53	Auburn Knight - D54	B55	Basic Segment	1575	Rolling	1304	19.41	0.00	3	75
54	Auburn Knight - B55	M56	On Ramp	1500	Rolling	1376	18.71	0.00	3	75
55	M56	B57	Basic Segment	2200	Rolling	1376	18.71	0.00	3	75
56	Poole - B57	D58	Off Ramp	1500	Rolling	1376	18.71	0.00	3	75
57	Poole - B59	B59	Basic Segment	3800	Rolling	1313	19.51	0.00	3	75
58	B59	W60	Weaving	1650	Rolling	1973	14.99	0.00	4	75
59	US 64 - 264 -	D61	Off Ramp	1500	Rolling	1487	17.61	0.00	3	75

56	Off Ramp	63	2.00	0.00	1	175	50
59	Off Ramp	302	7.00	0.00	1	525	30
61	On Ramp	2048	6.00	0.00	1	950	50
63	Off Ramp	1021	3.00	0.00	1	200	50
65	On Ramp	1490	4.00	0.00	1	875	50

	W60									
60	US 64 - 264 - D61	B62	Basic Segment	3550	Rolling	1185	20.31	0.00	3	75
61	US 64 - 264 - B62	M63	On Ramp	1500	Rolling	3233	11.24	0.00	3	75
62	M63	B64	Basic Segment	2350	Rolling	3233	11.24	0.00	3	75
63	US 64 - B64	D65	Off Ramp	1500	Rolling	3233	11.24	0.00	3	75
64	US 64 - D65	B66	Basic Segment	4250	Rolling	2212	15.05	0.00	3	75
65	US 64 - B66	M67	On Ramp	1500	Rolling	3702	10.60	0.00	3	75
66	M67	End NC540 EB	Basic Segment	5280	Rolling	3702	10.60	0.00	3	75

Weaving Segment Data

Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp				
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS
58	0.247	660	6.00	0.00	1	50	486	7.00	0.00	1	50

Time Period 4

Mainline Data

Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin NC540 EB	B3	Basic Segment	5280	Rolling	1988	6.00	0.00	3	75
2	NC 55 BYP - B3	M4	Off Ramp	1500	Rolling	1988	6.00	0.00	3	75
3	NC 55 BYP - W4	B5	Basic Segment	175	Rolling	1007	7.95	0.00	3	75
4	NC 55 BYP- B5	D6	Off Ramp	1500	Rolling	1007	7.95	0.00	3	75
5	NC 55 BYP - D6	B7	Basic Segment	1675	Rolling	951	8.18	0.00	3	75
6	NC 55 BYP - B7	M8	On Ramp	1500	Rolling	1323	7.57	0.00	3	75
7	M8	B9	Basic Segment	8800	Rolling	1323	7.57	0.00	3	75
8	Holly Springs - B9	D10	Off Ramp	1500	Rolling	1323	7.57	0.00	3	75
9	Holly Springs - D10	B11	Basic Segment	4050	Rolling	1044	9.06	0.00	3	75
10	Holly Springs - B11	M12	On Ramp	1500	Rolling	1692	7.89	0.00	3	75
11	M12	B13	Basic Segment	7625	Rolling	1692	7.89	0.00	3	75
12	Bells Lake - B13	D14	Off Ramp	1500	Rolling	1692	7.89	0.00	3	75
13	Bells Lake - D14	B15	Basic Segment	2200	Rolling	1303	9.64	0.00	3	75
14	Bells Lake - B15	M16	On Ramp	1500	Rolling	1747	8.72	0.00	3	75
15	M16	B17	Basic Segment	9275	Rolling	1747	8.72	0.00	3	75
16	US 401 - B17	D18	Off Ramp	1500	Rolling	1747	8.72	0.00	3	75
17	US 401 - D18	B19	Basic Segment	1750	Rolling	1245	11.42	0.00	3	75
18	US 401 - B19	M20	On Ramp	1500	Rolling	1494	10.52	0.00	3	75
19	US 401 - M20	B21	Basic Segment	575	Rolling	1494	10.52	0.00	3	75
20	US 401 - B21	M22	On Ramp	1500	Rolling	1970	9.43	0.00	3	75
21	M22	B23	Basic Segment	4200	Rolling	1970	9.43	0.00	3	75
22	Old Stage - B23	D24	Off Ramp	1500	Rolling	1970	9.43	0.00	3	75
	Old		Basic							

RampData

Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	Off Ramp	981	4.00	0.00	1	700	50
4	Off Ramp	56	4.00	0.00	1	925	30
6	On Ramp	372	6.00	0.00	1	1000	50
8	Off Ramp	279	2.00	0.00	1	900	50
10	On Ramp	648	6.00	0.00	1	900	50
12	Off Ramp	389	2.00	0.00	1	225	50
14	On Ramp	444	6.00	0.00	1	1500	30
16	Off Ramp	502	2.00	0.00	1	900	50
18	On Ramp	249	6.00	0.00	1	1500	30
20	On Ramp	476	6.00	0.00	1	1025	50
22	Off Ramp	873	2.00	0.00	1	300	50
24	On Ramp	131	6.00	0.00	1	900	50
26	Off Ramp	578	2.00	0.00	1	1025	50
28	On Ramp	427	6.00	0.00	1	900	50
30	Off Ramp	218	5.00	0.00	2	1500	50
32	Off Ramp	582	5.00	0.00	1	225	50
34	On Ramp	611	6.00	0.00	1	1500	30
36	On Ramp	511	6.00	0.00	1	900	50
38	Off Ramp	292	2.00	0.00	1	300	50
40	On Ramp	397	6.00	0.00	1	1500	30
42	Off Ramp	510	5.00	0.00	1	900	50
44	On Ramp	43	6.00	0.00	1	1425	30
46	On Ramp	150	6.00	0.00	1	900	50
48	Off Ramp	137	2.00	0.00	1	1500	30
50	On Ramp	181	6.00	0.00	1	900	50
52	Off Ramp	58	3.00	0.00	1	1500	30
54	On Ramp	65	6.00	0.00	1	900	50
56	Off Ramp	57	2.00	0.00	1	175	50

23	Stage - D24	B25	Segment	3750	Rolling	1097	15.34	0.00	3	75
24	Old Stage - B25	M26	On Ramp	1500	Rolling	1228	14.34	0.00	3	75
25	M26	B27	Basic Segment	15000	Rolling	1228	14.34	0.00	3	75
26	NC 50 - B27	D28	Off Ramp	1500	Rolling	1228	14.34	0.00	3	75
27	NC 50 - D28	B29	Basic Segment	4150	Rolling	650	25.32	0.00	3	75
28	NC 50 - B29	M30	On Ramp	1500	Rolling	1077	17.66	0.00	3	75
29	M30	B31	Basic Segment	1500	Rolling	1077	17.66	0.00	3	75
30	I-40 - B31	D32	Off Ramp	1500	Rolling	1077	17.66	0.00	3	75
31	I-40 - D32	B33	Basic Segment	375	Rolling	859	20.87	0.00	3	75
32	I-40 - B33	D34	Off Ramp	1500	Rolling	859	20.87	0.00	3	75
33	I-40 - D34	B35	Basic Segment	2600	Rolling	277	54.22	0.00	3	75
34	I-40 - B35	M36	On Ramp	1500	Rolling	888	21.04	0.00	3	75
35	I-40 - M36	B37	Basic Segment	4450	Rolling	888	21.04	0.00	3	75
36	I-40 - B37	M38	On Ramp	1500	Rolling	1399	15.55	0.00	3	75
37	M38	B39	Basic Segment	1025	Rolling	1399	15.55	0.00	3	75
38	White Oak - B39	D40	Off Ramp	1500	Rolling	1399	15.55	0.00	3	75
39	White Oak - D40	B41	Basic Segment	1850	Rolling	1107	19.12	0.00	3	75
40	White Oak - B41	M42	On Ramp	1500	Rolling	1504	15.66	0.00	3	75
41	M42	B43	Basic Segment	3000	Rolling	1504	15.66	0.00	3	75
42	US 70 - B43	D44	Off Ramp	1500	Rolling	1504	15.66	0.00	3	75
43	US 70 - D44	B45	Basic Segment	1825	Rolling	994	21.13	0.00	3	75
44	US 70 - B45	M46	On Ramp	1500	Rolling	1037	20.50	0.00	3	75
45	US 70 - M46	B47	Basic Segment	775	Rolling	1037	20.50	0.00	3	75
46	US 70 - B47	M48	On Ramp	1500	Rolling	1187	18.67	0.00	3	75
47	M48	B49	Basic Segment	1275	Rolling	1187	18.67	0.00	3	75
48	Rock Quarry - B49	D50	Off Ramp	1500	Rolling	1187	18.67	0.00	3	75
49	Rock Quarry - D50	B51	Basic Segment	1825	Rolling	1050	20.84	0.00	3	75
50	Rock Quarry - B51	M52	On Ramp	1500	Rolling	1231	18.66	0.00	3	75
51	M52	B53	Basic Segment	8550	Rolling	1231	18.66	0.00	3	75
52	Auburn Knight - B53	D54	Off Ramp	1500	Rolling	1231	18.66	0.00	3	75
53	Auburn Knight - D54	B55	Basic Segment	1575	Rolling	1173	19.43	0.00	3	75
54	Auburn Knight - B55	M56	On Ramp	1500	Rolling	1238	18.73	0.00	3	75
55	M56	B57	Basic Segment	2200	Rolling	1238	18.73	0.00	3	75
56	Poole - B57	D58	Off Ramp	1500	Rolling	1238	18.73	0.00	3	75
57	Poole - B59	B59	Basic Segment	3800	Rolling	1181	19.54	0.00	3	75
58	B59	W60	Weaving	1650	Rolling	1776	15.00	0.00	4	75
59	US 64 - 264 - W60	D61	Off Ramp	1500	Rolling	1338	17.62	0.00	3	75

59	Off Ramp	272	7.00	0.00	1	525	30
61	On Ramp	1845	6.00	0.00	1	950	50
63	Off Ramp	920	3.00	0.00	1	200	50
65	On Ramp	1342	4.00	0.00	1	875	50

60	US 64 - 264 - D61	B62	Basic Segment	3550	Rolling	1066	20.33	0.00	3	75
61	US 64 - 264 - B62	M63	On Ramp	1500	Rolling	2911	11.25	0.00	3	75
62	M63	B64	Basic Segment	2350	Rolling	2911	11.25	0.00	3	75
63	US 64 - B64	D65	Off Ramp	1500	Rolling	2911	11.25	0.00	3	75
64	US 64 - D65	B66	Basic Segment	4250	Rolling	1991	15.06	0.00	3	75
65	US 64 - B66	M67	On Ramp	1500	Rolling	3333	10.61	0.00	3	75
66	M67	End NC540 EB	Basic Segment	5280	Rolling	3333	10.61	0.00	3	75

Weaving Segment Data

Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp				
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS
58	0.247	595	6.00	0.00	1	50	438	7.00	0.00	1	50

Time Period Independent Weaving Segment Data

Seg #	Configuration	Short Length	# Weaving Lanes	Min. Lane Changes Freeway-Ramp	Min. Lane Changes Ramp-Freeway	Min. Lane Changes Ramp-Ramp
58	OneSide	1650	2	1	1	0

HCS 2010 Freeway Facilities

Project Properties

Analyst	HNTB	**Freeway Name**	Complete 540 - 2016 Build WB AM	**Analysis Period**	AM Peak
Analysis Date	9/19/2014 10:49:55 AM	**From**	US Business 64	**Version Date**	1/20/16
Agency	HNTB	**To**	Old Holly Springs-Apex		
Location	Complete 540	**Analysis Direction**	Westbound/Southbound		
User Notes					
File Name	C:\Temp\preview.xml				

Facility-wide Values

Jam Density (pc/h/ln)	190	**Time Period Duration (min)**	15	**Facility Length (mi)**	**32.15600**

Segment Input Data

Time Period 1

Mainline Data

Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin NC540 WB	B69	Basic Segment	5280	Rolling	2943	4.00	0.00	3	75
2	US 64 - B69	D70	Off Ramp	1500	Rolling	2943	4.00	0.00	3	75
3	US 64 - D70	B71	Basic Segment	575	Rolling	2496	4.18	0.00	3	75
4	US 64 - B71	D72	Off Ramp	1500	Rolling	2496	4.18	0.00	3	75
5	US 64 - D72	B73	Basic Segment	1725	Rolling	1748	4.68	0.00	3	75
6	US 64 - B73	M74	On Ramp	1500	Rolling	2567	5.42	0.00	3	75
7	M74	B75	Basic Segment	4125	Rolling	2567	5.42	0.00	3	75
8	US 64 - 264 - B75	D76	Off Ramp	1500	Rolling	2567	5.42	0.00	3	75
9	US 64 - 264 - D76	B77	Basic Segment	225	Rolling	1630	6.24	0.00	3	75
10	US 64 - 264 - B77	D78	Off Ramp	1500	Rolling	1630	6.24	0.00	3	75
11	US 64 - 264 - D78	B79	Basic Segment	2300	Rolling	925	7.95	0.00	3	75
12	B79	W80	Weaving	1850	Rolling	1557	7.16	0.00	4	75
13	Poole - W80	B81	Basic Segment	1850	Rolling	1027	9.82	0.00	3	75
14	Poole - B81	M82	On Ramp	1500	Rolling	1078	9.64	0.00	3	75
15	M82	B83	Basic Segment	2600	Rolling	1078	9.64	0.00	3	75
16	Auburn Knight - B83	D84	Off Ramp	1500	Rolling	1078	9.64	0.00	3	75
17	Auburn Knight - D84	B85	Basic Segment	1600	Rolling	1022	10.00	0.00	3	75
18	Auburn Knight - B85	M86	On Ramp	1500	Rolling	1075	9.80	0.00	3	75
19	M86	B87	Basic Segment	8600	Rolling	1075	9.80	0.00	3	75
20	Rock Quarry - B87	D88	Off Ramp	1500	Rolling	1075	9.80	0.00	3	75
21	Rock Quarry - D88	B89	Basic Segment	1550	Rolling	914	11.18	0.00	3	75
22	Rock Quarry - B89	M90	On Ramp	1500	Rolling	1036	10.57	0.00	3	75

RampData

Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	Off Ramp	447	3.00	0.00	1	200	50
4	Off Ramp	748	3.00	0.00	1	1500	30
6	On Ramp	819	7.00	0.00	1	950	50
8	Off Ramp	937	4.00	0.00	1	250	50
10	Off Ramp	705	4.00	0.00	1	1500	30
14	On Ramp	51	6.00	0.00	1	900	50
16	Off Ramp	56	3.00	0.00	1	900	50
18	On Ramp	53	6.00	0.00	1	1500	30
20	Off Ramp	161	2.00	0.00	1	900	50
22	On Ramp	122	6.00	0.00	1	1500	30
24	Off Ramp	172	5.00	0.00	1	175	50
26	On Ramp	303	6.00	0.00	1	1500	30
28	On Ramp	151	6.00	0.00	1	750	50
30	Off Ramp	353	2.00	0.00	1	1200	30
32	On Ramp	260	6.00	0.00	1	900	50
34	Off Ramp	771	5.00	0.00	1	900	50
38	On Ramp	194	6.00	0.00	2	1500	50
40	Off Ramp	380	2.00	0.00	1	1500	30
42	On Ramp	514	6.00	0.00	1	900	50
44	Off Ramp	117	2.00	0.00	1	900	50
46	On Ramp	777	6.00	0.00	1	900	50
48	Off Ramp	645	2.00	0.00	1	1275	50
50	On Ramp	277	6.00	0.00	1	1500	30
52	On Ramp	170	6.00	0.00	1	900	50
54	Off Ramp	395	2.00	0.00	1	225	50
56	On Ramp	346	6.00	0.00	1	1400	30

23	M90	B91	Basic Segment	1575	Rolling	1036	10.57	0.00	3	75
24	US 70 - B91	D92	Off Ramp	1500	Rolling	1036	10.57	0.00	3	75
25	US 70 - D92	B93	Basic Segment	1875	Rolling	864	11.68	0.00	3	75
26	US 70 - B93	M94	On Ramp	1500	Rolling	1167	10.20	0.00	3	75
27	US 70 - M94	B95	Basic Segment	825	Rolling	1167	10.20	0.00	3	75
28	US 70 - B95	M96	On Ramp	1500	Rolling	1318	9.72	0.00	3	75
29	M96	B97	Basic Segment	3500	Rolling	1318	9.72	0.00	3	75
30	White Oak - B97	D98	Off Ramp	1500	Rolling	1318	9.72	0.00	3	75
31	White Oak - D98	B99	Basic Segment	1675	Rolling	965	12.55	0.00	3	75
32	White Oak - B99	M100	On Ramp	1500	Rolling	1225	11.16	0.00	3	75
33	M100	B101	Basic Segment	1700	Rolling	1225	11.16	0.00	3	75
34	I-40 - B101	D102	Off Ramp	1500	Rolling	1225	11.16	0.00	3	75
35	I-40 - D102	B103	Basic Segment	4700	Rolling	454	21.61	0.00	3	75
36	I-40 - B103	W104	Weaving	1150	Rolling	978	13.25	0.00	4	75
37	I-40 - W104	B105	Basic Segment	4350	Rolling	674	16.97	0.00	3	75
38	I-40 - B105	M106	On Ramp	1500	Rolling	868	14.52	0.00	3	75
39	M106	B107	Basic Segment	3925	Rolling	868	14.52	0.00	3	75
40	NC 50 - B107	D108	Off Ramp	1500	Rolling	868	14.52	0.00	3	75
41	NC 50 - D108	B109	Basic Segment	1850	Rolling	488	24.26	0.00	3	75
42	NC 50 - B109	M110	On Ramp	1500	Rolling	1002	14.90	0.00	3	75
43	M110	B111	Basic Segment	14425	Rolling	1002	14.90	0.00	3	75
44	Old Stage - B111	D112	Off Ramp	1500	Rolling	1002	14.90	0.00	3	75
45	Old Stage - D112	B113	Basic Segment	3750	Rolling	885	16.60	0.00	3	75
46	Old Stage - B113	M114	On Ramp	1500	Rolling	1662	11.64	0.00	3	75
47	M114	B115	Basic Segment	4675	Rolling	1662	11.64	0.00	3	75
48	US 401 - B115	D116	Off Ramp	1500	Rolling	1662	11.64	0.00	3	75
49	US 401 - D116	B117	Basic Segment	1600	Rolling	1017	17.76	0.00	3	75
50	US 401 - B117	M118	On Ramp	1500	Rolling	1294	15.24	0.00	3	75
51	US 401 - M118	B119	Basic Segment	500	Rolling	1294	15.24	0.00	3	75
52	US 401 - B119	M120	On Ramp	1500	Rolling	1464	14.17	0.00	3	75
53	M120	B121	Basic Segment	6725	Rolling	1464	14.17	0.00	3	75
54	Bells Lake - B121	D122	Off Ramp	1500	Rolling	1464	14.17	0.00	3	75
55	Bells Lake - D122	B123	Basic Segment	2350	Rolling	1069	18.67	0.00	3	75
56	Bells Lake - B123	M124	On Ramp	1500	Rolling	1415	15.57	0.00	3	75
57	M124	B125	Basic Segment	9975	Rolling	1415	15.57	0.00	3	75
58	Holly Springs - B125	D126	Off Ramp	1500	Rolling	1415	15.57	0.00	3	75
59	Holly Springs	B127	Basic Segment	3275	Rolling	838	24.91	0.00	3	75

58	Off Ramp	577	2.00	0.00	1	175	50
60	On Ramp	248	6.00	0.00	1	900	50
62	Off Ramp	331	4.00	0.00	1	275	50
64	On Ramp	873	6.00	0.00	1	1500	30
66	On Ramp	50	6.00	0.00	1	700	50

	- D126									
60	Holly Springs - B127	M128	On Ramp	1500	Rolling	1086	20.59	0.00	3	75
61	M128	B129	Basic Segment	9250	Rolling	1086	20.59	0.00	3	75
62	NC 55 BYP - B129	D130	Off Ramp	1500	Rolling	1086	20.59	0.00	3	75
63	NC 55 BYP - D130	B131	Basic Segment	1675	Rolling	755	27.87	0.00	3	75
64	NC 55 BYP- B131	M132	On Ramp	1500	Rolling	1628	16.14	0.00	3	75
65	NC 55 BYP - M132	B133	Basic Segment	400	Rolling	1628	16.14	0.00	3	75
66	NC 55 BYP - B134	M134	On Ramp	1500	Rolling	1678	15.84	0.00	3	75
67	OHSARI - M136	End NC540 WB	Basic Segment	5280	Rolling	1678	15.84	0.00	3	75

Weaving Segment Data

Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp				
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS
12	0.339	632	6.00	0.00	1	50	530	2.00	0.00	1	30
36	0.310	524	6.00	0.00	1	30	304	5.00	0.00	1	30

Time Period 2

Mainline Data

Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin NC540 WB	B69	Basic Segment	5280	Rolling	3311	4.00	0.00	3	75
2	US 64 - B69	D70	Off Ramp	1500	Rolling	2999	8.00	0.00	3	75
3	US 64 - D70	B71	Basic Segment	575	Rolling	2454	8.89	0.00	3	75
4	US 64 - B71	D72	Off Ramp	1500	Rolling	2454	8.89	0.00	3	75
5	US 64 - D72	B73	Basic Segment	1725	Rolling	1880	10.38	0.00	3	75
6	US 64 - B73	M74	On Ramp	1500	Rolling	2521	8.76	0.00	3	75
7	M74	B75	Basic Segment	4125	Rolling	2521	8.76	0.00	3	75
8	US 64 - 264 - B75	D76	Off Ramp	1500	Rolling	2521	8.76	0.00	3	75
9	US 64 - 264 - D76	B77	Basic Segment	225	Rolling	2139	8.89	0.00	3	75
10	US 64 - 264 - B77	D78	Off Ramp	1500	Rolling	2139	8.89	0.00	3	75
11	US 64 - 264 - D78	B79	Basic Segment	2300	Rolling	1000	9.26	0.00	3	75
12	B79	W80	Weaving	1850	Rolling	2432	8.79	0.00	4	75
13	Poole - W80	B81	Basic Segment	1850	Rolling	1000	10.50	0.00	3	75
14	Poole - B81	M82	On Ramp	1500	Rolling	1996	10.27	0.00	3	75
15	M82	B83	Basic Segment	2600	Rolling	1000	10.27	0.00	3	75
16	Auburn Knight - B83	D84	Off Ramp	1500	Rolling	1996	10.27	0.00	3	75
17	Auburn Knight - D84	B85	Basic Segment	1600	Rolling	1000	10.59	0.00	3	75
18	Auburn Knight - B85	M86	On Ramp	1500	Rolling	2002	10.25	0.00	3	75
19	M86	B87	Basic Segment	8600	Rolling	1000	10.25	0.00	3	75
20	Rock Quarry - B87	D88	Off Ramp	1500	Rolling	2002	10.25	0.00	3	75
21	Rock Quarry - D88	B89	Basic Segment	1550	Rolling	1000	11.24	0.00	3	75
	Rock		On							

RampData

Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	Off Ramp	502	3.00	0.00	1	200	50
4	Off Ramp	840	3.00	0.00	1	1500	30
6	On Ramp	920	7.00	0.00	1	950	50
8	Off Ramp	1053	4.00	0.00	1	250	50
10	Off Ramp	792	4.00	0.00	1	1500	30
14	On Ramp	57	6.00	0.00	1	900	50
16	Off Ramp	63	3.00	0.00	1	900	50
18	On Ramp	59	6.00	0.00	1	1500	30
20	Off Ramp	181	2.00	0.00	1	900	50
22	On Ramp	137	6.00	0.00	1	1500	30
24	Off Ramp	193	5.00	0.00	1	175	50
26	On Ramp	340	6.00	0.00	1	1500	30
28	On Ramp	170	6.00	0.00	1	750	50
30	Off Ramp	397	2.00	0.00	1	1200	30
32	On Ramp	292	6.00	0.00	1	900	50
34	Off Ramp	866	5.00	0.00	1	900	50
38	On Ramp	218	6.00	0.00	2	1500	50
40	Off Ramp	427	2.00	0.00	1	1500	30
42	On Ramp	578	6.00	0.00	1	900	50
44	Off Ramp	131	2.00	0.00	1	900	50
46	On Ramp	873	6.00	0.00	1	900	50
48	Off Ramp	725	2.00	0.00	1	1275	50
50	On Ramp	311	6.00	0.00	1	1500	30
52	On Ramp	191	6.00	0.00	1	900	50
54	Off Ramp	444	2.00	0.00	1	225	50

22	Quarry - B89	M90	Ramp	1500	Rolling	1855	10.90	0.00	3	75
23	M90	B91	Basic Segment	1575	Rolling	1000	10.90	0.00	3	75
24	US 70 - B91	D92	Off Ramp	1500	Rolling	1855	10.90	0.00	3	75
25	US 70 - D92	B93	Basic Segment	1875	Rolling	1000	14.90	0.00	3	75
26	US 70 - B93	M94	On Ramp	1500	Rolling	1353	13.46	0.00	3	75
27	US 70 - M94	B95	Basic Segment	825	Rolling	1000	13.46	0.00	3	75
28	US 70 - B95	M96	On Ramp	1500	Rolling	1475	12.68	0.00	3	75
29	M96	B97	Basic Segment	3500	Rolling	1000	12.68	0.00	3	75
30	White Oak - B97	D98	Off Ramp	1500	Rolling	1475	12.68	0.00	3	75
31	White Oak - D98	B99	Basic Segment	1675	Rolling	1000	16.71	0.00	3	75
32	White Oak - B99	M100	On Ramp	1500	Rolling	1135	15.88	0.00	3	75
33	M100	B101	Basic Segment	1700	Rolling	1000	15.88	0.00	3	75
34	I-40 - B101	D102	Off Ramp	1500	Rolling	1135	15.88	0.00	3	75
35	I-40 - D102	B103	Basic Segment	4700	Rolling	1000	25.16	0.00	3	75
36	I-40 - B103	W104	Weaving	1150	Rolling	1211	15.45	0.00	4	75
37	I-40 - W104	B105	Basic Segment	4350	Rolling	1000	15.70	0.00	3	75
38	I-40 - B105	M106	On Ramp	1500	Rolling	1586	13.92	0.00	3	75
39	M106	B107	Basic Segment	3925	Rolling	1000	13.92	0.00	3	75
40	NC 50 - B107	D108	Off Ramp	1500	Rolling	1586	13.92	0.00	3	75
41	NC 50 - D108	B109	Basic Segment	1850	Rolling	1000	15.28	0.00	3	75
42	NC 50 - B109	M110	On Ramp	1500	Rolling	1756	12.77	0.00	3	75
43	M110	B111	Basic Segment	14425	Rolling	1000	12.77	0.00	3	75
44	Old Stage - B111	D112	Off Ramp	1500	Rolling	1756	12.77	0.00	3	75
45	Old Stage - D112	B113	Basic Segment	3750	Rolling	1000	13.17	0.00	3	75
46	Old Stage - B113	M114	On Ramp	1500	Rolling	2195	10.61	0.00	3	75
47	M114	B115	Basic Segment	4675	Rolling	1000	10.61	0.00	3	75
48	US 401 - B115	D116	Off Ramp	1500	Rolling	2195	10.61	0.00	3	75
49	US 401 - D116	B117	Basic Segment	1600	Rolling	1000	12.95	0.00	3	75
50	US 401 - B117	M118	On Ramp	1500	Rolling	2053	11.21	0.00	3	75
51	US 401 - M118	B119	Basic Segment	500	Rolling	1000	11.21	0.00	3	75
52	US 401 - B119	M120	On Ramp	1500	Rolling	2119	10.92	0.00	3	75
53	M120	B121	Basic Segment	6725	Rolling	1000	10.92	0.00	3	75
54	Bells Lake - B121	D122	Off Ramp	1500	Rolling	2119	10.92	0.00	3	75
55	Bells Lake - D122	B123	Basic Segment	2350	Rolling	1000	14.57	0.00	3	75
56	Bells Lake - B123	M124	On Ramp	1500	Rolling	1562	14.10	0.00	3	75
57	M124	B125	Basic Segment	9975	Rolling	1000	14.10	0.00	3	75
58	Holly Springs - B125	D126	Off Ramp	1500	Rolling	1562	14.10	0.00	3	75

56	On Ramp	389	6.00	0.00	1	1400	30
58	Off Ramp	648	2.00	0.00	1	175	50
60	On Ramp	279	6.00	0.00	1	900	50
62	Off Ramp	372	4.00	0.00	1	275	50
64	On Ramp	981	6.00	0.00	1	1500	30
66	On Ramp	56	6.00	0.00	1	700	50

59	Holly Springs - D126	B127	Basic Segment	3275	Rolling	1000	20.13	0.00	3	75
60	Holly Springs - B127	M128	On Ramp	1500	Rolling	1333	16.18	0.00	3	75
61	M128	B129	Basic Segment	9250	Rolling	1000	16.18	0.00	3	75
62	NC 55 BYP - B129	D130	Off Ramp	1500	Rolling	1333	16.18	0.00	3	75
63	NC 55 BYP - D130	B131	Basic Segment	1675	Rolling	1000	22.58	0.00	3	75
64	NC 55 BYP- B131	M132	On Ramp	1500	Rolling	1427	15.51	0.00	3	75
65	NC 55 BYP - M132	B133	Basic Segment	400	Rolling	1427	15.51	0.00	3	75
66	NC 55 BYP - B134	M134	On Ramp	1500	Rolling	1671	14.12	0.00	3	75
67	OHSARI - M136	End NC540 WB	Basic Segment	5280	Rolling	1671	14.12	0.00	3	75

Weaving Segment Data

Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp				
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS
12	0.339	710	6.00	0.00	1	50	595	2.00	0.00	1	30
36	0.310	589	6.00	0.00	1	30	342	5.00	0.00	1	30

Time Period 3

Mainline Data

Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin NC540 WB	B69	Basic Segment	5280	Rolling	3679	4.00	0.00	3	75
2	US 64 - B69	D70	Off Ramp	1500	Rolling	3332	8.00	0.00	3	75
3	US 64 - D70	B71	Basic Segment	575	Rolling	2727	8.89	0.00	3	75
4	US 64 - B71	D72	Off Ramp	1500	Rolling	2727	8.89	0.00	3	75
5	US 64 - D72	B73	Basic Segment	1725	Rolling	2090	10.38	0.00	3	75
6	US 64 - B73	M74	On Ramp	1500	Rolling	2802	8.76	0.00	3	75
7	M74	B75	Basic Segment	4125	Rolling	2802	8.76	0.00	3	75
8	US 64 - 264 - B75	D76	Off Ramp	1500	Rolling	2802	8.76	0.00	3	75
9	US 64 - 264 - D76	B77	Basic Segment	225	Rolling	2378	8.89	0.00	3	75
10	US 64 - 264 - B77	D78	Off Ramp	1500	Rolling	2378	8.89	0.00	3	75
11	US 64 - 264 - D78	B79	Basic Segment	2300	Rolling	1000	9.26	0.00	3	75
12	B79	W80	Weaving	1850	Rolling	2703	8.78	0.00	4	75
13	Poole - W80	B81	Basic Segment	1850	Rolling	1000	10.49	0.00	3	75
14	Poole - B81	M82	On Ramp	1500	Rolling	2219	10.26	0.00	3	75
15	M82	B83	Basic Segment	2600	Rolling	1000	10.26	0.00	3	75
16	Auburn Knight - B83	D84	Off Ramp	1500	Rolling	2219	10.26	0.00	3	75
17	Auburn Knight - D84	B85	Basic Segment	1600	Rolling	1000	10.58	0.00	3	75
18	Auburn Knight - B85	M86	On Ramp	1500	Rolling	2226	10.24	0.00	3	75
19	M86	B87	Basic Segment	8600	Rolling	1000	10.24	0.00	3	75
20	Rock Quarry - B87	D88	Off Ramp	1500	Rolling	2226	10.24	0.00	3	75
21	Rock Quarry - D88	B89	Basic Segment	1550	Rolling	1000	11.23	0.00	3	75

RampData

Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	Off Ramp	557	3.00	0.00	1	200	50
4	Off Ramp	932	3.00	0.00	1	1500	30
6	On Ramp	1021	7.00	0.00	1	950	50
8	Off Ramp	1169	4.00	0.00	1	250	50
10	Off Ramp	879	4.00	0.00	1	1500	30
14	On Ramp	63	6.00	0.00	1	900	50
16	Off Ramp	70	3.00	0.00	1	900	50
18	On Ramp	65	6.00	0.00	1	1500	30
20	Off Ramp	201	2.00	0.00	1	900	50
22	On Ramp	152	6.00	0.00	1	1500	30
24	Off Ramp	214	5.00	0.00	1	175	50
26	On Ramp	377	6.00	0.00	1	1500	30
28	On Ramp	189	6.00	0.00	1	750	50
30	Off Ramp	441	2.00	0.00	1	1200	30
32	On Ramp	324	6.00	0.00	1	900	50
34	Off Ramp	961	5.00	0.00	1	900	50
38	On Ramp	242	6.00	0.00	2	1500	50
40	Off Ramp	474	2.00	0.00	1	1500	30
42	On Ramp	642	6.00	0.00	1	900	50
44	Off Ramp	145	2.00	0.00	1	900	50
46	On Ramp	969	6.00	0.00	1	900	50
48	Off Ramp	805	2.00	0.00	1	1275	50
50	On Ramp	345	6.00	0.00	1	1500	30
52	On Ramp	212	6.00	0.00	1	900	50
	Off						

22	Rock Quarry - B89	M90	On Ramp	1500	Rolling	2062	10.90	0.00	3	75
23	M90	B91	Basic Segment	1575	Rolling	1000	10.90	0.00	3	75
24	US 70 - B91	D92	Off Ramp	1500	Rolling	2062	10.90	0.00	3	75
25	US 70 - D92	B93	Basic Segment	1875	Rolling	1000	14.89	0.00	3	75
26	US 70 - B93	M94	On Ramp	1500	Rolling	1505	13.45	0.00	3	75
27	US 70 - M94	B95	Basic Segment	825	Rolling	1000	13.45	0.00	3	75
28	US 70 - B95	M96	On Ramp	1500	Rolling	1640	12.67	0.00	3	75
29	M96	B97	Basic Segment	3500	Rolling	1000	12.67	0.00	3	75
30	White Oak - B97	D98	Off Ramp	1500	Rolling	1640	12.67	0.00	3	75
31	White Oak - D98	B99	Basic Segment	1675	Rolling	1000	16.68	0.00	3	75
32	White Oak - B99	M100	On Ramp	1500	Rolling	1263	15.86	0.00	3	75
33	M100	B101	Basic Segment	1700	Rolling	1000	15.86	0.00	3	75
34	I-40 - B101	D102	Off Ramp	1500	Rolling	1263	15.86	0.00	3	75
35	I-40 - D102	B103	Basic Segment	4700	Rolling	1000	25.07	0.00	3	75
36	I-40 - B103	W104	Weaving	1150	Rolling	1347	15.43	0.00	4	75
37	I-40 - W104	B105	Basic Segment	4350	Rolling	1000	15.68	0.00	3	75
38	I-40 - B105	M106	On Ramp	1500	Rolling	1763	13.91	0.00	3	75
39	M106	B107	Basic Segment	3925	Rolling	1000	13.91	0.00	3	75
40	NC 50 - B107	D108	Off Ramp	1500	Rolling	1763	13.91	0.00	3	75
41	NC 50 - D108	B109	Basic Segment	1850	Rolling	1000	15.27	0.00	3	75
42	NC 50 - B109	M110	On Ramp	1500	Rolling	1952	12.76	0.00	3	75
43	M110	B111	Basic Segment	14425	Rolling	1000	12.76	0.00	3	75
44	Old Stage - B111	D112	Off Ramp	1500	Rolling	1952	12.76	0.00	3	75
45	Old Stage - D112	B113	Basic Segment	3750	Rolling	1000	13.16	0.00	3	75
46	Old Stage - B113	M114	On Ramp	1500	Rolling	2439	10.61	0.00	3	75
47	M114	B115	Basic Segment	4675	Rolling	1000	10.61	0.00	3	75
48	US 401 - B115	D116	Off Ramp	1500	Rolling	2439	10.61	0.00	3	75
49	US 401 - D116	B117	Basic Segment	1600	Rolling	1000	12.95	0.00	3	75
50	US 401 - B117	M118	On Ramp	1500	Rolling	2281	11.21	0.00	3	75
51	US 401 - M118	B119	Basic Segment	500	Rolling	1000	11.21	0.00	3	75
52	US 401 - B119	M120	On Ramp	1500	Rolling	2354	10.92	0.00	3	75
53	M120	B121	Basic Segment	6725	Rolling	1000	10.92	0.00	3	75
54	Bells Lake - B121	D122	Off Ramp	1500	Rolling	2354	10.92	0.00	3	75
55	Bells Lake - D122	B123	Basic Segment	2350	Rolling	1000	14.57	0.00	3	75
56	Bells Lake - B123	M124	On Ramp	1500	Rolling	1735	14.10	0.00	3	75
57	M124	B125	Basic Segment	9975	Rolling	1000	14.10	0.00	3	75
58	Holly Springs	D126	Off Ramp	1500	Rolling	1735	14.10	0.00	3	75

54	Ramp	493	2.00	0.00	1	225	50
56	On Ramp	432	6.00	0.00	1	1400	30
58	Off Ramp	719	2.00	0.00	1	175	50
60	On Ramp	310	6.00	0.00	1	900	50
62	Off Ramp	413	4.00	0.00	1	275	50
64	On Ramp	1089	6.00	0.00	1	1500	30
66	On Ramp	62	6.00	0.00	1	700	50

	- B125									
59	Holly Springs - D126	B127	Basic Segment	3275	Rolling	1000	20.12	0.00	3	75
60	Holly Springs - B127	M128	On Ramp	1500	Rolling	1481	16.18	0.00	3	75
61	M128	B129	Basic Segment	9250	Rolling	1000	16.18	0.00	3	75
62	NC 55 BYP - B129	D130	Off Ramp	1500	Rolling	1481	16.18	0.00	3	75
63	NC 55 BYP - D130	B131	Basic Segment	1675	Rolling	1000	22.57	0.00	3	75
64	NC 55 BYP- B131	M132	On Ramp	1500	Rolling	1585	15.51	0.00	3	75
65	NC 55 BYP - M132	B133	Basic Segment	400	Rolling	1585	15.51	0.00	3	75
66	NC 55 BYP - B134	M134	On Ramp	1500	Rolling	1856	14.12	0.00	3	75
67	OHSARI - M136	End NC540 WB	Basic Segment	5280	Rolling	1856	14.12	0.00	3	75

Weaving Segment Data

Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp				
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS
12	0.339	788	6.00	0.00	1	50	660	2.00	0.00	1	30
36	0.310	654	6.00	0.00	1	30	380	5.00	0.00	1	30

Time Period 4

Mainline Data

Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin NC540 WB	B69	Basic Segment	5280	Rolling	3311	4.00	0.00	3	75
2	US 64 - B69	D70	Off Ramp	1500	Rolling	2999	8.00	0.00	3	75
3	US 64 - D70	B71	Basic Segment	575	Rolling	2454	8.89	0.00	3	75
4	US 64 - B71	D72	Off Ramp	1500	Rolling	2454	8.89	0.00	3	75
5	US 64 - D72	B73	Basic Segment	1725	Rolling	1880	10.38	0.00	3	75
6	US 64 - B73	M74	On Ramp	1500	Rolling	2521	8.76	0.00	3	75
7	M74	B75	Basic Segment	4125	Rolling	2521	8.76	0.00	3	75
8	US 64 - 264 - B75	D76	Off Ramp	1500	Rolling	2521	8.76	0.00	3	75
9	US 64 - 264 - D76	B77	Basic Segment	225	Rolling	2139	8.89	0.00	3	75
10	US 64 - 264 - B77	D78	Off Ramp	1500	Rolling	2139	8.89	0.00	3	75
11	US 64 - 264 - D78	B79	Basic Segment	2300	Rolling	1000	9.26	0.00	3	75
12	B79	W80	Weaving	1850	Rolling	2432	8.79	0.00	4	75
13	Poole - W80	B81	Basic Segment	1850	Rolling	1000	10.50	0.00	3	75
14	Poole - B81	M82	On Ramp	1500	Rolling	1996	10.27	0.00	3	75
15	M82	B83	Basic Segment	2600	Rolling	1000	10.27	0.00	3	75
16	Auburn Knight - B83	D84	Off Ramp	1500	Rolling	1996	10.27	0.00	3	75
17	Auburn Knight - D84	B85	Basic Segment	1600	Rolling	1000	10.59	0.00	3	75
18	Auburn Knight - B85	M86	On Ramp	1500	Rolling	2002	10.25	0.00	3	75
19	M86	B87	Basic Segment	8600	Rolling	1000	10.25	0.00	3	75
20	Rock Quarry - B87	D88	Off Ramp	1500	Rolling	2002	10.25	0.00	3	75
	Rock		Basic							

RampData

Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	Off Ramp	502	3.00	0.00	1	200	50
4	Off Ramp	840	3.00	0.00	1	1500	30
6	On Ramp	920	7.00	0.00	1	950	50
8	Off Ramp	1053	4.00	0.00	1	250	50
10	Off Ramp	792	4.00	0.00	1	1500	30
14	On Ramp	57	6.00	0.00	1	900	50
16	Off Ramp	63	3.00	0.00	1	900	50
18	On Ramp	59	6.00	0.00	1	1500	30
20	Off Ramp	181	2.00	0.00	1	900	50
22	On Ramp	137	6.00	0.00	1	1500	30
24	Off Ramp	193	5.00	0.00	1	175	50
26	On Ramp	340	6.00	0.00	1	1500	30
28	On Ramp	170	6.00	0.00	1	750	50
30	Off Ramp	397	2.00	0.00	1	1200	30
32	On Ramp	292	6.00	0.00	1	900	50
34	Off Ramp	866	5.00	0.00	1	900	50
38	On Ramp	218	6.00	0.00	2	1500	50
40	Off Ramp	427	2.00	0.00	1	1500	30
42	On Ramp	578	6.00	0.00	1	900	50
44	Off Ramp	131	2.00	0.00	1	900	50
46	On Ramp	873	6.00	0.00	1	900	50
48	Off Ramp	725	2.00	0.00	1	1275	50
50	On Ramp	311	6.00	0.00	1	1500	30
52	On Ramp	191	6.00	0.00	1	900	50

21	Quarry - D88	B89	Segment	1550	Rolling	1000	11.24	0.00	3	75
22	Rock Quarry - B89	M90	On Ramp	1500	Rolling	1855	10.90	0.00	3	75
23	M90	B91	Basic Segment	1575	Rolling	1000	10.90	0.00	3	75
24	US 70 - B91	D92	Off Ramp	1500	Rolling	1855	10.90	0.00	3	75
25	US 70 - D92	B93	Basic Segment	1875	Rolling	1000	14.90	0.00	3	75
26	US 70 - B93	M94	On Ramp	1500	Rolling	1353	13.46	0.00	3	75
27	US 70 - M94	B95	Basic Segment	825	Rolling	1000	13.46	0.00	3	75
28	US 70 - B95	M96	On Ramp	1500	Rolling	1475	12.68	0.00	3	75
29	M96	B97	Basic Segment	3500	Rolling	1000	12.68	0.00	3	75
30	White Oak - B97	D98	Off Ramp	1500	Rolling	1475	12.68	0.00	3	75
31	White Oak - D98	B99	Basic Segment	1675	Rolling	1000	16.71	0.00	3	75
32	White Oak - B99	M100	On Ramp	1500	Rolling	1135	15.88	0.00	3	75
33	M100	B101	Basic Segment	1700	Rolling	1000	15.88	0.00	3	75
34	I-40 - B101	D102	Off Ramp	1500	Rolling	1135	15.88	0.00	3	75
35	I-40 - D102	B103	Basic Segment	4700	Rolling	1000	25.16	0.00	3	75
36	I-40 - B103	W104	Weaving	1150	Rolling	1211	15.45	0.00	4	75
37	I-40 - W104	B105	Basic Segment	4350	Rolling	1000	15.70	0.00	3	75
38	I-40 - B105	M106	On Ramp	1500	Rolling	1586	13.92	0.00	3	75
39	M106	B107	Basic Segment	3925	Rolling	1000	13.92	0.00	3	75
40	NC 50 - B107	D108	Off Ramp	1500	Rolling	1586	13.92	0.00	3	75
41	NC 50 - D108	B109	Basic Segment	1850	Rolling	1000	15.28	0.00	3	75
42	NC 50 - B109	M110	On Ramp	1500	Rolling	1756	12.77	0.00	3	75
43	M110	B111	Basic Segment	14425	Rolling	1000	12.77	0.00	3	75
44	Old Stage - B111	D112	Off Ramp	1500	Rolling	1756	12.77	0.00	3	75
45	Old Stage - D112	B113	Basic Segment	3750	Rolling	1000	13.17	0.00	3	75
46	Old Stage - B113	M114	On Ramp	1500	Rolling	2195	10.61	0.00	3	75
47	M114	B115	Basic Segment	4675	Rolling	1000	10.61	0.00	3	75
48	US 401 - B115	D116	Off Ramp	1500	Rolling	2195	10.61	0.00	3	75
49	US 401 - D116	B117	Basic Segment	1600	Rolling	1000	12.95	0.00	3	75
50	US 401 - B117	M118	On Ramp	1500	Rolling	2053	11.21	0.00	3	75
51	US 401 - M118	B119	Basic Segment	500	Rolling	1000	11.21	0.00	3	75
52	US 401 - B119	M120	On Ramp	1500	Rolling	2119	10.92	0.00	3	75
53	M120	B121	Basic Segment	6725	Rolling	1000	10.92	0.00	3	75
54	Bells Lake - B121	D122	Off Ramp	1500	Rolling	2119	10.92	0.00	3	75
55	Bells Lake - D122	B123	Basic Segment	2350	Rolling	1000	14.57	0.00	3	75
56	Bells Lake - B123	M124	On Ramp	1500	Rolling	1562	14.10	0.00	3	75
57	M124	B125	Basic Segment	9975	Rolling	1000	14.10	0.00	3	75

54	Off Ramp	444	2.00	0.00	1	225	50
56	On Ramp	389	6.00	0.00	1	1400	30
58	Off Ramp	648	2.00	0.00	1	175	50
60	On Ramp	279	6.00	0.00	1	900	50
62	Off Ramp	372	4.00	0.00	1	275	50
64	On Ramp	981	6.00	0.00	1	1500	30
66	On Ramp	56	6.00	0.00	1	700	50

58	Holly Springs - B125	D126	Off Ramp	1500	Rolling	1562	14.10	0.00	3	75
59	Holly Springs - D126	B127	Basic Segment	3275	Rolling	1000	20.13	0.00	3	75
60	Holly Springs - B127	M128	On Ramp	1500	Rolling	1333	16.18	0.00	3	75
61	M128	B129	Basic Segment	9250	Rolling	1000	16.18	0.00	3	75
62	NC 55 BYP - B129	D130	Off Ramp	1500	Rolling	1333	16.18	0.00	3	75
63	NC 55 BYP - D130	B131	Basic Segment	1675	Rolling	1000	22.58	0.00	3	75
64	NC 55 BYP- B131	M132	On Ramp	1500	Rolling	1427	15.51	0.00	3	75
65	NC 55 BYP - M132	B133	Basic Segment	400	Rolling	1427	15.51	0.00	3	75
66	NC 55 BYP - B134	M134	On Ramp	1500	Rolling	1671	14.12	0.00	3	75
67	OHSARI - M136	End NC540 WB	Basic Segment	5280	Rolling	1671	14.12	0.00	3	75

Weaving Segment Data

Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp				
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS
12	0.339	710	6.00	0.00	1	50	595	2.00	0.00	1	30
36	0.310	589	6.00	0.00	1	30	342	5.00	0.00	1	30

Time Period Independent Weaving Segment Data

Seg #	Configuration	Short Length	# Weaving Lanes	Min. Lane Changes Freeway-Ramp	Min. Lane Changes Ramp-Freeway	Min. Lane Changes Ramp-Ramp
12	OneSide	1850	2	1	1	0
36	OneSide	1150	2	1	1	0

HCS 2010 Freeway Facilities

Project Properties

Analyst	HNTB	**Freeway Name**	Complete 540 - 2016 Build WB PM	**Analysis Period**	PM Peak
Analysis Date	9/19/2014 10:49:55 AM	**From**	US 64 Business	**Version Date**	1/20/16
Agency	HNTB	**To**	Old Holly Springs-Apex		
Location	Complete 540	**Analysis Direction**	Westbound/Southbound		
User Notes					
File Name	C:\Temp\preview.xml				

Facility-wide Values

Jam Density (pc/h/ln)	190	**Time Period Duration (min)**	15	**Facility Length (mi)**	**32.15600**

Segment Input Data

Time Period 1

Mainline Data

Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin NC540 WB	B69	Basic Segment	5280	Rolling	3631	4.00	0.00	3	75
2	US 64 - B69	D70	Off Ramp	1500	Rolling	3631	4.00	0.00	3	75
3	US 64 - D70	B71	Basic Segment	575	Rolling	3268	4.11	0.00	3	75
4	US 64 - B71	D72	Off Ramp	1500	Rolling	3268	4.11	0.00	3	75
5	US 64 - D72	B73	Basic Segment	1725	Rolling	2163	4.68	0.00	3	75
6	US 64 - B73	M74	On Ramp	1500	Rolling	3110	5.39	0.00	3	75
7	M74	B75	Basic Segment	4125	Rolling	3110	5.39	0.00	3	75
8	US 64 - 264 - B75	D76	Off Ramp	1500	Rolling	3110	5.39	0.00	3	75
9	US 64 - 264 - D76	B77	Basic Segment	225	Rolling	2383	5.81	0.00	3	75
10	US 64 - 264 - B77	D78	Off Ramp	1500	Rolling	2383	5.81	0.00	3	75
11	US 64 - 264 - D78	B79	Basic Segment	2300	Rolling	1223	7.52	0.00	3	75
12	B79	W80	Weaving	1850	Rolling	1941	6.96	0.00	4	75
13	Poole - W80	B81	Basic Segment	1850	Rolling	1368	9.04	0.00	3	75
14	Poole - B81	M82	On Ramp	1500	Rolling	1445	8.88	0.00	3	75
15	M82	B83	Basic Segment	2600	Rolling	1445	8.88	0.00	3	75
16	Auburn Knight - B83	D84	Off Ramp	1500	Rolling	1445	8.88	0.00	3	75
17	Auburn Knight - D84	B85	Basic Segment	1600	Rolling	1390	9.11	0.00	3	75
18	Auburn Knight - B85	M86	On Ramp	1500	Rolling	1438	9.00	0.00	3	75
19	M86	B87	Basic Segment	8600	Rolling	1438	9.00	0.00	3	75
20	Rock Quarry - B87	D88	Off Ramp	1500	Rolling	1438	9.00	0.00	3	75
21	Rock Quarry - D88	B89	Basic Segment	1550	Rolling	1188	10.48	0.00	3	75
22	Rock Quarry - B89	M90	On Ramp	1500	Rolling	1369	9.89	0.00	3	75

RampData

Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	Off Ramp	363	3.00	0.00	1	200	50
4	Off Ramp	1105	3.00	0.00	1	1500	30
6	On Ramp	947	7.00	0.00	1	950	50
8	Off Ramp	727	4.00	0.00	1	250	50
10	Off Ramp	1160	4.00	0.00	1	1500	30
14	On Ramp	77	6.00	0.00	1	900	50
16	Off Ramp	55	3.00	0.00	1	900	50
18	On Ramp	48	6.00	0.00	1	1500	30
20	Off Ramp	250	2.00	0.00	1	900	50
22	On Ramp	181	6.00	0.00	1	1500	30
24	Off Ramp	368	5.00	0.00	1	175	50
26	On Ramp	135	6.00	0.00	1	1500	30
28	On Ramp	90	6.00	0.00	1	750	50
30	Off Ramp	344	2.00	0.00	1	1200	30
32	On Ramp	344	6.00	0.00	1	900	50
34	Off Ramp	602	5.00	0.00	1	900	50
38	On Ramp	140	6.00	0.00	2	1500	50
40	Off Ramp	284	2.00	0.00	1	1500	30
42	On Ramp	263	6.00	0.00	1	900	50
44	Off Ramp	83	2.00	0.00	1	900	50
46	On Ramp	543	6.00	0.00	1	900	50
48	Off Ramp	489	2.00	0.00	1	1275	50
50	On Ramp	146	6.00	0.00	1	1500	30
52	On Ramp	150	6.00	0.00	1	900	50
54	Off Ramp	268	2.00	0.00	1	225	50
56	On Ramp	212	6.00	0.00	1	1400	30

23	M90	B91	Basic Segment	1575	Rolling	1369	9.89	0.00	3	75
24	US 70 - B91	D92	Off Ramp	1500	Rolling	1369	9.89	0.00	3	75
25	US 70 - D92	B93	Basic Segment	1875	Rolling	1001	11.68	0.00	3	75
26	US 70 - B93	M94	On Ramp	1500	Rolling	1136	11.01	0.00	3	75
27	US 70 - M94	B95	Basic Segment	825	Rolling	1136	11.01	0.00	3	75
28	US 70 - B95	M96	On Ramp	1500	Rolling	1226	10.64	0.00	3	75
29	M96	B97	Basic Segment	3500	Rolling	1226	10.64	0.00	3	75
30	White Oak - B97	D98	Off Ramp	1500	Rolling	1226	10.64	0.00	3	75
31	White Oak - D98	B99	Basic Segment	1675	Rolling	882	14.01	0.00	3	75
32	White Oak - B99	M100	On Ramp	1500	Rolling	1226	11.76	0.00	3	75
33	M100	B101	Basic Segment	1700	Rolling	1226	11.76	0.00	3	75
34	I-40 - B101	D102	Off Ramp	1500	Rolling	1226	11.76	0.00	3	75
35	I-40 - D102	B103	Basic Segment	4700	Rolling	624	18.29	0.00	3	75
36	I-40 - B103	W104	Weaving	1150	Rolling	928	14.26	0.00	4	75
37	I-40 - W104	B105	Basic Segment	4350	Rolling	662	17.98	0.00	3	75
38	I-40 - B105	M106	On Ramp	1500	Rolling	802	15.89	0.00	3	75
39	M106	B107	Basic Segment	3925	Rolling	802	15.89	0.00	3	75
40	NC 50 - B107	D108	Off Ramp	1500	Rolling	802	15.89	0.00	3	75
41	NC 50 - D108	B109	Basic Segment	1850	Rolling	518	23.51	0.00	3	75
42	NC 50 - B109	M110	On Ramp	1500	Rolling	781	17.61	0.00	3	75
43	M110	B111	Basic Segment	14425	Rolling	781	17.61	0.00	3	75
44	Old Stage - B111	D112	Off Ramp	1500	Rolling	781	17.61	0.00	3	75
45	Old Stage - D112	B113	Basic Segment	3750	Rolling	698	19.47	0.00	3	75
46	Old Stage - B113	M114	On Ramp	1500	Rolling	1241	13.57	0.00	3	75
47	M114	B115	Basic Segment	4675	Rolling	1241	13.57	0.00	3	75
48	US 401 - B115	D116	Off Ramp	1500	Rolling	1241	13.57	0.00	3	75
49	US 401 - D116	B117	Basic Segment	1600	Rolling	752	21.10	0.00	3	75
50	US 401 - B117	M118	On Ramp	1500	Rolling	898	18.65	0.00	3	75
51	US 401 - M118	B119	Basic Segment	500	Rolling	898	18.65	0.00	3	75
52	US 401 - B119	M120	On Ramp	1500	Rolling	1048	16.84	0.00	3	75
53	M120	B121	Basic Segment	6725	Rolling	1048	16.84	0.00	3	75
54	Bells Lake - B121	D122	Off Ramp	1500	Rolling	1048	16.84	0.00	3	75
55	Bells Lake - D122	B123	Basic Segment	2350	Rolling	780	21.93	0.00	3	75
56	Bells Lake - B123	M124	On Ramp	1500	Rolling	992	18.53	0.00	3	75
57	M124	B125	Basic Segment	9975	Rolling	992	18.53	0.00	3	75
58	Holly Springs - B125	D126	Off Ramp	1500	Rolling	992	18.53	0.00	3	75
59	Holly Springs	B127	Basic Segment	3275	Rolling	586	29.98	0.00	3	75

58	Off Ramp	406	2.00	0.00	1	175	50
60	On Ramp	149	6.00	0.00	1	900	50
62	Off Ramp	242	4.00	0.00	1	275	50
64	On Ramp	424	6.00	0.00	1	1500	30
66	On Ramp	39	6.00	0.00	1	700	50

	- D126									
60	Holly Springs - B127	M128	On Ramp	1500	Rolling	735	25.12	0.00	3	75
61	M128	B129	Basic Segment	9250	Rolling	735	25.12	0.00	3	75
62	NC 55 BYP - B129	D130	Off Ramp	1500	Rolling	735	25.12	0.00	3	75
63	NC 55 BYP - D130	B131	Basic Segment	1675	Rolling	493	35.48	0.00	3	75
64	NC 55 BYP- B131	M132	On Ramp	1500	Rolling	917	21.85	0.00	3	75
65	NC 55 BYP - M132	B133	Basic Segment	400	Rolling	917	21.85	0.00	3	75
66	NC 55 BYP - B133	M134	On Ramp	1500	Rolling	956	21.21	0.00	3	75
67	OHSARI - M134	End NC540 WB	Basic Segment	5280	Rolling	956	21.21	0.00	3	75

Weaving Segment Data

Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp				
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS
12	0.295	718	6.00	0.00	1	50	573	2.00	0.00	1	30
36	0.286	304	6.00	0.00	1	30	266	5.00	0.00	1	30

Time Period 2

Mainline Data

Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin NC540 WB	B69	Basic Segment	5280	Rolling	4084	4.00	0.00	3	75
2	US 64 - B69	D70	Off Ramp	1500	Rolling	3920	8.00	0.00	3	75
3	US 64 - D70	B71	Basic Segment	575	Rolling	3405	8.60	0.00	3	75
4	US 64 - B71	D72	Off Ramp	1500	Rolling	3405	8.60	0.00	3	75
5	US 64 - D72	B73	Basic Segment	1725	Rolling	2475	10.34	0.00	3	75
6	US 64 - B73	M74	On Ramp	1500	Rolling	3352	8.68	0.00	3	75
7	M74	B75	Basic Segment	4125	Rolling	3352	8.68	0.00	3	75
8	US 64 - 264 - B75	D76	Off Ramp	1500	Rolling	3352	8.68	0.00	3	75
9	US 64 - 264 - D76	B77	Basic Segment	225	Rolling	2997	8.76	0.00	3	75
10	US 64 - 264 - B77	D78	Off Ramp	1500	Rolling	2997	8.76	0.00	3	75
11	US 64 - 264 - D78	B79	Basic Segment	2300	Rolling	1000	9.26	0.00	3	75
12	B79	W80	Weaving	1850	Rolling	2795	8.81	0.00	4	75
13	Poole - W80	B81	Basic Segment	1850	Rolling	1000	11.03	0.00	3	75
14	Poole - B81	M82	On Ramp	1500	Rolling	2143	10.89	0.00	3	75
15	M82	B83	Basic Segment	2600	Rolling	1000	10.89	0.00	3	75
16	Auburn Knight - B83	D84	Off Ramp	1500	Rolling	2143	10.89	0.00	3	75
17	Auburn Knight - D84	B85	Basic Segment	1600	Rolling	1000	11.17	0.00	3	75
18	Auburn Knight - B85	M86	On Ramp	1500	Rolling	2147	10.87	0.00	3	75
19	M86	B87	Basic Segment	8600	Rolling	1000	10.87	0.00	3	75
20	Rock Quarry - B87	D88	Off Ramp	1500	Rolling	2147	10.87	0.00	3	75
21	Rock Quarry - D88	B89	Basic Segment	1550	Rolling	1000	11.86	0.00	3	75
	Rock		On							

RampData

Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	Off Ramp	408	3.00	0.00	1	200	50
4	Off Ramp	1242	3.00	0.00	1	1500	30
6	On Ramp	1064	7.00	0.00	1	950	50
8	Off Ramp	817	4.00	0.00	1	250	50
10	Off Ramp	1303	4.00	0.00	1	1500	30
14	On Ramp	86	6.00	0.00	1	900	50
16	Off Ramp	62	3.00	0.00	1	900	50
18	On Ramp	54	6.00	0.00	1	1500	30
20	Off Ramp	281	2.00	0.00	1	900	50
22	On Ramp	203	6.00	0.00	1	1500	30
24	Off Ramp	414	5.00	0.00	1	175	50
26	On Ramp	152	6.00	0.00	1	1500	30
28	On Ramp	101	6.00	0.00	1	750	50
30	Off Ramp	386	2.00	0.00	1	1200	30
32	On Ramp	386	6.00	0.00	1	900	50
34	Off Ramp	676	5.00	0.00	1	900	50
38	On Ramp	157	6.00	0.00	2	1500	50
40	Off Ramp	319	2.00	0.00	1	1500	30
42	On Ramp	296	6.00	0.00	1	900	50
44	Off Ramp	93	2.00	0.00	1	900	50
46	On Ramp	610	6.00	0.00	1	900	50
48	Off Ramp	549	2.00	0.00	1	1275	50
50	On Ramp	164	6.00	0.00	1	1500	30
52	On Ramp	169	6.00	0.00	1	900	50
54	Off Ramp	301	2.00	0.00	1	225	50

22	Quarry - B89	M90	Ramp	1500	Rolling	1989	11.58	0.00	3	75
23	M90	B91	Basic Segment	1575	Rolling	1000	11.58	0.00	3	75
24	US 70 - B91	D92	Off Ramp	1500	Rolling	1989	11.58	0.00	3	75
25	US 70 - D92	B93	Basic Segment	1875	Rolling	1000	15.06	0.00	3	75
26	US 70 - B93	M94	On Ramp	1500	Rolling	1502	14.03	0.00	3	75
27	US 70 - M94	B95	Basic Segment	825	Rolling	1000	14.03	0.00	3	75
28	US 70 - B95	M96	On Ramp	1500	Rolling	1624	13.28	0.00	3	75
29	M96	B97	Basic Segment	3500	Rolling	1000	13.28	0.00	3	75
30	White Oak - B97	D98	Off Ramp	1500	Rolling	1624	13.28	0.00	3	75
31	White Oak - D98	B99	Basic Segment	1675	Rolling	1000	16.50	0.00	3	75
32	White Oak - B99	M100	On Ramp	1500	Rolling	1335	15.72	0.00	3	75
33	M100	B101	Basic Segment	1700	Rolling	1000	15.72	0.00	3	75
34	I-40 - B101	D102	Off Ramp	1500	Rolling	1335	15.72	0.00	3	75
35	I-40 - D102	B103	Basic Segment	4700	Rolling	1000	21.43	0.00	3	75
36	I-40 - B103	W104	Weaving	1150	Rolling	1046	17.58	0.00	4	75
37	I-40 - W104	B105	Basic Segment	4350	Rolling	1000	18.17	0.00	3	75
38	I-40 - B105	M106	On Ramp	1500	Rolling	1221	16.35	0.00	3	75
39	M106	B107	Basic Segment	3925	Rolling	1000	16.35	0.00	3	75
40	NC 50 - B107	D108	Off Ramp	1500	Rolling	1221	16.35	0.00	3	75
41	NC 50 - D108	B109	Basic Segment	1850	Rolling	1000	18.33	0.00	3	75
42	NC 50 - B109	M110	On Ramp	1500	Rolling	1263	15.87	0.00	3	75
43	M110	B111	Basic Segment	14425	Rolling	1000	15.87	0.00	3	75
44	Old Stage - B111	D112	Off Ramp	1500	Rolling	1263	15.87	0.00	3	75
45	Old Stage - D112	B113	Basic Segment	3750	Rolling	1000	16.39	0.00	3	75
46	Old Stage - B113	M114	On Ramp	1500	Rolling	1531	13.44	0.00	3	75
47	M114	B115	Basic Segment	4675	Rolling	1000	13.44	0.00	3	75
48	US 401 - B115	D116	Off Ramp	1500	Rolling	1531	13.44	0.00	3	75
49	US 401 - D116	B117	Basic Segment	1600	Rolling	1000	17.34	0.00	3	75
50	US 401 - B117	M118	On Ramp	1500	Rolling	1308	15.39	0.00	3	75
51	US 401 - M118	B119	Basic Segment	500	Rolling	1000	15.39	0.00	3	75
52	US 401 - B119	M120	On Ramp	1500	Rolling	1375	14.74	0.00	3	75
53	M120	B121	Basic Segment	6725	Rolling	1000	14.74	0.00	3	75
54	Bells Lake - B121	D122	Off Ramp	1500	Rolling	1375	14.74	0.00	3	75
55	Bells Lake - D122	B123	Basic Segment	2350	Rolling	1000	19.23	0.00	3	75
56	Bells Lake - B123	M124	On Ramp	1500	Rolling	1065	18.45	0.00	3	75
57	M124	B125	Basic Segment	9975	Rolling	1000	18.45	0.00	3	75
58	Holly Springs - B125	D126	Off Ramp	1500	Rolling	1065	18.45	0.00	3	75

56	On Ramp	238	6.00	0.00	1	1400	30
58	Off Ramp	456	2.00	0.00	1	175	50
60	On Ramp	167	6.00	0.00	1	900	50
62	Off Ramp	272	4.00	0.00	1	275	50
64	On Ramp	476	6.00	0.00	1	1500	30
66	On Ramp	44	6.00	0.00	1	700	50

59	Holly Springs - D126	B127	Basic Segment	3275	Rolling	1000	26.74	0.00	3	75
60	Holly Springs - B127	M128	On Ramp	1500	Rolling	893	21.62	0.00	3	75
61	M128	B129	Basic Segment	9250	Rolling	1000	21.62	0.00	3	75
62	NC 55 BYP - B129	D130	Off Ramp	1500	Rolling	893	21.62	0.00	3	75
63	NC 55 BYP - D130	B131	Basic Segment	1675	Rolling	1000	30.21	0.00	3	75
64	NC 55 BYP- B131	M132	On Ramp	1500	Rolling	869	22.05	0.00	3	75
65	NC 55 BYP - M132	B133	Basic Segment	400	Rolling	869	22.05	0.00	3	75
66	NC 55 BYP - B133	M134	On Ramp	1500	Rolling	1103	18.64	0.00	3	75
67	OHSARI - M134	End NC540 WB	Basic Segment	5280	Rolling	1103	18.64	0.00	3	75

Weaving Segment Data

Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp				
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS
12	0.295	807	6.00	0.00	1	50	644	2.00	0.00	1	30
36	0.286	342	6.00	0.00	1	30	299	5.00	0.00	1	30

Time Period 3

Mainline Data

Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin NC540 WB	B69	Basic Segment	5280	Rolling	4537	4.00	0.00	3	75
2	US 64 - B69	D70	Off Ramp	1500	Rolling	4355	8.00	0.00	3	75
3	US 64 - D70	B71	Basic Segment	575	Rolling	3783	8.60	0.00	3	75
4	US 64 - B71	D72	Off Ramp	1500	Rolling	3783	8.60	0.00	3	75
5	US 64 - D72	B73	Basic Segment	1725	Rolling	2751	10.33	0.00	3	75
6	US 64 - B73	M74	On Ramp	1500	Rolling	3724	8.68	0.00	3	75
7	M74	B75	Basic Segment	4125	Rolling	3724	8.68	0.00	3	75
8	US 64 - 264 - B75	D76	Off Ramp	1500	Rolling	3724	8.68	0.00	3	75
9	US 64 - 264 - D76	B77	Basic Segment	225	Rolling	3330	8.76	0.00	3	75
10	US 64 - 264 - B77	D78	Off Ramp	1500	Rolling	3330	8.76	0.00	3	75
11	US 64 - 264 - D78	B79	Basic Segment	2300	Rolling	1000	9.26	0.00	3	75
12	B79	W80	Weaving	1850	Rolling	3106	8.81	0.00	4	75
13	Poole - W80	B81	Basic Segment	1850	Rolling	1000	11.02	0.00	3	75
14	Poole - B81	M82	On Ramp	1500	Rolling	2383	10.88	0.00	3	75
15	M82	B83	Basic Segment	2600	Rolling	1000	10.88	0.00	3	75
16	Auburn Knight - B83	D84	Off Ramp	1500	Rolling	2383	10.88	0.00	3	75
17	Auburn Knight - D84	B85	Basic Segment	1600	Rolling	1000	11.16	0.00	3	75
18	Auburn Knight - B85	M86	On Ramp	1500	Rolling	2388	10.86	0.00	3	75
19	M86	B87	Basic Segment	8600	Rolling	1000	10.86	0.00	3	75
20	Rock Quarry - B87	D88	Off Ramp	1500	Rolling	2388	10.86	0.00	3	75
21	Rock Quarry - D88	B89	Basic Segment	1550	Rolling	1000	11.85	0.00	3	75

RampData

Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	Off Ramp	453	3.00	0.00	1	200	50
4	Off Ramp	1379	3.00	0.00	1	1500	30
6	On Ramp	1181	7.00	0.00	1	950	50
8	Off Ramp	907	4.00	0.00	1	250	50
10	Off Ramp	1446	4.00	0.00	1	1500	30
14	On Ramp	95	6.00	0.00	1	900	50
16	Off Ramp	69	3.00	0.00	1	900	50
18	On Ramp	60	6.00	0.00	1	1500	30
20	Off Ramp	312	2.00	0.00	1	900	50
22	On Ramp	225	6.00	0.00	1	1500	30
24	Off Ramp	460	5.00	0.00	1	175	50
26	On Ramp	169	6.00	0.00	1	1500	30
28	On Ramp	112	6.00	0.00	1	750	50
30	Off Ramp	428	2.00	0.00	1	1200	30
32	On Ramp	428	6.00	0.00	1	900	50
34	Off Ramp	750	5.00	0.00	1	900	50
38	On Ramp	174	6.00	0.00	2	1500	50
40	Off Ramp	354	2.00	0.00	1	1500	30
42	On Ramp	329	6.00	0.00	1	900	50
44	Off Ramp	103	2.00	0.00	1	900	50
46	On Ramp	677	6.00	0.00	1	900	50
48	Off Ramp	609	2.00	0.00	1	1275	50
50	On Ramp	182	6.00	0.00	1	1500	30
52	On Ramp	188	6.00	0.00	1	900	50
	Off						

22	Rock Quarry - B89	M90	On Ramp	1500	Rolling	2212	11.57	0.00	3	75
23	M90	B91	Basic Segment	1575	Rolling	1000	11.57	0.00	3	75
24	US 70 - B91	D92	Off Ramp	1500	Rolling	2212	11.57	0.00	3	75
25	US 70 - D92	B93	Basic Segment	1875	Rolling	1000	15.04	0.00	3	75
26	US 70 - B93	M94	On Ramp	1500	Rolling	1671	14.02	0.00	3	75
27	US 70 - M94	B95	Basic Segment	825	Rolling	1000	14.02	0.00	3	75
28	US 70 - B95	M96	On Ramp	1500	Rolling	1806	13.27	0.00	3	75
29	M96	B97	Basic Segment	3500	Rolling	1000	13.27	0.00	3	75
30	White Oak - B97	D98	Off Ramp	1500	Rolling	1806	13.27	0.00	3	75
31	White Oak - D98	B99	Basic Segment	1675	Rolling	1000	16.49	0.00	3	75
32	White Oak - B99	M100	On Ramp	1500	Rolling	1485	15.71	0.00	3	75
33	M100	B101	Basic Segment	1700	Rolling	1000	15.71	0.00	3	75
34	I-40 - B101	D102	Off Ramp	1500	Rolling	1485	15.71	0.00	3	75
35	I-40 - D102	B103	Basic Segment	4700	Rolling	1000	21.37	0.00	3	75
36	I-40 - B103	W104	Weaving	1150	Rolling	1165	17.55	0.00	4	75
37	I-40 - W104	B105	Basic Segment	4350	Rolling	1000	18.14	0.00	3	75
38	I-40 - B105	M106	On Ramp	1500	Rolling	1360	16.32	0.00	3	75
39	M106	B107	Basic Segment	3925	Rolling	1000	16.32	0.00	3	75
40	NC 50 - B107	D108	Off Ramp	1500	Rolling	1360	16.32	0.00	3	75
41	NC 50 - D108	B109	Basic Segment	1850	Rolling	1000	18.29	0.00	3	75
42	NC 50 - B109	M110	On Ramp	1500	Rolling	1407	15.84	0.00	3	75
43	M110	B111	Basic Segment	14425	Rolling	1000	15.84	0.00	3	75
44	Old Stage - B111	D112	Off Ramp	1500	Rolling	1407	15.84	0.00	3	75
45	Old Stage - D112	B113	Basic Segment	3750	Rolling	1000	16.36	0.00	3	75
46	Old Stage - B113	M114	On Ramp	1500	Rolling	1705	13.42	0.00	3	75
47	M114	B115	Basic Segment	4675	Rolling	1000	13.42	0.00	3	75
48	US 401 - B115	D116	Off Ramp	1500	Rolling	1705	13.42	0.00	3	75
49	US 401 - D116	B117	Basic Segment	1600	Rolling	1000	17.30	0.00	3	75
50	US 401 - B117	M118	On Ramp	1500	Rolling	1457	15.37	0.00	3	75
51	US 401 - M118	B119	Basic Segment	500	Rolling	1000	15.37	0.00	3	75
52	US 401 - B119	M120	On Ramp	1500	Rolling	1531	14.72	0.00	3	75
53	M120	B121	Basic Segment	6725	Rolling	1000	14.72	0.00	3	75
54	Bells Lake - B121	D122	Off Ramp	1500	Rolling	1531	14.72	0.00	3	75
55	Bells Lake - D122	B123	Basic Segment	2350	Rolling	1000	19.18	0.00	3	75
56	Bells Lake - B123	M124	On Ramp	1500	Rolling	1187	18.41	0.00	3	75
57	M124	B125	Basic Segment	9975	Rolling	1000	18.41	0.00	3	75
58	Holly Springs	D126	Off Ramp	1500	Rolling	1187	18.41	0.00	3	75

54	Ramp	334	2.00	0.00	1	225	50
56	On Ramp	264	6.00	0.00	1	1400	30
58	Off Ramp	506	2.00	0.00	1	175	50
60	On Ramp	185	6.00	0.00	1	900	50
62	Off Ramp	302	4.00	0.00	1	275	50
64	On Ramp	528	6.00	0.00	1	1500	30
66	On Ramp	49	6.00	0.00	1	700	50

	- B125									
59	Holly Springs - D126	B127	Basic Segment	3275	Rolling	1000	26.62	0.00	3	75
60	Holly Springs - B127	M128	On Ramp	1500	Rolling	996	21.56	0.00	3	75
61	M128	B129	Basic Segment	9250	Rolling	1000	21.56	0.00	3	75
62	NC 55 BYP - B129	D130	Off Ramp	1500	Rolling	996	21.56	0.00	3	75
63	NC 55 BYP - D130	B131	Basic Segment	1675	Rolling	1000	30.06	0.00	3	75
64	NC 55 BYP- B131	M132	On Ramp	1500	Rolling	969	21.99	0.00	3	75
65	NC 55 BYP - M132	B133	Basic Segment	400	Rolling	969	21.99	0.00	3	75
66	NC 55 BYP - B133	M134	On Ramp	1500	Rolling	1229	18.61	0.00	3	75
67	OHSARI - M134	End NC540 WB	Basic Segment	5280	Rolling	1229	18.61	0.00	3	75

Weaving Segment Data

Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp				
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS
12	0.295	896	6.00	0.00	1	50	715	2.00	0.00	1	30
36	0.286	380	6.00	0.00	1	30	332	5.00	0.00	1	30

Time Period 4

Mainline Data

Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin NC540 WB	B69	Basic Segment	5280	Rolling	4084	4.00	0.00	3	75
2	US 64 - B69	D70	Off Ramp	1500	Rolling	3920	8.00	0.00	3	75
3	US 64 - D70	B71	Basic Segment	575	Rolling	3405	8.60	0.00	3	75
4	US 64 - B71	D72	Off Ramp	1500	Rolling	3405	8.60	0.00	3	75
5	US 64 - D72	B73	Basic Segment	1725	Rolling	2475	10.34	0.00	3	75
6	US 64 - B73	M74	On Ramp	1500	Rolling	3352	8.68	0.00	3	75
7	M74	B75	Basic Segment	4125	Rolling	3352	8.68	0.00	3	75
8	US 64 - 264 - B75	D76	Off Ramp	1500	Rolling	3352	8.68	0.00	3	75
9	US 64 - 264 - D76	B77	Basic Segment	225	Rolling	2997	8.76	0.00	3	75
10	US 64 - 264 - B77	D78	Off Ramp	1500	Rolling	2997	8.76	0.00	3	75
11	US 64 - 264 - D78	B79	Basic Segment	2300	Rolling	1000	9.26	0.00	3	75
12	B79	W80	Weaving	1850	Rolling	2795	8.81	0.00	4	75
13	Poole - W80	B81	Basic Segment	1850	Rolling	1000	11.03	0.00	3	75
14	Poole - B81	M82	On Ramp	1500	Rolling	2143	10.89	0.00	3	75
15	M82	B83	Basic Segment	2600	Rolling	1000	10.89	0.00	3	75
16	Auburn Knight - B83	D84	Off Ramp	1500	Rolling	2143	10.89	0.00	3	75
17	Auburn Knight - D84	B85	Basic Segment	1600	Rolling	1000	11.17	0.00	3	75
18	Auburn Knight - B85	M86	On Ramp	1500	Rolling	2147	10.87	0.00	3	75
19	M86	B87	Basic Segment	8600	Rolling	1000	10.87	0.00	3	75
20	Rock Quarry - B87	D88	Off Ramp	1500	Rolling	2147	10.87	0.00	3	75
	Rock		Basic							

RampData

Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	Off Ramp	408	3.00	0.00	1	200	50
4	Off Ramp	1242	3.00	0.00	1	1500	30
6	On Ramp	1064	7.00	0.00	1	950	50
8	Off Ramp	817	4.00	0.00	1	250	50
10	Off Ramp	1303	4.00	0.00	1	1500	30
14	On Ramp	86	6.00	0.00	1	900	50
16	Off Ramp	62	3.00	0.00	1	900	50
18	On Ramp	54	6.00	0.00	1	1500	30
20	Off Ramp	281	2.00	0.00	1	900	50
22	On Ramp	203	6.00	0.00	1	1500	30
24	Off Ramp	414	5.00	0.00	1	175	50
26	On Ramp	152	6.00	0.00	1	1500	30
28	On Ramp	101	6.00	0.00	1	750	50
30	Off Ramp	386	2.00	0.00	1	1200	30
32	On Ramp	386	6.00	0.00	1	900	50
34	Off Ramp	676	5.00	0.00	1	900	50
38	On Ramp	157	6.00	0.00	2	1500	50
40	Off Ramp	319	2.00	0.00	1	1500	30
42	On Ramp	296	6.00	0.00	1	900	50
44	Off Ramp	93	2.00	0.00	1	900	50
46	On Ramp	610	6.00	0.00	1	900	50
48	Off Ramp	549	2.00	0.00	1	1275	50
50	On Ramp	164	6.00	0.00	1	1500	30
52	On Ramp	169	6.00	0.00	1	900	50

21	Quarry - D88	B89	Segment	1550	Rolling	1000	11.86	0.00	3	75
22	Rock Quarry - B89	M90	On Ramp	1500	Rolling	1989	11.58	0.00	3	75
23	M90	B91	Basic Segment	1575	Rolling	1000	11.58	0.00	3	75
24	US 70 - B91	D92	Off Ramp	1500	Rolling	1989	11.58	0.00	3	75
25	US 70 - D92	B93	Basic Segment	1875	Rolling	1000	15.06	0.00	3	75
26	US 70 - B93	M94	On Ramp	1500	Rolling	1502	14.03	0.00	3	75
27	US 70 - M94	B95	Basic Segment	825	Rolling	1000	14.03	0.00	3	75
28	US 70 - B95	M96	On Ramp	1500	Rolling	1624	13.28	0.00	3	75
29	M96	B97	Basic Segment	3500	Rolling	1000	13.28	0.00	3	75
30	White Oak - B97	D98	Off Ramp	1500	Rolling	1624	13.28	0.00	3	75
31	White Oak - D98	B99	Basic Segment	1675	Rolling	1000	16.50	0.00	3	75
32	White Oak - B99	M100	On Ramp	1500	Rolling	1335	15.72	0.00	3	75
33	M100	B101	Basic Segment	1700	Rolling	1000	15.72	0.00	3	75
34	I-40 - B101	D102	Off Ramp	1500	Rolling	1335	15.72	0.00	3	75
35	I-40 - D102	B103	Basic Segment	4700	Rolling	1000	21.43	0.00	3	75
36	I-40 - B103	W104	Weaving	1150	Rolling	1046	17.58	0.00	4	75
37	I-40 - W104	B105	Basic Segment	4350	Rolling	1000	18.17	0.00	3	75
38	I-40 - B105	M106	On Ramp	1500	Rolling	1221	16.35	0.00	3	75
39	M106	B107	Basic Segment	3925	Rolling	1000	16.35	0.00	3	75
40	NC 50 - B107	D108	Off Ramp	1500	Rolling	1221	16.35	0.00	3	75
41	NC 50 - D108	B109	Basic Segment	1850	Rolling	1000	18.33	0.00	3	75
42	NC 50 - B109	M110	On Ramp	1500	Rolling	1263	15.87	0.00	3	75
43	M110	B111	Basic Segment	14425	Rolling	1000	15.87	0.00	3	75
44	Old Stage - B111	D112	Off Ramp	1500	Rolling	1263	15.87	0.00	3	75
45	Old Stage - D112	B113	Basic Segment	3750	Rolling	1000	16.39	0.00	3	75
46	Old Stage - B113	M114	On Ramp	1500	Rolling	1531	13.44	0.00	3	75
47	M114	B115	Basic Segment	4675	Rolling	1000	13.44	0.00	3	75
48	US 401 - B115	D116	Off Ramp	1500	Rolling	1531	13.44	0.00	3	75
49	US 401 - D116	B117	Basic Segment	1600	Rolling	1000	17.34	0.00	3	75
50	US 401 - B117	M118	On Ramp	1500	Rolling	1308	15.39	0.00	3	75
51	US 401 - M118	B119	Basic Segment	500	Rolling	1000	15.39	0.00	3	75
52	US 401 - B119	M120	On Ramp	1500	Rolling	1375	14.74	0.00	3	75
53	M120	B121	Basic Segment	6725	Rolling	1000	14.74	0.00	3	75
54	Bells Lake - B121	D122	Off Ramp	1500	Rolling	1375	14.74	0.00	3	75
55	Bells Lake - D122	B123	Basic Segment	2350	Rolling	1000	19.23	0.00	3	75
56	Bells Lake - B123	M124	On Ramp	1500	Rolling	1065	18.45	0.00	3	75
57	M124	B125	Basic Segment	9975	Rolling	1000	18.45	0.00	3	75

54	Off Ramp	301	2.00	0.00	1	225	50
56	On Ramp	238	6.00	0.00	1	1400	30
58	Off Ramp	456	2.00	0.00	1	175	50
60	On Ramp	167	6.00	0.00	1	900	50
62	Off Ramp	272	4.00	0.00	1	275	50
64	On Ramp	476	6.00	0.00	1	1500	30
66	On Ramp	44	6.00	0.00	1	700	50

58	Holly Springs - B125	D126	Off Ramp	1500	Rolling	1065	18.45	0.00	3	75
59	Holly Springs - D126	B127	Basic Segment	3275	Rolling	1000	26.74	0.00	3	75
60	Holly Springs - B127	M128	On Ramp	1500	Rolling	893	21.62	0.00	3	75
61	M128	B129	Basic Segment	9250	Rolling	1000	21.62	0.00	3	75
62	NC 55 BYP - B129	D130	Off Ramp	1500	Rolling	893	21.62	0.00	3	75
63	NC 55 BYP - D130	B131	Basic Segment	1675	Rolling	1000	30.21	0.00	3	75
64	NC 55 BYP- B131	M132	On Ramp	1500	Rolling	869	22.05	0.00	3	75
65	NC 55 BYP - M132	B133	Basic Segment	400	Rolling	869	22.05	0.00	3	75
66	NC 55 BYP - B133	M134	On Ramp	1500	Rolling	1103	18.64	0.00	3	75
67	OHSARI - M134	End NC540 WB	Basic Segment	5280	Rolling	1103	18.64	0.00	3	75

Weaving Segment Data

Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp				
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS
12	0.295	807	6.00	0.00	1	50	644	2.00	0.00	1	30
36	0.286	342	6.00	0.00	1	30	299	5.00	0.00	1	30

Time Period Independent Weaving Segment Data

Seg #	Configuration	Short Length	# Weaving Lanes	Min. Lane Changes Freeway-Ramp	Min. Lane Changes Ramp-Freeway	Min. Lane Changes Ramp-Ramp
12	OneSide	1850	2	1	1	0
36	OneSide	1150	2	1	1	0

HCS 2010 Freeway Facilities

Project Properties

Analyst	HNTB	**Freeway Name**	I-40 - 2016 Build EB AM	**Analysis Period**	AM Peak
Analysis Date	9/19/2014 1:46:28 PM	**From**	US 70 Business	**Version Date**	1/20/16
Agency	HNTB	**To**	NC 42		
Location	Complete 540	**Analysis Direction**	Eastbound/Northbound		
User Notes					
File Name	C:\Temp\preview.xml				

Facility-wide Values

Jam Density (pc/h/ln)	190	**Time Period Duration (min)**	15	**Facility Length (mi)**	**9.63300**

Segment Input Data

Time Period 1

Mainline Data

Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin of I-40 EB	B1	Basic Segment	5280	Rolling	2773	5.00	0.00	3	70
2	US 70 BUS - B1	D2	Off Ramp	1500	Rolling	2773	5.00	0.00	2	70
3	US 70 BUS - D2	B3	Basic Segment	2200	Rolling	1869	5.00	0.00	2	70
4	US 70 BUS - M4	D4	On Ramp	1500	Rolling	1909	5.00	0.00	2	70
5	US 70 BUS - M4	B5	Basic Segment	175	Rolling	1909	5.00	0.00	2	70
6	US 70 BUS - B5	M6	On Ramp	1500	Rolling	2195	5.00	0.00	2	70
7	M6	B7	Basic Segment	10625	Rolling	2195	5.00	0.00	4	75
8	Toll NC 540 - B7	D8	Off Ramp	1500	Rolling	2195	5.00	0.00	4	75
9	Toll NC 540 - D8	B9	Basic Segment	2425	Rolling	2134	4.97	0.00	4	75
10	Toll NC 540 - B9	D10	Off Ramp	1500	Rolling	2134	4.97	0.00	4	75
11	Toll NC 540 - D10	B11	Basic Segment	2125	Rolling	1658	4.68	0.00	4	75
12	Toll NC 540 - B11	W12	Weaving	1750	Rolling	1994	4.73	0.00	5	75
13	Toll NC 540 - W12	B13	Basic Segment	3375	Rolling	1634	4.45	0.00	4	75
14	Toll NC 540 - B13	M14	On Ramp	1500	Rolling	1942	4.54	0.00	4	75
15	M14	B15	Basic Segment	2325	Rolling	1942	4.54	0.00	3	75

RampData

Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	Off Ramp	904	5.00	0.00	1	1500	50
4	On Ramp	40	5.00	0.00	1	1125	30
6	On Ramp	286	5.00	0.00	1	975	50
8	Off Ramp	61	6.00	0.00	1	1500	50
10	Off Ramp	476	6.00	0.00	1	1500	50
14	On Ramp	308	5.00	0.00	1	1500	50
16	Off Ramp	641	2.00	0.00	1	1500	50
18	On Ramp	214	9.00	0.00	1	1300	50

Weaving Segment Data

Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp				
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS

16	NC 42 - B15	D16	Off Ramp	1500	Rolling	1942	4.54	0.00	2	75
17	NC 42 - D16	B17	Basic Segment	3300	Rolling	1301	5.79	0.00	2	75
18	NC 42 - B17	M18	On Ramp	1500	Rolling	1515	6.24	0.00	2	75
19	M18	End of I-40 EB	Basic Segment	5280	Rolling	1515	6.24	0.00	2	75

12	0.170	336	5.00	0.00	1	50	360	6.00	0.00	1	50

Time Period 2

Mainline Data										
Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin of I-40 EB	B1	Basic Segment	5280	Rolling	3119	5.00	0.00	3	70
2	US 70 BUS - B1	D2	Off Ramp	1500	Rolling	3119	5.00	0.00	2	70
3	US 70 BUS - D2	B3	Basic Segment	2200	Rolling	2103	5.00	0.00	2	70
4	US 70 BUS - M4	D4	On Ramp	1500	Rolling	2148	5.00	0.00	2	70
5	US 70 BUS - M4	B5	Basic Segment	175	Rolling	2148	5.00	0.00	2	70
6	US 70 BUS - B5	M6	On Ramp	1500	Rolling	2434	5.00	0.00	2	70
7	M6	B7	Basic Segment	10625	Rolling	1000	5.00	0.00	4	75
8	Toll NC 540 - B7	D8	Off Ramp	1500	Rolling	2434	5.00	0.00	4	75
9	Toll NC 540 - D8	B9	Basic Segment	2425	Rolling	1000	4.97	0.00	4	75
10	Toll NC 540 - B9	D10	Off Ramp	1500	Rolling	2366	4.97	0.00	4	75
11	Toll NC 540 - D10	B11	Basic Segment	2125	Rolling	1831	4.67	0.00	4	75
12	Toll NC 540 - B11	W12	Weaving	1750	Rolling	2208	4.73	0.00	5	75
13	Toll NC 540 - W12	B13	Basic Segment	3375	Rolling	1803	4.44	0.00	4	75
14	Toll NC 540 - B13	M14	On Ramp	1500	Rolling	2149	4.53	0.00	4	75
15	M14	B15	Basic Segment	2325	Rolling	2149	4.53	0.00	3	75
16	NC 42 - B15	D16	Off Ramp	1500	Rolling	2149	4.53	0.00	2	75
17	NC 42 - D16	B17	Basic Segment	3300	Rolling	1429	5.81	0.00	2	75
18	NC 42 - B17	M18	On Ramp	1500	Rolling	1670	6.27	0.00	2	75
		End								

RampData							
Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	Off Ramp	1016	5.00	0.00	1	1500	50
4	On Ramp	45	5.00	0.00	1	1125	30
6	On Ramp	286	5.00	0.00	1	975	50
8	Off Ramp	68	6.00	0.00	1	1500	50
10	Off Ramp	535	6.00	0.00	1	1500	50
14	On Ramp	346	5.00	0.00	1	1500	50
16	Off Ramp	720	2.00	0.00	1	1500	50
18	On Ramp	241	9.00	0.00	1	1300	50

Weaving Segment Data											
Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp				
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS
12	0.170	377	5.00	0.00	1	50	405	6.00	0.00	1	50

19	M18	of I-40 EB	Basic Segment	5280	Rolling	1670	6.27	0.00	2	75

Time Period 3

Mainline Data										
Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin of I-40 EB	B1	Basic Segment	5280	Rolling	3465	5.00	0.00	3	70
2	US 70 BUS - B1	D2	Off Ramp	1500	Rolling	3465	5.00	0.00	2	70
3	US 70 BUS - D2	B3	Basic Segment	2200	Rolling	2337	5.00	0.00	2	70
4	US 70 BUS - M4	D4	On Ramp	1500	Rolling	2387	5.00	0.00	2	70
5	US 70 BUS - M4	B5	Basic Segment	175	Rolling	2387	5.00	0.00	2	70
6	US 70 BUS - B5	M6	On Ramp	1500	Rolling	2673	5.00	0.00	2	70
7	M6	B7	Basic Segment	10625	Rolling	1000	5.00	0.00	4	75
8	Toll NC 540 - B7	D8	Off Ramp	1500	Rolling	2673	5.00	0.00	4	75
9	Toll NC 540 - D8	B9	Basic Segment	2425	Rolling	1000	4.97	0.00	4	75
10	Toll NC 540 - B9	D10	Off Ramp	1500	Rolling	2598	4.97	0.00	4	75
11	Toll NC 540 - D10	B11	Basic Segment	2125	Rolling	2004	4.67	0.00	4	75
12	Toll NC 540 - B11	W12	Weaving	1750	Rolling	2422	4.72	0.00	5	75
13	Toll NC 540 - W12	B13	Basic Segment	3375	Rolling	1972	4.43	0.00	4	75
14	Toll NC 540 - B13	M14	On Ramp	1500	Rolling	2356	4.53	0.00	4	75
15	M14	B15	Basic Segment	2325	Rolling	2356	4.53	0.00	3	75
16	NC 42 - B15	D16	Off Ramp	1500	Rolling	2356	4.53	0.00	2	75
17	NC 42 - D16	B17	Basic Segment	3300	Rolling	1557	5.82	0.00	2	75
18	NC 42 - B17	M18	On Ramp	1500	Rolling	1825	6.29	0.00	2	75
19	M18	End of I-40 EB	Basic Segment	5280	Rolling	1825	6.29	0.00	2	75

RampData							
Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	Off Ramp	1128	5.00	0.00	1	1500	50
4	On Ramp	50	5.00	0.00	1	1125	30
6	On Ramp	286	5.00	0.00	1	975	50
8	Off Ramp	75	6.00	0.00	1	1500	50
10	Off Ramp	594	6.00	0.00	1	1500	50
14	On Ramp	384	5.00	0.00	1	1500	50
16	Off Ramp	799	2.00	0.00	1	1500	50
18	On Ramp	268	9.00	0.00	1	1300	50

Weaving Segment Data											
Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp				
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS
12	0.170	418	5.00	0.00	1	50	450	6.00	0.00	1	50

Time Period 4

Mainline Data										

RampData							

Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin of I-40 EB	B1	Basic Segment	5280	Rolling	3119	5.00	0.00	3	70
2	US 70 BUS - B1	D2	Off Ramp	1500	Rolling	3375	9.00	0.00	2	70
3	US 70 BUS - D2	B3	Basic Segment	2200	Rolling	1000	11.96	0.00	2	70
4	US 70 BUS - M4	D4	On Ramp	1500	Rolling	2153	11.84	0.00	2	70
5	US 70 BUS - M4	B5	Basic Segment	175	Rolling	1000	11.84	0.00	2	70
6	US 70 BUS - B5	M6	On Ramp	1500	Rolling	2430	10.94	0.00	2	70
7	M6	B7	Basic Segment	10625	Rolling	1000	10.94	0.00	4	75
8	Toll NC 540 - B7	D8	Off Ramp	1500	Rolling	2430	10.94	0.00	4	75
9	Toll NC 540 - D8	B9	Basic Segment	2425	Rolling	1000	11.04	0.00	4	75
10	Toll NC 540 - B9	D10	Off Ramp	1500	Rolling	2311	11.04	0.00	4	75
11	Toll NC 540 - D10	B11	Basic Segment	2125	Rolling	1868	12.72	0.00	4	75
12	Toll NC 540 - B11	W12	Weaving	1750	Rolling	2185	11.45	0.00	5	75
13	Toll NC 540 - W12	B13	Basic Segment	3375	Rolling	1813	12.16	0.00	4	75
14	Toll NC 540 - B13	M14	On Ramp	1500	Rolling	2152	11.66	0.00	4	75
15	M14	B15	Basic Segment	2325	Rolling	2152	11.66	0.00	3	75
16	NC 42 - B15	D16	Off Ramp	1500	Rolling	2152	11.66	0.00	2	75
17	NC 42 - D16	B17	Basic Segment	3300	Rolling	1460	15.77	0.00	2	75
18	NC 42 - B17	M18	On Ramp	1500	Rolling	1868	12.98	0.00	2	75
19	M18	End of I-40 EB	Basic Segment	5280	Rolling	1868	12.98	0.00	2	75

Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	Off Ramp	1016	5.00	0.00	1	1500	50
4	On Ramp	45	5.00	0.00	1	1125	30
6	On Ramp	286	5.00	0.00	1	975	50
8	Off Ramp	68	6.00	0.00	1	1500	50
10	Off Ramp	535	6.00	0.00	1	1500	50
14	On Ramp	346	5.00	0.00	1	1500	50
16	Off Ramp	720	2.00	0.00	1	1500	50
18	On Ramp	241	9.00	0.00	1	1300	50

Weaving Segment Data										
Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp				
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS
12	0.170	377	5.00	0.00	1	50	405	6.00	0.00	1	50

Time Period Independent Weaving Segment Data

Seg #	Configuration	Short Length	# Weaving Lanes	Min. Lane Changes Freeway-Ramp	Min. Lane Changes Ramp-Freeway	Min. Lane Changes Ramp-Ramp
12	OneSide	1750	2	1	1	0

HCS 2010 Freeway Facilities

Project Properties

Analyst	HNTB	**Freeway Name**	I-40 - 2016 Build EB PM	**Analysis Period**	PM Peak
Analysis Date	9/19/2014 1:46:28 PM	**From**	US 70 Business	**Version Date**	1/20/16
Agency	HNTB	**To**	NC 42		
Location	Complete 540	**Analysis Direction**	Eastbound/Northbound		
User Notes					
File Name	C:\Temp\preview.xml				

Facility-wide Values

Jam Density (pc/h/ln)	190	**Time Period Duration (min)**	15	**Facility Length (mi)**	**9.63300**

Segment Input Data

Time Period 1

Mainline Data

Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin of I-40 EB	B1	Basic Segment	5280	Rolling	4060	5.00	0.00	3	70
2	US 70 BUS - B1	D2	Off Ramp	1500	Rolling	4060	5.00	0.00	2	70
3	US 70 BUS - D2	B3	Basic Segment	2200	Rolling	2915	5.00	0.00	2	70
4	US 70 BUS - M4	D4	On Ramp	1500	Rolling	2962	5.00	0.00	2	70
5	US 70 BUS - M4	B5	Basic Segment	175	Rolling	2962	5.00	0.00	2	70
6	US 70 BUS - B5	M6	On Ramp	1500	Rolling	3370	5.00	0.00	2	70
7	M6	B7	Basic Segment	10625	Rolling	3370	5.00	0.00	4	75
8	Toll NC 540 - B7	D8	Off Ramp	1500	Rolling	3370	5.00	0.00	4	75
9	Toll NC 540 - D8	B9	Basic Segment	2425	Rolling	3311	4.98	0.00	4	75
10	Toll NC 540 - B9	D10	Off Ramp	1500	Rolling	3311	4.98	0.00	4	75
11	Toll NC 540 - D10	B11	Basic Segment	2125	Rolling	2527	4.67	0.00	4	75
12	Toll NC 540 - B11	W12	Weaving	1750	Rolling	2838	4.70	0.00	5	75
13	Toll NC 540 - W12	B13	Basic Segment	3375	Rolling	2294	4.40	0.00	4	75
14	Toll NC 540 - B13	M14	On Ramp	1500	Rolling	2669	4.48	0.00	4	75
15	M14	B15	Basic Segment	2325	Rolling	2669	4.48	0.00	3	75

RampData

Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	Off Ramp	1145	5.00	0.00	1	1500	50
4	On Ramp	47	5.00	0.00	1	1125	30
6	On Ramp	408	5.00	0.00	1	975	50
8	Off Ramp	59	6.00	0.00	1	1500	50
10	Off Ramp	784	6.00	0.00	1	1500	50
14	On Ramp	375	5.00	0.00	1	1500	50
16	Off Ramp	940	2.00	0.00	1	1500	50
18	On Ramp	271	9.00	0.00	1	1300	50

Weaving Segment Data

Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp				
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS

16	NC 42 - B15	D16	Off Ramp	1500	Rolling	2669	4.48	0.00	2	75
17	NC 42 - D16	B17	Basic Segment	3300	Rolling	1729	5.83	0.00	2	75
18	NC 42 - B17	M18	On Ramp	1500	Rolling	2000	6.26	0.00	2	75
19	M18	End of I-40 EB	Basic Segment	5280	Rolling	2000	6.26	0.00	2	75

12	0.140	311	5.00	0.00	1	40	544	6.00	0.00	1	40

Time Period 2

Mainline Data										
Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin of I-40 EB	B1	Basic Segment	5280	Rolling	4567	5.00	0.00	3	70
2	US 70 BUS - B1	D2	Off Ramp	1500	Rolling	4567	5.00	0.00	2	70
3	US 70 BUS - D2	B3	Basic Segment	2200	Rolling	3281	5.00	0.00	2	70
4	US 70 BUS - M4	D4	On Ramp	1500	Rolling	3334	5.00	0.00	2	70
5	US 70 BUS - M4	B5	Basic Segment	175	Rolling	3334	5.00	0.00	2	70
6	US 70 BUS - B5	M6	On Ramp	1500	Rolling	3742	5.00	0.00	2	70
7	M6	B7	Basic Segment	10625	Rolling	1000	5.00	0.00	4	75
8	Toll NC 540 - B7	D8	Off Ramp	1500	Rolling	3742	5.00	0.00	4	75
9	Toll NC 540 - D8	B9	Basic Segment	2425	Rolling	1000	4.98	0.00	4	75
10	Toll NC 540 - B9	D10	Off Ramp	1500	Rolling	3676	4.98	0.00	4	75
11	Toll NC 540 - D10	B11	Basic Segment	2125	Rolling	2795	4.66	0.00	4	75
12	Toll NC 540 - B11	W12	Weaving	1750	Rolling	3144	4.70	0.00	5	75
13	Toll NC 540 - W12	B13	Basic Segment	3375	Rolling	2533	4.38	0.00	4	75
14	Toll NC 540 - B13	M14	On Ramp	1500	Rolling	2954	4.47	0.00	4	75
15	M14	B15	Basic Segment	2325	Rolling	2954	4.47	0.00	3	75
16	NC 42 - B15	D16	Off Ramp	1500	Rolling	2954	4.47	0.00	2	75
17	NC 42 - D16	B17	Basic Segment	3300	Rolling	1898	5.85	0.00	2	75
18	NC 42 - B17	M18	On Ramp	1500	Rolling	2203	6.28	0.00	2	75
		End								

RampData							
Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	Off Ramp	1286	5.00	0.00	1	1500	50
4	On Ramp	53	5.00	0.00	1	1125	30
6	On Ramp	408	5.00	0.00	1	975	50
8	Off Ramp	66	6.00	0.00	1	1500	50
10	Off Ramp	881	6.00	0.00	1	1500	50
14	On Ramp	421	5.00	0.00	1	1500	50
16	Off Ramp	1056	2.00	0.00	1	1500	50
18	On Ramp	305	9.00	0.00	1	1300	50

Weaving Segment Data											
Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp				
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS
12	0.140	349	5.00	0.00	1	40	611	6.00	0.00	1	40

19	M18	of I-40 EB	Basic Segment	5280	Rolling	2203	6.28	0.00	2	75

Time Period 3

Mainline Data										
Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin of I-40 EB	B1	Basic Segment	5280	Rolling	5074	5.00	0.00	3	70
2	US 70 BUS - B1	D2	Off Ramp	1500	Rolling	5281	9.00	0.00	2	70
3	US 70 BUS - D2	B3	Basic Segment	2200	Rolling	1000	11.10	0.00	2	70
4	US 70 BUS - M4	D4	On Ramp	1500	Rolling	3764	11.02	0.00	2	70
5	US 70 BUS - M4	B5	Basic Segment	175	Rolling	1000	11.02	0.00	2	70
6	US 70 BUS - B5	M6	On Ramp	1500	Rolling	4259	10.20	0.00	2	70
7	M6	B7	Basic Segment	10625	Rolling	1000	10.20	0.00	4	75
8	Toll NC 540 - B7	D8	Off Ramp	1500	Rolling	4259	10.20	0.00	4	75
9	Toll NC 540 - D8	B9	Basic Segment	2425	Rolling	1000	10.23	0.00	4	75
10	Toll NC 540 - B9	D10	Off Ramp	1500	Rolling	4156	10.23	0.00	4	75
11	Toll NC 540 - D10	B11	Basic Segment	2125	Rolling	3308	11.83	0.00	4	75
12	Toll NC 540 - B11	W12	Weaving	1750	Rolling	3618	11.16	0.00	5	75
13	Toll NC 540 - W12	B13	Basic Segment	3375	Rolling	3105	11.68	0.00	4	75
14	Toll NC 540 - B13	M14	On Ramp	1500	Rolling	3707	11.24	0.00	4	75
15	M14	B15	Basic Segment	2325	Rolling	3707	11.24	0.00	3	75
16	NC 42 - B15	D16	Off Ramp	1500	Rolling	3707	11.24	0.00	2	75
17	NC 42 - D16	B17	Basic Segment	3300	Rolling	2544	15.01	0.00	2	75
18	NC 42 - B17	M18	On Ramp	1500	Rolling	3053	13.01	0.00	2	75
19	M18	End of I-40 EB	Basic Segment	5280	Rolling	3053	13.01	0.00	2	75

RampData							
Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	Off Ramp	1427	5.00	0.00	1	1500	50
4	On Ramp	59	5.00	0.00	1	1125	30
6	On Ramp	408	5.00	0.00	1	975	50
8	Off Ramp	73	6.00	0.00	1	1500	50
10	Off Ramp	978	6.00	0.00	1	1500	50
14	On Ramp	467	5.00	0.00	1	1500	50
16	Off Ramp	1172	2.00	0.00	1	1500	50
18	On Ramp	339	9.00	0.00	1	1300	50

Weaving Segment Data											
Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp				
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS
12	0.140	387	5.00	0.00	1	40	678	6.00	0.00	1	40

Time Period 4

Mainline Data

RampData

Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin of I-40 EB	B1	Basic Segment	5280	Rolling	4567	5.00	0.00	3	70
2	US 70 BUS - B1	D2	Off Ramp	1500	Rolling	4753	9.00	0.00	2	70
3	US 70 BUS - D2	B3	Basic Segment	2200	Rolling	1000	11.11	0.00	2	70
4	US 70 BUS - M4	D4	On Ramp	1500	Rolling	3386	11.02	0.00	2	70
5	US 70 BUS - M4	B5	Basic Segment	175	Rolling	1000	11.02	0.00	2	70
6	US 70 BUS - B5	M6	On Ramp	1500	Rolling	3881	10.12	0.00	2	70
7	M6	B7	Basic Segment	10625	Rolling	1000	10.12	0.00	4	75
8	Toll NC 540 - B7	D8	Off Ramp	1500	Rolling	3881	10.12	0.00	4	75
9	Toll NC 540 - D8	B9	Basic Segment	2425	Rolling	1000	10.15	0.00	4	75
10	Toll NC 540 - B9	D10	Off Ramp	1500	Rolling	3788	10.15	0.00	4	75
11	Toll NC 540 - D10	B11	Basic Segment	2125	Rolling	3024	11.71	0.00	4	75
12	Toll NC 540 - B11	W12	Weaving	1750	Rolling	3303	11.05	0.00	5	75
13	Toll NC 540 - W12	B13	Basic Segment	3375	Rolling	2841	11.55	0.00	4	75
14	Toll NC 540 - B13	M14	On Ramp	1500	Rolling	3383	11.14	0.00	4	75
15	M14	B15	Basic Segment	2325	Rolling	3383	11.14	0.00	3	75
16	NC 42 - B15	D16	Off Ramp	1500	Rolling	3383	11.14	0.00	2	75
17	NC 42 - D16	B17	Basic Segment	3300	Rolling	2335	14.80	0.00	2	75
18	NC 42 - B17	M18	On Ramp	1500	Rolling	2794	12.86	0.00	2	75
19	M18	End of I-40 EB	Basic Segment	5280	Rolling	2794	12.86	0.00	2	75

Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	Off Ramp	1286	5.00	0.00	1	1500	50
4	On Ramp	53	5.00	0.00	1	1125	30
6	On Ramp	408	5.00	0.00	1	975	50
8	Off Ramp	66	6.00	0.00	1	1500	50
10	Off Ramp	881	6.00	0.00	1	1500	50
14	On Ramp	421	5.00	0.00	1	1500	50
16	Off Ramp	1056	2.00	0.00	1	1500	50
18	On Ramp	305	9.00	0.00	1	1300	50

Weaving Segment Data											
Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp				
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS
12	0.140	349	5.00	0.00	1	40	611	6.00	0.00	1	40

Time Period Independent Weaving Segment Data

Seg #	Configuration	Short Length	# Weaving Lanes	Min. Lane Changes Freeway-Ramp	Min. Lane Changes Ramp-Freeway	Min. Lane Changes Ramp-Ramp
12	OneSide	1750	2	1	1	0

HCS 2010 Freeway Facilities

Project Properties

Analyst	HNTB	**Freeway Name**	I-40 - 2016 Build WB AM	**Analysis Period**	AM Peak
Analysis Date	9/19/2014 1:46:28 PM	**From**	NC 42	**Version Date**	1/20/16
Agency	HNTB	**To**	US 70 Business		
Location	Complete 540	**Analysis Direction**	Westbound/Southbound		
User Notes					
File Name	C:\Temp\preview.xml				

Facility-wide Values

Jam Density (pc/h/ln)	190	**Time Period Duration (min)**	15	**Facility Length (mi)**	**9.27700**

Segment Input Data

Time Period 1

Mainline Data

Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin I-40 WB	B20	Basic Segment	5280	Rolling	2085	9.00	0.00	2	75
2	NC 42 - B20	D21	Off Ramp	1500	Rolling	2085	9.00	0.00	2	75
3	NC 42 - D21	B22	Basic Segment	1350	Rolling	1814	10.05	0.00	2	75
4	NC 42 - B22	M23	On Ramp	1500	Rolling	2684	9.71	0.00	2	75
5	NC 42 - M23	B24	Basic Segment	175	Rolling	2684	9.71	0.00	2	75
6	NC 42 - B24	M25	On Ramp	1500	Rolling	2753	9.69	0.00	2	75
7	M25	B26	Basic Segment	1425	Rolling	2753	9.69	0.00	4	75
8	US 70 - B26	D27	Off Ramp	1500	Rolling	2753	9.69	0.00	4	75
9	US 70 - D27	B28	Basic Segment	100	Rolling	2378	10.27	0.00	4	75
10	US 70 - B28	D29	Off Ramp	1500	Rolling	2378	10.27	0.00	4	75
11	US 70 - D29	B30	Basic Segment	4150	Rolling	2060	10.93	0.00	4	75
12	US 70 - B30	M31	On Ramp	1500	Rolling	2865	9.26	0.00	4	75
13	US 70 - M31	B32	Basic Segment	100	Rolling	2865	9.26	0.00	5	75
14	US 70 - B32	M33	On Ramp	1500	Rolling	3468	8.52	0.00	5	75
15	M33	B34	Basic Segment	13150	Rolling	3468	8.52	0.00	2	75
16	US 70 BUS - B34	D35	Off Ramp	1500	Rolling	3468	8.52	0.00	2	70
17	US 70 BUS - D35	B36	Basic Segment	1825	Rolling	3421	8.57	0.00	2	70
18	US 70 BUS - B36	W37	Weaving	525	Rolling	3673	8.33	0.00	3	70

RampData

Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	Off Ramp	271	2.00	0.00	1	275	50
4	On Ramp	870	9.00	0.00	1	1350	30
6	On Ramp	69	9.00	0.00	1	325	50
8	Off Ramp	375	6.00	0.00	1	250	50
10	Off Ramp	318	6.00	0.00	1	325	50
12	On Ramp	805	5.00	0.00	1	650	50
14	On Ramp	603	5.00	0.00	1	1500	50
16	Off Ramp	47	5.00	0.00	1	325	50
20	On Ramp	893	5.00	0.00	1	1500	40

Weaving Segment Data

Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp				
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS

19	US 70 BUS - W37	B38	Basic Segment	2125	Rolling	3310	8.69	0.00	2	70
20	US 70 BUS - B38	M39	On Ramp	1500	Rolling	4203	7.91	0.00	2	70
21	M39	B40	Basic Segment	5280	Rolling	4203	7.91	0.00	3	70

18	0.117	252	5.00	0.00	1	50	363	5.00	0.00	1	40

Time Period 2

Mainline Data

Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin I-40 WB	B20	Basic Segment	5280	Rolling	2345	9.00	0.00	2	75
2	NC 42 - B20	D21	Off Ramp	1500	Rolling	2755	9.00	0.00	2	75
3	NC 42 - D21	B22	Basic Segment	1350	Rolling	2296	10.20	0.00	2	75
4	NC 42 - B22	M23	On Ramp	1500	Rolling	3140	8.26	0.00	2	75
5	NC 42 - M23	B24	Basic Segment	175	Rolling	3140	8.26	0.00	2	75
6	NC 42 - B24	M25	On Ramp	1500	Rolling	3344	7.94	0.00	2	75
7	M25	B26	Basic Segment	1425	Rolling	1000	7.94	0.00	4	75
8	US 70 - B26	D27	Off Ramp	1500	Rolling	3344	7.94	0.00	4	75
9	US 70 - D27	B28	Basic Segment	100	Rolling	2802	7.93	0.00	4	75
10	US 70 - B28	D29	Off Ramp	1500	Rolling	2802	7.93	0.00	4	75
11	US 70 - D29	B30	Basic Segment	4150	Rolling	2517	8.38	0.00	4	75
12	US 70 - B30	M31	On Ramp	1500	Rolling	3295	7.34	0.00	4	75
13	US 70 - M31	B32	Basic Segment	100	Rolling	3295	7.34	0.00	5	75
14	US 70 - B32	M33	On Ramp	1500	Rolling	3851	7.58	0.00	5	75
15	M33	B34	Basic Segment	13150	Rolling	3851	7.58	0.00	2	75
16	US 70 BUS - B34	D35	Off Ramp	1500	Rolling	3851	7.58	0.00	2	70
17	US 70 BUS - D35	B36	Basic Segment	1825	Rolling	1000	7.62	0.00	2	70
18	US 70 BUS - B36	W37	Weaving	525	Rolling	4231	7.26	0.00	3	70
19	US 70 BUS - W37	B38	Basic Segment	2125	Rolling	1000	7.69	0.00	2	70
20	US 70 BUS - B38	M39	On Ramp	1500	Rolling	4723	6.92	0.00	2	70
21	M39	B40	Basic Segment	5280	Rolling	1000	6.92	0.00	3	70

RampData

Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	Off Ramp	305	2.00	0.00	1	275	50
4	On Ramp	978	9.00	0.00	1	1350	30
6	On Ramp	78	9.00	0.00	1	325	50
8	Off Ramp	421	6.00	0.00	1	250	50
10	Off Ramp	357	6.00	0.00	1	325	50
12	On Ramp	904	5.00	0.00	1	650	50
14	On Ramp	677	5.00	0.00	1	1500	50
16	Off Ramp	53	5.00	0.00	1	325	50
20	On Ramp	1003	5.00	0.00	1	1500	40

Weaving Segment Data

Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp				
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS
18	0.117	283	5.00	0.00	1	50	408	5.00	0.00	1	40

Time Period 3

Mainline Data										
Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin I-40 WB	B20	Basic Segment	5280	Rolling	2605	9.00	0.00	2	75
2	NC 42 - B20	D21	Off Ramp	1500	Rolling	3061	9.00	0.00	2	75
3	NC 42 - D21	B22	Basic Segment	1350	Rolling	2552	10.20	0.00	2	75
4	NC 42 - B22	M23	On Ramp	1500	Rolling	3489	8.26	0.00	2	75
5	NC 42 - M23	B24	Basic Segment	175	Rolling	3489	8.26	0.00	2	75
6	NC 42 - B24	M25	On Ramp	1500	Rolling	3715	7.94	0.00	2	75
7	M25	B26	Basic Segment	1425	Rolling	1000	7.94	0.00	4	75
8	US 70 - B26	D27	Off Ramp	1500	Rolling	3715	7.94	0.00	4	75
9	US 70 - D27	B28	Basic Segment	100	Rolling	3113	7.93	0.00	4	75
10	US 70 - B28	D29	Off Ramp	1500	Rolling	3113	7.93	0.00	4	75
11	US 70 - D29	B30	Basic Segment	4150	Rolling	2797	8.38	0.00	4	75
12	US 70 - B30	M31	On Ramp	1500	Rolling	3661	7.34	0.00	4	75
13	US 70 - M31	B32	Basic Segment	100	Rolling	3661	7.34	0.00	5	75
14	US 70 - B32	M33	On Ramp	1500	Rolling	4278	7.58	0.00	5	75
15	M33	B34	Basic Segment	13150	Rolling	4278	7.58	0.00	2	75
16	US 70 BUS - B34	D35	Off Ramp	1500	Rolling	4278	7.58	0.00	2	70
17	US 70 BUS - D35	B36	Basic Segment	1825	Rolling	1000	7.62	0.00	2	70
18	US 70 BUS - B36	W37	Weaving	525	Rolling	4699	7.26	0.00	3	70
19	US 70 BUS - W37	B38	Basic Segment	2125	Rolling	1000	7.69	0.00	2	70
20	US 70 BUS - B38	M39	On Ramp	1500	Rolling	5246	6.92	0.00	2	70
21	M39	B40	Basic Segment	5280	Rolling	1000	6.92	0.00	3	70

RampData							
Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	Off Ramp	339	2.00	0.00	1	275	50
4	On Ramp	1086	9.00	0.00	1	1350	30
6	On Ramp	87	9.00	0.00	1	325	50
8	Off Ramp	467	6.00	0.00	1	250	50
10	Off Ramp	396	6.00	0.00	1	325	50
12	On Ramp	1003	5.00	0.00	1	650	50
14	On Ramp	751	5.00	0.00	1	1500	50
16	Off Ramp	59	5.00	0.00	1	325	50
20	On Ramp	1113	5.00	0.00	1	1500	40

Weaving Segment Data											
Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp				
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS
18	0.117	314	5.00	0.00	1	50	453	5.00	0.00	1	40

Time Period 4

Mainline Data										
Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin I-40 WB	B20	Basic Segment	5280	Rolling	2345	9.00	0.00	2	75
2	NC 42 - B20	D21	Off Ramp	1500	Rolling	2755	9.00	0.00	2	75

RampData							
Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	Off Ramp	305	2.00	0.00	1	275	50
4	On Ramp	978	9.00	0.00	1	1350	30
6	On	78	9.00	0.00	1	325	50

3	NC 42 - D21	B22	Basic Segment	1350	Rolling	2296	10.20	0.00	2	75
4	NC 42 - B22	M23	On Ramp	1500	Rolling	3140	8.26	0.00	2	75
5	NC 42 - M23	B24	Basic Segment	175	Rolling	3140	8.26	0.00	2	75
6	NC 42 - B24	M25	On Ramp	1500	Rolling	3344	7.94	0.00	2	75
7	M25	B26	Basic Segment	1425	Rolling	1000	7.94	0.00	4	75
8	US 70 - B26	D27	Off Ramp	1500	Rolling	3344	7.94	0.00	4	75
9	US 70 - D27	B28	Basic Segment	100	Rolling	2802	7.93	0.00	4	75
10	US 70 - B28	D29	Off Ramp	1500	Rolling	2802	7.93	0.00	4	75
11	US 70 - D29	B30	Basic Segment	4150	Rolling	2517	8.38	0.00	4	75
12	US 70 - B30	M31	On Ramp	1500	Rolling	3295	7.34	0.00	4	75
13	US 70 - M31	B32	Basic Segment	100	Rolling	3295	7.34	0.00	5	75
14	US 70 - B32	M33	On Ramp	1500	Rolling	3851	7.58	0.00	5	75
15	M33	B34	Basic Segment	13150	Rolling	3851	7.58	0.00	2	75
16	US 70 BUS - B34	D35	Off Ramp	1500	Rolling	3851	7.58	0.00	2	70
17	US 70 BUS - D35	B36	Basic Segment	1825	Rolling	1000	7.62	0.00	2	70
18	US 70 BUS - B36	W37	Weaving	525	Rolling	4231	7.26	0.00	3	70
19	US 70 BUS - W37	B38	Basic Segment	2125	Rolling	1000	7.69	0.00	2	70
20	US 70 BUS - B38	M39	On Ramp	1500	Rolling	4723	6.92	0.00	2	70
21	M39	B40	Basic Segment	5280	Rolling	1000	6.92	0.00	3	70

	Ramp					
8	Off Ramp	421	6.00	0.00	1	250	50
10	Off Ramp	357	6.00	0.00	1	325	50
12	On Ramp	904	5.00	0.00	1	650	50
14	On Ramp	677	5.00	0.00	1	1500	50
16	Off Ramp	53	5.00	0.00	1	325	50
20	On Ramp	1003	5.00	0.00	1	1500	40

Weaving Segment Data										
Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp			
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS
18	0.117	283	5.00	0.00	1	50	408	5.00	0.00	1	40

Time Period Independent Weaving Segment Data

Seg #	Configuration	Short Length	# Weaving Lanes	Min. Lane Changes Freeway-Ramp	Min. Lane Changes Ramp-Freeway	Min. Lane Changes Ramp-Ramp
18	OneSide	525	2	1	1	0

HCS 2010 Freeway Facilities

Project Properties

Analyst	HNTB	**Freeway Name**	I-40 - 2016 Build WB PM	**Analysis Period**	PM Peak
Analysis Date	9/19/2014 1:46:28 PM	**From**	NC 42	**Version Date**	1/20/16
Agency	HNTB	**To**	US 70 Business		
Location	Complete 540	**Analysis Direction**	Westbound/Southbound		
User Notes					
File Name	C:\Temp\preview.xml				

Facility-wide Values

Jam Density (pc/h/ln)	190	**Time Period Duration (min)**	15	**Facility Length (mi)**	**9.27700**

Segment Input Data

Time Period 1

Mainline Data

Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin I-40 WB	B20	Basic Segment	5280	Rolling	1398	9.00	0.00	2	75
2	NC 42 - B20	D21	Off Ramp	1500	Rolling	1398	9.00	0.00	2	75
3	NC 42 - D21	B22	Basic Segment	1350	Rolling	1184	10.27	0.00	2	75
4	NC 42 - B22	M23	On Ramp	1500	Rolling	1754	9.85	0.00	2	75
5	NC 42 - M23	B24	Basic Segment	175	Rolling	1754	9.85	0.00	2	75
6	NC 42 - B24	M25	On Ramp	1500	Rolling	1825	9.82	0.00	2	75
7	M25	B26	Basic Segment	1425	Rolling	1825	9.82	0.00	4	75
8	US 70 - B26	D27	Off Ramp	1500	Rolling	1825	9.82	0.00	4	75
9	US 70 - D27	B28	Basic Segment	100	Rolling	1517	10.60	0.00	4	75
10	US 70 - B28	D29	Off Ramp	1500	Rolling	1517	10.60	0.00	4	75
11	US 70 - D29	B30	Basic Segment	4150	Rolling	1189	11.86	0.00	4	75
12	US 70 - B30	M31	On Ramp	1500	Rolling	1655	9.93	0.00	4	75
13	US 70 - M31	B32	Basic Segment	100	Rolling	1655	9.93	0.00	5	75
14	US 70 - B32	M33	On Ramp	1500	Rolling	2076	8.93	0.00	5	75
15	M33	B34	Basic Segment	13150	Rolling	2076	8.93	0.00	2	75
16	US 70 BUS - B34	D35	Off Ramp	1500	Rolling	2076	8.93	0.00	2	70
17	US 70 BUS - D35	B36	Basic Segment	1825	Rolling	2036	9.01	0.00	2	70
18	US 70 BUS - B36	W37	Weaving	525	Rolling	2266	8.60	0.00	3	70

RampData

Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	Off Ramp	214	2.00	0.00	1	275	50
4	On Ramp	570	9.00	0.00	1	1350	30
6	On Ramp	71	9.00	0.00	1	325	50
8	Off Ramp	308	6.00	0.00	1	250	50
10	Off Ramp	328	6.00	0.00	1	325	50
12	On Ramp	466	5.00	0.00	1	650	50
14	On Ramp	421	5.00	0.00	1	1500	50
16	Off Ramp	40	5.00	0.00	1	325	50
20	On Ramp	675	5.00	0.00	1	1500	40

Weaving Segment Data

Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp				
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS

19	US 70 BUS - W37	B38	Basic Segment	2125	Rolling	2011	9.06	0.00	2	70
20	US 70 BUS - B38	M39	On Ramp	1500	Rolling	2686	8.04	0.00	2	70
21	M39	B40	Basic Segment	5280	Rolling	2686	8.04	0.00	3	70

18	0.096	230	5.00	0.00	1	50	255	5.00	0.00	1	40

Time Period 2

Mainline Data										
Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin I-40 WB	B20	Basic Segment	5280	Rolling	1573	9.00	0.00	2	75
2	NC 42 - B20	D21	Off Ramp	1500	Rolling	1573	9.00	0.00	2	75
3	NC 42 - D21	B22	Basic Segment	1350	Rolling	1332	10.27	0.00	2	75
4	NC 42 - B22	M23	On Ramp	1500	Rolling	1972	9.86	0.00	2	75
5	NC 42 - M23	B24	Basic Segment	175	Rolling	1972	9.86	0.00	2	75
6	NC 42 - B24	M25	On Ramp	1500	Rolling	2052	9.82	0.00	2	75
7	M25	B26	Basic Segment	1425	Rolling	1000	9.82	0.00	4	75
8	US 70 - B26	D27	Off Ramp	1500	Rolling	2052	9.82	0.00	4	75
9	US 70 - D27	B28	Basic Segment	100	Rolling	1706	10.60	0.00	4	75
10	US 70 - B28	D29	Off Ramp	1500	Rolling	1706	10.60	0.00	4	75
11	US 70 - D29	B30	Basic Segment	4150	Rolling	1338	11.86	0.00	4	75
12	US 70 - B30	M31	On Ramp	1500	Rolling	1862	9.93	0.00	4	75
13	US 70 - M31	B32	Basic Segment	100	Rolling	1862	9.93	0.00	5	75
14	US 70 - B32	M33	On Ramp	1500	Rolling	2335	8.93	0.00	5	75
15	M33	B34	Basic Segment	13150	Rolling	2335	8.93	0.00	2	75
16	US 70 BUS - B34	D35	Off Ramp	1500	Rolling	2335	8.93	0.00	2	70
17	US 70 BUS - D35	B36	Basic Segment	1825	Rolling	2290	9.01	0.00	2	70
18	US 70 BUS - B36	W37	Weaving	525	Rolling	2548	8.60	0.00	3	70
19	US 70 BUS - W37	B38	Basic Segment	2125	Rolling	2262	9.06	0.00	2	70
20	US 70 BUS - B38	M39	On Ramp	1500	Rolling	3020	8.04	0.00	2	70
21	M39	B40	Basic Segment	5280	Rolling	3020	8.04	0.00	3	70

RampData							
Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	Off Ramp	241	2.00	0.00	1	275	50
4	On Ramp	640	9.00	0.00	1	1350	30
6	On Ramp	80	9.00	0.00	1	325	50
8	Off Ramp	346	6.00	0.00	1	250	50
10	Off Ramp	368	6.00	0.00	1	325	50
12	On Ramp	524	5.00	0.00	1	650	50
14	On Ramp	473	5.00	0.00	1	1500	50
16	Off Ramp	45	5.00	0.00	1	325	50
20	On Ramp	758	5.00	0.00	1	1500	40

Weaving Segment Data											
Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp				
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS
18	0.096	258	5.00	0.00	1	50	286	5.00	0.00	1	40

Time Period 3

Mainline Data										
Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin I-40 WB	B20	Basic Segment	5280	Rolling	1748	9.00	0.00	2	75
2	NC 42 - B20	D21	Off Ramp	1500	Rolling	2095	9.00	0.00	2	75
3	NC 42 - D21	B22	Basic Segment	1350	Rolling	1642	10.66	0.00	2	75
4	NC 42 - B22	M23	On Ramp	1500	Rolling	2213	8.68	0.00	2	75
5	NC 42 - M23	B24	Basic Segment	175	Rolling	2213	8.68	0.00	2	75
6	NC 42 - B24	M25	On Ramp	1500	Rolling	2411	8.21	0.00	2	75
7	M25	B26	Basic Segment	1425	Rolling	1000	8.21	0.00	4	75
8	US 70 - B26	D27	Off Ramp	1500	Rolling	2411	8.21	0.00	4	75
9	US 70 - D27	B28	Basic Segment	100	Rolling	2035	8.25	0.00	4	75
10	US 70 - B28	D29	Off Ramp	1500	Rolling	2035	8.25	0.00	4	75
11	US 70 - D29	B30	Basic Segment	4150	Rolling	1689	9.12	0.00	4	75
12	US 70 - B30	M31	On Ramp	1500	Rolling	2172	7.98	0.00	4	75
13	US 70 - M31	B32	Basic Segment	100	Rolling	2172	7.98	0.00	5	75
14	US 70 - B32	M33	On Ramp	1500	Rolling	2718	8.19	0.00	5	75
15	M33	B34	Basic Segment	13150	Rolling	2718	8.19	0.00	2	75
16	US 70 BUS - B34	D35	Off Ramp	1500	Rolling	2718	8.19	0.00	2	70
17	US 70 BUS - D35	B36	Basic Segment	1825	Rolling	1000	8.25	0.00	2	70
18	US 70 BUS - B36	W37	Weaving	525	Rolling	3211	7.55	0.00	3	70
19	US 70 BUS - W37	B38	Basic Segment	2125	Rolling	1000	7.92	0.00	2	70
20	US 70 BUS - B38	M39	On Ramp	1500	Rolling	3768	7.02	0.00	2	70
21	M39	B40	Basic Segment	5280	Rolling	1000	7.02	0.00	3	70

RampData							
Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	Off Ramp	268	2.00	0.00	1	275	50
4	On Ramp	710	9.00	0.00	1	1350	30
6	On Ramp	89	9.00	0.00	1	325	50
8	Off Ramp	384	6.00	0.00	1	250	50
10	Off Ramp	408	6.00	0.00	1	325	50
12	On Ramp	582	5.00	0.00	1	650	50
14	On Ramp	525	5.00	0.00	1	1500	50
16	Off Ramp	50	5.00	0.00	1	325	50
20	On Ramp	841	5.00	0.00	1	1500	40

Weaving Segment Data											
Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp				
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS
18	0.096	286	5.00	0.00	1	50	317	5.00	0.00	1	40

Time Period 4

Mainline Data										
Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin I-40 WB	B20	Basic Segment	5280	Rolling	1573	9.00	0.00	2	75
2	NC 42 - B20	D21	Off Ramp	1500	Rolling	1886	9.00	0.00	2	75

RampData							
Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	Off Ramp	241	2.00	0.00	1	275	50
4	On Ramp	640	9.00	0.00	1	1350	30
6	On	80	9.00	0.00	1	325	50

3	NC 42 - D21	B22	Basic Segment	1350	Rolling	1478	10.66	0.00	2	75
4	NC 42 - B22	M23	On Ramp	1500	Rolling	1992	8.68	0.00	2	75
5	NC 42 - M23	B24	Basic Segment	175	Rolling	1992	8.68	0.00	2	75
6	NC 42 - B24	M25	On Ramp	1500	Rolling	2170	8.21	0.00	2	75
7	M25	B26	Basic Segment	1425	Rolling	1000	8.21	0.00	4	75
8	US 70 - B26	D27	Off Ramp	1500	Rolling	2170	8.21	0.00	4	75
9	US 70 - D27	B28	Basic Segment	100	Rolling	1831	8.25	0.00	4	75
10	US 70 - B28	D29	Off Ramp	1500	Rolling	1831	8.25	0.00	4	75
11	US 70 - D29	B30	Basic Segment	4150	Rolling	1519	9.13	0.00	4	75
12	US 70 - B30	M31	On Ramp	1500	Rolling	1954	7.99	0.00	4	75
13	US 70 - M31	B32	Basic Segment	100	Rolling	1954	7.99	0.00	5	75
14	US 70 - B32	M33	On Ramp	1500	Rolling	2446	8.19	0.00	5	75
15	M33	B34	Basic Segment	13150	Rolling	2446	8.19	0.00	2	75
16	US 70 BUS - B34	D35	Off Ramp	1500	Rolling	2446	8.19	0.00	2	70
17	US 70 BUS - D35	B36	Basic Segment	1825	Rolling	1000	8.25	0.00	2	70
18	US 70 BUS - B36	W37	Weaving	525	Rolling	2890	7.55	0.00	3	70
19	US 70 BUS - W37	B38	Basic Segment	2125	Rolling	1000	7.92	0.00	2	70
20	US 70 BUS - B38	M39	On Ramp	1500	Rolling	3391	7.02	0.00	2	70
21	M39	B40	Basic Segment	5280	Rolling	1000	7.02	0.00	3	70

	Ramp					
8	Off Ramp	346	6.00	0.00	1	250	50
10	Off Ramp	368	6.00	0.00	1	325	50
12	On Ramp	524	5.00	0.00	1	650	50
14	On Ramp	473	5.00	0.00	1	1500	50
16	Off Ramp	45	5.00	0.00	1	325	50
20	On Ramp	758	5.00	0.00	1	1500	40

Weaving Segment Data										
Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp			
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS
18	0.096	258	5.00	0.00	1	50	286	5.00	0.00	1	40

Time Period Independent Weaving Segment Data

Seg #	Configuration	Short Length	# Weaving Lanes	Min. Lane Changes Freeway-Ramp	Min. Lane Changes Ramp-Freeway	Min. Lane Changes Ramp-Ramp
18	OneSide	525	2	1	1	0

HCS 2010 Freeway Facilities

Project Properties

Analyst	HNTB	**Freeway Name**	US 70 - 2016 Build EB AM	**Analysis Period**	AM Peak
Analysis Date	9/19/2014 11:24:07 AM	**From**	US 70	**Version Date**	1/20/16
Agency	HNTB	**To**	NC 42		
Location	Complete 540	**Analysis Direction**	Eastbound/Northbound		
User Notes					
File Name	C:\Temp\preview.xml				

Facility-wide Values

Jam Density (pc/h/ln)	190	**Time Period Duration (min)**	15	**Facility Length (mi)**	**5.84900**

Segment Input Data

Time Period 1

Mainline Data

Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin of US 70 EB	B1	Basic Segment	5280	Rolling	476	5.00	0.00	2	75
2	US 70 - B1	M2	On Ramp	1500	Rolling	704	5.00	0.00	2	75
3	US 70 - M2	B3	Basic Segment	375	Rolling	704	5.00	0.00	2	75
4	US 70 - B3	M4	On Ramp	1500	Rolling	1022	5.00	0.00	2	75
5	US 70 - M4	B5	Basic Segment	4050	Rolling	1022	5.00	0.00	2	75
6	US 70 - B5	M6	On Ramp	1500	Rolling	1329	5.00	0.00	2	75
7	M6	B7	Basic Segment	5000	Rolling	1329	5.00	0.00	2	75
8	NC 42 - B7	D8	Off Ramp	1500	Rolling	1329	5.00	0.00	2	75
9	NC 42 - D8	B9	Basic Segment	3400	Rolling	993	6.02	0.00	2	75
10	NC 42 - B9	M10	On Ramp	1500	Rolling	1150	5.88	0.00	2	75
11	M10	End of US 70 EB	Basic Segment	5280	Rolling	1150	5.88	0.00	2	75

RampData

Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	On Ramp	228	5.00	0.00	1	1250	30
4	On Ramp	318	5.00	0.00	1	750	50
6	On Ramp	307	5.00	0.00	1	900	50
8	Off Ramp	336	2.00	0.00	1	275	50
10	On Ramp	157	5.00	0.00	1	650	50

Weaving Segment Data

Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp				
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS

Time Period 2

Mainline Data

Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin of US 70 EB	B1	Basic Segment	5280	Rolling	535	5.00	0.00	2	75
2	US 70 - B1	M2	On Ramp	1500	Rolling	489	4.38	0.00	2	75
3	US 70 -	B3	Basic Segment	375	Rolling	489	4.38	0.00	2	75

RampData

Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	On Ramp	256	5.00	0.00	1	1250	30
4	On Ramp	357	5.00	0.00	1	750	50
6	On Ramp	345	5.00	0.00	1	900	50
8	Off Ramp	377	2.00	0.00	1	275	50

	M2									
4	US 70 - B3	M4	On Ramp	1500	Rolling	774	6.08	0.00	2	75
5	US 70 - M4	B5	Basic Segment	4050	Rolling	774	6.08	0.00	2	75
6	US 70 - B5	M6	On Ramp	1500	Rolling	1100	6.94	0.00	2	75
7	M6	B7	Basic Segment	5000	Rolling	1100	6.94	0.00	2	75
8	NC 42 - B7	D8	Off Ramp	1500	Rolling	1100	6.94	0.00	2	75
9	NC 42 - D8	B9	Basic Segment	3400	Rolling	884	7.66	0.00	2	75
10	NC 42 - B9	M10	On Ramp	1500	Rolling	1164	6.78	0.00	2	75
11	M10	End of US 70 EB	Basic Segment	5280	Rolling	1164	6.78	0.00	2	75

10	On Ramp	176	5.00	0.00	1	650	50

Weaving Segment Data											
Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp				
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS

Time Period 3

Mainline Data										
Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin of US 70 EB	B1	Basic Segment	5280	Rolling	594	5.00	0.00	2	75
2	US 70 - B1	M2	On Ramp	1500	Rolling	543	4.38	0.00	2	75
3	US 70 - M2	B3	Basic Segment	375	Rolling	543	4.38	0.00	2	75
4	US 70 - B3	M4	On Ramp	1500	Rolling	860	6.08	0.00	2	75
5	US 70 - M4	B5	Basic Segment	4050	Rolling	860	6.08	0.00	2	75
6	US 70 - B5	M6	On Ramp	1500	Rolling	1222	6.95	0.00	2	75
7	M6	B7	Basic Segment	5000	Rolling	1222	6.95	0.00	2	75
8	NC 42 - B7	D8	Off Ramp	1500	Rolling	1222	6.95	0.00	2	75
9	NC 42 - D8	B9	Basic Segment	3400	Rolling	982	7.66	0.00	2	75
10	NC 42 - B9	M10	On Ramp	1500	Rolling	1293	6.78	0.00	2	75
11	M10	End of US 70 EB	Basic Segment	5280	Rolling	1293	6.78	0.00	2	75

RampData							
Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	On Ramp	284	5.00	0.00	1	1250	30
4	On Ramp	396	5.00	0.00	1	750	50
6	On Ramp	383	5.00	0.00	1	900	50
8	Off Ramp	418	2.00	0.00	1	275	50
10	On Ramp	195	5.00	0.00	1	650	50

Weaving Segment Data											
Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp				
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS

Time Period 4

Mainline Data										
Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin of US 70 EB	B1	Basic Segment	5280	Rolling	535	5.00	0.00	2	75
2	US 70 -	M2	On	1500	Rolling	489	4.38	0.00	2	75

RampData							
Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	On Ramp	256	5.00	0.00	1	1250	30
4	On Ramp	357	5.00	0.00	1	750	50
6	On	345	5.00	0.00	1	900	50

	B1		Ramp							
3	US 70 - M2	B3	Basic Segment	375	Rolling	489	4.38	0.00	2	75
4	US 70 - B3	M4	On Ramp	1500	Rolling	774	6.08	0.00	2	75
5	US 70 - M4	B5	Basic Segment	4050	Rolling	774	6.08	0.00	2	75
6	US 70 - B5	M6	On Ramp	1500	Rolling	1100	6.94	0.00	2	75
7	M6	B7	Basic Segment	5000	Rolling	1100	6.94	0.00	2	75
8	NC 42 - B7	D8	Off Ramp	1500	Rolling	1100	6.94	0.00	2	75
9	NC 42 - D8	B9	Basic Segment	3400	Rolling	884	7.66	0.00	2	75
10	NC 42 - B9	M10	On Ramp	1500	Rolling	1164	6.78	0.00	2	75
11	M10	End of US 70 EB	Basic Segment	5280	Rolling	1164	6.78	0.00	2	75

	Ramp					
8	Off Ramp	377	2.00	0.00	1	275	50
10	On Ramp	176	5.00	0.00	1	650	50

Weaving Segment Data											
Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp				
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS

Time Period Independent Weaving Segment Data

Seg #	Configuration	Short Length	# Weaving Lanes	Min. Lane Changes Freeway-Ramp	Min. Lane Changes Ramp-Freeway	Min. Lane Changes Ramp-Ramp

HCS 2010 Freeway Facilities

Project Properties

Analyst	HNTB	**Freeway Name**	US 70 - 2016 Build EB PM	**Analysis Period**	PM Peak
Analysis Date	9/19/2014 11:24:07 AM	**From**	US 70	**Version Date**	1/20/16
Agency	HNTB	**To**	NC 42		
Location	Complete 540	**Analysis Direction**	Eastbound/Northbound		
User Notes					
File Name	C:\Temp\preview.xml				

Facility-wide Values

Jam Density (pc/h/ln)	190	**Time Period Duration (min)**	15	**Facility Length (mi)**	**5.84900**

Segment Input Data

Time Period 1

Mainline Data

Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin of US 70 EB	B1	Basic Segment	5280	Rolling	783	5.00	0.00	2	75
2	US 70 - B1	M2	On Ramp	1500	Rolling	1049	5.00	0.00	2	75
3	US 70 - M2	B3	Basic Segment	375	Rolling	1049	5.00	0.00	2	75
4	US 70 - B3	M4	On Ramp	1500	Rolling	1377	5.00	0.00	2	75
5	US 70 - M4	B5	Basic Segment	4050	Rolling	1377	5.00	0.00	2	75
6	US 70 - B5	M6	On Ramp	1500	Rolling	1895	5.00	0.00	2	75
7	M6	B7	Basic Segment	5000	Rolling	1895	5.00	0.00	2	75
8	NC 42 - B7	D8	Off Ramp	1500	Rolling	1895	5.00	0.00	2	75
9	NC 42 - D8	B9	Basic Segment	3400	Rolling	1538	5.70	0.00	2	75
10	NC 42 - B9	M10	On Ramp	1500	Rolling	1723	5.62	0.00	2	75
11	M10	End of US 70 EB	Basic Segment	5280	Rolling	1723	5.62	0.00	2	75

RampData

Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	On Ramp	266	5.00	0.00	1	1250	30
4	On Ramp	328	5.00	0.00	1	750	50
6	On Ramp	518	5.00	0.00	1	900	50
8	Off Ramp	357	2.00	0.00	1	275	50
10	On Ramp	185	5.00	0.00	1	650	50

Weaving Segment Data

Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp				
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS

Time Period 2

Mainline Data

Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin of US 70 EB	B1	Basic Segment	5280	Rolling	881	5.00	0.00	2	75
2	US 70 - B1	M2	On Ramp	1500	Rolling	832	4.33	0.00	2	75
3	US 70 -	B3	Basic Segment	375	Rolling	832	4.33	0.00	2	75

RampData

Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	On Ramp	299	5.00	0.00	1	1250	30
4	On Ramp	368	5.00	0.00	1	750	50
6	On Ramp	582	5.00	0.00	1	900	50
8	Off Ramp	401	2.00	0.00	1	275	50

	M2									
4	US 70 - B3	M4	On Ramp	1500	Rolling	1144	5.60	0.00	2	75
5	US 70 - M4	B5	Basic Segment	4050	Rolling	1144	5.60	0.00	2	75
6	US 70 - B5	M6	On Ramp	1500	Rolling	1865	6.92	0.00	2	75
7	M6	B7	Basic Segment	5000	Rolling	1865	6.92	0.00	2	75
8	NC 42 - B7	D8	Off Ramp	1500	Rolling	1865	6.92	0.00	2	75
9	NC 42 - D8	B9	Basic Segment	3400	Rolling	1479	7.68	0.00	2	75
10	NC 42 - B9	M10	On Ramp	1500	Rolling	1817	6.99	0.00	2	75
11	M10	End of US 70 EB	Basic Segment	5280	Rolling	1817	6.99	0.00	2	75

10	On Ramp	208	5.00	0.00	1	650	50

Weaving Segment Data											
Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp				
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS

Time Period 3

Mainline Data										
Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin of US 70 EB	B1	Basic Segment	5280	Rolling	979	5.00	0.00	2	75
2	US 70 - B1	M2	On Ramp	1500	Rolling	924	4.32	0.00	2	75
3	US 70 - M2	B3	Basic Segment	375	Rolling	924	4.32	0.00	2	75
4	US 70 - B3	M4	On Ramp	1500	Rolling	1270	5.60	0.00	2	75
5	US 70 - M4	B5	Basic Segment	4050	Rolling	1270	5.60	0.00	2	75
6	US 70 - B5	M6	On Ramp	1500	Rolling	2070	6.91	0.00	2	75
7	M6	B7	Basic Segment	5000	Rolling	2070	6.91	0.00	2	75
8	NC 42 - B7	D8	Off Ramp	1500	Rolling	2070	6.91	0.00	2	75
9	NC 42 - D8	B9	Basic Segment	3400	Rolling	1642	7.67	0.00	2	75
10	NC 42 - B9	M10	On Ramp	1500	Rolling	2017	6.99	0.00	2	75
11	M10	End of US 70 EB	Basic Segment	5280	Rolling	2017	6.99	0.00	2	75

RampData							
Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	On Ramp	332	5.00	0.00	1	1250	30
4	On Ramp	408	5.00	0.00	1	750	50
6	On Ramp	646	5.00	0.00	1	900	50
8	Off Ramp	445	2.00	0.00	1	275	50
10	On Ramp	231	5.00	0.00	1	650	50

Weaving Segment Data											
Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp				
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS

Time Period 4

Mainline Data										
Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin of US 70 EB	B1	Basic Segment	5280	Rolling	881	5.00	0.00	2	75
2	US 70 -	M2	On	1500	Rolling	832	4.33	0.00	2	75

RampData							
Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	On Ramp	299	5.00	0.00	1	1250	30
4	On Ramp	368	5.00	0.00	1	750	50
6	On	582	5.00	0.00	1	900	50

	B1		Ramp							
3	US 70 - M2	B3	Basic Segment	375	Rolling	832	4.33	0.00	2	75
4	US 70 - B3	M4	On Ramp	1500	Rolling	1144	5.60	0.00	2	75
5	US 70 - M4	B5	Basic Segment	4050	Rolling	1144	5.60	0.00	2	75
6	US 70 - B5	M6	On Ramp	1500	Rolling	1865	6.92	0.00	2	75
7	M6	B7	Basic Segment	5000	Rolling	1865	6.92	0.00	2	75
8	NC 42 - B7	D8	Off Ramp	1500	Rolling	1865	6.92	0.00	2	75
9	NC 42 - D8	B9	Basic Segment	3400	Rolling	1479	7.68	0.00	2	75
10	NC 42 - B9	M10	On Ramp	1500	Rolling	1817	6.99	0.00	2	75
11	M10	End of US 70 EB	Basic Segment	5280	Rolling	1817	6.99	0.00	2	75

	Ramp					
8	Off Ramp	401	2.00	0.00	1	275	50
10	On Ramp	208	5.00	0.00	1	650	50

Weaving Segment Data											
Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp				
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS

Time Period Independent Weaving Segment Data

Seg #	Configuration	Short Length	# Weaving Lanes	Min. Lane Changes Freeway-Ramp	Min. Lane Changes Ramp-Freeway	Min. Lane Changes Ramp-Ramp

HCS 2010 Freeway Facilities

Project Properties

Analyst	HNTB	**Freeway Name**	US 70 - 2016 Build WB AM	**Analysis Period**	AM Peak
Analysis Date	9/19/2014 11:24:07 AM	**From**	NC 42	**Version Date**	1/20/16
Agency	HNTB	**To**	I-40		
Location	Complete 540	**Analysis Direction**	Westbound/Southbound		
User Notes					
File Name	C:\Temp\preview.xml				

Facility-wide Values

Jam Density (pc/h/ln)	190	**Time Period Duration (min)**	15	**Facility Length (mi)**	**5.39900**

Segment Input Data

Time Period 1

Mainline Data

Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin US 70 WB	B12	Basic Segment	5280	Rolling	1745	5.00	0.00	2	75
2	NC 42 - B12	D13	Off Ramp	1500	Rolling	1745	5.00	0.00	2	75
3	NC 42 - D13	B14	Basic Segment	3375	Rolling	1560	5.36	0.00	2	75
4	NC 42 - B14	M15	On Ramp	1500	Rolling	1917	5.29	0.00	2	75
5	M15	B16	Basic Segment	8750	Rolling	1917	5.29	0.00	2	75
6	I-40 - B16	D17	Off Ramp	1500	Rolling	1917	5.29	0.00	2	75
7	I-40 - D17	B18	Basic Segment	650	Rolling	1651	5.34	0.00	2	75
8	I-40 - B18	D19	Off Ramp	1500	Rolling	1651	5.34	0.00	2	75
9	I-40 - D19	B20	Basic Segment	2950	Rolling	323	6.72	0.00	2	75
10	B20	End US 70 WB	Off Ramp	1500	Rolling	323	6.72	0.00	2	75

RampData

Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	Off Ramp	185	2.00	0.00	1	325	50
4	On Ramp	357	5.00	0.00	1	675	50
6	Off Ramp	266	5.00	0.00	1	175	50
8	Off Ramp	1328	5.00	0.00	1	475	50
10	Off Ramp	325	5.00	0.00	1	500	30

Weaving Segment Data

Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp				
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS

Time Period 2

Mainline Data

Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin US 70 WB	B12	Basic Segment	5280	Rolling	1963	5.00	0.00	2	75
2	NC 42 - B12	D13	Off Ramp	1500	Rolling	1963	5.00	0.00	2	75
3	NC 42 - D13	B14	Basic Segment	3375	Rolling	1755	5.36	0.00	2	75
4	NC 42 - B14	M15	On Ramp	1500	Rolling	2156	5.29	0.00	2	75
5	M15	B16	Basic Segment	8750	Rolling	2156	5.29	0.00	2	75
6	I-40	D17	Off	1500	Rolling	2156	5.29	0.00	2	75

RampData

Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	Off Ramp	208	2.00	0.00	1	325	50
4	On Ramp	401	5.00	0.00	1	675	50
6	Off Ramp	299	5.00	0.00	1	175	50
8	Off Ramp	1492	5.00	0.00	1	475	50
10	Off Ramp	365	5.00	0.00	1	500	30

	- B16		Ramp							
7	I-40 - D17	B18	Basic Segment	650	Rolling	1857	5.34	0.00	2	75
8	I-40 - B18	D19	Off Ramp	1500	Rolling	1857	5.34	0.00	2	75
9	I-40 - D19	B20	Basic Segment	2950	Rolling	365	6.71	0.00	2	75
10	B20	End US 70 WB	Off Ramp	1500	Rolling	365	6.71	0.00	2	75

Weaving Segment Data											
Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp				
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS

Time Period 3

Mainline Data										
Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin US 70 WB	B12	Basic Segment	5280	Rolling	2181	5.00	0.00	2	75
2	NC 42 - B12	D13	Off Ramp	1500	Rolling	2048	4.00	0.00	2	75
3	NC 42 - D13	B14	Basic Segment	3375	Rolling	1673	4.00	0.00	2	75
4	NC 42 - B14	M15	On Ramp	1500	Rolling	2101	4.00	0.00	2	75
5	M15	B16	Basic Segment	8750	Rolling	2101	4.00	0.00	2	75
6	I-40 - B16	D17	Off Ramp	1500	Rolling	2101	4.00	0.00	2	75
7	I-40 - D17	B18	Basic Segment	650	Rolling	2026	3.85	0.00	2	75
8	I-40 - B18	D19	Off Ramp	1500	Rolling	2026	3.85	0.00	2	75
9	I-40 - D19	B20	Basic Segment	2950	Rolling	354	-20.46	0.00	2	75
10	B20	End US 70 WB	Off Ramp	1500	Rolling	354	-20.46	0.00	2	75

RampData							
Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	Off Ramp	231	2.00	0.00	1	325	50
4	On Ramp	445	5.00	0.00	1	675	50
6	Off Ramp	332	5.00	0.00	1	175	50
8	Off Ramp	1656	5.00	0.00	1	475	50
10	Off Ramp	405	5.00	0.00	1	500	30

Weaving Segment Data											
Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp				
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS

Time Period 4

Mainline Data										
Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin US 70 WB	B12	Basic Segment	5280	Rolling	1963	5.00	0.00	2	75
2	NC 42 - B12	D13	Off Ramp	1500	Rolling	1843	4.00	0.00	2	75
3	NC 42 - D13	B14	Basic Segment	3375	Rolling	1505	4.00	0.00	2	75
4	NC 42 - B14	M15	On Ramp	1500	Rolling	1891	4.00	0.00	2	75
5	M15	B16	Basic Segment	8750	Rolling	1891	4.00	0.00	2	75
6	I-40 - B16	D17	Off Ramp	1500	Rolling	1891	4.00	0.00	2	75
7	I-40 - D17	B18	Basic Segment	650	Rolling	1823	3.85	0.00	2	75
8	I-40 - B18	D19	Off Ramp	1500	Rolling	1823	3.85	0.00	2	75
9	I-40 - D19	B20	Basic Segment	2950	Rolling	317	-20.61	0.00	2	75
10	B20	End US 70 WB	Off Ramp	1500	Rolling	317	-20.61	0.00	2	75

RampData							
Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	Off Ramp	208	2.00	0.00	1	325	50
4	On Ramp	401	5.00	0.00	1	675	50
6	Off Ramp	299	5.00	0.00	1	175	50
8	Off Ramp	1492	5.00	0.00	1	475	50
10	Off Ramp	365	5.00	0.00	1	500	30

Weaving Segment Data											
Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp				
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS

Time Period Independent Weaving Segment Data

Seg #	Configuration	Short Length	# Weaving Lanes	Min. Lane Changes Freeway-Ramp	Min. Lane Changes Ramp-Freeway	Min. Lane Changes Ramp-Ramp

HCS 2010 Freeway Facilities

Project Properties

Analyst	HNTB	**Freeway Name**	US 70 - 2016 Build WB PM	**Analysis Period**	PM Peak
Analysis Date	9/19/2014 11:24:07 AM	**From**	NC 42	**Version Date**	1/20/16
Agency	HNTB	**To**	US 70		
Location	Complete 540	**Analysis Direction**	Westbound/Southbound		
User Notes					
File Name	C:\Temp\preview.xml				

Facility-wide Values

Jam Density (pc/h/ln)	190	**Time Period Duration (min)**	15	**Facility Length (mi)**	**5.39900**

Segment Input Data

Time Period 1

Mainline Data

Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin US 70 WB	B12	Basic Segment	5280	Rolling	1133	5.00	0.00	2	75
2	NC 42 - B12	D13	Off Ramp	1500	Rolling	1133	5.00	0.00	2	75
3	NC 42 - D13	B14	Basic Segment	3375	Rolling	976	5.48	0.00	2	75
4	NC 42 - B14	M15	On Ramp	1500	Rolling	1312	5.36	0.00	2	75
5	M15	B16	Basic Segment	8750	Rolling	1312	5.36	0.00	2	75
6	US 70 - B16	D17	Off Ramp	1500	Rolling	1312	5.36	0.00	2	75
7	US 70 - D17	B18	Basic Segment	650	Rolling	1084	5.43	0.00	2	75
8	US 70 - B18	D19	Off Ramp	1500	Rolling	1084	5.43	0.00	2	75
9	US 70 - D19	B20	Basic Segment	2950	Rolling	314	6.50	0.00	2	75
10	B20	End US 70 WB	Off Ramp	1500	Rolling	314	6.50	0.00	2	75

RampData

Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	Off Ramp	157	2.00	0.00	1	325	50
4	On Ramp	336	5.00	0.00	1	675	50
6	Off Ramp	228	5.00	0.00	1	175	50
8	Off Ramp	770	5.00	0.00	1	475	50
10	Off Ramp	316	5.00	0.00	1	475	30

Weaving Segment Data

Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp				
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS

Time Period 2

Mainline Data

Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin US 70 WB	B12	Basic Segment	5280	Rolling	1275	5.00	0.00	2	75
2	NC 42 - B12	D13	Off Ramp	1500	Rolling	1275	5.00	0.00	2	75
3	NC 42 - D13	B14	Basic Segment	3375	Rolling	1099	5.48	0.00	2	75
4	NC 42 - B14	M15	On Ramp	1500	Rolling	1476	5.36	0.00	2	75

RampData

Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	Off Ramp	176	2.00	0.00	1	325	50
4	On Ramp	377	5.00	0.00	1	675	50
6	Off Ramp	256	5.00	0.00	1	175	50
8	Off Ramp	865	5.00	0.00	1	475	50
10	Off Ramp	355	5.00	0.00	1	475	30

5	M15	B16	Basic Segment	8750	Rolling	1476	5.36	0.00	2	75
6	US 70 - B16	D17	Off Ramp	1500	Rolling	1476	5.36	0.00	2	75
7	US 70 - D17	B18	Basic Segment	650	Rolling	1220	5.43	0.00	2	75
8	US 70 - B18	D19	Off Ramp	1500	Rolling	1220	5.43	0.00	2	75
9	US 70 - D19	B20	Basic Segment	2950	Rolling	355	6.49	0.00	2	75
10	B20	End US 70 WB	Off Ramp	1500	Rolling	355	6.49	0.00	2	75

Weaving Segment Data											
Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp				
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS

Time Period 3

Mainline Data										
Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin US 70 WB	B12	Basic Segment	5280	Rolling	1417	5.00	0.00	2	75
2	NC 42 - B12	D13	Off Ramp	1500	Rolling	1275	4.00	0.00	2	75
3	NC 42 - D13	B14	Basic Segment	3375	Rolling	964	4.00	0.00	2	75
4	NC 42 - B14	M15	On Ramp	1500	Rolling	1204	4.00	0.00	2	75
5	M15	B16	Basic Segment	8750	Rolling	1204	4.00	0.00	2	75
6	US 70 - B16	D17	Off Ramp	1500	Rolling	1204	4.00	0.00	2	75
7	US 70 - D17	B18	Basic Segment	650	Rolling	1153	3.82	0.00	2	75
8	US 70 - B18	D19	Off Ramp	1500	Rolling	1153	3.82	0.00	2	75
9	US 70 - D19	B20	Basic Segment	2950	Rolling	311	-10.19	0.00	2	75
10	B20	End US 70 WB	Off Ramp	1500	Rolling	311	-10.19	0.00	2	75

RampData							
Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	Off Ramp	195	2.00	0.00	1	325	50
4	On Ramp	418	5.00	0.00	1	675	50
6	Off Ramp	284	5.00	0.00	1	175	50
8	Off Ramp	960	5.00	0.00	1	475	50
10	Off Ramp	394	5.00	0.00	1	475	30

Weaving Segment Data											
Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp				
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS

Time Period 4

Mainline Data										
Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin US 70 WB	B12	Basic Segment	5280	Rolling	1275	5.00	0.00	2	75
2	NC 42 - B12	D13	Off Ramp	1500	Rolling	1148	4.00	0.00	2	75
3	NC 42 - D13	B14	Basic Segment	3375	Rolling	868	4.00	0.00	2	75
4	NC 42 - B14	M15	On Ramp	1500	Rolling	1084	4.00	0.00	2	75
5	M15	B16	Basic Segment	8750	Rolling	1084	4.00	0.00	2	75
6	US 70 - B16	D17	Off Ramp	1500	Rolling	1084	4.00	0.00	2	75

RampData							
Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	Off Ramp	176	2.00	0.00	1	325	50
4	On Ramp	377	5.00	0.00	1	675	50
6	Off Ramp	256	5.00	0.00	1	175	50
8	Off Ramp	865	5.00	0.00	1	475	50
10	Off Ramp	355	5.00	0.00	1	475	30

7	US 70 - D17	B18	Basic Segment	650	Rolling	1038	3.82	0.00	2	75
8	US 70 - B18	D19	Off Ramp	1500	Rolling	1038	3.82	0.00	2	75
9	US 70 - D19	B20	Basic Segment	2950	Rolling	279	-10.26	0.00	2	75
10	B20	End US 70 WB	Off Ramp	1500	Rolling	279	-10.26	0.00	2	75

Weaving Segment Data											
Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp				
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS

Time Period Independent Weaving Segment Data

Seg #	Configuration	Short Length	# Weaving Lanes	Min. Lane Changes Freeway-Ramp	Min. Lane Changes Ramp-Freeway	Min. Lane Changes Ramp-Ramp

HCS 2010 Freeway Facilities

Project Properties

Analyst	HNTB	**Freeway Name**	I-495 - 2016 Build EB AM	**Analysis Period**	AM Peak
Analysis Date	9/19/2014 9:50:57 AM	**From**	Hodge Road	**Version Date**	1/20/16
Agency	HNTB	**To**	Smithfield Road		
Location	Complete 540	**Analysis Direction**	Eastbound/Northbound		
User Notes					
File Name	C:\Temp\preview.xml				

Facility-wide Values

Jam Density (pc/h/ln)	190	**Time Period Duration (min)**	15	**Facility Length (mi)**	**6.38900**

Segment Input Data

Time Period 1

Mainline Data

Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin of US 64 EB	B1	Basic Segment	5280	Rolling	2568	4.00	0.00	3	75
2	Hodge - B1	D2	Off Ramp	1500	Rolling	2568	4.00	0.00	3	75
3	Hodge - D2	B3	Basic Segment	1650	Rolling	2213	4.32	0.00	3	75
4	B3	W4	Weaving	1575	Rolling	2492	4.28	0.00	4	75
5	I-540 - W4	B5	Basic Segment	2750	Rolling	1523	2.56	0.00	3	75
6	I-540 - B5	M6	On Ramp	1500	Rolling	2228	3.01	0.00	3	75
7	I-540 - B6	B7	Basic Segment	575	Rolling	2228	3.01	0.00	3	75
8	I-540 - B7	M8	On Ramp	1500	Rolling	2539	3.50	0.00	3	75
9	M8	B9	Basic Segment	6100	Rolling	2539	3.50	0.00	3	75
10	Smithfield - B9	D10	Off Ramp	1500	Rolling	2539	3.50	0.00	3	75
11	Smithfield - D10	B11	Basic Segment	3025	Rolling	1970	3.94	0.00	3	75
12	Smithfield - M11	M12	On Ramp	1500	Rolling	2085	4.11	0.00	3	75
13	M12	End of US 64 EB	Basic Segment	5280	Rolling	2085	4.11	0.00	3	75

RampData

Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	Off Ramp	355	2.00	0.00	1	350	50
6	On Ramp	705	4.00	0.00	1	1475	30
8	On Ramp	311	7.00	0.00	1	525	50
10	Off Ramp	569	2.00	0.00	1	225	50
12	On Ramp	115	7.00	0.00	1	1050	50

Weaving Segment Data

Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp				
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS
4	0.388	279	4.00	0.00	1	50	969	7.00	0.00	1	50

Time Period 2

Mainline Data

Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin of US 64 EB	B1	Basic Segment	5280	Rolling	2889	4.00	0.00	3	75
2	Hodge - B1	D2	Off Ramp	1500	Rolling	2889	4.00	0.00	3	75
3	Hodge - D2	B3	Basic Segment	1650	Rolling	2490	4.32	0.00	3	75
4	B3	W4	Weaving	1575	Rolling	2804	4.28	0.00	4	75
5	I-540 - W4	B5	Basic Segment	2750	Rolling	1715	2.56	0.00	3	75
6	I-540 - B5	M6	On Ramp	1500	Rolling	2507	3.02	0.00	3	75
7	I-540 - B6	B7	Basic Segment	575	Rolling	2507	3.02	0.00	3	75
8	I-540 - B7	M8	On Ramp	1500	Rolling	2856	3.50	0.00	3	75

RampData

Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	Off Ramp	399	2.00	0.00	1	350	50
6	On Ramp	792	4.00	0.00	1	1475	30
8	On Ramp	349	7.00	0.00	1	525	50
10	Off Ramp	639	2.00	0.00	1	225	50
12	On Ramp	129	7.00	0.00	1	1050	50

9	M8	B9	Basic Segment	6100	Rolling	2856	3.50	0.00	3	75
10	Smithfield - B9	D10	Off Ramp	1500	Rolling	2856	3.50	0.00	3	75
11	Smithfield - D10	B11	Basic Segment	3025	Rolling	2217	3.94	0.00	3	75
12	Smithfield - M11	M12	On Ramp	1500	Rolling	2346	4.10	0.00	3	75
13	M12	End of US 64 EB	Basic Segment	5280	Rolling	2346	4.10	0.00	3	75

Weaving Segment Data										
Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp			
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS
4	0.388	314	4.00	0.00	1	50	1089	7.00	0.00	1	50

Time Period 3

Mainline Data										
Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin of US 64 EB	B1	Basic Segment	5280	Rolling	3210	4.00	0.00	3	75
2	Hodge - B1	D2	Off Ramp	1500	Rolling	2560	8.00	0.00	3	75
3	Hodge - D2	B3	Basic Segment	1650	Rolling	2255	8.81	0.00	3	75
4	B3	W4	Weaving	1575	Rolling	2609	7.89	0.00	4	75
5	I-540 - W4	B5	Basic Segment	2750	Rolling	1760	7.83	0.00	3	75
6	I-540 - B5	M6	On Ramp	1500	Rolling	2454	7.88	0.00	3	75
7	I-540 - B6	B7	Basic Segment	575	Rolling	2454	7.88	0.00	3	75
8	I-540 - B7	M8	On Ramp	1500	Rolling	2867	7.90	0.00	3	75
9	M8	B9	Basic Segment	6100	Rolling	2867	7.90	0.00	3	75
10	Smithfield - B9	D10	Off Ramp	1500	Rolling	2867	7.90	0.00	3	75
11	Smithfield - D10	B11	Basic Segment	3025	Rolling	2249	9.24	0.00	3	75
12	Smithfield - M11	M12	On Ramp	1500	Rolling	2401	8.85	0.00	3	75
13	M12	End of US 64 EB	Basic Segment	5280	Rolling	2401	8.85	0.00	3	75

RampData							
Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	Off Ramp	443	2.00	0.00	1	350	50
6	On Ramp	879	4.00	0.00	1	1475	30
8	On Ramp	387	7.00	0.00	1	525	50
10	Off Ramp	709	2.00	0.00	1	225	50
12	On Ramp	143	7.00	0.00	1	1050	50

Weaving Segment Data										
Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp			
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS
4	0.388	349	4.00	0.00	1	50	1209	7.00	0.00	1	50

Time Period 4

Mainline Data										
Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin of US 64 EB	B1	Basic Segment	5280	Rolling	2889	4.00	0.00	3	75
2	Hodge - B1	D2	Off Ramp	1500	Rolling	2304	8.00	0.00	3	75
3	Hodge - D2	B3	Basic Segment	1650	Rolling	2029	8.81	0.00	3	75
4	B3	W4	Weaving	1575	Rolling	2348	7.89	0.00	4	75
5	I-540 - W4	B5	Basic Segment	2750	Rolling	1583	7.83	0.00	3	75
6	I-540 - B5	M6	On Ramp	1500	Rolling	2208	7.88	0.00	3	75
7	I-540 - B6	B7	Basic Segment	575	Rolling	2208	7.88	0.00	3	75
8	I-540 - B7	M8	On Ramp	1500	Rolling	2580	7.90	0.00	3	75
9	M8	B9	Basic Segment	6100	Rolling	2580	7.90	0.00	3	75
10	Smithfield - B9	D10	Off Ramp	1500	Rolling	2580	7.90	0.00	3	75
11	Smithfield - D10	B11	Basic Segment	3025	Rolling	2023	9.25	0.00	3	75
12	Smithfield - M11	M12	On Ramp	1500	Rolling	2160	8.85	0.00	3	75
		End of								

RampData							
Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	Off Ramp	399	2.00	0.00	1	350	50
6	On Ramp	792	4.00	0.00	1	1475	30
8	On Ramp	349	7.00	0.00	1	525	50
10	Off Ramp	639	2.00	0.00	1	225	50
12	On Ramp	129	7.00	0.00	1	1050	50

Weaving Segment Data										
Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp			
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS
4	0.388	314	4.00	0.00	1	50	1089	7.00	0.00	1	50

13	M12	US 64 EB	Basic Segment	5280	Rolling	2160	8.85	0.00	3	75

Time Period Independent Weaving Segment Data

Seg #	Configuration	Short Length	# Weaving Lanes	Min. Lane Changes Freeway-Ramp	Min. Lane Changes Ramp-Freeway	Min. Lane Changes Ramp-Ramp
4	OneSide	1575	2	1	1	0

HCS 2010 Freeway Facilities

Project Properties

Analyst	HNTB	**Freeway Name**	I-495 - 2016 Build EB PM	**Analysis Period**	PM Peak
Analysis Date	9/19/2014 9:50:57 AM	**From**	Hodge Road	**Version Date**	1/20/16
Agency	HNTB	**To**	Smithfield Road		
Location	Complete 540	**Analysis Direction**	Eastbound/Northbound		
User Notes					
File Name	C:\Temp\preview.xml				

Facility-wide Values

Jam Density (pc/h/ln)	190	**Time Period Duration (min)**	15	**Facility Length (mi)**	**6.38900**

Segment Input Data

Time Period 1

Mainline Data

Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin of US 64 EB	B1	Basic Segment	5280	Rolling	4847	4.00	0.00	3	75
2	Hodge - B1	D2	Off Ramp	1500	Rolling	4847	4.00	0.00	3	75
3	Hodge - D2	B3	Basic Segment	1650	Rolling	4241	4.29	0.00	3	75
4	B3	W4	Weaving	1575	Rolling	4558	4.27	0.00	4	75
5	I-540 - W4	B5	Basic Segment	2750	Rolling	3213	3.12	0.00	3	75
6	I-540 - B5	M6	On Ramp	1500	Rolling	4373	3.35	0.00	3	75
7	I-540 - B6	B7	Basic Segment	575	Rolling	4373	3.35	0.00	3	75
8	I-540 - B7	M8	On Ramp	1500	Rolling	4763	3.65	0.00	3	75
9	M8	B9	Basic Segment	6100	Rolling	4763	3.65	0.00	3	75
10	Smithfield - B9	D10	Off Ramp	1500	Rolling	4763	3.65	0.00	3	75
11	Smithfield - D10	B11	Basic Segment	3025	Rolling	3920	4.01	0.00	3	75
12	Smithfield - M11	M12	On Ramp	1500	Rolling	4078	4.12	0.00	3	75
13	M12	End of US 64 EB	Basic Segment	5280	Rolling	4078	4.12	0.00	3	75

RampData

Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	Off Ramp	606	2.00	0.00	1	350	50
6	On Ramp	1160	4.00	0.00	1	1475	30
8	On Ramp	390	7.00	0.00	1	525	50
10	Off Ramp	843	2.00	0.00	1	225	50
12	On Ramp	158	7.00	0.00	1	1050	50

Weaving Segment Data

Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp				
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS
4	0.295	317	4.00	0.00	1	50	1345	7.00	0.00	1	50

Time Period 2

Mainline Data

Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin of US 64 EB	B1	Basic Segment	5280	Rolling	5452	4.00	0.00	3	75
2	Hodge - B1	D2	Off Ramp	1500	Rolling	4515	8.00	0.00	3	75
3	Hodge - D2	B3	Basic Segment	1650	Rolling	3867	9.01	0.00	3	75
4	B3	W4	Weaving	1575	Rolling	4134	8.55	0.00	4	75
5	I-540 - W4	B5	Basic Segment	2750	Rolling	3137	8.73	0.00	3	75
6	I-540 - B5	M6	On Ramp	1500	Rolling	4326	8.53	0.00	3	75
7	I-540 - B6	B7	Basic Segment	575	Rolling	4326	8.53	0.00	3	75
8	I-540 - B7	M8	On Ramp	1500	Rolling	4834	8.47	0.00	3	75

RampData

Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	Off Ramp	681	2.00	0.00	1	350	50
6	On Ramp	1303	4.00	0.00	1	1475	30
8	On Ramp	438	7.00	0.00	1	525	50
10	Off Ramp	947	2.00	0.00	1	225	50
12	On Ramp	178	7.00	0.00	1	1050	50

9	M8	B9	Basic Segment	6100	Rolling	4834	8.47	0.00	3	75
10	Smithfield - B9	D10	Off Ramp	1500	Rolling	4834	8.47	0.00	3	75
11	Smithfield - D10	B11	Basic Segment	3025	Rolling	3796	9.97	0.00	3	75
12	Smithfield - M11	M12	On Ramp	1500	Rolling	3948	9.70	0.00	3	75
13	M12	End of US 64 EB	Basic Segment	5280	Rolling	3948	9.70	0.00	3	75

Weaving Segment Data										
Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp			
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS
4	0.295	356	4.00	0.00	1	50	1511	7.00	0.00	1	50

Time Period 3

Mainline Data										
Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin of US 64 EB	B1	Basic Segment	5280	Rolling	6057	4.00	0.00	3	75
2	Hodge - B1	D2	Off Ramp	1500	Rolling	5016	8.00	0.00	3	75
3	Hodge - D2	B3	Basic Segment	1650	Rolling	4297	9.00	0.00	3	75
4	B3	W4	Weaving	1575	Rolling	4593	8.55	0.00	4	75
5	I-540 - W4	B5	Basic Segment	2750	Rolling	3486	8.73	0.00	3	75
6	I-540 - B5	M6	On Ramp	1500	Rolling	4806	8.53	0.00	3	75
7	I-540 - B6	B7	Basic Segment	575	Rolling	4806	8.53	0.00	3	75
8	I-540 - B7	M8	On Ramp	1500	Rolling	5370	8.47	0.00	3	75
9	M8	B9	Basic Segment	6100	Rolling	5370	8.47	0.00	3	75
10	Smithfield - B9	D10	Off Ramp	1500	Rolling	5370	8.47	0.00	3	75
11	Smithfield - D10	B11	Basic Segment	3025	Rolling	4218	9.97	0.00	3	75
12	Smithfield - M11	M12	On Ramp	1500	Rolling	4387	9.70	0.00	3	75
13	M12	End of US 64 EB	Basic Segment	5280	Rolling	4387	9.70	0.00	3	75

RampData							
Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	Off Ramp	756	2.00	0.00	1	350	50
6	On Ramp	1446	4.00	0.00	1	1475	30
8	On Ramp	486	7.00	0.00	1	525	50
10	Off Ramp	1051	2.00	0.00	1	225	50
12	On Ramp	198	7.00	0.00	1	1050	50

Weaving Segment Data										
Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp			
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS
4	0.295	395	4.00	0.00	1	50	1677	7.00	0.00	1	50

Time Period 4

Mainline Data										
Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin of US 64 EB	B1	Basic Segment	5280	Rolling	5452	4.00	0.00	3	75
2	Hodge - B1	D2	Off Ramp	1500	Rolling	4515	8.00	0.00	3	75
3	Hodge - D2	B3	Basic Segment	1650	Rolling	3867	9.01	0.00	3	75
4	B3	W4	Weaving	1575	Rolling	4134	8.55	0.00	4	75
5	I-540 - W4	B5	Basic Segment	2750	Rolling	3137	8.73	0.00	3	75
6	I-540 - B5	M6	On Ramp	1500	Rolling	4326	8.53	0.00	3	75
7	I-540 - B6	B7	Basic Segment	575	Rolling	4326	8.53	0.00	3	75
8	I-540 - B7	M8	On Ramp	1500	Rolling	4834	8.47	0.00	3	75
9	M8	B9	Basic Segment	6100	Rolling	4834	8.47	0.00	3	75
10	Smithfield - B9	D10	Off Ramp	1500	Rolling	4834	8.47	0.00	3	75
11	Smithfield - D10	B11	Basic Segment	3025	Rolling	3796	9.97	0.00	3	75
12	Smithfield - M11	M12	On Ramp	1500	Rolling	3948	9.70	0.00	3	75
		End of								

RampData							
Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	Off Ramp	681	2.00	0.00	1	350	50
6	On Ramp	1303	4.00	0.00	1	1475	30
8	On Ramp	438	7.00	0.00	1	525	50
10	Off Ramp	947	2.00	0.00	1	225	50
12	On Ramp	178	7.00	0.00	1	1050	50

Weaving Segment Data										
Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp			
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS
4	0.295	356	4.00	0.00	1	50	1511	7.00	0.00	1	50

13	M12	US 64 EB	Basic Segment	5280	Rolling	3948	9.70	0.00	3	75

Time Period Independent Weaving Segment Data

Seg #	Configuration	Short Length	# Weaving Lanes	Min. Lane Changes Freeway-Ramp	Min. Lane Changes Ramp-Freeway	Min. Lane Changes Ramp-Ramp
4	OneSide	1575	2	1	1	0

HCS 2010 Freeway Facilities

Project Properties

Analyst	HNTB	**Freeway Name**	I-495 - 2016 Build WB AM	**Analysis Period**	AM Peak
Analysis Date	9/19/2014 9:50:57 AM	**From**	Smithfield Road	**Version Date**	1/20/16
Agency	HNTB	**To**	Hodge Road		
Location	Complete 540	**Analysis Direction**	Westbound/Southbound		
User Notes					
File Name	C:\Temp\preview.xml				

Facility-wide Values

Jam Density (pc/h/ln)	190	**Time Period Duration (min)**	15	**Facility Length (mi)**	**5.93500**

Segment Input Data

Time Period 1

Mainline Data

Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin US 64 WB	B14	Basic Segment	5280	Rolling	4012	7.00	0.00	3	75
2	Smithfield - B14	D15	Off Ramp	1500	Rolling	4012	7.00	0.00	3	75
3	Smithfield - D15	B16	Basic Segment	2925	Rolling	3854	7.20	0.00	3	75
4	Smithfield - B16	M17	On Ramp	1500	Rolling	4697	7.17	0.00	3	75
5	M17	B18	Basic Segment	2175	Rolling	4697	7.17	0.00	3	75
6	I-540 - B18	D19	Off Ramp	1500	Rolling	4697	7.17	0.00	3	75
7	I-540 - D19	B20	Basic Segment	2775	Rolling	3148	7.25	0.00	3	75
8	I-540 - D20	M21	On Ramp	1500	Rolling	3556	7.22	0.00	3	75
9	I-540 - D21	B22	Basic Segment	325	Rolling	3556	7.22	0.00	3	75
10	B22	W23	Weaving	3200	Rolling	4493	6.55	0.00	4	75
11	Hodge - W23	B24	Basic Segment	1875	Rolling	4176	6.90	0.00	3	75
12	Hodge - M24	M25	On Ramp	1500	Rolling	4782	6.53	0.00	3	75
13	M25	End US 64 WB	Basic Segment	5280	Rolling	4782	6.53	0.00	3	75

RampData

Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	Off Ramp	158	2.00	0.00	1	175	50
4	On Ramp	843	7.00	0.00	1	900	50
6	Off Ramp	1549	7.00	0.00	1	425	50
8	On Ramp	408	7.00	0.00	1	1350	30
12	On Ramp	606	4.00	0.00	1	850	50

Weaving Segment Data

Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp				
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS
10	0.070	937	4.00	0.00	1	50	317	2.00	0.00	1	30

Time Period 2

Mainline Data

Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin US 64 WB	B14	Basic Segment	5280	Rolling	4513	7.00	0.00	3	75
2	Smithfield - B14	D15	Off Ramp	1500	Rolling	4513	8.00	0.00	3	75
3	Smithfield - D15	B16	Basic Segment	2925	Rolling	4335	8.21	0.00	3	75
4	Smithfield - B16	M17	On Ramp	1500	Rolling	5282	7.27	0.00	3	75
5	M17	B18	Basic Segment	2175	Rolling	5282	7.27	0.00	3	75
6	I-540 - B18	D19	Off Ramp	1500	Rolling	5282	7.27	0.00	3	75
7	I-540 - D19	B20	Basic Segment	2775	Rolling	3541	6.91	0.00	3	75
8	I-540 - D20	M21	On Ramp	1500	Rolling	3999	7.04	0.00	3	75

RampData

Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	Off Ramp	178	2.00	0.00	1	175	50
4	On Ramp	947	7.00	0.00	1	900	50
6	Off Ramp	1741	7.00	0.00	1	425	50
8	On Ramp	458	7.00	0.00	1	1350	30
12	On Ramp	681	4.00	0.00	1	850	50

9	I-540 - D21	B22	Basic Segment	325	Rolling	3999	7.04	0.00	3	75
10	B22	W23	Weaving	3200	Rolling	5052	7.24	0.00	4	75
11	Hodge - W23	B24	Basic Segment	1875	Rolling	4696	7.64	0.00	3	75
12	Hodge - M24	M25	On Ramp	1500	Rolling	5377	6.92	0.00	3	75
13	M25	End US 64 WB	Basic Segment	5280	Rolling	5377	6.92	0.00	3	75

Weaving Segment Data

Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp				
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS
10	0.070	1053	4.00	0.00	1	50	356	2.00	0.00	1	30

Time Period 3

Mainline Data

Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin US 64 WB	B14	Basic Segment	5280	Rolling	5014	7.00	0.00	3	75
2	Smithfield - B14	D15	Off Ramp	1500	Rolling	4394	8.00	0.00	3	75
3	Smithfield - D15	B16	Basic Segment	2925	Rolling	4224	8.20	0.00	3	75
4	Smithfield - B16	M17	On Ramp	1500	Rolling	5375	7.09	0.00	3	75
5	M17	B18	Basic Segment	2175	Rolling	5375	7.09	0.00	3	75
6	I-540 - B18	D19	Off Ramp	1500	Rolling	5375	7.09	0.00	3	75
7	I-540 - D19	B20	Basic Segment	2775	Rolling	3491	6.59	0.00	3	75
8	I-540 - D20	M21	On Ramp	1500	Rolling	4174	6.82	0.00	3	75
9	I-540 - D21	B22	Basic Segment	325	Rolling	4174	6.82	0.00	3	75
10	B22	W23	Weaving	3200	Rolling	4598	6.93	0.00	4	75
11	Hodge - W23	B24	Basic Segment	1875	Rolling	4302	7.27	0.00	3	75
12	Hodge - M24	M25	On Ramp	1500	Rolling	5021	6.52	0.00	3	75
13	M25	End US 64 WB	Basic Segment	5280	Rolling	5021	6.52	0.00	3	75

RampData

Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	Off Ramp	198	2.00	0.00	1	175	50
4	On Ramp	1051	7.00	0.00	1	900	50
6	Off Ramp	1933	7.00	0.00	1	425	50
8	On Ramp	508	7.00	0.00	1	1350	30
12	On Ramp	756	4.00	0.00	1	850	50

Weaving Segment Data

Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp				
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS
10	0.070	1169	4.00	0.00	1	50	395	2.00	0.00	1	30

Time Period 4

Mainline Data

Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin US 64 WB	B14	Basic Segment	5280	Rolling	4513	7.00	0.00	3	75
2	Smithfield - B14	D15	Off Ramp	1500	Rolling	3955	8.00	0.00	3	75
3	Smithfield - D15	B16	Basic Segment	2925	Rolling	3802	8.20	0.00	3	75
4	Smithfield - B16	M17	On Ramp	1500	Rolling	4839	7.09	0.00	3	75
5	M17	B18	Basic Segment	2175	Rolling	4839	7.09	0.00	3	75
6	I-540 - B18	D19	Off Ramp	1500	Rolling	4839	7.09	0.00	3	75
7	I-540 - D19	B20	Basic Segment	2775	Rolling	3142	6.59	0.00	3	75
8	I-540 - D20	M21	On Ramp	1500	Rolling	3757	6.82	0.00	3	75
9	I-540 - D21	B22	Basic Segment	325	Rolling	3757	6.82	0.00	3	75
10	B22	W23	Weaving	3200	Rolling	4139	6.93	0.00	4	75
11	Hodge - W23	B24	Basic Segment	1875	Rolling	3872	7.27	0.00	3	75
12	Hodge - M24	M25	On Ramp	1500	Rolling	4520	6.52	0.00	3	75
13	M25	End US 64 WB	Basic Segment	5280	Rolling	4520	6.52	0.00	3	75

RampData

Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	Off Ramp	178	2.00	0.00	1	175	50
4	On Ramp	947	7.00	0.00	1	900	50
6	Off Ramp	1741	7.00	0.00	1	425	50
8	On Ramp	458	7.00	0.00	1	1350	30
12	On Ramp	681	4.00	0.00	1	850	50

Weaving Segment Data

Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp				
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS
10	0.070	1053	4.00	0.00	1	50	356	2.00	0.00	1	30

Time Period Independent Weaving Segment Data

Seg #	Configuration	Short Length	# Weaving Lanes	Min. Lane Changes Freeway-Ramp	Min. Lane Changes Ramp-Freeway	Min. Lane Changes Ramp-Ramp
10	OneSide	3200	2	1	1	0

HCS 2010 Freeway Facilities

Project Properties

Analyst	HNTB	**Freeway Name**	I-495 - 2016 Build WB PM	**Analysis Period**	PM Peak
Analysis Date	9/19/2014 9:50:57 AM	**From**	Smithfield Road	**Version Date**	1/20/16
Agency	HNTB	**To**	Hodge Road		
Location	Complete 540	**Analysis Direction**	Westbound/Southbound		
User Notes					
File Name	C:\Temp\preview.xml				

Facility-wide Values

Jam Density (pc/h/ln)	190	**Time Period Duration (min)**	15	**Facility Length (mi)**	**6.50300**

Segment Input Data

Time Period 1

Mainline Data

Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin US 64 WB	B14	Basic Segment	5280	Rolling	2121	7.00	0.00	3	75
2	Smithfield - B14	D15	Off Ramp	1500	Rolling	2121	7.00	0.00	3	75
3	Smithfield - D15	B16	Basic Segment	2925	Rolling	2006	7.29	0.00	3	75
4	Smithfield - B16	M17	On Ramp	1500	Rolling	2575	7.22	0.00	3	75
5	M17	B18	Basic Segment	5175	Rolling	2575	7.22	0.00	3	75
6	I-540 - B18	D19	Off Ramp	1500	Rolling	2575	7.22	0.00	3	75
7	I-540 - D19	B20	Basic Segment	2775	Rolling	1560	7.37	0.00	3	75
8	I-540 - D20	M21	On Ramp	1500	Rolling	1802	7.32	0.00	3	75
9	I-540 - D21	B22	Basic Segment	325	Rolling	1802	7.32	0.00	3	75
10	B22	W23	Weaving	3200	Rolling	2529	6.36	0.00	4	75
11	Hodge - W23	B24	Basic Segment	1875	Rolling	2250	6.91	0.00	3	75
12	Hodge - B24	M25	On Ramp	1500	Rolling	2605	6.51	0.00	3	75
13	M25	End US 64 WB	Basic Segment	5280	Rolling	2605	6.51	0.00	3	75

RampData

Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	Off Ramp	115	2.00	0.00	1	175	50
4	On Ramp	569	7.00	0.00	1	900	50
6	Off Ramp	1015	7.00	0.00	1	425	50
8	On Ramp	242	7.00	0.00	1	1350	30
12	On Ramp	355	4.00	0.00	1	850	50

Weaving Segment Data

Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp				
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS
10	0.110	727	4.00	0.00	1	50	279	2.00	0.00	1	30

Time Period 2

Mainline Data

Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin US 64 WB	B14	Basic Segment	5280	Rolling	2386	7.00	0.00	3	75
2	Smithfield - B14	D15	Off Ramp	1500	Rolling	2155	8.00	0.00	3	75
3	Smithfield - D15	B16	Basic Segment	2925	Rolling	2018	8.34	0.00	3	75
4	Smithfield - B16	M17	On Ramp	1500	Rolling	2575	7.18	0.00	3	75
5	M17	B18	Basic Segment	5175	Rolling	2575	7.18	0.00	3	75
6	I-540 - B18	D19	Off Ramp	1500	Rolling	2575	7.18	0.00	3	75
7	I-540 - D19	B20	Basic Segment	2775	Rolling	1578	6.67	0.00	3	75
8	I-540 - D20	M21	On Ramp	1500	Rolling	1988	6.94	0.00	3	75

RampData

Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	Off Ramp	129	2.00	0.00	1	175	50
4	On Ramp	639	7.00	0.00	1	900	50
6	Off Ramp	1141	7.00	0.00	1	425	50
8	On Ramp	272	7.00	0.00	1	1350	30
12	On Ramp	399	4.00	0.00	1	850	50

9	I-540 - D21	B22	Basic Segment	325	Rolling	1988	6.94	0.00	3	75
10	B22	W23	Weaving	3200	Rolling	2343	7.10	0.00	4	75
11	Hodge - W23	B24	Basic Segment	1875	Rolling	2024	7.91	0.00	3	75
12	Hodge - B24	M25	On Ramp	1500	Rolling	2299	7.20	0.00	3	75
13	M25	End US 64 WB	Basic Segment	5280	Rolling	2299	7.20	0.00	3	75

Weaving Segment Data

Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp				
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS
10	0.110	817	4.00	0.00	1	50	314	2.00	0.00	1	30

Time Period 3

Mainline Data

Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin US 64 WB	B14	Basic Segment	5280	Rolling	2651	7.00	0.00	3	75
2	Smithfield - B14	D15	Off Ramp	1500	Rolling	2394	8.00	0.00	3	75
3	Smithfield - D15	B16	Basic Segment	2925	Rolling	2242	8.34	0.00	3	75
4	Smithfield - B16	M17	On Ramp	1500	Rolling	2860	7.19	0.00	3	75
5	M17	B18	Basic Segment	5175	Rolling	2860	7.19	0.00	3	75
6	I-540 - B18	D19	Off Ramp	1500	Rolling	2860	7.19	0.00	3	75
7	I-540 - D19	B20	Basic Segment	2775	Rolling	1753	6.67	0.00	3	75
8	I-540 - D20	M21	On Ramp	1500	Rolling	2208	6.94	0.00	3	75
9	I-540 - D21	B22	Basic Segment	325	Rolling	2208	6.94	0.00	3	75
10	B22	W23	Weaving	3200	Rolling	2602	7.10	0.00	4	75
11	Hodge - W23	B24	Basic Segment	1875	Rolling	2248	7.91	0.00	3	75
12	Hodge - B24	M25	On Ramp	1500	Rolling	2553	7.20	0.00	3	75
13	M25	End US 64 WB	Basic Segment	5280	Rolling	2553	7.20	0.00	3	75

RampData

Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	Off Ramp	143	2.00	0.00	1	175	50
4	On Ramp	709	7.00	0.00	1	900	50
6	Off Ramp	1267	7.00	0.00	1	425	50
8	On Ramp	302	7.00	0.00	1	1350	30
12	On Ramp	443	4.00	0.00	1	850	50

Weaving Segment Data

Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp				
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS
10	0.110	907	4.00	0.00	1	50	349	2.00	0.00	1	30

Time Period 4

Mainline Data

Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin US 64 WB	B14	Basic Segment	5280	Rolling	2386	7.00	0.00	3	75
2	Smithfield - B14	D15	Off Ramp	1500	Rolling	2155	8.00	0.00	3	75
3	Smithfield - D15	B16	Basic Segment	2925	Rolling	2018	8.34	0.00	3	75
4	Smithfield - B16	M17	On Ramp	1500	Rolling	2575	7.18	0.00	3	75
5	M17	B18	Basic Segment	5175	Rolling	2575	7.18	0.00	3	75
6	I-540 - B18	D19	Off Ramp	1500	Rolling	2575	7.18	0.00	3	75
7	I-540 - D19	B20	Basic Segment	2775	Rolling	1578	6.67	0.00	3	75
8	I-540 - D20	M21	On Ramp	1500	Rolling	1988	6.94	0.00	3	75
9	I-540 - D21	B22	Basic Segment	325	Rolling	1988	6.94	0.00	3	75
10	B22	W23	Weaving	3200	Rolling	2343	7.10	0.00	4	75
11	Hodge - W23	B24	Basic Segment	1875	Rolling	2024	7.91	0.00	3	75
12	Hodge - B24	M25	On Ramp	1500	Rolling	2299	7.20	0.00	3	75
13	M25	End US 64 WB	Basic Segment	5280	Rolling	2299	7.20	0.00	3	75

RampData

Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	Off Ramp	129	2.00	0.00	1	175	50
4	On Ramp	639	7.00	0.00	1	900	50
6	Off Ramp	1141	7.00	0.00	1	425	50
8	On Ramp	272	7.00	0.00	1	1350	30
12	On Ramp	399	4.00	0.00	1	850	50

Weaving Segment Data

Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp				
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS
10	0.110	817	4.00	0.00	1	50	314	2.00	0.00	1	30

Time Period Independent Weaving Segment Data

Seg #	Configuration	Short Length	# Weaving Lanes	Min. Lane Changes Freeway-Ramp	Min. Lane Changes Ramp-Freeway	Min. Lane Changes Ramp-Ramp
10	OneSide	3200	2	1	1	0

2040 Build

1) Complete 540 (includes I-540)
2) NC 540 (Triangle Expressway Western Wake Freeway)
3) I-40
4) US 70
5) I-495 / US 64 / 264

HCS 2010 Freeway Facilities

Project Properties

Analyst	HNTB	**Freeway Name**	Complete 540 – 2040 Build EB AM	**Analysis Period**	AM Peak
Analysis Date	9/8/2014 10:24:18 AM	**From**	Old Holly Springs-Apex	**Version Date**	1/20/16
Agency	HNTB	**To**	US 64 Business		
Location	Complete 540	**Analysis Direction**	Eastbound/Northbound		
User Notes					
File Name	C:\Temp\preview.xml				

Facility-wide Values

Jam Density (pc/h/ln)	190	**Time Period Duration (min)**	15	**Facility Length (mi)**	**33.16500**

Segment Input Data

Time Period 1

Mainline Data

Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin NC 540 EB	B1	Basic Segment	5280	Rolling	3283	6.00	0.00	4	75
2	OHSARI - B1	D2	Off Ramp	1500	Rolling	3283	6.00	0.00	4	75
3	OHSARI-D2	B3	Basic Segment	1575	Rolling	1905	8.17	0.00	3	75
4	B3	W4	Weaving	3325	Rolling	2458	7.68	0.00	4	75
5	NC 55 BYP - W4	B5	Basic Segment	175	Rolling	1518	8.72	0.00	3	75
6	NC 55 BYP- B5	D6	Off Ramp	1500	Rolling	1518	8.72	0.00	3	75
7	NC 55 BYP - D6	B7	Basic Segment	1675	Rolling	1165	9.55	0.00	3	75
8	NC 55 BYP - B7	M8	On Ramp	1500	Rolling	1915	8.16	0.00	3	75
9	M8	B9	Basic Segment	8800	Rolling	1915	8.16	0.00	3	75
10	Holly Springs - B9	D10	Off Ramp	1500	Rolling	1915	8.16	0.00	3	75
11	Holly Springs - D10	B11	Basic Segment	4050	Rolling	1537	9.67	0.00	3	75
12	Holly Springs - B11	M12	On Ramp	1500	Rolling	2452	8.30	0.00	3	75
13	M12	B13	Basic Segment	7625	Rolling	2452	8.30	0.00	3	75
14	Bells Lake - B13	D14	Off Ramp	1500	Rolling	2452	8.30	0.00	3	75
15	Bells Lake - D14	B15	Basic Segment	2200	Rolling	1974	9.83	0.00	3	75
16	Bells Lake - B15	M16	On Ramp	1500	Rolling	2374	9.18	0.00	3	75
17	M16	B17	Basic Segment	9275	Rolling	2374	9.18	0.00	3	75
18	US 401 - B17	D18	Off Ramp	1500	Rolling	2374	9.18	0.00	3	75
19	US 401 - D18	B19	Basic Segment	1750	Rolling	1570	12.86	0.00	3	75
20	US 401 - B19	M20	On Ramp	1500	Rolling	1700	12.34	0.00	3	75
21	US 401 - M20	B21	Basic Segment	575	Rolling	1700	12.34	0.00	3	75
22	US 401 - B21	M22	On Ramp	1500	Rolling	2198	10.90	0.00	3	75
23	M22	B23	Basic Segment	4200	Rolling	2198	10.90	0.00	3	75
24	Old Stage - B23	D24	Off Ramp	1500	Rolling	2198	10.90	0.00	3	75
25	Old Stage - D24	B25	Basic Segment	3750	Rolling	1320	16.82	0.00	3	75
26	Old Stage - B25	M26	On Ramp	1500	Rolling	1437	15.94	0.00	3	75
27	M26	B27	Basic Segment	15000	Rolling	1437	15.94	0.00	3	75
28	NC 50 - B27	D28	Off Ramp	1500	Rolling	1437	15.94	0.00	3	75
29	NC 50 - D28	B29	Basic Segment	4150	Rolling	1023	21.58	0.00	3	75
30	NC 50 - B29	M30	On Ramp	1500	Rolling	1716	15.29	0.00	3	75

RampData

Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	Off Ramp	1378	3.00	0.00	1	525	30
6	Off Ramp	353	6.00	0.00	1	925	30
8	On Ramp	750	6.00	0.00	1	1000	50
10	Off Ramp	378	2.00	0.00	1	900	50
12	On Ramp	915	6.00	0.00	1	900	50
14	Off Ramp	478	2.00	0.00	1	225	50
16	On Ramp	400	6.00	0.00	1	1500	30
18	Off Ramp	804	2.00	0.00	1	900	50
20	On Ramp	130	6.00	0.00	1	1500	30
22	On Ramp	498	6.00	0.00	1	1025	50
24	Off Ramp	878	2.00	0.00	1	300	50
26	On Ramp	117	6.00	0.00	1	900	50
28	Off Ramp	414	2.00	0.00	1	1025	50
30	On Ramp	693	6.00	0.00	1	900	50
32	Off Ramp	859	5.00	0.00	2	1500	50
34	Off Ramp	479	5.00	0.00	1	225	50
36	On Ramp	449	6.00	0.00	1	1500	30
38	On Ramp	530	6.00	0.00	1	900	50
40	Off Ramp	390	2.00	0.00	1	300	50
42	On Ramp	504	6.00	0.00	1	1500	30
44	Off Ramp	216	5.00	0.00	1	900	50
46	On Ramp	401	6.00	0.00	1	1400	30
48	On Ramp	659	6.00	0.00	1	900	50
50	Off Ramp	276	2.00	0.00	1	1500	30
52	On Ramp	619	6.00	0.00	1	900	50
54	Off Ramp	225	3.00	0.00	1	775	30
56	On Ramp	297	6.00	0.00	1	900	50
58	Off Ramp	148	2.00	0.00	1	175	50
61	Off Ramp	931	7.00	0.00	1	525	30
63	On Ramp	2938	6.00	0.00	1	950	50
65	Off Ramp	1345	3.00	0.00	1	200	50
67	On Ramp	1734	4.00	0.00	1	875	50

31	M30	B31	Basic Segment	1500	Rolling	1716	15.29	0.00	3	75
32	I-40 - B31	D32	Off Ramp	1500	Rolling	1716	15.29	0.00	3	75
33	I-40 - D32	B33	Basic Segment	375	Rolling	857	25.60	0.00	3	75
34	I-40 - B33	D34	Off Ramp	1500	Rolling	857	25.60	0.00	3	75
35	I-40 - D34	B35	Basic Segment	2600	Rolling	378	51.71	0.00	3	75
36	I-40 - B35	M36	On Ramp	1500	Rolling	827	26.89	0.00	3	75
37	I-40 - M36	B37	Basic Segment	4450	Rolling	827	26.89	0.00	3	75
38	I-40 - B37	M38	On Ramp	1500	Rolling	1357	18.73	0.00	3	75
39	M38	B39	Basic Segment	1025	Rolling	1357	18.73	0.00	3	75
40	White Oak - B39	D40	Off Ramp	1500	Rolling	1357	18.73	0.00	3	75
41	White Oak - D40	B41	Basic Segment	1850	Rolling	967	25.48	0.00	3	75
42	White Oak - B41	M42	On Ramp	1500	Rolling	1471	18.81	0.00	3	75
43	M42	B43	Basic Segment	3000	Rolling	1471	18.81	0.00	3	75
44	US 70 - B43	D44	Off Ramp	1500	Rolling	1471	18.81	0.00	3	75
45	US 70 - D44	B45	Basic Segment	1825	Rolling	1255	21.18	0.00	3	75
46	US 70 - B45	M46	On Ramp	1500	Rolling	1656	17.51	0.00	3	75
47	US 70 - M46	B47	Basic Segment	775	Rolling	1656	17.51	0.00	3	75
48	US 70 - B47	M48	On Ramp	1500	Rolling	2315	14.23	0.00	3	75
49	M48	B49	Basic Segment	1275	Rolling	2315	14.23	0.00	3	75
50	Rock Quarry - B49	D50	Off Ramp	1500	Rolling	2315	14.23	0.00	3	75
51	Rock Quarry - D50	B51	Basic Segment	1825	Rolling	2039	15.89	0.00	3	75
52	Rock Quarry - B51	M52	On Ramp	1500	Rolling	2658	13.58	0.00	3	75
53	M52	B53	Basic Segment	8550	Rolling	2658	13.58	0.00	3	75
54	Auburn Knight - B53	D54	Off Ramp	1500	Rolling	2658	13.58	0.00	3	75
55	Auburn Knight - D54	B55	Basic Segment	1575	Rolling	2433	14.56	0.00	3	75
56	Auburn Knight - B55	M56	On Ramp	1500	Rolling	2730	13.63	0.00	3	75
57	M56	B57	Basic Segment	2200	Rolling	2730	13.63	0.00	3	75
58	Poole - B57	D58	Off Ramp	1500	Rolling	2730	13.63	0.00	3	75
59	Poole - B59	B59	Basic Segment	3800	Rolling	2582	14.30	0.00	3	75
60	B59	W60	Weaving	1650	Rolling	4173	11.13	0.00	4	75
61	I-495 - W60	D61	Off Ramp	1500	Rolling	3555	11.85	0.00	3	75
62	I-495 - D61	B62	Basic Segment	3550	Rolling	2624	13.58	0.00	3	75
63	I-495 - B62	M63	On Ramp	1500	Rolling	5562	9.57	0.00	4	75
64	M63	B64	Basic Segment	2350	Rolling	5562	9.57	0.00	4	75
65	US 64 Bus - B64	D65	Off Ramp	1500	Rolling	5562	9.57	0.00	4	75
66	US 64 Bus - D65	B66	Basic Segment	4250	Rolling	4217	11.67	0.00	4	75
67	US 64 Bus - B66	M67	On Ramp	1500	Rolling	5951	9.44	0.00	4	75
68	M67	End NC 540 EB	Basic Segment	5280	Rolling	5951	9.44	0.00	4	75

Weaving Segment Data

Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp				
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS
4	0.382	553	6.00	0.00	1	50	940	6.00	0.00	1	50
60	0.138	1591	6.00	0.00	1	50	618	7.00	0.00	1	50

Time Period 2

Mainline Data

Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin NC 540 EB	B1	Basic Segment	5280	Rolling	3693	6.00	0.00	4	75

RampData

Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	Off Ramp	1548	3.00	0.00	1	525	30
6	Off Ramp	397	6.00	0.00	1	925	30

2	OHSARI - B1	D2	Off Ramp	1500	Rolling	3693	6.00	0.00	4	75
3	OHSARI-D2	B3	Basic Segment	1575	Rolling	2145	8.17	0.00	3	75
4	B3	W4	Weaving	3325	Rolling	2766	7.68	0.00	4	75
5	NC 55 BYP - W4	B5	Basic Segment	175	Rolling	1710	8.72	0.00	3	75
6	NC 55 BYP- B5	D6	Off Ramp	1500	Rolling	1710	8.72	0.00	3	75
7	NC 55 BYP - D6	B7	Basic Segment	1675	Rolling	1313	9.54	0.00	3	75
8	NC 55 BYP - B7	M8	On Ramp	1500	Rolling	2156	8.15	0.00	3	75
9	M8	B9	Basic Segment	8800	Rolling	2156	8.15	0.00	3	75
10	Holly Springs - B9	D10	Off Ramp	1500	Rolling	2156	8.15	0.00	3	75
11	Holly Springs - D10	B11	Basic Segment	4050	Rolling	1731	9.66	0.00	3	75
12	Holly Springs - B11	M12	On Ramp	1500	Rolling	2759	8.30	0.00	3	75
13	M12	B13	Basic Segment	7625	Rolling	2759	8.30	0.00	3	75
14	Bells Lake - B13	D14	Off Ramp	1500	Rolling	2759	8.30	0.00	3	75
15	Bells Lake - D14	B15	Basic Segment	2200	Rolling	2222	9.82	0.00	3	75
16	Bells Lake - B15	M16	On Ramp	1500	Rolling	2671	9.18	0.00	3	75
17	M16	B17	Basic Segment	9275	Rolling	2671	9.18	0.00	3	75
18	US 401 - B17	D18	Off Ramp	1500	Rolling	2671	9.18	0.00	3	75
19	US 401 - D18	B19	Basic Segment	1750	Rolling	1768	12.85	0.00	3	75
20	US 401 - B19	M20	On Ramp	1500	Rolling	1914	12.32	0.00	3	75
21	US 401 - M20	B21	Basic Segment	575	Rolling	1914	12.32	0.00	3	75
22	US 401 - B21	M22	On Ramp	1500	Rolling	2473	10.89	0.00	3	75
23	M22	B23	Basic Segment	4200	Rolling	2473	10.89	0.00	3	75
24	Old Stage - B23	D24	Off Ramp	1500	Rolling	2473	10.89	0.00	3	75
25	Old Stage - D24	B25	Basic Segment	3750	Rolling	1486	16.80	0.00	3	75
26	Old Stage - B25	M26	On Ramp	1500	Rolling	1617	15.93	0.00	3	75
27	M26	B27	Basic Segment	15000	Rolling	1617	15.93	0.00	3	75
28	NC 50 - B27	D28	Off Ramp	1500	Rolling	1617	15.93	0.00	3	75
29	NC 50 - D28	B29	Basic Segment	4150	Rolling	1152	21.55	0.00	3	75
30	NC 50 - B29	M30	On Ramp	1500	Rolling	1931	15.28	0.00	3	75
31	M30	B31	Basic Segment	1500	Rolling	1931	15.28	0.00	3	75
32	I-40 - B31	D32	Off Ramp	1500	Rolling	1931	15.28	0.00	3	75
33	I-40 - D32	B33	Basic Segment	375	Rolling	966	25.54	0.00	3	75
34	I-40 - B33	D34	Off Ramp	1500	Rolling	966	25.54	0.00	3	75
35	I-40 - D34	B35	Basic Segment	2600	Rolling	428	51.36	0.00	3	75
36	I-40 - B35	M36	On Ramp	1500	Rolling	932	26.83	0.00	3	75
37	I-40 - M36	B37	Basic Segment	4450	Rolling	932	26.83	0.00	3	75
38	I-40 - B37	M38	On Ramp	1500	Rolling	1527	18.71	0.00	3	75
39	M38	B39	Basic Segment	1025	Rolling	1527	18.71	0.00	3	75
40	White Oak - B39	D40	Off Ramp	1500	Rolling	1527	18.71	0.00	3	75
41	White Oak - D40	B41	Basic Segment	1850	Rolling	1089	25.44	0.00	3	75
42	White Oak - B41	M42	On Ramp	1500	Rolling	1655	18.79	0.00	3	75
43	M42	B43	Basic Segment	3000	Rolling	1655	18.79	0.00	3	75
44	US 70 - B43	D44	Off Ramp	1500	Rolling	1655	18.79	0.00	3	75
45	US 70 - D44	B45	Basic Segment	1825	Rolling	1412	21.16	0.00	3	75

8	On Ramp	843	6.00	0.00	1	1000	50
10	Off Ramp	425	2.00	0.00	1	900	50
12	On Ramp	1028	6.00	0.00	1	900	50
14	Off Ramp	537	2.00	0.00	1	225	50
16	On Ramp	449	6.00	0.00	1	1500	30
18	Off Ramp	903	2.00	0.00	1	900	50
20	On Ramp	146	6.00	0.00	1	1500	30
22	On Ramp	559	6.00	0.00	1	1025	50
24	Off Ramp	987	2.00	0.00	1	300	50
26	On Ramp	131	6.00	0.00	1	900	50
28	Off Ramp	465	2.00	0.00	1	1025	50
30	On Ramp	779	6.00	0.00	1	900	50
32	Off Ramp	965	5.00	0.00	2	1500	50
34	Off Ramp	538	5.00	0.00	1	225	50
36	On Ramp	504	6.00	0.00	1	1500	30
38	On Ramp	595	6.00	0.00	1	900	50
40	Off Ramp	438	2.00	0.00	1	300	50
42	On Ramp	566	6.00	0.00	1	1500	30
44	Off Ramp	243	5.00	0.00	1	900	50
46	On Ramp	451	6.00	0.00	1	1400	30
48	On Ramp	740	6.00	0.00	1	900	50
50	Off Ramp	310	2.00	0.00	1	1500	30
52	On Ramp	695	6.00	0.00	1	900	50
54	Off Ramp	253	3.00	0.00	1	775	30
56	On Ramp	334	6.00	0.00	1	900	50
58	Off Ramp	166	2.00	0.00	1	175	50
61	Off Ramp	1046	7.00	0.00	1	525	30
63	On Ramp	3301	6.00	0.00	1	950	50
65	Off Ramp	1511	3.00	0.00	1	200	50
67	On Ramp	1948	4.00	0.00	1	875	50

46	US 70 - B45	M46	On Ramp	1500	Rolling	1863	17.49	0.00	3	75
47	US 70 - M46	B47	Basic Segment	775	Rolling	1863	17.49	0.00	3	75
48	US 70 - B47	M48	On Ramp	1500	Rolling	2603	14.23	0.00	3	75
49	M48	B49	Basic Segment	1275	Rolling	2603	14.23	0.00	3	75
50	Rock Quarry - B49	D50	Off Ramp	1500	Rolling	2603	14.23	0.00	3	75
51	Rock Quarry - D50	B51	Basic Segment	1825	Rolling	2293	15.88	0.00	3	75
52	Rock Quarry - B51	M52	On Ramp	1500	Rolling	2988	13.58	0.00	3	75
53	M52	B53	Basic Segment	8550	Rolling	2988	13.58	0.00	3	75
54	Auburn Knight - B53	D54	Off Ramp	1500	Rolling	2988	13.58	0.00	3	75
55	Auburn Knight - D54	B55	Basic Segment	1575	Rolling	2735	14.56	0.00	3	75
56	Auburn Knight - B55	M56	On Ramp	1500	Rolling	3069	13.63	0.00	3	75
57	M56	B57	Basic Segment	2200	Rolling	3069	13.63	0.00	3	75
58	Poole - B57	D58	Off Ramp	1500	Rolling	3069	13.63	0.00	3	75
59	Poole - B59	B59	Basic Segment	3800	Rolling	2903	14.29	0.00	3	75
60	B59	W60	Weaving	1650	Rolling	4494	11.36	0.00	4	75
61	I-495 - W60	D61	Off Ramp	1500	Rolling	3876	12.05	0.00	3	75
62	I-495 - D61	B62	Basic Segment	3550	Rolling	2830	13.92	0.00	3	75
63	I-495 - B62	M63	On Ramp	1500	Rolling	6131	9.66	0.00	4	75
64	M63	B64	Basic Segment	2350	Rolling	6131	9.66	0.00	4	75
65	US 64 Bus - B64	D65	Off Ramp	1500	Rolling	6131	9.66	0.00	4	75
66	US 64 Bus - D65	B66	Basic Segment	4250	Rolling	4620	11.83	0.00	4	75
67	US 64 Bus - B66	M67	On Ramp	1500	Rolling	6568	9.51	0.00	4	75
68	M67	End NC 540 EB	Basic Segment	5280	Rolling	6568	9.51	0.00	4	75

Weaving Segment Data

Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp				
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS
4	0.382	621	6.00	0.00	1	50	1056	6.00	0.00	1	50
60	0.138	1591	6.00	0.00	1	50	618	7.00	0.00	1	50

Time Period 3

Mainline Data

Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin NC 540 EB	B1	Basic Segment	5280	Rolling	4103	6.00	0.00	4	75
2	OHSARI - B1	D2	Off Ramp	1500	Rolling	4103	6.00	0.00	4	75
3	OHSARI-D2	B3	Basic Segment	1575	Rolling	2385	8.16	0.00	3	75
4	B3	W4	Weaving	3325	Rolling	3074	7.68	0.00	4	75
5	NC 55 BYP - W4	B5	Basic Segment	175	Rolling	1902	8.71	0.00	3	75
6	NC 55 BYP- B5	D6	Off Ramp	1500	Rolling	1902	8.71	0.00	3	75
7	NC 55 BYP - D6	B7	Basic Segment	1675	Rolling	1461	9.53	0.00	3	75
8	NC 55 BYP - B7	M8	On Ramp	1500	Rolling	2397	8.15	0.00	3	75
9	M8	B9	Basic Segment	8800	Rolling	2397	8.15	0.00	3	75
10	Holly Springs - B9	D10	Off Ramp	1500	Rolling	2397	8.15	0.00	3	75
11	Holly Springs - D10	B11	Basic Segment	4050	Rolling	1925	9.66	0.00	3	75
12	Holly Springs - B11	M12	On Ramp	1500	Rolling	3066	8.30	0.00	3	75
13	M12	B13	Basic Segment	7625	Rolling	3066	8.30	0.00	3	75
14	Bells Lake - B13	D14	Off Ramp	1500	Rolling	3066	8.30	0.00	3	75
15	Bells Lake - D14	B15	Basic Segment	2200	Rolling	2470	9.82	0.00	3	75

RampData

Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	Off Ramp	1718	3.00	0.00	1	525	30
6	Off Ramp	441	6.00	0.00	1	925	30
8	On Ramp	936	6.00	0.00	1	1000	50
10	Off Ramp	472	2.00	0.00	1	900	50
12	On Ramp	1141	6.00	0.00	1	900	50
14	Off Ramp	596	2.00	0.00	1	225	50
16	On Ramp	498	6.00	0.00	1	1500	30
18	Off Ramp	1002	2.00	0.00	1	900	50
20	On Ramp	162	6.00	0.00	1	1500	30
22	On Ramp	620	6.00	0.00	1	1025	50
24	Off Ramp	1096	2.00	0.00	1	300	50
26	On Ramp	145	6.00	0.00	1	900	50
28	Off Ramp	516	2.00	0.00	1	1025	50
30	On Ramp	865	6.00	0.00	1	900	50
32	Off Ramp	1071	5.00	0.00	2	1500	50
34	Off Ramp	597	5.00	0.00	1	225	50
36	On Ramp	559	6.00	0.00	1	1500	30
38	On Ramp	660	6.00	0.00	1	900	50
40	Off Ramp	486	2.00	0.00	1	300	50
42	On Ramp	628	6.00	0.00	1	1500	30
44	Off Ramp	270	5.00	0.00	1	900	50
46	On Ramp	501	6.00	0.00	1	1400	30
48	On Ramp	821	6.00	0.00	1	900	50
50	Off Ramp	344	2.00	0.00	1	1500	30
52	On Ramp	771	6.00	0.00	1	900	50
54	Off Ramp	281	3.00	0.00	1	775	30
56	On Ramp	371	6.00	0.00	1	900	50
58	Off Ramp	184	2.00	0.00	1	175	50
61	Off Ramp	1161	7.00	0.00	1	525	30

16	Bells Lake - B15	M16	On Ramp	1500	Rolling	2968	9.18	0.00	3	75
17	M16	B17	Basic Segment	9275	Rolling	2968	9.18	0.00	3	75
18	US 401 - B17	D18	Off Ramp	1500	Rolling	2968	9.18	0.00	3	75
19	US 401 - D18	B19	Basic Segment	1750	Rolling	1966	12.83	0.00	3	75
20	US 401 - B19	M20	On Ramp	1500	Rolling	2128	12.31	0.00	3	75
21	US 401 - M20	B21	Basic Segment	575	Rolling	2128	12.31	0.00	3	75
22	US 401 - B21	M22	On Ramp	1500	Rolling	2748	10.89	0.00	3	75
23	M22	B23	Basic Segment	4200	Rolling	2748	10.89	0.00	3	75
24	Old Stage - B23	D24	Off Ramp	1500	Rolling	2748	10.89	0.00	3	75
25	Old Stage - D24	B25	Basic Segment	3750	Rolling	1652	16.79	0.00	3	75
26	Old Stage - B25	M26	On Ramp	1500	Rolling	1797	15.92	0.00	3	75
27	M26	B27	Basic Segment	15000	Rolling	1797	15.92	0.00	3	75
28	NC 50 - B27	D28	Off Ramp	1500	Rolling	1797	15.92	0.00	3	75
29	NC 50 - D28	B29	Basic Segment	4150	Rolling	1281	21.52	0.00	3	75
30	NC 50 - B29	M30	On Ramp	1500	Rolling	2146	15.26	0.00	3	75
31	M30	B31	Basic Segment	1500	Rolling	2146	15.26	0.00	3	75
32	I-40 - B31	D32	Off Ramp	1500	Rolling	2146	15.26	0.00	3	75
33	I-40 - D32	B33	Basic Segment	375	Rolling	1075	25.49	0.00	3	75
34	I-40 - B33	D34	Off Ramp	1500	Rolling	1075	25.49	0.00	3	75
35	I-40 - D34	B35	Basic Segment	2600	Rolling	478	51.08	0.00	3	75
36	I-40 - B35	M36	On Ramp	1500	Rolling	1037	26.78	0.00	3	75
37	I-40 - M36	B37	Basic Segment	4450	Rolling	1037	26.78	0.00	3	75
38	I-40 - B37	M38	On Ramp	1500	Rolling	1697	18.70	0.00	3	75
39	M38	B39	Basic Segment	1025	Rolling	1697	18.70	0.00	3	75
40	White Oak - B39	D40	Off Ramp	1500	Rolling	1697	18.70	0.00	3	75
41	White Oak - D40	B41	Basic Segment	1850	Rolling	1211	25.40	0.00	3	75
42	White Oak - B41	M42	On Ramp	1500	Rolling	1839	18.78	0.00	3	75
43	M42	B43	Basic Segment	3000	Rolling	1839	18.78	0.00	3	75
44	US 70 - B43	D44	Off Ramp	1500	Rolling	1839	18.78	0.00	3	75
45	US 70 - D44	B45	Basic Segment	1825	Rolling	1569	21.15	0.00	3	75
46	US 70 - B45	M46	On Ramp	1500	Rolling	2070	17.48	0.00	3	75
47	US 70 - M46	B47	Basic Segment	775	Rolling	2070	17.48	0.00	3	75
48	US 70 - B47	M48	On Ramp	1500	Rolling	2891	14.22	0.00	3	75
49	M48	B49	Basic Segment	1275	Rolling	2891	14.22	0.00	3	75
50	Rock Quarry - B49	D50	Off Ramp	1500	Rolling	2891	14.22	0.00	3	75
51	Rock Quarry - D50	B51	Basic Segment	1825	Rolling	2547	15.87	0.00	3	75
52	Rock Quarry - B51	M52	On Ramp	1500	Rolling	3318	13.58	0.00	3	75
53	M52	B53	Basic Segment	8550	Rolling	3318	13.58	0.00	3	75
54	Auburn Knight - B53	D54	Off Ramp	1500	Rolling	3318	13.58	0.00	3	75
55	Auburn Knight - D54	B55	Basic Segment	1575	Rolling	3037	14.56	0.00	3	75
56	Auburn Knight - B55	M56	On Ramp	1500	Rolling	3408	13.62	0.00	3	75
57	M56	B57	Basic Segment	2200	Rolling	3408	13.62	0.00	3	75
58	Poole - B57	D58	Off Ramp	1500	Rolling	3408	13.62	0.00	3	75
	Poole -		Basic							

63	On Ramp	3664	6.00	0.00	1	950	50
65	Off Ramp	1677	3.00	0.00	1	200	50
67	On Ramp	2162	4.00	0.00	1	875	50

Weaving Segment Data											
Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp				
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS

59	B59	B59	Segment	3800	Rolling	3224	14.29	0.00	3	75
60	B59	W60	Weaving	1650	Rolling	4815	11.55	0.00	4	75
61	I-495 - W60	D61	Off Ramp	1500	Rolling	4197	12.22	0.00	3	75
62	I-495 - D61	B62	Basic Segment	3550	Rolling	3036	14.21	0.00	3	75
63	I-495 - B62	M63	On Ramp	1500	Rolling	6700	9.72	0.00	4	75
64	M63	B64	Basic Segment	2350	Rolling	6700	9.72	0.00	4	75
65	US 64 Bus - B64	D65	Off Ramp	1500	Rolling	6700	9.72	0.00	4	75
66	US 64 Bus - D65	B66	Basic Segment	4250	Rolling	5023	11.97	0.00	4	75
67	US 64 Bus - B66	M67	On Ramp	1500	Rolling	7185	9.57	0.00	4	75
68	M67	End NC 540 EB	Basic Segment	5280	Rolling	7185	9.57	0.00	4	75

4	0.382	689	6.00	0.00	1	50	1172	6.00	0.00	1	50
60	0.138	1591	6.00	0.00	1	50	618	7.00	0.00	1	50

Time Period 4

Mainline Data

Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin NC 540 EB	B1	Basic Segment	5280	Rolling	3693	6.00	0.00	4	75
2	OHSARI - B1	D2	Off Ramp	1500	Rolling	3693	6.00	0.00	4	75
3	OHSARI-D2	B3	Basic Segment	1575	Rolling	2145	8.17	0.00	3	75
4	B3	W4	Weaving	3325	Rolling	2766	7.68	0.00	4	75
5	NC 55 BYP - W4	B5	Basic Segment	175	Rolling	1710	8.72	0.00	3	75
6	NC 55 BYP- B5	D6	Off Ramp	1500	Rolling	1710	8.72	0.00	3	75
7	NC 55 BYP - D6	B7	Basic Segment	1675	Rolling	1313	9.54	0.00	3	75
8	NC 55 BYP - B7	M8	On Ramp	1500	Rolling	2156	8.15	0.00	3	75
9	M8	B9	Basic Segment	8800	Rolling	2156	8.15	0.00	3	75
10	Holly Springs - B9	D10	Off Ramp	1500	Rolling	2156	8.15	0.00	3	75
11	Holly Springs - D10	B11	Basic Segment	4050	Rolling	1731	9.66	0.00	3	75
12	Holly Springs - B11	M12	On Ramp	1500	Rolling	2759	8.30	0.00	3	75
13	M12	B13	Basic Segment	7625	Rolling	2759	8.30	0.00	3	75
14	Bells Lake - B13	D14	Off Ramp	1500	Rolling	2759	8.30	0.00	3	75
15	Bells Lake - D14	B15	Basic Segment	2200	Rolling	2222	9.82	0.00	3	75
16	Bells Lake - B15	M16	On Ramp	1500	Rolling	2671	9.18	0.00	3	75
17	M16	B17	Basic Segment	9275	Rolling	2671	9.18	0.00	3	75
18	US 401 - B17	D18	Off Ramp	1500	Rolling	2671	9.18	0.00	3	75
19	US 401 - D18	B19	Basic Segment	1750	Rolling	1768	12.85	0.00	3	75
20	US 401 - B19	M20	On Ramp	1500	Rolling	1914	12.32	0.00	3	75
21	US 401 - M20	B21	Basic Segment	575	Rolling	1914	12.32	0.00	3	75
22	US 401 - B21	M22	On Ramp	1500	Rolling	2473	10.89	0.00	3	75
23	M22	B23	Basic Segment	4200	Rolling	2473	10.89	0.00	3	75
24	Old Stage - B23	D24	Off Ramp	1500	Rolling	2473	10.89	0.00	3	75
25	Old Stage - D24	B25	Basic Segment	3750	Rolling	1486	16.80	0.00	3	75
26	Old Stage - B25	M26	On Ramp	1500	Rolling	1617	15.93	0.00	3	75
27	M26	B27	Basic Segment	15000	Rolling	1617	15.93	0.00	3	75
28	NC 50 - B27	D28	Off Ramp	1500	Rolling	1617	15.93	0.00	3	75
29	NC 50 - D28	B29	Basic Segment	4150	Rolling	1152	21.55	0.00	3	75

RampData

Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	Off Ramp	1548	3.00	0.00	1	525	30
6	Off Ramp	397	6.00	0.00	1	925	30
8	On Ramp	843	6.00	0.00	1	1000	50
10	Off Ramp	425	2.00	0.00	1	900	50
12	On Ramp	1028	6.00	0.00	1	900	50
14	Off Ramp	537	2.00	0.00	1	225	50
16	On Ramp	449	6.00	0.00	1	1500	30
18	Off Ramp	903	2.00	0.00	1	900	50
20	On Ramp	146	6.00	0.00	1	1500	30
22	On Ramp	559	6.00	0.00	1	1025	50
24	Off Ramp	987	2.00	0.00	1	300	50
26	On Ramp	131	6.00	0.00	1	900	50
28	Off Ramp	465	2.00	0.00	1	1025	50
30	On Ramp	779	6.00	0.00	1	900	50
32	Off Ramp	965	5.00	0.00	2	1500	50
34	Off Ramp	538	5.00	0.00	1	225	50
36	On Ramp	504	6.00	0.00	1	1500	30
38	On Ramp	595	6.00	0.00	1	900	50
40	Off Ramp	438	2.00	0.00	1	300	50
42	On Ramp	566	6.00	0.00	1	1500	30
44	Off Ramp	243	5.00	0.00	1	900	50
46	On Ramp	451	6.00	0.00	1	1400	30
48	On Ramp	740	6.00	0.00	1	900	50
50	Off Ramp	310	2.00	0.00	1	1500	30
52	On Ramp	695	6.00	0.00	1	900	50
54	Off Ramp	253	3.00	0.00	1	775	30
56	On Ramp	334	6.00	0.00	1	900	50
58	Off Ramp	166	2.00	0.00	1	175	50
61	Off Ramp	1046	7.00	0.00	1	525	30
63	On Ramp	3301	6.00	0.00	1	950	50
65	Off Ramp	1511	3.00	0.00	1	200	50
67	On Ramp	1948	4.00	0.00	1	875	50

30	NC 50 - B29	M30	On Ramp	1500	Rolling	1931	15.28	0.00	3	75
31	M30	B31	Basic Segment	1500	Rolling	1931	15.28	0.00	3	75
32	I-40 - B31	D32	Off Ramp	1500	Rolling	1931	15.28	0.00	3	75
33	I-40 - D32	B33	Basic Segment	375	Rolling	966	25.54	0.00	3	75
34	I-40 - B33	D34	Off Ramp	1500	Rolling	966	25.54	0.00	3	75
35	I-40 - D34	B35	Basic Segment	2600	Rolling	428	51.36	0.00	3	75
36	I-40 - B35	M36	On Ramp	1500	Rolling	932	26.83	0.00	3	75
37	I-40 - M36	B37	Basic Segment	4450	Rolling	932	26.83	0.00	3	75
38	I-40 - B37	M38	On Ramp	1500	Rolling	1527	18.71	0.00	3	75
39	M38	B39	Basic Segment	1025	Rolling	1527	18.71	0.00	3	75
40	White Oak - B39	D40	Off Ramp	1500	Rolling	1527	18.71	0.00	3	75
41	White Oak - D40	B41	Basic Segment	1850	Rolling	1089	25.44	0.00	3	75
42	White Oak - B41	M42	On Ramp	1500	Rolling	1655	18.79	0.00	3	75
43	M42	B43	Basic Segment	3000	Rolling	1655	18.79	0.00	3	75
44	US 70 - B43	D44	Off Ramp	1500	Rolling	1655	18.79	0.00	3	75
45	US 70 - D44	B45	Basic Segment	1825	Rolling	1412	21.16	0.00	3	75
46	US 70 - B45	M46	On Ramp	1500	Rolling	1863	17.49	0.00	3	75
47	US 70 - M46	B47	Basic Segment	775	Rolling	1863	17.49	0.00	3	75
48	US 70 - B47	M48	On Ramp	1500	Rolling	2603	14.23	0.00	3	75
49	M48	B49	Basic Segment	1275	Rolling	2603	14.23	0.00	3	75
50	Rock Quarry - B49	D50	Off Ramp	1500	Rolling	2603	14.23	0.00	3	75
51	Rock Quarry - D50	B51	Basic Segment	1825	Rolling	2293	15.88	0.00	3	75
52	Rock Quarry - B51	M52	On Ramp	1500	Rolling	2988	13.58	0.00	3	75
53	M52	B53	Basic Segment	8550	Rolling	2988	13.58	0.00	3	75
54	Auburn Knight - B53	D54	Off Ramp	1500	Rolling	2988	13.58	0.00	3	75
55	Auburn Knight - D54	B55	Basic Segment	1575	Rolling	2735	14.56	0.00	3	75
56	Auburn Knight - B55	M56	On Ramp	1500	Rolling	3069	13.63	0.00	3	75
57	M56	B57	Basic Segment	2200	Rolling	3069	13.63	0.00	3	75
58	Poole - B57	D58	Off Ramp	1500	Rolling	3069	13.63	0.00	3	75
59	Poole - B59	B59	Basic Segment	3800	Rolling	2903	14.29	0.00	3	75
60	B59	W60	Weaving	1650	Rolling	4494	11.36	0.00	4	75
61	I-495 - W60	D61	Off Ramp	1500	Rolling	3876	12.05	0.00	3	75
62	I-495 - D61	B62	Basic Segment	3550	Rolling	2830	13.92	0.00	3	75
63	I-495 - B62	M63	On Ramp	1500	Rolling	6131	9.66	0.00	4	75
64	M63	B64	Basic Segment	2350	Rolling	6131	9.66	0.00	4	75
65	US 64 Bus - B64	D65	Off Ramp	1500	Rolling	6131	9.66	0.00	4	75
66	US 64 Bus - D65	B66	Basic Segment	4250	Rolling	4620	11.83	0.00	4	75
67	US 64 Bus - B66	M67	On Ramp	1500	Rolling	6568	9.51	0.00	4	75
68	M67	End NC 540 EB	Basic Segment	5280	Rolling	6568	9.51	0.00	4	75

Weaving Segment Data											
Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp				
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS
4	0.382	621	6.00	0.00	1	50	1056	6.00	0.00	1	50
60	0.138	1591	6.00	0.00	1	50	618	7.00	0.00	1	50

Time Period Independent Weaving Segment Data

Seg #	Configuration	Short Length	# Weaving Lanes	Min. Lane Changes Freeway-Ramp	Min. Lane Changes Ramp-Freeway	Min. Lane Changes Ramp-Ramp
4	OneSide	3325	2	1	1	0
60	OneSide	1650	2	1	1	0

Time Period Results

Time Period 1

Seg #	From	To	Type	Adj. Demand	Vol. Served	Capacity (pc/h)	Capacity (veh/h)	d/c Ratio	v/c ratio	Queue Length (ft)	Avg. Speed (mi/h)	Density (pc/mi/ln)	Density (veh/mi/ln)	Avg. Travel Time (min/veh)	Free-Flow Travel Time (min/veh)	Mainline Delay (min/veh)	System Delay (min/veh)	VMT Demand (veh-min)	VMT Volume (veh-min)	VHT (veh-hrs)	VHD (veh-hrs)	LO
1	Begin NC 540 EB	B1	Basic Segment	3283	3283	9600	8807	0.37	0.37	0	75.0	11.9	10.9	0.80	0.80	0.0	0.0	820.8	820.8	10.9	0.0	E
2	OHSARI - B1	D2	Off Ramp	3283	3283	9600	8807	0.37	0.37	0	61.5	14.6	13.4	0.28	0.23	0.1	0.1	233.2	233.2	3.8	0.7	E
3	OHSARI-D2	B3	Basic Segment	1905	1905	7200	6414	0.30	0.30	0	73.9	9.6	8.6	0.24	0.24	0.0	0.0	142.1	142.1	1.9	0.0	A
4	B3	W4	Weaving	2458	2458	5641	5058	0.49	0.49	0	63.9	10.7	9.6	0.59	0.50	0.1	0.1	387.0	387.0	6.1	0.9	E
5	NC 55 BYP - W4	B5	Basic Segment	1518	1518	7200	6367	0.24	0.24	0	74.3	7.7	6.8	0.03	0.03	0.0	0.0	12.6	12.6	0.2	0.0	A
6	NC 55 BYP- B5	D6	Off Ramp	1518	1518	7200	6367	0.24	0.24	0	59.4	9.6	8.5	0.29	0.23	0.1	0.1	107.8	107.8	1.8	0.4	A
7	NC 55 BYP - D6	B7	Basic Segment	1165	1165	7200	6298	0.18	0.18	0	73.8	6.0	5.3	0.26	0.25	0.0	0.0	92.4	92.4	1.3	0.0	A
8	NC 55 BYP - B7	M8	On Ramp	1915	1915	7200	6415	0.30	0.30	0	68.8	10.0	8.9	0.25	0.23	0.0	0.0	136.0	136.0	2.0	0.2	E
9	M8	B9	Basic Segment	1915	1915	7200	6415	0.30	0.30	0	75.0	9.6	8.5	1.33	1.33	0.0	0.0	797.9	797.9	10.6	0.0	A
10	Holly Springs - B9	D10	Off Ramp	1915	1915	7200	6415	0.30	0.30	0	69.6	10.3	9.2	0.24	0.23	0.0	0.0	136.0	136.0	2.0	0.1	A
11	Holly Springs - D10	B11	Basic Segment	1537	1537	7200	6288	0.24	0.24	0	74.9	7.8	6.8	0.61	0.61	0.0	0.0	294.7	294.7	3.9	0.0	A
12	Holly Springs - B11	M12	On Ramp	2452	2452	7200	6403	0.38	0.38	0	68.2	13.0	11.6	0.25	0.23	0.0	0.0	174.1	174.1	2.6	0.2	E
13	M12	B13	Basic Segment	2452	2452	7200	6403	0.38	0.38	0	75.0	12.3	10.9	1.16	1.16	0.0	0.0	885.3	885.3	11.8	0.0	E
14	Bells Lake - B13	D14	Off Ramp	2452	2452	7200	6403	0.38	0.38	0	69.6	13.2	11.7	0.24	0.23	0.0	0.0	174.1	174.1	2.5	0.2	E
15	Bells Lake - D14	B15	Basic Segment	1974	1974	7200	6275	0.31	0.31	0	74.7	10.1	8.8	0.33	0.33	0.0	0.0	205.6	205.6	2.8	0.0	A
16	Bells Lake - B15	M16	On Ramp	2374	2374	7200	6328	0.38	0.38	0	68.7	12.9	11.3	0.25	0.23	0.0	0.0	168.6	168.6	2.5	0.2	A
17	M16	B17	Basic Segment	2374	2374	7200	6328	0.38	0.38	0	75.0	12.0	10.6	1.41	1.41	0.0	0.0	1042.6	1042.6	13.9	0.0	E
18	US 401 - B17	D18	Off Ramp	2374	2374	7200	6328	0.38	0.38	0	68.3	13.2	11.6	0.25	0.23	0.0	0.0	168.6	168.6	2.5	0.2	E
19	US 401 - D18	B19	Basic Segment	1570	1570	7200	6036	0.26	0.26	0	74.5	8.4	7.0	0.27	0.27	0.0	0.0	130.1	130.1	1.7	0.0	A
20	US 401 - B19	M20	On Ramp	1700	1700	7200	6076	0.28	0.28	0	69.3	9.6	8.1	0.25	0.23	0.0	0.0	120.7	120.7	1.7	0.1	A
21	US 401 - M20	B21	Basic Segment	1700	1700	7200	6076	0.28	0.28	0	73.9	9.1	7.7	0.09	0.09	0.0	0.0	46.3	46.3	0.6	0.0	A
22	US 401 - B21	M22	On Ramp	2198	2198	7200	6188	0.36	0.36	0	69.1	12.1	10.4	0.25	0.23	0.0	0.0	156.1	156.1	2.3	0.2	E
23	M22	B23	Basic Segment	2198	2198	7200	6188	0.36	0.36	0	74.9	11.4	9.8	0.64	0.64	0.0	0.0	437.1	437.1	5.8	0.0	E
24	Old Stage - B23	D24	Off Ramp	2198	2198	7200	6188	0.36	0.36	0	67.8	12.6	10.8	0.25	0.23	0.0	0.0	156.1	156.1	2.3	0.2	E
25	Old Stage - D24	B25	Basic Segment	1320	1320	7200	5749	0.23	0.23	0	74.9	7.4	5.9	0.57	0.57	0.0	0.0	234.4	234.4	3.1	0.0	A
26	Old Stage - B25	M26	On Ramp	1437	1437	7200	5811	0.25	0.25	0	69.6	8.5	6.8	0.25	0.23	0.0	0.0	102.1	102.1	1.5	0.1	A
27	M26	B27	Basic Segment	1437	1437	7200	5811	0.25	0.25	0	75.0	7.9	6.4	2.27	2.27	0.0	0.0	1020.6	1020.6	13.6	0.0	A
28	NC 50 - B27	D28	Off Ramp	1437	1437	7200	5811	0.25	0.25	0	69.2	8.6	6.9	0.25	0.23	0.0	0.0	102.1	102.1	1.5	0.1	A
29	NC 50 - D28	B29	Basic Segment	1023	1023	7200	5439	0.19	0.19	0	74.9	6.0	4.6	0.63	0.63	0.0	0.0	201.0	201.0	2.7	0.0	A
30	NC 50 - B29	M30	On Ramp	1716	1716	7200	5857	0.29	0.29	0	68.7	9.8	8.0	0.25	0.23	0.0	0.0	121.9	121.9	1.8	0.2	E
31	M30	B31	Basic Segment	1716	1716	7200	5857	0.29	0.29	0	74.4	9.4	7.7	0.23	0.23	0.0	0.0	121.9	121.9	1.6	0.0	A
32	I-40 - B31	D32	Off Ramp	1716	1716	7200	5857	0.29	0.29	0	69.2	10.2	8.3	0.25	0.23	0.0	0.0	121.9	121.9	1.8	0.1	A
33	I-40 - D32	B33	Basic Segment	857	857	7200	5202	0.16	0.16	0	73.7	5.4	3.9	0.06	0.06	0.0	0.0	15.2	15.2	0.2	0.0	A
34	I-40 - B33	D34	Off Ramp	857	857	7200	5202	0.16	0.16	0	68.0	5.8	4.2	0.25	0.23	0.0	0.0	60.9	60.9	0.9	0.1	E
35	I-40 - D34	B35	Basic Segment	378	378	7200	4055	0.09	0.09	0	74.7	3.0	1.7	0.40	0.39	0.0	0.0	46.5	46.5	0.6	0.0	A
36	I-40 - B35	M36	On Ramp	827	827	7200	5130	0.16	0.16	0	68.6	5.3	3.8	0.25	0.23	0.0	0.0	58.7	58.7	0.9	0.1	A
37	I-40 - M36	B37	Basic Segment	827	827	7200	5130	0.16	0.16	0	74.9	5.2	3.7	0.67	0.67	0.0	0.0	174.2	174.2	2.3	0.0	A
38	I-40 - B37	M38	On Ramp	1357	1357	7200	5621	0.24	0.24	0	68.9	8.1	6.3	0.25	0.23	0.0	0.0	96.4	96.4	1.4	0.1	A
39	M38	B39	Basic Segment	1357	1357	7200	5621	0.24	0.24	0	74.2	7.8	6.1	0.16	0.16	0.0	0.0	65.9	65.9	0.9	0.0	A
40	White Oak -	D40	Off Ramp	1357	1357	7200	5621	0.24	0.24	0	68.9	8.4	6.6	0.25	0.23	0.0	0.0	96.4	96.4	1.4	0.1	E

	B39																					
41	White Oak - D40	B41	Basic Segment	967	967	7200	5209	0.19	0.19	0	74.6	6.0	4.3	0.28	0.28	0.0	0.0	84.7	84.7	1.1	0.0	A
42	White Oak - B41	M42	On Ramp	1471	1471	7200	5616	0.26	0.26	0	68.9	8.8	6.9	0.25	0.23	0.0	0.0	104.5	104.5	1.5	0.1	A
43	M42	B43	Basic Segment	1471	1471	7200	5616	0.26	0.26	0	74.8	8.4	6.6	0.46	0.45	0.0	0.0	208.9	208.9	2.8	0.0	A
44	US 70 - B43	D44	Off Ramp	1471	1471	7200	5616	0.26	0.26	0	70.1	9.0	7.0	0.24	0.23	0.0	0.0	104.5	104.5	1.5	0.1	A
45	US 70 - D44	B45	Basic Segment	1255	1255	7200	5464	0.23	0.23	0	74.7	7.4	5.6	0.28	0.28	0.0	0.0	108.4	108.4	1.5	0.0	A
46	US 70 - B45	M46	On Ramp	1656	1656	7200	5702	0.29	0.29	0	68.8	9.9	7.8	0.25	0.23	0.0	0.0	117.6	117.6	1.7	0.1	A
47	US 70 - M46	B47	Basic Segment	1656	1656	7200	5702	0.29	0.29	0	74.0	9.4	7.5	0.12	0.12	0.0	0.0	60.8	60.8	0.8	0.0	A
48	US 70 - B47	M48	On Ramp	2315	2315	7200	5933	0.39	0.39	0	68.5	13.3	11.0	0.25	0.23	0.0	0.0	164.4	164.4	2.4	0.2	B
49	M48	B49	Basic Segment	2315	2315	7200	5933	0.39	0.39	0	74.3	12.6	10.4	0.19	0.19	0.0	0.0	139.8	139.8	1.9	0.0	B
50	Rock Quarry - B49	D50	Off Ramp	2315	2315	7200	5933	0.39	0.39	0	62.8	14.9	12.3	0.27	0.23	0.0	0.0	164.4	164.4	2.6	0.4	A
51	Rock Quarry - D50	B51	Basic Segment	2039	2039	7200	5814	0.35	0.35	0	74.2	11.3	9.2	0.28	0.28	0.0	0.0	176.2	176.2	2.4	0.0	B
52	Rock Quarry - B51	M52	On Ramp	2658	2658	7200	5981	0.44	0.44	0	68.3	15.3	12.7	0.25	0.23	0.0	0.0	188.8	188.8	2.8	0.2	B
53	M52	B53	Basic Segment	2658	2658	7200	5981	0.44	0.44	0	75.0	14.2	11.8	1.30	1.30	0.0	0.0	1076.0	1076.0	14.4	0.0	B
54	Auburn Knight - B53	D54	Off Ramp	2658	2658	7200	5981	0.44	0.44	0	63.8	16.7	13.9	0.27	0.23	0.0	0.0	188.8	188.8	3.0	0.4	B
55	Auburn Knight - D54	B55	Basic Segment	2433	2433	7200	5909	0.41	0.41	0	74.1	13.3	10.9	0.24	0.24	0.0	0.0	181.4	181.4	2.4	0.0	B
56	Auburn Knight - B55	M56	On Ramp	2730	2730	7200	5978	0.46	0.46	0	68.5	15.9	13.2	0.25	0.23	0.0	0.0	193.9	193.9	2.8	0.2	B
57	M56	B57	Basic Segment	2730	2730	7200	5978	0.46	0.46	0	74.7	14.7	12.2	0.33	0.33	0.0	0.0	284.4	284.4	3.8	0.0	B
58	Poole - B57	D58	Off Ramp	2730	2730	7200	5978	0.46	0.46	0	71.0	15.4	12.8	0.24	0.23	0.0	0.0	193.9	193.9	2.7	0.1	C
59	Poole - B59	B59	Basic Segment	2582	2582	7200	5928	0.44	0.44	0	74.9	13.9	11.5	0.58	0.58	0.0	0.0	464.6	464.6	6.2	0.0	B
60	B59	W60	Weaving	4173	4173	6033	5170	0.81	0.81	0	56.7	21.5	18.4	0.33	0.25	0.1	0.1	326.0	326.0	5.8	1.4	C
61	I-495 - W60	D61	Off Ramp	3555	3555	7200	6113	0.58	0.58	0	60.9	22.9	19.4	0.28	0.23	0.1	0.1	252.5	252.5	4.1	0.8	C
62	I-495 - D61	B62	Basic Segment	2624	2624	7200	5982	0.44	0.44	0	74.8	14.1	11.7	0.54	0.54	0.0	0.0	441.1	441.1	5.9	0.0	B
63	I-495 - B62	M63	On Ramp	5562	5562	9600	8394	0.66	0.66	0	61.5	24.6	21.5	0.28	0.23	0.1	0.1	395.0	395.0	6.4	1.2	D
64	M63	B64	Basic Segment	5562	5562	9600	8394	0.66	0.66	0	71.1	22.4	19.5	0.38	0.36	0.0	0.0	618.9	618.9	8.7	0.4	C
65	US 64 Bus - B64	D65	Off Ramp	5562	5562	9600	8394	0.66	0.66	0	69.8	22.8	19.9	0.24	0.23	0.0	0.0	395.0	395.0	5.7	0.4	D
66	US 64 Bus - D65	B66	Basic Segment	4217	4217	9600	8170	0.52	0.52	0	74.4	16.7	14.2	0.65	0.64	0.0	0.0	848.6	848.6	11.4	0.1	B
67	US 64 Bus - B66	M67	On Ramp	5951	5951	9600	8410	0.71	0.71	0	65.6	25.4	22.3	0.26	0.23	0.0	0.0	422.7	422.7	6.4	0.8	D
68	M67	End NC 540 EB	Basic Segment	5951	5951	9600	8410	0.71	0.71	0	69.6	24.4	21.4	0.86	0.80	0.1	0.1	1487.8	1487.8	21.4	1.5	C

Time Period 2

Seg #	From	To	Type	Adj. Demand	Vol. Served	Capacity (pc/h)	Capacity (veh/h)	d/c Ratio	v/c ratio	Queue Length (ft)	Avg. Speed (mi/h)	Density (pc/mi/ln)	Density (veh/mi/ln)	Avg. Travel Time (min/veh)	Free-Flow Travel Time (min/veh)	Mainline Delay (min/veh)	System Delay (min/veh)	VMT Demand (veh-min)	VMT Volume (veh-min)	VHT (veh-hrs)	VHD (veh-hrs)	LO
1	Begin NC 540 EB	B1	Basic Segment	3693	3693	9600	8807	0.42	0.42	0	75.0	13.4	12.3	0.80	0.80	0.0	0.0	923.3	923.3	12.3	0.0	B
2	OHSARI - B1	D2	Off Ramp	3693	3693	9600	8807	0.42	0.42	0	61.0	16.5	15.1	0.28	0.23	0.1	0.1	262.3	262.3	4.3	0.8	C
3	OHSARI-D2	B3	Basic Segment	2145	2145	7200	6414	0.33	0.33	0	73.8	10.9	9.7	0.24	0.24	0.0	0.0	160.0	160.0	2.2	0.0	A
4	B3	W4	Weaving	2766	2766	5648	5065	0.55	0.55	0	62.8	12.3	11.0	0.60	0.50	0.1	0.1	435.5	435.5	6.9	1.1	B
5	NC 55 BYP - W4	B5	Basic Segment	1710	1710	7200	6368	0.27	0.27	0	74.3	8.7	7.7	0.03	0.03	0.0	0.0	14.2	14.2	0.2	0.0	A
6	NC 55 BYP- B5	D6	Off Ramp	1710	1710	7200	6368	0.27	0.27	0	59.0	10.9	9.7	0.29	0.23	0.1	0.1	121.4	121.4	2.1	0.4	B
7	NC 55 BYP - D6	B7	Basic Segment	1313	1313	7200	6299	0.21	0.21	0	73.8	6.8	5.9	0.26	0.25	0.0	0.0	104.1	104.1	1.4	0.0	A
8	NC 55 BYP - B7	M8	On Ramp	2156	2156	7200	6415	0.34	0.34	0	68.7	11.3	10.1	0.25	0.23	0.0	0.0	153.1	153.1	2.2	0.2	B
9	M8	B9	Basic Segment	2156	2156	7200	6415	0.34	0.34	0	75.0	10.8	9.6	1.33	1.33	0.0	0.0	898.3	898.3	12.0	0.0	A
10	Holly Springs - B9	D10	Off Ramp	2156	2156	7200	6415	0.34	0.34	0	69.6	11.6	10.3	0.24	0.23	0.0	0.0	153.1	153.1	2.2	0.2	B
11	Holly Springs - D10	B11	Basic Segment	1731	1731	7200	6288	0.28	0.28	0	74.9	8.8	7.7	0.61	0.61	0.0	0.0	331.9	331.9	4.4	0.0	A

12	Holly Springs - B11	M12	On Ramp	2759	2759	7200	6403	0.43	0.43	0	68.0	14.7	13.1	0.25	0.23	0.0	0.0	196.0	196.0	2.9	0.3	E
13	M12	B13	Basic Segment	2759	2759	7200	6403	0.43	0.43	0	75.0	13.8	12.3	1.16	1.16	0.0	0.0	996.1	996.1	13.3	0.0	E
14	Bells Lake - B13	D14	Off Ramp	2759	2759	7200	6403	0.43	0.43	0	69.6	14.9	13.2	0.24	0.23	0.0	0.0	196.0	196.0	2.8	0.2	C
15	Bells Lake - D14	B15	Basic Segment	2222	2222	7200	6275	0.35	0.35	0	74.7	11.4	9.9	0.33	0.33	0.0	0.0	231.5	231.5	3.1	0.0	E
16	Bells Lake - B15	M16	On Ramp	2671	2671	7200	6329	0.42	0.42	0	68.5	14.6	12.8	0.25	0.23	0.0	0.0	189.7	189.7	2.8	0.2	E
17	M16	B17	Basic Segment	2671	2671	7200	6329	0.42	0.42	0	75.0	13.5	11.9	1.41	1.41	0.0	0.0	1173.0	1173.0	15.6	0.0	E
18	US 401 - B17	D18	Off Ramp	2671	2671	7200	6329	0.42	0.42	0	68.2	14.9	13.1	0.25	0.23	0.0	0.0	189.7	189.7	2.8	0.3	E
19	US 401 - D18	B19	Basic Segment	1768	1768	7200	6037	0.29	0.29	0	74.5	9.4	7.9	0.27	0.27	0.0	0.0	146.5	146.5	2.0	0.0	A
20	US 401 - B19	M20	On Ramp	1914	1914	7200	6077	0.31	0.31	0	69.1	10.9	9.2	0.25	0.23	0.0	0.0	135.9	135.9	2.0	0.2	A
21	US 401 - M20	B21	Basic Segment	1914	1914	7200	6077	0.31	0.31	0	73.9	10.2	8.6	0.09	0.09	0.0	0.0	52.1	52.1	0.7	0.0	A
22	US 401 - B21	M22	On Ramp	2473	2473	7200	6189	0.40	0.40	0	68.8	13.6	11.7	0.25	0.23	0.0	0.0	175.6	175.6	2.6	0.2	E
23	M22	B23	Basic Segment	2473	2473	7200	6189	0.40	0.40	0	74.9	12.8	11.0	0.64	0.64	0.0	0.0	491.8	491.8	6.6	0.0	E
24	Old Stage - B23	D24	Off Ramp	2473	2473	7200	6189	0.40	0.40	0	67.6	14.2	12.2	0.25	0.23	0.0	0.0	175.6	175.6	2.6	0.3	C
25	Old Stage - D24	B25	Basic Segment	1486	1486	7200	5751	0.26	0.26	0	74.9	8.3	6.6	0.57	0.57	0.0	0.0	263.8	263.8	3.5	0.0	A
26	Old Stage - B25	M26	On Ramp	1617	1617	7200	5812	0.28	0.28	0	69.4	9.5	7.7	0.25	0.23	0.0	0.0	114.8	114.8	1.7	0.1	A
27	M26	B27	Basic Segment	1617	1617	7200	5812	0.28	0.28	0	75.0	8.9	7.2	2.27	2.27	0.0	0.0	1148.4	1148.4	15.3	0.0	A
28	NC 50 - B27	D28	Off Ramp	1617	1617	7200	5812	0.28	0.28	0	69.2	9.7	7.8	0.25	0.23	0.0	0.0	114.8	114.8	1.7	0.1	A
29	NC 50 - D28	B29	Basic Segment	1152	1152	7200	5441	0.21	0.21	0	74.9	6.8	5.1	0.63	0.63	0.0	0.0	226.4	226.4	3.0	0.0	A
30	NC 50 - B29	M30	On Ramp	1931	1931	7200	5858	0.33	0.33	0	68.5	11.1	9.0	0.25	0.23	0.0	0.0	137.1	137.1	2.0	0.2	E
31	M30	B31	Basic Segment	1931	1931	7200	5858	0.33	0.33	0	74.4	10.6	8.6	0.23	0.23	0.0	0.0	137.1	137.1	1.8	0.0	A
32	I-40 - B31	D32	Off Ramp	1931	1931	7200	5858	0.33	0.33	0	68.9	11.5	9.3	0.25	0.23	0.0	0.0	137.1	137.1	2.0	0.2	A
33	I-40 - D32	B33	Basic Segment	966	966	7200	5206	0.19	0.19	0	73.7	6.0	4.4	0.06	0.06	0.0	0.0	17.2	17.2	0.2	0.0	A
34	I-40 - B33	D34	Off Ramp	966	966	7200	5206	0.19	0.19	0	67.9	6.6	4.7	0.25	0.23	0.0	0.0	68.6	68.6	1.0	0.1	E
35	I-40 - D34	B35	Basic Segment	428	428	7200	4067	0.11	0.11	0	74.7	3.4	1.9	0.40	0.39	0.0	0.0	52.7	52.7	0.7	0.0	A
36	I-40 - B35	M36	On Ramp	932	932	7200	5134	0.18	0.18	0	68.6	6.0	4.3	0.25	0.23	0.0	0.0	66.2	66.2	1.0	0.1	A
37	I-40 - M36	B37	Basic Segment	932	932	7200	5134	0.18	0.18	0	74.9	5.8	4.1	0.67	0.67	0.0	0.0	196.4	196.4	2.6	0.0	A
38	I-40 - B37	M38	On Ramp	1527	1527	7200	5622	0.27	0.27	0	68.8	9.1	7.1	0.25	0.23	0.0	0.0	108.5	108.5	1.6	0.1	E
39	M38	B39	Basic Segment	1527	1527	7200	5622	0.27	0.27	0	74.2	8.8	6.9	0.16	0.16	0.0	0.0	74.1	74.1	1.0	0.0	A
40	White Oak - B39	D40	Off Ramp	1527	1527	7200	5622	0.27	0.27	0	68.7	9.5	7.4	0.25	0.23	0.0	0.0	108.5	108.5	1.6	0.1	E
41	White Oak - D40	B41	Basic Segment	1089	1089	7200	5212	0.21	0.21	0	74.6	6.7	4.9	0.28	0.28	0.0	0.0	95.4	95.4	1.3	0.0	A
42	White Oak - B41	M42	On Ramp	1655	1655	7200	5617	0.29	0.29	0	68.8	9.9	7.8	0.25	0.23	0.0	0.0	117.5	117.5	1.7	0.1	A
43	M42	B43	Basic Segment	1655	1655	7200	5617	0.29	0.29	0	74.8	9.4	7.4	0.46	0.45	0.0	0.0	235.1	235.1	3.1	0.0	A
44	US 70 - B43	D44	Off Ramp	1655	1655	7200	5617	0.29	0.29	0	70.1	10.1	7.9	0.24	0.23	0.0	0.0	117.5	117.5	1.7	0.1	A
45	US 70 - D44	B45	Basic Segment	1412	1412	7200	5465	0.26	0.26	0	74.7	8.3	6.3	0.28	0.28	0.0	0.0	122.0	122.0	1.6	0.0	A
46	US 70 - B45	M46	On Ramp	1863	1863	7200	5703	0.33	0.33	0	68.6	11.2	8.9	0.25	0.23	0.0	0.0	132.3	132.3	1.9	0.2	A
47	US 70 - M46	B47	Basic Segment	1863	1863	7200	5703	0.33	0.33	0	74.0	10.6	8.4	0.12	0.12	0.0	0.0	68.4	68.4	0.9	0.0	A
48	US 70 - B47	M48	On Ramp	2603	2603	7200	5934	0.44	0.44	0	68.2	15.0	12.4	0.25	0.23	0.0	0.0	184.9	184.9	2.7	0.2	E
49	M48	B49	Basic Segment	2603	2603	7200	5934	0.44	0.44	0	74.3	14.2	11.7	0.20	0.19	0.0	0.0	157.1	157.1	2.1	0.0	E
50	Rock Quarry - B49	D50	Off Ramp	2603	2603	7200	5934	0.44	0.44	0	62.7	16.8	13.8	0.27	0.23	0.0	0.0	184.9	184.9	2.9	0.5	E
51	Rock Quarry - D50	B51	Basic Segment	2293	2293	7200	5815	0.39	0.39	0	74.2	12.8	10.3	0.28	0.28	0.0	0.0	198.1	198.1	2.7	0.0	E
52	Rock Quarry - B51	M52	On Ramp	2988	2988	7200	5982	0.50	0.50	0	67.9	17.3	14.3	0.25	0.23	0.0	0.0	212.2	212.2	3.1	0.3	E
53	M52	B53	Basic Segment	2988	2988	7200	5982	0.50	0.50	0	74.6	16.1	13.4	1.30	1.30	0.0	0.0	1209.6	1209.6	16.2	0.1	E
54	Auburn Knight - B53	D54	Off Ramp	2988	2988	7200	5982	0.50	0.50	0	63.8	18.8	15.6	0.27	0.23	0.0	0.0	212.2	212.2	3.3	0.5	E
55	Auburn Knight -	B55	Basic	2735	2735	7200	5909	0.46	0.46	0	74.1	15.0	12.3	0.24	0.24	0.0	0.0	204.0	204.0	2.8	0.0	E

	D54		Segment																		
56	Auburn Knight - B55	M56	On Ramp	3069	3069	7200	5978	0.51	0.51	0	68.1	17.9	14.9	0.25	0.23	0.0	0.0	218.0	218.0	3.2	0.3	E
57	M56	B57	Basic Segment	3069	3069	7200	5978	0.51	0.51	0	74.4	16.6	13.7	0.34	0.33	0.0	0.0	319.7	319.7	4.3	0.0	E
58	Poole - B57	D58	Off Ramp	3069	3069	7200	5978	0.51	0.51	0	71.0	17.4	14.4	0.24	0.23	0.0	0.0	218.0	218.0	3.1	0.2	C
59	Poole - B59	B59	Basic Segment	2903	2903	7200	5929	0.49	0.49	0	74.7	15.7	13.0	0.58	0.58	0.0	0.0	522.3	522.3	7.0	0.0	E
60	B59	W60	Weaving	4494	4494	6516	5568	0.81	0.81	0	56.2	23.4	20.0	0.33	0.25	0.1	0.1	351.1	351.1	6.2	1.6	C
61	I-495 - W60	D61	Off Ramp	3876	3876	7200	6098	0.64	0.64	0	60.4	25.2	21.4	0.28	0.23	0.1	0.1	275.3	275.3	4.6	0.9	D
62	I-495 - D61	B62	Basic Segment	2830	2830	7200	5956	0.48	0.48	0	74.8	15.3	12.6	0.54	0.54	0.0	0.0	475.7	475.7	6.4	0.0	E
63	I-495 - B62	M63	On Ramp	6131	6131	9600	8386	0.73	0.73	0	56.2	29.6	25.9	0.30	0.23	0.1	0.1	435.4	435.4	7.8	1.9	E
64	M63	B64	Basic Segment	6131	6131	9600	8386	0.73	0.73	0	68.7	25.5	22.3	0.39	0.36	0.0	0.0	682.2	682.2	9.9	0.8	C
65	US 64 Bus - B64	D65	Off Ramp	6131	6131	9600	8386	0.73	0.73	0	69.3	25.3	22.1	0.25	0.23	0.0	0.0	435.4	435.4	6.3	0.5	E
66	US 64 Bus - D65	B66	Basic Segment	4620	4620	9600	8153	0.57	0.57	0	73.6	18.5	15.7	0.66	0.64	0.0	0.0	929.7	929.7	12.6	0.2	C
67	US 64 Bus - B66	M67	On Ramp	6568	6568	9600	8402	0.78	0.78	0	66.2	27.8	24.4	0.26	0.23	0.0	0.0	466.5	466.5	7.1	0.8	E
68	M67	End NC 540 EB	Basic Segment	6568	6568	9600	8402	0.78	0.78	0	66.5	28.2	24.7	0.90	0.80	0.1	0.1	1642.0	1642.0	24.7	2.8	D

Time Period 3

Seg #	From	To	Type	Adj. Demand	Vol. Served	Capacity (pc/h)	Capacity (veh/h)	d/c Ratio	v/c ratio	Queue Length (ft)	Avg. Speed (mi/h)	Density (pc/mi/ln)	Density (veh/mi/ln)	Avg. Travel Time (min/veh)	Free-Flow Travel Time (min/veh)	Mainline Delay (min/veh)	System Delay (min/veh)	VMT Demand (veh-min)	VMT Volume (veh-min)	VHT (veh-hrs)	VHD (veh-hrs)	LO
1	Begin NC 540 EB	B1	Basic Segment	4103	4103	9600	8807	0.47	0.47	0	74.8	14.9	13.7	0.80	0.80	0.0	0.0	1025.8	1025.8	13.7	0.0	E
2	OHSARI - B1	D2	Off Ramp	4103	4103	9600	8807	0.47	0.47	0	60.6	18.5	16.9	0.28	0.23	0.1	0.1	291.4	291.4	4.8	0.9	C
3	OHSARI-D2	B3	Basic Segment	2385	2385	7200	6415	0.37	0.37	0	73.8	12.1	10.8	0.24	0.24	0.0	0.0	177.9	177.9	2.4	0.0	E
4	B3	W4	Weaving	3074	3074	5658	5074	0.61	0.61	0	61.8	13.9	12.4	0.61	0.50	0.1	0.1	484.0	484.0	7.8	1.4	E
5	NC 55 BYP - W4	B5	Basic Segment	1902	1902	7200	6368	0.30	0.30	0	74.2	9.7	8.5	0.03	0.03	0.0	0.0	15.8	15.8	0.2	0.0	A
6	NC 55 BYP- B5	D6	Off Ramp	1902	1902	7200	6368	0.30	0.30	0	58.6	12.2	10.8	0.29	0.23	0.1	0.1	135.1	135.1	2.3	0.5	E
7	NC 55 BYP - D6	B7	Basic Segment	1461	1461	7200	6300	0.23	0.23	0	73.7	7.5	6.6	0.26	0.25	0.0	0.0	115.9	115.9	1.6	0.0	A
8	NC 55 BYP - B7	M8	On Ramp	2397	2397	7200	6416	0.37	0.37	0	68.5	12.6	11.2	0.25	0.23	0.0	0.0	170.2	170.2	2.5	0.2	E
9	M8	B9	Basic Segment	2397	2397	7200	6416	0.37	0.37	0	75.0	12.0	10.7	1.33	1.33	0.0	0.0	998.8	998.8	13.3	0.0	E
10	Holly Springs - B9	D10	Off Ramp	2397	2397	7200	6416	0.37	0.37	0	69.6	12.9	11.5	0.24	0.23	0.0	0.0	170.2	170.2	2.4	0.2	E
11	Holly Springs - D10	B11	Basic Segment	1925	1925	7200	6289	0.31	0.31	0	74.9	9.8	8.6	0.61	0.61	0.0	0.0	369.1	369.1	4.9	0.0	A
12	Holly Springs - B11	M12	On Ramp	3066	3066	7200	6403	0.48	0.48	0	67.6	16.4	14.6	0.25	0.23	0.0	0.0	217.8	217.8	3.2	0.3	E
13	M12	B13	Basic Segment	3066	3066	7200	6403	0.48	0.48	0	74.8	15.4	13.7	1.16	1.16	0.0	0.0	1106.9	1106.9	14.8	0.0	E
14	Bells Lake - B13	D14	Off Ramp	3066	3066	7200	6403	0.48	0.48	0	69.5	16.5	14.7	0.25	0.23	0.0	0.0	217.8	217.8	3.1	0.2	C
15	Bells Lake - D14	B15	Basic Segment	2470	2470	7200	6276	0.39	0.39	0	74.7	12.6	11.0	0.33	0.33	0.0	0.0	257.3	257.3	3.4	0.0	E
16	Bells Lake - B15	M16	On Ramp	2968	2968	7200	6329	0.47	0.47	0	68.2	16.3	14.3	0.25	0.23	0.0	0.0	210.8	210.8	3.1	0.3	E
17	M16	B17	Basic Segment	2968	2968	7200	6329	0.47	0.47	0	74.8	15.0	13.2	1.41	1.41	0.0	0.0	1303.4	1303.4	17.4	0.0	E
18	US 401 - B17	D18	Off Ramp	2968	2968	7200	6329	0.47	0.47	0	68.1	16.5	14.5	0.25	0.23	0.0	0.0	210.8	210.8	3.1	0.3	E
19	US 401 - D18	B19	Basic Segment	1966	1966	7200	6038	0.33	0.33	0	74.5	10.5	8.8	0.27	0.27	0.0	0.0	162.9	162.9	2.2	0.0	A
20	US 401 - B19	M20	On Ramp	2128	2128	7200	6078	0.35	0.35	0	68.9	12.1	10.2	0.25	0.23	0.0	0.0	151.1	151.1	2.2	0.2	A
21	US 401 - M20	B21	Basic Segment	2128	2128	7200	6078	0.35	0.35	0	73.9	11.4	9.6	0.09	0.09	0.0	0.0	57.9	57.9	0.8	0.0	E
22	US 401 - B21	M22	On Ramp	2748	2748	7200	6189	0.44	0.44	0	68.6	15.2	13.1	0.25	0.23	0.0	0.0	195.2	195.2	2.8	0.2	E
23	M22	B23	Basic Segment	2748	2748	7200	6189	0.44	0.44	0	74.9	14.2	12.2	0.64	0.64	0.0	0.0	546.5	546.5	7.3	0.0	E
24	Old Stage - B23	D24	Off Ramp	2748	2748	7200	6189	0.44	0.44	0	67.4	15.8	13.6	0.25	0.23	0.0	0.0	195.2	195.2	2.9	0.3	C
25	Old Stage - D24	B25	Basic Segment	1652	1652	7200	5752	0.29	0.29	0	74.9	9.2	7.4	0.57	0.57	0.0	0.0	293.3	293.3	3.9	0.0	A
26	Old Stage - B25	M26	On Ramp	1797	1797	7200	5812	0.31	0.31	0	69.3	10.6	8.6	0.25	0.23	0.0	0.0	127.6	127.6	1.8	0.1	E

27	M26	B27	Basic Segment	1797	1797	7200	5812	0.31	0.31	0	75.0	9.9	8.0	2.27	2.27	0.0	0.0	1276.3	1276.3	17.0	0.0	A
28	NC 50 - B27	D28	Off Ramp	1797	1797	7200	5812	0.31	0.31	0	69.1	10.7	8.7	0.25	0.23	0.0	0.0	127.6	127.6	1.8	0.1	A
29	NC 50 - D28	B29	Basic Segment	1281	1281	7200	5443	0.24	0.24	0	74.9	7.5	5.7	0.63	0.63	0.0	0.0	251.7	251.7	3.4	0.0	A
30	NC 50 - B29	M30	On Ramp	2146	2146	7200	5859	0.37	0.37	0	68.3	12.4	10.1	0.25	0.23	0.0	0.0	152.4	152.4	2.2	0.2	B
31	M30	B31	Basic Segment	2146	2146	7200	5859	0.37	0.37	0	74.4	11.8	9.6	0.23	0.23	0.0	0.0	152.4	152.4	2.0	0.0	B
32	I-40 - B31	D32	Off Ramp	2146	2146	7200	5859	0.37	0.37	0	68.6	12.8	10.4	0.25	0.23	0.0	0.0	152.4	152.4	2.2	0.2	A
33	I-40 - D32	B33	Basic Segment	1075	1075	7200	5208	0.21	0.21	0	73.6	6.7	4.9	0.06	0.06	0.0	0.0	19.1	19.1	0.3	0.0	A
34	I-40 - B33	D34	Off Ramp	1075	1075	7200	5208	0.21	0.21	0	67.8	7.3	5.3	0.25	0.23	0.0	0.0	76.3	76.3	1.1	0.1	B
35	I-40 - D34	B35	Basic Segment	478	478	7200	4076	0.12	0.12	0	74.7	3.8	2.1	0.40	0.39	0.0	0.0	58.8	58.8	0.8	0.0	A
36	I-40 - B35	M36	On Ramp	1037	1037	7200	5137	0.20	0.20	0	68.5	6.6	4.7	0.25	0.23	0.0	0.0	73.7	73.7	1.1	0.1	A
37	I-40 - M36	B37	Basic Segment	1037	1037	7200	5137	0.20	0.20	0	74.9	6.5	4.6	0.67	0.67	0.0	0.0	218.5	218.5	2.9	0.0	A
38	I-40 - B37	M38	On Ramp	1697	1697	7200	5623	0.30	0.30	0	68.7	10.1	7.9	0.25	0.23	0.0	0.0	120.5	120.5	1.8	0.1	B
39	M38	B39	Basic Segment	1697	1697	7200	5623	0.30	0.30	0	74.2	9.8	7.6	0.16	0.16	0.0	0.0	82.4	82.4	1.1	0.0	A
40	White Oak - B39	D40	Off Ramp	1697	1697	7200	5623	0.30	0.30	0	68.6	10.6	8.2	0.25	0.23	0.0	0.0	120.5	120.5	1.8	0.2	B
41	White Oak - D40	B41	Basic Segment	1211	1211	7200	5214	0.23	0.23	0	74.6	7.5	5.4	0.28	0.28	0.0	0.0	106.1	106.1	1.4	0.0	A
42	White Oak - B41	M42	On Ramp	1839	1839	7200	5618	0.33	0.33	0	68.6	11.1	8.6	0.25	0.23	0.0	0.0	130.6	130.6	1.9	0.2	A
43	M42	B43	Basic Segment	1839	1839	7200	5618	0.33	0.33	0	74.8	10.5	8.2	0.46	0.45	0.0	0.0	261.2	261.2	3.5	0.0	A
44	US 70 - B43	D44	Off Ramp	1839	1839	7200	5618	0.33	0.33	0	70.1	11.2	8.7	0.24	0.23	0.0	0.0	130.6	130.6	1.9	0.1	B
45	US 70 - D44	B45	Basic Segment	1569	1569	7200	5466	0.29	0.29	0	74.7	9.2	7.0	0.28	0.28	0.0	0.0	135.6	135.6	1.8	0.0	A
46	US 70 - B45	M46	On Ramp	2070	2070	7200	5704	0.36	0.36	0	68.4	12.5	9.9	0.25	0.23	0.0	0.0	147.0	147.0	2.2	0.2	B
47	US 70 - M46	B47	Basic Segment	2070	2070	7200	5704	0.36	0.36	0	73.9	11.8	9.3	0.12	0.12	0.0	0.0	76.0	76.0	1.0	0.0	B
48	US 70 - B47	M48	On Ramp	2891	2891	7200	5934	0.49	0.49	0	67.9	16.8	13.8	0.25	0.23	0.0	0.0	205.3	205.3	3.0	0.3	B
49	M48	B49	Basic Segment	2891	2891	7200	5934	0.49	0.49	0	74.3	15.7	13.0	0.20	0.19	0.0	0.0	174.5	174.5	2.4	0.0	B
50	Rock Quarry - B49	D50	Off Ramp	2891	2891	7200	5934	0.49	0.49	0	62.6	18.7	15.4	0.27	0.23	0.0	0.0	205.3	205.3	3.3	0.5	B
51	Rock Quarry - D50	B51	Basic Segment	2547	2547	7200	5816	0.44	0.44	0	74.2	14.2	11.4	0.28	0.28	0.0	0.0	220.1	220.1	3.0	0.0	B
52	Rock Quarry - B51	M52	On Ramp	3318	3318	7200	5982	0.55	0.55	0	67.5	19.3	16.0	0.25	0.23	0.0	0.0	235.7	235.7	3.5	0.3	C
53	M52	B53	Basic Segment	3318	3318	7200	5982	0.55	0.55	0	73.8	18.0	15.0	1.32	1.30	0.0	0.0	1343.2	1343.2	18.2	0.3	B
54	Auburn Knight - B53	D54	Off Ramp	3318	3318	7200	5982	0.55	0.55	0	63.8	20.9	17.3	0.27	0.23	0.0	0.0	235.7	235.7	3.7	0.5	C
55	Auburn Knight - D54	B55	Basic Segment	3037	3037	7200	5910	0.51	0.51	0	74.1	16.6	13.7	0.24	0.24	0.0	0.0	226.5	226.5	3.1	0.0	B
56	Auburn Knight - B55	M56	On Ramp	3408	3408	7200	5978	0.57	0.57	0	67.6	20.0	16.6	0.25	0.23	0.0	0.0	242.0	242.0	3.6	0.4	B
57	M56	B57	Basic Segment	3408	3408	7200	5978	0.57	0.57	0	73.5	18.6	15.5	0.34	0.33	0.0	0.0	355.0	355.0	4.8	0.1	C
58	Poole - B57	D58	Off Ramp	3408	3408	7200	5978	0.57	0.57	0	70.9	19.3	16.0	0.24	0.23	0.0	0.0	242.0	242.0	3.4	0.2	C
59	Poole - B59	B59	Basic Segment	3224	3224	7200	5929	0.54	0.54	0	74.0	17.6	14.5	0.58	0.58	0.0	0.0	580.1	580.1	7.8	0.1	B
60	B59	W60	Weaving	4815	4815	6998	5965	0.81	0.81	0	55.7	25.4	21.6	0.34	0.25	0.1	0.1	376.2	376.2	6.8	1.7	C
61	I-495 - W60	D61	Off Ramp	4197	4197	7200	6085	0.69	0.69	0	59.9	27.6	23.3	0.28	0.23	0.1	0.1	298.1	298.1	5.0	1.0	D
62	I-495 - D61	B62	Basic Segment	3036	3036	7200	5935	0.51	0.51	0	74.4	16.5	13.6	0.54	0.54	0.0	0.0	510.3	510.3	6.9	0.1	B
63	I-495 - B62	M63	On Ramp	6700	6700	9600	8378	0.80	0.80	0	47.1	38.6	33.7	0.36	0.23	0.1	0.1	475.9	475.9	10.1	3.8	E
64	M63	B64	Basic Segment	6700	6700	9600	8378	0.80	0.80	0	65.6	29.2	25.5	0.41	0.36	0.1	0.1	745.5	745.5	11.4	1.4	D
65	US 64 Bus - B64	D65	Off Ramp	6700	6700	9600	8378	0.80	0.80	0	68.7	27.9	24.4	0.25	0.23	0.0	0.0	475.9	475.9	6.9	0.6	B
66	US 64 Bus - D65	B66	Basic Segment	5023	5023	9600	8139	0.62	0.62	0	72.4	20.4	17.3	0.67	0.64	0.0	0.0	1010.8	1010.8	14.0	0.5	C
67	US 64 Bus - B66	M67	On Ramp	7185	7185	9600	8395	0.86	0.86	0	65.9	30.6	26.8	0.26	0.23	0.0	0.0	510.3	510.3	7.7	0.9	E
68	M67	End NC 540 EB	Basic Segment	7185	7185	9600	8395	0.86	0.86	0	62.7	32.8	28.6	0.96	0.80	0.2	0.2	1796.3	1796.3	28.6	4.7	D

Time Period 4

													Avg.	Free-Flow			VMT	VMT			

Seg #	From	To	Type	Adj. Demand	Vol. Served	Capacity (pc/h)	Capacity (veh/h)	d/c Ratio	v/c ratio	Queue Length (ft)	Avg. Speed (mi/h)	Density (pc/mi/ln)	Density (veh/mi/ln)	Travel Time (min/veh)	Travel Time (min/veh)	Mainline Delay (min/veh)	System Delay (min/veh)	Demand (veh-min)	Volume (veh-min)	VHT (veh-hrs)	VHD (veh-hrs)	LC
1	Begin NC 540 EB	B1	Basic Segment	3693	3693	9600	8807	0.42	0.42	0	75.0	13.4	12.3	0.80	0.80	0.0	0.0	923.3	923.3	12.3	0.0	E
2	OHSARI - B1	D2	Off Ramp	3693	3693	9600	8807	0.42	0.42	0	61.0	16.5	15.1	0.28	0.23	0.1	0.1	262.3	262.3	4.3	0.8	C
3	OHSARI-D2	B3	Basic Segment	2145	2145	7200	6414	0.33	0.33	0	73.8	10.9	9.7	0.24	0.24	0.0	0.0	160.0	160.0	2.2	0.0	A
4	B3	W4	Weaving	2766	2766	5648	5065	0.55	0.55	0	62.8	12.3	11.0	0.60	0.50	0.1	0.1	435.5	435.5	6.9	1.1	E
5	NC 55 BYP - W4	B5	Basic Segment	1710	1710	7200	6368	0.27	0.27	0	74.3	8.7	7.7	0.03	0.03	0.0	0.0	14.2	14.2	0.2	0.0	A
6	NC 55 BYP- B5	D6	Off Ramp	1710	1710	7200	6368	0.27	0.27	0	59.0	10.9	9.7	0.29	0.23	0.1	0.1	121.4	121.4	2.1	0.4	E
7	NC 55 BYP - D6	B7	Basic Segment	1313	1313	7200	6299	0.21	0.21	0	73.8	6.8	5.9	0.26	0.25	0.0	0.0	104.1	104.1	1.4	0.0	A
8	NC 55 BYP - B7	M8	On Ramp	2156	2156	7200	6415	0.34	0.34	0	68.7	11.3	10.1	0.25	0.23	0.0	0.0	153.1	153.1	2.2	0.2	E
9	M8	B9	Basic Segment	2156	2156	7200	6415	0.34	0.34	0	75.0	10.8	9.6	1.33	1.33	0.0	0.0	898.3	898.3	12.0	0.0	A
10	Holly Springs - B9	D10	Off Ramp	2156	2156	7200	6415	0.34	0.34	0	69.6	11.6	10.3	0.24	0.23	0.0	0.0	153.1	153.1	2.2	0.2	E
11	Holly Springs - D10	B11	Basic Segment	1731	1731	7200	6288	0.28	0.28	0	74.9	8.8	7.7	0.61	0.61	0.0	0.0	331.9	331.9	4.4	0.0	A
12	Holly Springs - B11	M12	On Ramp	2759	2759	7200	6403	0.43	0.43	0	68.0	14.7	13.1	0.25	0.23	0.0	0.0	196.0	196.0	2.9	0.3	E
13	M12	B13	Basic Segment	2759	2759	7200	6403	0.43	0.43	0	75.0	13.8	12.3	1.16	1.16	0.0	0.0	996.1	996.1	13.3	0.0	E
14	Bells Lake - B13	D14	Off Ramp	2759	2759	7200	6403	0.43	0.43	0	69.6	14.9	13.2	0.24	0.23	0.0	0.0	196.0	196.0	2.8	0.2	C
15	Bells Lake - D14	B15	Basic Segment	2222	2222	7200	6275	0.35	0.35	0	74.7	11.4	9.9	0.33	0.33	0.0	0.0	231.5	231.5	3.1	0.0	E
16	Bells Lake - B15	M16	On Ramp	2671	2671	7200	6329	0.42	0.42	0	68.5	14.6	12.8	0.25	0.23	0.0	0.0	189.7	189.7	2.8	0.2	E
17	M16	B17	Basic Segment	2671	2671	7200	6329	0.42	0.42	0	75.0	13.5	11.9	1.41	1.41	0.0	0.0	1173.0	1173.0	15.6	0.0	E
18	US 401 - B17	D18	Off Ramp	2671	2671	7200	6329	0.42	0.42	0	68.2	14.9	13.1	0.25	0.23	0.0	0.0	189.7	189.7	2.8	0.3	E
19	US 401 - D18	B19	Basic Segment	1768	1768	7200	6037	0.29	0.29	0	74.5	9.4	7.9	0.27	0.27	0.0	0.0	146.5	146.5	2.0	0.0	A
20	US 401 - B19	M20	On Ramp	1914	1914	7200	6077	0.31	0.31	0	69.1	10.9	9.2	0.25	0.23	0.0	0.0	135.9	135.9	2.0	0.2	A
21	US 401 - M20	B21	Basic Segment	1914	1914	7200	6077	0.31	0.31	0	73.9	10.2	8.6	0.09	0.09	0.0	0.0	52.1	52.1	0.7	0.0	A
22	US 401 - B21	M22	On Ramp	2473	2473	7200	6189	0.40	0.40	0	68.8	13.6	11.7	0.25	0.23	0.0	0.0	175.6	175.6	2.6	0.2	E
23	M22	B23	Basic Segment	2473	2473	7200	6189	0.40	0.40	0	74.9	12.8	11.0	0.64	0.64	0.0	0.0	491.8	491.8	6.6	0.0	E
24	Old Stage - B23	D24	Off Ramp	2473	2473	7200	6189	0.40	0.40	0	67.6	14.2	12.2	0.25	0.23	0.0	0.0	175.6	175.6	2.6	0.3	C
25	Old Stage - D24	B25	Basic Segment	1486	1486	7200	5751	0.26	0.26	0	74.9	8.3	6.6	0.57	0.57	0.0	0.0	263.8	263.8	3.5	0.0	A
26	Old Stage - B25	M26	On Ramp	1617	1617	7200	5812	0.28	0.28	0	69.4	9.5	7.7	0.25	0.23	0.0	0.0	114.8	114.8	1.7	0.1	A
27	M26	B27	Basic Segment	1617	1617	7200	5812	0.28	0.28	0	75.0	8.9	7.2	2.27	2.27	0.0	0.0	1148.4	1148.4	15.3	0.0	A
28	NC 50 - B27	D28	Off Ramp	1617	1617	7200	5812	0.28	0.28	0	69.2	9.7	7.8	0.25	0.23	0.0	0.0	114.8	114.8	1.7	0.1	A
29	NC 50 - D28	B29	Basic Segment	1152	1152	7200	5441	0.21	0.21	0	74.9	6.8	5.1	0.63	0.63	0.0	0.0	226.4	226.4	3.0	0.0	A
30	NC 50 - B29	M30	On Ramp	1931	1931	7200	5858	0.33	0.33	0	68.5	11.1	9.0	0.25	0.23	0.0	0.0	137.1	137.1	2.0	0.2	E
31	M30	B31	Basic Segment	1931	1931	7200	5858	0.33	0.33	0	74.4	10.6	8.6	0.23	0.23	0.0	0.0	137.1	137.1	1.8	0.0	A
32	I-40 - B31	D32	Off Ramp	1931	1931	7200	5858	0.33	0.33	0	68.9	11.5	9.3	0.25	0.23	0.0	0.0	137.1	137.1	2.0	0.2	A
33	I-40 - D32	B33	Basic Segment	966	966	7200	5206	0.19	0.19	0	73.7	6.0	4.4	0.06	0.06	0.0	0.0	17.2	17.2	0.2	0.0	A
34	I-40 - B33	D34	Off Ramp	966	966	7200	5206	0.19	0.19	0	67.9	6.6	4.7	0.25	0.23	0.0	0.0	68.6	68.6	1.0	0.1	E
35	I-40 - D34	B35	Basic Segment	428	428	7200	4067	0.11	0.11	0	74.7	3.4	1.9	0.40	0.39	0.0	0.0	52.7	52.7	0.7	0.0	A
36	I-40 - B35	M36	On Ramp	932	932	7200	5134	0.18	0.18	0	68.6	6.0	4.3	0.25	0.23	0.0	0.0	66.2	66.2	1.0	0.1	A
37	I-40 - M36	B37	Basic Segment	932	932	7200	5134	0.18	0.18	0	74.9	5.8	4.1	0.67	0.67	0.0	0.0	196.4	196.4	2.6	0.0	A
38	I-40 - B37	M38	On Ramp	1527	1527	7200	5622	0.27	0.27	0	68.8	9.1	7.1	0.25	0.23	0.0	0.0	108.5	108.5	1.6	0.1	E
39	M38	B39	Basic Segment	1527	1527	7200	5622	0.27	0.27	0	74.2	8.8	6.9	0.16	0.16	0.0	0.0	74.1	74.1	1.0	0.0	A
40	White Oak - B39	D40	Off Ramp	1527	1527	7200	5622	0.27	0.27	0	68.7	9.5	7.4	0.25	0.23	0.0	0.0	108.5	108.5	1.6	0.1	E
41	White Oak - D40	B41	Basic Segment	1089	1089	7200	5212	0.21	0.21	0	74.6	6.7	4.9	0.28	0.28	0.0	0.0	95.4	95.4	1.3	0.0	A
42	White Oak - B41	M42	On Ramp	1655	1655	7200	5617	0.29	0.29	0	68.8	9.9	7.8	0.25	0.23	0.0	0.0	117.5	117.5	1.7	0.1	A
43	M42	B43	Basic Segment	1655	1655	7200	5617	0.29	0.29	0	74.8	9.4	7.4	0.46	0.45	0.0	0.0	235.1	235.1	3.1	0.0	A

44	US 70 - B43	D44	Off Ramp	1655	1655	7200	5617	0.29	0.29	0	70.1	10.1	7.9	0.24	0.23	0.0	0.0	117.5	117.5	1.7	0.1	A
45	US 70 - D44	B45	Basic Segment	1412	1412	7200	5465	0.26	0.26	0	74.7	8.3	6.3	0.28	0.28	0.0	0.0	122.0	122.0	1.6	0.0	A
46	US 70 - B45	M46	On Ramp	1863	1863	7200	5703	0.33	0.33	0	68.6	11.2	8.9	0.25	0.23	0.0	0.0	132.3	132.3	1.9	0.2	A
47	US 70 - M46	B47	Basic Segment	1863	1863	7200	5703	0.33	0.33	0	74.0	10.6	8.4	0.12	0.12	0.0	0.0	68.4	68.4	0.9	0.0	A
48	US 70 - B47	M48	On Ramp	2603	2603	7200	5934	0.44	0.44	0	68.2	15.0	12.4	0.25	0.23	0.0	0.0	184.9	184.9	2.7	0.2	B
49	M48	B49	Basic Segment	2603	2603	7200	5934	0.44	0.44	0	74.3	14.2	11.7	0.20	0.19	0.0	0.0	157.1	157.1	2.1	0.0	B
50	Rock Quarry - B49	D50	Off Ramp	2603	2603	7200	5934	0.44	0.44	0	62.7	16.8	13.8	0.27	0.23	0.0	0.0	184.9	184.9	2.9	0.5	B
51	Rock Quarry - D50	B51	Basic Segment	2293	2293	7200	5815	0.39	0.39	0	74.2	12.8	10.3	0.28	0.28	0.0	0.0	198.1	198.1	2.7	0.0	B
52	Rock Quarry - B51	M52	On Ramp	2988	2988	7200	5982	0.50	0.50	0	67.9	17.3	14.3	0.25	0.23	0.0	0.0	212.2	212.2	3.1	0.3	B
53	M52	B53	Basic Segment	2988	2988	7200	5982	0.50	0.50	0	74.6	16.1	13.4	1.30	1.30	0.0	0.0	1209.6	1209.6	16.2	0.1	B
54	Auburn Knight - B53	D54	Off Ramp	2988	2988	7200	5982	0.50	0.50	0	63.8	18.8	15.6	0.27	0.23	0.0	0.0	212.2	212.2	3.3	0.5	B
55	Auburn Knight - D54	B55	Basic Segment	2735	2735	7200	5909	0.46	0.46	0	74.1	15.0	12.3	0.24	0.24	0.0	0.0	204.0	204.0	2.8	0.0	B
56	Auburn Knight - B55	M56	On Ramp	3069	3069	7200	5978	0.51	0.51	0	68.1	17.9	14.9	0.25	0.23	0.0	0.0	218.0	218.0	3.2	0.3	B
57	M56	B57	Basic Segment	3069	3069	7200	5978	0.51	0.51	0	74.4	16.6	13.7	0.34	0.33	0.0	0.0	319.7	319.7	4.3	0.0	B
58	Poole - B57	D58	Off Ramp	3069	3069	7200	5978	0.51	0.51	0	71.0	17.4	14.4	0.24	0.23	0.0	0.0	218.0	218.0	3.1	0.2	C
59	Poole - B59	B59	Basic Segment	2903	2903	7200	5929	0.49	0.49	0	74.7	15.7	13.0	0.58	0.58	0.0	0.0	522.3	522.3	7.0	0.0	B
60	B59	W60	Weaving	4494	4494	6516	5568	0.81	0.81	0	56.2	23.4	20.0	0.33	0.25	0.1	0.1	351.1	351.1	6.2	1.6	C
61	I-495 - W60	D61	Off Ramp	3876	3876	7200	6098	0.64	0.64	0	60.4	25.2	21.4	0.28	0.23	0.1	0.1	275.3	275.3	4.6	0.9	D
62	I-495 - D61	B62	Basic Segment	2830	2830	7200	5956	0.48	0.48	0	74.8	15.3	12.6	0.54	0.54	0.0	0.0	475.7	475.7	6.4	0.0	B
63	I-495 - B62	M63	On Ramp	6131	6131	9600	8386	0.73	0.73	0	56.2	29.6	25.9	0.30	0.23	0.1	0.1	435.4	435.4	7.8	1.9	B
64	M63	B64	Basic Segment	6131	6131	9600	8386	0.73	0.73	0	68.7	25.5	22.3	0.39	0.36	0.0	0.0	682.2	682.2	9.9	0.8	C
65	US 64 Bus - B64	D65	Off Ramp	6131	6131	9600	8386	0.73	0.73	0	69.3	25.3	22.1	0.25	0.23	0.0	0.0	435.4	435.4	6.3	0.5	B
66	US 64 Bus - D65	B66	Basic Segment	4620	4620	9600	8153	0.57	0.57	0	73.6	18.5	15.7	0.66	0.64	0.0	0.0	929.7	929.7	12.6	0.2	C
67	US 64 Bus - B66	M67	On Ramp	6568	6568	9600	8402	0.78	0.78	0	66.2	27.8	24.4	0.26	0.23	0.0	0.0	466.5	466.5	7.1	0.8	B
68	M67	End NC 540 EB	Basic Segment	6568	6568	9600	8402	0.78	0.78	0	66.5	28.2	24.7	0.90	0.80	0.1	0.1	1642.0	1642.0	24.7	2.8	D

Overall Results

Segment	Segment Type	Maximum d/c Ratio	Avg. Speed (mi/h)	Density (pc/mi/ln)	Density (veh/mi/ln)	Avg. Travel Time (min/veh)	Free-Flow Travel Time (min/veh)	VMT Demand (veh-min)	VMT Volume (veh-min)	VHT (veh-hrs)	VHD (veh-hrs)
Begin NC 540 EB-B1	Basic	0.47	75.0	13.4	12.3	0.80	0.80	3,693.0	3,693.0	49.27	0.03
OHSARI - B1-D2	OffRamp	0.47	61.0	16.5	15.1	0.28	0.23	1,049.1	1,049.1	17.20	3.21
OHSARI-D2-B3	Basic	0.37	73.8	10.9	9.7	0.24	0.24	0,639.8	0,639.8	8.67	0.13
B3-W4	Weaving	0.61	62.8	12.3	11.0	0.60	0.50	1,741.8	1,741.8	27.75	4.52
NC 55 BYP - W4-B5	Basic	0.30	74.3	8.7	7.7	0.03	0.03	0,056.7	0,056.7	0.76	0.01
NC 55 BYP- B5-D6	OffRamp	0.30	59.0	10.9	9.7	0.29	0.23	0,485.8	0,485.8	8.23	1.76
NC 55 BYP - D6-B7	Basic	0.23	73.8	6.8	5.9	0.26	0.25	0,416.5	0,416.5	5.65	0.09
NC 55 BYP - B7-M8	OnRamp	0.37	68.7	11.3	10.1	0.25	0.23	0,612.5	0,612.5	8.92	0.75
M8-B9	Basic	0.37	75.0	10.8	9.6	1.33	1.33	3,593.3	3,593.3	47.91	0.00
Holly Springs - B9-D10	OffRamp	0.37	69.6	11.6	10.3	0.24	0.23	0,612.5	0,612.5	8.80	0.63
Holly Springs - D10-B11	Basic	0.31	74.9	8.8	7.7	0.61	0.61	1,327.8	1,327.8	17.72	0.01
Holly Springs - B11-M12	OnRamp	0.48	67.9	14.7	13.1	0.25	0.23	0,783.8	0,783.8	11.54	1.09
M12-B13	Basic	0.48	74.9	13.8	12.3	1.16	1.16	3,984.4	3,984.4	53.18	0.05
Bells Lake - B13-D14	OffRamp	0.48	69.6	14.9	13.2	0.24	0.23	0,783.8	0,783.8	11.26	0.81
Bells											

Lake - D14-B15	Basic	0.39	74.7	11.4	9.9	0.33	0.33	0,925.8	0,925.8	12.39	0.04
Bells Lake - B15-M16	OnRamp	0.47	68.4	14.6	12.8	0.25	0.23	0,758.8	0,758.8	11.09	0.97
M16-B17	Basic	0.47	75.0	13.5	11.9	1.41	1.41	4,692.0	4,692.0	62.60	0.04
US 401 - B17-D18	OffRamp	0.47	68.2	14.9	13.1	0.25	0.23	0,758.8	0,758.8	11.13	1.01
US 401 - D18-B19	Basic	0.33	74.5	9.4	7.9	0.27	0.27	0,586.0	0,586.0	7.86	0.05
US 401 - B19-M20	OnRamp	0.35	69.1	10.9	9.2	0.25	0.23	0,543.8	0,543.8	7.87	0.62
US 401 - M20-B21	Basic	0.35	73.9	10.2	8.6	0.09	0.09	0,208.4	0,208.4	2.82	0.04
US 401 - B21-M22	OnRamp	0.44	68.8	13.6	11.7	0.25	0.23	0,702.6	0,702.6	10.21	0.84
M22-B23	Basic	0.44	74.9	12.8	11.0	0.64	0.64	1,967.2	1,967.2	26.25	0.02
Old Stage - B23-D24	OffRamp	0.44	67.6	14.2	12.2	0.25	0.23	0,702.6	0,702.6	10.40	1.03
Old Stage - D24-B25	Basic	0.29	74.9	8.3	6.6	0.57	0.57	1,055.4	1,055.4	14.09	0.02
Old Stage - B25-M26	OnRamp	0.31	69.4	9.5	7.7	0.25	0.23	0,459.4	0,459.4	6.62	0.49
M26-B27	Basic	0.31	75.0	8.9	7.2	2.27	2.27	4,593.8	4,593.8	61.25	0.00
NC 50 - B27-D28	OffRamp	0.31	69.2	9.7	7.8	0.25	0.23	0,459.4	0,459.4	6.64	0.52
NC 50 - D28-B29	Basic	0.24	74.9	6.8	5.1	0.63	0.63	0,905.5	0,905.5	12.08	0.01
NC 50 - B29-M30	OnRamp	0.37	68.5	11.1	9.0	0.25	0.23	0,548.6	0,548.6	8.01	0.70
M30-B31	Basic	0.37	74.4	10.6	8.6	0.23	0.23	0,548.6	0,548.6	7.37	0.06
I-40 - B31-D32	OffRamp	0.37	68.9	11.5	9.3	0.25	0.23	0,548.6	0,548.6	7.96	0.65
I-40 - D32-B33	Basic	0.21	73.7	6.0	4.4	0.06	0.06	0,068.6	0,068.6	0.93	0.02
I-40 - B33-D34	OffRamp	0.21	67.9	6.6	4.7	0.25	0.23	0,274.4	0,274.4	4.04	0.38
I-40 - D34-B35	Basic	0.12	74.7	3.4	1.9	0.40	0.39	0,210.8	0,210.8	2.82	0.01
I-40 - B35-M36	OnRamp	0.20	68.6	6.0	4.3	0.25	0.23	0,264.8	0,264.8	3.86	0.33
I-40 - M36-B37	Basic	0.20	74.9	5.8	4.1	0.67	0.67	0,785.5	0,785.5	10.48	0.01
I-40 - B37-M38	OnRamp	0.30	68.8	9.1	7.1	0.25	0.23	0,433.8	0,433.8	6.31	0.52
M38-B39	Basic	0.30	74.2	8.8	6.9	0.16	0.16	0,296.4	0,296.4	4.00	0.04
White Oak - B39-D40	OffRamp	0.30	68.7	9.5	7.4	0.25	0.23	0,433.8	0,433.8	6.31	0.53
White Oak - D40-B41	Basic	0.23	74.6	6.7	4.9	0.28	0.28	0,381.6	0,381.6	5.12	0.03
White Oak - B41-M42	OnRamp	0.33	68.7	9.9	7.8	0.25	0.23	0,470.2	0,470.2	6.84	0.57
M42-B43	Basic	0.33	74.8	9.4	7.4	0.46	0.45	0,940.3	0,940.3	12.57	0.03
US 70 - B43-D44	OffRamp	0.33	70.1	10.1	7.9	0.24	0.23	0,470.2	0,470.2	6.71	0.44
US 70 - D44-B45	Basic	0.29	74.7	8.3	6.3	0.28	0.28	0,488.0	0,488.0	6.54	0.03
US 70 - B45-M46	OnRamp	0.36	68.6	11.2	8.9	0.25	0.23	0,529.3	0,529.3	7.72	0.66
US 70 - M46-B47	Basic	0.36	74.0	10.6	8.4	0.12	0.12	0,273.5	0,273.5	3.70	0.05
US 70 - B47-M48	OnRamp	0.49	68.2	15.0	12.4	0.25	0.23	0,739.5	0,739.5	10.84	0.98
M48-B49	Basic	0.49	74.3	14.2	11.7	0.20	0.19	0,628.6	0,628.6	8.46	0.08
Rock Quarry - B49-D50	OffRamp	0.49	62.7	16.8	13.8	0.27	0.23	0,739.5	0,739.5	11.80	1.94
Rock Quarry - D50-B51	Basic	0.44	74.2	12.8	10.3	0.28	0.28	0,792.6	0,792.6	10.69	0.12
Rock Quarry - B51-M52	OnRamp	0.55	67.9	17.3	14.4	0.25	0.23	0,848.9	0,848.9	12.50	1.18
M52-B53	Basic	0.55	74.4	16.1	13.4	1.31	1.30	4,838.5	4,838.5	65.01	0.49
Auburn Knight - B53-D54	OffRamp	0.55	63.8	18.8	15.6	0.27	0.23	0,848.9	0,848.9	13.30	1.98
Auburn Knight - D54-B55	Basic	0.51	74.1	15.0	12.3	0.24	0.24	0,815.8	0,815.8	11.01	0.14
Auburn Knight - B55-M56	OnRamp	0.57	68.0	17.9	14.9	0.25	0.23	0,871.9	0,871.9	12.82	1.19
M56-B57	Basic	0.57	74.2	16.6	13.8	0.34	0.33	1,278.8	1,278.8	17.23	0.18
Poole - B57-D58	OffRamp	0.57	70.9	17.4	14.4	0.24	0.23	0,871.9	0,871.9	12.29	0.66
Poole - B59-B59	Basic	0.54	74.5	15.8	13.0	0.58	0.58	2,089.3	2,089.3	28.03	0.18
B59-W60	Weaving	0.81	56.2	23.4	20.0	0.33	0.25	1,404.4	1,404.4	25.01	6.28
I-495 - W60-D61	OffRamp	0.69	60.4	25.3	21.4	0.28	0.23	1,101.1	1,101.1	18.23	3.55
I-495 - D61-B62	Basic	0.51	74.7	15.3	12.6	0.54	0.54	1,902.7	1,902.7	25.48	0.11

I-495 - B62-M63	OnRamp	0.80	54.4	30.6	26.7	0.31	0.23	1,741.8	1,741.8	32.04	8.81
M63-B64	Basic	0.80	68.4	25.7	22.4	0.39	0.36	2,728.8	2,728.8	39.92	3.53
US 64 Bus - B64-D65	OffRamp	0.80	69.2	25.3	22.1	0.25	0.23	1,741.8	1,741.8	25.16	1.94
US 64 Bus - D65-B66	Basic	0.62	73.4	18.5	15.7	0.66	0.64	3,718.8	3,718.8	50.64	1.06
US 64 Bus - B66-M67	OnRamp	0.86	66.0	27.9	24.4	0.26	0.23	1,865.9	1,865.9	28.29	3.41
M67-End NC 540 EB	Basic	0.86	66.1	28.4	24.9	0.91	0.80	6,568.0	6,568.0	99.41	11.83
Freeway			70.4	13.5	11.5	27.81	26.53	85,204.1	85,204.1	1,209.6	0,073.5

	Density-Based LOS by Segment														
Segment	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Time Step	Basic	Off Ramp	Basic	Weaving	Basic	Off Ramp	Basic	On Ramp	Basic	Off Ramp	Basic	On Ramp	Basic	Off Ramp	Basic
1	B	B	A	B	A	A	A	B	A	A	A	B	B	B	A
2	B	C	A	B	A	B	A	B	A	B	A	B	B	C	B
3	B	C	B	B	A	B	A	B	B	B	A	B	B	C	B
4	B	C	A	B	A	B	A	B	A	B	A	B	B	C	B

	Density-Based LOS by Segment														
Segment	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Time Step	On Ramp	Basic	Off Ramp	Basic	On Ramp	Basic	On Ramp	Basic	Off Ramp	Basic	On Ramp	Basic	Off Ramp	Basic	On Ramp
1	A	B	B	A	A	A	B	B	B	A	A	A	A	A	B
2	B	B	B	A	A	A	B	B	C	A	A	A	A	A	B
3	B	B	B	A	A	B	B	B	C	A	B	A	A	A	B
4	B	B	B	A	A	A	B	B	C	A	A	A	A	A	B

	Density-Based LOS by Segment														
Segment	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45
Time Step	Basic	Off Ramp	Basic	Off Ramp	Basic	On Ramp	Basic	On Ramp	Basic	Off Ramp	Basic	On Ramp	Basic	Off Ramp	Basic
1	A	A	A	B	A	A	A	A	A	B	A	A	A	A	A
2	A	A	A	B	A	A	A	B	A	B	A	A	A	A	A
3	B	A	A	B	A	A	A	B	A	B	A	A	A	B	A
4	A	A	A	B	A	A	A	B	A	B	A	A	A	A	A

	Density-Based LOS by Segment														
Segment	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
Time Step	On Ramp	Basic	On Ramp	Basic	Off Ramp	Basic	On Ramp	Basic	Off Ramp	Basic	On Ramp	Basic	Off Ramp	Basic	Weaving
1	A	A	B	B	A	B	B	B	B	B	B	B	C	B	C
2	A	A	B	B	B	B	B	B	B	B	B	B	C	B	C
3	B	B	B	B	B	B	C	B	C	B	B	C	C	B	C
4	A	A	B	B	B	B	B	B	B	B	B	B	C	B	C

	Density-Based LOS by Segment							
Segment	61	62	63	64	65	66	67	68
Time Step	Off Ramp	Basic	On Ramp	Basic	Off Ramp	Basic	On Ramp	Basic
1	C	B	D	C	D	B	D	C
2	D	B	E	C	E	C	B	D
3	D	B	E	D	E	C	B	D
4	D	B	E	C	E	C	B	D

	Demand-Based LOS by Segment														
Time Step	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
3	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
4	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

	Demand-Based LOS by Segment														
Time Step	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
3	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
4	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

	Demand-Based LOS by Segment														
Time Step	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45
1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
3	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
4	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

	Demand-Based LOS by Segment														
Time Step	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
3	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
4	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

	Demand-Based LOS by Segment							
Time Step	61	62	63	64	65	66	67	68
1	.	.	.	.	.	.	.	.
2	.	.	.	.	.	.	.	.
3	.	.	.	.	.	.	.	.
4	.	.	.	.	.	.	.	.

HCS 2010 Freeway Facilities

Project Properties

Analyst	HNTB	**Freeway Name**	Complete 540 – 2040 Build EB PM	**Analysis Period**	PM Peak
Analysis Date	9/8/2014 10:24:18 AM	**From**	Old Holly Springs-Apex	**Version Date**	1/20/16
Agency	HNTB	**To**	US 64 Business		
Location	Complete 540	**Analysis Direction**	Eastbound/Northbound		
User Notes					
File Name	C:\Temp\preview.xml				

Facility-wide Values

Jam Density (pc/h/ln)	190	**Time Period Duration (min)**	15	**Facility Length (mi)**	**33.16500**

Segment Input Data

Time Period 1

Mainline Data

Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin NC 540 EB	B1	Basic Segment	5280	Rolling	5996	6.00	0.00	4	75
2	OHSARI - B1	D2	Off Ramp	1500	Rolling	5996	6.00	0.00	4	75
3	OHSARI-D2	B3	Basic Segment	1575	Rolling	3856	7.66	0.00	3	75
4	B3	W4	Weaving	3325	Rolling	4642	7.38	0.00	4	75
5	NC 55 BYP - W4	B5	Basic Segment	175	Rolling	2678	8.40	0.00	3	75
6	NC 55 BYP- B5	D6	Off Ramp	1500	Rolling	2678	8.40	0.00	3	75
7	NC 55 BYP - D6	B7	Basic Segment	1675	Rolling	2262	8.84	0.00	3	75
8	NC 55 BYP - B7	M8	On Ramp	1500	Rolling	3274	7.96	0.00	3	75
9	M8	B9	Basic Segment	8800	Rolling	3274	7.96	0.00	3	75
10	Holly Springs - B9	D10	Off Ramp	1500	Rolling	3274	7.96	0.00	3	75
11	Holly Springs - D10	B11	Basic Segment	4050	Rolling	2598	9.51	0.00	3	75
12	Holly Springs - B11	M12	On Ramp	1500	Rolling	3806	8.40	0.00	3	75
13	M12	B13	Basic Segment	7625	Rolling	3806	8.40	0.00	3	75
14	Bells Lake - B13	D14	Off Ramp	1500	Rolling	3806	8.40	0.00	3	75
15	Bells Lake - D14	B15	Basic Segment	2200	Rolling	3063	9.95	0.00	3	75
16	Bells Lake - B15	M16	On Ramp	1500	Rolling	3690	9.28	0.00	3	75
17	M16	B17	Basic Segment	9275	Rolling	3690	9.28	0.00	3	75
18	US 401 - B17	D18	Off Ramp	1500	Rolling	3690	9.28	0.00	3	75
19	US 401 - D18	B19	Basic Segment	1750	Rolling	2503	12.73	0.00	3	75
20	US 401 - B19	M20	On Ramp	1500	Rolling	2754	12.12	0.00	3	75
21	US 401 - M20	B21	Basic Segment	575	Rolling	2754	12.12	0.00	3	75
22	US 401 - B21	M22	On Ramp	1500	Rolling	3323	11.07	0.00	3	75
23	M22	B23	Basic Segment	4200	Rolling	3323	11.07	0.00	3	75
24	Old Stage - B23	D24	Off Ramp	1500	Rolling	3323	11.07	0.00	3	75
25	Old Stage - D24	B25	Basic Segment	3750	Rolling	2025	16.88	0.00	3	75
26	Old Stage - B25	M26	On Ramp	1500	Rolling	2183	16.09	0.00	3	75
27	M26	B27	Basic Segment	15000	Rolling	2183	16.09	0.00	3	75
28	NC 50 - B27	D28	Off Ramp	1500	Rolling	2183	16.09	0.00	3	75
29	NC 50 - D28	B29	Basic Segment	4150	Rolling	1351	24.77	0.00	3	75
30	NC 50 - B29	M30	On Ramp	1500	Rolling	2207	17.49	0.00	3	75

RampData

Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	Off Ramp	2140	3.00	0.00	1	525	30
6	Off Ramp	416	6.00	0.00	1	925	30
8	On Ramp	1012	6.00	0.00	1	1000	50
10	Off Ramp	676	2.00	0.00	1	900	50
12	On Ramp	1208	6.00	0.00	1	900	50
14	Off Ramp	743	2.00	0.00	1	225	50
16	On Ramp	627	6.00	0.00	1	1500	30
18	Off Ramp	1187	2.00	0.00	1	900	50
20	On Ramp	251	6.00	0.00	1	1500	30
22	On Ramp	569	6.00	0.00	1	1025	50
24	Off Ramp	1298	2.00	0.00	1	300	50
26	On Ramp	158	6.00	0.00	1	900	50
28	Off Ramp	832	2.00	0.00	1	1025	50
30	On Ramp	856	6.00	0.00	1	900	50
32	Off Ramp	1135	5.00	0.00	2	1500	50
34	Off Ramp	859	5.00	0.00	1	225	50
36	On Ramp	651	6.00	0.00	1	1500	30
38	On Ramp	465	6.00	0.00	1	900	50
40	Off Ramp	333	2.00	0.00	1	300	50
42	On Ramp	535	6.00	0.00	1	1500	30
44	Off Ramp	424	5.00	0.00	1	900	50
46	On Ramp	279	6.00	0.00	1	1400	30
48	On Ramp	336	6.00	0.00	1	900	50
50	Off Ramp	206	2.00	0.00	1	1500	30
52	On Ramp	501	6.00	0.00	1	900	50
54	Off Ramp	215	3.00	0.00	1	775	30
56	On Ramp	291	6.00	0.00	1	900	50
58	Off Ramp	110	2.00	0.00	1	175	50
61	Off Ramp	559	7.00	0.00	1	525	30
63	On Ramp	2577	6.00	0.00	1	950	50
65	Off Ramp	1109	3.00	0.00	1	200	50
67	On Ramp	1439	4.00	0.00	1	875	50

31	M30	B31	Basic Segment	1500	Rolling	2207	17.49	0.00	3	75
32	I-40 - B31	D32	Off Ramp	1500	Rolling	2207	17.49	0.00	3	75
33	I-40 - D32	B33	Basic Segment	375	Rolling	1072	30.72	0.00	3	75
34	I-40 - B33	D34	Off Ramp	1500	Rolling	1072	30.72	0.00	3	75
35	I-40 - D34	B35	Basic Segment	2600	Rolling	213	134.44	0.00	3	75
36	I-40 - B35	M36	On Ramp	1500	Rolling	864	37.66	0.00	3	75
37	I-40 - M36	B37	Basic Segment	4450	Rolling	864	37.66	0.00	3	75
38	I-40 - B37	M38	On Ramp	1500	Rolling	1329	26.59	0.00	3	75
39	M38	B39	Basic Segment	1025	Rolling	1329	26.59	0.00	3	75
40	White Oak - B39	D40	Off Ramp	1500	Rolling	1329	26.59	0.00	3	75
41	White Oak - D40	B41	Basic Segment	1850	Rolling	996	34.81	0.00	3	75
42	White Oak - B41	M42	On Ramp	1500	Rolling	1531	24.74	0.00	3	75
43	M42	B43	Basic Segment	3000	Rolling	1531	24.74	0.00	3	75
44	US 70 - B43	D44	Off Ramp	1500	Rolling	1531	24.74	0.00	3	75
45	US 70 - D44	B45	Basic Segment	1825	Rolling	1107	32.30	0.00	3	75
46	US 70 - B45	M46	On Ramp	1500	Rolling	1386	27.01	0.00	3	75
47	US 70 - M46	B47	Basic Segment	775	Rolling	1386	27.01	0.00	3	75
48	US 70 - B47	M48	On Ramp	1500	Rolling	1722	22.91	0.00	3	75
49	M48	B49	Basic Segment	1275	Rolling	1722	22.91	0.00	3	75
50	Rock Quarry - B49	D50	Off Ramp	1500	Rolling	1722	22.91	0.00	3	75
51	Rock Quarry - D50	B51	Basic Segment	1825	Rolling	1516	25.75	0.00	3	75
52	Rock Quarry - B51	M52	On Ramp	1500	Rolling	2017	20.84	0.00	3	75
53	M52	B53	Basic Segment	8550	Rolling	2017	20.84	0.00	3	75
54	Auburn Knight - B53	D54	Off Ramp	1500	Rolling	2017	20.84	0.00	3	75
55	Auburn Knight - D54	B55	Basic Segment	1575	Rolling	1802	22.97	0.00	3	75
56	Auburn Knight - B55	M56	On Ramp	1500	Rolling	2093	20.61	0.00	3	75
57	M56	B57	Basic Segment	2200	Rolling	2093	20.61	0.00	3	75
58	Poole - B57	D58	Off Ramp	1500	Rolling	2093	20.61	0.00	3	75
59	Poole - B59	B59	Basic Segment	3800	Rolling	1983	21.64	0.00	3	75
60	B59	W60	Weaving	1650	Rolling	3383	15.17	0.00	4	75
61	I-495 - W60	D61	Off Ramp	1500	Rolling	2589	17.68	0.00	3	75
62	I-495 - D61	B62	Basic Segment	3550	Rolling	2030	20.62	0.00	3	75
63	I-495 - B62	M63	On Ramp	1500	Rolling	4607	12.44	0.00	4	75
64	M63	B64	Basic Segment	2350	Rolling	4607	12.44	0.00	4	75
65	US 64 Bus - B64	D65	Off Ramp	1500	Rolling	4607	12.44	0.00	4	75
66	US 64 Bus - D65	B66	Basic Segment	4250	Rolling	3498	15.43	0.00	4	75
67	US 64 Bus - B66	M67	On Ramp	1500	Rolling	4937	12.10	0.00	4	75
68	M67	End NC540 EB	Basic Segment	5280	Rolling	4937	12.10	0.00	4	75

Weaving Segment Data

Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp				
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS
4	0.423	786	6.00	0.00	1	50	1964	6.00	0.00	1	50
60	0.218	1400	6.00	0.00	1	50	794	7.00	0.00	1	50

Time Period 2

Mainline Data

Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin NC 540 EB	B1	Basic Segment	5280	Rolling	6745	6.00	0.00	4	75

RampData

Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	Off Ramp	2405	3.00	0.00	1	525	30
6	Off Ramp	467	6.00	0.00	1	925	30
8	On Ramp	1137	6.00	0.00	1	1000	50

2	OHSARI - B1	D2	Off Ramp	1500	Rolling	6745	6.00	0.00	4	75
3	OHSARI-D2	B3	Basic Segment	1575	Rolling	4340	7.66	0.00	3	75
4	B3	W4	Weaving	3325	Rolling	5223	7.38	0.00	4	75
5	NC 55 BYP - W4	B5	Basic Segment	175	Rolling	3016	8.39	0.00	3	75
6	NC 55 BYP- B5	D6	Off Ramp	1500	Rolling	3016	8.39	0.00	3	75
7	NC 55 BYP - D6	B7	Basic Segment	1675	Rolling	2549	8.83	0.00	3	75
8	NC 55 BYP - B7	M8	On Ramp	1500	Rolling	3686	7.96	0.00	3	75
9	M8	B9	Basic Segment	8800	Rolling	3686	7.96	0.00	3	75
10	Holly Springs - B9	D10	Off Ramp	1500	Rolling	3686	7.96	0.00	3	75
11	Holly Springs - D10	B11	Basic Segment	4050	Rolling	2927	9.50	0.00	3	75
12	Holly Springs - B11	M12	On Ramp	1500	Rolling	4284	8.39	0.00	3	75
13	M12	B13	Basic Segment	7625	Rolling	4284	8.39	0.00	3	75
14	Bells Lake - B13	D14	Off Ramp	1500	Rolling	4284	8.39	0.00	3	75
15	Bells Lake - D14	B15	Basic Segment	2200	Rolling	3449	9.94	0.00	3	75
16	Bells Lake - B15	M16	On Ramp	1500	Rolling	4154	9.27	0.00	3	75
17	M16	B17	Basic Segment	9275	Rolling	4154	9.27	0.00	3	75
18	US 401 - B17	D18	Off Ramp	1500	Rolling	4154	9.27	0.00	3	75
19	US 401 - D18	B19	Basic Segment	1750	Rolling	2820	12.71	0.00	3	75
20	US 401 - B19	M20	On Ramp	1500	Rolling	3102	12.10	0.00	3	75
21	US 401 - M20	B21	Basic Segment	575	Rolling	3102	12.10	0.00	3	75
22	US 401 - B21	M22	On Ramp	1500	Rolling	3741	11.06	0.00	3	75
23	M22	B23	Basic Segment	4200	Rolling	3741	11.06	0.00	3	75
24	Old Stage - B23	D24	Off Ramp	1500	Rolling	3741	11.06	0.00	3	75
25	Old Stage - D24	B25	Basic Segment	3750	Rolling	2283	16.84	0.00	3	75
26	Old Stage - B25	M26	On Ramp	1500	Rolling	2460	16.06	0.00	3	75
27	M26	B27	Basic Segment	15000	Rolling	2460	16.06	0.00	3	75
28	NC 50 - B27	D28	Off Ramp	1500	Rolling	2460	16.06	0.00	3	75
29	NC 50 - D28	B29	Basic Segment	4150	Rolling	1525	24.69	0.00	3	75
30	NC 50 - B29	M30	On Ramp	1500	Rolling	2487	17.46	0.00	3	75
31	M30	B31	Basic Segment	1500	Rolling	2487	17.46	0.00	3	75
32	I-40 - B31	D32	Off Ramp	1500	Rolling	2487	17.46	0.00	3	75
33	I-40 - D32	B33	Basic Segment	375	Rolling	1212	30.57	0.00	3	75
34	I-40 - B33	D34	Off Ramp	1500	Rolling	1212	30.57	0.00	3	75
35	I-40 - D34	B35	Basic Segment	2600	Rolling	247	130.45	0.00	3	75
36	I-40 - B35	M36	On Ramp	1500	Rolling	978	37.43	0.00	3	75
37	I-40 - M36	B37	Basic Segment	4450	Rolling	978	37.43	0.00	3	75
38	I-40 - B37	M38	On Ramp	1500	Rolling	1500	26.49	0.00	3	75
39	M38	B39	Basic Segment	1025	Rolling	1500	26.49	0.00	3	75
40	White Oak - B39	D40	Off Ramp	1500	Rolling	1500	26.49	0.00	3	75
41	White Oak - D40	B41	Basic Segment	1850	Rolling	1126	34.63	0.00	3	75
42	White Oak - B41	M42	On Ramp	1500	Rolling	1727	24.67	0.00	3	75
43	M42	B43	Basic Segment	3000	Rolling	1727	24.67	0.00	3	75
44	US 70 - B43	D44	Off Ramp	1500	Rolling	1727	24.67	0.00	3	75
45	US 70 - D44	B45	Basic Segment	1825	Rolling	1251	32.15	0.00	3	75

10	Off Ramp	759	2.00	0.00	1	900	50
12	On Ramp	1357	6.00	0.00	1	900	50
14	Off Ramp	835	2.00	0.00	1	225	50
16	On Ramp	705	6.00	0.00	1	1500	30
18	Off Ramp	1334	2.00	0.00	1	900	50
20	On Ramp	282	6.00	0.00	1	1500	30
22	On Ramp	639	6.00	0.00	1	1025	50
24	Off Ramp	1458	2.00	0.00	1	300	50
26	On Ramp	177	6.00	0.00	1	900	50
28	Off Ramp	935	2.00	0.00	1	1025	50
30	On Ramp	962	6.00	0.00	1	900	50
32	Off Ramp	1275	5.00	0.00	2	1500	50
34	Off Ramp	965	5.00	0.00	1	225	50
36	On Ramp	731	6.00	0.00	1	1500	30
38	On Ramp	522	6.00	0.00	1	900	50
40	Off Ramp	374	2.00	0.00	1	300	50
42	On Ramp	601	6.00	0.00	1	1500	30
44	Off Ramp	476	5.00	0.00	1	900	50
46	On Ramp	313	6.00	0.00	1	1400	30
48	On Ramp	377	6.00	0.00	1	900	50
50	Off Ramp	231	2.00	0.00	1	1500	30
52	On Ramp	563	6.00	0.00	1	900	50
54	Off Ramp	242	3.00	0.00	1	775	30
56	On Ramp	327	6.00	0.00	1	900	50
58	Off Ramp	124	2.00	0.00	1	175	50
61	Off Ramp	628	7.00	0.00	1	525	30
63	On Ramp	2896	6.00	0.00	1	950	50
65	Off Ramp	1246	3.00	0.00	1	200	50
67	On Ramp	1617	4.00	0.00	1	875	50

46	US 70 - B45	M46	On Ramp	1500	Rolling	1564	26.91	0.00	3	75
47	US 70 - M46	B47	Basic Segment	775	Rolling	1564	26.91	0.00	3	75
48	US 70 - B47	M48	On Ramp	1500	Rolling	1941	22.85	0.00	3	75
49	M48	B49	Basic Segment	1275	Rolling	1941	22.85	0.00	3	75
50	Rock Quarry - B49	D50	Off Ramp	1500	Rolling	1941	22.85	0.00	3	75
51	Rock Quarry - D50	B51	Basic Segment	1825	Rolling	1710	25.67	0.00	3	75
52	Rock Quarry - B51	M52	On Ramp	1500	Rolling	2273	20.80	0.00	3	75
53	M52	B53	Basic Segment	8550	Rolling	2273	20.80	0.00	3	75
54	Auburn Knight - B53	D54	Off Ramp	1500	Rolling	2273	20.80	0.00	3	75
55	Auburn Knight - D54	B55	Basic Segment	1575	Rolling	2031	22.92	0.00	3	75
56	Auburn Knight - B55	M56	On Ramp	1500	Rolling	2358	20.57	0.00	3	75
57	M56	B57	Basic Segment	2200	Rolling	2358	20.57	0.00	3	75
58	Poole - B57	D58	Off Ramp	1500	Rolling	2358	20.57	0.00	3	75
59	Poole - B59	B59	Basic Segment	3800	Rolling	2234	21.60	0.00	3	75
60	B59	W60	Weaving	1650	Rolling	3634	15.59	0.00	4	75
61	I-495 - W60	D61	Off Ramp	1500	Rolling	2840	17.99	0.00	3	75
62	I-495 - D61	B62	Basic Segment	3550	Rolling	2212	21.12	0.00	3	75
63	I-495 - B62	M63	On Ramp	1500	Rolling	5108	12.55	0.00	4	75
64	M63	B64	Basic Segment	2350	Rolling	5108	12.55	0.00	4	75
65	US 64 Bus - B64	D65	Off Ramp	1500	Rolling	5108	12.55	0.00	4	75
66	US 64 Bus - D65	B66	Basic Segment	4250	Rolling	3862	15.63	0.00	4	75
67	US 64 Bus - B66	M67	On Ramp	1500	Rolling	5479	12.19	0.00	4	75
68	M67	End NC540 EB	Basic Segment	5280	Rolling	5479	12.19	0.00	4	75

Weaving Segment Data

Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp				
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS
4	0.432	883	6.00	0.00	1	50	2207	6.00	0.00	1	50
60	0.218	1400	6.00	0.00	1	50	794	7.00	0.00	1	50

Time Period 3

Mainline Data

Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin NC 540 EB	B1	Basic Segment	5280	Rolling	7494	6.00	0.00	4	75
2	OHSARI - B1	D2	Off Ramp	1500	Rolling	7494	6.00	0.00	4	75
3	OHSARI- D2	B3	Basic Segment	1575	Rolling	4824	7.66	0.00	3	75
4	B3	W4	Weaving	3325	Rolling	5804	7.38	0.00	4	75
5	NC 55 BYP - W4	B5	Basic Segment	175	Rolling	3354	8.39	0.00	3	75
6	NC 55 BYP- B5	D6	Off Ramp	1500	Rolling	3354	8.39	0.00	3	75
7	NC 55 BYP - D6	B7	Basic Segment	1675	Rolling	2836	8.82	0.00	3	75
8	NC 55 BYP - B7	M8	On Ramp	1500	Rolling	4098	7.95	0.00	3	75
9	M8	B9	Basic Segment	8800	Rolling	4098	7.95	0.00	3	75
10	Holly Springs - B9	D10	Off Ramp	1500	Rolling	4098	7.95	0.00	3	70
11	Holly Springs - D10	B11	Basic Segment	4050	Rolling	3256	9.49	0.00	3	75
12	Holly Springs - B11	M12	On Ramp	1500	Rolling	4762	8.39	0.00	3	75
13	M12	B13	Basic Segment	7625	Rolling	4762	8.39	0.00	3	75
14	Bells Lake - B13	D14	Off Ramp	1500	Rolling	4762	8.39	0.00	3	75
15	Bells Lake - D14	B15	Basic Segment	2200	Rolling	3835	9.93	0.00	3	75
	Bells									

RampData

Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	Off Ramp	2670	3.00	0.00	1	525	30
6	Off Ramp	518	6.00	0.00	1	925	30
8	On Ramp	1262	6.00	0.00	1	1000	50
10	Off Ramp	842	2.00	0.00	1	900	50
12	On Ramp	1506	6.00	0.00	1	900	50
14	Off Ramp	927	2.00	0.00	1	225	50
16	On Ramp	783	6.00	0.00	1	1500	30
18	Off Ramp	1481	2.00	0.00	1	900	50
20	On Ramp	313	6.00	0.00	1	1500	30
22	On Ramp	709	6.00	0.00	1	1025	50
24	Off Ramp	1618	2.00	0.00	1	300	50
26	On Ramp	196	6.00	0.00	1	900	50
28	Off Ramp	1038	2.00	0.00	1	1025	50
30	On Ramp	1068	6.00	0.00	1	900	50
32	Off Ramp	1415	5.00	0.00	2	1500	50
34	Off Ramp	1071	5.00	0.00	1	225	50
36	On Ramp	811	6.00	0.00	1	1500	30
38	On Ramp	579	6.00	0.00	1	900	50
40	Off Ramp	415	2.00	0.00	1	300	50
42	On Ramp	667	6.00	0.00	1	1500	30
44	Off Ramp	528	5.00	0.00	1	900	50
46	On Ramp	347	6.00	0.00	1	1400	30
48	On Ramp	418	6.00	0.00	1	900	50
50	Off Ramp	256	2.00	0.00	1	1500	30
52	On Ramp	625	6.00	0.00	1	900	50
54	Off Ramp	269	3.00	0.00	1	775	30
56	On Ramp	363	6.00	0.00	1	900	50
58	Off Ramp	138	2.00	0.00	1	175	50
61	Off Ramp	697	7.00	0.00	1	525	30
63	On Ramp	3215	6.00	0.00	1	950	50

16	Lake - B15	M16	On Ramp	1500	Rolling	4618	9.27	0.00	3	75
17	M16	B17	Basic Segment	9275	Rolling	4618	9.27	0.00	3	75
18	US 401 - B17	D18	Off Ramp	1500	Rolling	4618	9.27	0.00	3	75
19	US 401 - D18	B19	Basic Segment	1750	Rolling	3137	12.70	0.00	3	75
20	US 401 - B19	M20	On Ramp	1500	Rolling	3450	12.09	0.00	3	75
21	US 401 - M20	B21	Basic Segment	575	Rolling	3450	12.09	0.00	3	75
22	US 401 - B21	M22	On Ramp	1500	Rolling	4159	11.05	0.00	3	75
23	M22	B23	Basic Segment	4200	Rolling	4159	11.05	0.00	3	75
24	Old Stage - B23	D24	Off Ramp	1500	Rolling	4159	11.05	0.00	3	75
25	Old Stage - D24	B25	Basic Segment	3750	Rolling	2541	16.82	0.00	3	75
26	Old Stage - B25	M26	On Ramp	1500	Rolling	2737	16.04	0.00	3	75
27	M26	B27	Basic Segment	15000	Rolling	2737	16.04	0.00	3	75
28	NC 50 - B27	D28	Off Ramp	1500	Rolling	2737	16.04	0.00	3	75
29	NC 50 - D28	B29	Basic Segment	4150	Rolling	1699	24.62	0.00	3	75
30	NC 50 - B29	M30	On Ramp	1500	Rolling	2767	17.43	0.00	3	75
31	M30	B31	Basic Segment	1500	Rolling	2767	17.43	0.00	3	75
32	I-40 - B31	D32	Off Ramp	1500	Rolling	2767	17.43	0.00	3	75
33	I-40 - D32	B33	Basic Segment	375	Rolling	1352	30.44	0.00	3	75
34	I-40 - B33	D34	Off Ramp	1500	Rolling	1352	30.44	0.00	3	75
35	I-40 - D34	B35	Basic Segment	2600	Rolling	281	127.42	0.00	3	75
36	I-40 - B35	M36	On Ramp	1500	Rolling	1092	37.25	0.00	3	75
37	I-40 - M36	B37	Basic Segment	4450	Rolling	1092	37.25	0.00	3	75
38	I-40 - B37	M38	On Ramp	1500	Rolling	1671	26.42	0.00	3	75
39	M38	B39	Basic Segment	1025	Rolling	1671	26.42	0.00	3	75
40	White Oak - B39	D40	Off Ramp	1500	Rolling	1671	26.42	0.00	3	75
41	White Oak - D40	B41	Basic Segment	1850	Rolling	1256	34.49	0.00	3	75
42	White Oak - B41	M42	On Ramp	1500	Rolling	1923	24.61	0.00	3	75
43	M42	B43	Basic Segment	3000	Rolling	1923	24.61	0.00	3	75
44	US 70 - B43	D44	Off Ramp	1500	Rolling	1923	24.61	0.00	3	75
45	US 70 - D44	B45	Basic Segment	1825	Rolling	1395	32.03	0.00	3	75
46	US 70 - B45	M46	On Ramp	1500	Rolling	1742	26.84	0.00	3	75
47	US 70 - M46	B47	Basic Segment	775	Rolling	1742	26.84	0.00	3	75
48	US 70 - B47	M48	On Ramp	1500	Rolling	2160	22.81	0.00	3	75
49	M48	B49	Basic Segment	1275	Rolling	2160	22.81	0.00	3	75
50	Rock Quarry - B49	D50	Off Ramp	1500	Rolling	2160	22.81	0.00	3	75
51	Rock Quarry - D50	B51	Basic Segment	1825	Rolling	1904	25.61	0.00	3	75
52	Rock Quarry - B51	M52	On Ramp	1500	Rolling	2529	20.76	0.00	3	75
53	M52	B53	Basic Segment	8550	Rolling	2529	20.76	0.00	3	75
54	Auburn Knight - B53	D54	Off Ramp	1500	Rolling	2529	20.76	0.00	3	75
55	Auburn Knight - D54	B55	Basic Segment	1575	Rolling	2260	22.88	0.00	3	75
56	Auburn Knight - B55	M56	On Ramp	1500	Rolling	2623	20.54	0.00	3	75
57	M56	B57	Basic Segment	2200	Rolling	2623	20.54	0.00	3	75
58	Poole - B57	D58	Off Ramp	1500	Rolling	2623	20.54	0.00	3	75
59	Poole - B59	B59	Basic Segment	3800	Rolling	2485	21.57	0.00	3	75
65	Off Ramp	1383	3.00	0.00	1	200	50			
67	On Ramp	1795	4.00	0.00	1	875	50			

Weaving Segment Data											
Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp				
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS
4	0.432	980	6.00	0.00	1	50	2450	6.00	0.00	1	50
60	0.218	1400	6.00	0.00	1	50	794	7.00	0.00	1	50

60	B59	W60	Weaving	1650	Rolling	3885	15.96	0.00	4	75
61	I-495 - W60	D61	Off Ramp	1500	Rolling	3091	18.26	0.00	3	75
62	I-495 - D61	B62	Basic Segment	3550	Rolling	2394	21.54	0.00	3	75
63	I-495 - B62	M63	On Ramp	1500	Rolling	5609	12.63	0.00	4	75
64	M63	B64	Basic Segment	2350	Rolling	5609	12.63	0.00	4	75
65	US 64 Bus - B64	D65	Off Ramp	1500	Rolling	5609	12.63	0.00	4	75
66	US 64 Bus - D65	B66	Basic Segment	4250	Rolling	4226	15.78	0.00	4	75
67	US 64 Bus - B66	M67	On Ramp	1500	Rolling	6021	12.27	0.00	4	75
68	M67	End NC540 EB	Basic Segment	5280	Rolling	6021	12.27	0.00	4	75

Time Period 4

Mainline Data

Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin NC 540 EB	B1	Basic Segment	5280	Rolling	6745	6.00	0.00	4	75
2	OHSARI - B1	D2	Off Ramp	1500	Rolling	6745	6.00	0.00	4	75
3	OHSARI-D2	B3	Basic Segment	1575	Rolling	4340	7.66	0.00	3	75
4	B3	W4	Weaving	3325	Rolling	5223	7.38	0.00	4	75
5	NC 55 BYP - W4	B5	Basic Segment	175	Rolling	3016	8.39	0.00	3	75
6	NC 55 BYP- B5	D6	Off Ramp	1500	Rolling	3016	8.39	0.00	3	75
7	NC 55 BYP - D6	B7	Basic Segment	1675	Rolling	2549	8.83	0.00	3	75
8	NC 55 BYP - B7	M8	On Ramp	1500	Rolling	3686	7.96	0.00	3	75
9	M8	B9	Basic Segment	8800	Rolling	3686	7.96	0.00	3	75
10	Holly Springs - B9	D10	Off Ramp	1500	Rolling	3686	7.96	0.00	3	75
11	Holly Springs - D10	B11	Basic Segment	4050	Rolling	2927	9.50	0.00	3	75
12	Holly Springs - B11	M12	On Ramp	1500	Rolling	4284	8.39	0.00	3	75
13	M12	B13	Basic Segment	7625	Rolling	4284	8.39	0.00	3	75
14	Bells Lake - B13	D14	Off Ramp	1500	Rolling	4284	8.39	0.00	3	75
15	Bells Lake - D14	B15	Basic Segment	2200	Rolling	3449	9.94	0.00	3	75
16	Bells Lake - B15	M16	On Ramp	1500	Rolling	4154	9.27	0.00	3	75
17	M16	B17	Basic Segment	9275	Rolling	4154	9.27	0.00	3	75
18	US 401 - B17	D18	Off Ramp	1500	Rolling	4154	9.27	0.00	3	75
19	US 401 - D18	B19	Basic Segment	1750	Rolling	2820	12.71	0.00	3	75
20	US 401 - B19	M20	On Ramp	1500	Rolling	3102	12.10	0.00	3	75
21	US 401 - M20	B21	Basic Segment	575	Rolling	3102	12.10	0.00	3	75
22	US 401 - B21	M22	On Ramp	1500	Rolling	3741	11.06	0.00	3	75
23	M22	B23	Basic Segment	4200	Rolling	3741	11.06	0.00	3	75
24	Old Stage - B23	D24	Off Ramp	1500	Rolling	3741	11.06	0.00	3	75
25	Old Stage - D24	B25	Basic Segment	3750	Rolling	2283	16.84	0.00	3	75
26	Old Stage - B25	M26	On Ramp	1500	Rolling	2460	16.06	0.00	3	75
27	M26	B27	Basic Segment	15000	Rolling	2460	16.06	0.00	3	75
28	NC 50 - B27	D28	Off Ramp	1500	Rolling	2460	16.06	0.00	3	75
29	NC 50 - D28	B29	Basic Segment	4150	Rolling	1525	24.69	0.00	3	75
30	NC 50 - B29	M30	On Ramp	1500	Rolling	2487	17.46	0.00	3	75

RampData

Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	Off Ramp	2405	3.00	0.00	1	525	30
6	Off Ramp	467	6.00	0.00	1	925	30
8	On Ramp	1137	6.00	0.00	1	1000	50
10	Off Ramp	759	2.00	0.00	1	900	50
12	On Ramp	1357	6.00	0.00	1	900	50
14	Off Ramp	835	2.00	0.00	1	225	50
16	On Ramp	705	6.00	0.00	1	1500	30
18	Off Ramp	1334	2.00	0.00	1	900	50
20	On Ramp	282	6.00	0.00	1	1500	30
22	On Ramp	639	6.00	0.00	1	1025	50
24	Off Ramp	1458	2.00	0.00	1	300	50
26	On Ramp	177	6.00	0.00	1	900	50
28	Off Ramp	935	2.00	0.00	1	1025	50
30	On Ramp	962	6.00	0.00	1	900	50
32	Off Ramp	1275	5.00	0.00	2	1500	50
34	Off Ramp	965	5.00	0.00	1	225	50
36	On Ramp	731	6.00	0.00	1	1500	30
38	On Ramp	522	6.00	0.00	1	900	50
40	Off Ramp	374	2.00	0.00	1	300	50
42	On Ramp	601	6.00	0.00	1	1500	30
44	Off Ramp	476	5.00	0.00	1	900	50
46	On Ramp	313	6.00	0.00	1	1400	30
48	On Ramp	377	6.00	0.00	1	900	50
50	Off Ramp	231	2.00	0.00	1	1500	30
52	On Ramp	563	6.00	0.00	1	900	50
54	Off Ramp	242	3.00	0.00	1	775	30
56	On Ramp	327	6.00	0.00	1	900	50
58	Off Ramp	124	2.00	0.00	1	175	50
61	Off Ramp	628	7.00	0.00	1	525	30
63	On Ramp	2896	6.00	0.00	1	950	50
65	Off Ramp	1246	3.00	0.00	1	200	50
67	On Ramp	1617	4.00	0.00	1	875	50

31	M30	B31	Basic Segment	1500	Rolling	2487	17.46	0.00	3	75
32	I-40 - B31	D32	Off Ramp	1500	Rolling	2487	17.46	0.00	3	75
33	I-40 - D32	B33	Basic Segment	375	Rolling	1212	30.57	0.00	3	75
34	I-40 - B33	D34	Off Ramp	1500	Rolling	1212	30.57	0.00	3	75
35	I-40 - D34	B35	Basic Segment	2600	Rolling	247	130.45	0.00	3	75
36	I-40 - B35	M36	On Ramp	1500	Rolling	978	37.43	0.00	3	75
37	I-40 - M36	B37	Basic Segment	4450	Rolling	978	37.43	0.00	3	75
38	I-40 - B37	M38	On Ramp	1500	Rolling	1500	26.49	0.00	3	75
39	M38	B39	Basic Segment	1025	Rolling	1500	26.49	0.00	3	75
40	White Oak - B39	D40	Off Ramp	1500	Rolling	1500	26.49	0.00	3	75
41	White Oak - D40	B41	Basic Segment	1850	Rolling	1126	34.63	0.00	3	75
42	White Oak - B41	M42	On Ramp	1500	Rolling	1727	24.67	0.00	3	75
43	M42	B43	Basic Segment	3000	Rolling	1727	24.67	0.00	3	75
44	US 70 - B43	D44	Off Ramp	1500	Rolling	1727	24.67	0.00	3	75
45	US 70 - D44	B45	Basic Segment	1825	Rolling	1251	32.15	0.00	3	75
46	US 70 - B45	M46	On Ramp	1500	Rolling	1564	26.91	0.00	3	75
47	US 70 - M46	B47	Basic Segment	775	Rolling	1564	26.91	0.00	3	75
48	US 70 - B47	M48	On Ramp	1500	Rolling	1941	22.85	0.00	3	75
49	M48	B49	Basic Segment	1275	Rolling	1941	22.85	0.00	3	75
50	Rock Quarry - B49	D50	Off Ramp	1500	Rolling	1941	22.85	0.00	3	75
51	Rock Quarry - D50	B51	Basic Segment	1825	Rolling	1710	25.67	0.00	3	75
52	Rock Quarry - B51	M52	On Ramp	1500	Rolling	2273	20.80	0.00	3	75
53	M52	B53	Basic Segment	8550	Rolling	2273	20.80	0.00	3	75
54	Auburn Knight - B53	D54	Off Ramp	1500	Rolling	2273	20.80	0.00	3	75
55	Auburn Knight - D54	B55	Basic Segment	1575	Rolling	2031	22.92	0.00	3	75
56	Auburn Knight - B55	M56	On Ramp	1500	Rolling	2358	20.57	0.00	3	75
57	M56	B57	Basic Segment	2200	Rolling	2358	20.57	0.00	3	75
58	Poole - B57	D58	Off Ramp	1500	Rolling	2358	20.57	0.00	3	75
59	Poole - B59	B59	Basic Segment	3800	Rolling	2234	21.60	0.00	3	75
60	B59	W60	Weaving	1650	Rolling	3634	15.59	0.00	4	75
61	I-495 - W60	D61	Off Ramp	1500	Rolling	2840	17.99	0.00	3	75
62	I-495 - D61	B62	Basic Segment	3550	Rolling	2212	21.12	0.00	3	75
63	I-495 - B62	M63	On Ramp	1500	Rolling	5108	12.55	0.00	4	75
64	M63	B64	Basic Segment	2350	Rolling	5108	12.55	0.00	4	75
65	US 64 Bus - B64	D65	Off Ramp	1500	Rolling	5108	12.55	0.00	4	75
66	US 64 Bus - D65	B66	Basic Segment	4250	Rolling	3862	15.63	0.00	4	75
67	US 64 Bus - B66	M67	On Ramp	1500	Rolling	5479	12.19	0.00	4	75
68	M67	End NC540 EB	Basic Segment	5280	Rolling	5479	12.19	0.00	4	75

Weaving Segment Data

Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp				
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS
4	0.432	883	6.00	0.00	1	50	2207	6.00	0.00	1	50
60	0.218	1400	6.00	0.00	1	50	794	7.00	0.00	1	50

Time Period Independent Weaving Segment Data

Seg #	Configuration	Short Length	# Weaving Lanes	Min. Lane Changes Freeway-Ramp	Min. Lane Changes Ramp-Freeway	Min. Lane Changes Ramp-Ramp
4	OneSide	3325	2	1	1	0
60	OneSide	1650	2	1	1	0

Time Period Results

Time Period 1

Seg #	From	To	Type	Adj. Demand	Vol. Served	Capacity (pc/h)	Capacity (veh/h)	d/c Ratio	v/c ratio	Queue Length (ft)	Avg. Speed (mi/h)	Density (pc/mi/ln)	Density (veh/mi/ln)	Avg. Travel Time (min/veh)	Free-Flow Travel Time (min/veh)	Mainline Delay (min/veh)	System Delay (min/veh)	VMT Demand (veh-min)	VMT Volume (veh-min)	VHT (veh-hrs)	VHD (veh-hrs)
1	Begin NC 540 EB	B1	Basic Segment	5996	5996	9600	8807	0.68	0.68	0	70.6	23.2	21.2	0.85	0.80	0.1	0.1	1499.0	1499.0	21.2	1.3
2	OHSARI - B1	D2	Off Ramp	5996	5996	9600	8807	0.68	0.68	0	60.1	27.2	24.9	0.28	0.23	0.1	0.1	425.9	425.9	7.1	1.4
3	OHSARI-D2	B3	Basic Segment	3856	3856	7200	6458	0.60	0.60	0	72.9	19.7	17.6	0.25	0.24	0.0	0.0	287.6	287.6	3.9	0.1
4	B3	W4	Weaving	4642	4642	5447	4904	0.95	0.95	0	56.2	22.9	20.6	0.67	0.50	0.2	0.2	730.8	730.8	13.0	3.3
5	NC 55 BYP - W4	B5	Basic Segment	2678	2678	7200	6395	0.42	0.42	0	73.9	13.6	12.1	0.03	0.03	0.0	0.0	22.2	22.2	0.3	0.0
6	NC 55 BYP- B5	D6	Off Ramp	2678	2678	7200	6395	0.42	0.42	0	58.8	17.1	15.2	0.29	0.23	0.1	0.1	190.2	190.2	3.2	0.7
7	NC 55 BYP - D6	B7	Basic Segment	2262	2262	7200	6357	0.36	0.36	0	73.8	11.6	10.2	0.26	0.25	0.0	0.0	179.4	179.4	2.4	0.0
8	NC 55 BYP - B7	M8	On Ramp	3274	3274	7200	6432	0.51	0.51	0	67.8	17.5	15.6	0.25	0.23	0.0	0.0	232.5	232.5	3.4	0.3
9	M8	B9	Basic Segment	3274	3274	7200	6432	0.51	0.51	0	74.5	16.4	14.7	1.34	1.33	0.0	0.0	1364.2	1364.2	18.3	0.1
10	Holly Springs - B9	D10	Off Ramp	3274	3274	7200	6432	0.51	0.51	0	69.4	17.6	15.7	0.25	0.23	0.0	0.0	232.5	232.5	3.3	0.2
11	Holly Springs - D10	B11	Basic Segment	2598	2598	7200	6301	0.41	0.41	0	74.9	13.2	11.6	0.61	0.61	0.0	0.0	498.2	498.2	6.6	0.0
12	Holly Springs - B11	M12	On Ramp	3806	3806	7200	6395	0.60	0.60	0	66.7	20.8	18.5	0.26	0.23	0.0	0.0	270.3	270.3	4.1	0.4
13	M12	B13	Basic Segment	3806	3806	7200	6395	0.60	0.60	0	73.0	19.6	17.4	1.19	1.16	0.0	0.0	1374.1	1374.1	18.8	0.5
14	Bells Lake - B13	D14	Off Ramp	3806	3806	7200	6395	0.60	0.60	0	69.2	20.6	18.3	0.25	0.23	0.0	0.0	270.3	270.3	3.9	0.3
15	Bells Lake - D14	B15	Basic Segment	3063	3063	7200	6265	0.49	0.49	0	74.7	15.7	13.7	0.33	0.33	0.0	0.0	319.1	319.1	4.3	0.0
16	Bells Lake - B15	M16	On Ramp	3690	3690	7200	6320	0.58	0.58	0	67.2	20.5	18.0	0.25	0.23	0.0	0.0	262.1	262.1	3.9	0.4
17	M16	B17	Basic Segment	3690	3690	7200	6320	0.58	0.58	0	73.2	19.1	16.8	1.44	1.41	0.0	0.0	1620.5	1620.5	22.1	0.5
18	US 401 - B17	D18	Off Ramp	3690	3690	7200	6320	0.58	0.58	0	67.9	20.6	18.1	0.25	0.23	0.0	0.0	262.1	262.1	3.9	0.4
19	US 401 - D18	B19	Basic Segment	2503	2503	7200	6046	0.41	0.41	0	74.5	13.3	11.2	0.27	0.27	0.0	0.0	207.4	207.4	2.8	0.0
20	US 401 - B19	M20	On Ramp	2754	2754	7200	6093	0.45	0.45	0	68.4	15.7	13.3	0.25	0.23	0.0	0.0	195.6	195.6	2.9	0.3
21	US 401 - M20	B21	Basic Segment	2754	2754	7200	6093	0.45	0.45	0	73.8	14.7	12.4	0.09	0.09	0.0	0.0	75.0	75.0	1.0	0.0
22	US 401 - B21	M22	On Ramp	3323	3323	7200	6175	0.54	0.54	0	68.0	18.7	16.0	0.25	0.23	0.0	0.0	236.0	236.0	3.5	0.3
23	M22	B23	Basic Segment	3323	3323	7200	6175	0.54	0.54	0	74.1	17.4	15.0	0.64	0.64	0.0	0.0	660.8	660.8	8.9	0.1
24	Old Stage - B23	D24	Off Ramp	3323	3323	7200	6175	0.54	0.54	0	67.2	19.2	16.5	0.25	0.23	0.0	0.0	236.0	236.0	3.5	0.4
25	Old Stage - D24	B25	Basic Segment	2025	2025	7200	5745	0.35	0.35	0	74.9	11.3	9.0	0.57	0.57	0.0	0.0	359.6	359.6	4.8	0.0
26	Old Stage - B25	M26	On Ramp	2183	2183	7200	5800	0.38	0.38	0	69.0	13.0	10.5	0.25	0.23	0.0	0.0	155.0	155.0	2.2	0.2
27	M26	B27	Basic Segment	2183	2183	7200	5800	0.38	0.38	0	75.0	12.0	9.7	2.27	2.27	0.0	0.0	1550.4	1550.4	20.7	0.0
28	NC 50 - B27	D28	Off Ramp	2183	2183	7200	5800	0.38	0.38	0	68.2	13.2	10.7	0.25	0.23	0.0	0.0	155.0	155.0	2.3	0.2
29	NC 50 - D28	B29	Basic Segment	1351	1351	7200	5249	0.26	0.26	0	74.9	8.2	6.0	0.63	0.63	0.0	0.0	265.5	265.5	3.5	0.0
30	NC 50 - B29	M30	On Ramp	2207	2207	7200	5703	0.39	0.39	0	68.2	13.1	10.4	0.25	0.23	0.0	0.0	156.7	156.7	2.3	0.2
31	M30	B31	Basic Segment	2207	2207	7200	5703	0.39	0.39	0	74.4	12.5	9.9	0.23	0.23	0.0	0.0	156.7	156.7	2.1	0.0
32	I-40 - B31	D32	Off Ramp	2207	2207	7200	5703	0.39	0.39	0	68.5	13.6	10.7	0.25	0.23	0.0	0.0	156.7	156.7	2.3	0.2
33	I-40 - D32	B33	Basic Segment	1072	1072	7200	4929	0.22	0.22	0	73.6	7.1	4.9	0.06	0.06	0.0	0.0	19.0	19.0	0.3	0.0
34	I-40 - B33	D34	Off Ramp	1072	1072	7200	4929	0.22	0.22	0	66.5	7.9	5.4	0.26	0.23	0.0	0.0	76.1	76.1	1.1	0.1
35	I-40 - D34	B35	Basic Segment	213	213	7200	2387	0.09	0.09	0	74.7	2.9	1.0	0.40	0.39	0.0	0.0	26.2	26.2	0.4	0.0
36	I-40 - B35	M36	On Ramp	864	864	7200	4601	0.19	0.19	0	68.1	5.8	3.7	0.25	0.23	0.0	0.0	61.4	61.4	0.9	0.1
37	I-40 - M36	B37	Basic Segment	864	864	7200	4601	0.19	0.19	0	74.9	6.0	3.8	0.67	0.67	0.0	0.0	182.0	182.0	2.4	0.0
38	I-40 - B37	M38	On Ramp	1329	1329	7200	5147	0.26	0.26	0	69.0	8.7	6.2	0.25	0.23	0.0	0.0	94.4	94.4	1.4	0.1
39	M38	B39	Basic Segment	1329	1329	7200	5147	0.26	0.26	0	74.2	8.3	6.0	0.16	0.16	0.0	0.0	64.5	64.5	0.9	0.0
40	White Oak - B39	D40	Off Ramp	1329	1329	7200	5147	0.26	0.26	0	69.4	8.9	6.4	0.25	0.23	0.0	0.0	94.4	94.4	1.4	0.1
	White		Basic																		

41	Oak - D40	B41	Segment	996	996	7200	4730	0.21	0.21	0	74.6	6.8	4.4	0.28	0.28	0.0	0.0	87.2	87.2	1.2	0.0
42	White Oak - B41	M42	On Ramp	1531	1531	7200	5251	0.29	0.29	0	68.8	9.8	7.2	0.25	0.23	0.0	0.0	108.7	108.7	1.6	0.1
43	M42	B43	Basic Segment	1531	1531	7200	5251	0.29	0.29	0	74.8	9.3	6.8	0.46	0.45	0.0	0.0	217.5	217.5	2.9	0.0
44	US 70 - B43	D44	Off Ramp	1531	1531	7200	5251	0.29	0.29	0	69.2	10.1	7.4	0.25	0.23	0.0	0.0	108.7	108.7	1.6	0.1
45	US 70 - D44	B45	Basic Segment	1107	1107	7200	4850	0.23	0.23	0	74.6	7.3	4.9	0.28	0.28	0.0	0.0	95.7	95.7	1.3	0.0
46	US 70 - B45	M46	On Ramp	1386	1386	7200	5124	0.27	0.27	0	69.1	9.2	6.6	0.25	0.23	0.0	0.0	98.4	98.4	1.4	0.1
47	US 70 - M46	B47	Basic Segment	1386	1386	7200	5124	0.27	0.27	0	74.1	8.8	6.2	0.12	0.12	0.0	0.0	50.9	50.9	0.7	0.0
48	US 70 - B47	M48	On Ramp	1722	1722	7200	5359	0.32	0.32	0	69.1	11.0	8.2	0.25	0.23	0.0	0.0	122.3	122.3	1.8	0.1
49	M48	B49	Basic Segment	1722	1722	7200	5359	0.32	0.32	0	74.4	10.4	7.7	0.19	0.19	0.0	0.0	104.0	104.0	1.4	0.0
50	Rock Quarry - B49	D50	Off Ramp	1722	1722	7200	5359	0.32	0.32	0	63.3	12.2	9.1	0.27	0.23	0.0	0.0	122.3	122.3	1.9	0.3
51	Rock Quarry - D50	B51	Basic Segment	1516	1516	7200	5194	0.29	0.29	0	74.2	9.4	6.8	0.28	0.28	0.0	0.0	131.0	131.0	1.8	0.0
52	Rock Quarry - B51	M52	On Ramp	2017	2017	7200	5485	0.37	0.37	0	68.7	12.5	9.6	0.25	0.23	0.0	0.0	143.3	143.3	2.1	0.2
53	M52	B53	Basic Segment	2017	2017	7200	5485	0.37	0.37	0	75.0	11.8	9.0	1.30	1.30	0.0	0.0	816.5	816.5	10.9	0.0
54	Auburn Knight - B53	D54	Off Ramp	2017	2017	7200	5485	0.37	0.37	0	63.5	13.9	10.6	0.27	0.23	0.0	0.0	143.3	143.3	2.3	0.3
55	Auburn Knight - D54	B55	Basic Segment	1802	1802	7200	5355	0.34	0.34	0	74.0	10.9	8.1	0.24	0.24	0.0	0.0	134.4	134.4	1.8	0.0
56	Auburn Knight - B55	M56	On Ramp	2093	2093	7200	5500	0.38	0.38	0	68.9	13.1	10.0	0.25	0.23	0.0	0.0	148.7	148.7	2.2	0.2
57	M56	B57	Basic Segment	2093	2093	7200	5500	0.38	0.38	0	74.7	12.2	9.3	0.33	0.33	0.0	0.0	218.0	218.0	2.9	0.0
58	Poole - B57	D58	Off Ramp	2093	2093	7200	5500	0.38	0.38	0	70.9	12.9	9.8	0.24	0.23	0.0	0.0	148.7	148.7	2.1	0.1
59	Poole - B59	B59	Basic Segment	1983	1983	7200	5435	0.36	0.36	0	74.9	11.7	8.8	0.58	0.58	0.0	0.0	356.8	356.8	4.8	0.0
60	B59	W60	Weaving	3383	3383	5736	4673	0.72	0.72	0	58.5	17.7	14.4	0.32	0.25	0.1	0.1	264.3	264.3	4.5	1.0
61	I-495 - W60	D61	Off Ramp	2589	2589	7200	5691	0.45	0.45	0	62.4	17.5	13.8	0.27	0.23	0.0	0.0	183.9	183.9	2.9	0.5
62	I-495 - D61	B62	Basic Segment	2030	2030	7200	5499	0.37	0.37	0	74.8	11.8	9.0	0.54	0.54	0.0	0.0	341.2	341.2	4.6	0.0
63	I-495 - B62	M63	On Ramp	4607	4607	9600	8090	0.57	0.57	0	65.0	19.9	16.7	0.26	0.23	0.0	0.0	327.2	327.2	5.0	0.7
64	M63	B64	Basic Segment	4607	4607	9600	8090	0.57	0.57	0	73.5	18.6	15.7	0.36	0.36	0.0	0.0	512.6	512.6	7.0	0.1
65	US 64 Bus - B64	D65	Off Ramp	4607	4607	9600	8090	0.57	0.57	0	70.6	19.3	16.3	0.24	0.23	0.0	0.0	327.2	327.2	4.6	0.3
66	US 64 Bus - D65	B66	Basic Segment	3498	3498	9600	7795	0.45	0.45	0	74.9	14.4	11.7	0.64	0.64	0.0	0.0	703.9	703.9	9.4	0.0
67	US 64 Bus - B66	M67	On Ramp	4937	4937	9600	8125	0.61	0.61	0	67.5	21.2	18.0	0.25	0.23	0.0	0.0	350.6	350.6	5.2	0.5
68	M67	End NC540 EB	Basic Segment	4937	4937	9600	8125	0.61	0.61	0	72.7	20.1	17.0	0.83	0.80	0.0	0.0	1234.3	1234.3	17.0	0.5

Time Period 2

Seg #	From	To	Type	Adj. Demand	Vol. Served	Capacity (pc/h)	Capacity (veh/h)	d/c Ratio	v/c ratio	Queue Length (ft)	Avg. Speed (mi/h)	Density (pc/mi/ln)	Density (veh/mi/ln)	Avg. Travel Time (min/veh)	Free-Flow Travel Time (min/veh)	Mainline Delay (min/veh)	System Delay (min/veh)	VMT Demand (veh-min)	VMT Volume (veh-min)	VHT (veh-hrs)	VHD (veh-hrs)
1	Begin NC 540 EB	B1	Basic Segment	6745	6720	9600	8807	0.77	0.76	0	67.4	27.2	24.9	0.89	0.80	0.1	0.1	1686.3	1680.0	24.9	2.5
2	OHSARI - B1	D2	Off Ramp	6745	6720	9600	8807	0.77	0.76	0	62.8	29.1	26.7	0.27	0.23	0.0	0.0	479.0	477.3	7.6	1.2
3	OHSARI-D2	B3	Basic Segment	4340	4320	7200	6458	0.67	0.67	87	64.1	22.5	20.1	0.28	0.24	0.0	0.0	323.7	322.2	5.0	0.7
4	B3	W4	Weaving	5223	4920	5491	4944	1.06	1.00	0	50.2	41.2	37.1	0.75	0.50	0.2	3.5	822.3	774.6	15.4	5.1
5	NC 55 BYP - W4	B5	Basic Segment	3016	2880	7200	6395	0.47	0.45	0	73.5	14.7	13.1	0.03	0.03	0.0	0.0	25.0	23.9	0.3	0.0
6	NC 55 BYP- B5	D6	Off Ramp	3016	2880	7200	6395	0.47	0.45	0	66.4	16.3	14.5	0.26	0.23	0.0	0.0	214.2	204.5	3.1	0.4
7	NC 55 BYP - D6	B7	Basic Segment	2549	2400	7200	6358	0.40	0.38	0	74.3	12.2	10.8	0.26	0.25	0.0	0.0	202.2	190.3	2.6	0.0
8	NC 55 BYP - B7	M8	On Ramp	3686	3540	7200	6432	0.57	0.55	0	67.4	18.9	16.8	0.25	0.23	0.0	0.0	261.8	251.4	3.7	0.4
9	M8	B9	Basic Segment	3686	3540	7200	6432	0.57	0.55	0	73.9	17.9	16.0	1.35	1.33	0.0	0.0	1535.8	1475.0	20.0	0.3
10	Holly Springs - B9	D10	Off Ramp	3686	3540	7200	6432	0.57	0.55	0	65.8	20.1	17.9	0.26	0.23	0.0	0.0	261.8	251.4	3.8	0.5
11	Holly Springs - D10	B11	Basic Segment	2927	2820	7200	6302	0.46	0.45	0	74.9	14.3	12.6	0.61	0.61	0.0	0.0	561.3	540.8	7.2	0.0
12	Holly Springs - B11	M12	On Ramp	4284	4200	7200	6395	0.67	0.66	0	65.9	23.0	20.4	0.26	0.23	0.0	0.0	304.3	298.3	4.5	0.5

13	M12	B13	Basic Segment	4284	4200	7200	6395	0.67	0.66	0	71.3	22.1	19.6	1.21	1.16	0.1	0.1	1546.7	1516.3	21.3	1.0
14	Bells Lake - B13	D14	Off Ramp	4284	4200	7200	6395	0.67	0.66	0	65.7	24.0	21.3	0.26	0.23	0.0	0.0	304.3	298.3	4.5	0.6
15	Bells Lake - D14	B15	Basic Segment	3449	3360	7200	6266	0.55	0.54	0	74.1	17.4	15.1	0.34	0.33	0.0	0.0	359.3	350.0	4.7	0.1
16	Bells Lake - B15	M16	On Ramp	4154	4080	7200	6321	0.66	0.65	0	66.6	22.7	20.0	0.26	0.23	0.0	0.0	295.0	289.8	4.4	0.5
17	M16	B17	Basic Segment	4154	4080	7200	6321	0.66	0.65	0	71.7	21.6	19.0	1.47	1.41	0.1	0.1	1824.3	1791.8	25.0	1.1
18	US 401 - B17	D18	Off Ramp	4154	4080	7200	6321	0.66	0.65	0	64.1	24.2	21.2	0.27	0.23	0.0	0.0	295.0	289.8	4.5	0.7
19	US 401 - D18	B19	Basic Segment	2820	2760	7200	6047	0.47	0.46	0	74.2	14.8	12.4	0.27	0.27	0.0	0.0	233.7	228.7	3.1	0.0
20	US 401 - B19	M20	On Ramp	3102	3060	7200	6094	0.51	0.50	0	65.6	18.1	15.3	0.26	0.23	0.0	0.0	220.3	217.3	3.3	0.4
21	US 401 - M20	B21	Basic Segment	3102	3060	7200	6094	0.51	0.50	0	73.2	16.5	13.9	0.09	0.09	0.0	0.0	84.5	83.3	1.1	0.0
22	US 401 - B21	M22	On Ramp	3741	3660	7200	6176	0.61	0.59	0	67.5	20.5	17.6	0.25	0.23	0.0	0.0	265.7	259.9	3.8	0.4
23	M22	B23	Basic Segment	3741	3660	7200	6176	0.61	0.59	0	73.0	19.5	16.7	0.65	0.64	0.0	0.0	743.9	727.8	10.0	0.3
24	Old Stage - B23	D24	Off Ramp	3741	3660	7200	6176	0.61	0.59	0	63.4	22.4	19.2	0.27	0.23	0.0	0.0	265.7	259.9	4.1	0.6
25	Old Stage - D24	B25	Basic Segment	2283	2220	7200	5748	0.40	0.39	0	74.8	12.4	9.9	0.57	0.57	0.0	0.0	405.4	394.2	5.3	0.0
26	Old Stage - B25	M26	On Ramp	2460	2400	7200	5802	0.42	0.41	0	68.8	14.2	11.5	0.25	0.23	0.0	0.0	174.7	170.5	2.5	0.2
27	M26	B27	Basic Segment	2460	2400	7200	5802	0.42	0.41	0	75.0	13.2	10.7	2.27	2.27	0.0	0.0	1747.2	1704.5	22.7	0.0
28	NC 50 - B27	D28	Off Ramp	2460	2400	7200	5802	0.42	0.41	0	64.4	15.4	12.4	0.26	0.23	0.0	0.0	174.7	170.5	2.6	0.4
29	NC 50 - D28	B29	Basic Segment	1525	1500	7200	5254	0.29	0.29	0	74.9	9.1	6.7	0.63	0.63	0.0	0.0	299.7	294.7	3.9	0.0
30	NC 50 - B29	M30	On Ramp	2487	2460	7200	5706	0.44	0.43	0	67.8	13.9	11.0	0.25	0.23	0.0	0.0	176.6	174.7	2.6	0.2
31	M30	B31	Basic Segment	2487	2460	7200	5706	0.44	0.43	0	74.4	13.9	11.0	0.23	0.23	0.0	0.0	176.6	174.7	2.3	0.0
32	I-40 - B31	D32	Off Ramp	2487	2460	7200	5706	0.44	0.43	0	64.6	16.0	12.7	0.26	0.23	0.0	0.0	176.6	174.7	2.7	0.4
33	I-40 - D32	B33	Basic Segment	1212	1200	7200	4937	0.25	0.24	0	72.7	8.0	5.5	0.06	0.06	0.0	0.0	21.5	21.3	0.3	0.0
34	I-40 - B33	D34	Off Ramp	1212	1200	7200	4937	0.25	0.24	0	62.2	9.4	6.4	0.27	0.23	0.0	0.0	86.1	85.2	1.4	0.2
35	I-40 - D34	B35	Basic Segment	247	240	7200	2435	0.10	0.10	0	74.5	3.2	1.1	0.40	0.39	0.0	0.0	30.4	29.5	0.4	0.0
36	I-40 - B35	M36	On Ramp	978	960	7200	4611	0.21	0.21	0	67.7	5.2	3.3	0.25	0.23	0.0	0.0	69.5	68.2	1.0	0.1
37	I-40 - M36	B37	Basic Segment	978	960	7200	4611	0.21	0.21	0	74.9	6.7	4.3	0.67	0.67	0.0	0.0	206.1	202.3	2.7	0.0
38	I-40 - B37	M38	On Ramp	1500	1500	7200	5152	0.29	0.29	0	68.9	9.0	6.5	0.25	0.23	0.0	0.0	106.5	106.5	1.5	0.1
39	M38	B39	Basic Segment	1500	1500	7200	5152	0.29	0.29	0	74.2	9.4	6.7	0.16	0.16	0.0	0.0	72.8	72.8	1.0	0.0
40	White Oak - B39	D40	Off Ramp	1500	1500	7200	5152	0.29	0.29	0	66.0	10.6	7.6	0.26	0.23	0.0	0.0	106.5	106.5	1.6	0.2
41	White Oak - D40	B41	Basic Segment	1126	1140	7200	4739	0.24	0.24	0	74.4	7.8	5.1	0.28	0.28	0.0	0.0	98.6	99.9	1.3	0.0
42	White Oak - B41	M42	On Ramp	1727	1740	7200	5256	0.33	0.33	0	68.7	10.4	7.6	0.25	0.23	0.0	0.0	122.7	123.6	1.8	0.2
43	M42	B43	Basic Segment	1727	1740	7200	5256	0.33	0.33	0	74.8	10.6	7.8	0.46	0.45	0.0	0.0	245.3	247.2	3.3	0.0
44	US 70 - B43	D44	Off Ramp	1727	1740	7200	5256	0.33	0.33	0	65.7	12.1	8.8	0.26	0.23	0.0	0.0	122.7	123.6	1.9	0.2
45	US 70 - D44	B45	Basic Segment	1251	1260	7200	4858	0.26	0.26	0	74.4	8.4	5.6	0.28	0.28	0.0	0.0	108.1	108.9	1.5	0.0
46	US 70 - B45	M46	On Ramp	1564	1560	7200	5129	0.30	0.30	0	68.6	10.0	7.1	0.25	0.23	0.0	0.0	111.1	110.8	1.6	0.1
47	US 70 - M46	B47	Basic Segment	1564	1560	7200	5129	0.30	0.30	0	74.0	9.9	7.0	0.12	0.12	0.0	0.0	57.4	57.2	0.8	0.0
48	US 70 - B47	M48	On Ramp	1941	1920	7200	5362	0.36	0.36	0	68.9	11.8	8.8	0.25	0.23	0.0	0.0	137.9	136.4	2.0	0.2
49	M48	B49	Basic Segment	1941	1920	7200	5362	0.36	0.36	0	74.4	11.6	8.6	0.19	0.19	0.0	0.0	117.2	115.9	1.6	0.0
50	Rock Quarry - B49	D50	Off Ramp	1941	1920	7200	5362	0.36	0.36	0	67.0	12.8	9.6	0.25	0.23	0.0	0.0	137.9	136.4	2.0	0.2
51	Rock Quarry - D50	B51	Basic Segment	1710	1680	7200	5198	0.33	0.32	0	74.5	10.4	7.5	0.28	0.28	0.0	0.0	147.8	145.2	1.9	0.0
52	Rock Quarry - B51	M52	On Ramp	2273	2280	7200	5488	0.41	0.42	0	68.6	13.6	10.4	0.25	0.23	0.0	0.0	161.4	161.9	2.4	0.2
53	M52	B53	Basic Segment	2273	2280	7200	5488	0.41	0.42	0	75.0	13.3	10.1	1.30	1.30	0.0	0.0	920.2	923.0	12.3	0.0
54	Auburn Knight - B53	D54	Off Ramp	2273	2280	7200	5488	0.41	0.42	0	67.1	14.8	11.3	0.25	0.23	0.0	0.0	161.4	161.9	2.4	0.3
55	Auburn Knight - D54	B55	Basic Segment	2031	2040	7200	5358	0.38	0.38	0	74.3	12.3	9.1	0.24	0.24	0.0	0.0	151.5	152.1	2.0	0.0
56	Auburn Knight -	M56	On	2358	2340	7200	5502	0.43	0.43	0	68.7	14.3	11.0	0.25	0.23	0.0	0.0	167.5	166.2	2.4	0.2

	B55		Ramp																		
57	M56	B57	Basic Segment	2358	2340	7200	5502	0.43	0.43	0	74.7	13.7	10.4	0.33	0.33	0.0	0.0	245.6	243.8	3.3	0.0
58	Poole - B57	D58	Off Ramp	2358	2340	7200	5502	0.43	0.43	0	67.6	15.1	11.5	0.25	0.23	0.0	0.0	167.5	166.2	2.5	0.2
59	Poole - B59	B59	Basic Segment	2234	2220	7200	5438	0.41	0.41	0	74.9	13.1	9.9	0.58	0.58	0.0	0.0	402.0	399.4	5.3	0.0
60	B59	W60	Weaving	3634	3660	6194	5020	0.72	0.73	0	58.0	19.8	16.0	0.32	0.25	0.1	0.1	283.9	285.9	4.9	1.1
61	I-495 - W60	D61	Off Ramp	2840	2820	7200	5670	0.50	0.50	0	65.7	18.2	14.3	0.26	0.23	0.0	0.0	201.7	200.3	3.0	0.4
62	I-495 - D61	B62	Basic Segment	2212	2220	7200	5468	0.40	0.41	0	74.8	13.0	9.9	0.54	0.54	0.0	0.0	371.8	373.2	5.0	0.0
63	I-495 - B62	M63	On Ramp	5108	4320	9600	8080	0.63	0.53	0	64.3	17.7	14.9	0.27	0.23	0.0	2.9	362.8	306.8	4.8	0.7
64	M63	B64	Basic Segment	5108	4320	9600	8080	0.63	0.53	0	74.1	17.3	14.6	0.36	0.36	0.0	0.0	568.4	480.7	6.5	0.1
65	US 64 Bus - B64	D65	Off Ramp	5108	4320	9600	8080	0.63	0.53	0	67.0	19.2	16.1	0.25	0.23	0.0	0.0	362.8	306.8	4.6	0.5
66	US 64 Bus - D65	B66	Basic Segment	3862	3240	9600	7777	0.50	0.42	0	74.9	13.3	10.8	0.64	0.64	0.0	0.0	777.2	652.0	8.7	0.0
67	US 64 Bus - B66	M67	On Ramp	5479	4860	9600	8116	0.68	0.60	0	67.4	20.2	17.0	0.25	0.23	0.0	0.0	389.1	345.2	5.1	0.5
68	M67	End NC540 EB	Basic Segment	5479	4860	9600	8116	0.68	0.60	0	72.9	19.7	16.7	0.82	0.80	0.0	0.0	1369.8	1215.0	16.7	0.5

Time Period 3

Seg #	From	To	Type	Adj. Demand	Vol. Served	Capacity (pc/h)	Capacity (veh/h)	d/c Ratio	v/c ratio	Queue Length (ft)	Avg. Speed (mi/h)	Density (pc/mi/ln)	Density (veh/mi/ln)	Avg. Travel Time (min/veh)	Free-Flow Travel Time (min/veh)	Mainline Delay (min/veh)	System Delay (min/veh)	VMT Demand (veh-min)	VMT Volume (veh-min)	VHT (veh-hrs)	VHD (veh-hrs)
1	Begin NC 540 EB	B1	Basic Segment	7494	7422	9600	8807	0.85	0.84	893	61.9	30.0	27.5	0.97	0.80	0.2	0.2	1873.5	1855.5	30.0	5.2
2	OHSARI - B1	D2	Off Ramp	7494	7217	9600	8807	0.85	0.82	1500	40.3	44.7	41.0	0.42	0.23	0.2	0.2	532.2	512.6	12.7	5.9
3	OHSARI-D2	B3	Basic Segment	4824	4320	7200	6458	0.75	0.67	1575	18.5	77.9	69.9	0.97	0.24	0.7	0.7	359.7	322.2	17.4	13.1
4	B3	W4	Weaving	5804	4920	5496	4948	1.17	0.99	0	56.6	19.3	17.3	0.67	0.50	0.2	11.0	913.7	774.6	13.7	3.4
5	NC 55 BYP - W4	B5	Basic Segment	3354	2880	7200	6395	0.52	0.45	0	73.9	14.6	13.0	0.03	0.03	0.0	0.0	27.8	23.9	0.3	0.0
6	NC 55 BYP- B5	D6	Off Ramp	3354	2880	7200	6395	0.52	0.45	0	66.2	16.3	14.5	0.26	0.23	0.0	0.0	238.2	204.5	3.1	0.4
7	NC 55 BYP - D6	B7	Basic Segment	2836	2400	7200	6358	0.45	0.38	0	74.3	12.2	10.8	0.26	0.25	0.0	0.0	224.9	190.3	2.6	0.0
8	NC 55 BYP - B7	M8	On Ramp	4098	3660	7200	6432	0.64	0.57	0	67.2	19.5	17.4	0.25	0.23	0.0	0.0	291.1	259.9	3.9	0.4
9	M8	B9	Basic Segment	4098	3660	7200	6432	0.64	0.57	0	73.5	18.6	16.6	1.36	1.33	0.0	0.0	1707.5	1525.0	20.7	0.4
10	Holly Springs - B9	D10	Off Ramp	4098	3660	7200	6432	0.64	0.57	0	62.1	22.0	19.6	0.27	0.24	0.0	0.0	291.1	259.9	4.2	0.5
11	Holly Springs - D10	B11	Basic Segment	3256	2940	7200	6302	0.52	0.47	0	74.8	15.0	13.1	0.61	0.61	0.0	0.0	624.4	563.8	7.5	0.0
12	Holly Springs - B11	M12	On Ramp	4762	4440	7200	6395	0.74	0.69	0	65.1	24.5	21.8	0.26	0.23	0.0	0.0	338.2	315.3	4.8	0.6
13	M12	B13	Basic Segment	4762	4440	7200	6395	0.74	0.69	0	70.1	23.8	21.1	1.24	1.16	0.1	0.1	1719.2	1603.0	22.9	1.5
14	Bells Lake - B13	D14	Off Ramp	4762	4440	7200	6395	0.74	0.69	0	65.5	25.4	22.6	0.26	0.23	0.0	0.0	338.2	315.3	4.8	0.6
15	Bells Lake - D14	B15	Basic Segment	3835	3540	7200	6266	0.61	0.56	0	73.6	18.4	16.0	0.34	0.33	0.0	0.0	399.5	368.8	5.0	0.1
16	Bells Lake - B15	M16	On Ramp	4618	4320	7200	6321	0.73	0.68	0	66.1	24.2	21.3	0.26	0.23	0.0	0.0	328.0	306.8	4.6	0.6
17	M16	B17	Basic Segment	4618	4320	7200	6321	0.73	0.68	0	70.5	23.3	20.4	1.50	1.41	0.1	0.1	2028.0	1897.2	26.9	1.6
18	US 401 - B17	D18	Off Ramp	4618	4320	7200	6321	0.73	0.68	0	63.7	25.8	22.6	0.27	0.23	0.0	0.0	328.0	306.8	4.8	0.7
19	US 401 - D18	B19	Basic Segment	3137	2940	7200	6048	0.52	0.49	0	74.2	15.7	13.2	0.27	0.27	0.0	0.0	259.9	243.6	3.3	0.0
20	US 401 - B19	M20	On Ramp	3450	3240	7200	6095	0.57	0.53	0	64.3	19.5	16.5	0.27	0.23	0.0	0.0	245.0	230.1	3.6	0.5
21	US 401 - M20	B21	Basic Segment	3450	3240	7200	6095	0.57	0.53	0	73.0	17.5	14.8	0.09	0.09	0.0	0.0	93.9	88.2	1.2	0.0
22	US 401 - B21	M22	On Ramp	4159	3960	7200	6176	0.67	0.64	0	66.9	22.4	19.2	0.25	0.23	0.0	0.0	295.4	281.3	4.2	0.5
23	M22	B23	Basic Segment	4159	3960	7200	6176	0.67	0.64	0	71.8	21.4	18.4	0.66	0.64	0.0	0.0	827.1	787.5	11.0	0.5
24	Old Stage - B23	D24	Off Ramp	4159	3960	7200	6176	0.67	0.64	0	63.0	24.4	20.9	0.27	0.23	0.0	0.0	295.4	281.3	4.5	0.7
25	Old Stage - D24	B25	Basic Segment	2541	2400	7200	5750	0.44	0.42	0	74.8	13.4	10.7	0.57	0.57	0.0	0.0	451.2	426.1	5.7	0.0
26	Old Stage - B25	M26	On Ramp	2737	2640	7200	5804	0.47	0.45	0	68.5	15.7	12.6	0.25	0.23	0.0	0.0	194.4	187.5	2.7	0.2
27	M26	B27	Basic Segment	2737	2640	7200	5804	0.47	0.45	0	74.9	14.6	11.7	2.28	2.27	0.0	0.0	1943.9	1875.0	25.0	0.0
28	NC 50 - B27	D28	Off Ramp	2737	2640	7200	5804	0.47	0.45	0	64.2	17.0	13.7	0.27	0.23	0.0	0.0	194.4	187.5	2.9	0.4

29	NC 50 - D28	B29	Basic Segment	1699	1620	7200	5258	0.32	0.31	0	74.9	9.9	7.2	0.63	0.63	0.0	0.0	333.8	318.3	4.3	0.0
30	NC 50 - B29	M30	On Ramp	2767	2700	7200	5708	0.48	0.47	0	67.4	15.3	12.2	0.25	0.23	0.0	0.0	196.5	191.8	2.8	0.3
31	M30	B31	Basic Segment	2767	2700	7200	5708	0.48	0.47	0	74.3	15.3	12.1	0.23	0.23	0.0	0.0	196.5	191.8	2.6	0.0
32	I-40 - B31	D32	Off Ramp	2767	2700	7200	5708	0.48	0.47	0	64.1	17.7	14.0	0.27	0.23	0.0	0.0	196.5	191.8	3.0	0.4
33	I-40 - D32	B33	Basic Segment	1352	1320	7200	4943	0.27	0.27	0	72.6	8.8	6.1	0.06	0.06	0.0	0.0	24.0	23.4	0.3	0.0
34	I-40 - B33	D34	Off Ramp	1352	1320	7200	4943	0.27	0.27	0	61.9	10.3	7.1	0.28	0.23	0.0	0.0	96.0	93.8	1.5	0.3
35	I-40 - D34	B35	Basic Segment	281	241	7200	2473	0.11	0.10	0	74.5	3.1	1.1	0.40	0.39	0.0	0.0	34.6	29.7	0.4	0.0
36	I-40 - B35	M36	On Ramp	1092	1080	7200	4619	0.24	0.23	0	67.7	5.9	3.8	0.25	0.23	0.0	0.0	77.6	76.7	1.1	0.1
37	I-40 - M36	B37	Basic Segment	1092	1080	7200	4619	0.24	0.23	0	74.9	7.5	4.8	0.67	0.67	0.0	0.0	230.1	227.6	3.0	0.0
38	I-40 - B37	M38	On Ramp	1671	1680	7200	5157	0.32	0.33	0	68.8	10.2	7.3	0.25	0.23	0.0	0.0	118.7	119.3	1.7	0.1
39	M38	B39	Basic Segment	1671	1680	7200	5157	0.32	0.33	0	74.2	10.5	7.5	0.16	0.16	0.0	0.0	81.1	81.5	1.1	0.0
40	White Oak - B39	D40	Off Ramp	1671	1680	7200	5157	0.32	0.33	0	66.0	11.8	8.5	0.26	0.23	0.0	0.0	118.7	119.3	1.8	0.2
41	White Oak - D40	B41	Basic Segment	1256	1260	7200	4745	0.26	0.27	0	74.4	8.6	5.6	0.28	0.28	0.0	0.0	110.0	110.4	1.5	0.0
42	White Oak - B41	M42	On Ramp	1923	1920	7200	5259	0.37	0.37	0	68.6	11.5	8.4	0.25	0.23	0.0	0.0	136.6	136.4	2.0	0.2
43	M42	B43	Basic Segment	1923	1920	7200	5259	0.37	0.37	0	74.8	11.7	8.6	0.46	0.45	0.0	0.0	273.2	272.7	3.6	0.0
44	US 70 - B43	D44	Off Ramp	1923	1920	7200	5259	0.37	0.37	0	65.7	13.3	9.7	0.26	0.23	0.0	0.0	136.6	136.4	2.1	0.3
45	US 70 - D44	B45	Basic Segment	1395	1380	7200	4864	0.29	0.28	0	74.4	9.2	6.2	0.28	0.28	0.0	0.0	120.5	119.2	1.6	0.0
46	US 70 - B45	M46	On Ramp	1742	1740	7200	5133	0.34	0.34	0	68.3	11.2	8.0	0.25	0.23	0.0	0.0	123.7	123.6	1.8	0.2
47	US 70 - M46	B47	Basic Segment	1742	1740	7200	5133	0.34	0.34	0	73.9	11.0	7.8	0.12	0.12	0.0	0.0	63.9	63.8	0.9	0.0
48	US 70 - B47	M48	On Ramp	2160	2160	7200	5365	0.40	0.40	0	68.7	13.3	9.9	0.25	0.23	0.0	0.0	153.4	153.4	2.2	0.2
49	M48	B49	Basic Segment	2160	2160	7200	5365	0.40	0.40	0	74.3	13.0	9.7	0.19	0.19	0.0	0.0	130.4	130.4	1.8	0.0
50	Rock Quarry - B49	D50	Off Ramp	2160	2160	7200	5365	0.40	0.40	0	67.1	14.4	10.7	0.25	0.23	0.0	0.0	153.4	153.4	2.3	0.2
51	Rock Quarry - D50	B51	Basic Segment	1904	1920	7200	5202	0.37	0.37	0	74.5	11.9	8.6	0.28	0.28	0.0	0.0	164.5	165.9	2.2	0.0
52	Rock Quarry - B51	M52	On Ramp	2529	2520	7200	5490	0.46	0.46	0	68.3	15.1	11.5	0.25	0.23	0.0	0.0	179.6	179.0	2.6	0.2
53	M52	B53	Basic Segment	2529	2520	7200	5490	0.46	0.46	0	74.9	14.7	11.2	1.30	1.30	0.0	0.0	1023.8	1020.2	13.6	0.0
54	Auburn Knight - B53	D54	Off Ramp	2529	2520	7200	5490	0.46	0.46	0	67.2	16.4	12.5	0.25	0.23	0.0	0.0	179.6	179.0	2.7	0.3
55	Auburn Knight - D54	B55	Basic Segment	2260	2280	7200	5361	0.42	0.43	0	74.4	13.7	10.2	0.24	0.24	0.0	0.0	168.5	170.0	2.3	0.0
56	Auburn Knight - B55	M56	On Ramp	2623	2640	7200	5504	0.48	0.48	0	68.3	16.2	12.4	0.25	0.23	0.0	0.0	186.3	187.5	2.7	0.2
57	M56	B57	Basic Segment	2623	2640	7200	5504	0.48	0.48	0	74.7	15.4	11.8	0.33	0.33	0.0	0.0	273.2	275.0	3.7	0.0
58	Poole - B57	D58	Off Ramp	2623	2640	7200	5504	0.48	0.48	0	67.7	17.0	13.0	0.25	0.23	0.0	0.0	186.3	187.5	2.8	0.3
59	Poole - B59	B59	Basic Segment	2485	2460	7200	5440	0.46	0.45	0	74.9	14.5	10.9	0.58	0.58	0.0	0.0	447.1	442.6	5.9	0.0
60	B59	W60	Weaving	3885	3900	6651	5366	0.72	0.73	0	57.5	21.6	17.5	0.33	0.25	0.1	0.1	303.5	304.7	5.3	1.2
61	I-495 - W60	D61	Off Ramp	3091	3001	7200	5652	0.55	0.53	0	65.4	19.5	15.3	0.26	0.23	0.0	0.0	219.5	213.1	3.3	0.4
62	I-495 - D61	B62	Basic Segment	2394	2341	7200	5442	0.44	0.43	0	74.8	13.8	10.4	0.54	0.54	0.0	0.0	402.4	393.5	5.3	0.0
63	I-495 - B62	M63	On Ramp	5609	4441	9600	8071	0.69	0.55	0	62.6	18.5	15.5	0.27	0.23	0.0	9.7	398.4	315.4	5.0	0.8
64	M63	B64	Basic Segment	5609	4441	9600	8071	0.69	0.55	0	73.9	17.9	15.0	0.36	0.36	0.0	0.0	624.1	494.1	6.7	0.1
65	US 64 Bus - B64	D65	Off Ramp	5609	4441	9600	8071	0.69	0.55	0	66.4	19.9	16.7	0.26	0.23	0.0	0.0	398.4	315.4	4.7	0.5
66	US 64 Bus - D65	B66	Basic Segment	4226	3361	9600	7762	0.54	0.43	0	74.9	13.9	11.2	0.64	0.64	0.0	0.0	850.4	676.3	9.0	0.0
67	US 64 Bus - B66	M67	On Ramp	6021	5161	9600	8108	0.74	0.64	0	66.7	21.6	18.2	0.26	0.23	0.0	0.0	427.6	366.5	5.5	0.6
68	M67	End NC540 EB	Basic Segment	6021	5161	9600	8108	0.74	0.64	0	71.9	21.2	17.9	0.83	0.80	0.0	0.0	1505.3	1290.3	17.9	0.7

Time Period 4

Seg #	From	To	Type	Adj. Demand	Vol. Served	Capacity (pc/h)	Capacity (veh/h)	d/c Ratio	v/c ratio	Queue Length (ft)	Avg. Speed (mi/h)	Density (pc/mi/ln)	Density (veh/mi/ln)	Avg. Travel Time (min/veh)	Free-Flow Travel Time (min/veh)	Mainline Delay (min/veh)	System Delay (min/veh)	VMT Demand (veh-min)	VMT Volume (veh-min)	VHT (veh-hrs)	VHD (veh-hrs)
1	Begin NC 540	B1	Basic	6745	6762	9600	8807	0.77	0.77	635	61.9	27.3	25.0	0.97	0.80	0.2	0.2	1686.3	1690.5	27.3	4.8

	EB		Segment																		
2	OHSARI - B1	D2	Off Ramp	6745	6749	9600	8807	0.77	0.77	1500	22.1	76.3	70.0	0.77	0.23	0.5	0.5	479.0	479.3	21.7	15.3
3	OHSARI-D2	B3	Basic Segment	4340	4320	7200	6458	0.67	0.67	1575	15.5	92.9	83.3	1.15	0.24	0.9	0.9	323.7	322.2	20.8	16.5
4	B3	W4	Weaving	5223	4920	5491	4944	1.06	1.00	0	58.0	16.9	15.2	0.65	0.50	0.1	18.6	822.3	774.6	13.3	3.0
5	NC 55 BYP - W4	B5	Basic Segment	3016	2880	7200	6395	0.47	0.45	0	74.0	14.6	13.0	0.03	0.03	0.0	0.0	25.0	23.9	0.3	0.0
6	NC 55 BYP- B5	D6	Off Ramp	3016	2880	7200	6395	0.47	0.45	0	66.4	16.3	14.5	0.26	0.23	0.0	0.0	214.2	204.5	3.1	0.4
7	NC 55 BYP - D6	B7	Basic Segment	2549	2400	7200	6358	0.40	0.38	0	74.3	12.2	10.8	0.26	0.25	0.0	0.0	202.2	190.3	2.6	0.0
8	NC 55 BYP - B7	M8	On Ramp	3686	3540	7200	6432	0.57	0.55	0	67.4	18.9	16.8	0.25	0.23	0.0	0.0	261.8	251.4	3.7	0.4
9	M8	B9	Basic Segment	3686	3540	7200	6432	0.57	0.55	0	73.9	17.9	16.0	1.35	1.33	0.0	0.0	1535.8	1475.0	20.0	0.3
10	Holly Springs - B9	D10	Off Ramp	3686	3540	7200	6432	0.57	0.55	0	65.8	20.1	17.9	0.26	0.23	0.0	0.0	261.8	251.4	3.8	0.5
11	Holly Springs - D10	B11	Basic Segment	2927	2820	7200	6302	0.46	0.45	0	74.9	14.3	12.6	0.61	0.61	0.0	0.0	561.3	540.8	7.2	0.0
12	Holly Springs - B11	M12	On Ramp	4284	4200	7200	6395	0.67	0.66	0	65.9	23.0	20.4	0.26	0.23	0.0	0.0	304.3	298.3	4.5	0.5
13	M12	B13	Basic Segment	4284	4200	7200	6395	0.67	0.66	0	71.3	22.1	19.6	1.21	1.16	0.1	0.1	1546.7	1516.3	21.3	1.0
14	Bells Lake - B13	D14	Off Ramp	4284	4200	7200	6395	0.67	0.66	0	65.7	24.0	21.3	0.26	0.23	0.0	0.0	304.3	298.3	4.5	0.6
15	Bells Lake - D14	B15	Basic Segment	3449	3360	7200	6266	0.55	0.54	0	74.1	17.4	15.1	0.34	0.33	0.0	0.0	359.3	350.0	4.7	0.1
16	Bells Lake - B15	M16	On Ramp	4154	4080	7200	6321	0.66	0.65	0	66.6	22.7	20.0	0.26	0.23	0.0	0.0	295.0	289.8	4.4	0.5
17	M16	B17	Basic Segment	4154	4080	7200	6321	0.66	0.65	0	71.7	21.6	19.0	1.47	1.41	0.1	0.1	1824.3	1791.8	25.0	1.1
18	US 401 - B17	D18	Off Ramp	4154	4080	7200	6321	0.66	0.65	0	64.1	24.2	21.2	0.27	0.23	0.0	0.0	295.0	289.8	4.5	0.7
19	US 401 - D18	B19	Basic Segment	2820	2760	7200	6047	0.47	0.46	0	74.2	14.8	12.4	0.27	0.27	0.0	0.0	233.7	228.7	3.1	0.0
20	US 401 - B19	M20	On Ramp	3102	3060	7200	6094	0.51	0.50	0	65.6	18.1	15.3	0.26	0.23	0.0	0.0	220.3	217.3	3.3	0.4
21	US 401 - M20	B21	Basic Segment	3102	3060	7200	6094	0.51	0.50	0	73.2	16.5	13.9	0.09	0.09	0.0	0.0	84.5	83.3	1.1	0.0
22	US 401 - B21	M22	On Ramp	3741	3660	7200	6176	0.61	0.59	0	67.5	20.5	17.6	0.25	0.23	0.0	0.0	265.7	259.9	3.8	0.4
23	M22	B23	Basic Segment	3741	3660	7200	6176	0.61	0.59	0	73.0	19.5	16.7	0.65	0.64	0.0	0.0	743.9	727.8	10.0	0.3
24	Old Stage - B23	D24	Off Ramp	3741	3660	7200	6176	0.61	0.59	0	63.4	22.4	19.2	0.27	0.23	0.0	0.0	265.7	259.9	4.1	0.6
25	Old Stage - D24	B25	Basic Segment	2283	2280	7200	5748	0.40	0.40	0	74.8	12.7	10.2	0.57	0.57	0.0	0.0	405.4	404.8	5.4	0.0
26	Old Stage - B25	M26	On Ramp	2460	2400	7200	5802	0.42	0.41	0	68.8	14.2	11.5	0.25	0.23	0.0	0.0	174.7	170.5	2.5	0.2
27	M26	B27	Basic Segment	2460	2400	7200	5802	0.42	0.41	0	75.0	13.2	10.7	2.27	2.27	0.0	0.0	1747.2	1704.5	22.7	0.0
28	NC 50 - B27	D28	Off Ramp	2460	2400	7200	5802	0.42	0.41	0	64.4	15.4	12.4	0.26	0.23	0.0	0.0	174.7	170.5	2.6	0.4
29	NC 50 - D28	B29	Basic Segment	1525	1500	7200	5254	0.29	0.29	0	74.9	9.1	6.7	0.63	0.63	0.0	0.0	299.7	294.7	3.9	0.0
30	NC 50 - B29	M30	On Ramp	2487	2460	7200	5706	0.44	0.43	0	67.8	13.9	11.0	0.25	0.23	0.0	0.0	176.6	174.7	2.6	0.2
31	M30	B31	Basic Segment	2487	2460	7200	5706	0.44	0.43	0	74.4	13.9	11.0	0.23	0.23	0.0	0.0	176.6	174.7	2.3	0.0
32	I-40 - B31	D32	Off Ramp	2487	2460	7200	5706	0.44	0.43	0	64.6	16.0	12.7	0.26	0.23	0.0	0.0	176.6	174.7	2.7	0.4
33	I-40 - D32	B33	Basic Segment	1212	1200	7200	4937	0.25	0.24	0	72.7	8.0	5.5	0.06	0.06	0.0	0.0	21.5	21.3	0.3	0.0
34	I-40 - B33	D34	Off Ramp	1212	1200	7200	4937	0.25	0.24	0	62.2	9.4	6.4	0.27	0.23	0.0	0.0	86.1	85.2	1.4	0.2
35	I-40 - D34	B35	Basic Segment	247	240	7200	2435	0.10	0.10	0	74.5	3.2	1.1	0.40	0.39	0.0	0.0	30.4	29.5	0.4	0.0
36	I-40 - B35	M36	On Ramp	978	960	7200	4611	0.21	0.21	0	67.7	5.2	3.3	0.25	0.23	0.0	0.0	69.5	68.2	1.0	0.1
37	I-40 - M36	B37	Basic Segment	978	960	7200	4611	0.21	0.21	0	74.9	6.7	4.3	0.67	0.67	0.0	0.0	206.1	202.3	2.7	0.0
38	I-40 - B37	M38	On Ramp	1500	1500	7200	5152	0.29	0.29	0	68.9	9.0	6.5	0.25	0.23	0.0	0.0	106.5	106.5	1.5	0.1
39	M38	B39	Basic Segment	1500	1500	7200	5152	0.29	0.29	0	74.2	9.4	6.7	0.16	0.16	0.0	0.0	72.8	72.8	1.0	0.0
40	White Oak - B39	D40	Off Ramp	1500	1500	7200	5152	0.29	0.29	0	66.0	10.6	7.6	0.26	0.23	0.0	0.0	106.5	106.5	1.6	0.2
41	White Oak - D40	B41	Basic Segment	1126	1140	7200	4739	0.24	0.24	0	74.4	7.8	5.1	0.28	0.28	0.0	0.0	98.6	99.9	1.3	0.0
42	White Oak - B41	M42	On Ramp	1727	1740	7200	5256	0.33	0.33	0	68.7	10.4	7.6	0.25	0.23	0.0	0.0	122.7	123.6	1.8	0.2
43	M42	B43	Basic Segment	1727	1740	7200	5256	0.33	0.33	0	74.8	10.6	7.8	0.46	0.45	0.0	0.0	245.3	247.2	3.3	0.0
44	US 70 - B43	D44	Off Ramp	1727	1740	7200	5256	0.33	0.33	0	65.7	12.1	8.8	0.26	0.23	0.0	0.0	122.7	123.6	1.9	0.2
45	US 70 - D44	B45	Basic Segment	1251	1260	7200	4858	0.26	0.26	0	74.4	8.4	5.6	0.28	0.28	0.0	0.0	108.1	108.9	1.5	0.0

46	US 70 - B45	M46	On Ramp	1564	1560	7200	5129	0.30	0.30	0	68.6	10.0	7.1	0.25	0.23	0.0	0.0	111.1	110.8	1.6	0.1
47	US 70 - M46	B47	Basic Segment	1564	1560	7200	5129	0.30	0.30	0	74.0	9.9	7.0	0.12	0.12	0.0	0.0	57.4	57.2	0.8	0.0
48	US 70 - B47	M48	On Ramp	1941	1920	7200	5362	0.36	0.36	0	68.9	11.8	8.8	0.25	0.23	0.0	0.0	137.9	136.4	2.0	0.2
49	M48	B49	Basic Segment	1941	1920	7200	5362	0.36	0.36	0	74.4	11.6	8.6	0.19	0.19	0.0	0.0	117.2	115.9	1.6	0.0
50	Rock Quarry - B49	D50	Off Ramp	1941	1920	7200	5362	0.36	0.36	0	67.0	12.8	9.6	0.25	0.23	0.0	0.0	137.9	136.4	2.0	0.2
51	Rock Quarry - D50	B51	Basic Segment	1710	1740	7200	5198	0.33	0.33	0	74.5	10.8	7.8	0.28	0.28	0.0	0.0	147.8	150.4	2.0	0.0
52	Rock Quarry - B51	M52	On Ramp	2273	2280	7200	5488	0.41	0.42	0	68.6	13.6	10.4	0.25	0.23	0.0	0.0	161.4	161.9	2.4	0.2
53	M52	B53	Basic Segment	2273	2280	7200	5488	0.41	0.42	0	75.0	13.3	10.1	1.30	1.30	0.0	0.0	920.2	923.0	12.3	0.0
54	Auburn Knight - B53	D54	Off Ramp	2273	2280	7200	5488	0.41	0.42	0	67.1	14.8	11.3	0.25	0.23	0.0	0.0	161.4	161.9	2.4	0.3
55	Auburn Knight - D54	B55	Basic Segment	2031	2040	7200	5358	0.38	0.38	0	74.3	12.3	9.1	0.24	0.24	0.0	0.0	151.5	152.1	2.0	0.0
56	Auburn Knight - B55	M56	On Ramp	2358	2340	7200	5502	0.43	0.43	0	68.7	14.3	11.0	0.25	0.23	0.0	0.0	167.5	166.2	2.4	0.2
57	M56	B57	Basic Segment	2358	2340	7200	5502	0.43	0.43	0	74.7	13.7	10.4	0.33	0.33	0.0	0.0	245.6	243.8	3.3	0.0
58	Poole - B57	D58	Off Ramp	2358	2340	7200	5502	0.43	0.43	0	67.6	15.1	11.5	0.25	0.23	0.0	0.0	167.5	166.2	2.5	0.2
59	Poole - B59	B59	Basic Segment	2234	2220	7200	5438	0.41	0.41	0	74.9	13.1	9.9	0.58	0.58	0.0	0.0	402.0	399.4	5.3	0.0
60	B59	W60	Weaving	3634	3660	6194	5020	0.72	0.73	0	58.0	19.8	16.0	0.32	0.25	0.1	0.1	283.9	285.9	4.9	1.1
61	I-495 - W60	D61	Off Ramp	2840	2880	7200	5670	0.50	0.51	0	65.8	18.5	14.6	0.26	0.23	0.0	0.0	201.7	204.5	3.1	0.4
62	I-495 - D61	B62	Basic Segment	2212	2220	7200	5468	0.40	0.41	0	74.8	13.0	9.9	0.54	0.54	0.0	0.0	371.8	373.2	5.0	0.0
63	I-495 - B62	M63	On Ramp	5108	4320	9600	8080	0.63	0.53	0	64.3	17.7	14.9	0.27	0.23	0.0	16.5	362.8	306.8	4.8	0.7
64	M63	B64	Basic Segment	5108	4320	9600	8080	0.63	0.53	0	74.1	17.3	14.6	0.36	0.36	0.0	0.0	568.4	480.7	6.5	0.1
65	US 64 Bus - B64	D65	Off Ramp	5108	4320	9600	8080	0.63	0.53	0	67.0	19.2	16.1	0.25	0.23	0.0	0.0	362.8	306.8	4.6	0.5
66	US 64 Bus - D65	B66	Basic Segment	3862	3299	9600	7777	0.50	0.42	0	74.9	13.6	11.0	0.64	0.64	0.0	0.0	777.2	663.9	8.9	0.0
67	US 64 Bus - B66	M67	On Ramp	5479	4860	9600	8116	0.68	0.60	0	67.4	20.2	17.0	0.25	0.23	0.0	0.0	389.1	345.2	5.1	0.5
68	M67	End NC540 EB	Basic Segment	5479	4860	9600	8116	0.68	0.60	0	72.9	19.7	16.7	0.82	0.80	0.0	0.0	1369.8	1215.0	16.7	0.5

Overall Results

Segment	Segment Type	Maximum d/c Ratio	Avg. Speed (mi/h)	Density (pc/mi/ln)	Density (veh/mi/ln)	Avg. Travel Time (min/veh)	Free-Flow Travel Time (min/veh)	VMT Demand (veh-min)	VMT Volume (veh-min)	VHT (veh-hrs)	VHD (veh-hrs)
Begin NC 540 EB-B1	Basic	0.85	65.0	26.9	24.7	0.92	0.80	6,745.0	6,725.0	103.46	13.79
OHSARI - B1-D2	OffRamp	0.85	38.6	44.3	40.7	0.44	0.23	1,916.2	1,895.0	49.05	23.79
OHSARI-D2-B3	Basic	0.75	26.6	53.2	47.7	0.67	0.24	1,294.6	1,254.0	47.17	30.45
B3-W4	Weaving	1.17	55.1	25.1	22.6	0.69	0.50	3,289.1	3,054.5	55.46	14.74
NC 55 BYP - W4-B5	Basic	0.52	73.8	14.4	12.8	0.03	0.03	0,100.0	0,093.8	1.27	0.02
NC 55 BYP- B5-D6	OffRamp	0.52	64.4	16.5	14.7	0.26	0.23	0,856.8	0,803.8	12.49	1.77
NC 55 BYP - D6-B7	Basic	0.45	74.2	12.0	10.6	0.26	0.25	0,808.6	0,750.4	10.11	0.11
NC 55 BYP - B7-M8	OnRamp	0.64	67.5	18.7	16.7	0.25	0.23	1,047.2	0,995.3	14.75	1.48
M8-B9	Basic	0.64	73.9	17.7	15.8	1.35	1.33	6,143.3	5,839.2	79.00	1.15
Holly Springs - B9-D10	OffRamp	0.64	65.6	19.9	17.8	0.26	0.23	1,047.2	0,995.3	15.18	1.66
Holly Springs - D10-B11	Basic	0.52	74.9	14.2	12.4	0.61	0.61	2,245.1	2,143.5	28.62	0.04
Holly Springs - B11-M12	OnRamp	0.74	65.9	22.8	20.3	0.26	0.23	1,217.0	1,182.2	17.95	2.18
M12-B13	Basic	0.74	71.4	21.9	19.4	1.21	1.16	6,186.6	6,009.7	84.22	4.09
Bells Lake - B13-D14	OffRamp	0.74	66.4	23.5	20.9	0.26	0.23	1,217.0	1,182.2	17.80	2.03
Bells Lake - D14-B15	Basic	0.61	74.1	17.2	15.0	0.34	0.33	1,437.1	1,387.8	18.73	0.23
Bells Lake - B15-M16	OnRamp	0.73	66.6	22.5	19.8	0.26	0.23	1,180.1	1,148.4	17.24	1.93

M16-B17	Basic	0.73	71.7	21.4	18.8	1.47	1.41	7,297.0	7,101.2	99.06	4.38
US 401 - B17-D18	OffRamp	0.73	64.8	23.7	20.8	0.26	0.23	1,180.1	1,148.4	17.72	2.41
US 401 - D18-B19	Basic	0.52	74.3	14.6	12.3	0.27	0.27	0,934.7	0,908.4	12.23	0.12
US 401 - B19-M20	OnRamp	0.57	65.8	17.9	15.1	0.26	0.23	0,881.3	0,860.4	13.07	1.60
US 401 - M20-B21	Basic	0.57	73.3	16.3	13.8	0.09	0.09	0,337.8	0,329.8	4.50	0.10
US 401 - B21-M22	OnRamp	0.67	67.5	20.5	17.6	0.25	0.23	1,062.8	1,037.1	15.37	1.54
M22-B23	Basic	0.67	72.9	19.5	16.7	0.65	0.64	2,975.8	2,904.0	39.83	1.11
Old Stage - B23-D24	OffRamp	0.67	64.1	22.1	19.0	0.27	0.23	1,062.8	1,037.1	16.17	2.35
Old Stage - D24-B25	Basic	0.44	74.8	12.4	9.9	0.57	0.57	1,621.4	1,584.7	21.17	0.04
Old Stage - B25-M26	OnRamp	0.47	68.8	14.3	11.5	0.25	0.23	0,698.9	0,683.5	9.94	0.83
M26-B27	Basic	0.47	75.0	13.3	10.7	2.27	2.27	6,988.6	6,834.5	91.16	0.03
NC 50 - B27-D28	OffRamp	0.47	65.2	15.3	12.3	0.26	0.23	0,698.9	0,683.5	10.49	1.38
NC 50 - D28-B29	Basic	0.32	74.9	9.1	6.6	0.63	0.63	1,198.6	1,173.3	15.66	0.02
NC 50 - B29-M30	OnRamp	0.48	67.8	14.1	11.1	0.25	0.23	0,706.5	0,697.9	10.30	0.99
M30-B31	Basic	0.48	74.4	13.9	11.0	0.23	0.23	0,706.5	0,697.9	9.39	0.08
I-40 - B31-D32	OffRamp	0.48	65.3	15.8	12.5	0.26	0.23	0,706.5	0,697.9	10.69	1.39
I-40 - D32-B33	Basic	0.27	72.9	8.0	5.5	0.06	0.06	0,086.1	0,085.1	1.17	0.03
I-40 - B33-D34	OffRamp	0.27	63.0	9.2	6.3	0.27	0.23	0,344.3	0,340.3	5.40	0.86
I-40 - D34-B35	Basic	0.11	74.6	3.1	1.0	0.40	0.39	0,121.6	0,115.0	1.54	0.01
I-40 - B35-M36	OnRamp	0.24	67.8	5.5	3.5	0.25	0.23	0,277.8	0,274.4	4.05	0.39
I-40 - M36-B37	Basic	0.24	74.9	6.7	4.3	0.67	0.67	0,824.3	0,814.1	10.86	0.01
I-40 - B37-M38	OnRamp	0.32	68.9	9.2	6.6	0.25	0.23	0,426.1	0,426.8	6.19	0.50
M38-B39	Basic	0.32	74.2	9.4	6.7	0.16	0.16	0,291.2	0,291.6	3.93	0.04
White Oak - B39-D40	OffRamp	0.32	66.7	10.5	7.5	0.26	0.23	0,426.1	0,426.8	6.39	0.70
White Oak - D40-B41	Basic	0.26	74.5	7.7	5.1	0.28	0.28	0,394.5	0,397.3	5.34	0.04
White Oak - B41-M42	OnRamp	0.37	68.7	10.5	7.7	0.25	0.23	0,490.6	0,492.3	7.17	0.60
M42-B43	Basic	0.37	74.8	10.6	7.7	0.46	0.45	0,981.3	0,984.5	13.16	0.03
US 70 - B43-D44	OffRamp	0.37	66.5	11.9	8.7	0.26	0.23	0,490.6	0,492.3	7.41	0.84
US 70 - D44-B45	Basic	0.29	74.4	8.3	5.6	0.28	0.28	0,432.4	0,432.7	5.81	0.04
US 70 - B45-M46	OnRamp	0.34	68.6	10.1	7.2	0.25	0.23	0,444.3	0,443.6	6.47	0.55
US 70 - M46-B47	Basic	0.34	74.0	9.9	7.0	0.12	0.12	0,229.6	0,229.2	3.10	0.04
US 70 - B47-M48	OnRamp	0.40	68.9	12.0	8.9	0.25	0.23	0,551.4	0,548.4	7.96	0.65
M48-B49	Basic	0.40	74.4	11.6	8.7	0.19	0.19	0,468.7	0,466.2	6.27	0.05
Rock Quarry - B49-D50	OffRamp	0.40	66.1	13.1	9.7	0.26	0.23	0,551.4	0,548.4	8.29	0.98
Rock Quarry - D50-B51	Basic	0.37	74.4	10.6	7.7	0.28	0.28	0,591.1	0,592.4	7.96	0.06
Rock Quarry - B51-M52	OnRamp	0.46	68.5	13.7	10.5	0.25	0.23	0,645.7	0,646.1	9.43	0.81
M52-B53	Basic	0.46	75.0	13.3	10.1	1.30	1.30	3,680.7	3,682.7	49.12	0.02
Auburn Knight - B53-D54	OffRamp	0.46	66.3	15.0	11.4	0.26	0.23	0,645.7	0,646.1	9.74	1.13
Auburn Knight - D54-B55	Basic	0.42	74.3	12.3	9.2	0.24	0.24	0,605.8	0,608.7	8.19	0.08
Auburn Knight - B55-M56	OnRamp	0.48	68.6	14.5	11.1	0.25	0.23	0,669.9	0,668.5	9.74	0.83
M56-B57	Basic	0.48	74.7	13.7	10.5	0.33	0.33	0,982.5	0,980.5	13.13	0.06
Poole - B57-D58	OffRamp	0.48	68.4	15.0	11.5	0.25	0.23	0,669.9	0,668.5	9.78	0.87
Poole - B59-B59	Basic	0.46	74.9	13.1	9.9	0.58	0.58	1,607.8	1,598.3	21.34	0.03
B59-W60	Weaving	0.72	58.0	19.7	16.0	0.32	0.25	1,135.6	1,140.9	19.67	4.46
I-495 - W60-D61	OffRamp	0.55	64.8	18.4	14.5	0.26	0.23	0,806.8	0,801.8	12.37	1.67
I-495 - D61-B62	Basic	0.44	74.8	12.9	9.8	0.54	0.54	1,487.2	1,481.0	19.79	0.04
I-495 - B62-M63	OnRamp	0.69	64.0	18.4	15.5	0.27	0.23	1,451.1	1,256.3	19.62	2.87
M63-B64	Basic	0.69	73.9	17.8	15.0	0.36	0.36	2,273.4	1,968.1	26.64	0.39
US 64 Bus -	OffRamp	0.69	67.8	19.4	16.3	0.25	0.23	1,451.1	1,256.3	18.54	1.79

B64-D65											
US 64 Bus - D65-B66	Basic	0.54	74.9	13.8	11.2	0.64	0.64	3,108.6	2,696.1	35.98	0.04
US 64 Bus - B66-M67	OnRamp	0.74	67.2	20.8	17.6	0.25	0.23	1,556.5	1,407.5	20.93	2.16
M67-End NC540 EB	Basic	0.74	72.6	20.2	17.1	0.83	0.80	5,479.0	4,954.5	68.26	2.20
Freeway			67.6	16.5	13.7	28.68	26.54	102,470.5	98,703.5	1,460.0	0,143.7

	Density-Based LOS by Segment														
Segment	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Time Step	Basic	Off Ramp	Basic	Weaving	Basic	Off Ramp	Basic	On Ramp	Basic	Off Ramp	Basic	On Ramp	Basic	Off Ramp	Basic
1	C	D	C	C	B	B	B	B	B	B	B	C	C	C	B
2	D	E	C	E	B	B	B	C	B	B	B	C	C	D	B
3	D	E	F	B	B	B	B	C	C	C	B	C	C	D	C
4	D	F	F	B	B	B	B	C	B	B	B	C	C	D	B

	Density-Based LOS by Segment														
Segment	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Time Step	On Ramp	Basic	Off Ramp	Basic	On Ramp	Basic	On Ramp	Basic	Off Ramp	Basic	On Ramp	Basic	Off Ramp	Basic	On Ramp
1	B	C	C	B	B	B	B	B	C	B	B	B	B	A	B
2	B	C	C	B	C	B	C	C	D	B	B	B	B	A	B
3	C	C	C	B	C	B	C	C	D	B	B	B	B	A	B
4	B	C	C	B	C	B	C	C	D	B	B	B	B	A	B

	Density-Based LOS by Segment														
Segment	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45
Time Step	Basic	Off Ramp	Basic	Off Ramp	Basic	On Ramp	Basic	On Ramp	Basic	Off Ramp	Basic	On Ramp	Basic	Off Ramp	Basic
1	B	A	A	B	A	A	A	A	A	B	A	A	A	A	A
2	B	A	A	B	A	A	A	B	A	B	A	A	A	B	A
3	B	B	A	B	A	A	A	B	A	B	A	A	B	B	A
4	B	A	A	B	A	A	A	B	A	B	A	A	A	B	A

	Density-Based LOS by Segment														
Segment	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
Time Step	On Ramp	Basic	On Ramp	Basic	Off Ramp	Basic	On Ramp	Basic	Off Ramp	Basic	On Ramp	Basic	Off Ramp	Basic	Weaving
1	A	A	B	A	A	A	B	B	B	A	B	B	B	B	B
2	A	A	B	B	A	A	B	B	B	B	B	B	C	B	B
3	A	A	B	B	A	B	B	B	B	B	B	B	C	B	C
4	A	A	B	B	A	A	B	B	B	B	B	B	C	B	B

	Density-Based LOS by Segment							
Segment	61	62	63	64	65	66	67	68
Time Step	Off Ramp	Basic	On Ramp	Basic	Off Ramp	Basic	On Ramp	Basic
1	B	B	C	C	D	B	C	C
2	C	B	C	B	C	B	C	C
3	C	B	D	B	D	B	C	C
4	C	B	C	B	C	B	C	C

	Demand-Based LOS by Segment														
Time Step	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2	.	.	.	F	.	.	.	.	.	.	.	.	.	.	.
3	.	.	.	F	.	.	.	.	.	.	.	.	.	.	.
4	.	.	.	F	.	.	.	.	.	.	.	.	.	.	.

	Demand-Based LOS by Segment														
Time Step	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
3	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
4	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

	Demand-Based LOS by Segment														
Time Step	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45
1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
3	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
4	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

	Demand-Based LOS by Segment														
Time Step	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
3	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
4	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

	Demand-Based LOS by Segment							
Time Step	61	62	63	64	65	66	67	68
1	.	.	.	.	.	.	.	.
2	.	.	.	.	.	.	.	.
3	.	.	.	.	.	.	.	.
4	.	.	.	.	.	.	.	.

HCS 2010 Freeway Facilities

Project Properties

Analyst	HNTB	**Freeway Name**	Complete 540 – 2040 Build WB AM	**Analysis Period**	AM Peak
Analysis Date	9/9/2014 10:49:55 AM	**From**	US 64 Business	**Version Date**	1/20/16
Agency	HNTB	**To**	Old Holly Springs-Apex		
Location	Complete 540	**Analysis Direction**	Westbound/Southbound		
User Notes					
File Name	C:\Temp\preview.xml				

Facility-wide Values

Jam Density (pc/h/ln)	190	**Time Period Duration (min)**	15	**Facility Length (mi)**	**33.01800**

Segment Input Data

Time Period 1

Mainline Data

Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin NC 540 WB	B69	Basic Segment	5280	Rolling	4875	6.00	0.00	4	75
2	US 64 Bus - B69	D70	Off Ramp	1500	Rolling	4875	6.00	0.00	4	75
3	US 64 Bus - D70	B71	Basic Segment	575	Rolling	4274	6.42	0.00	4	75
4	US 64 Bus - B71	D72	Off Ramp	1500	Rolling	4274	6.42	0.00	4	75
5	US 64 Bus - D72	B73	Basic Segment	1725	Rolling	3436	6.52	0.00	4	75
6	US 64 Bus - B73	M74	On Ramp	1500	Rolling	4545	6.40	0.00	4	75
7	M74	B75	Basic Segment	4125	Rolling	4545	6.40	0.00	4	75
8	I-495 - B75	D76	Off Ramp	1500	Rolling	4545	6.40	0.00	4	75
9	I-495 - D76	B77	Basic Segment	225	Rolling	3044	7.58	0.00	4	75
10	I-495 - B77	D78	Off Ramp	1500	Rolling	3044	7.58	0.00	4	75
11	I-495 - D78	B79	Basic Segment	2300	Rolling	1968	9.54	0.00	3	75
12	B79	W80	Weaving	1850	Rolling	3234	8.15	0.00	4	75
13	Poole - W80	B81	Basic Segment	1850	Rolling	1988	12.01	0.00	3	75
14	Poole - B81	M82	On Ramp	1500	Rolling	2098	11.69	0.00	3	75
15	M82	B83	Basic Segment	2600	Rolling	2098	11.69	0.00	3	75
16	Auburn Knight - B83	D84	Off Ramp	1500	Rolling	2098	11.69	0.00	3	75
17	Auburn Knight - D84	B85	Basic Segment	1600	Rolling	1807	13.09	0.00	3	75
18	Auburn Knight - B85	M86	On Ramp	1500	Rolling	2022	12.34	0.00	3	75
19	M86	B87	Basic Segment	8600	Rolling	2022	12.34	0.00	3	75
20	Rock Quarry - B87	D88	Off Ramp	1500	Rolling	2022	12.34	0.00	3	75
21	Rock Quarry - D88	B89	Basic Segment	1550	Rolling	1521	15.74	0.00	3	75
22	Rock Quarry - B89	M90	On Ramp	1500	Rolling	1727	14.58	0.00	3	75
23	M90	B91	Basic Segment	1575	Rolling	1727	14.58	0.00	3	75
24	US 70 - B91	D92	Off Ramp	1500	Rolling	1727	14.58	0.00	3	75
25	US 70 - D92	B93	Basic Segment	1875	Rolling	1113	19.87	0.00	3	75
26	US 70 - B93	M94	On Ramp	1500	Rolling	1463	16.55	0.00	3	75
27	US 70 - M94	B95	Basic Segment	825	Rolling	1463	16.55	0.00	3	75
28	US 70 - B95	M96	On Ramp	1500	Rolling	1537	16.04	0.00	3	75
29	M96	B97	Basic Segment	3500	Rolling	1537	16.04	0.00	3	75
	White									

RampData

Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	Off Ramp	601	3.00	0.00	1	200	50
4	Off Ramp	838	6.00	0.00	1	1500	30
6	On Ramp	1109	6.00	0.00	1	950	50
8	Off Ramp	1501	4.00	0.00	1	250	50
10	Off Ramp	1076	4.00	0.00	1	525	30
14	On Ramp	110	6.00	0.00	1	900	50
16	Off Ramp	291	3.00	0.00	1	175	50
18	On Ramp	215	6.00	0.00	1	1500	30
20	Off Ramp	501	2.00	0.00	1	300	50
22	On Ramp	206	6.00	0.00	1	1500	30
24	Off Ramp	614	5.00	0.00	1	175	50
26	On Ramp	350	6.00	0.00	1	1500	30
28	On Ramp	74	6.00	0.00	1	750	50
30	Off Ramp	535	2.00	0.00	1	1200	30
32	On Ramp	333	6.00	0.00	1	900	50
34	Off Ramp	824	5.00	0.00	1	900	50
38	On Ramp	1135	6.00	0.00	2	1500	50
40	Off Ramp	856	2.00	0.00	1	1500	30
42	On Ramp	832	6.00	0.00	1	900	50
44	Off Ramp	158	2.00	0.00	1	900	50
46	On Ramp	1298	6.00	0.00	1	900	50
48	Off Ramp	820	2.00	0.00	1	1275	50
50	On Ramp	771	6.00	0.00	1	1500	30
52	On Ramp	417	6.00	0.00	1	900	50
54	Off Ramp	627	2.00	0.00	1	250	50
56	On Ramp	743	6.00	0.00	1	1400	30
58	Off Ramp	1208	2.00	0.00	1	175	50
60	On Ramp	676	6.00	0.00	1	900	50
62	Off Ramp	1012	4.00	0.00	1	275	50
64	On Ramp	1964	6.00	0.00	1	1500	30
66	On Ramp	416	6.00	0.00	1	1500	50
68	Off Ramp	786	3.00	0.00	1	1500	50
70	On Ramp	2408	6.00	0.00	2	1500	30

30	Oak - B97	D98	Off Ramp	1500	Rolling	1537	16.04	0.00	3	75
31	White Oak - D98	B99	Basic Segment	1675	Rolling	1002	23.54	0.00	3	75
32	White Oak - B99	M100	On Ramp	1500	Rolling	1335	19.16	0.00	3	75
33	M100	B101	Basic Segment	1700	Rolling	1335	19.16	0.00	3	75
34	I-40 - B101	D102	Off Ramp	1500	Rolling	1335	19.16	0.00	3	75
35	I-40 - D102	B103	Basic Segment	4700	Rolling	511	42.00	0.00	3	75
36	I-40 - B103	W104	Weaving	1150	Rolling	1355	19.58	0.00	4	75
37	I-40 - W104	B105	Basic Segment	4350	Rolling	1064	23.56	0.00	3	75
38	I-40 - B105	M106	On Ramp	1500	Rolling	2199	14.50	0.00	3	75
39	M106	B107	Basic Segment	3925	Rolling	2199	14.50	0.00	3	75
40	NC 50 - B107	D108	Off Ramp	1500	Rolling	2199	14.50	0.00	3	75
41	NC 50 - D108	B109	Basic Segment	1850	Rolling	1343	22.46	0.00	3	75
42	NC 50 - B109	M110	On Ramp	1500	Rolling	2175	16.17	0.00	3	75
43	M110	B111	Basic Segment	14425	Rolling	2175	16.17	0.00	3	75
44	Old Stage - B111	D112	Off Ramp	1500	Rolling	2175	16.17	0.00	3	75
45	Old Stage - D112	B113	Basic Segment	3750	Rolling	2017	17.28	0.00	3	75
46	Old Stage - B113	M114	On Ramp	1500	Rolling	3315	12.86	0.00	3	75
47	M114	B115	Basic Segment	4675	Rolling	3315	12.86	0.00	3	75
48	US 401 - B115	D116	Off Ramp	1500	Rolling	3315	12.86	0.00	3	75
49	US 401 - D116	B117	Basic Segment	1600	Rolling	2495	16.43	0.00	3	75
50	US 401 - B117	M118	On Ramp	1500	Rolling	3266	13.97	0.00	3	75
51	US 401 - M118	B119	Basic Segment	500	Rolling	3266	13.97	0.00	3	75
52	US 401 - B119	M120	On Ramp	1500	Rolling	3683	13.07	0.00	3	75
53	M120	B121	Basic Segment	6725	Rolling	3683	13.07	0.00	3	75
54	Bells Lake - B121	D122	Off Ramp	1500	Rolling	3683	13.07	0.00	3	75
55	Bells Lake - D122	B123	Basic Segment	2350	Rolling	3056	15.34	0.00	3	75
56	Bells Lake - B123	M124	On Ramp	1500	Rolling	3799	13.51	0.00	3	75
57	M124	B125	Basic Segment	9975	Rolling	3799	13.51	0.00	3	75
58	Holly Springs - B125	D126	Off Ramp	1500	Rolling	3799	13.51	0.00	3	75
59	Holly Springs - D126	B127	Basic Segment	3275	Rolling	2591	18.88	0.00	3	75
60	Holly Springs - B127	M128	On Ramp	1500	Rolling	3267	16.21	0.00	3	75
61	M128	B129	Basic Segment	9250	Rolling	3267	16.21	0.00	3	75
62	NC 55 BYP - B129	D130	Off Ramp	1500	Rolling	3267	16.21	0.00	3	75
63	NC 55 BYP - D130	B131	Basic Segment	1675	Rolling	2255	21.69	0.00	3	75
64	NC 55 Bypass - B131	M132	On Ramp	1500	Rolling	4219	14.39	0.00	4	75
65	M132	B133	Basic Segment	400	Rolling	4219	14.39	0.00	4	75
66	OHSARI - B133	M134	On Ramp	1500	Rolling	4635	13.63	0.00	5	75
67	OHSARI - M134	B135	Basic Segment	250	Rolling	4635	13.63	0.00	4	75
68	OHSARI - B135	D136	Off Ramp	1500	Rolling	4635	13.63	0.00	3	75
69	OHSARI - D136	B137	Basic Segment	1300	Rolling	3849	15.81	0.00	3	75
70	OHSARI - B137	M138	On Ramp	1500	Rolling	6257	12.03	0.00	4	75
71	M138	End NC 540 WB	Basic Segment	5280	Rolling	6257	12.03	0.00	4	75

Weaving Segment Data

Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp				
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS
12	0.385	1266	6.00	0.00	1	50	1246	2.00	0.00	1	30
36	0.214	844	6.00	0.00	1	30	291	5.00	0.00	1	30

Time Period 2

Mainline Data										
Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin NC 540 WB	B69	Basic Segment	5280	Rolling	5484	6.00	0.00	4	75
2	US 64 Bus - B69	D70	Off Ramp	1500	Rolling	5484	6.00	0.00	4	75
3	US 64 Bus - D70	B71	Basic Segment	575	Rolling	4809	6.42	0.00	4	75
4	US 64 Bus - B71	D72	Off Ramp	1500	Rolling	4809	6.42	0.00	4	75
5	US 64 Bus - D72	B73	Basic Segment	1725	Rolling	3867	6.52	0.00	4	75
6	US 64 Bus - B73	M74	On Ramp	1500	Rolling	5113	6.40	0.00	4	75
7	M74	B75	Basic Segment	4125	Rolling	5113	6.40	0.00	4	75
8	I-495 - B75	D76	Off Ramp	1500	Rolling	5113	6.40	0.00	4	75
9	I-495 - D76	B77	Basic Segment	225	Rolling	3426	7.58	0.00	4	75
10	I-495 - B77	D78	Off Ramp	1500	Rolling	3426	7.58	0.00	4	75
11	I-495 - D78	B79	Basic Segment	2300	Rolling	2217	9.53	0.00	3	75
12	B79	W80	Weaving	1850	Rolling	3639	8.15	0.00	4	75
13	Poole - W80	B81	Basic Segment	1850	Rolling	2239	11.99	0.00	3	75
14	Poole - B81	M82	On Ramp	1500	Rolling	2363	11.68	0.00	3	75
15	M82	B83	Basic Segment	2600	Rolling	2363	11.68	0.00	3	75
16	Auburn Knight - B83	D84	Off Ramp	1500	Rolling	2363	11.68	0.00	3	75
17	Auburn Knight - D84	B85	Basic Segment	1600	Rolling	2036	13.07	0.00	3	75
18	Auburn Knight - B85	M86	On Ramp	1500	Rolling	2278	12.32	0.00	3	75
19	M86	B87	Basic Segment	8600	Rolling	2278	12.32	0.00	3	75
20	Rock Quarry - B87	D88	Off Ramp	1500	Rolling	2278	12.32	0.00	3	75
21	Rock Quarry - D88	B89	Basic Segment	1550	Rolling	1715	15.71	0.00	3	75
22	Rock Quarry - B89	M90	On Ramp	1500	Rolling	1946	14.56	0.00	3	75
23	M90	B91	Basic Segment	1575	Rolling	1946	14.56	0.00	3	75
24	US 70 - B91	D92	Off Ramp	1500	Rolling	1946	14.56	0.00	3	75
25	US 70 - D92	B93	Basic Segment	1875	Rolling	1256	19.81	0.00	3	75
26	US 70 - B93	M94	On Ramp	1500	Rolling	1649	16.52	0.00	3	75
27	US 70 - M94	B95	Basic Segment	825	Rolling	1649	16.52	0.00	3	75
28	US 70 - B95	M96	On Ramp	1500	Rolling	1732	16.01	0.00	3	75
29	M96	B97	Basic Segment	3500	Rolling	1732	16.01	0.00	3	75
30	White Oak - B97	D98	Off Ramp	1500	Rolling	1732	16.01	0.00	3	75
31	White Oak - D98	B99	Basic Segment	1675	Rolling	1131	23.46	0.00	3	75
32	White Oak - B99	M100	On Ramp	1500	Rolling	1505	19.12	0.00	3	75
33	M100	B101	Basic Segment	1700	Rolling	1505	19.12	0.00	3	75
34	I-40 - B101	D102	Off Ramp	1500	Rolling	1505	19.12	0.00	3	75
35	I-40 - D102	B103	Basic Segment	4700	Rolling	579	41.70	0.00	3	75
36	I-40 - B103	W104	Weaving	1150	Rolling	1527	19.54	0.00	4	75
37	I-40 - W104	B105	Basic Segment	4350	Rolling	1200	23.50	0.00	3	75
38	I-40 - B105	M106	On Ramp	1500	Rolling	2475	14.48	0.00	3	75
39	M106	B107	Basic Segment	3925	Rolling	2475	14.48	0.00	3	75
40	NC 50 - B107	D108	Off Ramp	1500	Rolling	2475	14.48	0.00	3	75
	NC 50 -		Basic							

RampData							
Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	Off Ramp	675	3.00	0.00	1	200	50
4	Off Ramp	942	6.00	0.00	1	1500	30
6	On Ramp	1246	6.00	0.00	1	950	50
8	Off Ramp	1687	4.00	0.00	1	250	50
10	Off Ramp	1209	4.00	0.00	1	525	30
14	On Ramp	124	6.00	0.00	1	900	50
16	Off Ramp	327	3.00	0.00	1	175	50
18	On Ramp	242	6.00	0.00	1	1500	30
20	Off Ramp	563	2.00	0.00	1	300	50
22	On Ramp	231	6.00	0.00	1	1500	30
24	Off Ramp	690	5.00	0.00	1	175	50
26	On Ramp	393	6.00	0.00	1	1500	30
28	On Ramp	83	6.00	0.00	1	750	50
30	Off Ramp	601	2.00	0.00	1	1200	30
32	On Ramp	374	6.00	0.00	1	900	50
34	Off Ramp	926	5.00	0.00	1	900	50
38	On Ramp	1275	6.00	0.00	2	1500	50
40	Off Ramp	962	2.00	0.00	1	1500	30
42	On Ramp	935	6.00	0.00	1	900	50
44	Off Ramp	177	2.00	0.00	1	900	50
46	On Ramp	1458	6.00	0.00	1	900	50
48	Off Ramp	921	2.00	0.00	1	1275	50
50	On Ramp	866	6.00	0.00	1	1500	30
52	On Ramp	468	6.00	0.00	1	900	50
54	Off Ramp	705	2.00	0.00	1	250	50
56	On Ramp	835	6.00	0.00	1	1400	30
58	Off Ramp	1357	2.00	0.00	1	175	50
60	On Ramp	759	6.00	0.00	1	900	50
62	Off Ramp	1137	4.00	0.00	1	275	50
64	On Ramp	2207	6.00	0.00	1	1500	30
66	On Ramp	467	6.00	0.00	1	1500	50
68	Off Ramp	883	0.00	0.00	1	1500	50
70	On Ramp	2408	6.00	0.00	2	1500	30

41	D108	B109	Segment	1850	Rolling	1513	22.42	0.00	3	75
42	NC 50 - B109	M110	On Ramp	1500	Rolling	2448	16.15	0.00	3	75
43	M110	B111	Basic Segment	14425	Rolling	2448	16.15	0.00	3	75
44	Old Stage - B111	D112	Off Ramp	1500	Rolling	2448	16.15	0.00	3	75
45	Old Stage - D112	B113	Basic Segment	3750	Rolling	2271	17.25	0.00	3	75
46	Old Stage - B113	M114	On Ramp	1500	Rolling	3729	12.85	0.00	3	75
47	M114	B115	Basic Segment	4675	Rolling	3729	12.85	0.00	3	75
48	US 401 - B115	D116	Off Ramp	1500	Rolling	3729	12.85	0.00	3	75
49	US 401 - D116	B117	Basic Segment	1600	Rolling	2808	16.41	0.00	3	75
50	US 401 - B117	M118	On Ramp	1500	Rolling	3674	13.96	0.00	3	75
51	US 401 - M118	B119	Basic Segment	500	Rolling	3674	13.96	0.00	3	75
52	US 401 - B119	M120	On Ramp	1500	Rolling	4142	13.06	0.00	3	75
53	M120	B121	Basic Segment	6725	Rolling	4142	13.06	0.00	3	75
54	Bells Lake - B121	D122	Off Ramp	1500	Rolling	4142	13.06	0.00	3	75
55	Bells Lake - D122	B123	Basic Segment	2350	Rolling	3437	15.33	0.00	3	75
56	Bells Lake - B123	M124	On Ramp	1500	Rolling	4272	13.50	0.00	3	75
57	M124	B125	Basic Segment	9975	Rolling	4272	13.50	0.00	3	75
58	Holly Springs - B125	D126	Off Ramp	1500	Rolling	4272	13.50	0.00	3	75
59	Holly Springs - D126	B127	Basic Segment	3275	Rolling	2915	18.86	0.00	3	75
60	Holly Springs - B127	M128	On Ramp	1500	Rolling	3674	16.20	0.00	3	75
61	M128	B129	Basic Segment	9250	Rolling	3674	16.20	0.00	3	75
62	NC 55 BYP - B129	D130	Off Ramp	1500	Rolling	3674	16.20	0.00	3	75
63	NC 55 BYP - D130	B131	Basic Segment	1675	Rolling	2537	21.67	0.00	3	75
64	NC 55 Bypass - B131	M132	On Ramp	1500	Rolling	4744	14.38	0.00	4	75
65	M132	B133	Basic Segment	400	Rolling	4744	14.38	0.00	4	75
66	OHSARI - B133	M134	On Ramp	1500	Rolling	5211	13.63	0.00	5	75
67	OHSARI - M134	B135	Basic Segment	250	Rolling	5211	13.63	0.00	4	75
68	OHSARI - B135	D136	Off Ramp	1500	Rolling	5211	13.63	0.00	3	75
69	OHSARI - D136	B137	Basic Segment	1300	Rolling	4328	16.41	0.00	3	75
70	OHSARI - B137	M138	On Ramp	1500	Rolling	6736	12.69	0.00	4	75
71	M138	End NC 540 WB	Basic Segment	5280	Rolling	6736	12.69	0.00	4	75

Weaving Segment Data

Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp				
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS
12	0.385	1422	6.00	0.00	1	50	1400	2.00	0.00	1	30
36	0.214	948	6.00	0.00	1	30	327	5.00	0.00	1	30

Time Period 3

Mainline Data

Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin NC 540 WB	B69	Basic Segment	5280	Rolling	6093	6.00	0.00	4	75
2	US 64 Bus - B69	D70	Off Ramp	1500	Rolling	6093	6.00	0.00	4	75
3	US 64 Bus - D70	B71	Basic Segment	575	Rolling	5344	6.42	0.00	4	75
4	US 64 Bus - B71	D72	Off Ramp	1500	Rolling	5344	6.42	0.00	4	75
5	US 64 Bus - D72	B73	Basic Segment	1725	Rolling	4298	6.52	0.00	4	75
6	US 64 Bus - B73	M74	On Ramp	1500	Rolling	5681	6.40	0.00	4	75

RampData

Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	Off Ramp	749	3.00	0.00	1	200	50
4	Off Ramp	1046	6.00	0.00	1	1500	30
6	On Ramp	1383	6.00	0.00	1	950	50
8	Off Ramp	1873	4.00	0.00	1	250	50
10	Off Ramp	1342	4.00	0.00	1	525	30
14	On Ramp	138	6.00	0.00	1	900	50
16	Off Ramp	363	3.00	0.00	1	175	50
18	On Ramp	269	6.00	0.00	1	1500	30
20	Off Ramp	625	2.00	0.00	1	300	50
22	On Ramp	256	6.00	0.00	1	1500	30
24	Off Ramp	766	5.00	0.00	1	175	50
26	On Ramp	436	6.00	0.00	1	1500	30
28	On Ramp	92	6.00	0.00	1	750	50
30	Off Ramp	667	2.00	0.00	1	1200	30

7	M74	B75	Basic Segment	4125	Rolling	5681	6.40	0.00	4	75
8	I-495 - B75	D76	Off Ramp	1500	Rolling	5681	6.40	0.00	4	75
9	I-495 - D76	B77	Basic Segment	225	Rolling	3808	7.57	0.00	4	75
10	I-495 - B77	D78	Off Ramp	1500	Rolling	3808	7.57	0.00	4	75
11	I-495 - D78	B79	Basic Segment	2300	Rolling	2466	9.52	0.00	3	75
12	B79	W80	Weaving	1850	Rolling	4044	8.15	0.00	4	75
13	Poole - W80	B81	Basic Segment	1850	Rolling	2490	11.98	0.00	3	75
14	Poole - B81	M82	On Ramp	1500	Rolling	2628	11.67	0.00	3	75
15	M82	B83	Basic Segment	2600	Rolling	2628	11.67	0.00	3	75
16	Auburn Knight - B83	D84	Off Ramp	1500	Rolling	2628	11.67	0.00	3	75
17	Auburn Knight - D84	B85	Basic Segment	1600	Rolling	2265	13.06	0.00	3	75
18	Auburn Knight - B85	M86	On Ramp	1500	Rolling	2534	12.31	0.00	3	75
19	M86	B87	Basic Segment	8600	Rolling	2534	12.31	0.00	3	75
20	Rock Quarry - B87	D88	Off Ramp	1500	Rolling	2534	12.31	0.00	3	75
21	Rock Quarry - D88	B89	Basic Segment	1550	Rolling	1909	15.68	0.00	3	75
22	Rock Quarry - B89	M90	On Ramp	1500	Rolling	2165	14.54	0.00	3	75
23	M90	B91	Basic Segment	1575	Rolling	2165	14.54	0.00	3	75
24	US 70 - B91	D92	Off Ramp	1500	Rolling	2165	14.54	0.00	3	75
25	US 70 - D92	B93	Basic Segment	1875	Rolling	1399	19.76	0.00	3	75
26	US 70 - B93	M94	On Ramp	1500	Rolling	1835	16.49	0.00	3	75
27	US 70 - M94	B95	Basic Segment	825	Rolling	1835	16.49	0.00	3	75
28	US 70 - B95	M96	On Ramp	1500	Rolling	1927	15.99	0.00	3	75
29	M96	B97	Basic Segment	3500	Rolling	1927	15.99	0.00	3	75
30	White Oak - B97	D98	Off Ramp	1500	Rolling	1927	15.99	0.00	3	75
31	White Oak - D98	B99	Basic Segment	1675	Rolling	1260	23.39	0.00	3	75
32	White Oak - B99	M100	On Ramp	1500	Rolling	1675	19.08	0.00	3	75
33	M100	B101	Basic Segment	1700	Rolling	1675	19.08	0.00	3	75
34	I-40 - B101	D102	Off Ramp	1500	Rolling	1675	19.08	0.00	3	75
35	I-40 - D102	B103	Basic Segment	4700	Rolling	647	41.46	0.00	3	75
36	I-40 - B103	W104	Weaving	1150	Rolling	1699	19.50	0.00	4	75
37	I-40 - W104	B105	Basic Segment	4350	Rolling	1336	23.45	0.00	3	75
38	I-40 - B105	M106	On Ramp	1500	Rolling	2751	14.47	0.00	3	75
39	M106	B107	Basic Segment	3925	Rolling	2751	14.47	0.00	3	75
40	NC 50 - B107	D108	Off Ramp	1500	Rolling	2751	14.47	0.00	3	75
41	NC 50 - D108	B109	Basic Segment	1850	Rolling	1683	22.39	0.00	3	75
42	NC 50 - B109	M110	On Ramp	1500	Rolling	2721	16.14	0.00	3	75
43	M110	B111	Basic Segment	14425	Rolling	2721	16.14	0.00	3	75
44	Old Stage - B111	D112	Off Ramp	1500	Rolling	2721	16.14	0.00	3	75
45	Old Stage - D112	B113	Basic Segment	3750	Rolling	2525	17.23	0.00	3	75
46	Old Stage - B113	M114	On Ramp	1500	Rolling	4143	12.85	0.00	3	75
47	M114	B115	Basic Segment	4675	Rolling	4143	12.85	0.00	3	75
48	US 401 - B115	D116	Off Ramp	1500	Rolling	4143	12.85	0.00	3	75
49	US 401 - D116	B117	Basic Segment	1600	Rolling	3121	16.40	0.00	3	75
50	US 401 - B117	M118	On Ramp	1500	Rolling	4082	13.95	0.00	3	75

32	On Ramp	415	6.00	0.00	1	900	50
34	Off Ramp	1028	5.00	0.00	1	900	50
38	On Ramp	1415	6.00	0.00	2	1500	50
40	Off Ramp	1068	2.00	0.00	1	1500	30
42	On Ramp	1038	6.00	0.00	1	900	50
44	Off Ramp	196	2.00	0.00	1	900	50
46	On Ramp	1618	6.00	0.00	1	900	50
48	Off Ramp	1022	2.00	0.00	1	1275	50
50	On Ramp	961	6.00	0.00	1	1500	30
52	On Ramp	519	6.00	0.00	1	900	50
54	Off Ramp	783	2.00	0.00	1	250	50
56	On Ramp	927	6.00	0.00	1	1400	30
58	Off Ramp	1506	2.00	0.00	1	175	50
60	On Ramp	842	6.00	0.00	1	900	50
62	Off Ramp	1262	4.00	0.00	1	275	50
64	On Ramp	2450	6.00	0.00	1	1500	30
66	On Ramp	518	6.00	0.00	1	1500	50
68	Off Ramp	980	0.00	0.00	1	1500	50
70	On Ramp	2408	6.00	0.00	2	1500	30

51	US 401 - M118	B119	Basic Segment	500	Rolling	4082	13.95	0.00	3	75
52	US 401 - B119	M120	On Ramp	1500	Rolling	4601	13.05	0.00	3	75
53	M120	B121	Basic Segment	6725	Rolling	4601	13.05	0.00	3	75
54	Bells Lake - B121	D122	Off Ramp	1500	Rolling	4601	13.05	0.00	3	75
55	Bells Lake - D122	B123	Basic Segment	2350	Rolling	3818	15.32	0.00	3	75
56	Bells Lake - B123	M124	On Ramp	1500	Rolling	4745	13.50	0.00	3	75
57	M124	B125	Basic Segment	9975	Rolling	4745	13.50	0.00	3	75
58	Holly Springs - B125	D126	Off Ramp	1500	Rolling	4745	13.50	0.00	3	75
59	Holly Springs - D126	B127	Basic Segment	3275	Rolling	3239	18.85	0.00	3	75
60	Holly Springs - B127	M128	On Ramp	1500	Rolling	4081	16.20	0.00	3	75
61	M128	B129	Basic Segment	9250	Rolling	4081	16.20	0.00	3	75
62	NC 55 BYP - B129	D130	Off Ramp	1500	Rolling	4081	16.20	0.00	3	75
63	NC 55 BYP - D130	B131	Basic Segment	1675	Rolling	2819	21.65	0.00	3	75
64	NC 55 Bypass - B131	M132	On Ramp	1500	Rolling	5269	14.38	0.00	4	75
65	M132	B133	Basic Segment	400	Rolling	5269	14.38	0.00	4	75
66	OHSARI - B133	M134	On Ramp	1500	Rolling	5787	13.63	0.00	5	75
67	OHSARI - M134	B135	Basic Segment	250	Rolling	5787	13.63	0.00	4	75
68	OHSARI - B135	D136	Off Ramp	1500	Rolling	5787	13.63	0.00	3	75
69	OHSARI - D136	B137	Basic Segment	1300	Rolling	4807	16.40	0.00	3	75
70	OHSARI - B137	M138	On Ramp	1500	Rolling	7215	12.93	0.00	4	75
71	M138	End NC 540 WB	Basic Segment	5280	Rolling	7215	12.93	0.00	4	75

Weaving Segment Data											
Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp				
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS
12	0.385	1578	6.00	0.00	1	50	1554	2.00	0.00	1	30
36	0.214	1052	6.00	0.00	1	30	363	5.00	0.00	1	30

Time Period 4

Mainline Data										
Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin NC 540 WB	B69	Basic Segment	5280	Rolling	5484	6.00	0.00	4	75
2	US 64 Bus - B69	D70	Off Ramp	1500	Rolling	5484	6.00	0.00	4	75
3	US 64 Bus - D70	B71	Basic Segment	575	Rolling	4809	6.42	0.00	4	75
4	US 64 Bus - B71	D72	Off Ramp	1500	Rolling	4809	6.42	0.00	4	75
5	US 64 Bus - D72	B73	Basic Segment	1725	Rolling	3867	6.52	0.00	4	75
6	US 64 Bus - B73	M74	On Ramp	1500	Rolling	5113	6.40	0.00	4	75
7	M74	B75	Basic Segment	4125	Rolling	5113	6.40	0.00	4	75
8	I-495 - B75	D76	Off Ramp	1500	Rolling	5113	6.40	0.00	4	75
9	I-495 - D76	B77	Basic Segment	225	Rolling	3426	7.58	0.00	4	75
10	I-495 - B77	D78	Off Ramp	1500	Rolling	3426	7.58	0.00	4	75
11	I-495 - D78	B79	Basic Segment	2300	Rolling	2217	9.53	0.00	3	75
12	B79	W80	Weaving	1850	Rolling	3639	8.15	0.00	4	75
13	Poole - W80	B81	Basic Segment	1850	Rolling	2239	11.99	0.00	3	75
14	Poole - B81	M82	On Ramp	1500	Rolling	2363	11.68	0.00	3	75
15	M82	B83	Basic Segment	2600	Rolling	2363	11.68	0.00	3	75
16	Auburn Knight - B83	D84	Off Ramp	1500	Rolling	2363	11.68	0.00	3	75
	Auburn		Basic							

RampData							
Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	Off Ramp	675	3.00	0.00	1	200	50
4	Off Ramp	942	6.00	0.00	1	1500	30
6	On Ramp	1246	6.00	0.00	1	950	50
8	Off Ramp	1687	4.00	0.00	1	250	50
10	Off Ramp	1209	4.00	0.00	1	525	30
14	On Ramp	124	6.00	0.00	1	900	50
16	Off Ramp	327	3.00	0.00	1	175	50
18	On Ramp	242	6.00	0.00	1	1500	30
20	Off Ramp	563	2.00	0.00	1	300	50
22	On Ramp	231	6.00	0.00	1	1500	30
24	Off Ramp	690	5.00	0.00	1	175	50
26	On Ramp	393	6.00	0.00	1	1500	30
28	On Ramp	83	6.00	0.00	1	750	50
30	Off Ramp	601	2.00	0.00	1	1200	30
32	On Ramp	374	6.00	0.00	1	900	50
34	Off Ramp	926	5.00	0.00	1	900	50
38	On Ramp	1275	6.00	0.00	2	1500	50
40	Off Ramp	962	2.00	0.00	1	1500	30
42	On Ramp	935	6.00	0.00	1	900	50
44	Off Ramp	177	2.00	0.00	1	900	50
46	On Ramp	1458	6.00	0.00	1	900	50
48	Off Ramp	921	2.00	0.00	1	1275	50
50	On Ramp	866	6.00	0.00	1	1500	30
52	On Ramp	468	6.00	0.00	1	900	50
54	Off Ramp	705	2.00	0.00	1	250	50
56	On Ramp	835	6.00	0.00	1	1400	30
58	Off Ramp	1357	2.00	0.00	1	175	50
60	On Ramp	759	6.00	0.00	1	900	50
62	Off Ramp	1137	4.00	0.00	1	275	50
64	On Ramp	2207	6.00	0.00	1	1500	30
66	On Ramp	467	6.00	0.00	1	1500	50
68	Off Ramp	883	0.00	0.00	1	1500	50

17	Knight - D84	B85	Segment	1600	Rolling	2036	13.07	0.00	3	75
18	Auburn Knight - B85	M86	On Ramp	1500	Rolling	2278	12.32	0.00	3	75
19	M86	B87	Basic Segment	8600	Rolling	2278	12.32	0.00	3	75
20	Rock Quarry - B87	D88	Off Ramp	1500	Rolling	2278	12.32	0.00	3	75
21	Rock Quarry - D88	B89	Basic Segment	1550	Rolling	1715	15.71	0.00	3	75
22	Rock Quarry - B89	M90	On Ramp	1500	Rolling	1946	14.56	0.00	3	75
23	M90	B91	Basic Segment	1575	Rolling	1946	14.56	0.00	3	75
24	US 70 - B91	D92	Off Ramp	1500	Rolling	1946	14.56	0.00	3	75
25	US 70 - D92	B93	Basic Segment	1875	Rolling	1256	19.81	0.00	3	75
26	US 70 - B93	M94	On Ramp	1500	Rolling	1649	16.52	0.00	3	75
27	US 70 - M94	B95	Basic Segment	825	Rolling	1649	16.52	0.00	3	75
28	US 70 - B95	M96	On Ramp	1500	Rolling	1732	16.01	0.00	3	75
29	M96	B97	Basic Segment	3500	Rolling	1732	16.01	0.00	3	75
30	White Oak - B97	D98	Off Ramp	1500	Rolling	1732	16.01	0.00	3	75
31	White Oak - D98	B99	Basic Segment	1675	Rolling	1131	23.46	0.00	3	75
32	White Oak - B99	M100	On Ramp	1500	Rolling	1505	19.12	0.00	3	75
33	M100	B101	Basic Segment	1700	Rolling	1505	19.12	0.00	3	75
34	I-40 - B101	D102	Off Ramp	1500	Rolling	1505	19.12	0.00	3	75
35	I-40 - D102	B103	Basic Segment	4700	Rolling	579	41.70	0.00	3	75
36	I-40 - B103	W104	Weaving	1150	Rolling	1527	19.54	0.00	4	75
37	I-40 - W104	B105	Basic Segment	4350	Rolling	1200	23.50	0.00	3	75
38	I-40 - B105	M106	On Ramp	1500	Rolling	2475	14.48	0.00	3	75
39	M106	B107	Basic Segment	3925	Rolling	2475	14.48	0.00	3	75
40	NC 50 - B107	D108	Off Ramp	1500	Rolling	2475	14.48	0.00	3	75
41	NC 50 - D108	B109	Basic Segment	1850	Rolling	1513	22.42	0.00	3	75
42	NC 50 - B109	M110	On Ramp	1500	Rolling	2448	16.15	0.00	3	75
43	M110	B111	Basic Segment	14425	Rolling	2448	16.15	0.00	3	75
44	Old Stage - B111	D112	Off Ramp	1500	Rolling	2448	16.15	0.00	3	75
45	Old Stage - D112	B113	Basic Segment	3750	Rolling	2271	17.25	0.00	3	75
46	Old Stage - B113	M114	On Ramp	1500	Rolling	3729	12.85	0.00	3	75
47	M114	B115	Basic Segment	4675	Rolling	3729	12.85	0.00	3	75
48	US 401 - B115	D116	Off Ramp	1500	Rolling	3729	12.85	0.00	3	75
49	US 401 - D116	B117	Basic Segment	1600	Rolling	2808	16.41	0.00	3	75
50	US 401 - B117	M118	On Ramp	1500	Rolling	3674	13.96	0.00	3	75
51	US 401 - M118	B119	Basic Segment	500	Rolling	3674	13.96	0.00	3	75
52	US 401 - B119	M120	On Ramp	1500	Rolling	4142	13.06	0.00	3	75
53	M120	B121	Basic Segment	6725	Rolling	4142	13.06	0.00	3	75
54	Bells Lake - B121	D122	Off Ramp	1500	Rolling	4142	13.06	0.00	3	75
55	Bells Lake - D122	B123	Basic Segment	2350	Rolling	3437	15.33	0.00	3	75
56	Bells Lake - B123	M124	On Ramp	1500	Rolling	4272	13.50	0.00	3	75
57	M124	B125	Basic Segment	9975	Rolling	4272	13.50	0.00	3	75
58	Holly Springs - B125	D126	Off Ramp	1500	Rolling	4272	13.50	0.00	3	75
59	Holly Springs	B127	Basic Segment	3275	Rolling	2915	18.86	0.00	3	75

70	On Ramp	2408	6.00	0.00	2	1500	30

	- D126									
60	Holly Springs - B127	M128	On Ramp	1500	Rolling	3674	16.20	0.00	3	75
61	M128	B129	Basic Segment	9250	Rolling	3674	16.20	0.00	3	75
62	NC 55 BYP - B129	D130	Off Ramp	1500	Rolling	3674	16.20	0.00	3	75
63	NC 55 BYP - D130	B131	Basic Segment	1675	Rolling	2537	21.67	0.00	3	75
64	NC 55 Bypass - B131	M132	On Ramp	1500	Rolling	4744	14.38	0.00	4	75
65	M132	B133	Basic Segment	400	Rolling	4744	14.38	0.00	4	75
66	OHSARI - B133	M134	On Ramp	1500	Rolling	5211	13.63	0.00	5	75
67	OHSARI - M134	B135	Basic Segment	250	Rolling	5211	13.63	0.00	4	75
68	OHSARI - B135	D136	Off Ramp	1500	Rolling	5211	13.63	0.00	3	75
69	OHSARI - D136	B137	Basic Segment	1300	Rolling	4328	16.41	0.00	3	75
70	OHSARI - B137	M138	On Ramp	1500	Rolling	6736	12.69	0.00	4	75
71	M138	End NC 540 WB	Basic Segment	5280	Rolling	6736	12.69	0.00	4	75

Weaving Segment Data

Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp				
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS
12	0.385	1422	6.00	0.00	1	50	1400	2.00	0.00	1	30
36	0.214	948	6.00	0.00	1	30	327	5.00	0.00	1	30

Time Period Independent Weaving Segment Data

Seg #	Configuration	Short Length	# Weaving Lanes	Min. Lane Changes Freeway-Ramp	Min. Lane Changes Ramp-Freeway	Min. Lane Changes Ramp-Ramp
12	OneSide	1850	2	1	1	0
36	OneSide	1150	2	1	1	0

Time Period Results

Time Period 1

Seg #	From	To	Type	Adj. Demand	Vol. Served	Capacity (pc/h)	Capacity (veh/h)	d/c Ratio	v/c ratio	Queue Length (ft)	Avg. Speed (mi/h)	Density (pc/mi/ln)	Density (veh/mi/ln)	Avg. Travel Time (min/veh)	Free-Flow Travel Time (min/veh)	Mainline Delay (min/veh)	System Delay (min/veh)	VMT Demand (veh-min)	VMT Volume (veh-min)	VHT (veh-hrs)	VHD (veh-hrs)	LO
1	Begin NC 540 WB	B69	Basic Segment	4875	4875	9600	8807	0.55	0.55	0	73.8	18.0	16.5	0.81	0.80	0.0	0.0	1218.8	1218.8	16.5	0.3	E
2	US 64 Bus - B69	D70	Off Ramp	4875	4875	9600	8807	0.55	0.55	0	72.4	18.4	16.8	0.24	0.23	0.0	0.0	346.2	346.2	4.8	0.2	C
3	US 64 Bus - D70	B71	Basic Segment	4274	4274	9600	8757	0.49	0.49	0	74.5	15.7	14.3	0.09	0.09	0.0	0.0	116.4	116.4	1.6	0.0	E
4	US 64 Bus - B71	D72	Off Ramp	4274	4274	9600	8757	0.49	0.49	0	65.4	17.9	16.3	0.26	0.23	0.0	0.0	303.6	303.6	4.6	0.6	E
5	US 64 Bus - D72	B73	Basic Segment	3436	3436	9600	8744	0.39	0.39	0	74.3	12.7	11.6	0.26	0.26	0.0	0.0	280.6	280.6	3.8	0.0	E
6	US 64 Bus - B73	M74	On Ramp	4545	4545	9600	8760	0.52	0.52	0	68.7	17.7	16.2	0.25	0.23	0.0	0.0	322.8	322.8	4.7	0.4	E
7	M74	B75	Basic Segment	4545	4545	9600	8760	0.52	0.52	0	74.3	16.8	15.3	0.63	0.63	0.0	0.0	887.7	887.7	11.9	0.1	E
8	I-495 - B75	D76	Off Ramp	4545	4545	9600	8760	0.52	0.52	0	68.9	18.1	16.5	0.25	0.23	0.0	0.0	322.8	322.8	4.7	0.4	D
9	I-495 - D76	B77	Basic Segment	3044	3044	9600	8620	0.35	0.35	0	73.5	11.5	10.4	0.03	0.03	0.0	0.0	32.4	32.4	0.4	0.0	E
10	I-495 - B77	D78	Off Ramp	3044	3044	9600	8620	0.35	0.35	0	63.1	13.4	12.1	0.27	0.23	0.0	0.0	216.2	216.2	3.4	0.5	E
11	I-495 - D78	B79	Basic Segment	1968	1968	7200	6299	0.31	0.31	0	74.5	10.1	8.8	0.35	0.35	0.0	0.0	214.3	214.3	2.9	0.0	A
12	B79	W80	Weaving	3234	3234	5443	4850	0.67	0.67	0	60.1	15.1	13.5	0.35	0.28	0.1	0.1	283.3	283.3	4.7	0.9	E
13	Poole - W80	B81	Basic Segment	1988	1988	7200	6101	0.33	0.33	0	74.3	10.5	8.9	0.28	0.28	0.0	0.0	174.1	174.1	2.3	0.0	A
14	Poole - B81	M82	On Ramp	2098	2098	7200	6126	0.34	0.34	0	69.2	11.8	10.1	0.25	0.23	0.0	0.0	149.0	149.0	2.2	0.2	E
15	M82	B83	Basic Segment	2098	2098	7200	6126	0.34	0.34	0	74.8	11.0	9.4	0.40	0.39	0.0	0.0	258.3	258.3	3.5	0.0	A
16	Auburn Knight - B83	D84	Off Ramp	2098	2098	7200	6126	0.34	0.34	0	70.2	11.7	10.0	0.24	0.23	0.0	0.0	149.0	149.0	2.1	0.1	E
17	Auburn Knight - D84	B85	Basic Segment	1807	1807	7200	6018	0.30	0.30	0	74.6	9.7	8.1	0.24	0.24	0.0	0.0	136.9	136.9	1.8	0.0	A
18	Auburn Knight - B85	M86	On Ramp	2022	2022	7200	6076	0.33	0.33	0	69.0	11.5	9.7	0.25	0.23	0.0	0.0	143.6	143.6	2.1	0.2	A
19	M86	B87	Basic Segment	2022	2022	7200	6076	0.33	0.33	0	75.0	10.6	9.0	1.30	1.30	0.0	0.0	823.4	823.4	11.0	0.0	A
20	Rock Quarry - B87	D88	Off Ramp	2022	2022	7200	6076	0.33	0.33	0	69.3	11.5	9.7	0.25	0.23	0.0	0.0	143.6	143.6	2.1	0.2	E

21	Rock Quarry - D88	B89	Basic Segment	1521	1521	7200	5825	0.26	0.26	0	74.5	8.4	6.8	0.24	0.23	0.0	0.0	111.6	111.6	1.5	0.0	A
22	Rock Quarry - B89	M90	On Ramp	1727	1727	7200	5908	0.29	0.29	0	69.2	10.0	8.2	0.25	0.23	0.0	0.0	122.7	122.7	1.8	0.1	A
23	M90	B91	Basic Segment	1727	1727	7200	5908	0.29	0.29	0	74.5	9.4	7.7	0.24	0.24	0.0	0.0	128.8	128.8	1.7	0.0	A
24	US 70 - B91	D92	Off Ramp	1727	1727	7200	5908	0.29	0.29	0	68.5	10.2	8.4	0.25	0.23	0.0	0.0	122.7	122.7	1.8	0.2	E
25	US 70 - D92	B93	Basic Segment	1113	1113	7200	5547	0.20	0.20	0	74.6	6.5	5.0	0.29	0.28	0.0	0.0	98.8	98.8	1.3	0.0	A
26	US 70 - B93	M94	On Ramp	1463	1463	7200	5768	0.25	0.25	0	69.1	8.6	6.9	0.25	0.23	0.0	0.0	103.9	103.9	1.5	0.1	A
27	US 70 - M94	B95	Basic Segment	1463	1463	7200	5768	0.25	0.25	0	74.1	8.2	6.6	0.13	0.13	0.0	0.0	57.1	57.1	0.8	0.0	A
28	US 70 - B95	M96	On Ramp	1537	1537	7200	5804	0.26	0.26	0	69.2	9.1	7.4	0.25	0.23	0.0	0.0	109.2	109.2	1.6	0.1	A
29	M96	B97	Basic Segment	1537	1537	7200	5804	0.26	0.26	0	74.9	8.5	6.8	0.53	0.53	0.0	0.0	254.7	254.7	3.4	0.0	A
30	White Oak - B97	D98	Off Ramp	1537	1537	7200	5804	0.26	0.26	0	61.3	10.4	8.4	0.28	0.23	0.1	0.1	109.2	109.2	1.8	0.3	A
31	White Oak - D98	B99	Basic Segment	1002	1002	7200	5321	0.19	0.19	0	74.0	6.1	4.5	0.26	0.25	0.0	0.0	79.5	79.5	1.1	0.0	A
32	White Oak - B99	M100	On Ramp	1335	1335	7200	5593	0.24	0.24	0	69.3	8.1	6.3	0.25	0.23	0.0	0.0	94.8	94.8	1.4	0.1	A
33	M100	B101	Basic Segment	1335	1335	7200	5593	0.24	0.24	0	74.6	7.7	6.0	0.26	0.26	0.0	0.0	107.5	107.5	1.4	0.0	A
34	I-40 - B101	D102	Off Ramp	1335	1335	7200	5593	0.24	0.24	0	66.8	8.6	6.7	0.26	0.23	0.0	0.0	94.8	94.8	1.4	0.2	A
35	I-40 - D102	B103	Basic Segment	511	511	7200	4417	0.12	0.12	0	74.9	3.7	2.3	0.71	0.71	0.0	0.0	113.7	113.7	1.5	0.0	A
36	I-40 - B103	W104	Weaving	1355	1355	5020	3881	0.35	0.35	0	65.5	6.7	5.2	0.20	0.17	0.0	0.0	73.8	73.8	1.1	0.1	A
37	I-40 - W104	B105	Basic Segment	1064	1064	7200	5320	0.20	0.20	0	74.9	6.4	4.7	0.66	0.66	0.0	0.0	219.1	219.1	2.9	0.0	A
38	I-40 - B105	M106	On Ramp	2199	2199	7200	5914	0.37	0.37	0	69.7	12.1	10.0	0.24	0.23	0.0	0.0	156.2	156.2	2.2	0.2	E
39	M106	B107	Basic Segment	2199	2199	7200	5914	0.37	0.37	0	74.9	11.9	9.8	0.60	0.59	0.0	0.0	408.7	408.7	5.5	0.0	E
40	NC 50 - B107	D108	Off Ramp	2199	2199	7200	5914	0.37	0.37	0	59.7	15.0	12.3	0.29	0.23	0.1	0.1	156.2	156.2	2.6	0.5	A
41	NC 50 - D108	B109	Basic Segment	1343	1343	7200	5385	0.25	0.25	0	74.0	8.1	6.1	0.28	0.28	0.0	0.0	117.6	117.6	1.6	0.0	A
42	NC 50 - B109	M110	On Ramp	2175	2175	7200	5795	0.38	0.38	0	68.4	12.7	10.2	0.25	0.23	0.0	0.0	154.5	154.5	2.3	0.2	E
43	M110	B111	Basic Segment	2175	2175	7200	5795	0.38	0.38	0	75.0	12.0	9.7	2.19	2.19	0.0	0.0	1485.5	1485.5	19.8	0.0	E
44	Old Stage - B111	D112	Off Ramp	2175	2175	7200	5795	0.38	0.38	0	70.8	12.7	10.2	0.24	0.23	0.0	0.0	154.5	154.5	2.2	0.1	E
45	Old Stage - D112	B113	Basic Segment	2017	2017	7200	5718	0.35	0.35	0	74.9	11.3	9.0	0.57	0.57	0.0	0.0	358.1	358.1	4.8	0.0	E
46	Old Stage - B113	M114	On Ramp	3315	3315	7200	6036	0.55	0.55	0	67.0	18.9	15.9	0.25	0.23	0.0	0.0	235.4	235.4	3.5	0.4	C
47	M114	B115	Basic Segment	3315	3315	7200	6036	0.55	0.55	0	73.9	17.8	15.0	0.72	0.71	0.0	0.0	733.8	733.8	9.9	0.1	E
48	US 401 - B115	D116	Off Ramp	3315	3315	7200	6036	0.55	0.55	0	68.5	19.2	16.1	0.25	0.23	0.0	0.0	235.4	235.4	3.4	0.3	E
49	US 401 - D116	B117	Basic Segment	2495	2495	7200	5776	0.43	0.43	0	74.5	13.9	11.2	0.24	0.24	0.0	0.0	189.0	189.0	2.5	0.0	E
50	US 401 - B117	M118	On Ramp	3266	3266	7200	5953	0.55	0.55	0	67.4	19.1	15.8	0.25	0.23	0.0	0.0	232.0	232.0	3.4	0.3	E
51	US 401 - M118	B119	Basic Segment	3266	3266	7200	5953	0.55	0.55	0	73.5	17.9	14.8	0.08	0.08	0.0	0.0	77.3	77.3	1.1	0.0	E
52	US 401 - B119	M120	On Ramp	3683	3683	7200	6020	0.61	0.61	0	67.3	21.6	18.1	0.25	0.23	0.0	0.0	261.6	261.6	3.9	0.4	C
53	M120	B121	Basic Segment	3683	3683	7200	6020	0.61	0.61	0	72.6	20.2	16.9	1.05	1.02	0.0	0.0	1172.7	1172.7	16.2	0.5	C
54	Bells Lake - B121	D122	Off Ramp	3683	3683	7200	6020	0.61	0.61	0	69.7	21.1	17.6	0.24	0.23	0.0	0.0	261.6	261.6	3.8	0.3	C
55	Bells Lake - D122	B123	Basic Segment	3056	3056	7200	5853	0.52	0.52	0	74.3	16.9	13.7	0.36	0.36	0.0	0.0	340.0	340.0	4.6	0.0	E
56	Bells Lake - B123	M124	On Ramp	3799	3799	7200	5987	0.63	0.63	0	66.5	22.5	18.7	0.26	0.23	0.0	0.0	269.8	269.8	4.1	0.5	C
57	M124	B125	Basic Segment	3799	3799	7200	5987	0.63	0.63	0	72.0	21.2	17.6	1.57	1.51	0.1	0.1	1794.3	1794.3	24.9	1.0	C
58	Holly Springs - B125	D126	Off Ramp	3799	3799	7200	5987	0.63	0.63	0	68.0	22.4	18.6	0.25	0.23	0.0	0.0	269.8	269.8	4.0	0.4	D
59	Holly Springs - D126	B127	Basic Segment	2591	2591	7200	5611	0.46	0.46	0	74.9	14.8	11.5	0.50	0.50	0.0	0.0	401.8	401.8	5.4	0.0	E
60	Holly Springs - B127	M128	On Ramp	3267	3267	7200	5792	0.56	0.56	0	67.5	19.7	15.8	0.25	0.23	0.0	0.0	232.0	232.0	3.4	0.3	C
61	M128	B129	Basic Segment	3267	3267	7200	5792	0.56	0.56	0	73.6	18.4	14.8	1.43	1.40	0.0	0.0	1430.9	1430.9	19.4	0.4	C
62	NC 55 BYP - B129	D130	Off Ramp	3267	3267	7200	5792	0.56	0.56	0	67.5	20.1	16.1	0.25	0.23	0.0	0.0	232.0	232.0	3.4	0.3	D
63	NC 55 BYP - D130	B131	Basic Segment	2255	2255	7200	5432	0.42	0.42	0	74.4	13.4	10.1	0.26	0.25	0.0	0.0	178.8	178.8	2.4	0.0	E

64	NC 55 Bypass - B131	M132	On Ramp	4219	4219	9600	7896	0.53	0.53	0	67.1	18.2	15.0	0.25	0.23	0.0	0.0	299.6	299.6	4.5	0.5
65	M132	B133	Basic Segment	4219	4219	9600	7896	0.53	0.53	0	73.3	17.5	14.4	0.06	0.06	0.0	0.0	79.9	79.9	1.1	0.0
66	OHSARI - B133	M134	On Ramp	4635	4635	12000	9962	0.47	0.47	0	71.0	15.6	13.0	0.24	0.23	0.0	0.0	329.2	329.2	4.6	0.3
67	OHSARI - M134	B135	Basic Segment	4635	4635	9600	7970	0.58	0.58	0	73.3	19.1	15.8	0.04	0.04	0.0	0.0	54.9	54.9	0.7	0.0
68	OHSARI - B135	D136	Off Ramp	4635	4635	7200	5977	0.78	0.78	0	67.8	27.4	22.8	0.25	0.23	0.0	0.0	329.2	329.2	4.9	0.5
69	OHSARI - D136	B137	Basic Segment	3849	3849	7200	5820	0.66	0.66	0	71.2	22.3	18.0	0.21	0.20	0.0	0.0	236.9	236.9	3.3	0.2
70	OHSARI - B137	M138	On Ramp	6257	6257	9600	8132	0.77	0.77	0	61.6	28.9	24.5	0.28	0.23	0.0	0.0	444.4	444.4	7.2	1.3
71	M138	End NC 540 WB	Basic Segment	6257	6257	9600	8132	0.77	0.77	0	67.1	27.5	23.3	0.89	0.80	0.1	0.1	1564.3	1564.3	23.3	2.5

Time Period 2

Seg #	From	To	Type	Adj. Demand	Vol. Served	Capacity (pc/h)	Capacity (veh/h)	d/c Ratio	v/c ratio	Queue Length (ft)	Avg. Speed (mi/h)	Density (pc/mi/ln)	Density (veh/mi/ln)	Avg. Travel Time (min/veh)	Free-Flow Travel Time (min/veh)	Mainline Delay (min/veh)	System Delay (min/veh)	VMT Demand (veh-min)	VMT Volume (veh-min)	VHT (veh-hrs)	VHD (veh-hrs)
1	Begin NC 540 WB	B69	Basic Segment	5484	5484	9600	8807	0.62	0.62	0	72.3	20.7	19.0	0.83	0.80	0.0	0.0	1371.0	1371.0	19.0	0.7
2	US 64 Bus - B69	D70	Off Ramp	5484	5484	9600	8807	0.62	0.62	0	72.0	20.8	19.0	0.24	0.23	0.0	0.0	389.5	389.5	5.4	0.2
3	US 64 Bus - D70	B71	Basic Segment	4809	4809	9600	8757	0.55	0.55	0	73.9	17.8	16.3	0.09	0.09	0.0	0.0	130.9	130.9	1.8	0.0
4	US 64 Bus - B71	D72	Off Ramp	4809	4809	9600	8757	0.55	0.55	0	65.0	20.3	18.5	0.26	0.23	0.0	0.0	341.5	341.5	5.3	0.7
5	US 64 Bus - D72	B73	Basic Segment	3867	3867	9600	8744	0.44	0.44	0	74.3	14.3	13.0	0.26	0.26	0.0	0.0	315.8	315.8	4.3	0.0
6	US 64 Bus - B73	M74	On Ramp	5113	5113	9600	8760	0.58	0.58	0	68.1	20.1	18.4	0.25	0.23	0.0	0.0	363.1	363.1	5.3	0.5
7	M74	B75	Basic Segment	5113	5113	9600	8760	0.58	0.58	0	73.2	19.1	17.5	0.64	0.63	0.0	0.0	998.6	998.6	13.6	0.3
8	I-495 - B75	D76	Off Ramp	5113	5113	9600	8760	0.58	0.58	0	68.4	20.5	18.7	0.25	0.23	0.0	0.0	363.1	363.1	5.3	0.5
9	I-495 - D76	B77	Basic Segment	3426	3426	9600	8620	0.40	0.40	0	73.4	13.0	11.7	0.03	0.03	0.0	0.0	36.5	36.5	0.5	0.0
10	I-495 - B77	D78	Off Ramp	3426	3426	9600	8620	0.40	0.40	0	62.7	15.2	13.7	0.27	0.23	0.0	0.0	243.3	243.3	3.9	0.6
11	I-495 - D78	B79	Basic Segment	2217	2217	7200	6300	0.35	0.35	0	74.4	11.3	9.9	0.35	0.35	0.0	0.0	241.4	241.4	3.2	0.0
12	B79	W80	Weaving	3639	3639	5449	4856	0.75	0.75	0	58.6	17.4	15.5	0.36	0.28	0.1	0.1	318.8	318.8	5.4	1.2
13	Poole - W80	B81	Basic Segment	2239	2239	7200	6102	0.37	0.37	0	74.2	11.9	10.1	0.28	0.28	0.0	0.0	196.1	196.1	2.6	0.0
14	Poole - B81	M82	On Ramp	2363	2363	7200	6127	0.39	0.39	0	68.9	13.4	11.4	0.25	0.23	0.0	0.0	167.8	167.8	2.4	0.2
15	M82	B83	Basic Segment	2363	2363	7200	6127	0.39	0.39	0	74.8	12.4	10.5	0.40	0.39	0.0	0.0	290.9	290.9	3.9	0.0
16	Auburn Knight - B83	D84	Off Ramp	2363	2363	7200	6127	0.39	0.39	0	70.2	13.2	11.2	0.24	0.23	0.0	0.0	167.8	167.8	2.4	0.2
17	Auburn Knight - D84	B85	Basic Segment	2036	2036	7200	6020	0.34	0.34	0	74.6	10.9	9.1	0.24	0.24	0.0	0.0	154.2	154.2	2.1	0.0
18	Auburn Knight - B85	M86	On Ramp	2278	2278	7200	6077	0.37	0.37	0	68.8	12.9	10.9	0.25	0.23	0.0	0.0	161.8	161.8	2.4	0.2
19	M86	B87	Basic Segment	2278	2278	7200	6077	0.37	0.37	0	75.0	12.0	10.1	1.30	1.30	0.0	0.0	927.6	927.6	12.4	0.0
20	Rock Quarry - B87	D88	Off Ramp	2278	2278	7200	6077	0.37	0.37	0	69.3	13.0	11.0	0.25	0.23	0.0	0.0	161.8	161.8	2.3	0.2
21	Rock Quarry - D88	B89	Basic Segment	1715	1715	7200	5827	0.29	0.29	0	74.5	9.5	7.7	0.24	0.23	0.0	0.0	125.9	125.9	1.7	0.0
22	Rock Quarry - B89	M90	On Ramp	1946	1946	7200	5910	0.33	0.33	0	69.0	11.3	9.3	0.25	0.23	0.0	0.0	138.2	138.2	2.0	0.2
23	M90	B91	Basic Segment	1946	1946	7200	5910	0.33	0.33	0	74.5	10.6	8.7	0.24	0.24	0.0	0.0	145.1	145.1	1.9	0.0
24	US 70 - B91	D92	Off Ramp	1946	1946	7200	5910	0.33	0.33	0	68.4	11.6	9.5	0.25	0.23	0.0	0.0	138.2	138.2	2.0	0.2
25	US 70 - D92	B93	Basic Segment	1256	1256	7200	5551	0.23	0.23	0	74.6	7.3	5.6	0.29	0.28	0.0	0.0	111.5	111.5	1.5	0.0
26	US 70 - B93	M94	On Ramp	1649	1649	7200	5770	0.29	0.29	0	69.0	9.7	7.8	0.25	0.23	0.0	0.0	117.1	117.1	1.7	0.1
27	US 70 - M94	B95	Basic Segment	1649	1649	7200	5770	0.29	0.29	0	74.1	9.3	7.4	0.13	0.13	0.0	0.0	64.4	64.4	0.9	0.0
28	US 70 - B95	M96	On Ramp	1732	1732	7200	5806	0.30	0.30	0	69.1	10.3	8.3	0.25	0.23	0.0	0.0	123.0	123.0	1.8	0.1
29	M96	B97	Basic Segment	1732	1732	7200	5806	0.30	0.30	0	74.9	9.6	7.7	0.53	0.53	0.0	0.0	287.0	287.0	3.8	0.0
30	White Oak - B97	D98	Off Ramp	1732	1732	7200	5806	0.30	0.30	0	61.2	11.7	9.4	0.28	0.23	0.1	0.1	123.0	123.0	2.0	0.4
31	White Oak - D98	B99	Basic Segment	1131	1131	7200	5326	0.21	0.21	0	73.9	6.9	5.1	0.26	0.25	0.0	0.0	89.7	89.7	1.2	0.0

32	White Oak - B99	M100	On Ramp	1505	1505	7200	5595	0.27	0.27	0	69.1	9.1	7.1	0.25	0.23	0.0	0.0	106.9	106.9	1.5	0.1	A
33	M100	B101	Basic Segment	1505	1505	7200	5595	0.27	0.27	0	74.6	8.7	6.7	0.26	0.26	0.0	0.0	121.1	121.1	1.6	0.0	A
34	I-40 - B101	D102	Off Ramp	1505	1505	7200	5595	0.27	0.27	0	66.5	9.7	7.5	0.26	0.23	0.0	0.0	106.9	106.9	1.6	0.2	B
35	I-40 - D102	B103	Basic Segment	579	579	7200	4429	0.13	0.13	0	74.9	4.2	2.6	0.71	0.71	0.0	0.0	128.8	128.8	1.7	0.0	A
36	I-40 - B103	W104	Weaving	1527	1527	5031	3891	0.39	0.39	0	64.6	7.6	5.9	0.20	0.17	0.0	0.0	83.1	83.1	1.3	0.2	A
37	I-40 - W104	B105	Basic Segment	1200	1200	7200	5324	0.23	0.23	0	74.9	7.2	5.3	0.66	0.66	0.0	0.0	247.2	247.2	3.3	0.0	A
38	I-40 - B105	M106	On Ramp	2475	2475	7200	5915	0.42	0.42	0	69.5	13.7	11.3	0.25	0.23	0.0	0.0	175.8	175.8	2.5	0.2	B
39	M106	B107	Basic Segment	2475	2475	7200	5915	0.42	0.42	0	74.9	13.4	11.0	0.60	0.59	0.0	0.0	460.0	460.0	6.1	0.0	B
40	NC 50 - B107	D108	Off Ramp	2475	2475	7200	5915	0.42	0.42	0	59.4	16.9	13.9	0.29	0.23	0.1	0.1	175.8	175.8	3.0	0.6	B
41	NC 50 - D108	B109	Basic Segment	1513	1513	7200	5388	0.28	0.28	0	74.0	9.1	6.8	0.28	0.28	0.0	0.0	132.5	132.5	1.8	0.0	A
42	NC 50 - B109	M110	On Ramp	2448	2448	7200	5796	0.42	0.42	0	68.1	14.3	11.5	0.25	0.23	0.0	0.0	173.9	173.9	2.6	0.2	B
43	M110	B111	Basic Segment	2448	2448	7200	5796	0.42	0.42	0	75.0	13.5	10.9	2.19	2.19	0.0	0.0	1672.0	1672.0	22.3	0.0	F
44	Old Stage - B111	D112	Off Ramp	2448	2448	7200	5796	0.42	0.42	0	70.8	14.3	11.5	0.24	0.23	0.0	0.0	173.9	173.9	2.5	0.1	B
45	Old Stage - D112	B113	Basic Segment	2271	2271	7200	5720	0.40	0.40	0	74.9	12.7	10.1	0.57	0.57	0.0	0.0	403.2	403.2	5.4	0.0	B
46	Old Stage - B113	M114	On Ramp	3729	3729	7200	6036	0.62	0.62	0	66.2	21.6	18.1	0.26	0.23	0.0	0.0	264.8	264.8	4.0	0.5	C
47	M114	B115	Basic Segment	3729	3729	7200	6036	0.62	0.62	0	72.4	20.5	17.2	0.73	0.71	0.0	0.0	825.4	825.4	11.4	0.4	C
48	US 401 - B115	D116	Off Ramp	3729	3729	7200	6036	0.62	0.62	0	68.2	21.7	18.2	0.25	0.23	0.0	0.0	264.8	264.8	3.9	0.4	C
49	US 401 - D116	B117	Basic Segment	2808	2808	7200	5778	0.49	0.49	0	74.5	15.7	12.6	0.24	0.24	0.0	0.0	212.7	212.7	2.9	0.0	B
50	US 401 - B117	M118	On Ramp	3674	3674	7200	5954	0.62	0.62	0	66.7	21.7	18.0	0.26	0.23	0.0	0.0	260.9	260.9	3.9	0.4	B
51	US 401 - M118	B119	Basic Segment	3674	3674	7200	5954	0.62	0.62	0	72.4	20.4	16.9	0.08	0.08	0.0	0.0	87.0	87.0	1.2	0.0	C
52	US 401 - B119	M120	On Ramp	4142	4142	7200	6021	0.69	0.69	0	66.4	24.6	20.6	0.26	0.23	0.0	0.0	294.2	294.2	4.4	0.5	C
53	M120	B121	Basic Segment	4142	4142	7200	6021	0.69	0.69	0	70.3	23.5	19.6	1.09	1.02	0.1	0.1	1318.9	1318.9	18.8	1.2	C
54	Bells Lake - B121	D122	Off Ramp	4142	4142	7200	6021	0.69	0.69	0	69.4	23.8	19.9	0.25	0.23	0.0	0.0	294.2	294.2	4.2	0.3	D
55	Bells Lake - D122	B123	Basic Segment	3437	3437	7200	5854	0.59	0.59	0	73.1	19.3	15.7	0.37	0.36	0.0	0.0	382.4	382.4	5.2	0.1	C
56	Bells Lake - B123	M124	On Ramp	4272	4272	7200	5987	0.71	0.71	0	65.4	25.7	21.4	0.26	0.23	0.0	0.0	303.4	303.4	4.6	0.6	C
57	M124	B125	Basic Segment	4272	4272	7200	5987	0.71	0.71	0	69.4	24.7	20.5	1.63	1.51	0.1	0.1	2017.7	2017.7	29.1	2.2	C
58	Holly Springs - B125	D126	Off Ramp	4272	4272	7200	5987	0.71	0.71	0	67.6	25.3	21.1	0.25	0.23	0.0	0.0	303.4	303.4	4.5	0.4	D
59	Holly Springs - D126	B127	Basic Segment	2915	2915	7200	5612	0.52	0.52	0	74.3	16.8	13.1	0.50	0.50	0.0	0.0	452.0	452.0	6.1	0.1	B
60	Holly Springs - B127	M128	On Ramp	3674	3674	7200	5792	0.63	0.63	0	66.8	22.4	18.0	0.26	0.23	0.0	0.0	260.9	260.9	3.9	0.4	C
61	M128	B129	Basic Segment	3674	3674	7200	5792	0.63	0.63	0	72.0	21.1	17.0	1.46	1.40	0.1	0.1	1609.1	1609.1	22.4	0.9	C
62	NC 55 BYP - B129	D130	Off Ramp	3674	3674	7200	5792	0.63	0.63	0	67.1	22.7	18.3	0.25	0.23	0.0	0.0	260.9	260.9	3.9	0.4	D
63	NC 55 BYP - D130	B131	Basic Segment	2537	2537	7200	5434	0.47	0.47	0	74.4	15.1	11.4	0.26	0.25	0.0	0.0	201.2	201.2	2.7	0.0	B
64	NC 55 Bypass - B131	M132	On Ramp	4744	4744	9600	7897	0.60	0.60	0	65.8	20.9	17.2	0.26	0.23	0.0	0.0	336.9	336.9	5.1	0.6	C
65	M132	B133	Basic Segment	4744	4744	9600	7897	0.60	0.60	0	72.8	19.8	16.3	0.06	0.06	0.0	0.0	89.8	89.8	1.2	0.0	C
66	OHSARI - B133	M134	On Ramp	5211	5211	12000	9963	0.52	0.52	0	70.6	17.6	14.6	0.24	0.23	0.0	0.0	370.1	370.1	5.2	0.3	B
67	OHSARI - M134	B135	Basic Segment	5211	5211	9600	7970	0.65	0.65	0	71.4	22.0	18.2	0.04	0.04	0.0	0.0	61.7	61.7	0.9	0.0	C
68	OHSARI - B135	D136	Off Ramp	5211	5211	7200	5978	0.87	0.87	0	67.7	30.9	25.6	0.25	0.23	0.0	0.0	370.1	370.1	5.5	0.5	D
69	OHSARI - D136	B137	Basic Segment	4328	4328	7200	5778	0.75	0.75	0	68.0	26.5	21.2	0.22	0.20	0.0	0.0	266.4	266.4	3.9	0.4	D
70	OHSARI - B137	M138	On Ramp	6736	6736	9600	8065	0.84	0.84	0	59.4	32.6	27.4	0.29	0.23	0.1	0.1	478.4	478.4	8.0	1.7	D
71	M138	End NC 540 WB	Basic Segment	6736	6736	9600	8065	0.84	0.84	0	63.8	31.4	26.4	0.94	0.80	0.1	0.1	1684.0	1684.0	26.4	3.9	D

Time Period 3

Seg #	From	To	Type	Adj. Demand	Vol. Served	Capacity (pc/h)	Capacity (veh/h)	d/c Ratio	v/c ratio	Queue Length (ft)	Avg. Speed (mi/h)	Density (pc/mi/ln)	Density (veh/mi/ln)	Avg. Travel Time (min/veh)	Free-Flow Travel Time (min/veh)	Mainline Delay (min/veh)	System Delay (min/veh)	VMT Demand (veh-min)	VMT Volume (veh-min)	VHT (veh-hrs)	VHD (veh-hrs)	LO

1	Begin NC 540 WB	B69	Basic Segment	6093	6093	9600	8807	0.69	0.69	0	70.2	23.7	21.7	0.86	0.80	0.1	0.1	1523.3	1523.3	21.7	1.4	C
2	US 64 Bus - B69	D70	Off Ramp	6093	6093	9600	8807	0.69	0.69	0	71.6	23.2	21.3	0.24	0.23	0.0	0.0	432.7	432.7	6.0	0.3	D
3	US 64 Bus - D70	B71	Basic Segment	5344	5344	9600	8757	0.61	0.61	0	72.6	20.2	18.4	0.09	0.09	0.0	0.0	145.5	145.5	2.0	0.1	C
4	US 64 Bus - B71	D72	Off Ramp	5344	5344	9600	8757	0.61	0.61	0	64.6	22.7	20.7	0.26	0.23	0.0	0.0	379.5	379.5	5.9	0.8	D
5	US 64 Bus - D72	B73	Basic Segment	4298	4298	9600	8744	0.49	0.49	0	74.2	15.9	14.5	0.26	0.26	0.0	0.0	351.0	351.0	4.7	0.0	B
6	US 64 Bus - B73	M74	On Ramp	5681	5681	9600	8760	0.65	0.65	0	67.3	22.6	20.7	0.25	0.23	0.0	0.0	403.5	403.5	6.0	0.6	C
7	M74	B75	Basic Segment	5681	5681	9600	8760	0.65	0.65	0	71.6	21.7	19.8	0.65	0.63	0.0	0.0	1109.6	1109.6	15.5	0.7	C
8	I-495 - B75	D76	Off Ramp	5681	5681	9600	8760	0.65	0.65	0	67.8	22.9	20.9	0.25	0.23	0.0	0.0	403.5	403.5	5.9	0.6	D
9	I-495 - D76	B77	Basic Segment	3808	3808	9600	8621	0.44	0.44	0	73.2	14.5	13.0	0.03	0.03	0.0	0.0	40.6	40.6	0.6	0.0	B
10	I-495 - B77	D78	Off Ramp	3808	3808	9600	8621	0.44	0.44	0	62.4	17.0	15.3	0.27	0.23	0.0	0.0	270.5	270.5	4.3	0.7	C
11	I-495 - D78	B79	Basic Segment	2466	2466	7200	6300	0.39	0.39	0	74.4	12.6	11.0	0.35	0.35	0.0	0.0	268.6	268.6	3.6	0.0	B
12	B79	W80	Weaving	4044	4044	5458	4864	0.83	0.83	0	57.1	19.9	17.7	0.37	0.28	0.1	0.1	354.2	354.2	6.2	1.5	B
13	Poole - W80	B81	Basic Segment	2490	2490	7200	6103	0.41	0.41	0	74.1	13.2	11.2	0.28	0.28	0.0	0.0	218.1	218.1	2.9	0.0	B
14	Poole - B81	M82	On Ramp	2628	2628	7200	6128	0.43	0.43	0	68.7	14.9	12.7	0.25	0.23	0.0	0.0	186.6	186.6	2.7	0.2	B
15	M82	B83	Basic Segment	2628	2628	7200	6128	0.43	0.43	0	74.8	13.8	11.7	0.40	0.39	0.0	0.0	323.5	323.5	4.3	0.0	B
16	Auburn Knight - B83	D84	Off Ramp	2628	2628	7200	6128	0.43	0.43	0	70.2	14.7	12.5	0.24	0.23	0.0	0.0	186.6	186.6	2.7	0.2	C
17	Auburn Knight - D84	B85	Basic Segment	2265	2265	7200	6021	0.38	0.38	0	74.6	12.1	10.1	0.24	0.24	0.0	0.0	171.6	171.6	2.3	0.0	B
18	Auburn Knight - B85	M86	On Ramp	2534	2534	7200	6078	0.42	0.42	0	68.6	14.4	12.2	0.25	0.23	0.0	0.0	180.0	180.0	2.6	0.2	B
19	M86	B87	Basic Segment	2534	2534	7200	6078	0.42	0.42	0	75.0	13.3	11.3	1.30	1.30	0.0	0.0	1031.8	1031.8	13.8	0.0	B
20	Rock Quarry - B87	D88	Off Ramp	2534	2534	7200	6078	0.42	0.42	0	69.2	14.5	12.2	0.25	0.23	0.0	0.0	180.0	180.0	2.6	0.2	C
21	Rock Quarry - D88	B89	Basic Segment	1909	1909	7200	5829	0.33	0.33	0	74.5	10.5	8.5	0.24	0.23	0.0	0.0	140.1	140.1	1.9	0.0	A
22	Rock Quarry - B89	M90	On Ramp	2165	2165	7200	5911	0.37	0.37	0	68.9	12.6	10.4	0.25	0.23	0.0	0.0	153.8	153.8	2.2	0.2	A
23	M90	B91	Basic Segment	2165	2165	7200	5911	0.37	0.37	0	74.5	11.8	9.7	0.24	0.24	0.0	0.0	161.5	161.5	2.2	0.0	B
24	US 70 - B91	D92	Off Ramp	2165	2165	7200	5911	0.37	0.37	0	68.3	12.9	10.6	0.25	0.23	0.0	0.0	153.8	153.8	2.3	0.2	B
25	US 70 - D92	B93	Basic Segment	1399	1399	7200	5554	0.25	0.25	0	74.6	8.1	6.3	0.29	0.28	0.0	0.0	124.2	124.2	1.7	0.0	A
26	US 70 - B93	M94	On Ramp	1835	1835	7200	5772	0.32	0.32	0	68.9	10.8	8.7	0.25	0.23	0.0	0.0	130.3	130.3	1.9	0.2	A
27	US 70 - M94	B95	Basic Segment	1835	1835	7200	5772	0.32	0.32	0	74.1	10.3	8.3	0.13	0.13	0.0	0.0	71.7	71.7	1.0	0.0	A
28	US 70 - B95	M96	On Ramp	1927	1927	7200	5807	0.33	0.33	0	68.9	11.5	9.3	0.25	0.23	0.0	0.0	136.9	136.9	2.0	0.2	B
29	M96	B97	Basic Segment	1927	1927	7200	5807	0.33	0.33	0	74.9	10.6	8.6	0.53	0.53	0.0	0.0	319.3	319.3	4.3	0.0	A
30	White Oak - B97	D98	Off Ramp	1927	1927	7200	5807	0.33	0.33	0	61.2	13.0	10.5	0.28	0.23	0.1	0.1	136.9	136.9	2.2	0.4	A
31	White Oak - D98	B99	Basic Segment	1260	1260	7200	5330	0.24	0.24	0	73.9	7.7	5.7	0.26	0.25	0.0	0.0	99.9	99.9	1.4	0.0	A
32	White Oak - B99	M100	On Ramp	1675	1675	7200	5598	0.30	0.30	0	69.0	10.2	7.9	0.25	0.23	0.0	0.0	119.0	119.0	1.7	0.1	B
33	M100	B101	Basic Segment	1675	1675	7200	5598	0.30	0.30	0	74.6	9.6	7.5	0.26	0.26	0.0	0.0	134.8	134.8	1.8	0.0	A
34	I-40 - B101	D102	Off Ramp	1675	1675	7200	5598	0.30	0.30	0	66.2	10.8	8.4	0.26	0.23	0.0	0.0	119.0	119.0	1.8	0.2	B
35	I-40 - D102	B103	Basic Segment	647	647	7200	4439	0.15	0.15	0	74.9	4.7	2.9	0.71	0.71	0.0	0.0	144.0	144.0	1.9	0.0	A
36	I-40 - B103	W104	Weaving	1699	1699	5040	3899	0.44	0.44	0	63.7	8.6	6.7	0.21	0.17	0.0	0.0	92.5	92.5	1.5	0.2	A
37	I-40 - W104	B105	Basic Segment	1336	1336	7200	5327	0.25	0.25	0	74.9	8.0	5.9	0.66	0.66	0.0	0.0	275.2	275.2	3.7	0.0	A
38	I-40 - B105	M106	On Ramp	2751	2751	7200	5916	0.47	0.47	0	69.2	15.3	12.6	0.25	0.23	0.0	0.0	195.4	195.4	2.8	0.2	B
39	M106	B107	Basic Segment	2751	2751	7200	5916	0.47	0.47	0	74.9	14.9	12.3	0.60	0.59	0.0	0.0	511.3	511.3	6.8	0.0	B
40	NC 50 - B107	D108	Off Ramp	2751	2751	7200	5916	0.47	0.47	0	59.1	18.9	15.5	0.29	0.23	0.1	0.1	195.4	195.4	3.3	0.7	B
41	NC 50 - D108	B109	Basic Segment	1683	1683	7200	5390	0.31	0.31	0	73.9	10.1	7.6	0.28	0.28	0.0	0.0	147.4	147.4	2.0	0.0	A
42	NC 50 - B109	M110	On Ramp	2721	2721	7200	5797	0.47	0.47	0	67.8	16.0	12.9	0.25	0.23	0.0	0.0	193.3	193.3	2.9	0.3	B
43	M110	B111	Basic Segment	2721	2721	7200	5797	0.47	0.47	0	74.8	15.1	12.1	2.19	2.19	0.0	0.0	1858.4	1858.4	24.8	0.1	B
44	Old Stage -	D112	Off	2721	2721	7200	5797	0.47	0.47	0	70.9	15.9	12.8	0.24	0.23	0.0	0.0	193.3	193.3	2.7	0.2	B

	B111		Ramp																			
45	Old Stage - D112	B113	Basic Segment	2525	2525	7200	5721	0.44	0.44	0	74.9	14.1	11.2	0.57	0.57	0.0	0.0	448.3	448.3	6.0	0.0	
46	Old Stage - B113	M114	On Ramp	4143	4143	7200	6037	0.69	0.69	0	65.0	24.4	20.5	0.26	0.23	0.0	0.0	294.2	294.2	4.5	0.6	
47	M114	B115	Basic Segment	4143	4143	7200	6037	0.69	0.69	0	70.4	23.4	19.6	0.75	0.71	0.0	0.0	917.1	917.1	13.0	0.8	
48	US 401 - B115	D116	Off Ramp	4143	4143	7200	6037	0.69	0.69	0	67.9	24.2	20.3	0.25	0.23	0.0	0.0	294.2	294.2	4.3	0.4	
49	US 401 - D116	B117	Basic Segment	3121	3121	7200	5779	0.54	0.54	0	74.0	17.5	14.1	0.25	0.24	0.0	0.0	236.4	236.4	3.2	0.0	
50	US 401 - B117	M118	On Ramp	4082	4082	7200	5954	0.69	0.69	0	65.7	24.5	20.3	0.26	0.23	0.0	0.0	289.9	289.9	4.4	0.5	
51	US 401 - M118	B119	Basic Segment	4082	4082	7200	5954	0.69	0.69	0	70.4	23.4	19.3	0.08	0.08	0.0	0.0	96.6	96.6	1.4	0.1	
52	US 401 - B119	M120	On Ramp	4601	4601	7200	6021	0.76	0.76	0	65.3	27.8	23.2	0.26	0.23	0.0	0.0	326.8	326.8	5.0	0.6	
53	M120	B121	Basic Segment	4601	4601	7200	6021	0.76	0.76	0	67.3	27.2	22.8	1.14	1.02	0.1	0.1	1465.0	1465.0	21.8	2.2	
54	Bells Lake - B121	D122	Off Ramp	4601	4601	7200	6021	0.76	0.76	0	69.2	26.5	22.2	0.25	0.23	0.0	0.0	326.8	326.8	4.7	0.4	
55	Bells Lake - D122	B123	Basic Segment	3818	3818	7200	5855	0.65	0.65	0	71.5	21.9	17.8	0.37	0.36	0.0	0.0	424.8	424.8	5.9	0.3	
56	Bells Lake - B123	M124	On Ramp	4745	4745	7200	5988	0.79	0.79	0	63.8	29.3	24.3	0.27	0.23	0.0	0.0	337.0	337.0	5.3	0.8	
57	M124	B125	Basic Segment	4745	4745	7200	5988	0.79	0.79	0	66.0	28.8	24.0	1.72	1.51	0.2	0.2	2241.1	2241.1	34.0	4.1	
58	Holly Springs - B125	D126	Off Ramp	4745	4745	7200	5988	0.79	0.79	0	67.2	28.3	23.5	0.25	0.23	0.0	0.0	337.0	337.0	5.0	0.5	
59	Holly Springs - D126	B127	Basic Segment	3239	3239	7200	5613	0.58	0.58	0	73.4	18.9	14.7	0.51	0.50	0.0	0.0	502.3	502.3	6.8	0.1	
60	Holly Springs - B127	M128	On Ramp	4081	4081	7200	5793	0.70	0.70	0	65.9	25.2	20.3	0.26	0.23	0.0	0.0	289.8	289.8	4.4	0.5	
61	M128	B129	Basic Segment	4081	4081	7200	5793	0.70	0.70	0	69.7	24.3	19.5	1.51	1.40	0.1	0.1	1787.4	1787.4	25.6	1.8	
62	NC 55 BYP - B129	D130	Off Ramp	4081	4081	7200	5793	0.70	0.70	0	66.6	25.4	20.4	0.26	0.23	0.0	0.0	289.8	289.8	4.4	0.5	
63	NC 55 BYP - D130	B131	Basic Segment	2819	2819	7200	5435	0.52	0.52	0	74.3	16.7	12.6	0.26	0.25	0.0	0.0	223.6	223.6	3.0	0.0	
64	NC 55 Bypass - B131	M132	On Ramp	5269	5269	9600	7897	0.67	0.67	0	63.9	23.9	19.7	0.27	0.23	0.0	0.0	374.2	374.2	5.9	0.9	
65	M132	B133	Basic Segment	5269	5269	9600	7897	0.67	0.67	0	71.0	22.6	18.6	0.06	0.06	0.0	0.0	99.8	99.8	1.4	0.1	
66	OHSARI - B133	M134	On Ramp	5787	5787	12000	9964	0.58	0.58	0	70.2	19.7	16.4	0.24	0.23	0.0	0.0	411.0	411.0	5.9	0.4	
67	OHSARI - M134	B135	Basic Segment	5787	5787	9600	7971	0.73	0.73	0	68.9	25.3	21.0	0.04	0.04	0.0	0.0	68.5	68.5	1.0	0.1	
68	OHSARI - B135	D136	Off Ramp	5787	5787	7200	5978	0.97	0.97	0	67.5	34.4	28.6	0.25	0.23	0.0	0.0	411.0	411.0	6.1	0.6	
69	OHSARI - D136	B137	Basic Segment	4807	4807	7200	5778	0.83	0.83	0	64.0	31.2	25.0	0.23	0.20	0.0	0.0	295.9	295.9	4.6	0.7	
70	OHSARI - B137	M138	On Ramp	7215	7215	9600	8040	0.90	0.90	0	56.7	36.8	30.8	0.30	0.23	0.1	0.1	512.4	512.4	9.0	2.2	
71	M138	End NC 540 WB	Basic Segment	7215	7215	9600	8040	0.90	0.90	0	60.3	35.7	29.9	1.00	0.80	0.2	0.2	1803.8	1803.8	29.9	5.9	

Time Period 4

Seg #	From	To	Type	Adj. Demand	Vol. Served	Capacity (pc/h)	Capacity (veh/h)	d/c Ratio	v/c ratio	Queue Length (ft)	Avg. Speed (mi/h)	Density (pc/mi/ln)	Density (veh/mi/ln)	Avg. Travel Time (min/veh)	Free-Flow Travel Time (min/veh)	Mainline Delay (min/veh)	System Delay (min/veh)	VMT Demand (veh-min)	VMT Volume (veh-min)	VHT (veh-hrs)	VHD (veh-hrs)	LO
1	Begin NC 540 WB	B69	Basic Segment	5484	5484	9600	8807	0.62	0.62	0	72.3	20.7	19.0	0.83	0.80	0.0	0.0	1371.0	1371.0	19.0	0.7	
2	US 64 Bus - B69	D70	Off Ramp	5484	5484	9600	8807	0.62	0.62	0	72.0	20.8	19.0	0.24	0.23	0.0	0.0	389.5	389.5	5.4	0.2	
3	US 64 Bus - D70	B71	Basic Segment	4809	4809	9600	8757	0.55	0.55	0	73.9	17.8	16.3	0.09	0.09	0.0	0.0	130.9	130.9	1.8	0.0	
4	US 64 Bus - B71	D72	Off Ramp	4809	4809	9600	8757	0.55	0.55	0	65.0	20.3	18.5	0.26	0.23	0.0	0.0	341.5	341.5	5.3	0.7	
5	US 64 Bus - D72	B73	Basic Segment	3867	3867	9600	8744	0.44	0.44	0	74.3	14.3	13.0	0.26	0.26	0.0	0.0	315.8	315.8	4.3	0.0	
6	US 64 Bus - B73	M74	On Ramp	5113	5113	9600	8760	0.58	0.58	0	68.1	20.1	18.4	0.25	0.23	0.0	0.0	363.1	363.1	5.3	0.5	
7	M74	B75	Basic Segment	5113	5113	9600	8760	0.58	0.58	0	73.2	19.1	17.5	0.64	0.63	0.0	0.0	998.6	998.6	13.6	0.3	
8	I-495 - B75	D76	Off Ramp	5113	5113	9600	8760	0.58	0.58	0	68.4	20.5	18.7	0.25	0.23	0.0	0.0	363.1	363.1	5.3	0.5	
9	I-495 - D76	B77	Basic Segment	3426	3426	9600	8620	0.40	0.40	0	73.4	13.0	11.7	0.03	0.03	0.0	0.0	36.5	36.5	0.5	0.0	
10	I-495 - B77	D78	Off Ramp	3426	3426	9600	8620	0.40	0.40	0	62.7	15.2	13.7	0.27	0.23	0.0	0.0	243.3	243.3	3.9	0.6	
	I-495 -		Basic																			

11	D78	B79	Segment	2217	2217	7200	6300	0.35	0.35	0	74.4	11.3	9.9	0.35	0.35	0.0	0.0	241.4	241.4	3.2	0.0	
12	B79	W80	Weaving	3639	3639	5449	4856	0.75	0.75	0	58.6	17.4	15.5	0.36	0.28	0.1	0.1	318.8	318.8	5.4	1.2	
13	Poole - W80	B81	Basic Segment	2239	2239	7200	6102	0.37	0.37	0	74.2	11.9	10.1	0.28	0.28	0.0	0.0	196.1	196.1	2.6	0.0	
14	Poole - B81	M82	On Ramp	2363	2363	7200	6127	0.39	0.39	0	68.9	13.4	11.4	0.25	0.23	0.0	0.0	167.8	167.8	2.4	0.2	
15	M82	B83	Basic Segment	2363	2363	7200	6127	0.39	0.39	0	74.8	12.4	10.5	0.40	0.39	0.0	0.0	290.9	290.9	3.9	0.0	
16	Auburn Knight - B83	D84	Off Ramp	2363	2363	7200	6127	0.39	0.39	0	70.2	13.2	11.2	0.24	0.23	0.0	0.0	167.8	167.8	2.4	0.2	
17	Auburn Knight - D84	B85	Basic Segment	2036	2036	7200	6020	0.34	0.34	0	74.6	10.9	9.1	0.24	0.24	0.0	0.0	154.2	154.2	2.1	0.0	
18	Auburn Knight - B85	M86	On Ramp	2278	2278	7200	6077	0.37	0.37	0	68.8	12.9	10.9	0.25	0.23	0.0	0.0	161.8	161.8	2.4	0.2	
19	M86	B87	Basic Segment	2278	2278	7200	6077	0.37	0.37	0	75.0	12.0	10.1	1.30	1.30	0.0	0.0	927.6	927.6	12.4	0.0	
20	Rock Quarry - B87	D88	Off Ramp	2278	2278	7200	6077	0.37	0.37	0	69.3	13.0	11.0	0.25	0.23	0.0	0.0	161.8	161.8	2.3	0.2	
21	Rock Quarry - D88	B89	Basic Segment	1715	1715	7200	5827	0.29	0.29	0	74.5	9.5	7.7	0.24	0.23	0.0	0.0	125.9	125.9	1.7	0.0	
22	Rock Quarry - B89	M90	On Ramp	1946	1946	7200	5910	0.33	0.33	0	69.0	11.3	9.3	0.25	0.23	0.0	0.0	138.2	138.2	2.0	0.2	
23	M90	B91	Basic Segment	1946	1946	7200	5910	0.33	0.33	0	74.5	10.6	8.7	0.24	0.24	0.0	0.0	145.1	145.1	1.9	0.0	
24	US 70 - B91	D92	Off Ramp	1946	1946	7200	5910	0.33	0.33	0	68.4	11.6	9.5	0.25	0.23	0.0	0.0	138.2	138.2	2.0	0.2	
25	US 70 - D92	B93	Basic Segment	1256	1256	7200	5551	0.23	0.23	0	74.6	7.3	5.6	0.29	0.28	0.0	0.0	111.5	111.5	1.5	0.0	
26	US 70 - B93	M94	On Ramp	1649	1649	7200	5770	0.29	0.29	0	69.0	9.7	7.8	0.25	0.23	0.0	0.0	117.1	117.1	1.7	0.1	
27	US 70 - M94	B95	Basic Segment	1649	1649	7200	5770	0.29	0.29	0	74.1	9.3	7.4	0.13	0.13	0.0	0.0	64.4	64.4	0.9	0.0	
28	US 70 - B95	M96	On Ramp	1732	1732	7200	5806	0.30	0.30	0	69.1	10.3	8.3	0.25	0.23	0.0	0.0	123.0	123.0	1.8	0.1	
29	M96	B97	Basic Segment	1732	1732	7200	5806	0.30	0.30	0	74.9	9.6	7.7	0.53	0.53	0.0	0.0	287.0	287.0	3.8	0.0	
30	White Oak - B97	D98	Off Ramp	1732	1732	7200	5806	0.30	0.30	0	61.2	11.7	9.4	0.28	0.23	0.1	0.1	123.0	123.0	2.0	0.4	
31	White Oak - D98	B99	Basic Segment	1131	1131	7200	5326	0.21	0.21	0	73.9	6.9	5.1	0.26	0.25	0.0	0.0	89.7	89.7	1.2	0.0	
32	White Oak - B99	M100	On Ramp	1505	1505	7200	5595	0.27	0.27	0	69.1	9.1	7.1	0.25	0.23	0.0	0.0	106.9	106.9	1.5	0.1	
33	M100	B101	Basic Segment	1505	1505	7200	5595	0.27	0.27	0	74.6	8.7	6.7	0.26	0.26	0.0	0.0	121.1	121.1	1.6	0.0	
34	I-40 - B101	D102	Off Ramp	1505	1505	7200	5595	0.27	0.27	0	66.5	9.7	7.5	0.26	0.23	0.0	0.0	106.9	106.9	1.6	0.2	
35	I-40 - D102	B103	Basic Segment	579	579	7200	4429	0.13	0.13	0	74.9	4.2	2.6	0.71	0.71	0.0	0.0	128.8	128.8	1.7	0.0	
36	I-40 - B103	W104	Weaving	1527	1527	5031	3891	0.39	0.39	0	64.6	7.6	5.9	0.20	0.17	0.0	0.0	83.1	83.1	1.3	0.2	
37	I-40 - W104	B105	Basic Segment	1200	1200	7200	5324	0.23	0.23	0	74.9	7.2	5.3	0.66	0.66	0.0	0.0	247.2	247.2	3.3	0.0	
38	I-40 - B105	M106	On Ramp	2475	2475	7200	5915	0.42	0.42	0	69.5	13.7	11.3	0.25	0.23	0.0	0.0	175.8	175.8	2.5	0.2	
39	M106	B107	Basic Segment	2475	2475	7200	5915	0.42	0.42	0	74.9	13.4	11.0	0.60	0.59	0.0	0.0	460.0	460.0	6.1	0.0	
40	NC 50 - B107	D108	Off Ramp	2475	2475	7200	5915	0.42	0.42	0	59.4	16.9	13.9	0.29	0.23	0.1	0.1	175.8	175.8	3.0	0.6	
41	NC 50 - D108	B109	Basic Segment	1513	1513	7200	5388	0.28	0.28	0	74.0	9.1	6.8	0.28	0.28	0.0	0.0	132.5	132.5	1.8	0.0	
42	NC 50 - B109	M110	On Ramp	2448	2448	7200	5796	0.42	0.42	0	68.1	14.3	11.5	0.25	0.23	0.0	0.0	173.9	173.9	2.6	0.2	
43	M110	B111	Basic Segment	2448	2448	7200	5796	0.42	0.42	0	75.0	13.5	10.9	2.19	2.19	0.0	0.0	1672.0	1672.0	22.3	0.0	
44	Old Stage - B111	D112	Off Ramp	2448	2448	7200	5796	0.42	0.42	0	70.8	14.3	11.5	0.24	0.23	0.0	0.0	173.9	173.9	2.5	0.1	
45	Old Stage - D112	B113	Basic Segment	2271	2271	7200	5720	0.40	0.40	0	74.9	12.7	10.1	0.57	0.57	0.0	0.0	403.2	403.2	5.4	0.0	
46	Old Stage - B113	M114	On Ramp	3729	3729	7200	6036	0.62	0.62	0	66.2	21.6	18.1	0.26	0.23	0.0	0.0	264.8	264.8	4.0	0.5	
47	M114	B115	Basic Segment	3729	3729	7200	6036	0.62	0.62	0	72.4	20.5	17.2	0.73	0.71	0.0	0.0	825.4	825.4	11.4	0.4	
48	US 401 - B115	D116	Off Ramp	3729	3729	7200	6036	0.62	0.62	0	68.2	21.7	18.2	0.25	0.23	0.0	0.0	264.8	264.8	3.9	0.4	
49	US 401 - D116	B117	Basic Segment	2808	2808	7200	5778	0.49	0.49	0	74.5	15.7	12.6	0.24	0.24	0.0	0.0	212.7	212.7	2.9	0.0	
50	US 401 - B117	M118	On Ramp	3674	3674	7200	5954	0.62	0.62	0	66.7	21.7	18.0	0.26	0.23	0.0	0.0	260.9	260.9	3.9	0.4	
51	US 401 - M118	B119	Basic Segment	3674	3674	7200	5954	0.62	0.62	0	72.4	20.4	16.9	0.08	0.08	0.0	0.0	87.0	87.0	1.2	0.0	
52	US 401 - B119	M120	On Ramp	4142	4142	7200	6021	0.69	0.69	0	66.4	24.6	20.6	0.26	0.23	0.0	0.0	294.2	294.2	4.4	0.5	
53	M120	B121	Basic Segment	4142	4142	7200	6021	0.69	0.69	0	70.3	23.5	19.6	1.09	1.02	0.1	0.1	1318.9	1318.9	18.8	1.2	
54	Bells Lake - B121	D122	Off Ramp	4142	4142	7200	6021	0.69	0.69	0	69.4	23.8	19.9	0.25	0.23	0.0	0.0	294.2	294.2	4.2	0.3	
55	Bells Lake -	B123	Basic Segment	3437	3437	7200	5854	0.59	0.59	0	73.1	19.3	15.7	0.37	0.36	0.0	0.0	382.4	382.4	5.2	0.1	

	D122																				
56	Bells Lake - B123	M124	On Ramp	4272	4272	7200	5987	0.71	0.71	0	65.4	25.7	21.4	0.26	0.23	0.0	0.0	303.4	303.4	4.6	0.6
57	M124	B125	Basic Segment	4272	4272	7200	5987	0.71	0.71	0	69.4	24.7	20.5	1.63	1.51	0.1	0.1	2017.7	2017.7	29.1	2.2
58	Holly Springs - B125	D126	Off Ramp	4272	4272	7200	5987	0.71	0.71	0	67.6	25.3	21.1	0.25	0.23	0.0	0.0	303.4	303.4	4.5	0.4
59	Holly Springs - D126	B127	Basic Segment	2915	2915	7200	5612	0.52	0.52	0	74.3	16.8	13.1	0.50	0.50	0.0	0.0	452.0	452.0	6.1	0.1
60	Holly Springs - B127	M128	On Ramp	3674	3674	7200	5792	0.63	0.63	0	66.8	22.4	18.0	0.26	0.23	0.0	0.0	260.9	260.9	3.9	0.4
61	M128	B129	Basic Segment	3674	3674	7200	5792	0.63	0.63	0	72.0	21.1	17.0	1.46	1.40	0.1	0.1	1609.1	1609.1	22.4	0.9
62	NC 55 BYP - B129	D130	Off Ramp	3674	3674	7200	5792	0.63	0.63	0	67.1	22.7	18.3	0.25	0.23	0.0	0.0	260.9	260.9	3.9	0.4
63	NC 55 BYP - D130	B131	Basic Segment	2537	2537	7200	5434	0.47	0.47	0	74.4	15.1	11.4	0.26	0.25	0.0	0.0	201.2	201.2	2.7	0.0
64	NC 55 Bypass - B131	M132	On Ramp	4744	4744	9600	7897	0.60	0.60	0	65.8	20.9	17.2	0.26	0.23	0.0	0.0	336.9	336.9	5.1	0.6
65	M132	B133	Basic Segment	4744	4744	9600	7897	0.60	0.60	0	72.8	19.8	16.3	0.06	0.06	0.0	0.0	89.8	89.8	1.2	0.0
66	OHSARI - B133	M134	On Ramp	5211	5211	12000	9963	0.52	0.52	0	70.6	17.6	14.6	0.24	0.23	0.0	0.0	370.1	370.1	5.2	0.3
67	OHSARI - M134	B135	Basic Segment	5211	5211	9600	7970	0.65	0.65	0	71.4	22.0	18.2	0.04	0.04	0.0	0.0	61.7	61.7	0.9	0.0
68	OHSARI - B135	D136	Off Ramp	5211	5211	7200	5978	0.87	0.87	0	67.7	30.9	25.6	0.25	0.23	0.0	0.0	370.1	370.1	5.5	0.5
69	OHSARI - D136	B137	Basic Segment	4328	4328	7200	5778	0.75	0.75	0	68.0	26.5	21.2	0.22	0.20	0.0	0.0	266.4	266.4	3.9	0.4
70	OHSARI - B137	M138	On Ramp	6736	6736	9600	8065	0.84	0.84	0	59.4	32.6	27.4	0.29	0.23	0.1	0.1	478.4	478.4	8.0	1.7
71	M138	End NC 540 WB	Basic Segment	6736	6736	9600	8065	0.84	0.84	0	63.8	31.4	26.4	0.94	0.80	0.1	0.1	1684.0	1684.0	26.4	3.9

Overall Results

Segment	Segment Type	Maximum d/c Ratio	Avg. Speed (mi/h)	Density (pc/mi/ln)	Density (veh/mi/ln)	Avg. Travel Time (min/veh)	Free-Flow Travel Time (min/veh)	VMT Demand (veh-min)	VMT Volume (veh-min)	VHT (veh-hrs)	VHD (veh-hrs)
Begin NC 540 WB-B69	Basic	0.69	72.0	20.8	19.0	0.83	0.80	5,484.0	5,484.0	76.15	3.03
US 64 Bus - B69-D70	OffRamp	0.69	71.9	20.8	19.1	0.24	0.23	1,558.0	1,558.0	21.65	0.88
US 64 Bus - D70-B71	Basic	0.61	73.7	17.9	16.3	0.09	0.09	0,523.7	0,523.7	7.11	0.13
US 64 Bus - B71-D72	OffRamp	0.61	65.0	20.3	18.5	0.26	0.23	1,366.2	1,366.2	21.01	2.80
US 64 Bus - D72-B73	Basic	0.49	74.3	14.3	13.0	0.26	0.26	1,263.4	1,263.4	17.01	0.17
US 64 Bus - B73-M74	OnRamp	0.65	68.0	20.1	18.4	0.25	0.23	1,452.6	1,452.6	21.36	1.99
M74-B75	Basic	0.65	73.0	19.2	17.5	0.64	0.63	3,994.5	3,994.5	54.72	1.46
I-495 - B75-D76	OffRamp	0.65	68.4	20.5	18.7	0.25	0.23	1,452.6	1,452.6	21.25	1.88
I-495 - D76-B77	Basic	0.44	73.4	13.0	11.7	0.03	0.03	0,146.0	0,146.0	1.99	0.04
I-495 - B77-D78	OffRamp	0.44	62.7	15.2	13.7	0.27	0.23	0,973.3	0,973.3	15.52	2.54
I-495 - D78-B79	Basic	0.39	74.4	11.3	9.9	0.35	0.35	0,965.7	0,965.7	12.97	0.10
B79-W80	Weaving	0.83	58.5	17.5	15.6	0.36	0.28	1,275.0	1,275.0	21.80	4.80
Poole - W80-B81	Basic	0.41	74.2	11.9	10.1	0.28	0.28	0,784.5	0,784.5	10.58	0.12
Poole - B81-M82	OnRamp	0.43	68.9	13.4	11.4	0.25	0.23	0,671.3	0,671.3	9.74	0.79
M82-B83	Basic	0.43	74.8	12.4	10.5	0.40	0.39	1,163.6	1,163.6	15.56	0.05
Auburn Knight - B83-D84	OffRamp	0.43	70.2	13.2	11.2	0.24	0.23	0,671.3	0,671.3	9.56	0.61
Auburn Knight - D84-B85	Basic	0.38	74.6	10.9	9.1	0.24	0.24	0,617.0	0,617.0	8.27	0.04
Auburn Knight - B85-M86	OnRamp	0.42	68.8	12.9	10.9	0.25	0.23	0,647.2	0,647.2	9.40	0.77
M86-B87	Basic	0.42	75.0	12.0	10.1	1.30	1.30	3,710.4	3,710.4	49.47	0.00
Rock Quarry - B87-D88	OffRamp	0.42	69.3	13.0	11.0	0.25	0.23	0,647.2	0,647.2	9.34	0.71
Rock Quarry - D88-B89	Basic	0.33	74.5	9.5	7.7	0.24	0.23	0,503.5	0,503.5	6.76	0.04
Rock Quarry - B89-M90	OnRamp	0.37	69.0	11.3	9.3	0.25	0.23	0,552.8	0,552.8	8.01	0.64
M90-B91	Basic	0.37	74.5	10.6	8.7	0.24	0.24	0,580.5	0,580.5	7.79	0.05

US 70 - B91-D92	OffRamp	0.37	68.4	11.6	9.5	0.25	0.23	0,552.8	0,552.8	8.09	0.71
US 70 - D92-B93	Basic	0.25	74.6	7.3	5.6	0.29	0.28	0,446.0	0,446.0	5.98	0.03
US 70 - B93-M94	OnRamp	0.32	69.0	9.7	7.8	0.25	0.23	0,468.5	0,468.5	6.79	0.54
US 70 - M94-B95	Basic	0.32	74.1	9.3	7.4	0.13	0.13	0,257.7	0,257.7	3.48	0.04
US 70 - B95-M96	OnRamp	0.33	69.1	10.3	8.3	0.25	0.23	0,492.0	0,492.0	7.12	0.56
M96-B97	Basic	0.33	74.9	9.6	7.7	0.53	0.53	1,148.1	1,148.1	15.33	0.02
White Oak - B97-D98	OffRamp	0.33	61.2	11.7	9.4	0.28	0.23	0,492.0	0,492.0	8.04	1.48
White Oak - D98-B99	Basic	0.24	73.9	6.9	5.1	0.26	0.25	0,358.8	0,358.8	4.85	0.07
White Oak - B99-M100	OnRamp	0.30	69.1	9.1	7.1	0.25	0.23	0,427.6	0,427.6	6.19	0.48
M100-B101	Basic	0.30	74.6	8.7	6.7	0.26	0.26	0,484.6	0,484.6	6.50	0.04
I-40 - B101-D102	OffRamp	0.30	66.5	9.7	7.5	0.26	0.23	0,427.6	0,427.6	6.43	0.73
I-40 - D102-B103	Basic	0.15	74.9	4.2	2.6	0.71	0.71	0,515.4	0,515.4	6.88	0.01
I-40 - B103-W104	Weaving	0.44	64.5	7.7	5.9	0.20	0.17	0,332.6	0,332.6	5.15	0.72
I-40 - W104-B105	Basic	0.25	74.9	7.2	5.3	0.66	0.66	0,988.6	0,988.6	13.20	0.02
I-40 - B105-M106	OnRamp	0.47	69.4	13.7	11.3	0.25	0.23	0,703.1	0,703.1	10.13	0.75
M106-B107	Basic	0.47	74.9	13.4	11.0	0.60	0.59	1,839.8	1,839.8	24.56	0.03
NC 50 - B107-D108	OffRamp	0.47	59.4	16.9	13.9	0.29	0.23	0,703.1	0,703.1	11.85	2.47
NC 50 - D108-B109	Basic	0.31	74.0	9.1	6.8	0.28	0.28	0,530.1	0,530.1	7.17	0.10
NC 50 - B109-M110	OnRamp	0.47	68.1	14.3	11.5	0.25	0.23	0,695.5	0,695.5	10.21	0.94
M110-B111	Basic	0.47	74.9	13.5	10.9	2.19	2.19	6,688.0	6,688.0	89.23	0.06
Old Stage - B111-D112	OffRamp	0.47	70.8	14.3	11.5	0.24	0.23	0,695.5	0,695.5	9.82	0.55
Old Stage - D112-B113	Basic	0.44	74.9	12.7	10.1	0.57	0.57	1,612.9	1,612.9	21.52	0.02
Old Stage - B113-M114	OnRamp	0.69	66.0	21.6	18.1	0.26	0.23	1,059.4	1,059.4	16.05	1.92
M114-B115	Basic	0.69	72.2	20.5	17.2	0.74	0.71	3,301.7	3,301.7	45.76	1.74
US 401 - B115-D116	OffRamp	0.69	68.2	21.7	18.2	0.25	0.23	1,059.4	1,059.4	15.53	1.41
US 401 - D116-B117	Basic	0.54	74.3	15.7	12.6	0.24	0.24	0,850.9	0,850.9	11.45	0.10
US 401 - B117-M118	OnRamp	0.69	66.6	21.8	18.0	0.26	0.23	1,043.8	1,043.8	15.67	1.76
US 401 - M118-B119	Basic	0.69	72.1	20.5	17.0	0.08	0.08	0,347.9	0,347.9	4.83	0.19
US 401 - B119-M120	OnRamp	0.76	66.3	24.6	20.6	0.26	0.23	1,176.7	1,176.7	17.75	2.06
M120-B121	Basic	0.76	69.9	23.6	19.7	1.09	1.02	5,275.6	5,275.6	75.45	5.11
Bells Lake - B121-D122	OffRamp	0.76	69.4	23.8	19.9	0.25	0.23	1,176.7	1,176.7	16.95	1.26
Bells Lake - D122-B123	Basic	0.65	72.9	19.3	15.7	0.37	0.36	1,529.7	1,529.7	20.98	0.58
Bells Lake - B123-M124	OnRamp	0.79	65.2	25.8	21.4	0.26	0.23	1,213.6	1,213.6	18.62	2.43
M124-B125	Basic	0.79	69.0	24.8	20.7	1.64	1.51	8,070.7	8,070.7	117.05	9.44
Holly Springs - B125-D126	OffRamp	0.79	67.6	25.3	21.1	0.25	0.23	1,213.6	1,213.6	17.96	1.77
Holly Springs - D126-B127	Basic	0.58	74.2	16.8	13.1	0.50	0.50	1,808.1	1,808.1	24.38	0.27
Holly Springs - B127-M128	OnRamp	0.70	66.7	22.4	18.0	0.26	0.23	1,043.8	1,043.8	15.65	1.74

M128-B129	Basic	0.70	71.7	21.2	17.1	1.47	1.40	6,436.5	6,436.5	89.78	3.97
NC 55 BYP - B129-D130	OffRamp	0.70	67.0	22.7	18.3	0.25	0.23	1,043.8	1,043.8	15.57	1.65
NC 55 BYP - D130-B131	Basic	0.52	74.4	15.1	11.4	0.26	0.25	0,804.8	0,804.8	10.82	0.09
NC 55 Bypass - B131-M132	OnRamp	0.67	65.5	21.0	17.3	0.26	0.23	1,347.7	1,347.7	20.57	2.60
M132-B133	Basic	0.67	72.4	19.9	16.4	0.06	0.06	0,359.4	0,359.4	4.96	0.17
OHSARI - B133-M134	OnRamp	0.58	70.6	17.6	14.7	0.24	0.23	1,480.4	1,480.4	20.98	1.24
OHSARI - M134-B135	Basic	0.73	71.1	22.1	18.3	0.04	0.04	0,246.7	0,246.7	3.47	0.18
OHSARI - B135-D136	OffRamp	0.97	67.7	30.9	25.7	0.25	0.23	1,480.4	1,480.4	21.87	2.13
OHSARI - D136-B137	Basic	0.83	67.5	26.6	21.4	0.22	0.20	1,065.6	1,065.6	15.79	1.58
OHSARI - B137-M138	OnRamp	0.90	59.2	32.7	27.5	0.29	0.23	1,913.6	1,913.6	32.34	6.83
M138-End NC 540 WB	Basic	0.90	63.5	31.5	26.5	0.94	0.80	6,736.0	6,736.0	106.02	16.21
Freeway			69.9	17.0	14.2	27.98	26.41	104,950.8	104,950.8	1,501.8	0,102.5

Density-Based LOS by Segment

Segment	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Time Step	Basic	Off Ramp	Basic	Off Ramp	Basic	On Ramp	Basic	Off Ramp	Basic	Off Ramp	Basic	Weaving	Basic	On Ramp	Basic
1	B	C	B	B	B	B	B	D	B	B	A	B	A	B	A
2	C	D	B	B	B	C	C	D	B	B	B	B	B	B	B
3	C	D	C	B	B	C	C	D	B	C	B	B	B	B	B
4	C	D	B	B	B	C	C	D	B	B	B	B	B	B	B

Density-Based LOS by Segment

Segment	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Time Step	Off Ramp	Basic	On Ramp	Basic	Off Ramp	Basic	On Ramp	Basic	Off Ramp	Basic	On Ramp	Basic	On Ramp	Basic	Off Ramp
1	B	A	A	A	B	A	A	A	B	A	A	A	A	A	A
2	B	A	A	B	B	A	A	A	B	A	A	A	B	A	A
3	C	B	B	B	C	A	A	B	B	A	A	A	B	A	A
4	B	A	A	B	B	A	A	A	B	A	A	A	B	A	A

Density-Based LOS by Segment

Segment	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45
Time Step	Basic	On Ramp	Basic	Off Ramp	Basic	Weaving	Basic	On Ramp	Basic	Off Ramp	Basic	On Ramp	Basic	Off Ramp	Basic
1	A	A	A	A	A	A	A	B	B	A	A	B	B	B	B
2	A	A	A	B	A	A	A	B	B	B	A	B	B	B	B
3	A	B	A	B	A	A	A	B	B	B	A	B	B	B	B
4	A	A	A	B	A	A	A	B	B	B	A	B	B	B	B

Density-Based LOS by Segment

Segment	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
Time Step	On Ramp	Basic	Off Ramp	Basic	On Ramp	Basic	On Ramp	Basic	Off Ramp	Basic	On Ramp	Basic	Off Ramp	Basic	On Ramp
1	C	B	B	B	B	B	C	C	C	B	C	C	D	B	C
2	C	C	C	B	B	C	C	C	D	C	C	C	D	B	C
3	C	C	C	B	C	C	C	D	D	C	C	D	E	C	C
4	C	C	C	B	B	C	C	C	D	C	C	C	D	B	C

Density-Based LOS by Segment

Segment	61	62	63	64	65	66	67	68	69	70	71
Time Step	Basic	Off Ramp	Basic	On Ramp	Basic	On Ramp	Basic	Off Ramp	Basic	On Ramp	Basic
1	C	D	B	C	B	B	C	D	C	D	D
2	C	D	B	C	C	B	C	D	D	D	D
3	C	E	B	C	C	B	C	E	D	D	E
4	C	D	B	C	C	B	C	D	D	D	D

Demand-Based LOS by Segment

Time Step	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
3	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
4	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

Demand-Based LOS by Segment

Time Step	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
3	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
4	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

Demand-Based LOS by Segment

Time Step	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45
1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
3	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
4	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

Demand-Based LOS by Segment

Time Step	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
3	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
4	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

Demand-Based LOS by Segment

Time Step	61	62	63	64	65	66	67	68	69	70	71
1	.	.	.	.	.	.	.	.	.	.	.
2	.	.	.	.	.	.	.	.	.	.	.
3	.	.	.	.	.	.	.	.	.	.	.
4	.	.	.	.	.	.	.	.	.	.	.

HCS 2010 Freeway Facilities

Project Properties

Analyst	HNTB	**Freeway Name**	Complete 540 – 2040 Build WB PM	**Analysis Period**	PM Peak
Analysis Date	9/9/2014 10:49:55 AM	**From**	US 64 Business	**Version Date**	1/20/16
Agency	HNTB	**To**	Old Holly Springs-Apex		
Location	Complete 540	**Analysis Direction**	Westbound/Southbound		
User Notes					
File Name	C:\Temp\preview.xml				

Facility-wide Values

Jam Density (pc/h/ln)	190	**Time Period Duration (min)**	15	**Facility Length (mi)**	**33.01800**

Segment Input Data

Time Period 1

Mainline Data

Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin NC 540 WB	B69	Basic Segment	5280	Rolling	5952	6.00	0.00	4	75
2	US 64 Bus - B69	D70	Off Ramp	1500	Rolling	5952	6.00	0.00	4	75
3	US 64 Bus - D70	B71	Basic Segment	575	Rolling	5460	6.27	0.00	4	75
4	US 64 Bus - B71	D72	Off Ramp	1500	Rolling	5460	6.27	0.00	4	75
5	US 64 Bus - D72	B73	Basic Segment	1725	Rolling	4218	6.35	0.00	4	75
6	US 64 Bus - B73	M74	On Ramp	1500	Rolling	5563	6.27	0.00	4	75
7	M74	B75	Basic Segment	4125	Rolling	5563	6.27	0.00	4	75
8	I-495 - B75	D76	Off Ramp	1500	Rolling	5563	6.27	0.00	4	75
9	I-495 - D76	B77	Basic Segment	225	Rolling	4404	6.86	0.00	4	75
10	I-495 - B77	D78	Off Ramp	1500	Rolling	4404	6.86	0.00	4	75
11	I-495 - D78	B79	Basic Segment	2300	Rolling	2625	8.80	0.00	3	75
12	B79	W80	Weaving	1850	Rolling	4106	7.79	0.00	4	75
13	Poole - W80	B81	Basic Segment	1850	Rolling	2690	10.84	0.00	3	75
14	Poole - B81	M82	On Ramp	1500	Rolling	2838	10.59	0.00	3	75
15	M82	B83	Basic Segment	2600	Rolling	2838	10.59	0.00	3	75
16	Auburn Knight - B83	D84	Off Ramp	1500	Rolling	2838	10.59	0.00	3	75
17	Auburn Knight - D84	B85	Basic Segment	1600	Rolling	2541	11.47	0.00	3	75
18	Auburn Knight - B85	M86	On Ramp	1500	Rolling	2766	11.03	0.00	3	75
19	M86	B87	Basic Segment	8600	Rolling	2766	11.03	0.00	3	75
20	Rock Quarry - B87	D88	Off Ramp	1500	Rolling	2766	11.03	0.00	3	75
21	Rock Quarry - D88	B89	Basic Segment	1550	Rolling	2147	13.63	0.00	3	75
22	Rock Quarry - B89	M90	On Ramp	1500	Rolling	2423	12.76	0.00	3	75
23	M90	B91	Basic Segment	1575	Rolling	2423	12.76	0.00	3	75
24	US 70 - B91	D92	Off Ramp	1500	Rolling	2423	12.76	0.00	3	75
25	US 70 - D92	B93	Basic Segment	1875	Rolling	1363	18.80	0.00	3	75
26	US 70 - B93	M94	On Ramp	1500	Rolling	1531	17.39	0.00	3	75
27	US 70 - M94	B95	Basic Segment	825	Rolling	1531	17.39	0.00	3	75
28	US 70 - B95	M96	On Ramp	1500	Rolling	1579	17.05	0.00	3	75
29	M96	B97	Basic Segment	3500	Rolling	1579	17.05	0.00	3	75
	White									

RampData

Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	Off Ramp	492	3.00	0.00	1	200	50
4	Off Ramp	1242	6.00	0.00	1	1500	30
6	On Ramp	1345	6.00	0.00	1	950	50
8	Off Ramp	1159	4.00	0.00	1	250	50
10	Off Ramp	1779	4.00	0.00	1	525	30
14	On Ramp	148	6.00	0.00	1	900	50
16	Off Ramp	297	3.00	0.00	1	175	50
18	On Ramp	225	6.00	0.00	1	1500	30
20	Off Ramp	619	2.00	0.00	1	300	50
22	On Ramp	276	6.00	0.00	1	1500	30
24	Off Ramp	1060	5.00	0.00	1	175	50
26	On Ramp	168	6.00	0.00	1	1500	30
28	On Ramp	48	6.00	0.00	1	750	50
30	Off Ramp	504	2.00	0.00	1	1200	30
32	On Ramp	390	6.00	0.00	1	900	50
34	Off Ramp	643	5.00	0.00	1	900	50
38	On Ramp	859	6.00	0.00	2	1500	50
40	Off Ramp	693	2.00	0.00	1	1500	30
42	On Ramp	414	6.00	0.00	1	900	50
44	Off Ramp	117	2.00	0.00	1	900	50
46	On Ramp	878	6.00	0.00	1	900	50
48	Off Ramp	627	2.00	0.00	1	1275	50
50	On Ramp	421	6.00	0.00	1	1500	30
52	On Ramp	383	6.00	0.00	1	900	50
54	Off Ramp	400	2.00	0.00	1	250	50
56	On Ramp	478	6.00	0.00	1	1400	30
58	Off Ramp	915	2.00	0.00	1	175	50
60	On Ramp	378	6.00	0.00	1	900	50
62	Off Ramp	750	4.00	0.00	1	275	50
64	On Ramp	940	6.00	0.00	1	1500	30
66	On Ramp	353	6.00	0.00	1	1500	50
68	Off Ramp	553	3.00	0.00	1	1500	50
70	On Ramp	1378	6.00	0.00	2	1500	30

30	Oak - B97	D98	Off Ramp	1500	Rolling	1579	17.05	0.00	3	75
31	White Oak - D98	B99	Basic Segment	1675	Rolling	1075	24.10	0.00	3	75
32	White Oak - B99	M100	On Ramp	1500	Rolling	1465	19.28	0.00	3	75
33	M100	B101	Basic Segment	1700	Rolling	1465	19.28	0.00	3	75
34	I-40 - B101	D102	Off Ramp	1500	Rolling	1465	19.28	0.00	3	75
35	I-40 - D102	B103	Basic Segment	4700	Rolling	822	30.45	0.00	3	75
36	I-40 - B103	W104	Weaving	1150	Rolling	1311	21.33	0.00	4	75
37	I-40 - W104	B105	Basic Segment	4350	Rolling	975	26.96	0.00	3	75
38	I-40 - B105	M106	On Ramp	1500	Rolling	1834	17.14	0.00	3	75
39	M106	B107	Basic Segment	3925	Rolling	1834	17.14	0.00	3	75
40	NC 50 - B107	D108	Off Ramp	1500	Rolling	1834	17.14	0.00	3	75
41	NC 50 - D108	B109	Basic Segment	1850	Rolling	1141	26.34	0.00	3	75
42	NC 50 - B109	M110	On Ramp	1500	Rolling	1555	20.93	0.00	3	75
43	M110	B111	Basic Segment	14425	Rolling	1555	20.93	0.00	3	75
44	Old Stage - B111	D112	Off Ramp	1500	Rolling	1555	20.93	0.00	3	75
45	Old Stage - D112	B113	Basic Segment	3750	Rolling	1438	22.47	0.00	3	75
46	Old Stage - B113	M114	On Ramp	1500	Rolling	2316	16.22	0.00	3	75
47	M114	B115	Basic Segment	4675	Rolling	2316	16.22	0.00	3	75
48	US 401 - B115	D116	Off Ramp	1500	Rolling	2316	16.22	0.00	3	75
49	US 401 - D116	B117	Basic Segment	1600	Rolling	1689	21.50	0.00	3	75
50	US 401 - B117	M118	On Ramp	1500	Rolling	2110	18.41	0.00	3	75
51	US 401 - M118	B119	Basic Segment	500	Rolling	2110	18.41	0.00	3	75
52	US 401 - B119	M120	On Ramp	1500	Rolling	2493	16.50	0.00	3	75
53	M120	B121	Basic Segment	6725	Rolling	2493	16.50	0.00	3	75
54	Bells Lake - B121	D122	Off Ramp	1500	Rolling	2493	16.50	0.00	3	75
55	Bells Lake - D122	B123	Basic Segment	2350	Rolling	2093	19.28	0.00	3	75
56	Bells Lake - B123	M124	On Ramp	1500	Rolling	2571	16.81	0.00	3	75
57	M124	B125	Basic Segment	9975	Rolling	2571	16.81	0.00	3	75
58	Holly Springs - B125	D126	Off Ramp	1500	Rolling	2571	16.81	0.00	3	75
59	Holly Springs - D126	B127	Basic Segment	3275	Rolling	1656	24.99	0.00	3	75
60	Holly Springs - B127	M128	On Ramp	1500	Rolling	2034	21.46	0.00	3	75
61	M128	B129	Basic Segment	9250	Rolling	2034	21.46	0.00	3	75
62	NC 55 BYP - B129	D130	Off Ramp	1500	Rolling	2034	21.46	0.00	3	75
63	NC 55 BYP - D130	B131	Basic Segment	1675	Rolling	1284	31.66	0.00	3	75
64	NC 55 Bypass - B131	M132	On Ramp	1500	Rolling	2224	20.81	0.00	4	75
65	M132	B133	Basic Segment	400	Rolling	2224	20.81	0.00	4	75
66	OHSARI - B133	M134	On Ramp	1500	Rolling	2577	18.78	0.00	5	75
67	OHSARI - M134	B135	Basic Segment	250	Rolling	2577	18.78	0.00	4	75
68	OHSARI - B135	D136	Off Ramp	1500	Rolling	2577	18.78	0.00	3	75
69	OHSARI - D136	B137	Basic Segment	1300	Rolling	2024	23.10	0.00	3	75
70	OHSARI - B137	M138	On Ramp	1500	Rolling	3402	16.17	0.00	4	75
71	M138	End NC 540 WB	Basic Segment	5280	Rolling	3402	16.17	0.00	4	75

Weaving Segment Data										
Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp			
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS
12	0.344	1481	6.00	0.00	1	50	1416	2.00	0.00	1	30
36	0.255	489	6.00	0.00	1	30	336	5.00	0.00	1	30

Time Period 2

Mainline Data										
Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin NC 540 WB	B69	Basic Segment	5280	Rolling	6695	6.00	0.00	4	75
2	US 64 Bus - B69	D70	Off Ramp	1500	Rolling	6695	6.00	0.00	4	75
3	US 64 Bus - D70	B71	Basic Segment	575	Rolling	6142	6.27	0.00	4	75
4	US 64 Bus - B71	D72	Off Ramp	1500	Rolling	6142	6.27	0.00	4	75
5	US 64 Bus - D72	B73	Basic Segment	1725	Rolling	4747	6.35	0.00	4	75
6	US 64 Bus - B73	M74	On Ramp	1500	Rolling	6258	6.27	0.00	4	75
7	M74	B75	Basic Segment	4125	Rolling	6258	6.27	0.00	4	75
8	I-495 - B75	D76	Off Ramp	1500	Rolling	6258	6.27	0.00	4	75
9	I-495 - D76	B77	Basic Segment	225	Rolling	4956	6.86	0.00	4	75
10	I-495 - B77	D78	Off Ramp	1500	Rolling	4956	6.86	0.00	4	75
11	I-495 - D78	B79	Basic Segment	2300	Rolling	2957	8.79	0.00	3	75
12	B79	W80	Weaving	1850	Rolling	4621	7.79	0.00	4	75
13	Poole - W80	B81	Basic Segment	1850	Rolling	3030	10.83	0.00	3	75
14	Poole - B81	M82	On Ramp	1500	Rolling	3196	10.58	0.00	3	75
15	M82	B83	Basic Segment	2600	Rolling	3196	10.58	0.00	3	75
16	Auburn Knight - B83	D84	Off Ramp	1500	Rolling	3196	10.58	0.00	3	75
17	Auburn Knight - D84	B85	Basic Segment	1600	Rolling	2862	11.46	0.00	3	75
18	Auburn Knight - B85	M86	On Ramp	1500	Rolling	3115	11.02	0.00	3	75
19	M86	B87	Basic Segment	8600	Rolling	3115	11.02	0.00	3	75
20	Rock Quarry - B87	D88	Off Ramp	1500	Rolling	3115	11.02	0.00	3	75
21	Rock Quarry - D88	B89	Basic Segment	1550	Rolling	2420	13.61	0.00	3	75
22	Rock Quarry - B89	M90	On Ramp	1500	Rolling	2730	12.74	0.00	3	75
23	M90	B91	Basic Segment	1575	Rolling	2730	12.74	0.00	3	75
24	US 70 - B91	D92	Off Ramp	1500	Rolling	2730	12.74	0.00	3	75
25	US 70 - D92	B93	Basic Segment	1875	Rolling	1539	18.73	0.00	3	75
26	US 70 - B93	M94	On Ramp	1500	Rolling	1728	17.34	0.00	3	75
27	US 70 - M94	B95	Basic Segment	825	Rolling	1728	17.34	0.00	3	75
28	US 70 - B95	M96	On Ramp	1500	Rolling	1782	17.00	0.00	3	75
29	M96	B97	Basic Segment	3500	Rolling	1782	17.00	0.00	3	75
30	White Oak - B97	D98	Off Ramp	1500	Rolling	1782	17.00	0.00	3	75
31	White Oak - D98	B99	Basic Segment	1675	Rolling	1216	23.98	0.00	3	75
32	White Oak - B99	M100	On Ramp	1500	Rolling	1654	19.22	0.00	3	75
33	M100	B101	Basic Segment	1700	Rolling	1654	19.22	0.00	3	75
34	I-40 - B101	D102	Off Ramp	1500	Rolling	1654	19.22	0.00	3	75
35	I-40 - D102	B103	Basic Segment	4700	Rolling	932	30.23	0.00	3	75
36	I-40 - B103	W104	Weaving	1150	Rolling	1481	21.25	0.00	4	75
37	I-40 - W104	B105	Basic Segment	4350	Rolling	1104	26.80	0.00	3	75
38	I-40 - B105	M106	On Ramp	1500	Rolling	2069	17.10	0.00	3	75
39	M106	B107	Basic Segment	3925	Rolling	2069	17.10	0.00	3	75
40	NC 50 - B107	D108	Off Ramp	1500	Rolling	2069	17.10	0.00	3	75
	NC 50 -		Basic							

RampData							
Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	Off Ramp	553	3.00	0.00	1	200	50
4	Off Ramp	1395	6.00	0.00	1	1500	30
6	On Ramp	1511	6.00	0.00	1	950	50
8	Off Ramp	1302	4.00	0.00	1	250	50
10	Off Ramp	1999	4.00	0.00	1	525	30
14	On Ramp	166	6.00	0.00	1	900	50
16	Off Ramp	334	3.00	0.00	1	175	50
18	On Ramp	253	6.00	0.00	1	1500	30
20	Off Ramp	695	2.00	0.00	1	300	50
22	On Ramp	310	6.00	0.00	1	1500	30
24	Off Ramp	1191	5.00	0.00	1	175	50
26	On Ramp	189	6.00	0.00	1	1500	30
28	On Ramp	54	6.00	0.00	1	750	50
30	Off Ramp	566	2.00	0.00	1	1200	30
32	On Ramp	438	6.00	0.00	1	900	50
34	Off Ramp	722	5.00	0.00	1	900	50
38	On Ramp	965	6.00	0.00	2	1500	50
40	Off Ramp	779	2.00	0.00	1	1500	30
42	On Ramp	465	6.00	0.00	1	900	50
44	Off Ramp	131	2.00	0.00	1	900	50
46	On Ramp	987	6.00	0.00	1	900	50
48	Off Ramp	705	2.00	0.00	1	1275	50
50	On Ramp	473	6.00	0.00	1	1500	30
52	On Ramp	430	6.00	0.00	1	900	50
54	Off Ramp	449	2.00	0.00	1	250	50
56	On Ramp	537	6.00	0.00	1	1400	30
58	Off Ramp	1028	2.00	0.00	1	175	50
60	On Ramp	425	6.00	0.00	1	900	50
62	Off Ramp	843	4.00	0.00	1	275	50
64	On Ramp	1056	6.00	0.00	1	1500	30
66	On Ramp	397	6.00	0.00	1	1500	50
68	Off Ramp	621	3.00	0.00	1	1500	50
70	On Ramp	1548	6.00	0.00	2	1500	30

41	D108	B109	Segment	1850	Rolling	1290	26.21	0.00	3	75
42	NC 50 - B109	M110	On Ramp	1500	Rolling	1755	20.86	0.00	3	75
43	M110	B111	Basic Segment	14425	Rolling	1755	20.86	0.00	3	75
44	Old Stage - B111	D112	Off Ramp	1500	Rolling	1755	20.86	0.00	3	75
45	Old Stage - D112	B113	Basic Segment	3750	Rolling	1624	22.38	0.00	3	75
46	Old Stage - B113	M114	On Ramp	1500	Rolling	2611	16.19	0.00	3	75
47	M114	B115	Basic Segment	4675	Rolling	2611	16.19	0.00	3	75
48	US 401 - B115	D116	Off Ramp	1500	Rolling	2611	16.19	0.00	3	75
49	US 401 - D116	B117	Basic Segment	1600	Rolling	1906	21.44	0.00	3	75
50	US 401 - B117	M118	On Ramp	1500	Rolling	2379	18.37	0.00	3	75
51	US 401 - M118	B119	Basic Segment	500	Rolling	2379	18.37	0.00	3	75
52	US 401 - B119	M120	On Ramp	1500	Rolling	2809	16.47	0.00	3	75
53	M120	B121	Basic Segment	6725	Rolling	2809	16.47	0.00	3	75
54	Bells Lake - B121	D122	Off Ramp	1500	Rolling	2809	16.47	0.00	3	75
55	Bells Lake - D122	B123	Basic Segment	2350	Rolling	2360	19.23	0.00	3	75
56	Bells Lake - B123	M124	On Ramp	1500	Rolling	2897	16.78	0.00	3	75
57	M124	B125	Basic Segment	9975	Rolling	2897	16.78	0.00	3	75
58	Holly Springs - B125	D126	Off Ramp	1500	Rolling	2897	16.78	0.00	3	75
59	Holly Springs - D126	B127	Basic Segment	3275	Rolling	1869	24.90	0.00	3	75
60	Holly Springs - B127	M128	On Ramp	1500	Rolling	2294	21.40	0.00	3	75
61	M128	B129	Basic Segment	9250	Rolling	2294	21.40	0.00	3	75
62	NC 55 BYP - B129	D130	Off Ramp	1500	Rolling	2294	21.40	0.00	3	75
63	NC 55 BYP - D130	B131	Basic Segment	1675	Rolling	1451	31.51	0.00	3	75
64	NC 55 Bypass - B131	M132	On Ramp	1500	Rolling	2507	20.76	0.00	4	75
65	M132	B133	Basic Segment	400	Rolling	2507	20.76	0.00	4	75
66	OHSARI - B133	M134	On Ramp	1500	Rolling	2904	18.75	0.00	5	75
67	OHSARI - M134	B135	Basic Segment	250	Rolling	2904	18.75	0.00	4	75
68	OHSARI - B135	D136	Off Ramp	1500	Rolling	2904	18.75	0.00	3	75
69	OHSARI - D136	B137	Basic Segment	1300	Rolling	2283	23.03	0.00	3	75
70	OHSARI - B137	M138	On Ramp	1500	Rolling	3831	16.15	0.00	4	75
71	M138	End NC 540 WB	Basic Segment	5280	Rolling	3831	16.15	0.00	4	75

Weaving Segment Data

Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp				
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS
12	0.344	1664	6.00	0.00	1	50	1591	2.00	0.00	1	30
36	0.255	549	6.00	0.00	1	30	377	5.00	0.00	1	30

Time Period 3

Mainline Data

Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin NC 540 WB	B69	Basic Segment	5280	Rolling	7438	6.00	0.00	4	75
2	US 64 Bus - B69	D70	Off Ramp	1500	Rolling	7438	6.00	0.00	4	75
3	US 64 Bus - D70	B71	Basic Segment	575	Rolling	6824	6.27	0.00	4	75
4	US 64 Bus - B71	D72	Off Ramp	1500	Rolling	6824	6.27	0.00	4	75
5	US 64 Bus - D72	B73	Basic Segment	1725	Rolling	5276	6.35	0.00	4	75
6	US 64 Bus - B73	M74	On Ramp	1500	Rolling	6953	6.26	0.00	4	75

RampData

Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	Off Ramp	614	3.00	0.00	1	200	50
4	Off Ramp	1548	6.00	0.00	1	1500	30
6	On Ramp	1677	6.00	0.00	1	950	50
8	Off Ramp	1445	4.00	0.00	1	250	50
10	Off Ramp	2219	4.00	0.00	1	525	30
14	On Ramp	184	6.00	0.00	1	900	50
16	Off Ramp	371	3.00	0.00	1	175	50
18	On Ramp	281	6.00	0.00	1	1500	30
20	Off Ramp	771	2.00	0.00	1	300	50
22	On Ramp	344	6.00	0.00	1	1500	30
24	Off Ramp	1322	5.00	0.00	1	175	50
26	On Ramp	210	6.00	0.00	1	1500	30
28	On Ramp	60	6.00	0.00	1	750	50
30	Off Ramp	628	2.00	0.00	1	1200	30

7	M74	B75	Basic Segment	4125	Rolling	6953	6.26	0.00	4	75
8	I-495 - B75	D76	Off Ramp	1500	Rolling	6953	6.26	0.00	4	75
9	I-495 - D76	B77	Basic Segment	225	Rolling	5508	6.86	0.00	4	75
10	I-495 - B77	D78	Off Ramp	1500	Rolling	5508	6.86	0.00	4	75
11	I-495 - D78	B79	Basic Segment	2300	Rolling	3289	8.79	0.00	3	75
12	B79	W80	Weaving	1850	Rolling	5136	7.79	0.00	4	75
13	Poole - W80	B81	Basic Segment	1850	Rolling	3370	10.82	0.00	3	75
14	Poole - B81	M82	On Ramp	1500	Rolling	3554	10.57	0.00	3	75
15	M82	B83	Basic Segment	2600	Rolling	3554	10.57	0.00	3	75
16	Auburn Knight - B83	D84	Off Ramp	1500	Rolling	3554	10.57	0.00	3	75
17	Auburn Knight - D84	B85	Basic Segment	1600	Rolling	3183	11.45	0.00	3	75
18	Auburn Knight - B85	M86	On Ramp	1500	Rolling	3464	11.01	0.00	3	75
19	M86	B87	Basic Segment	8600	Rolling	3464	11.01	0.00	3	75
20	Rock Quarry - B87	D88	Off Ramp	1500	Rolling	3464	11.01	0.00	3	75
21	Rock Quarry - D88	B89	Basic Segment	1550	Rolling	2693	13.59	0.00	3	75
22	Rock Quarry - B89	M90	On Ramp	1500	Rolling	3037	12.73	0.00	3	75
23	M90	B91	Basic Segment	1575	Rolling	3037	12.73	0.00	3	75
24	US 70 - B91	D92	Off Ramp	1500	Rolling	3037	12.73	0.00	3	75
25	US 70 - D92	B93	Basic Segment	1875	Rolling	1715	18.68	0.00	3	75
26	US 70 - B93	M94	On Ramp	1500	Rolling	1925	17.30	0.00	3	75
27	US 70 - M94	B95	Basic Segment	825	Rolling	1925	17.30	0.00	3	75
28	US 70 - B95	M96	On Ramp	1500	Rolling	1985	16.96	0.00	3	75
29	M96	B97	Basic Segment	3500	Rolling	1985	16.96	0.00	3	75
30	White Oak - B97	D98	Off Ramp	1500	Rolling	1985	16.96	0.00	3	75
31	White Oak - D98	B99	Basic Segment	1675	Rolling	1357	23.88	0.00	3	75
32	White Oak - B99	M100	On Ramp	1500	Rolling	1843	19.17	0.00	3	75
33	M100	B101	Basic Segment	1700	Rolling	1843	19.17	0.00	3	75
34	I-40 - B101	D102	Off Ramp	1500	Rolling	1843	19.17	0.00	3	75
35	I-40 - D102	B103	Basic Segment	4700	Rolling	1042	30.06	0.00	3	75
36	I-40 - B103	W104	Weaving	1150	Rolling	1651	21.18	0.00	4	75
37	I-40 - W104	B105	Basic Segment	4350	Rolling	1233	26.67	0.00	3	75
38	I-40 - B105	M106	On Ramp	1500	Rolling	2304	17.06	0.00	3	75
39	M106	B107	Basic Segment	3925	Rolling	2304	17.06	0.00	3	75
40	NC 50 - B107	D108	Off Ramp	1500	Rolling	2304	17.06	0.00	3	75
41	NC 50 - D108	B109	Basic Segment	1850	Rolling	1439	26.11	0.00	3	75
42	NC 50 - B109	M110	On Ramp	1500	Rolling	1955	20.81	0.00	3	75
43	M110	B111	Basic Segment	14425	Rolling	1955	20.81	0.00	3	75
44	Old Stage - B111	D112	Off Ramp	1500	Rolling	1955	20.81	0.00	3	75
45	Old Stage - D112	B113	Basic Segment	3750	Rolling	1810	22.31	0.00	3	75
46	Old Stage - B113	M114	On Ramp	1500	Rolling	2906	16.16	0.00	3	75
47	M114	B115	Basic Segment	4675	Rolling	2906	16.16	0.00	3	75
48	US 401 - B115	D116	Off Ramp	1500	Rolling	2906	16.16	0.00	3	75
49	US 401 - D116	B117	Basic Segment	1600	Rolling	2123	21.38	0.00	3	75
50	US 401 - B117	M118	On Ramp	1500	Rolling	2648	18.33	0.00	3	75

32	On Ramp	486	6.00	0.00	1	900	50
34	Off Ramp	801	5.00	0.00	1	900	50
38	On Ramp	1071	6.00	0.00	2	1500	50
40	Off Ramp	865	2.00	0.00	1	1500	30
42	On Ramp	516	6.00	0.00	1	900	50
44	Off Ramp	145	2.00	0.00	1	900	50
46	On Ramp	1096	6.00	0.00	1	900	50
48	Off Ramp	783	2.00	0.00	1	1275	50
50	On Ramp	525	6.00	0.00	1	1500	30
52	On Ramp	477	6.00	0.00	1	900	50
54	Off Ramp	498	2.00	0.00	1	250	50
56	On Ramp	596	6.00	0.00	1	1400	30
58	Off Ramp	1141	2.00	0.00	1	175	50
60	On Ramp	472	6.00	0.00	1	900	50
62	Off Ramp	936	4.00	0.00	1	275	50
64	On Ramp	1172	6.00	0.00	1	1500	30
66	On Ramp	441	6.00	0.00	1	1500	50
68	Off Ramp	689	3.00	0.00	1	1500	50
70	On Ramp	1718	6.00	0.00	2	1500	30

51	US 401 - M118	B119	Basic Segment	500	Rolling	2648	18.33	0.00	3	75
52	US 401 - B119	M120	On Ramp	1500	Rolling	3125	16.45	0.00	3	75
53	M120	B121	Basic Segment	6725	Rolling	3125	16.45	0.00	3	75
54	Bells Lake - B121	D122	Off Ramp	1500	Rolling	3125	16.45	0.00	3	75
55	Bells Lake - D122	B123	Basic Segment	2350	Rolling	2627	19.19	0.00	3	75
56	Bells Lake - B123	M124	On Ramp	1500	Rolling	3223	16.75	0.00	3	75
57	M124	B125	Basic Segment	9975	Rolling	3223	16.75	0.00	3	75
58	Holly Springs - B125	D126	Off Ramp	1500	Rolling	3223	16.75	0.00	3	75
59	Holly Springs - D126	B127	Basic Segment	3275	Rolling	2082	24.83	0.00	3	75
60	Holly Springs - B127	M128	On Ramp	1500	Rolling	2554	21.35	0.00	3	75
61	M128	B129	Basic Segment	9250	Rolling	2554	21.35	0.00	3	75
62	NC 55 BYP - B129	D130	Off Ramp	1500	Rolling	2554	21.35	0.00	3	75
63	NC 55 BYP - D130	B131	Basic Segment	1675	Rolling	1618	31.39	0.00	3	75
64	NC 55 Bypass - B131	M132	On Ramp	1500	Rolling	2790	20.73	0.00	4	75
65	M132	B133	Basic Segment	400	Rolling	2790	20.73	0.00	4	75
66	OHSARI - B133	M134	On Ramp	1500	Rolling	3231	18.72	0.00	5	75
67	OHSARI - M134	B135	Basic Segment	250	Rolling	3231	18.72	0.00	4	75
68	OHSARI - B135	D136	Off Ramp	1500	Rolling	3231	18.72	0.00	3	75
69	OHSARI - D136	B137	Basic Segment	1300	Rolling	2542	22.98	0.00	3	75
70	OHSARI - B137	M138	On Ramp	1500	Rolling	4260	16.13	0.00	4	75
71	M138	End NC 540 WB	Basic Segment	5280	Rolling	4260	16.13	0.00	4	75

Weaving Segment Data

Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp				
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS
12	0.344	1847	6.00	0.00	1	50	1766	2.00	0.00	1	30
36	0.255	609	6.00	0.00	1	30	418	5.00	0.00	1	30

Time Period 4

Mainline Data

Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin NC 540 WB	B69	Basic Segment	5280	Rolling	6695	6.00	0.00	4	75
2	US 64 Bus - B69	D70	Off Ramp	1500	Rolling	6695	6.00	0.00	4	75
3	US 64 Bus - D70	B71	Basic Segment	575	Rolling	6142	6.27	0.00	4	75
4	US 64 Bus - B71	D72	Off Ramp	1500	Rolling	6142	6.27	0.00	4	75
5	US 64 Bus - D72	B73	Basic Segment	1725	Rolling	4747	6.35	0.00	4	75
6	US 64 Bus - B73	M74	On Ramp	1500	Rolling	6258	6.27	0.00	4	75
7	M74	B75	Basic Segment	4125	Rolling	6258	6.27	0.00	4	75
8	I-495 - B75	D76	Off Ramp	1500	Rolling	6258	6.27	0.00	4	75
9	I-495 - D76	B77	Basic Segment	225	Rolling	4956	6.86	0.00	4	75
10	I-495 - B77	D78	Off Ramp	1500	Rolling	4956	6.86	0.00	4	75
11	I-495 - D78	B79	Basic Segment	2300	Rolling	2957	8.79	0.00	3	75
12	B79	W80	Weaving	1850	Rolling	4621	7.79	0.00	4	75
13	Poole - W80	B81	Basic Segment	1850	Rolling	3030	10.83	0.00	3	75
14	Poole - B81	M82	On Ramp	1500	Rolling	3196	10.58	0.00	3	75
15	M82	B83	Basic Segment	2600	Rolling	3196	10.58	0.00	3	75
16	Auburn Knight - B83	D84	Off Ramp	1500	Rolling	3196	10.58	0.00	3	75
	Auburn		Basic							

RampData

Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	Off Ramp	553	3.00	0.00	1	200	50
4	Off Ramp	1395	6.00	0.00	1	1500	30
6	On Ramp	1511	6.00	0.00	1	950	50
8	Off Ramp	1302	4.00	0.00	1	250	50
10	Off Ramp	1999	4.00	0.00	1	525	30
14	On Ramp	166	6.00	0.00	1	900	50
16	Off Ramp	334	3.00	0.00	1	175	50
18	On Ramp	253	6.00	0.00	1	1500	30
20	Off Ramp	695	2.00	0.00	1	300	50
22	On Ramp	310	6.00	0.00	1	1500	30
24	Off Ramp	1191	5.00	0.00	1	175	50
26	On Ramp	189	6.00	0.00	1	1500	30
28	On Ramp	54	6.00	0.00	1	750	50
30	Off Ramp	566	2.00	0.00	1	1200	30
32	On Ramp	438	6.00	0.00	1	900	50
34	Off Ramp	722	5.00	0.00	1	900	50
38	On Ramp	965	6.00	0.00	2	1500	50
40	Off Ramp	779	2.00	0.00	1	1500	30
42	On Ramp	465	6.00	0.00	1	900	50
44	Off Ramp	131	2.00	0.00	1	900	50
46	On Ramp	987	6.00	0.00	1	900	50
48	Off Ramp	705	2.00	0.00	1	1275	50
50	On Ramp	473	6.00	0.00	1	1500	30
52	On Ramp	430	6.00	0.00	1	900	50
54	Off Ramp	449	2.00	0.00	1	250	50
56	On Ramp	537	6.00	0.00	1	1400	30
58	Off Ramp	1028	2.00	0.00	1	175	50
60	On Ramp	425	6.00	0.00	1	900	50
62	Off Ramp	843	4.00	0.00	1	275	50
64	On Ramp	1056	6.00	0.00	1	1500	30
66	On Ramp	397	6.00	0.00	1	1500	50
68	Off Ramp	621	3.00	0.00	1	1500	50

17	Knight - D84	B85	Segment	1600	Rolling	2862	11.46	0.00	3	75
18	Auburn Knight - B85	M86	On Ramp	1500	Rolling	3115	11.02	0.00	3	75
19	M86	B87	Basic Segment	8600	Rolling	3115	11.02	0.00	3	75
20	Rock Quarry - B87	D88	Off Ramp	1500	Rolling	3115	11.02	0.00	3	75
21	Rock Quarry - D88	B89	Basic Segment	1550	Rolling	2420	13.61	0.00	3	75
22	Rock Quarry - B89	M90	On Ramp	1500	Rolling	2730	12.74	0.00	3	75
23	M90	B91	Basic Segment	1575	Rolling	2730	12.74	0.00	3	75
24	US 70 - B91	D92	Off Ramp	1500	Rolling	2730	12.74	0.00	3	75
25	US 70 - D92	B93	Basic Segment	1875	Rolling	1539	18.73	0.00	3	75
26	US 70 - B93	M94	On Ramp	1500	Rolling	1728	17.34	0.00	3	75
27	US 70 - M94	B95	Basic Segment	825	Rolling	1728	17.34	0.00	3	75
28	US 70 - B95	M96	On Ramp	1500	Rolling	1782	17.00	0.00	3	75
29	M96	B97	Basic Segment	3500	Rolling	1782	17.00	0.00	3	75
30	White Oak - B97	D98	Off Ramp	1500	Rolling	1782	17.00	0.00	3	75
31	White Oak - D98	B99	Basic Segment	1675	Rolling	1216	23.98	0.00	3	75
32	White Oak - B99	M100	On Ramp	1500	Rolling	1654	19.22	0.00	3	75
33	M100	B101	Basic Segment	1700	Rolling	1654	19.22	0.00	3	75
34	I-40 - B101	D102	Off Ramp	1500	Rolling	1654	19.22	0.00	3	75
35	I-40 - D102	B103	Basic Segment	4700	Rolling	932	30.23	0.00	3	75
36	I-40 - B103	W104	Weaving	1150	Rolling	1481	21.25	0.00	4	75
37	I-40 - W104	B105	Basic Segment	4350	Rolling	1104	26.80	0.00	3	75
38	I-40 - B105	M106	On Ramp	1500	Rolling	2069	17.10	0.00	3	75
39	M106	B107	Basic Segment	3925	Rolling	2069	17.10	0.00	3	75
40	NC 50 - B107	D108	Off Ramp	1500	Rolling	2069	17.10	0.00	3	75
41	NC 50 - D108	B109	Basic Segment	1850	Rolling	1290	26.21	0.00	3	75
42	NC 50 - B109	M110	On Ramp	1500	Rolling	1755	20.86	0.00	3	75
43	M110	B111	Basic Segment	14425	Rolling	1755	20.86	0.00	3	75
44	Old Stage - B111	D112	Off Ramp	1500	Rolling	1755	20.86	0.00	3	75
45	Old Stage - D112	B113	Basic Segment	3750	Rolling	1624	22.38	0.00	3	75
46	Old Stage - B113	M114	On Ramp	1500	Rolling	2611	16.19	0.00	3	75
47	M114	B115	Basic Segment	4675	Rolling	2611	16.19	0.00	3	75
48	US 401 - B115	D116	Off Ramp	1500	Rolling	2611	16.19	0.00	3	75
49	US 401 - D116	B117	Basic Segment	1600	Rolling	1906	21.44	0.00	3	75
50	US 401 - B117	M118	On Ramp	1500	Rolling	2379	18.37	0.00	3	75
51	US 401 - M118	B119	Basic Segment	500	Rolling	2379	18.37	0.00	3	75
52	US 401 - B119	M120	On Ramp	1500	Rolling	2809	16.47	0.00	3	75
53	M120	B121	Basic Segment	6725	Rolling	2809	16.47	0.00	3	75
54	Bells Lake - B121	D122	Off Ramp	1500	Rolling	2809	16.47	0.00	3	75
55	Bells Lake - D122	B123	Basic Segment	2350	Rolling	2360	19.23	0.00	3	75
56	Bells Lake - B123	M124	On Ramp	1500	Rolling	2897	16.78	0.00	3	75
57	M124	B125	Basic Segment	9975	Rolling	2897	16.78	0.00	3	75
58	Holly Springs - B125	D126	Off Ramp	1500	Rolling	2897	16.78	0.00	3	75
59	Holly Springs	B127	Basic Segment	3275	Rolling	1869	24.90	0.00	3	75

70	On Ramp	1548	6.00	0.00	2	1500	30

	- D126									
60	Holly Springs - B127	M128	On Ramp	1500	Rolling	2294	21.40	0.00	3	75
61	M128	B129	Basic Segment	9250	Rolling	2294	21.40	0.00	3	75
62	NC 55 BYP - B129	D130	Off Ramp	1500	Rolling	2294	21.40	0.00	3	75
63	NC 55 BYP - D130	B131	Basic Segment	1675	Rolling	1451	31.51	0.00	3	75
64	NC 55 Bypass - B131	M132	On Ramp	1500	Rolling	2507	20.76	0.00	4	75
65	M132	B133	Basic Segment	400	Rolling	2507	20.76	0.00	4	75
66	OHSARI - B133	M134	On Ramp	1500	Rolling	2904	18.75	0.00	5	75
67	OHSARI - M134	B135	Basic Segment	250	Rolling	2904	18.75	0.00	4	75
68	OHSARI - B135	D136	Off Ramp	1500	Rolling	2904	18.75	0.00	3	75
69	OHSARI - D136	B137	Basic Segment	1300	Rolling	2283	23.03	0.00	3	75
70	OHSARI - B137	M138	On Ramp	1500	Rolling	3831	16.15	0.00	4	75
71	M138	End NC 540 WB	Basic Segment	5280	Rolling	3831	16.15	0.00	4	75

Weaving Segment Data

Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp				
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS
12	0.344	1664	6.00	0.00	1	50	1591	2.00	0.00	1	30
36	0.255	549	6.00	0.00	1	30	377	5.00	0.00	1	30

Time Period Independent Weaving Segment Data

Seg #	Configuration	Short Length	# Weaving Lanes	Min. Lane Changes Freeway-Ramp	Min. Lane Changes Ramp-Freeway	Min. Lane Changes Ramp-Ramp
12	OneSide	1500	2	1	1	0
36	OneSide	1150	2	1	1	0

Time Period Results

Time Period 1

Seg #	From	To	Type	Adj. Demand	Vol. Served	Capacity (pc/h)	Capacity (veh/h)	d/c Ratio	v/c ratio	Queue Length (ft)	Avg. Speed (mi/h)	Density (pc/mi/ln)	Density (veh/mi/ln)	Avg. Travel Time (min/veh)	Free-Flow Travel Time (min/veh)	Mainline Delay (min/veh)	System Delay (min/veh)	VMT Demand (veh-min)	VMT Volume (veh-min)	VHT (veh-hrs)	VHD (veh-hrs)	LO
1	Begin NC 540 WB	B69	Basic Segment	5952	5952	9600	8807	0.68	0.68	0	70.7	22.9	21.0	0.85	0.80	0.0	0.0	1488.0	1488.0	21.0	1.2	C
2	US 64 Bus - B69	D70	Off Ramp	5952	5952	9600	8807	0.68	0.68	0	72.3	22.4	20.6	0.24	0.23	0.0	0.0	422.7	422.7	5.8	0.2	D
3	US 64 Bus - D70	B71	Basic Segment	5460	5460	9600	8775	0.62	0.62	0	72.3	20.7	18.9	0.09	0.09	0.0	0.0	148.7	148.7	2.1	0.1	C
4	US 64 Bus - B71	D72	Off Ramp	5460	5460	9600	8775	0.62	0.62	0	63.8	23.4	21.4	0.27	0.23	0.0	0.0	387.8	387.8	6.1	0.9	D
5	US 64 Bus - D72	B73	Basic Segment	4218	4218	9600	8765	0.48	0.48	0	74.2	15.6	14.2	0.26	0.26	0.0	0.0	344.5	344.5	4.6	0.1	B
6	US 64 Bus - B73	M74	On Ramp	5563	5563	9600	8775	0.63	0.63	0	67.5	22.1	20.2	0.25	0.23	0.0	0.0	395.1	395.1	5.9	0.6	C
7	M74	B75	Basic Segment	5563	5563	9600	8775	0.63	0.63	0	72.0	21.1	19.3	0.65	0.63	0.0	0.0	1086.5	1086.5	15.1	0.6	C
8	I-495 - B75	D76	Off Ramp	5563	5563	9600	8775	0.63	0.63	0	70.4	21.6	19.8	0.24	0.23	0.0	0.0	395.1	395.1	5.6	0.3	D
9	I-495 - D76	B77	Basic Segment	4404	4404	9600	8704	0.51	0.51	0	73.9	16.4	14.9	0.03	0.03	0.0	0.0	46.9	46.9	0.6	0.0	B
10	I-495 - B77	D78	Off Ramp	4404	4404	9600	8704	0.51	0.51	0	60.5	20.1	18.2	0.28	0.23	0.1	0.1	312.8	312.8	5.2	1.0	C
11	I-495 - D78	B79	Basic Segment	2625	2625	7200	6360	0.41	0.41	0	74.3	13.3	11.8	0.35	0.35	0.0	0.0	285.9	285.9	3.8	0.0	B
12	B79	W80	Weaving	4106	4106	5611	5024	0.82	0.82	0	56.7	20.2	18.1	0.37	0.28	0.1	0.1	359.7	359.7	6.3	1.5	C
13	Poole - W80	B81	Basic Segment	2690	2690	7200	6193	0.43	0.43	0	74.1	14.1	12.1	0.28	0.28	0.0	0.0	235.6	235.6	3.2	0.0	B
14	Poole - B81	M82	On Ramp	2838	2838	7200	6213	0.46	0.46	0	68.5	15.9	13.7	0.25	0.23	0.0	0.0	201.6	201.6	2.9	0.3	B
15	M82	B83	Basic Segment	2838	2838	7200	6213	0.46	0.46	0	74.8	14.7	12.7	0.40	0.39	0.0	0.0	349.4	349.4	4.7	0.0	B
16	Auburn Knight - B83	D84	Off Ramp	2838	2838	7200	6213	0.46	0.46	0	70.5	15.5	13.4	0.24	0.23	0.0	0.0	201.6	201.6	2.9	0.2	C
17	Auburn Knight - D84	B85	Basic Segment	2541	2541	7200	6143	0.41	0.41	0	74.6	13.3	11.3	0.24	0.24	0.0	0.0	192.5	192.5	2.6	0.0	B
18	Auburn Knight - B85	M86	On Ramp	2766	2766	7200	6178	0.45	0.45	0	68.5	15.6	13.4	0.25	0.23	0.0	0.0	196.4	196.4	2.9	0.2	B
19	M86	B87	Basic Segment	2766	2766	7200	6178	0.45	0.45	0	74.9	14.3	12.3	1.30	1.30	0.0	0.0	1126.3	1126.3	15.0	0.0	B
20	Rock Quarry - B87	D88	Off Ramp	2766	2766	7200	6178	0.45	0.45	0	69.4	15.5	13.3	0.25	0.23	0.0	0.0	196.4	196.4	2.8	0.2	C

21	Rock Quarry - D88	B89	Basic Segment	2147	2147	7200	5978	0.36	0.36	0	74.5	11.6	9.6	0.24	0.23	0.0	0.0	157.6	157.6	2.1	0.0	
22	Rock Quarry - B89	M90	On Ramp	2423	2423	7200	6043	0.40	0.40	0	68.7	13.9	11.6	0.25	0.23	0.0	0.0	172.1	172.1	2.5	0.2	
23	M90	B91	Basic Segment	2423	2423	7200	6043	0.40	0.40	0	74.5	12.9	10.8	0.24	0.24	0.0	0.0	180.7	180.7	2.4	0.0	
24	US 70 - B91	D92	Off Ramp	2423	2423	7200	6043	0.40	0.40	0	67.2	14.3	12.0	0.25	0.23	0.0	0.0	172.1	172.1	2.6	0.3	
25	US 70 - D92	B93	Basic Segment	1363	1363	7200	5616	0.24	0.24	0	74.5	7.8	6.1	0.29	0.28	0.0	0.0	121.0	121.0	1.6	0.0	
26	US 70 - B93	M94	On Ramp	1531	1531	7200	5710	0.27	0.27	0	69.3	9.2	7.3	0.25	0.23	0.0	0.0	108.7	108.7	1.6	0.1	
27	US 70 - M94	B95	Basic Segment	1531	1531	7200	5710	0.27	0.27	0	74.1	8.7	6.9	0.13	0.13	0.0	0.0	59.8	59.8	0.8	0.0	
28	US 70 - B95	M96	On Ramp	1579	1579	7200	5734	0.28	0.28	0	69.2	9.5	7.6	0.25	0.23	0.0	0.0	112.1	112.1	1.6	0.1	
29	M96	B97	Basic Segment	1579	1579	7200	5734	0.28	0.28	0	74.9	8.8	7.0	0.53	0.53	0.0	0.0	261.7	261.7	3.5	0.0	
30	White Oak - B97	D98	Off Ramp	1579	1579	7200	5734	0.28	0.28	0	61.5	10.7	8.6	0.28	0.23	0.0	0.0	112.1	112.1	1.8	0.3	
31	White Oak - D98	B99	Basic Segment	1075	1075	7200	5288	0.20	0.20	0	74.0	6.6	4.8	0.26	0.25	0.0	0.0	85.3	85.3	1.2	0.0	
32	White Oak - B99	M100	On Ramp	1465	1465	7200	5585	0.26	0.26	0	69.1	8.9	6.9	0.25	0.23	0.0	0.0	104.0	104.0	1.5	0.1	
33	M100	B101	Basic Segment	1465	1465	7200	5585	0.26	0.26	0	74.6	8.4	6.5	0.26	0.26	0.0	0.0	117.9	117.9	1.6	0.0	
34	I-40 - B101	D102	Off Ramp	1465	1465	7200	5585	0.26	0.26	0	67.9	9.3	7.2	0.25	0.23	0.0	0.0	104.0	104.0	1.5	0.1	
35	I-40 - D102	B103	Basic Segment	822	822	7200	4942	0.17	0.17	0	75.0	5.3	3.7	0.71	0.71	0.0	0.0	182.9	182.9	2.4	0.0	
36	I-40 - B103	W104	Weaving	1311	1311	6676	5058	0.26	0.26	0	67.2	6.4	4.9	0.19	0.17	0.0	0.0	71.4	71.4	1.1	0.1	
37	I-40 - W104	B105	Basic Segment	975	975	7200	5127	0.19	0.19	0	74.9	6.1	4.3	0.66	0.66	0.0	0.0	200.8	200.8	2.7	0.0	
38	I-40 - B105	M106	On Ramp	1834	1834	7200	5727	0.32	0.32	0	70.1	10.4	8.3	0.24	0.23	0.0	0.0	130.3	130.3	1.9	0.1	
39	M106	B107	Basic Segment	1834	1834	7200	5727	0.32	0.32	0	74.9	10.3	8.2	0.60	0.59	0.0	0.0	340.8	340.8	4.5	0.0	
40	NC 50 - B107	D108	Off Ramp	1834	1834	7200	5727	0.32	0.32	0	60.4	12.7	10.1	0.28	0.23	0.1	0.1	130.3	130.3	2.2	0.4	
41	NC 50 - D108	B109	Basic Segment	1141	1141	7200	5161	0.22	0.22	0	74.0	7.2	5.1	0.28	0.28	0.0	0.0	99.9	99.9	1.4	0.0	
42	NC 50 - B109	M110	On Ramp	1555	1555	7200	5480	0.28	0.28	0	69.1	9.6	7.3	0.25	0.23	0.0	0.0	110.4	110.4	1.6	0.1	
43	M110	B111	Basic Segment	1555	1555	7200	5480	0.28	0.28	0	75.0	9.1	6.9	2.19	2.19	0.0	0.0	1062.1	1062.1	14.2	0.0	
44	Old Stage - B111	D112	Off Ramp	1555	1555	7200	5480	0.28	0.28	0	70.6	9.6	7.3	0.24	0.23	0.0	0.0	110.4	110.4	1.6	0.1	
45	Old Stage - D112	B113	Basic Segment	1438	1438	7200	5385	0.27	0.27	0	74.9	8.6	6.4	0.57	0.57	0.0	0.0	255.3	255.3	3.4	0.0	
46	Old Stage - B113	M114	On Ramp	2316	2316	7200	5791	0.40	0.40	0	68.2	13.5	10.9	0.25	0.23	0.0	0.0	164.5	164.5	2.4	0.2	
47	M114	B115	Basic Segment	2316	2316	7200	5791	0.40	0.40	0	75.0	12.8	10.3	0.71	0.71	0.0	0.0	512.7	512.7	6.8	0.0	
48	US 401 - B115	D116	Off Ramp	2316	2316	7200	5791	0.40	0.40	0	68.9	13.9	11.2	0.25	0.23	0.0	0.0	164.5	164.5	2.4	0.2	
49	US 401 - D116	B117	Basic Segment	1689	1689	7200	5444	0.31	0.31	0	74.5	10.0	7.6	0.24	0.24	0.0	0.0	128.0	128.0	1.7	0.0	
50	US 401 - B117	M118	On Ramp	2110	2110	7200	5642	0.37	0.37	0	68.7	12.8	10.0	0.25	0.23	0.0	0.0	149.9	149.9	2.2	0.2	
51	US 401 - M118	B119	Basic Segment	2110	2110	7200	5642	0.37	0.37	0	73.8	12.2	9.5	0.08	0.08	0.0	0.0	50.0	50.0	0.7	0.0	
52	US 401 - B119	M120	On Ramp	2493	2493	7200	5771	0.43	0.43	0	68.5	14.9	12.0	0.25	0.23	0.0	0.0	177.1	177.1	2.6	0.2	
53	M120	B121	Basic Segment	2493	2493	7200	5771	0.43	0.43	0	75.0	13.8	11.1	1.02	1.02	0.0	0.0	793.8	793.8	10.6	0.0	
54	Bells Lake - B121	D122	Off Ramp	2493	2493	7200	5771	0.43	0.43	0	70.1	14.8	11.9	0.24	0.23	0.0	0.0	177.1	177.1	2.5	0.2	
55	Bells Lake - D122	B123	Basic Segment	2093	2093	7200	5585	0.37	0.37	0	74.8	12.0	9.3	0.36	0.36	0.0	0.0	232.9	232.9	3.1	0.0	
56	Bells Lake - B123	M124	On Ramp	2571	2571	7200	5750	0.45	0.45	0	68.2	15.5	12.4	0.25	0.23	0.0	0.0	182.6	182.6	2.7	0.2	
57	M124	B125	Basic Segment	2571	2571	7200	5750	0.45	0.45	0	74.9	14.3	11.4	1.51	1.51	0.0	0.0	1214.3	1214.3	16.2	0.0	
58	Holly Springs - B125	D126	Off Ramp	2571	2571	7200	5750	0.45	0.45	0	68.3	15.7	12.5	0.25	0.23	0.0	0.0	182.6	182.6	2.7	0.2	
59	Holly Springs - D126	B127	Basic Segment	1656	1656	7200	5237	0.32	0.32	0	74.9	10.1	7.4	0.50	0.50	0.0	0.0	256.8	256.8	3.4	0.0	
60	Holly Springs - B127	M128	On Ramp	2034	2034	7200	5447	0.37	0.37	0	68.8	12.8	9.7	0.25	0.23	0.0	0.0	144.5	144.5	2.1	0.2	
61	M128	B129	Basic Segment	2034	2034	7200	5447	0.37	0.37	0	75.0	12.0	9.0	1.40	1.40	0.0	0.0	890.8	890.8	11.9	0.0	
62	NC 55 BYP - B129	D130	Off Ramp	2034	2034	7200	5447	0.37	0.37	0	68.4	13.1	9.9	0.25	0.23	0.0	0.0	144.5	144.5	2.1	0.2	
63	NC 55 BYP - D130	B131	Basic Segment	1284	1284	7200	4882	0.26	0.26	0	74.5	8.5	5.7	0.26	0.25	0.0	0.0	101.8	101.8	1.4	0.0	

64	NC 55 Bypass - B131	M132	On Ramp	2224	2224	9600	7316	0.30	0.30	0	68.0	10.3	7.8	0.25	0.23	0.0	0.0	158.0	158.0	2.3	0.2	
65	M132	B133	Basic Segment	2224	2224	9600	7316	0.30	0.30	0	73.5	9.9	7.6	0.06	0.06	0.0	0.0	42.1	42.1	0.6	0.0	
66	OHSARI - B133	M134	On Ramp	2577	2577	12000	9362	0.28	0.28	0	71.3	9.2	7.1	0.24	0.23	0.0	0.0	183.0	183.0	2.6	0.1	
67	OHSARI - M134	B135	Basic Segment	2577	2577	9600	7490	0.34	0.34	0	74.1	11.1	8.7	0.04	0.04	0.0	0.0	30.5	30.5	0.4	0.0	
68	OHSARI - B135	D136	Off Ramp	2577	2577	7200	5617	0.46	0.46	0	69.2	15.9	12.4	0.25	0.23	0.0	0.0	183.0	183.0	2.6	0.2	
69	OHSARI - D136	B137	Basic Segment	2024	2024	7200	5347	0.38	0.38	0	74.4	12.2	9.1	0.20	0.20	0.0	0.0	124.6	124.6	1.7	0.0	
70	OHSARI - B137	M138	On Ramp	3402	3402	9600	7726	0.44	0.44	0	68.7	14.8	11.9	0.25	0.23	0.0	0.0	241.6	241.6	3.5	0.3	
71	M138	End NC 540 WB	Basic Segment	3402	3402	9600	7726	0.44	0.44	0	75.0	14.1	11.3	0.80	0.80	0.0	0.0	850.5	850.5	11.3	0.0	

Time Period 2

Seg #	From	To	Type	Adj. Demand	Vol. Served	Capacity (pc/h)	Capacity (veh/h)	d/c Ratio	v/c ratio	Queue Length (ft)	Avg. Speed (mi/h)	Density (pc/mi/ln)	Density (veh/mi/ln)	Avg. Travel Time (min/veh)	Free-Flow Travel Time (min/veh)	Mainline Delay (min/veh)	System Delay (min/veh)	VMT Demand (veh-min)	VMT Volume (veh-min)	VHT (veh-hrs)	VHD (veh-hrs)	LO
1	Begin NC 540 WB	B69	Basic Segment	6695	6695	9600	8807	0.76	0.76	0	67.5	27.0	24.8	0.89	0.80	0.1	0.1	1673.8	1673.8	24.8	2.5	
2	US 64 Bus - B69	D70	Off Ramp	6695	6695	9600	8807	0.76	0.76	0	71.8	25.4	23.3	0.24	0.23	0.0	0.0	475.5	475.5	6.6	0.3	
3	US 64 Bus - D70	B71	Basic Segment	6142	6142	9600	8775	0.70	0.70	0	69.9	24.0	22.0	0.09	0.09	0.0	0.0	167.2	167.2	2.4	0.2	
4	US 64 Bus - B71	D72	Off Ramp	6142	6142	9600	8775	0.70	0.70	0	63.2	26.6	24.3	0.27	0.23	0.0	0.0	436.2	436.2	6.9	1.1	
5	US 64 Bus - D72	B73	Basic Segment	4747	4747	9600	8765	0.54	0.54	0	74.0	17.6	16.0	0.26	0.26	0.0	0.0	387.7	387.7	5.2	0.1	
6	US 64 Bus - B73	M74	On Ramp	6258	6258	9600	8775	0.71	0.71	0	66.2	25.3	23.1	0.26	0.23	0.0	0.0	444.5	444.5	6.7	0.8	
7	M74	B75	Basic Segment	6258	6258	9600	8775	0.71	0.71	0	69.4	24.7	22.5	0.68	0.63	0.1	0.1	1222.3	1222.3	17.6	1.3	
8	I-495 - B75	D76	Off Ramp	6258	6258	9600	8775	0.71	0.71	0	69.9	24.5	22.4	0.24	0.23	0.0	0.0	444.5	444.5	6.4	0.4	
9	I-495 - D76	B77	Basic Segment	4956	4956	9600	8704	0.57	0.57	0	73.5	18.6	16.9	0.03	0.03	0.0	0.0	52.8	52.8	0.7	0.0	
10	I-495 - B77	D78	Off Ramp	4956	4956	9600	8704	0.57	0.57	0	59.9	22.8	20.7	0.28	0.23	0.1	0.1	352.0	352.0	5.9	1.2	
11	I-495 - D78	B79	Basic Segment	2957	2957	7200	6361	0.46	0.46	0	74.3	15.0	13.3	0.35	0.35	0.0	0.0	322.0	322.0	4.3	0.0	
12	B79	W80	Weaving	4621	4621	5620	5032	0.92	0.92	0	54.8	23.5	21.1	0.38	0.28	0.1	0.1	404.8	404.8	7.4	2.0	
13	Poole - W80	B81	Basic Segment	3030	3030	7200	6194	0.49	0.49	0	74.0	15.9	13.6	0.28	0.28	0.0	0.0	265.4	265.4	3.6	0.0	
14	Poole - B81	M82	On Ramp	3196	3196	7200	6214	0.51	0.51	0	68.1	18.0	15.6	0.25	0.23	0.0	0.0	227.0	227.0	3.3	0.3	
15	M82	B83	Basic Segment	3196	3196	7200	6214	0.51	0.51	0	74.4	16.6	14.3	0.40	0.39	0.0	0.0	393.4	393.4	5.3	0.0	
16	Auburn Knight - B83	D84	Off Ramp	3196	3196	7200	6214	0.51	0.51	0	70.5	17.5	15.1	0.24	0.23	0.0	0.0	227.0	227.0	3.2	0.2	
17	Auburn Knight - D84	B85	Basic Segment	2862	2862	7200	6144	0.47	0.47	0	74.6	15.0	12.8	0.24	0.24	0.0	0.0	216.8	216.8	2.9	0.0	
18	Auburn Knight - B85	M86	On Ramp	3115	3115	7200	6179	0.50	0.50	0	68.1	17.6	15.1	0.25	0.23	0.0	0.0	221.2	221.2	3.2	0.3	
19	M86	B87	Basic Segment	3115	3115	7200	6179	0.50	0.50	0	74.5	16.2	13.9	1.31	1.30	0.0	0.0	1268.4	1268.4	17.0	0.1	
20	Rock Quarry - B87	D88	Off Ramp	3115	3115	7200	6179	0.50	0.50	0	69.3	17.4	15.0	0.25	0.23	0.0	0.0	221.2	221.2	3.2	0.2	
21	Rock Quarry - D88	B89	Basic Segment	2420	2420	7200	5980	0.40	0.40	0	74.5	13.0	10.8	0.24	0.23	0.0	0.0	177.6	177.6	2.4	0.0	
22	Rock Quarry - B89	M90	On Ramp	2730	2730	7200	6045	0.45	0.45	0	68.4	15.7	13.2	0.25	0.23	0.0	0.0	193.9	193.9	2.8	0.3	
23	M90	B91	Basic Segment	2730	2730	7200	6045	0.45	0.45	0	74.5	14.6	12.2	0.24	0.24	0.0	0.0	203.6	203.6	2.7	0.0	
24	US 70 - B91	D92	Off Ramp	2730	2730	7200	6045	0.45	0.45	0	66.9	16.2	13.6	0.25	0.23	0.0	0.0	193.9	193.9	2.9	0.3	
25	US 70 - D92	B93	Basic Segment	1539	1539	7200	5621	0.27	0.27	0	74.5	8.8	6.9	0.29	0.28	0.0	0.0	136.6	136.6	1.8	0.0	
26	US 70 - B93	M94	On Ramp	1728	1728	7200	5714	0.30	0.30	0	69.2	10.4	8.2	0.25	0.23	0.0	0.0	122.7	122.7	1.8	0.1	
27	US 70 - M94	B95	Basic Segment	1728	1728	7200	5714	0.30	0.30	0	74.1	9.8	7.8	0.13	0.13	0.0	0.0	67.5	67.5	0.9	0.0	
28	US 70 - B95	M96	On Ramp	1782	1782	7200	5737	0.31	0.31	0	69.0	10.8	8.6	0.25	0.23	0.0	0.0	126.6	126.6	1.8	0.1	
29	M96	B97	Basic Segment	1782	1782	7200	5737	0.31	0.31	0	74.9	10.0	7.9	0.53	0.53	0.0	0.0	295.3	295.3	3.9	0.0	
30	White Oak - B97	D98	Off Ramp	1782	1782	7200	5737	0.31	0.31	0	61.5	12.1	9.7	0.28	0.23	0.0	0.0	126.6	126.6	2.1	0.4	
31	White Oak - D98	B99	Basic Segment	1216	1216	7200	5295	0.23	0.23	0	74.0	7.5	5.5	0.26	0.25	0.0	0.0	96.4	96.4	1.3	0.0	

32	White Oak - B99	M100	On Ramp	1654	1654	7200	5589	0.30	0.30	0	69.0	10.0	7.8	0.25	0.23	0.0	0.0	117.5	117.5	1.7	0.1	
33	M100	B101	Basic Segment	1654	1654	7200	5589	0.30	0.30	0	74.6	9.5	7.4	0.26	0.26	0.0	0.0	133.1	133.1	1.8	0.0	
34	I-40 - B101	D102	Off Ramp	1654	1654	7200	5589	0.30	0.30	0	67.8	10.5	8.1	0.25	0.23	0.0	0.0	117.5	117.5	1.7	0.2	
35	I-40 - D102	B103	Basic Segment	932	932	7200	4954	0.19	0.19	0	75.0	6.0	4.1	0.71	0.71	0.0	0.0	207.4	207.4	2.8	0.0	
36	I-40 - B103	W104	Weaving	1481	1481	6714	5091	0.29	0.29	0	66.5	7.3	5.6	0.20	0.17	0.0	0.0	80.6	80.6	1.2	0.1	
37	I-40 - W104	B105	Basic Segment	1104	1104	7200	5136	0.21	0.21	0	74.9	6.9	4.9	0.66	0.66	0.0	0.0	227.4	227.4	3.0	0.0	
38	I-40 - B105	M106	On Ramp	2069	2069	7200	5730	0.36	0.36	0	69.9	11.8	9.4	0.24	0.23	0.0	0.0	146.9	146.9	2.1	0.1	
39	M106	B107	Basic Segment	2069	2069	7200	5730	0.36	0.36	0	74.9	11.6	9.2	0.60	0.59	0.0	0.0	384.5	384.5	5.1	0.0	
40	NC 50 - B107	D108	Off Ramp	2069	2069	7200	5730	0.36	0.36	0	60.2	14.4	11.5	0.28	0.23	0.1	0.1	146.9	146.9	2.4	0.5	
41	NC 50 - D108	B109	Basic Segment	1290	1290	7200	5168	0.25	0.25	0	74.0	8.1	5.8	0.28	0.28	0.0	0.0	113.0	113.0	1.5	0.0	
42	NC 50 - B109	M110	On Ramp	1755	1755	7200	5484	0.32	0.32	0	68.9	10.9	8.3	0.25	0.23	0.0	0.0	124.6	124.6	1.8	0.1	
43	M110	B111	Basic Segment	1755	1755	7200	5484	0.32	0.32	0	75.0	10.2	7.8	2.19	2.19	0.0	0.0	1198.7	1198.7	16.0	0.0	
44	Old Stage - B111	D112	Off Ramp	1755	1755	7200	5484	0.32	0.32	0	70.7	10.9	8.3	0.24	0.23	0.0	0.0	124.6	124.6	1.8	0.1	
45	Old Stage - D112	B113	Basic Segment	1624	1624	7200	5390	0.30	0.30	0	74.9	9.6	7.2	0.57	0.57	0.0	0.0	288.4	288.4	3.8	0.0	
46	Old Stage - B113	M114	On Ramp	2611	2611	7200	5793	0.45	0.45	0	67.9	15.3	12.3	0.25	0.23	0.0	0.0	185.4	185.4	2.7	0.3	
47	M114	B115	Basic Segment	2611	2611	7200	5793	0.45	0.45	0	74.9	14.4	11.6	0.71	0.71	0.0	0.0	578.0	578.0	7.7	0.0	
48	US 401 - B115	D116	Off Ramp	2611	2611	7200	5793	0.45	0.45	0	68.8	15.7	12.7	0.25	0.23	0.0	0.0	185.4	185.4	2.7	0.2	
49	US 401 - D116	B117	Basic Segment	1906	1906	7200	5448	0.35	0.35	0	74.5	11.3	8.5	0.24	0.24	0.0	0.0	144.4	144.4	1.9	0.0	
50	US 401 - B117	M118	On Ramp	2379	2379	7200	5645	0.42	0.42	0	68.5	14.5	11.4	0.25	0.23	0.0	0.0	169.0	169.0	2.5	0.2	
51	US 401 - M118	B119	Basic Segment	2379	2379	7200	5645	0.42	0.42	0	73.7	13.7	10.8	0.08	0.08	0.0	0.0	56.3	56.3	0.8	0.0	
52	US 401 - B119	M120	On Ramp	2809	2809	7200	5773	0.49	0.49	0	68.2	16.9	13.5	0.25	0.23	0.0	0.0	199.5	199.5	2.9	0.3	
53	M120	B121	Basic Segment	2809	2809	7200	5773	0.49	0.49	0	74.7	15.6	12.5	1.02	1.02	0.0	0.0	894.4	894.4	12.0	0.0	
54	Bells Lake - B121	D122	Off Ramp	2809	2809	7200	5773	0.49	0.49	0	70.1	16.7	13.4	0.24	0.23	0.0	0.0	199.5	199.5	2.8	0.2	
55	Bells Lake - D122	B123	Basic Segment	2360	2360	7200	5588	0.42	0.42	0	74.8	13.6	10.5	0.36	0.36	0.0	0.0	262.6	262.6	3.5	0.0	
56	Bells Lake - B123	M124	On Ramp	2897	2897	7200	5752	0.50	0.50	0	67.8	17.5	14.0	0.25	0.23	0.0	0.0	205.8	205.8	3.0	0.3	
57	M124	B125	Basic Segment	2897	2897	7200	5752	0.50	0.50	0	74.5	16.2	13.0	1.52	1.51	0.0	0.0	1368.3	1368.3	18.4	0.1	
58	Holly Springs - B125	D126	Off Ramp	2897	2897	7200	5752	0.50	0.50	0	68.2	17.7	14.2	0.25	0.23	0.0	0.0	205.8	205.8	3.0	0.3	
59	Holly Springs - D126	B127	Basic Segment	1869	1869	7200	5242	0.36	0.36	0	74.9	11.4	8.3	0.50	0.50	0.0	0.0	289.8	289.8	3.9	0.0	
60	Holly Springs - B127	M128	On Ramp	2294	2294	7200	5450	0.42	0.42	0	68.6	14.5	11.0	0.25	0.23	0.0	0.0	162.9	162.9	2.4	0.2	
61	M128	B129	Basic Segment	2294	2294	7200	5450	0.42	0.42	0	75.0	13.5	10.2	1.40	1.40	0.0	0.0	1004.7	1004.7	13.4	0.0	
62	NC 55 BYP - B129	D130	Off Ramp	2294	2294	7200	5450	0.42	0.42	0	68.3	14.8	11.2	0.25	0.23	0.0	0.0	162.9	162.9	2.4	0.2	
63	NC 55 BYP - D130	B131	Basic Segment	1451	1451	7200	4889	0.30	0.30	0	74.5	9.6	6.5	0.26	0.25	0.0	0.0	115.1	115.1	1.5	0.0	
64	NC 55 Bypass - B131	M132	On Ramp	2507	2507	9600	7320	0.34	0.34	0	67.9	11.6	8.8	0.25	0.23	0.0	0.0	178.1	178.1	2.6	0.2	
65	M132	B133	Basic Segment	2507	2507	9600	7320	0.34	0.34	0	73.5	11.2	8.5	0.06	0.06	0.0	0.0	47.5	47.5	0.6	0.0	
66	OHSARI - B133	M134	On Ramp	2904	2904	12000	9366	0.31	0.31	0	71.2	10.3	8.1	0.24	0.23	0.0	0.0	206.3	206.3	2.9	0.1	
67	OHSARI - M134	B135	Basic Segment	2904	2904	9600	7493	0.39	0.39	0	74.1	12.6	9.8	0.04	0.04	0.0	0.0	34.4	34.4	0.5	0.0	
68	OHSARI - B135	D136	Off Ramp	2904	2904	7200	5620	0.52	0.52	0	68.9	18.0	14.1	0.25	0.23	0.0	0.0	206.3	206.3	3.0	0.2	
69	OHSARI - D136	B137	Basic Segment	2283	2283	7200	5351	0.43	0.43	0	74.4	13.8	10.2	0.20	0.20	0.0	0.0	140.5	140.5	1.9	0.0	
70	OHSARI - B137	M138	On Ramp	3831	3831	9600	7728	0.50	0.50	0	68.2	16.8	13.5	0.25	0.23	0.0	0.0	272.1	272.1	4.0	0.4	
71	M138	End NC 540 WB	Basic Segment	3831	3831	9600	7728	0.50	0.50	0	74.6	15.9	12.8	0.80	0.80	0.0	0.0	957.8	957.8	12.8	0.1	

Time Period 3

Seg #	From	To	Type	Adj. Demand	Vol. Served	Capacity (pc/h)	Capacity (veh/h)	d/c Ratio	v/c ratio	Queue Length (ft)	Avg. Speed (mi/h)	Density (pc/mi/ln)	Density (veh/mi/ln)	Avg. Travel Time (min/veh)	Free-Flow Travel Time (min/veh)	Mainline Delay (min/veh)	System Delay (min/veh)	VMT Demand (veh-min)	VMT Volume (veh-min)	VHT (veh-hrs)	VHD (veh-hrs)	LO

1	Begin NC 540 WB	B69	Basic Segment	7438	7440	9600	8807	0.84	0.84	0	63.3	32.0	29.4	0.95	0.80	0.1	0.1	1859.5	1860.0	29.4	4.6	
2	US 64 Bus - B69	D70	Off Ramp	7438	7440	9600	8807	0.84	0.84	0	68.8	29.5	27.0	0.25	0.23	0.0	0.0	528.3	528.4	7.7	0.6	
3	US 64 Bus - D70	B71	Basic Segment	6824	6840	9600	8775	0.78	0.78	0	66.6	28.1	25.7	0.10	0.09	0.0	0.0	185.8	186.2	2.8	0.3	
4	US 64 Bus - B71	D72	Off Ramp	6824	6840	9600	8775	0.78	0.78	0	65.9	28.4	26.0	0.26	0.23	0.0	0.0	484.7	485.8	7.4	0.9	
5	US 64 Bus - D72	B73	Basic Segment	5276	5280	9600	8765	0.60	0.60	0	72.8	19.9	18.1	0.27	0.26	0.0	0.0	430.9	431.3	5.9	0.2	
6	US 64 Bus - B73	M74	On Ramp	6953	6960	9600	8775	0.79	0.79	0	66.2	28.1	25.7	0.26	0.23	0.0	0.0	493.8	494.3	7.5	0.9	
7	M74	B75	Basic Segment	6953	6960	9600	8775	0.79	0.79	0	66.0	28.9	26.4	0.71	0.63	0.1	0.1	1358.0	1359.4	20.6	2.5	
8	I-495 - B75	D76	Off Ramp	6953	6960	9600	8775	0.79	0.79	0	66.4	28.7	26.2	0.26	0.23	0.0	0.0	493.8	494.3	7.4	0.9	
9	I-495 - D76	B77	Basic Segment	5508	5520	9600	8704	0.63	0.63	0	72.0	21.1	19.2	0.04	0.03	0.0	0.0	58.7	58.8	0.8	0.0	
10	I-495 - B77	D78	Off Ramp	5508	5520	9600	8704	0.63	0.63	0	62.9	24.2	21.9	0.27	0.23	0.0	0.0	391.2	392.0	6.2	1.0	
11	I-495 - D78	B79	Basic Segment	3289	3300	7200	6361	0.52	0.52	0	74.3	16.7	14.8	0.35	0.35	0.0	0.0	358.2	359.4	4.8	0.0	
12	B79	W80	Weaving	5136	5040	5628	5039	1.02	1.00	0	49.8	40.7	36.5	0.42	0.28	0.1	0.6	449.9	441.5	8.9	3.0	
13	Poole - W80	B81	Basic Segment	3370	3300	7200	6195	0.54	0.53	0	73.7	17.3	14.9	0.29	0.28	0.0	0.0	295.2	289.1	3.9	0.1	
14	Poole - B81	M82	On Ramp	3554	3480	7200	6215	0.57	0.56	0	67.8	19.7	17.0	0.25	0.23	0.0	0.0	252.4	247.2	3.6	0.3	
15	M82	B83	Basic Segment	3554	3480	7200	6215	0.57	0.56	0	73.7	18.2	15.7	0.40	0.39	0.0	0.0	437.5	428.4	5.8	0.1	
16	Auburn Knight - B83	D84	Off Ramp	3554	3480	7200	6215	0.57	0.56	0	67.0	20.1	17.3	0.25	0.23	0.0	0.0	252.4	247.2	3.7	0.4	
17	Auburn Knight - D84	B85	Basic Segment	3183	3120	7200	6145	0.52	0.51	0	74.4	16.4	14.0	0.24	0.24	0.0	0.0	241.1	236.4	3.2	0.0	
18	Auburn Knight - B85	M86	On Ramp	3464	3420	7200	6180	0.56	0.55	0	67.7	19.4	16.6	0.25	0.23	0.0	0.0	246.0	242.9	3.6	0.3	
19	M86	B87	Basic Segment	3464	3420	7200	6180	0.56	0.55	0	73.8	18.0	15.4	1.32	1.30	0.0	0.0	1410.5	1392.6	18.9	0.3	
20	Rock Quarry - B87	D88	Off Ramp	3464	3420	7200	6180	0.56	0.55	0	65.7	20.2	17.3	0.26	0.23	0.0	0.0	246.0	242.9	3.7	0.5	
21	Rock Quarry - D88	B89	Basic Segment	2693	2640	7200	5981	0.45	0.44	0	74.2	14.3	11.9	0.24	0.23	0.0	0.0	197.6	193.8	2.6	0.0	
22	Rock Quarry - B89	M90	On Ramp	3037	3000	7200	6046	0.50	0.50	0	67.8	17.2	14.4	0.25	0.23	0.0	0.0	215.7	213.1	3.1	0.3	
23	M90	B91	Basic Segment	3037	3000	7200	6046	0.50	0.50	0	74.4	16.0	13.4	0.24	0.24	0.0	0.0	226.5	223.7	3.0	0.0	
24	US 70 - B91	D92	Off Ramp	3037	3000	7200	6046	0.50	0.50	0	63.1	18.9	15.9	0.27	0.23	0.0	0.0	215.7	213.1	3.4	0.5	
25	US 70 - D92	B93	Basic Segment	1715	1680	7200	5624	0.30	0.30	0	74.2	9.7	7.5	0.29	0.28	0.0	0.0	152.3	149.1	2.0	0.0	
26	US 70 - B93	M94	On Ramp	1925	1920	7200	5717	0.34	0.34	0	69.1	11.4	9.0	0.25	0.23	0.0	0.0	136.7	136.4	2.0	0.2	
27	US 70 - M94	B95	Basic Segment	1925	1920	7200	5717	0.34	0.34	0	74.1	10.9	8.6	0.13	0.13	0.0	0.0	75.2	75.0	1.0	0.0	
28	US 70 - B95	M96	On Ramp	1985	1980	7200	5740	0.35	0.34	0	68.9	11.9	9.5	0.25	0.23	0.0	0.0	141.0	140.6	2.0	0.2	
29	M96	B97	Basic Segment	1985	1980	7200	5740	0.35	0.34	0	74.9	11.1	8.8	0.53	0.53	0.0	0.0	329.0	328.1	4.4	0.0	
30	White Oak - B97	D98	Off Ramp	1985	1980	7200	5740	0.35	0.34	0	65.2	12.7	10.1	0.26	0.23	0.0	0.0	141.0	140.6	2.2	0.3	
31	White Oak - D98	B99	Basic Segment	1357	1320	7200	5301	0.26	0.25	0	74.3	8.0	5.9	0.26	0.25	0.0	0.0	107.6	104.7	1.4	0.0	
32	White Oak - B99	M100	On Ramp	1843	1800	7200	5592	0.33	0.32	0	68.8	10.5	8.1	0.25	0.23	0.0	0.0	130.9	127.8	1.9	0.2	
33	M100	B101	Basic Segment	1843	1800	7200	5592	0.33	0.32	0	74.5	10.4	8.0	0.26	0.26	0.0	0.0	148.3	144.9	1.9	0.0	
34	I-40 - B101	D102	Off Ramp	1843	1800	7200	5592	0.33	0.32	0	64.1	12.1	9.4	0.27	0.23	0.0	0.0	130.9	127.8	2.0	0.3	
35	I-40 - D102	B103	Basic Segment	1042	1020	7200	4963	0.21	0.21	0	74.9	6.6	4.5	0.71	0.71	0.0	0.0	231.9	227.0	3.0	0.0	
36	I-40 - B103	W104	Weaving	1651	1620	6745	5119	0.32	0.32	0	65.0	11.5	8.7	0.20	0.17	0.0	0.0	89.9	88.2	1.4	0.2	
37	I-40 - W104	B105	Basic Segment	1233	1200	7200	5143	0.24	0.23	0	74.9	7.5	5.3	0.66	0.66	0.0	0.0	254.0	247.2	3.3	0.0	
38	I-40 - B105	M106	On Ramp	2304	2280	7200	5733	0.40	0.40	0	69.8	12.2	9.8	0.24	0.23	0.0	0.0	163.6	161.9	2.3	0.2	
39	M106	B107	Basic Segment	2304	2280	7200	5733	0.40	0.40	0	74.9	12.7	10.1	0.60	0.59	0.0	0.0	428.2	423.7	5.7	0.0	
40	NC 50 - B107	D108	Off Ramp	2304	2280	7200	5733	0.40	0.40	0	64.5	14.8	11.8	0.26	0.23	0.0	0.0	163.6	161.9	2.5	0.3	
41	NC 50 - D108	B109	Basic Segment	1439	1440	7200	5173	0.28	0.28	0	74.3	9.0	6.5	0.28	0.28	0.0	0.0	126.0	126.1	1.7	0.0	
42	NC 50 - B109	M110	On Ramp	1955	1980	7200	5487	0.36	0.36	0	68.8	11.7	8.9	0.25	0.23	0.0	0.0	138.8	140.6	2.0	0.2	
43	M110	B111	Basic Segment	1955	1980	7200	5487	0.36	0.36	0	75.0	11.5	8.8	2.19	2.19	0.0	0.0	1335.3	1352.3	18.0	0.0	
44	Old Stage -	D112	Off	1955	1980	7200	5487	0.36	0.36	0	67.3	12.9	9.8	0.25	0.23	0.0	0.0	138.8	140.6	2.1	0.2	

	B111		Ramp																			
45	Old Stage - D112	B113	Basic Segment	1810	1800	7200	5395	0.34	0.33	0	74.9	10.7	8.0	0.57	0.57	0.0	0.0	321.4	319.6	4.3	0.0	A
46	Old Stage - B113	M114	On Ramp	2906	2880	7200	5795	0.50	0.50	0	67.7	16.2	13.0	0.25	0.23	0.0	0.0	206.4	204.5	3.0	0.3	E
47	M114	B115	Basic Segment	2906	2880	7200	5795	0.50	0.50	0	74.6	16.0	12.9	0.71	0.71	0.0	0.0	643.3	637.5	8.5	0.0	E
48	US 401 - B115	D116	Off Ramp	2906	2880	7200	5795	0.50	0.50	0	65.5	18.2	14.7	0.26	0.23	0.0	0.0	206.4	204.5	3.1	0.4	E
49	US 401 - D116	B117	Basic Segment	2123	2100	7200	5452	0.39	0.39	0	74.2	12.5	9.4	0.24	0.24	0.0	0.0	160.8	159.1	2.1	0.0	E
50	US 401 - B117	M118	On Ramp	2648	2640	7200	5647	0.47	0.47	0	66.6	16.1	12.6	0.26	0.23	0.0	0.0	188.1	187.5	2.8	0.3	E
51	US 401 - M118	B119	Basic Segment	2648	2640	7200	5647	0.47	0.47	0	73.3	15.3	12.0	0.08	0.08	0.0	0.0	62.7	62.5	0.9	0.0	E
52	US 401 - B119	M120	On Ramp	3125	3120	7200	5775	0.54	0.54	0	67.9	18.5	14.8	0.25	0.23	0.0	0.0	221.9	221.6	3.3	0.3	E
53	M120	B121	Basic Segment	3125	3120	7200	5775	0.54	0.54	0	74.0	17.5	14.0	1.03	1.02	0.0	0.0	995.1	993.5	13.4	0.2	E
54	Bells Lake - B121	D122	Off Ramp	3125	3120	7200	5775	0.54	0.54	0	66.6	19.5	15.6	0.26	0.23	0.0	0.0	221.9	221.6	3.3	0.4	C
55	Bells Lake - D122	B123	Basic Segment	2627	2640	7200	5591	0.47	0.47	0	74.6	15.2	11.8	0.36	0.36	0.0	0.0	292.3	293.8	3.9	0.0	E
56	Bells Lake - B123	M124	On Ramp	3223	3240	7200	5754	0.56	0.56	0	67.4	19.2	15.4	0.25	0.23	0.0	0.0	228.9	230.1	3.4	0.3	E
57	M124	B125	Basic Segment	3223	3240	7200	5754	0.56	0.56	0	73.6	18.4	14.7	1.54	1.51	0.0	0.0	1522.2	1530.3	20.8	0.4	C
58	Holly Springs - B125	D126	Off Ramp	3223	3240	7200	5754	0.56	0.56	0	64.4	21.0	16.8	0.26	0.23	0.0	0.0	228.9	230.1	3.6	0.5	C
59	Holly Springs - D126	B127	Basic Segment	2082	2100	7200	5246	0.40	0.40	0	74.8	12.8	9.4	0.50	0.50	0.0	0.0	322.8	325.6	4.4	0.0	E
60	Holly Springs - B127	M128	On Ramp	2554	2580	7200	5453	0.47	0.47	0	68.3	15.8	12.0	0.25	0.23	0.0	0.0	181.4	183.2	2.7	0.2	E
61	M128	B129	Basic Segment	2554	2580	7200	5453	0.47	0.47	0	74.8	15.2	11.5	1.41	1.40	0.0	0.0	1118.6	1130.0	15.1	0.0	E
62	NC 55 BYP - B129	D130	Off Ramp	2554	2580	7200	5453	0.47	0.47	0	64.5	17.6	13.3	0.26	0.23	0.0	0.0	181.4	183.2	2.8	0.4	C
63	NC 55 BYP - D130	B131	Basic Segment	1618	1620	7200	4895	0.33	0.33	0	74.2	10.7	7.3	0.26	0.25	0.0	0.0	128.3	128.5	1.7	0.0	A
64	NC 55 Bypass - B131	M132	On Ramp	2790	2760	9600	7323	0.38	0.38	0	67.8	11.9	9.1	0.25	0.23	0.0	0.0	198.2	196.0	2.9	0.3	E
65	M132	B133	Basic Segment	2790	2760	9600	7323	0.38	0.38	0	73.4	12.3	9.4	0.06	0.06	0.0	0.0	52.8	52.3	0.7	0.0	E
66	OHSARI - B133	M134	On Ramp	3231	3240	12000	9370	0.34	0.35	0	71.2	11.3	8.8	0.24	0.23	0.0	0.0	229.5	230.1	3.2	0.2	E
67	OHSARI - M134	B135	Basic Segment	3231	3240	9600	7496	0.43	0.43	0	74.1	14.0	10.9	0.04	0.04	0.0	0.0	38.2	38.4	0.5	0.0	E
68	OHSARI - B135	D136	Off Ramp	3231	3240	7200	5622	0.57	0.58	0	64.9	21.3	16.6	0.26	0.23	0.0	0.0	229.5	230.1	3.5	0.5	E
69	OHSARI - D136	B137	Basic Segment	2542	2520	7200	5355	0.47	0.47	0	74.0	15.3	11.4	0.20	0.20	0.0	0.0	156.5	155.1	2.1	0.0	E
70	OHSARI - B137	M138	On Ramp	4260	4260	9600	7730	0.55	0.55	0	67.7	17.9	14.4	0.25	0.23	0.0	0.0	302.6	302.6	4.5	0.4	E
71	M138	End NC 540 WB	Basic Segment	4260	4260	9600	7730	0.55	0.55	0	73.8	17.9	14.4	0.81	0.80	0.0	0.0	1065.0	1065.0	14.4	0.2	E

Time Period 4

Seg #	From	To	Type	Adj. Demand	Vol. Served	Capacity (pc/h)	Capacity (veh/h)	d/c Ratio	v/c ratio	Queue Length (ft)	Avg. Speed (mi/h)	Density (pc/mi/ln)	Density (veh/mi/ln)	Avg. Travel Time (min/veh)	Free-Flow Travel Time (min/veh)	Mainline Delay (min/veh)	System Delay (min/veh)	VMT Demand (veh-min)	VMT Volume (veh-min)	VHT (veh-hrs)	VHD (veh-hrs)	LO
1	Begin NC 540 WB	B69	Basic Segment	6695	6720	9600	8807	0.76	0.76	0	67.4	27.2	24.9	0.89	0.80	0.1	0.1	1673.8	1680.0	24.9	2.5	E
2	US 64 Bus - B69	D70	Off Ramp	6695	6720	9600	8807	0.76	0.76	0	69.3	26.4	24.2	0.25	0.23	0.0	0.0	475.5	477.3	6.9	0.5	E
3	US 64 Bus - D70	B71	Basic Segment	6142	6120	9600	8775	0.70	0.70	0	70.0	23.9	21.9	0.09	0.09	0.0	0.0	167.2	166.6	2.4	0.2	C
4	US 64 Bus - B71	D72	Off Ramp	6142	6120	9600	8775	0.70	0.70	0	66.4	25.2	23.0	0.26	0.23	0.0	0.0	436.2	434.7	6.5	0.7	C
5	US 64 Bus - D72	B73	Basic Segment	4747	4740	9600	8765	0.54	0.54	0	74.0	17.5	16.0	0.26	0.26	0.0	0.0	387.7	387.1	5.2	0.1	E
6	US 64 Bus - B73	M74	On Ramp	6258	6240	9600	8775	0.71	0.71	0	66.3	25.2	23.0	0.26	0.23	0.0	0.0	444.5	443.2	6.7	0.8	C
7	M74	B75	Basic Segment	6258	6240	9600	8775	0.71	0.71	0	69.5	24.6	22.5	0.67	0.63	0.0	0.0	1222.3	1218.8	17.5	1.3	C
8	I-495 - B75	D76	Off Ramp	6258	6240	9600	8775	0.71	0.71	0	66.9	25.5	23.3	0.25	0.23	0.0	0.0	444.5	443.2	6.6	0.7	E
9	I-495 - D76	B77	Basic Segment	4956	4980	9600	8704	0.57	0.57	0	73.0	18.8	17.1	0.04	0.03	0.0	0.0	52.8	53.1	0.7	0.0	C
10	I-495 - B77	D78	Off Ramp	4956	4980	9600	8704	0.57	0.57	0	63.6	21.6	19.6	0.27	0.23	0.0	0.0	352.0	353.7	5.6	0.8	E
	I-495 -		Basic																			

11	D78	B79	Segment	2957	2940	7200	6361	0.46	0.46	0	74.5	14.9	13.2	0.35	0.35	0.0	0.0	322.0	320.2	4.3	0.0
12	B79	W80	Weaving	4621	4720	5620	5032	0.92	0.94	0	52.0	35.1	31.4	0.40	0.28	0.1	0.2	404.8	413.4	7.9	2.4
13	Poole - W80	B81	Basic Segment	3030	3117	7200	6194	0.49	0.50	0	73.9	16.4	14.1	0.28	0.28	0.0	0.0	265.4	273.0	3.7	0.1
14	Poole - B81	M82	On Ramp	3196	3251	7200	6214	0.51	0.52	0	68.1	18.3	15.8	0.25	0.23	0.0	0.0	227.0	230.9	3.4	0.3
15	M82	B83	Basic Segment	3196	3251	7200	6214	0.51	0.52	0	74.3	16.9	14.6	0.40	0.39	0.0	0.0	393.4	400.2	5.4	0.1
16	Auburn Knight - B83	D84	Off Ramp	3196	3251	7200	6214	0.51	0.52	0	67.1	18.7	16.2	0.25	0.23	0.0	0.0	227.0	230.9	3.4	0.4
17	Auburn Knight - D84	B85	Basic Segment	2862	2937	7200	6144	0.47	0.48	0	74.4	15.4	13.2	0.24	0.24	0.0	0.0	216.8	222.5	3.0	0.0
18	Auburn Knight - B85	M86	On Ramp	3115	3177	7200	6179	0.50	0.51	0	68.0	17.9	15.4	0.25	0.23	0.0	0.0	221.2	225.6	3.3	0.3
19	M86	B87	Basic Segment	3115	3177	7200	6179	0.50	0.51	0	74.4	16.6	14.2	1.31	1.30	0.0	0.0	1268.4	1293.7	17.4	0.1
20	Rock Quarry - B87	D88	Off Ramp	3115	3177	7200	6179	0.50	0.51	0	65.9	18.7	16.1	0.26	0.23	0.0	0.0	221.2	225.6	3.4	0.4
21	Rock Quarry - D88	B89	Basic Segment	2420	2457	7200	5980	0.40	0.41	0	74.2	13.3	11.0	0.24	0.23	0.0	0.0	177.6	180.3	2.4	0.0
22	Rock Quarry - B89	M90	On Ramp	2730	2802	7200	6045	0.45	0.46	0	68.1	16.0	13.4	0.25	0.23	0.0	0.0	193.9	199.0	2.9	0.3
23	M90	B91	Basic Segment	2730	2802	7200	6045	0.45	0.46	0	74.4	14.9	12.5	0.24	0.24	0.0	0.0	203.6	209.0	2.8	0.0
24	US 70 - B91	D92	Off Ramp	2730	2802	7200	6045	0.45	0.46	0	63.4	17.5	14.7	0.27	0.23	0.0	0.0	193.9	199.0	3.1	0.5
25	US 70 - D92	B93	Basic Segment	1539	1574	7200	5621	0.27	0.28	0	74.2	9.1	7.1	0.29	0.28	0.0	0.0	136.6	139.7	1.9	0.0
26	US 70 - B93	M94	On Ramp	1728	1768	7200	5714	0.30	0.31	0	69.2	10.5	8.3	0.25	0.23	0.0	0.0	122.7	125.6	1.8	0.1
27	US 70 - M94	B95	Basic Segment	1728	1768	7200	5714	0.30	0.31	0	74.1	10.0	8.0	0.13	0.13	0.0	0.0	67.5	69.1	0.9	0.0
28	US 70 - B95	M96	On Ramp	1782	1828	7200	5737	0.31	0.32	0	69.0	11.0	8.8	0.25	0.23	0.0	0.0	126.6	129.8	1.9	0.2
29	M96	B97	Basic Segment	1782	1828	7200	5737	0.31	0.32	0	74.9	10.2	8.1	0.53	0.53	0.0	0.0	295.3	302.9	4.0	0.0
30	White Oak - B97	D98	Off Ramp	1782	1828	7200	5737	0.31	0.32	0	65.3	11.7	9.3	0.26	0.23	0.0	0.0	126.6	129.8	2.0	0.3
31	White Oak - D98	B99	Basic Segment	1216	1229	7200	5295	0.23	0.23	0	74.3	7.5	5.5	0.26	0.25	0.0	0.0	96.4	97.5	1.3	0.0
32	White Oak - B99	M100	On Ramp	1654	1694	7200	5589	0.30	0.30	0	69.0	9.9	7.7	0.25	0.23	0.0	0.0	117.5	120.3	1.7	0.1
33	M100	B101	Basic Segment	1654	1694	7200	5589	0.30	0.30	0	74.5	9.8	7.6	0.26	0.26	0.0	0.0	133.1	136.4	1.8	0.0
34	I-40 - B101	D102	Off Ramp	1654	1694	7200	5589	0.30	0.30	0	64.3	11.3	8.8	0.27	0.23	0.0	0.0	117.5	120.3	1.9	0.3
35	I-40 - D102	B103	Basic Segment	932	960	7200	4954	0.19	0.19	0	74.9	6.2	4.3	0.71	0.71	0.0	0.0	207.4	213.6	2.9	0.0
36	I-40 - B103	W104	Weaving	1481	1500	6714	5091	0.29	0.29	0	65.8	10.6	8.0	0.20	0.17	0.0	0.0	80.6	81.7	1.2	0.2
37	I-40 - W104	B105	Basic Segment	1104	1140	7200	5136	0.21	0.22	0	74.9	7.1	5.1	0.66	0.66	0.0	0.0	227.4	234.8	3.1	0.0
38	I-40 - B105	M106	On Ramp	2069	2100	7200	5730	0.36	0.37	0	70.0	11.3	9.0	0.24	0.23	0.0	0.0	146.9	149.1	2.1	0.1
39	M106	B107	Basic Segment	2069	2100	7200	5730	0.36	0.37	0	74.9	11.7	9.3	0.60	0.59	0.0	0.0	384.5	390.3	5.2	0.0
40	NC 50 - B107	D108	Off Ramp	2069	2100	7200	5730	0.36	0.37	0	64.7	13.6	10.8	0.26	0.23	0.0	0.0	146.9	149.1	2.3	0.3
41	NC 50 - D108	B109	Basic Segment	1290	1320	7200	5168	0.25	0.26	0	74.3	8.2	5.9	0.28	0.28	0.0	0.0	113.0	115.6	1.6	0.0
42	NC 50 - B109	M110	On Ramp	1755	1754	7200	5484	0.32	0.32	0	69.0	10.4	7.9	0.25	0.23	0.0	0.0	124.6	124.6	1.8	0.1
43	M110	B111	Basic Segment	1755	1754	7200	5484	0.32	0.32	0	75.0	10.2	7.8	2.19	2.19	0.0	0.0	1198.7	1198.0	16.0	0.0
44	Old Stage - B111	D112	Off Ramp	1755	1754	7200	5484	0.32	0.32	0	67.2	11.4	8.7	0.25	0.23	0.0	0.0	124.6	124.6	1.9	0.2
45	Old Stage - D112	B113	Basic Segment	1624	1620	7200	5390	0.30	0.30	0	74.9	9.6	7.2	0.57	0.57	0.0	0.0	288.4	287.6	3.8	0.0
46	Old Stage - B113	M114	On Ramp	2611	2640	7200	5793	0.45	0.46	0	68.0	14.8	11.9	0.25	0.23	0.0	0.0	185.4	187.5	2.8	0.3
47	M114	B115	Basic Segment	2611	2640	7200	5793	0.45	0.46	0	74.9	14.6	11.7	0.71	0.71	0.0	0.0	578.0	584.4	7.8	0.0
48	US 401 - B115	D116	Off Ramp	2611	2640	7200	5793	0.45	0.46	0	65.6	16.7	13.4	0.26	0.23	0.0	0.0	185.4	187.5	2.9	0.4
49	US 401 - D116	B117	Basic Segment	1906	1920	7200	5448	0.35	0.35	0	74.2	11.4	8.6	0.24	0.24	0.0	0.0	144.4	145.5	2.0	0.0
50	US 401 - B117	M118	On Ramp	2379	2400	7200	5645	0.42	0.43	0	67.3	14.5	11.3	0.25	0.23	0.0	0.0	169.0	170.5	2.5	0.3
51	US 401 - M118	B119	Basic Segment	2379	2400	7200	5645	0.42	0.43	0	73.5	13.9	10.9	0.08	0.08	0.0	0.0	56.3	56.8	0.8	0.0
52	US 401 - B119	M120	On Ramp	2809	2820	7200	5773	0.49	0.49	0	68.2	16.6	13.3	0.25	0.23	0.0	0.0	199.5	200.3	2.9	0.3
53	M120	B121	Basic Segment	2809	2820	7200	5773	0.49	0.49	0	74.7	15.7	12.6	1.02	1.02	0.0	0.0	894.4	897.9	12.0	0.1
54	Bells Lake - B121	D122	Off Ramp	2809	2820	7200	5773	0.49	0.49	0	66.7	17.6	14.1	0.26	0.23	0.0	0.0	199.5	200.3	3.0	0.3
55	Bells Lake -	B123	Basic Segment	2360	2354	7200	5588	0.42	0.42	0	74.6	13.5	10.5	0.36	0.36	0.0	0.0	262.6	261.9	3.5	0.0

	D122																					
56	Bells Lake - B123	M124	On Ramp	2897	2893	7200	5752	0.50	0.50	0	67.9	17.1	13.6	0.25	0.23	0.0	0.0	205.8	205.5	3.0	0.3	
57	M124	B125	Basic Segment	2897	2893	7200	5752	0.50	0.50	0	74.5	16.2	12.9	1.52	1.51	0.0	0.0	1368.3	1366.4	18.3	0.1	
58	Holly Springs - B125	D126	Off Ramp	2897	2893	7200	5752	0.50	0.50	0	64.6	18.7	14.9	0.26	0.23	0.0	0.0	205.8	205.5	3.2	0.4	
59	Holly Springs - D126	B127	Basic Segment	1869	1860	7200	5242	0.36	0.35	0	74.8	11.4	8.3	0.50	0.50	0.0	0.0	289.8	288.4	3.9	0.0	
60	Holly Springs - B127	M128	On Ramp	2294	2280	7200	5450	0.42	0.42	0	68.6	13.9	10.5	0.25	0.23	0.0	0.0	162.9	161.9	2.4	0.2	
61	M128	B129	Basic Segment	2294	2280	7200	5450	0.42	0.42	0	75.0	13.4	10.1	1.40	1.40	0.0	0.0	1004.7	998.6	13.3	0.0	
62	NC 55 BYP - B129	D130	Off Ramp	2294	2280	7200	5450	0.42	0.42	0	64.7	15.5	11.7	0.26	0.23	0.0	0.0	162.9	161.9	2.5	0.3	
63	NC 55 BYP - D130	B131	Basic Segment	1451	1440	7200	4889	0.30	0.29	0	74.2	9.5	6.5	0.26	0.25	0.0	0.0	115.1	114.2	1.5	0.0	
64	NC 55 Bypass - B131	M132	On Ramp	2507	2520	9600	7320	0.34	0.34	0	67.9	10.8	8.3	0.25	0.23	0.0	0.0	178.1	179.0	2.6	0.2	
65	M132	B133	Basic Segment	2507	2520	9600	7320	0.34	0.34	0	73.5	11.2	8.6	0.06	0.06	0.0	0.0	47.5	47.7	0.6	0.0	
66	OHSARI - B133	M134	On Ramp	2904	2939	12000	9366	0.31	0.31	0	71.2	10.2	8.0	0.24	0.23	0.0	0.0	206.3	208.7	2.9	0.1	
67	OHSARI - M134	B135	Basic Segment	2904	2939	9600	7493	0.39	0.39	0	74.1	12.7	9.9	0.04	0.04	0.0	0.0	34.4	34.8	0.5	0.0	
68	OHSARI - B135	D136	Off Ramp	2904	2939	7200	5620	0.52	0.52	0	65.3	19.2	15.0	0.26	0.23	0.0	0.0	206.3	208.7	3.2	0.4	
69	OHSARI - D136	B137	Basic Segment	2283	2280	7200	5351	0.43	0.43	0	74.0	13.8	10.3	0.20	0.20	0.0	0.0	140.5	140.3	1.9	0.0	
70	OHSARI - B137	M138	On Ramp	3831	3840	9600	7728	0.50	0.50	0	68.3	16.0	12.9	0.25	0.23	0.0	0.0	272.1	272.7	4.0	0.4	
71	M138	End NC 540 WB	Basic Segment	3831	3840	9600	7728	0.50	0.50	0	74.6	16.0	12.9	0.80	0.80	0.0	0.0	957.8	960.0	12.9	0.1	

Overall Results

Segment	Segment Type	Maximum d/c Ratio	Avg. Speed (mi/h)	Density (pc/mi/ln)	Density (veh/mi/ln)	Avg. Travel Time (min/veh)	Free-Flow Travel Time (min/veh)	VMT Demand (veh-min)	VMT Volume (veh-min)	VHT (veh-hrs)	VHD (veh-hrs)
Begin NC 540 WB-B69	Basic	0.84	66.9	27.3	25.0	0.90	0.80	6,695.0	6,701.8	100.17	10.81
US 64 Bus - B69-D70	OffRamp	0.84	70.4	25.9	23.8	0.24	0.23	1,902.0	1,903.9	27.03	1.64
US 64 Bus - D70-B71	Basic	0.78	69.5	24.2	22.1	0.09	0.09	0,668.9	0,668.7	9.63	0.71
US 64 Bus - B71-D72	OffRamp	0.78	64.8	25.9	23.7	0.26	0.23	1,744.9	1,744.5	26.90	3.64
US 64 Bus - D72-B73	Basic	0.60	73.7	17.6	16.1	0.27	0.26	1,550.9	1,550.6	21.04	0.36
US 64 Bus - B73-M74	OnRamp	0.79	66.5	25.2	23.0	0.26	0.23	1,777.8	1,777.1	26.72	3.03
M74-B75	Basic	0.79	69.0	24.8	22.7	0.68	0.63	4,889.1	4,886.9	70.86	5.70
I-495 - B75-D76	OffRamp	0.79	68.2	25.1	22.9	0.25	0.23	1,777.8	1,777.1	26.05	2.35
I-495 - D76-B77	Basic	0.63	73.0	18.7	17.0	0.04	0.03	0,211.2	0,211.6	2.90	0.08
I-495 - B77-D78	OffRamp	0.63	61.8	22.2	20.1	0.28	0.23	1,408.0	1,410.5	22.83	4.03
I-495 - D78-B79	Basic	0.52	74.4	15.0	13.2	0.35	0.35	1,288.1	1,287.4	17.31	0.15
B79-W80	Weaving	1.02	53.0	29.9	26.8	0.40	0.28	1,619.1	1,619.4	30.54	8.95
Poole - W80-B81	Basic	0.54	73.9	15.9	13.7	0.28	0.28	1,061.6	1,063.1	14.38	0.21
Poole - B81-M82	OnRamp	0.57	68.1	18.0	15.5	0.25	0.23	0,908.0	0,906.6	13.31	1.22
M82-B83	Basic	0.57	74.3	16.6	14.3	0.40	0.39	1,573.8	1,571.4	21.16	0.21
Auburn Knight - B83-D84	OffRamp	0.57	68.6	18.0	15.5	0.25	0.23	0,908.0	0,906.6	13.21	1.12
Auburn Knight - D84-B85	Basic	0.52	74.5	15.0	12.8	0.24	0.24	0,867.3	0,868.2	11.66	0.08
Auburn Knight - B85-M86	OnRamp	0.56	68.1	17.6	15.1	0.25	0.23	0,884.9	0,886.2	13.02	1.20
M86-B87	Basic	0.56	74.4	16.3	14.0	1.31	1.30	5,073.7	5,081.0	68.31	0.56
Rock Quarry - B87-D88	OffRamp	0.56	67.4	18.0	15.4	0.25	0.23	0,884.9	0,886.2	13.14	1.33
Rock Quarry - D88-B89	Basic	0.45	74.4	13.0	10.8	0.24	0.23	0,710.4	0,709.2	9.54	0.08
Rock Quarry - B89-M90	OnRamp	0.50	68.2	15.7	13.2	0.25	0.23	0,775.6	0,778.1	11.40	1.03
M90-B91	Basic	0.50	74.4	14.6	12.3	0.24	0.24	0,814.3	0,817.0	10.97	0.08

US 70 - B91-D92	OffRamp	0.50	65.0	16.7	14.1	0.26	0.23	0,775.6	0,778.1	11.98	1.60
US 70 - D92-B93	Basic	0.30	74.4	8.8	6.9	0.29	0.28	0,546.5	0,546.5	7.35	0.06
US 70 - B93-M94	OnRamp	0.34	69.2	10.4	8.2	0.25	0.23	0,490.9	0,493.4	7.13	0.55
US 70 - M94-B95	Basic	0.34	74.1	9.8	7.8	0.13	0.13	0,270.0	0,271.4	3.66	0.04
US 70 - B95-M96	OnRamp	0.35	69.0	10.8	8.6	0.25	0.23	0,506.3	0,509.2	7.38	0.59
M96-B97	Basic	0.35	74.9	10.0	8.0	0.53	0.53	1,181.3	1,188.0	15.86	0.02
White Oak - B97-D98	OffRamp	0.35	63.5	11.8	9.4	0.27	0.23	0,506.3	0,509.2	8.02	1.24
White Oak - D98-B99	Basic	0.26	74.1	7.4	5.4	0.26	0.25	0,385.8	0,383.9	5.18	0.06
White Oak - B99-M100	OnRamp	0.33	69.0	9.8	7.6	0.25	0.23	0,469.9	0,469.7	6.81	0.55
M100-B101	Basic	0.33	74.5	9.5	7.4	0.26	0.26	0,532.5	0,532.3	7.14	0.04
I-40 - B101-D102	OffRamp	0.33	65.9	10.8	8.4	0.26	0.23	0,469.9	0,469.7	7.13	0.87
I-40 - D102-B103	Basic	0.21	74.9	6.0	4.2	0.71	0.71	0,829.6	0,831.0	11.09	0.01
I-40 - B103-W104	Weaving	0.32	66.1	9.0	6.8	0.20	0.17	0,322.6	0,321.9	4.87	0.58
I-40 - W104-B105	Basic	0.24	74.9	6.9	4.9	0.66	0.66	0,909.5	0,910.2	12.15	0.02
I-40 - B105-M106	OnRamp	0.40	69.9	11.4	9.1	0.24	0.23	0,587.8	0,588.3	8.41	0.57
M106-B107	Basic	0.40	74.9	11.6	9.2	0.60	0.59	1,538.0	1,539.3	20.54	0.02
NC 50 - B107-D108	OffRamp	0.40	62.5	13.9	11.0	0.27	0.23	0,587.8	0,588.3	9.41	1.57
NC 50 - D108-B109	Basic	0.28	74.2	8.1	5.8	0.28	0.28	0,452.0	0,454.7	6.13	0.07
NC 50 - B109-M110	OnRamp	0.36	68.9	10.6	8.1	0.25	0.23	0,498.6	0,500.3	7.26	0.59
M110-B111	Basic	0.36	75.0	10.3	7.8	2.19	2.19	4,794.7	4,811.1	64.15	0.00
Old Stage - B111-D112	OffRamp	0.36	68.8	11.2	8.5	0.25	0.23	0,498.6	0,500.3	7.27	0.60
Old Stage - D112-B113	Basic	0.34	74.9	9.6	7.2	0.57	0.57	1,153.4	1,150.9	15.36	0.02
Old Stage - B113-M114	OnRamp	0.50	68.0	15.0	12.0	0.25	0.23	0,741.8	0,742.0	10.92	1.02
M114-B115	Basic	0.50	74.8	14.5	11.6	0.71	0.71	2,311.8	2,312.5	30.90	0.07
US 401 - B115-D116	OffRamp	0.50	67.1	16.1	13.0	0.25	0.23	0,741.8	0,742.0	11.07	1.17
US 401 - D116-B117	Basic	0.39	74.4	11.3	8.5	0.24	0.24	0,577.6	0,576.9	7.76	0.07
US 401 - B117-M118	OnRamp	0.47	67.7	14.5	11.3	0.25	0.23	0,675.9	0,676.8	10.00	0.97
US 401 - M118-B119	Basic	0.47	73.6	13.8	10.8	0.08	0.08	0,225.3	0,225.6	3.07	0.06
US 401 - B119-M120	OnRamp	0.54	68.2	16.7	13.4	0.25	0.23	0,798.0	0,798.4	11.71	1.06
M120-B121	Basic	0.54	74.6	15.7	12.6	1.02	1.02	3,577.8	3,579.7	48.01	0.28
Bells Lake - B121-D122	OffRamp	0.54	68.2	17.1	13.7	0.25	0.23	0,798.0	0,798.4	11.70	1.06
Bells Lake - D122-B123	Basic	0.47	74.7	13.6	10.5	0.36	0.36	1,050.4	1,051.2	14.07	0.06
Bells Lake - B123-M124	OnRamp	0.56	67.8	17.3	13.8	0.25	0.23	0,823.0	0,823.9	12.15	1.17
M124-B125	Basic	0.56	74.4	16.3	13.0	1.52	1.51	5,473.0	5,479.2	73.68	0.63
Holly Springs - B125-D126	OffRamp	0.56	66.2	18.3	14.6	0.26	0.23	0,823.0	0,823.9	12.44	1.46
Holly Springs - D126-B127	Basic	0.40	74.8	11.5	8.3	0.50	0.50	1,159.3	1,160.7	15.51	0.04
Holly Springs - B127-M128	OnRamp	0.47	68.6	14.2	10.8	0.25	0.23	0,651.7	0,652.6	9.52	0.81

M128-B129	Basic	0.47	74.9	13.5	10.2	1.40	1.40	4,018.8	4,024.1	53.70	0.04
NC 55 BYP - B129-D130	OffRamp	0.47	66.3	15.2	11.5	0.26	0.23	0,651.7	0,652.6	9.84	1.14
NC 55 BYP - D130-B131	Basic	0.33	74.3	9.6	6.5	0.26	0.25	0,460.3	0,459.6	6.18	0.05
NC 55 Bypass - B131-M132	OnRamp	0.38	67.9	11.1	8.5	0.25	0.23	0,712.2	0,711.0	10.47	0.99
M132-B133	Basic	0.38	73.5	11.2	8.5	0.06	0.06	0,189.9	0,189.6	2.58	0.05
OHSARI - B133-M134	OnRamp	0.34	71.2	10.2	8.0	0.24	0.23	0,825.0	0,828.1	11.63	0.58
OHSARI - M134-B135	Basic	0.43	74.1	12.6	9.8	0.04	0.04	0,137.5	0,138.0	1.86	0.02
OHSARI - B135-D136	OffRamp	0.57	66.9	18.6	14.5	0.25	0.23	0,825.0	0,828.1	12.38	1.34
OHSARI - D136-B137	Basic	0.47	74.2	13.8	10.2	0.20	0.20	0,562.1	0,560.6	7.56	0.08
OHSARI - B137-M138	OnRamp	0.55	68.2	16.3	13.2	0.25	0.23	1,088.4	1,089.0	15.98	1.46
M138-End NC 540 WB	Basic	0.55	74.5	16.0	12.9	0.81	0.80	3,831.0	3,833.3	51.48	0.37
Freeway			70.7	15.0	12.4	27.65	26.41	92,032.8	92,118.0	1,302.5	0,074.3

Density-Based LOS by Segment

Segment	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Time Step	Basic	Off Ramp	Basic	Off Ramp	Basic	On Ramp	Basic	Off Ramp	Basic	Off Ramp	Basic	Weaving	Basic	On Ramp	Basic
1	C	D	C	B	B	C	C	D	B	C	B	C	B	B	B
2	D	D	C	C	B	C	C	D	C	D	B	C	B	B	B
3	D	E	D	C	C	B	D	E	C	D	B	E	B	B	C
4	D	D	C	C	B	C	C	D	C	D	B	E	B	B	B

Density-Based LOS by Segment

Segment	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Time Step	Off Ramp	Basic	On Ramp	Basic	Off Ramp	Basic	On Ramp	Basic	Off Ramp	Basic	On Ramp	Basic	On Ramp	Basic	Off Ramp
1	C	B	B	B	C	B	B	B	C	A	A	A	B	A	A
2	C	B	B	B	C	B	B	B	C	A	A	A	B	A	A
3	C	B	B	B	C	B	B	B	C	A	A	A	B	B	A
4	C	B	B	B	C	B	B	B	C	A	A	A	B	A	A

Density-Based LOS by Segment

Segment	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45
Time Step	Basic	On Ramp	Basic	Off Ramp	Basic	Weaving	Basic	On Ramp	Basic	Off Ramp	Basic	On Ramp	Basic	Off Ramp	Basic
1	A	A	A	A	A	A	A	A	A	A	A	B	A	A	A
2	A	B	A	B	A	A	A	B	B	A	A	B	A	B	A
3	A	B	A	B	A	B	A	B	B	A	A	B	B	B	A
4	A	B	A	B	A	B	A	A	B	A	A	B	A	B	A

Density-Based LOS by Segment

Segment	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
Time Step	On Ramp	Basic	Off Ramp	Basic	On Ramp	Basic	On Ramp	Basic	Off Ramp	Basic	On Ramp	Basic	Off Ramp	Basic	On Ramp
1	B	B	B	A	A	B	B	B	C	B	B	B	C	A	B
2	B	B	B	B	B	B	B	B	C	B	B	B	C	B	B
3	B	B	B	B	B	B	B	B	C	B	B	C	C	B	B
4	B	B	B	B	B	B	B	B	C	B	B	B	C	B	B

Density-Based LOS by Segment

Segment	61	62	63	64	65	66	67	68	69	70	71
Time Step	Basic	Off Ramp	Basic	On Ramp	Basic	On Ramp	Basic	Off Ramp	Basic	On Ramp	Basic
1	B	B	A	B	A	A	B	B	B	B	B
2	B	C	A	B	B	A	B	B	B	B	B
3	B	C	A	B	B	B	B	B	B	B	B
4	B	C	A	B	B	A	B	B	B	B	B

Demand-Based LOS by Segment

Time Step	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
3	.	.	.	.	.	.	.	.	.	.	.	F	.	.	.
4	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

Demand-Based LOS by Segment

Time Step	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
3	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
4	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

Demand-Based LOS by Segment

Time Step	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45
1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
3	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
4	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

Demand-Based LOS by Segment

Time Step	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
3	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
4	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

Demand-Based LOS by Segment

Time Step	61	62	63	64	65	66	67	68	69	70	71
1	.	.	.	.	.	.	.	.	.	.	.
2	.	.	.	.	.	.	.	.	.	.	.
3	.	.	.	.	.	.	.	.	.	.	.
4	.	.	.	.	.	.	.	.	.	.	.

HCS 2010 Freeway Facilities

Project Properties

Analyst	HNTB	**Freeway Name**	I-40 - 2040 Build EB AM	**Analysis Period**	AM Peak
Analysis Date	9/19/2014 1:46:28 PM	**From**	US 70 Business	**Version Date**	1/20/16
Agency	HNTB	**To**	NC 42		
Location	Complete 540	**Analysis Direction**	Eastbound/Northbound		
User Notes					
File Name	C:\Temp\preview.xml				

Facility-wide Values

Jam Density (pc/h/ln)	190	**Time Period Duration (min)**	15	**Facility Length (mi)**	**9.63300**

Segment Input Data

Time Period 1

Mainline Data

Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin of I-40 EB	B1	Basic Segment	5280	Rolling	4134	5.00	0.00	5	70
2	US 70 BUS - B1	D2	Off Ramp	1500	Rolling	4134	5.00	0.00	5	70
3	US 70 BUS - D2	B3	Basic Segment	2200	Rolling	2810	5.00	0.00	5	70
4	US 70 BUS - M4	D4	On Ramp	1500	Rolling	2960	5.00	0.00	5	70
5	US 70 BUS - M4	B5	Basic Segment	175	Rolling	2960	5.00	0.00	5	70
6	US 70 BUS - B5	M6	On Ramp	1500	Rolling	3301	5.00	0.00	5	70
7	M6	B7	Basic Segment	10625	Rolling	3301	5.00	0.00	5	75
8	Toll NC 540 - B7	D8	Off Ramp	1500	Rolling	3301	5.00	0.00	5	75
9	Toll NC 540 - D8	B9	Basic Segment	2425	Rolling	2744	4.80	0.00	5	75
10	Toll NC 540 - B9	D10	Off Ramp	1500	Rolling	2744	4.80	0.00	5	75
11	Toll NC 540 - D10	B11	Basic Segment	2125	Rolling	1959	4.31	0.00	5	75
12	Toll NC 540 - B11	W12	Weaving	1750	Rolling	2308	4.42	0.00	6	75
13	Toll NC 540 - W12	B13	Basic Segment	3375	Rolling	1859	4.04	0.00	5	75
14	Toll NC 540 - B13	M14	On Ramp	1500	Rolling	2368	4.24	0.00	5	75
15	M14	B15	Basic Segment	2325	Rolling	2368	4.24	0.00	5	75
16	NC 42 - B15	D16	Off Ramp	1500	Rolling	2368	4.24	0.00	3	75
17	NC 42 - D16	B17	Basic Segment	3300	Rolling	1536	5.46	0.00	3	75
18	NC 42 - B17	M18	On Ramp	1500	Rolling	1842	6.05	0.00	3	75
19	M18	End of I-40 EB	Basic Segment	5280	Rolling	1842	6.05	0.00	3	75

RampData

Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	Off Ramp	1324	5.00	0.00	1	1500	50
4	On Ramp	150	5.00	0.00	1	1125	30
6	On Ramp	341	5.00	0.00	1	975	50
8	Off Ramp	557	6.00	0.00	1	1500	50
10	Off Ramp	785	6.00	0.00	1	1500	50
14	On Ramp	509	5.00	0.00	1	1500	50
16	Off Ramp	832	2.00	0.00	1	1500	50
18	On Ramp	306	9.00	0.00	1	1300	50

Weaving Segment Data

Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp				
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS
12	0.235	349	5.00	0.00	1	40	449	6.00	0.00	1	40

Time Period 2

Mainline Data

RampData

Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin of I-40 EB	B1	Basic Segment	5280	Rolling	4650	5.00	0.00	5	70
2	US 70 BUS - B1	D2	Off Ramp	1500	Rolling	4650	5.00	0.00	5	70
3	US 70 BUS - D2	B3	Basic Segment	2200	Rolling	3162	5.00	0.00	5	70
4	US 70 BUS - M4	D4	On Ramp	1500	Rolling	3330	5.00	0.00	5	70
5	US 70 BUS - M4	B5	Basic Segment	175	Rolling	3330	5.00	0.00	5	70
6	US 70 BUS - B5	M6	On Ramp	1500	Rolling	3671	5.00	0.00	5	70
7	M6	B7	Basic Segment	10625	Rolling	3671	5.00	0.00	5	75
8	Toll NC 540 - B7	D8	Off Ramp	1500	Rolling	3671	5.00	0.00	5	75
9	Toll NC 540 - D8	B9	Basic Segment	2425	Rolling	3045	4.79	0.00	5	75
10	Toll NC 540 - B9	D10	Off Ramp	1500	Rolling	3045	4.79	0.00	5	75
11	Toll NC 540 - D10	B11	Basic Segment	2125	Rolling	2163	4.30	0.00	5	75
12	Toll NC 540 - B11	W12	Weaving	1750	Rolling	2555	4.41	0.00	6	75
13	Toll NC 540 - W12	B13	Basic Segment	3375	Rolling	2051	4.02	0.00	5	75
14	Toll NC 540 - B13	M14	On Ramp	1500	Rolling	2623	4.23	0.00	5	75
15	M14	B15	Basic Segment	2325	Rolling	2623	4.23	0.00	5	75
16	NC 42 - B15	D16	Off Ramp	1500	Rolling	2623	4.23	0.00	3	75
17	NC 42 - D16	B17	Basic Segment	3300	Rolling	1688	5.47	0.00	3	75
18	NC 42 - B17	M18	On Ramp	1500	Rolling	2032	6.07	0.00	3	75
19	M18	End of I-40 EB	Basic Segment	5280	Rolling	2032	6.07	0.00	3	75

Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	Off Ramp	1488	5.00	0.00	1	1500	50
4	On Ramp	168	5.00	0.00	1	1125	30
6	On Ramp	341	5.00	0.00	1	975	50
8	Off Ramp	626	6.00	0.00	1	1500	50
10	Off Ramp	882	6.00	0.00	1	1500	50
14	On Ramp	572	5.00	0.00	1	1500	50
16	Off Ramp	935	2.00	0.00	1	1500	50
18	On Ramp	344	9.00	0.00	1	1300	50

Weaving Segment Data										
Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp			
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS
12	0.235	392	5.00	0.00	1	40	504	6.00	0.00	1	40

Time Period 3

Mainline Data										
Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin of I-40 EB	B1	Basic Segment	5280	Rolling	5166	5.00	0.00	5	70
2	US 70 BUS - B1	D2	Off Ramp	1500	Rolling	5166	5.00	0.00	5	70
3	US 70 BUS - D2	B3	Basic Segment	2200	Rolling	3514	5.00	0.00	5	70
4	US 70 BUS - M4	D4	On Ramp	1500	Rolling	3700	5.00	0.00	5	70
5	US 70 BUS - M4	B5	Basic Segment	175	Rolling	3700	5.00	0.00	5	70
6	US 70 BUS - B5	M6	On Ramp	1500	Rolling	4041	5.00	0.00	5	70
7	M6	B7	Basic Segment	10625	Rolling	4041	5.00	0.00	5	75
8	Toll NC 540 -	D8	Off Ramp	1500	Rolling	4041	5.00	0.00	5	75

RampData							
Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	Off Ramp	1652	5.00	0.00	1	1500	50
4	On Ramp	186	5.00	0.00	1	1125	30
6	On Ramp	341	5.00	0.00	1	975	50
8	Off Ramp	695	6.00	0.00	1	1500	50
10	Off Ramp	979	6.00	0.00	1	1500	50
14	On Ramp	635	5.00	0.00	1	1500	50
16	Off Ramp	1038	2.00	0.00	1	1500	50
18	On Ramp	382	9.00	0.00	1	1300	50

	B7									
9	Toll NC 540 - D8	B9	Basic Segment	2425	Rolling	3346	4.79	0.00	5	75
10	Toll NC 540 - B9	D10	Off Ramp	1500	Rolling	3346	4.79	0.00	5	75
11	Toll NC 540 - D10	B11	Basic Segment	2125	Rolling	2367	4.29	0.00	5	75
12	Toll NC 540 - B11	W12	Weaving	1750	Rolling	2802	4.40	0.00	6	75
13	Toll NC 540 - W12	B13	Basic Segment	3375	Rolling	2243	4.00	0.00	5	75
14	Toll NC 540 - B13	M14	On Ramp	1500	Rolling	2878	4.22	0.00	5	75
15	M14	B15	Basic Segment	2325	Rolling	2878	4.22	0.00	5	75
16	NC 42 - B15	D16	Off Ramp	1500	Rolling	2878	4.22	0.00	3	75
17	NC 42 - D16	B17	Basic Segment	3300	Rolling	1840	5.48	0.00	3	75
18	NC 42 - B17	M18	On Ramp	1500	Rolling	2222	6.08	0.00	3	75
19	M18	End of I-40 EB	Basic Segment	5280	Rolling	2222	6.08	0.00	3	75

Weaving Segment Data											
Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp				
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS
12	0.235	435	5.00	0.00	1	40	559	6.00	0.00	1	40

Time Period 4

Mainline Data										
Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin of I-40 EB	B1	Basic Segment	5280	Rolling	4650	5.00	0.00	5	70
2	US 70 BUS - B1	D2	Off Ramp	1500	Rolling	4650	5.00	0.00	5	70
3	US 70 BUS - D2	B3	Basic Segment	2200	Rolling	3162	5.00	0.00	5	70
4	US 70 BUS - M4	D4	On Ramp	1500	Rolling	3330	5.00	0.00	5	70
5	US 70 BUS - M4	B5	Basic Segment	175	Rolling	3330	5.00	0.00	5	70
6	US 70 BUS - B5	M6	On Ramp	1500	Rolling	3671	5.00	0.00	5	70
7	M6	B7	Basic Segment	10625	Rolling	3671	5.00	0.00	5	75
8	Toll NC 540 - B7	D8	Off Ramp	1500	Rolling	3671	5.00	0.00	5	75
9	Toll NC 540 - D8	B9	Basic Segment	2425	Rolling	3045	4.79	0.00	5	75
10	Toll NC 540 - B9	D10	Off Ramp	1500	Rolling	3045	4.79	0.00	5	75
11	Toll NC 540 - D10	B11	Basic Segment	2125	Rolling	2163	4.30	0.00	5	75
12	Toll NC 540 - B11	W12	Weaving	1750	Rolling	2555	4.41	0.00	6	75
13	Toll NC 540 - W12	B13	Basic Segment	3375	Rolling	2051	4.02	0.00	5	75
14	Toll NC 540 - B13	M14	On Ramp	1500	Rolling	2623	4.23	0.00	5	75
15	M14	B15	Basic Segment	2325	Rolling	2623	4.23	0.00	5	75
16	NC 42 - B15	D16	Off Ramp	1500	Rolling	2623	4.23	0.00	3	75

RampData							
Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	Off Ramp	1488	5.00	0.00	1	1500	50
4	On Ramp	168	5.00	0.00	1	1125	30
6	On Ramp	341	5.00	0.00	1	975	50
8	Off Ramp	626	6.00	0.00	1	1500	50
10	Off Ramp	882	6.00	0.00	1	1500	50
14	On Ramp	572	5.00	0.00	1	1500	50
16	Off Ramp	935	2.00	0.00	1	1500	50
18	On Ramp	344	9.00	0.00	1	1300	50

Weaving Segment Data											
Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp				
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS
12	0.235	392	5.00	0.00	1	40	504	6.00	0.00	1	40

17	NC 42 - D16	B17	Basic Segment	3300	Rolling	1688	5.47	0.00	3	75
18	NC 42 - B17	M18	On Ramp	1500	Rolling	2032	6.07	0.00	3	75
19	M18	End of I-40 EB	Basic Segment	5280	Rolling	2032	6.07	0.00	3	75

Time Period Independent Weaving Segment Data

Seg #	Configuration	Short Length	# Weaving Lanes	Min. Lane Changes Freeway-Ramp	Min. Lane Changes Ramp-Freeway	Min. Lane Changes Ramp-Ramp
12	OneSide	1750	2	1	1	0

Time Period Results

Time Period 1

Seg #	From	To	Type	Adj. Demand	Vol. Served	Capacity (pc/h)	Capacity (veh/h)	d/c Ratio	v/c ratio	Queue Length (ft)	Avg. Speed (mi/h)	Density (pc/mi/ln)	Density (veh/mi/ln)	Avg. Travel Time (min/veh)	Free-Flow Travel Time (min/veh)	Mainline Delay (min/veh)	System Delay (min/veh)	VMT Demand (veh-min)	VMT Volume (veh-min)	VHT (veh-hrs)	VHD (veh-hrs)	LOS
1	Begin of I-40 EB	B1	Basic Segment	4134	4134	12000	11163	0.37	0.37	0	70.0	12.7	11.8	0.86	0.86	0.0	0.0	1033.5	1033.5	14.8	0.0	B
2	US 70 BUS - B1	D2	Off Ramp	4134	4134	12000	11163	0.37	0.37	0	66.1	13.4	12.5	0.26	0.24	0.0	0.0	293.6	293.6	4.4	0.2	B
3	US 70 BUS - D2	B3	Basic Segment	2810	2810	12000	11163	0.25	0.25	0	69.8	8.7	8.1	0.36	0.36	0.0	0.0	292.7	292.7	4.2	0.0	A
4	US 70 BUS - M4	D4	On Ramp	2960	2960	12000	11163	0.27	0.27	0	66.8	9.5	8.8	0.26	0.24	0.0	0.0	210.2	210.2	3.1	0.1	A
5	US 70 BUS - M4	B5	Basic Segment	2960	2960	12000	11163	0.27	0.27	0	69.2	9.2	8.6	0.03	0.03	0.0	0.0	24.5	24.5	0.4	0.0	A
6	US 70 BUS - B5	M6	On Ramp	3301	3301	12000	11163	0.30	0.30	0	66.7	10.6	9.8	0.26	0.24	0.0	0.0	234.4	234.4	3.5	0.2	A
7	M6	B7	Basic Segment	3301	3301	12000	11163	0.30	0.30	0	75.0	9.5	8.8	1.61	1.61	0.0	0.0	1660.7	1660.7	22.1	0.0	A
8	Toll NC 540 - B7	D8	Off Ramp	3301	3301	12000	11163	0.30	0.30	0	72.4	9.8	9.1	0.24	0.23	0.0	0.0	234.4	234.4	3.2	0.1	A
9	Toll NC 540 - D8	B9	Basic Segment	2744	2744	12000	11194	0.25	0.25	0	74.9	7.9	7.3	0.37	0.37	0.0	0.0	315.1	315.1	4.2	0.0	A
10	Toll NC 540 - B9	D10	Off Ramp	2744	2744	12000	11194	0.25	0.25	0	70.8	8.3	7.8	0.24	0.23	0.0	0.0	194.9	194.9	2.8	0.2	A
11	Toll NC 540 - D10	B11	Basic Segment	1959	1959	12000	11271	0.17	0.17	0	74.8	5.6	5.2	0.32	0.32	0.0	0.0	197.1	197.1	2.6	0.0	A
12	Toll NC 540 - B11	W12	Weaving	2308	2308	8588	8054	0.29	0.29	0	67.1	6.1	5.7	0.30	0.27	0.0	0.0	191.2	191.2	2.9	0.3	A
13	Toll NC 540 - W12	B13	Basic Segment	1859	1859	12000	11315	0.16	0.16	0	74.9	5.3	5.0	0.51	0.51	0.0	0.0	297.1	297.1	4.0	0.0	A
14	Toll NC 540 - B13	M14	On Ramp	2368	2368	12000	11282	0.21	0.21	0	71.1	7.0	6.6	0.24	0.23	0.0	0.0	168.2	168.2	2.4	0.1	A
15	M14	B15	Basic Segment	2368	2368	12000	11282	0.21	0.21	0	74.8	6.7	6.3	0.35	0.35	0.0	0.0	260.7	260.7	3.5	0.0	A
16	NC 42 - B15	D16	Off Ramp	2368	2368	7200	6769	0.35	0.35	0	67.8	12.4	11.6	0.25	0.23	0.0	0.0	168.2	168.2	2.5	0.2	A
17	NC 42 - D16	B17	Basic Segment	1536	1536	7200	6655	0.23	0.23	0	74.9	7.4	6.8	0.50	0.50	0.0	0.0	240.0	240.0	3.2	0.0	A
18	NC 42 - B17	M18	On Ramp	1842	1842	7200	6601	0.28	0.28	0	70.1	9.3	8.6	0.24	0.23	0.0	0.0	130.8	130.8	1.9	0.1	A
19	M18	End of I-40 EB	Basic Segment	1842	1842	7200	6601	0.28	0.28	0	75.0	8.9	8.2	0.80	0.80	0.0	0.0	460.5	460.5	6.1	0.0	A

Time Period 2

Seg #	From	To	Type	Adj. Demand	Vol. Served	Capacity (pc/h)	Capacity (veh/h)	d/c Ratio	v/c ratio	Queue Length (ft)	Avg. Speed (mi/h)	Density (pc/mi/ln)	Density (veh/mi/ln)	Avg. Travel Time	Free-Flow Travel Time	Mainline Delay (min/veh)	System Delay (min/veh)	VMT Demand (veh-	VMT Volume (veh-	VHT (veh-hrs)	VHD (veh-hrs)	LOS

														(min/veh)	(min/veh)			min)	min)			
1	Begin of I-40 EB	B1	Basic Segment	4650	4650	12000	11163	0.42	0.42	0	70.0	14.3	13.3	0.86	0.86	0.0	0.0	1162.5	1162.5	16.6	0.0	B
2	US 70 BUS - B1	D2	Off Ramp	4650	4650	12000	11163	0.42	0.42	0	65.8	15.2	14.1	0.26	0.24	0.0	0.0	330.3	330.3	5.0	0.3	B
3	US 70 BUS - D2	B3	Basic Segment	3162	3162	12000	11163	0.28	0.28	0	69.8	9.7	9.1	0.36	0.36	0.0	0.0	329.4	329.4	4.7	0.0	A
4	US 70 BUS - M4	D4	On Ramp	3330	3330	12000	11163	0.30	0.30	0	66.6	10.7	10.0	0.26	0.24	0.0	0.0	236.5	236.5	3.6	0.2	A
5	US 70 BUS - M4	B5	Basic Segment	3330	3330	12000	11163	0.30	0.30	0	69.1	10.4	9.6	0.03	0.03	0.0	0.0	27.6	27.6	0.4	0.0	A
6	US 70 BUS - B5	M6	On Ramp	3671	3671	12000	11163	0.33	0.33	0	66.6	11.8	10.9	0.26	0.24	0.0	0.0	260.7	260.7	3.9	0.2	B
7	M6	B7	Basic Segment	3671	3671	12000	11163	0.33	0.33	0	75.0	10.5	9.8	1.61	1.61	0.0	0.0	1846.8	1846.8	24.6	0.0	A
8	Toll NC 540 - B7	D8	Off Ramp	3671	3671	12000	11163	0.33	0.33	0	72.2	10.9	10.2	0.24	0.23	0.0	0.0	260.7	260.7	3.6	0.1	A
9	Toll NC 540 - D8	B9	Basic Segment	3045	3045	12000	11195	0.27	0.27	0	74.9	8.7	8.1	0.37	0.37	0.0	0.0	349.6	349.6	4.7	0.0	A
10	Toll NC 540 - B9	D10	Off Ramp	3045	3045	12000	11195	0.27	0.27	0	70.5	9.3	8.6	0.24	0.23	0.0	0.0	216.3	216.3	3.1	0.2	A
11	Toll NC 540 - D10	B11	Basic Segment	2163	2163	12000	11272	0.19	0.19	0	74.8	6.2	5.8	0.32	0.32	0.0	0.0	217.6	217.6	2.9	0.0	A
12	Toll NC 540 - B11	W12	Weaving	2555	2555	8466	7941	0.32	0.32	0	66.3	6.8	6.4	0.30	0.27	0.0	0.0	211.7	211.7	3.2	0.4	A
13	Toll NC 540 - W12	B13	Basic Segment	2051	2051	12000	11318	0.18	0.18	0	74.9	5.8	5.5	0.51	0.51	0.0	0.0	327.8	327.8	4.4	0.0	A
14	Toll NC 540 - B13	M14	On Ramp	2623	2623	12000	11284	0.23	0.23	0	71.1	7.7	7.3	0.24	0.23	0.0	0.0	186.3	186.3	2.6	0.1	A
15	M14	B15	Basic Segment	2623	2623	12000	11284	0.23	0.23	0	74.8	7.5	7.0	0.35	0.35	0.0	0.0	288.8	288.8	3.9	0.0	A
16	NC 42 - B15	D16	Off Ramp	2623	2623	7200	6770	0.39	0.39	0	67.5	13.8	12.9	0.25	0.23	0.0	0.0	186.3	186.3	2.8	0.3	A
17	NC 42 - D16	B17	Basic Segment	1688	1688	7200	6654	0.25	0.25	0	74.8	8.1	7.5	0.50	0.50	0.0	0.0	263.8	263.8	3.5	0.0	A
18	NC 42 - B17	M18	On Ramp	2032	2032	7200	6599	0.31	0.31	0	70.0	10.3	9.5	0.24	0.23	0.0	0.0	144.3	144.3	2.1	0.1	A
19	M18	End of I-40 EB	Basic Segment	2032	2032	7200	6599	0.31	0.31	0	75.0	9.9	9.0	0.80	0.80	0.0	0.0	508.0	508.0	6.8	0.0	A

Time Period 3

Seg #	From	To	Type	Adj. Demand	Vol. Served	Capacity (pc/h)	Capacity (veh/h)	d/c Ratio	v/c ratio	Queue Length (ft)	Avg. Speed (mi/h)	Density (pc/mi/ln)	Density (veh/mi/ln)	Avg. Travel Time (min/veh)	Free-Flow Travel Time (min/veh)	Mainline Delay (min/veh)	System Delay (min/veh)	VMT Demand (veh-min)	VMT Volume (veh-min)	VHT (veh-hrs)	VHD (veh-hrs)	LOS
1	Begin of I-40 EB	B1	Basic Segment	5166	5166	12000	11163	0.46	0.46	0	70.0	15.9	14.8	0.86	0.86	0.0	0.0	1291.5	1291.5	18.5	0.0	B
2	US 70 BUS - B1	D2	Off Ramp	5166	5166	12000	11163	0.46	0.46	0	65.9	16.9	15.7	0.26	0.24	0.0	0.0	366.9	366.9	5.6	0.3	B
3	US 70 BUS - D2	B3	Basic Segment	3514	3514	12000	11163	0.31	0.31	0	69.8	10.8	10.1	0.36	0.36	0.0	0.0	366.0	366.0	5.2	0.0	A
4	US 70 BUS - M4	D4	On Ramp	3700	3700	12000	11163	0.33	0.33	0	66.4	11.9	11.1	0.26	0.24	0.0	0.0	262.8	262.8	4.0	0.2	A
5	US 70 BUS - M4	B5	Basic Segment	3700	3700	12000	11163	0.33	0.33	0	69.1	11.5	10.7	0.03	0.03	0.0	0.0	30.7	30.7	0.4	0.0	B
6	US 70 BUS - B5	M6	On Ramp	4041	4041	12000	11163	0.36	0.36	0	66.5	13.0	12.1	0.26	0.24	0.0	0.0	287.0	287.0	4.3	0.2	B
7	M6	B7	Basic Segment	4041	4041	12000	11163	0.36	0.36	0	75.0	11.6	10.8	1.61	1.61	0.0	0.0	2032.9	2032.9	27.1	0.0	B
8	Toll NC 540 - B7	D8	Off Ramp	4041	4041	12000	11163	0.36	0.36	0	72.8	11.9	11.1	0.23	0.23	0.0	0.0	287.0	287.0	3.9	0.1	A

9	Toll NC 540 - D8	B9	Basic Segment	3346	3346	12000	11195	0.30	0.30	0	74.9	9.6	8.9	0.37	0.37	0.0	0.0	384.2	384.2	5.1	0.0	A
10	Toll NC 540 - B9	D10	Off Ramp	3346	3346	12000	11195	0.30	0.30	0	70.3	10.2	9.5	0.24	0.23	0.0	0.0	237.6	237.6	3.4	0.2	A
11	Toll NC 540 - D10	B11	Basic Segment	2367	2367	12000	11274	0.21	0.21	0	74.7	6.7	6.3	0.32	0.32	0.0	0.0	238.2	238.2	3.2	0.0	A
12	Toll NC 540 - B11	W12	Weaving	2802	2802	8369	7851	0.36	0.36	0	65.6	7.6	7.1	0.30	0.27	0.0	0.0	232.2	232.2	3.5	0.4	A
13	Toll NC 540 - W12	B13	Basic Segment	2243	2243	12000	11320	0.20	0.20	0	74.9	6.4	6.0	0.51	0.51	0.0	0.0	358.4	358.4	4.8	0.0	A
14	Toll NC 540 - B13	M14	On Ramp	2878	2878	12000	11285	0.26	0.26	0	71.1	8.5	8.0	0.24	0.23	0.0	0.0	204.4	204.4	2.9	0.2	A
15	M14	B15	Basic Segment	2878	2878	12000	11285	0.26	0.26	0	74.8	8.2	7.7	0.35	0.35	0.0	0.0	316.8	316.8	4.2	0.0	A
16	NC 42 - B15	D16	Off Ramp	2878	2878	7200	6771	0.43	0.43	0	67.3	15.2	14.3	0.25	0.23	0.0	0.0	204.4	204.4	3.0	0.3	B
17	NC 42 - D16	B17	Basic Segment	1840	1840	7200	6653	0.28	0.28	0	74.8	8.9	8.2	0.50	0.50	0.0	0.0	287.5	287.5	3.8	0.0	A
18	NC 42 - B17	M18	On Ramp	2222	2222	7200	6598	0.34	0.34	0	69.8	11.3	10.4	0.24	0.23	0.0	0.0	157.8	157.8	2.3	0.2	A
19	M18	End of I-40 EB	Basic Segment	2222	2222	7200	6598	0.34	0.34	0	75.0	10.8	9.9	0.80	0.80	0.0	0.0	555.5	555.5	7.4	0.0	A

Time Period 4

Seg #	From	To	Type	Adj. Demand	Vol. Served	Capacity (pc/h)	Capacity (veh/h)	d/c Ratio	v/c ratio	Queue Length (ft)	Avg. Speed (mi/h)	Density (pc/mi/ln)	Density (veh/mi/ln)	Avg. Travel Time (min/veh)	Free-Flow Travel Time (min/veh)	Mainline Delay (min/veh)	System Delay (min/veh)	VMT Demand (veh-min)	VMT Volume (veh-min)	VHT (veh-hrs)	VHD (veh-hrs)	LOS
1	Begin of I-40 EB	B1	Basic Segment	4650	4650	12000	11163	0.42	0.42	0	70.0	14.3	13.3	0.86	0.86	0.0	0.0	1162.5	1162.5	16.6	0.0	B
2	US 70 BUS - B1	D2	Off Ramp	4650	4650	12000	11163	0.42	0.42	0	65.8	15.2	14.1	0.26	0.24	0.0	0.0	330.3	330.3	5.0	0.3	B
3	US 70 BUS - D2	B3	Basic Segment	3162	3162	12000	11163	0.28	0.28	0	69.8	9.7	9.1	0.36	0.36	0.0	0.0	329.4	329.4	4.7	0.0	A
4	US 70 BUS - M4	D4	On Ramp	3330	3330	12000	11163	0.30	0.30	0	66.6	10.7	10.0	0.26	0.24	0.0	0.0	236.5	236.5	3.6	0.2	A
5	US 70 BUS - M4	B5	Basic Segment	3330	3330	12000	11163	0.30	0.30	0	69.1	10.4	9.6	0.03	0.03	0.0	0.0	27.6	27.6	0.4	0.0	A
6	US 70 BUS - B5	M6	On Ramp	3671	3671	12000	11163	0.33	0.33	0	66.6	11.8	10.9	0.26	0.24	0.0	0.0	260.7	260.7	3.9	0.2	B
7	M6	B7	Basic Segment	3671	3671	12000	11163	0.33	0.33	0	75.0	10.5	9.8	1.61	1.61	0.0	0.0	1846.8	1846.8	24.6	0.0	A
8	Toll NC 540 - B7	D8	Off Ramp	3671	3671	12000	11163	0.33	0.33	0	72.2	10.9	10.2	0.24	0.23	0.0	0.0	260.7	260.7	3.6	0.1	A
9	Toll NC 540 - D8	B9	Basic Segment	3045	3045	12000	11195	0.27	0.27	0	74.9	8.7	8.1	0.37	0.37	0.0	0.0	349.6	349.6	4.7	0.0	A
10	Toll NC 540 - B9	D10	Off Ramp	3045	3045	12000	11195	0.27	0.27	0	70.5	9.3	8.6	0.24	0.23	0.0	0.0	216.3	216.3	3.1	0.2	A
11	Toll NC 540 - D10	B11	Basic Segment	2163	2163	12000	11272	0.19	0.19	0	74.8	6.2	5.8	0.32	0.32	0.0	0.0	217.6	217.6	2.9	0.0	A
12	Toll NC 540 - B11	W12	Weaving	2555	2555	8466	7941	0.32	0.32	0	66.3	6.8	6.4	0.30	0.27	0.0	0.0	211.7	211.7	3.2	0.4	A
13	Toll NC 540 - W12	B13	Basic Segment	2051	2051	12000	11318	0.18	0.18	0	74.9	5.8	5.5	0.51	0.51	0.0	0.0	327.8	327.8	4.4	0.0	A
14	Toll NC 540 - B13	M14	On Ramp	2623	2623	12000	11284	0.23	0.23	0	71.1	7.7	7.3	0.24	0.23	0.0	0.0	186.3	186.3	2.6	0.1	A
15	M14	B15	Basic Segment	2623	2623	12000	11284	0.23	0.23	0	74.8	7.5	7.0	0.35	0.35	0.0	0.0	288.8	288.8	3.9	0.0	A
16	NC 42 - B15	D16	Off Ramp	2623	2623	7200	6770	0.39	0.39	0	67.5	13.8	12.9	0.25	0.23	0.0	0.0	186.3	186.3	2.8	0.3	A
17	NC 42 -	B17	Basic Segment	1688	1688	7200	6654	0.25	0.25	0	74.8	8.1	7.5	0.50	0.50	0.0	0.0	263.8	263.8	3.5	0.0	A

	D16																				
18	NC 42 - B17	M18	On Ramp	2032	2032	7200	6599	0.31	0.31	0	70.0	10.3	9.5	0.24	0.23	0.0	0.0	144.3	144.3	2.1	0.1	A
19	M18	End of I-40 EB	Basic Segment	2032	2032	7200	6599	0.31	0.31	0	75.0	9.9	9.0	0.80	0.80	0.0	0.0	508.0	508.0	6.8	0.0	A

Overall Results

Segment	Segment Type	Maximum d/c Ratio	Avg. Speed (mi/h)	Density (pc/mi/ln)	Density (veh/mi/ln)	Avg. Travel Time (min/veh)	Free-Flow Travel Time (min/veh)	VMT Demand (veh-min)	VMT Volume (veh-min)	VHT (veh-hrs)	VHD (veh-hrs)
Begin of I-40 EB-B1	Basic	0.46	70.0	14.3	13.3	0.86	0.86	4,650.0	4,650.0	66.43	0.00
US 70 BUS - B1-D2	OffRamp	0.46	65.9	15.2	14.1	0.26	0.24	1,321.0	1,321.0	20.05	1.18
US 70 BUS - D2-B3	Basic	0.31	69.8	9.7	9.1	0.36	0.36	1,317.5	1,317.5	18.88	0.06
US 70 BUS - M4-D4	OnRamp	0.33	66.6	10.7	10.0	0.26	0.24	0,946.0	0,946.0	14.21	0.69
US 70 BUS - M4-B5	Basic	0.33	69.1	10.4	9.6	0.03	0.03	0,110.4	0,110.4	1.60	0.02
US 70 BUS - B5-M6	OnRamp	0.36	66.6	11.8	10.9	0.26	0.24	1,042.9	1,042.9	15.66	0.76
M6-B7	Basic	0.36	75.0	10.5	9.8	1.61	1.61	7,387.2	7,387.2	98.50	0.00
Toll NC 540 - B7-D8	OffRamp	0.36	72.4	10.9	10.1	0.24	0.23	1,042.9	1,042.9	14.40	0.49
Toll NC 540 - D8-B9	Basic	0.30	74.9	8.7	8.1	0.37	0.37	1,398.5	1,398.5	18.67	0.03
Toll NC 540 - B9-D10	OffRamp	0.30	70.5	9.3	8.6	0.24	0.23	0,865.1	0,865.1	12.27	0.73
Toll NC 540 - D10-B11	Basic	0.21	74.8	6.2	5.8	0.32	0.32	0,870.5	0,870.5	11.64	0.04
Toll NC 540 - B11-W12	Weaving	0.36	66.3	6.8	6.4	0.30	0.27	0,846.8	0,846.8	12.77	1.48
Toll NC 540 - W12-B13	Basic	0.20	74.9	5.8	5.5	0.51	0.51	1,311.0	1,311.0	17.51	0.03
Toll NC 540 - B13-M14	OnRamp	0.26	71.1	7.7	7.3	0.24	0.23	0,745.2	0,745.2	10.49	0.55
M14-B15	Basic	0.26	74.8	7.5	7.0	0.35	0.35	1,155.0	1,155.0	15.44	0.04
NC 42 - B15-D16	OffRamp	0.43	67.5	13.8	12.9	0.25	0.23	0,745.2	0,745.2	11.04	1.10
NC 42 - D16-B17	Basic	0.28	74.8	8.1	7.5	0.50	0.50	1,055.0	1,055.0	14.10	0.03
NC 42 - B17-M18	OnRamp	0.34	70.0	10.3	9.5	0.24	0.23	0,577.3	0,577.3	8.25	0.55
M18-End of I-40 EB	Basic	0.34	75.0	9.9	9.0	0.80	0.80	2,032.0	2,032.0	27.10	0.01
Freeway			71.9	9.9	9.3	8.00	7.84	29,419.5	29,419.5	0,409.0	0,007.8

	Density-Based LOS by Segment														
Segment	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Time Step	Basic	Off Ramp	Basic	On Ramp	Basic	On Ramp	Basic	Off Ramp	Basic	Off Ramp	Basic	Weaving	Basic	On Ramp	Basic
1	B	B	A	A	A	A	A	A	A	A	A	A	A	A	A
2	B	B	A	A	A	B	A	A	A	A	A	A	A	A	A
3	B	B	A	A	B	B	B	A	A	A	A	A	A	A	A
4	B	B	A	A	A	B	A	A	A	A	A	A	A	A	A

	Density-Based LOS by Segment			
Segment	16	17	18	19
Time Step	Off Ramp	Basic	On Ramp	Basic
1	A	A	A	A
2	A	A	A	A
3	B	A	A	A
4	A	A	A	A

	Demand-Based LOS by Segment														
Time Step	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
3	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
4	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

	Demand-Based LOS by Segment			
Time Step	16	17	18	19
1	.	.	.	.
2	.	.	.	.
3	.	.	.	.
4	.	.	.	.

HCS 2010 Freeway Facilities

Project Properties

Analyst	HNTB	**Freeway Name**	I-40 - 2040 Build EB PM	**Analysis Period**	PM Peak
Analysis Date	9/19/2014 1:46:28 PM	**From**	US 70 Business	**Version Date**	1/20/16
Agency	HNTB	**To**	NC 42		
Location	Complete 540	**Analysis Direction**	Eastbound/Northbound		
User Notes					
File Name	C:\Temp\preview.xml				

Facility-wide Values

Jam Density (pc/h/ln)	190	**Time Period Duration (min)**	15	**Facility Length (mi)**	**9.63300**

Segment Input Data

Time Period 1

Mainline Data

Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin of I-40 EB	B1	Basic Segment	5280	Rolling	6074	5.00	0.00	5	70
2	US 70 BUS - B1	D2	Off Ramp	1500	Rolling	6074	5.00	0.00	5	70
3	US 70 BUS - D2	B3	Basic Segment	2200	Rolling	4388	5.00	0.00	5	70
4	US 70 BUS - M4	D4	On Ramp	1500	Rolling	4562	5.00	0.00	5	70
5	US 70 BUS - M4	B5	Basic Segment	175	Rolling	4562	5.00	0.00	5	70
6	US 70 BUS - B5	M6	On Ramp	1500	Rolling	5050	5.00	0.00	5	70
7	M6	B7	Basic Segment	10625	Rolling	5050	5.00	0.00	5	75
8	Toll NC 540 - B7	D8	Off Ramp	1500	Rolling	5050	5.00	0.00	5	75
9	Toll NC 540 - D8	B9	Basic Segment	2425	Rolling	4527	4.88	0.00	5	75
10	Toll NC 540 - B9	D10	Off Ramp	1500	Rolling	4527	4.88	0.00	5	75
11	Toll NC 540 - D10	B11	Basic Segment	2125	Rolling	3204	4.42	0.00	5	75
12	Toll NC 540 - B11	W12	Weaving	1750	Rolling	3548	4.48	0.00	6	75
13	Toll NC 540 - W12	B13	Basic Segment	3375	Rolling	2897	4.14	0.00	5	75
14	Toll NC 540 - M14	M14	On Ramp	1500	Rolling	3669	4.32	0.00	5	75
15	M14	B15	Basic Segment	2325	Rolling	3669	4.32	0.00	5	75
16	NC 42 - B15	D16	Off Ramp	1500	Rolling	3669	4.32	0.00	3	75
17	NC 42 - D16	B17	Basic Segment	3300	Rolling	2485	5.42	0.00	3	75
18	NC 42 - B17	M18	On Ramp	1500	Rolling	2894	5.93	0.00	3	75
19	M18	End of I-40 EB	Basic Segment	5280	Rolling	2894	5.93	0.00	3	75

RampData

Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	Off Ramp	1686	5.00	0.00	1	1500	50
4	On Ramp	174	5.00	0.00	1	1125	30
6	On Ramp	488	5.00	0.00	1	975	50
8	Off Ramp	523	6.00	0.00	1	1500	50
10	Off Ramp	1323	6.00	0.00	1	1500	50
14	On Ramp	772	5.00	0.00	1	1500	50
16	Off Ramp	1184	2.00	0.00	1	1500	50
18	On Ramp	409	9.00	0.00	1	1300	50

Weaving Segment Data

Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp				
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS
12	0.183	344	5.00	0.00	1	40	651	6.00	0.00	1	40

Time Period 2

Mainline Data

RampData

Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin of I-40 EB	B1	Basic Segment	5280	Rolling	6832	5.00	0.00	5	70
2	US 70 BUS - B1	D2	Off Ramp	1500	Rolling	6832	5.00	0.00	5	70
3	US 70 BUS - D2	B3	Basic Segment	2200	Rolling	4938	5.00	0.00	5	70
4	US 70 BUS - M4	D4	On Ramp	1500	Rolling	5133	5.00	0.00	5	70
5	US 70 BUS - M4	B5	Basic Segment	175	Rolling	5133	5.00	0.00	5	70
6	US 70 BUS - B5	M6	On Ramp	1500	Rolling	5621	5.00	0.00	5	70
7	M6	B7	Basic Segment	10625	Rolling	5621	5.00	0.00	5	75
8	Toll NC 540 - B7	D8	Off Ramp	1500	Rolling	5621	5.00	0.00	5	75
9	Toll NC 540 - D8	B9	Basic Segment	2425	Rolling	5033	4.88	0.00	5	75
10	Toll NC 540 - B9	D10	Off Ramp	1500	Rolling	5033	4.88	0.00	5	75
11	Toll NC 540 - D10	B11	Basic Segment	2125	Rolling	3546	4.41	0.00	5	75
12	Toll NC 540 - B11	W12	Weaving	1750	Rolling	3933	4.47	0.00	6	75
13	Toll NC 540 - W12	B13	Basic Segment	3375	Rolling	3202	4.12	0.00	5	75
14	Toll NC 540 - M14	M14	On Ramp	1500	Rolling	4069	4.31	0.00	5	75
15	M14	B15	Basic Segment	2325	Rolling	4069	4.31	0.00	5	75
16	NC 42 - B15	D16	Off Ramp	1500	Rolling	4069	4.31	0.00	3	75
17	NC 42 - D16	B17	Basic Segment	3300	Rolling	2739	5.43	0.00	3	75
18	NC 42 - B17	M18	On Ramp	1500	Rolling	3199	5.95	0.00	3	75
19	M18	End of I-40 EB	Basic Segment	5280	Rolling	3199	5.95	0.00	3	75

Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	Off Ramp	1894	5.00	0.00	1	1500	50
4	On Ramp	195	5.00	0.00	1	1125	30
6	On Ramp	488	5.00	0.00	1	975	50
8	Off Ramp	588	6.00	0.00	1	1500	50
10	Off Ramp	1487	6.00	0.00	1	1500	50
14	On Ramp	867	5.00	0.00	1	1500	50
16	Off Ramp	1330	2.00	0.00	1	1500	50
18	On Ramp	460	9.00	0.00	1	1300	50

Weaving Segment Data										
Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp			
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS
12	0.183	387	5.00	0.00	1	40	731	6.00	0.00	1	40

Time Period 3

Mainline Data										
Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin of I-40 EB	B1	Basic Segment	5280	Rolling	7590	5.00	0.00	5	70
2	US 70 BUS - B1	D2	Off Ramp	1500	Rolling	7590	5.00	0.00	5	70
3	US 70 BUS - D2	B3	Basic Segment	2200	Rolling	5488	5.00	0.00	5	70
4	US 70 BUS - M4	D4	On Ramp	1500	Rolling	5704	5.00	0.00	5	70
5	US 70 BUS - M4	B5	Basic Segment	175	Rolling	5704	5.00	0.00	5	70
6	US 70 BUS - B5	M6	On Ramp	1500	Rolling	6192	5.00	0.00	5	70
7	M6	B7	Basic Segment	10625	Rolling	6192	5.00	0.00	5	75
8	Toll NC 540 -	D8	Off Ramp	1500	Rolling	6192	5.00	0.00	5	75

RampData							
Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	Off Ramp	2102	5.00	0.00	1	1500	50
4	On Ramp	216	5.00	0.00	1	1125	30
6	On Ramp	488	5.00	0.00	1	975	50
8	Off Ramp	653	6.00	0.00	1	1500	50
10	Off Ramp	1651	6.00	0.00	1	1500	50
14	On Ramp	962	5.00	0.00	1	1500	50
16	Off Ramp	1476	2.00	0.00	1	1500	50
18	On Ramp	511	9.00	0.00	1	1300	50

	B7									
9	Toll NC 540 - D8	B9	Basic Segment	2425	Rolling	5539	4.88	0.00	5	75
10	Toll NC 540 - B9	D10	Off Ramp	1500	Rolling	5539	4.88	0.00	5	75
11	Toll NC 540 - D10	B11	Basic Segment	2125	Rolling	3888	4.41	0.00	5	75
12	Toll NC 540 - B11	W12	Weaving	1750	Rolling	4318	4.47	0.00	6	75
13	Toll NC 540 - W12	B13	Basic Segment	3375	Rolling	3507	4.11	0.00	5	75
14	Toll NC 540 - M14	M14	On Ramp	1500	Rolling	4469	4.30	0.00	5	75
15	M14	B15	Basic Segment	2325	Rolling	4469	4.30	0.00	5	75
16	NC 42 - B15	D16	Off Ramp	1500	Rolling	4469	4.30	0.00	3	75
17	NC 42 - D16	B17	Basic Segment	3300	Rolling	2993	5.44	0.00	3	75
18	NC 42 - B17	M18	On Ramp	1500	Rolling	3504	5.96	0.00	3	75
19	M18	End of I-40 EB	Basic Segment	5280	Rolling	3504	5.96	0.00	3	75

Weaving Segment Data										
Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp			
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS
12	0.183	430	5.00	0.00	1	40	811	6.00	0.00	1	40

Time Period 4

Mainline Data										
Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin of I-40 EB	B1	Basic Segment	5280	Rolling	6832	5.00	0.00	5	70
2	US 70 BUS - B1	D2	Off Ramp	1500	Rolling	6832	5.00	0.00	5	70
3	US 70 BUS - D2	B3	Basic Segment	2200	Rolling	4938	5.00	0.00	5	70
4	US 70 BUS - M4	D4	On Ramp	1500	Rolling	5133	5.00	0.00	5	70
5	US 70 BUS - M4	B5	Basic Segment	175	Rolling	5133	5.00	0.00	5	70
6	US 70 BUS - B5	M6	On Ramp	1500	Rolling	5621	5.00	0.00	5	70
7	M6	B7	Basic Segment	10625	Rolling	5621	5.00	0.00	5	75
8	Toll NC 540 - B7	D8	Off Ramp	1500	Rolling	5621	5.00	0.00	5	75
9	Toll NC 540 - D8	B9	Basic Segment	2425	Rolling	5033	4.88	0.00	5	75
10	Toll NC 540 - B9	D10	Off Ramp	1500	Rolling	5033	4.88	0.00	5	75
11	Toll NC 540 - D10	B11	Basic Segment	2125	Rolling	3546	4.41	0.00	5	75
12	Toll NC 540 - B11	W12	Weaving	1750	Rolling	3933	4.47	0.00	6	75
13	Toll NC 540 - W12	B13	Basic Segment	3375	Rolling	3202	4.12	0.00	5	75
14	Toll NC 540 - M14	M14	On Ramp	1500	Rolling	4069	4.31	0.00	5	75
15	M14	B15	Basic Segment	2325	Rolling	4069	4.31	0.00	5	75
16	NC 42 - B15	D16	Off Ramp	1500	Rolling	4069	4.31	0.00	3	75

RampData							
Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	Off Ramp	1894	5.00	0.00	1	1500	50
4	On Ramp	195	5.00	0.00	1	1125	30
6	On Ramp	488	5.00	0.00	1	975	50
8	Off Ramp	588	6.00	0.00	1	1500	50
10	Off Ramp	1487	6.00	0.00	1	1500	50
14	On Ramp	867	5.00	0.00	1	1500	50
16	Off Ramp	1330	2.00	0.00	1	1500	50
18	On Ramp	460	9.00	0.00	1	1300	50

Weaving Segment Data										
Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp			
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS
12	0.183	387	5.00	0.00	1	40	731	6.00	0.00	1	40

17	NC 42 - D16	B17	Basic Segment	3300	Rolling	2739	5.43	0.00	3	75
18	NC 42 - B17	M18	On Ramp	1500	Rolling	3199	5.95	0.00	3	75
19	M18	End of I-40 EB	Basic Segment	5280	Rolling	3199	5.95	0.00	3	75

Time Period Independent Weaving Segment Data

Seg #	Configuration	Short Length	# Weaving Lanes	Min. Lane Changes Freeway-Ramp	Min. Lane Changes Ramp-Freeway	Min. Lane Changes Ramp-Ramp
12	OneSide	1750	2	1	1	0

Time Period Results

Time Period 1

Seg #	From	To	Type	Adj. Demand	Vol. Served	Capacity (pc/h)	Capacity (veh/h)	d/c Ratio	v/c ratio	Queue Length (ft)	Avg. Speed (mi/h)	Density (pc/mi/ln)	Density (veh/mi/ln)	Avg. Travel Time (min/veh)	Free-Flow Travel Time (min/veh)	Mainline Delay (min/veh)	System Delay (min/veh)	VMT Demand (veh-min)	VMT Volume (veh-min)	VHT (veh-hrs)	VHD (veh-hrs)	LOS
1	Begin of I-40 EB	B1	Basic Segment	6074	6074	12000	11163	0.54	0.54	0	69.9	18.7	17.4	0.86	0.86	0.0	0.0	1518.5	1518.5	21.7	0.0	C
2	US 70 BUS - B1	D2	Off Ramp	6074	6074	12000	11163	0.54	0.54	0	66.2	19.7	18.4	0.26	0.24	0.0	0.0	431.4	431.4	6.5	0.4	C
3	US 70 BUS - D2	B3	Basic Segment	4388	4388	12000	11163	0.39	0.39	0	69.8	13.5	12.6	0.36	0.36	0.0	0.0	457.1	457.1	6.5	0.0	B
4	US 70 BUS - M4	D4	On Ramp	4562	4562	12000	11163	0.41	0.41	0	65.9	14.8	13.8	0.26	0.24	0.0	0.0	324.0	324.0	4.9	0.3	B
5	US 70 BUS - M4	B5	Basic Segment	4562	4562	12000	11163	0.41	0.41	0	68.9	14.2	13.2	0.03	0.03	0.0	0.0	37.8	37.8	0.5	0.0	B
6	US 70 BUS - B5	M6	On Ramp	5050	5050	12000	11163	0.45	0.45	0	65.8	16.4	15.2	0.26	0.24	0.0	0.0	358.7	358.7	5.4	0.3	B
7	M6	B7	Basic Segment	5050	5050	12000	11163	0.45	0.45	0	74.9	14.5	13.5	1.61	1.61	0.0	0.0	2540.5	2540.5	33.9	0.0	B
8	Toll NC 540 - B7	D8	Off Ramp	5050	5050	12000	11163	0.45	0.45	0	73.8	14.7	13.7	0.23	0.23	0.0	0.0	358.7	358.7	4.9	0.1	B
9	Toll NC 540 - D8	B9	Basic Segment	4527	4527	12000	11181	0.40	0.40	0	75.0	13.0	12.1	0.37	0.37	0.0	0.0	519.8	519.8	6.9	0.0	B
10	Toll NC 540 - B9	D10	Off Ramp	4527	4527	12000	11181	0.40	0.40	0	70.3	13.8	12.9	0.24	0.23	0.0	0.0	321.5	321.5	4.6	0.3	B
11	Toll NC 540 - D10	B11	Basic Segment	3204	3204	12000	11253	0.28	0.28	0	74.7	9.1	8.6	0.32	0.32	0.0	0.0	322.4	322.4	4.3	0.0	A
12	Toll NC 540 - B11	W12	Weaving	3548	3548	9636	9029	0.39	0.39	0	64.5	9.8	9.2	0.31	0.27	0.0	0.0	294.0	294.0	4.6	0.6	A
13	Toll NC 540 - W12	B13	Basic Segment	2897	2897	12000	11299	0.26	0.26	0	74.8	8.2	7.7	0.51	0.51	0.0	0.0	462.9	462.9	6.2	0.0	A
14	Toll NC 540 - M14	M14	On Ramp	3669	3669	12000	11270	0.33	0.33	0	71.0	10.8	10.2	0.24	0.23	0.0	0.0	260.6	260.6	3.7	0.2	B
15	M14	B15	Basic Segment	3669	3669	12000	11270	0.33	0.33	0	74.8	10.4	9.8	0.35	0.35	0.0	0.0	403.9	403.9	5.4	0.0	A
16	NC 42 - B15	D16	Off Ramp	3669	3669	7200	6762	0.54	0.54	0	67.3	19.4	18.2	0.25	0.23	0.0	0.0	260.6	260.6	3.9	0.4	B
17	NC 42 - D16	B17	Basic Segment	2485	2485	7200	6658	0.37	0.37	0	74.8	12.0	11.1	0.50	0.50	0.0	0.0	388.3	388.3	5.2	0.0	B
18	NC 42 - B17	M18	On Ramp	2894	2894	7200	6612	0.44	0.44	0	69.4	14.9	13.6	0.25	0.23	0.0	0.0	205.5	205.5	3.0	0.2	B
19	M18	End of I-40 EB	Basic Segment	2894	2894	7200	6612	0.44	0.44	0	75.0	14.0	12.9	0.80	0.80	0.0	0.0	723.5	723.5	9.7	0.0	B

Time Period 2

Seg #	From	To	Type	Adj. Demand	Vol. Served	Capacity (pc/h)	Capacity (veh/h)	d/c Ratio	v/c ratio	Queue Length (ft)	Avg. Speed (mi/h)	Density (pc/mi/ln)	Density (veh/mi/ln)	Avg. Travel Time	Free-Flow Travel Time	Mainline Delay (min/veh)	System Delay (min/veh)	VMT Demand (veh-	VMT Volume (veh-	VHT (veh-hrs)	VHD (veh-hrs)	LOS

														(min/veh)	(min/veh)			min)	min)			
1	Begin of I-40 EB	B1	Basic Segment	6832	6832	12000	11163	0.61	0.61	0	69.2	21.2	19.8	0.87	0.86	0.0	0.0	1708.0	1708.0	24.7	0.3	C
2	US 70 BUS - B1	D2	Off Ramp	6832	6832	12000	11163	0.61	0.61	0	65.9	22.3	20.7	0.26	0.24	0.0	0.0	485.2	485.2	7.4	0.4	C
3	US 70 BUS - D2	B3	Basic Segment	4938	4938	12000	11163	0.44	0.44	0	69.8	15.2	14.1	0.36	0.36	0.0	0.0	514.4	514.4	7.4	0.0	B
4	US 70 BUS - M4	D4	On Ramp	5133	5133	12000	11163	0.46	0.46	0	65.5	16.8	15.6	0.26	0.24	0.0	0.0	364.6	364.6	5.6	0.4	B
5	US 70 BUS - M4	B5	Basic Segment	5133	5133	12000	11163	0.46	0.46	0	68.8	16.0	14.9	0.03	0.03	0.0	0.0	42.5	42.5	0.6	0.0	B
6	US 70 BUS - B5	M6	On Ramp	5621	5621	12000	11163	0.50	0.50	0	65.5	18.3	17.1	0.26	0.24	0.0	0.0	399.2	399.2	6.1	0.4	B
7	M6	B7	Basic Segment	5621	5621	12000	11163	0.50	0.50	0	74.5	16.2	15.1	1.62	1.61	0.0	0.0	2827.8	2827.8	37.9	0.2	B
8	Toll NC 540 - B7	D8	Off Ramp	5621	5621	12000	11163	0.50	0.50	0	73.8	16.4	15.2	0.23	0.23	0.0	0.0	399.2	399.2	5.4	0.1	B
9	Toll NC 540 - D8	B9	Basic Segment	5033	5033	12000	11181	0.45	0.45	0	74.9	14.4	13.4	0.37	0.37	0.0	0.0	577.9	577.9	7.7	0.0	B
10	Toll NC 540 - B9	D10	Off Ramp	5033	5033	12000	11181	0.45	0.45	0	69.9	15.5	14.4	0.24	0.23	0.0	0.0	357.5	357.5	5.1	0.4	B
11	Toll NC 540 - D10	B11	Basic Segment	3546	3546	12000	11255	0.32	0.32	0	74.7	10.1	9.5	0.32	0.32	0.0	0.0	356.8	356.8	4.8	0.0	A
12	Toll NC 540 - B11	W12	Weaving	3933	3933	9505	8907	0.44	0.44	0	63.5	11.0	10.3	0.31	0.27	0.0	0.0	325.9	325.9	5.1	0.8	B
13	Toll NC 540 - W12	B13	Basic Segment	3202	3202	12000	11301	0.28	0.28	0	74.8	9.1	8.6	0.51	0.51	0.0	0.0	511.7	511.7	6.8	0.0	A
14	Toll NC 540 - M14	M14	On Ramp	4069	4069	12000	11271	0.36	0.36	0	71.0	12.0	11.3	0.24	0.23	0.0	0.0	289.0	289.0	4.1	0.2	B
15	M14	B15	Basic Segment	4069	4069	12000	11271	0.36	0.36	0	74.8	11.6	10.9	0.35	0.35	0.0	0.0	447.9	447.9	6.0	0.0	B
16	NC 42 - B15	D16	Off Ramp	4069	4069	7200	6763	0.60	0.60	0	66.9	21.6	20.3	0.25	0.23	0.0	0.0	289.0	289.0	4.3	0.5	B
17	NC 42 - D16	B17	Basic Segment	2739	2739	7200	6658	0.41	0.41	0	74.8	13.2	12.2	0.50	0.50	0.0	0.0	428.0	428.0	5.7	0.0	B
18	NC 42 - B17	M18	On Ramp	3199	3199	7200	6610	0.48	0.48	0	69.1	16.5	15.1	0.25	0.23	0.0	0.0	227.2	227.2	3.3	0.3	B
19	M18	End of I-40 EB	Basic Segment	3199	3199	7200	6610	0.48	0.48	0	74.7	15.5	14.3	0.80	0.80	0.0	0.0	799.8	799.8	10.7	0.0	B

Time Period 3

Seg #	From	To	Type	Adj. Demand	Vol. Served	Capacity (pc/h)	Capacity (veh/h)	d/c Ratio	v/c ratio	Queue Length (ft)	Avg. Speed (mi/h)	Density (pc/mi/ln)	Density (veh/mi/ln)	Avg. Travel Time (min/veh)	Free-Flow Travel Time (min/veh)	Mainline Delay (min/veh)	System Delay (min/veh)	VMT Demand (veh-min)	VMT Volume (veh-min)	VHT (veh-hrs)	VHD (veh-hrs)	LOS
1	Begin of I-40 EB	B1	Basic Segment	7590	7590	12000	11163	0.68	0.68	0	67.8	24.1	22.4	0.88	0.86	0.0	0.0	1897.5	1897.5	28.0	0.9	C
2	US 70 BUS - B1	D2	Off Ramp	7590	7590	12000	11163	0.68	0.68	0	65.4	25.0	23.2	0.26	0.24	0.0	0.0	539.1	539.1	8.2	0.5	C
3	US 70 BUS - D2	B3	Basic Segment	5488	5488	12000	11163	0.49	0.49	0	69.8	16.9	15.7	0.36	0.36	0.0	0.0	571.7	571.7	8.2	0.0	B
4	US 70 BUS - M4	D4	On Ramp	5704	5704	12000	11163	0.51	0.51	0	65.3	18.7	17.4	0.26	0.24	0.0	0.0	405.1	405.1	6.2	0.4	B
5	US 70 BUS - M4	B5	Basic Segment	5704	5704	12000	11163	0.51	0.51	0	68.8	17.8	16.6	0.03	0.03	0.0	0.0	47.3	47.3	0.7	0.0	B
6	US 70 BUS - B5	M6	On Ramp	6192	6192	12000	11163	0.55	0.55	0	65.2	20.3	18.9	0.26	0.24	0.0	0.0	439.8	439.8	6.7	0.5	B
7	M6	B7	Basic Segment	6192	6192	12000	11163	0.55	0.55	0	73.8	18.0	16.8	1.64	1.61	0.0	0.0	3115.1	3115.1	42.2	0.7	B
8	Toll NC 540 - B7	D8	Off Ramp	6192	6192	12000	11163	0.55	0.55	0	73.5	18.1	16.9	0.23	0.23	0.0	0.0	439.8	439.8	6.0	0.1	B

9	Toll NC 540 - D8	B9	Basic Segment	5539	5539	12000	11181	0.50	0.50	0	74.6	15.9	14.8	0.37	0.37	0.0	0.0	636.0	636.0	8.5	0.0	B
10	Toll NC 540 - B9	D10	Off Ramp	5539	5539	12000	11181	0.50	0.50	0	69.9	17.0	15.9	0.24	0.23	0.0	0.0	393.4	393.4	5.6	0.4	B
11	Toll NC 540 - D10	B11	Basic Segment	3888	3888	12000	11256	0.35	0.35	0	74.7	11.1	10.4	0.32	0.32	0.0	0.0	391.2	391.2	5.2	0.0	B
12	Toll NC 540 - B11	W12	Weaving	4318	4318	9403	8813	0.49	0.49	0	62.5	12.3	11.5	0.32	0.27	0.1	0.1	357.8	357.8	5.7	1.0	B
13	Toll NC 540 - W12	B13	Basic Segment	3507	3507	12000	11303	0.31	0.31	0	74.8	10.0	9.4	0.51	0.51	0.0	0.0	560.4	560.4	7.5	0.0	A
14	Toll NC 540 - M14	M14	On Ramp	4469	4469	12000	11272	0.40	0.40	0	70.8	13.2	12.4	0.24	0.23	0.0	0.0	317.4	317.4	4.5	0.2	B
15	M14	B15	Basic Segment	4469	4469	12000	11272	0.40	0.40	0	74.8	12.7	11.9	0.35	0.35	0.0	0.0	492.0	492.0	6.6	0.0	B
16	NC 42 - B15	D16	Off Ramp	4469	4469	7200	6763	0.66	0.66	0	66.5	23.9	22.4	0.26	0.23	0.0	0.0	317.4	317.4	4.8	0.5	C
17	NC 42 - D16	B17	Basic Segment	2993	2993	7200	6657	0.45	0.45	0	74.8	14.4	13.3	0.50	0.50	0.0	0.0	467.7	467.7	6.2	0.0	B
18	NC 42 - B17	M18	On Ramp	3504	3504	7200	6609	0.53	0.53	0	68.7	18.1	16.7	0.25	0.23	0.0	0.0	248.9	248.9	3.6	0.3	B
19	M18	End of I-40 EB	Basic Segment	3504	3504	7200	6609	0.53	0.53	0	74.2	17.2	15.7	0.81	0.80	0.0	0.0	876.0	876.0	11.8	0.1	B

Time Period 4

Seg #	From	To	Type	Adj. Demand	Vol. Served	Capacity (pc/h)	Capacity (veh/h)	d/c Ratio	v/c ratio	Queue Length (ft)	Avg. Speed (mi/h)	Density (pc/mi/ln)	Density (veh/mi/ln)	Avg. Travel Time (min/veh)	Free-Flow Travel Time (min/veh)	Mainline Delay (min/veh)	System Delay (min/veh)	VMT Demand (veh-min)	VMT Volume (veh-min)	VHT (veh-hrs)	VHD (veh-hrs)	LOS
1	Begin of I-40 EB	B1	Basic Segment	6832	6832	12000	11163	0.61	0.61	0	69.2	21.2	19.8	0.87	0.86	0.0	0.0	1708.0	1708.0	24.7	0.3	C
2	US 70 BUS - B1	D2	Off Ramp	6832	6832	12000	11163	0.61	0.61	0	65.9	22.3	20.7	0.26	0.24	0.0	0.0	485.2	485.2	7.4	0.4	C
3	US 70 BUS - D2	B3	Basic Segment	4938	4938	12000	11163	0.44	0.44	0	69.8	15.2	14.1	0.36	0.36	0.0	0.0	514.4	514.4	7.4	0.0	B
4	US 70 BUS - M4	D4	On Ramp	5133	5133	12000	11163	0.46	0.46	0	65.5	16.8	15.6	0.26	0.24	0.0	0.0	364.6	364.6	5.6	0.4	B
5	US 70 BUS - M4	B5	Basic Segment	5133	5133	12000	11163	0.46	0.46	0	68.8	16.0	14.9	0.03	0.03	0.0	0.0	42.5	42.5	0.6	0.0	B
6	US 70 BUS - B5	M6	On Ramp	5621	5621	12000	11163	0.50	0.50	0	65.5	18.3	17.1	0.26	0.24	0.0	0.0	399.2	399.2	6.1	0.4	B
7	M6	B7	Basic Segment	5621	5621	12000	11163	0.50	0.50	0	74.5	16.2	15.1	1.62	1.61	0.0	0.0	2827.8	2827.8	37.9	0.2	B
8	Toll NC 540 - B7	D8	Off Ramp	5621	5621	12000	11163	0.50	0.50	0	73.8	16.4	15.2	0.23	0.23	0.0	0.0	399.2	399.2	5.4	0.1	B
9	Toll NC 540 - D8	B9	Basic Segment	5033	5033	12000	11181	0.45	0.45	0	74.9	14.4	13.4	0.37	0.37	0.0	0.0	577.9	577.9	7.7	0.0	B
10	Toll NC 540 - B9	D10	Off Ramp	5033	5033	12000	11181	0.45	0.45	0	69.9	15.5	14.4	0.24	0.23	0.0	0.0	357.5	357.5	5.1	0.4	B
11	Toll NC 540 - D10	B11	Basic Segment	3546	3546	12000	11255	0.32	0.32	0	74.7	10.1	9.5	0.32	0.32	0.0	0.0	356.8	356.8	4.8	0.0	A
12	Toll NC 540 - B11	W12	Weaving	3933	3933	9505	8907	0.44	0.44	0	63.5	11.0	10.3	0.31	0.27	0.0	0.0	325.9	325.9	5.1	0.8	B
13	Toll NC 540 - W12	B13	Basic Segment	3202	3202	12000	11301	0.28	0.28	0	74.8	9.1	8.6	0.51	0.51	0.0	0.0	511.7	511.7	6.8	0.0	A
14	Toll NC 540 - M14	M14	On Ramp	4069	4069	12000	11271	0.36	0.36	0	71.0	12.0	11.3	0.24	0.23	0.0	0.0	289.0	289.0	4.1	0.2	B
15	M14	B15	Basic Segment	4069	4069	12000	11271	0.36	0.36	0	74.8	11.6	10.9	0.35	0.35	0.0	0.0	447.9	447.9	6.0	0.0	B
16	NC 42 - B15	D16	Off Ramp	4069	4069	7200	6763	0.60	0.60	0	66.9	21.6	20.3	0.25	0.23	0.0	0.0	289.0	289.0	4.3	0.5	B
17	NC 42 -	B17	Basic Segment	2739	2739	7200	6658	0.41	0.41	0	74.8	13.2	12.2	0.50	0.50	0.0	0.0	428.0	428.0	5.7	0.0	B

	D16																				
18	NC 42 - B17	M18	On Ramp	3199	3199	7200	6610	0.48	0.48	0	69.1	16.5	15.1	0.25	0.23	0.0	0.0	227.2	227.2	3.3	0.3	B
19	M18	End of I-40 EB	Basic Segment	3199	3199	7200	6610	0.48	0.48	0	74.7	15.5	14.3	0.80	0.80	0.0	0.0	799.8	799.8	10.7	0.0	B

Overall Results

Segment	Segment Type	Maximum d/c Ratio	Avg. Speed (mi/h)	Density (pc/mi/ln)	Density (veh/mi/ln)	Avg. Travel Time (min/veh)	Free-Flow Travel Time (min/veh)	VMT Demand (veh-min)	VMT Volume (veh-min)	VHT (veh-hrs)	VHD (veh-hrs)
Begin of I-40 EB-B1	Basic	0.68	68.9	21.3	19.8	0.87	0.86	6,832.0	6,832.0	99.10	1.50
US 70 BUS - B1-D2	OffRamp	0.68	65.8	22.3	20.8	0.26	0.24	1,940.9	1,940.9	29.49	1.77
US 70 BUS - D2-B3	Basic	0.49	69.8	15.2	14.2	0.36	0.36	2,057.5	2,057.5	29.48	0.09
US 70 BUS - M4-D4	OnRamp	0.51	65.5	16.8	15.6	0.26	0.24	1,458.2	1,458.2	22.25	1.42
US 70 BUS - M4-B5	Basic	0.51	68.9	16.0	14.9	0.03	0.03	0,170.1	0,170.1	2.47	0.04
US 70 BUS - B5-M6	OnRamp	0.55	65.5	18.3	17.1	0.26	0.24	1,596.9	1,596.9	24.39	1.58
M6-B7	Basic	0.55	74.4	16.2	15.1	1.62	1.61	11,311.2	11,311.2	152.02	1.21
Toll NC 540 - B7-D8	OffRamp	0.55	73.7	16.4	15.3	0.23	0.23	1,596.9	1,596.9	21.67	0.37
Toll NC 540 - D8-B9	Basic	0.50	74.8	14.4	13.4	0.37	0.37	2,311.6	2,311.6	30.88	0.06
Toll NC 540 - B9-D10	OffRamp	0.50	70.0	15.4	14.4	0.24	0.23	1,429.8	1,429.8	20.44	1.38
Toll NC 540 - D10-B11	Basic	0.35	74.7	10.1	9.5	0.32	0.32	1,427.1	1,427.1	19.10	0.07
Toll NC 540 - B11-W12	Weaving	0.49	63.4	11.0	10.3	0.31	0.27	1,303.6	1,303.6	20.55	3.17
Toll NC 540 - W12-B13	Basic	0.31	74.8	9.1	8.6	0.51	0.51	2,046.7	2,046.7	27.36	0.07
Toll NC 540 - M14-M14	OnRamp	0.40	70.9	12.0	11.3	0.24	0.23	1,156.0	1,156.0	16.30	0.88
M14-B15	Basic	0.40	74.8	11.6	10.9	0.35	0.35	1,791.7	1,791.7	23.95	0.06
NC 42 - B15-D16	OffRamp	0.66	66.9	21.6	20.3	0.25	0.23	1,156.0	1,156.0	17.29	1.88
NC 42 - D16-B17	Basic	0.45	74.8	13.2	12.2	0.50	0.50	1,711.9	1,711.9	22.88	0.05
NC 42 - B17-M18	OnRamp	0.53	69.1	16.5	15.1	0.25	0.23	0,908.8	0,908.8	13.16	1.04
M18-End of I-40 EB	Basic	0.53	74.6	15.6	14.3	0.80	0.80	3,199.0	3,199.0	42.87	0.22
Freeway			71.4	15.5	14.4	8.05	7.84	45,405.9	45,405.9	0,635.6	0,016.8

	Density-Based LOS by Segment														
Segment	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Time Step	Basic	Off Ramp	Basic	On Ramp	Basic	On Ramp	Basic	Off Ramp	Basic	Off Ramp	Basic	Weaving	Basic	On Ramp	Basic
1	C	C	B	B	B	B	B	B	B	B	A	A	A	B	A
2	C	C	B	B	B	B	B	B	B	B	A	B	A	B	B
3	C	C	B	B	B	B	B	B	B	B	B	B	A	B	B
4	C	C	B	B	B	B	B	B	B	B	A	B	A	B	B

	Density-Based LOS by Segment			
Segment	16	17	18	19
Time Step	Off Ramp	Basic	On Ramp	Basic
1	B	B	B	B
2	B	B	B	B
3	C	B	B	B
4	B	B	B	B

	Demand-Based LOS by Segment														
Time Step	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
3	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
4	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

	Demand-Based LOS by Segment			
Time Step	16	17	18	19
1	.	.	.	.
2	.	.	.	.
3	.	.	.	.
4	.	.	.	.

HCS 2010 Freeway Facilities

Project Properties

Analyst	HNTB	**Freeway Name**	I-40 - 2040 Build WB AM	**Analysis Period**	AM Peak
Analysis Date	9/19/2014 1:46:28 PM	**From**	NC 42	**Version Date**	1/20/16
Agency	HNTB	**To**	US 70 Business		
Location	Complete 540	**Analysis Direction**	Westbound/Southbound		
User Notes					
File Name	C:\Temp\preview.xml				

Facility-wide Values

Jam Density (pc/h/ln)	190	**Time Period Duration (min)**	15	**Facility Length (mi)**	**9.27700**

Segment Input Data

Time Period 1

Mainline Data

Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin I-40 WB	B20	Basic Segment	5280	Rolling	2781	9.00	0.00	3	75
2	NC 42 - B20	D21	Off Ramp	1500	Rolling	2781	9.00	0.00	3	75
3	NC 42 - D21	B22	Basic Segment	1350	Rolling	2372	10.21	0.00	3	75
4	NC 42 - B22	M23	On Ramp	1500	Rolling	3408	9.84	0.00	3	75
5	NC 42 - M23	B24	Basic Segment	175	Rolling	3408	9.84	0.00	3	75
6	NC 42 - B24	M25	On Ramp	1500	Rolling	3556	9.81	0.00	3	75
7	M25	B26	Basic Segment	1425	Rolling	3556	9.81	0.00	5	75
8	US 70 - B26	D27	Off Ramp	1500	Rolling	3556	9.81	0.00	5	75
9	US 70 - D27	B28	Basic Segment	100	Rolling	2784	10.86	0.00	5	75
10	US 70 - B28	D29	Off Ramp	1500	Rolling	2784	10.86	0.00	5	75
11	US 70 - D29	B30	Basic Segment	4150	Rolling	2444	11.54	0.00	5	75
12	US 70 - B30	M31	On Ramp	1500	Rolling	3756	9.25	0.00	5	75
13	US 70 - M31	B32	Basic Segment	100	Rolling	3756	9.25	0.00	5	75
14	US 70 - B32	M33	On Ramp	1500	Rolling	4930	8.24	0.00	5	75
15	M33	B34	Basic Segment	13150	Rolling	4930	8.24	0.00	5	75
16	US 70 BUS - B34	D35	Off Ramp	1500	Rolling	4930	8.24	0.00	5	70
17	US 70 BUS - D35	B36	Basic Segment	1825	Rolling	4756	8.36	0.00	5	70
18	US 70 BUS - B36	W37	Weaving	525	Rolling	5146	8.10	0.00	6	70
19	US 70 BUS - W37	B38	Basic Segment	2125	Rolling	4712	8.39	0.00	5	70
20	US 70 BUS - B38	M39	On Ramp	1500	Rolling	6008	7.66	0.00	5	70
21	M39	B40	Basic Segment	5280	Rolling	6008	7.66	0.00	5	70

RampData

Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	Off Ramp	409	2.00	0.00	1	275	50
4	On Ramp	1036	9.00	0.00	1	1350	30
6	On Ramp	148	9.00	0.00	1	325	50
8	Off Ramp	772	6.00	0.00	1	250	50
10	Off Ramp	340	6.00	0.00	1	325	50
12	On Ramp	1312	5.00	0.00	1	650	50
14	On Ramp	1174	5.00	0.00	1	1500	50
16	Off Ramp	174	5.00	0.00	1	325	50
20	On Ramp	1296	5.00	0.00	1	1500	40

Weaving Segment Data

Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp				
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS
18	0.118	390	5.00	0.00	1	50	434	5.00	0.00	1	40

Time Period 2

Mainline Data

RampData

Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin I-40 WB	B20	Basic Segment	5280	Rolling	3128	9.00	0.00	3	75
2	NC 42 - B20	D21	Off Ramp	1500	Rolling	3128	9.00	0.00	3	75
3	NC 42 - D21	B22	Basic Segment	1350	Rolling	2668	10.21	0.00	3	75
4	NC 42 - B22	M23	On Ramp	1500	Rolling	3832	9.84	0.00	3	75
5	NC 42 - M23	B24	Basic Segment	175	Rolling	3832	9.84	0.00	3	75
6	NC 42 - B24	M25	On Ramp	1500	Rolling	3998	9.81	0.00	3	75
7	M25	B26	Basic Segment	1425	Rolling	3998	9.81	0.00	5	75
8	US 70 - B26	D27	Off Ramp	1500	Rolling	3998	9.81	0.00	5	75
9	US 70 - D27	B28	Basic Segment	100	Rolling	3131	10.86	0.00	5	75
10	US 70 - B28	D29	Off Ramp	1500	Rolling	3131	10.86	0.00	5	75
11	US 70 - D29	B30	Basic Segment	4150	Rolling	2749	11.53	0.00	5	75
12	US 70 - B30	M31	On Ramp	1500	Rolling	4223	9.25	0.00	5	75
13	US 70 - M31	B32	Basic Segment	100	Rolling	4223	9.25	0.00	5	75
14	US 70 - B32	M33	On Ramp	1500	Rolling	5542	8.24	0.00	5	75
15	M33	B34	Basic Segment	13150	Rolling	5542	8.24	0.00	5	75
16	US 70 BUS - B34	D35	Off Ramp	1500	Rolling	5542	8.24	0.00	5	70
17	US 70 BUS - D35	B36	Basic Segment	1825	Rolling	5347	8.36	0.00	5	70
18	US 70 BUS - B36	W37	Weaving	525	Rolling	5785	8.11	0.00	6	70
19	US 70 BUS - W37	B38	Basic Segment	2125	Rolling	5297	8.39	0.00	5	70
20	US 70 BUS - B38	M39	On Ramp	1500	Rolling	6753	7.66	0.00	5	70
21	M39	B40	Basic Segment	5280	Rolling	6753	7.66	0.00	5	70

Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	Off Ramp	460	2.00	0.00	1	275	50
4	On Ramp	1164	9.00	0.00	1	1350	30
6	On Ramp	166	9.00	0.00	1	325	50
8	Off Ramp	867	6.00	0.00	1	250	50
10	Off Ramp	382	6.00	0.00	1	325	50
12	On Ramp	1474	5.00	0.00	1	650	50
14	On Ramp	1319	5.00	0.00	1	1500	50
16	Off Ramp	195	5.00	0.00	1	325	50
20	On Ramp	1456	5.00	0.00	1	1500	40

Weaving Segment Data											
Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp				
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS
18	0.118	438	5.00	0.00	1	50	488	5.00	0.00	1	40

Time Period 3

Mainline Data										
Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin I-40 WB	B20	Basic Segment	5280	Rolling	3475	9.00	0.00	3	75
2	NC 42 - B20	D21	Off Ramp	1500	Rolling	3475	9.00	0.00	3	75
3	NC 42 - D21	B22	Basic Segment	1350	Rolling	2964	10.21	0.00	3	75
4	NC 42 - B22	M23	On Ramp	1500	Rolling	4256	9.84	0.00	3	75
5	NC 42 - M23	B24	Basic Segment	175	Rolling	4256	9.84	0.00	3	75
6	NC 42 - B24	M25	On Ramp	1500	Rolling	4440	9.81	0.00	3	75
7	M25	B26	Basic Segment	1425	Rolling	4440	9.81	0.00	5	75
8	US 70 - B26	D27	Off Ramp	1500	Rolling	4440	9.81	0.00	5	75
9	US 70 - D27	B28	Basic Segment	100	Rolling	3478	10.86	0.00	5	75
	US									

RampData							
Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	Off Ramp	511	2.00	0.00	1	275	50
4	On Ramp	1292	9.00	0.00	1	1350	30
6	On Ramp	184	9.00	0.00	1	325	50
8	Off Ramp	962	6.00	0.00	1	250	50
10	Off Ramp	424	6.00	0.00	1	325	50
12	On Ramp	1636	5.00	0.00	1	650	50
14	On Ramp	1464	5.00	0.00	1	1500	50
16	Off Ramp	216	5.00	0.00	1	325	50
20	On Ramp	1616	5.00	0.00	1	1500	40

10	70 - B28	D29	Off Ramp	1500	Rolling	3478	10.86	0.00	5	75
11	US 70 - D29	B30	Basic Segment	4150	Rolling	3054	11.53	0.00	5	75
12	US 70 - B30	M31	On Ramp	1500	Rolling	4690	9.25	0.00	5	75
13	US 70 - M31	B32	Basic Segment	100	Rolling	4690	9.25	0.00	5	75
14	US 70 - B32	M33	On Ramp	1500	Rolling	6154	8.24	0.00	5	75
15	M33	B34	Basic Segment	13150	Rolling	6154	8.24	0.00	5	75
16	US 70 BUS - B34	D35	Off Ramp	1500	Rolling	6154	8.24	0.00	5	70
17	US 70 BUS - D35	B36	Basic Segment	1825	Rolling	5938	8.36	0.00	5	70
18	US 70 BUS - B36	W37	Weaving	525	Rolling	6424	8.11	0.00	6	70
19	US 70 BUS - W37	B38	Basic Segment	2125	Rolling	5882	8.39	0.00	5	70
20	US 70 BUS - B38	M39	On Ramp	1500	Rolling	7498	7.66	0.00	5	70
21	M39	B40	Basic Segment	5280	Rolling	7498	7.66	0.00	5	70

Weaving Segment Data											
Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp				
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS
18	0.118	486	5.00	0.00	1	50	542	5.00	0.00	1	40

Time Period 4

Mainline Data										
Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin I-40 WB	B20	Basic Segment	5280	Rolling	3128	9.00	0.00	3	75
2	NC 42 - B20	D21	Off Ramp	1500	Rolling	3128	9.00	0.00	3	75
3	NC 42 - D21	B22	Basic Segment	1350	Rolling	2668	10.21	0.00	3	75
4	NC 42 - B22	M23	On Ramp	1500	Rolling	3832	9.84	0.00	3	75
5	NC 42 - M23	B24	Basic Segment	175	Rolling	3832	9.84	0.00	3	75
6	NC 42 - B24	M25	On Ramp	1500	Rolling	3998	9.81	0.00	3	75
7	M25	B26	Basic Segment	1425	Rolling	3998	9.81	0.00	5	75
8	US 70 - B26	D27	Off Ramp	1500	Rolling	3998	9.81	0.00	5	75
9	US 70 - D27	B28	Basic Segment	100	Rolling	3131	10.86	0.00	5	75
10	US 70 - B28	D29	Off Ramp	1500	Rolling	3131	10.86	0.00	5	75
11	US 70 - D29	B30	Basic Segment	4150	Rolling	2749	11.53	0.00	5	75
12	US 70 - B30	M31	On Ramp	1500	Rolling	4223	9.25	0.00	5	75
13	US 70 - M31	B32	Basic Segment	100	Rolling	4223	9.25	0.00	5	75
14	US 70 - B32	M33	On Ramp	1500	Rolling	5542	8.24	0.00	5	75
15	M33	B34	Basic Segment	13150	Rolling	5542	8.24	0.00	5	75
16	US 70 BUS - B34	D35	Off Ramp	1500	Rolling	5542	8.24	0.00	5	70
17	US 70 BUS - D35	B36	Basic Segment	1825	Rolling	5347	8.36	0.00	5	70
18	US 70 BUS - B36	W37	Weaving	525	Rolling	5785	8.11	0.00	6	70
	US 70									

RampData							
Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	Off Ramp	460	2.00	0.00	1	275	50
4	On Ramp	1164	9.00	0.00	1	1350	30
6	On Ramp	166	9.00	0.00	1	325	50
8	Off Ramp	867	6.00	0.00	1	250	50
10	Off Ramp	382	6.00	0.00	1	325	50
12	On Ramp	1474	5.00	0.00	1	650	50
14	On Ramp	1319	5.00	0.00	1	1500	50
16	Off Ramp	195	5.00	0.00	1	325	50
20	On Ramp	1456	5.00	0.00	1	1500	40

Weaving Segment Data											
Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp				
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS
18	0.118	438	5.00	0.00	1	50	488	5.00	0.00	1	40

19	BUS - W37	B38	Basic Segment	2125	Rolling	5297	8.39	0.00	5	70
20	US 70 BUS - B38	M39	On Ramp	1500	Rolling	6753	7.66	0.00	5	70
21	M39	B40	Basic Segment	5280	Rolling	6753	7.66	0.00	5	70

Time Period Independent Weaving Segment Data

Seg #	Configuration	Short Length	# Weaving Lanes	Min. Lane Changes Freeway-Ramp	Min. Lane Changes Ramp-Freeway	Min. Lane Changes Ramp-Ramp
18	OneSide	525	2	1	1	0

Time Period Results

Time Period 1

Seg #	From	To	Type	Adj. Demand	Vol. Served	Capacity (pc/h)	Capacity (veh/h)	d/c Ratio	v/c ratio	Queue Length (ft)	Avg. Speed (mi/h)	Density (pc/mi/ln)	Density (veh/mi/ln)	Avg. Travel Time (min/veh)	Free-Flow Travel Time (min/veh)	Mainline Delay (min/veh)	System Delay (min/veh)	VMT Demand (veh-min)	VMT Volume (veh-min)	VHT (veh-hrs)	VHD (veh-hrs)	LOS
1	Begin I-40 WB	B20	Basic Segment	2781	2781	7200	6344	0.44	0.44	0	75.0	14.0	12.4	0.80	0.80	0.0	0.0	695.3	695.3	9.3	0.0	B
2	NC 42 - B20	D21	Off Ramp	2781	2781	7200	6344	0.44	0.44	0	70.1	15.0	13.2	0.24	0.23	0.0	0.0	197.5	197.5	2.8	0.2	C
3	NC 42 - D21	B22	Basic Segment	2372	2372	7200	6244	0.38	0.38	0	74.5	12.2	10.6	0.21	0.20	0.0	0.0	151.6	151.6	2.0	0.0	B
4	NC 42 - B22	M23	On Ramp	3408	3408	7200	6274	0.54	0.54	0	67.0	18.6	16.2	0.25	0.23	0.0	0.0	242.0	242.0	3.6	0.4	B
5	NC 42 - M23	B24	Basic Segment	3408	3408	7200	6274	0.54	0.54	0	72.9	17.9	15.6	0.03	0.03	0.0	0.0	28.2	28.2	0.4	0.0	B
6	NC 42 - B24	M25	On Ramp	3556	3556	7200	6277	0.57	0.57	0	66.5	20.3	17.7	0.26	0.23	0.0	0.0	252.6	252.6	3.8	0.4	C
7	M25	B26	Basic Segment	3556	3556	12000	10461	0.34	0.34	0	74.2	11.0	9.6	0.22	0.22	0.0	0.0	239.9	239.9	3.2	0.0	A
8	US 70 - B26	D27	Off Ramp	3556	3556	12000	10461	0.34	0.34	0	72.4	11.3	9.8	0.24	0.23	0.0	0.0	252.6	252.6	3.5	0.1	B
9	US 70 - D27	B28	Basic Segment	2784	2784	12000	10319	0.27	0.27	0	74.3	8.7	7.5	0.02	0.02	0.0	0.0	13.2	13.2	0.2	0.0	A
10	US 70 - B28	D29	Off Ramp	2784	2784	12000	10319	0.27	0.27	0	73.4	8.8	7.6	0.23	0.23	0.0	0.0	197.7	197.7	2.7	0.1	B
11	US 70 - D29	B30	Basic Segment	2444	2444	12000	10230	0.24	0.24	0	75.0	7.6	6.5	0.63	0.63	0.0	0.0	480.2	480.2	6.4	0.0	A
12	US 70 - B30	M31	On Ramp	3756	3756	12000	10537	0.36	0.36	0	69.2	12.0	10.6	0.25	0.23	0.0	0.0	266.8	266.8	3.9	0.3	B
13	US 70 - M31	B32	Basic Segment	3756	3756	12000	10537	0.36	0.36	0	73.4	11.7	10.2	0.02	0.02	0.0	0.0	17.8	17.8	0.2	0.0	B
14	US 70 - B32	M33	On Ramp	4930	4930	12000	10680	0.46	0.46	0	70.5	15.4	13.7	0.24	0.23	0.0	0.0	350.1	350.1	5.0	0.3	B
15	M33	B34	Basic Segment	4930	4930	12000	10680	0.46	0.46	0	74.9	14.8	13.2	2.00	1.99	0.0	0.0	3069.6	3069.6	41.0	0.1	B
16	US 70 BUS - B34	D35	Off Ramp	4930	4930	12000	10680	0.46	0.46	0	70.0	15.8	14.1	0.24	0.24	0.0	0.0	350.1	350.1	5.0	0.0	B
17	US 70 BUS - D35	B36	Basic Segment	4756	4756	12000	10663	0.45	0.45	0	70.0	15.3	13.6	0.30	0.30	0.0	0.0	411.0	411.0	5.9	0.0	B
18	US 70 BUS - B36	W37	Weaving	5146	5146	12854	11461	0.45	0.45	0	58.7	16.4	14.6	0.10	0.09	0.0	0.0	127.9	127.9	2.2	0.4	B
19	US 70 BUS - W37	B38	Basic Segment	4712	4712	12000	10659	0.44	0.44	0	68.7	15.4	13.7	0.35	0.34	0.0	0.0	474.1	474.1	6.9	0.1	B
20	US 70 BUS - B38	M39	On Ramp	6008	6008	12000	10763	0.56	0.56	0	64.9	20.3	18.2	0.26	0.24	0.0	0.0	426.7	426.7	6.6	0.5	B
21	M39	B40	Basic Segment	6008	6008	12000	10763	0.56	0.56	0	69.8	19.2	17.2	0.86	0.86	0.0	0.0	1502.0	1502.0	21.5	0.1	C

Time Period 2

Seg #	From	To	Type	Adj. Demand	Vol. Served	Capacity (pc/h)	Capacity (veh/h)	d/c Ratio	v/c ratio	Queue Length (ft)	Avg. Speed (mi/h)	Density (pc/mi/ln)	Density (veh/mi/ln)	Avg. Travel Time (min/veh)	Free-Flow Travel Time (min/veh)	Mainline Delay (min/veh)	System Delay (min/veh)	VMT Demand (veh-min)	VMT Volume (veh-min)	VHT (veh-hrs)	VHD (veh-hrs)	LOS

1	Begin I-40 WB	B20	Basic Segment	3128	3128	7200	6344	0.49	0.49	0	74.6	15.9	14.0	0.80	0.80	0.0	0.0	782.0	782.0	10.5	0.1	B
2	NC 42 - B20	D21	Off Ramp	3128	3128	7200	6344	0.49	0.49	0	69.9	16.9	14.9	0.24	0.23	0.0	0.0	222.2	222.2	3.2	0.2	C
3	NC 42 - D21	B22	Basic Segment	2668	2668	7200	6244	0.43	0.43	0	74.5	13.8	11.9	0.21	0.20	0.0	0.0	170.5	170.5	2.3	0.0	B
4	NC 42 - B22	M23	On Ramp	3832	3832	7200	6274	0.61	0.61	0	66.3	21.2	18.5	0.26	0.23	0.0	0.0	272.2	272.2	4.1	0.5	C
5	NC 42 - M23	B24	Basic Segment	3832	3832	7200	6274	0.61	0.61	0	72.6	20.2	17.6	0.03	0.03	0.0	0.0	31.8	31.8	0.4	0.0	C
6	NC 42 - B24	M25	On Ramp	3998	3998	7200	6277	0.64	0.64	0	65.9	23.1	20.1	0.26	0.23	0.0	0.0	283.9	283.9	4.3	0.5	C
7	M25	B26	Basic Segment	3998	3998	12000	10461	0.38	0.38	0	74.1	12.4	10.8	0.22	0.22	0.0	0.0	269.8	269.8	3.6	0.0	B
8	US 70 - B26	D27	Off Ramp	3998	3998	12000	10461	0.38	0.38	0	72.2	12.7	11.1	0.24	0.23	0.0	0.0	283.9	283.9	3.9	0.1	C
9	US 70 - D27	B28	Basic Segment	3131	3131	12000	10319	0.30	0.30	0	74.2	9.8	8.4	0.02	0.02	0.0	0.0	14.8	14.8	0.2	0.0	A
10	US 70 - B28	D29	Off Ramp	3131	3131	12000	10319	0.30	0.30	0	73.3	9.9	8.5	0.23	0.23	0.0	0.0	222.4	222.4	3.0	0.1	B
11	US 70 - D29	B30	Basic Segment	2749	2749	12000	10230	0.27	0.27	0	75.0	8.6	7.3	0.63	0.63	0.0	0.0	540.2	540.2	7.2	0.0	A
12	US 70 - B30	M31	On Ramp	4223	4223	12000	10537	0.40	0.40	0	68.9	13.6	11.9	0.25	0.23	0.0	0.0	299.9	299.9	4.4	0.4	C
13	US 70 - M31	B32	Basic Segment	4223	4223	12000	10537	0.40	0.40	0	73.3	13.1	11.5	0.02	0.02	0.0	0.0	20.0	20.0	0.3	0.0	B
14	US 70 - B32	M33	On Ramp	5542	5542	12000	10680	0.52	0.52	0	70.0	17.5	15.5	0.24	0.23	0.0	0.0	393.6	393.6	5.6	0.4	B
15	M33	B34	Basic Segment	5542	5542	12000	10680	0.52	0.52	0	74.3	16.8	14.9	2.01	1.99	0.0	0.0	3450.6	3450.6	46.4	0.4	B
16	US 70 BUS - B34	D35	Off Ramp	5542	5542	12000	10680	0.52	0.52	0	70.0	17.8	15.8	0.24	0.24	0.0	0.0	393.6	393.6	5.6	0.0	C
17	US 70 BUS - D35	B36	Basic Segment	5347	5347	12000	10663	0.50	0.50	0	70.0	17.2	15.3	0.30	0.30	0.0	0.0	462.0	462.0	6.6	0.0	B
18	US 70 BUS - B36	W37	Weaving	5785	5785	12854	11461	0.50	0.50	0	57.4	18.8	16.8	0.10	0.09	0.0	0.0	143.8	143.8	2.5	0.5	B
19	US 70 BUS - W37	B38	Basic Segment	5297	5297	12000	10658	0.50	0.50	0	68.5	17.4	15.5	0.35	0.34	0.0	0.0	533.0	533.0	7.8	0.2	B
20	US 70 BUS - B38	M39	On Ramp	6753	6753	12000	10763	0.63	0.63	0	64.3	23.0	20.7	0.27	0.24	0.0	0.0	479.6	479.6	7.5	0.6	C
21	M39	B40	Basic Segment	6753	6753	12000	10763	0.63	0.63	0	68.9	21.8	19.6	0.87	0.86	0.0	0.0	1688.3	1688.3	24.5	0.4	C

Time Period 3

Seg #	From	To	Type	Adj. Demand	Vol. Served	Capacity (pc/h)	Capacity (veh/h)	d/c Ratio	v/c ratio	Queue Length (ft)	Avg. Speed (mi/h)	Density (pc/mi/ln)	Density (veh/mi/ln)	Avg. Travel Time (min/veh)	Free-Flow Travel Time (min/veh)	Mainline Delay (min/veh)	System Delay (min/veh)	VMT Demand (veh-min)	VMT Volume (veh-min)	VHT (veh-hrs)	VHD (veh-hrs)	LOS
1	Begin I-40 WB	B20	Basic Segment	3475	3475	7200	6344	0.55	0.55	0	73.9	17.8	15.7	0.81	0.80	0.0	0.0	868.8	868.8	11.8	0.2	B
2	NC 42 - B20	D21	Off Ramp	3475	3475	7200	6344	0.55	0.55	0	69.7	18.9	16.6	0.24	0.23	0.0	0.0	246.8	246.8	3.5	0.3	C
3	NC 42 - D21	B22	Basic Segment	2964	2964	7200	6244	0.47	0.47	0	74.5	15.3	13.3	0.21	0.20	0.0	0.0	189.5	189.5	2.5	0.0	B
4	NC 42 - B22	M23	On Ramp	4256	4256	7200	6274	0.68	0.68	0	65.3	23.9	20.8	0.26	0.23	0.0	0.0	302.3	302.3	4.6	0.6	C
5	NC 42 - M23	B24	Basic Segment	4256	4256	7200	6274	0.68	0.68	0	70.6	23.0	20.1	0.03	0.03	0.0	0.0	35.3	35.3	0.5	0.0	C
6	NC 42 - B24	M25	On Ramp	4440	4440	7200	6277	0.71	0.71	0	65.0	26.0	22.6	0.26	0.23	0.0	0.0	315.3	315.3	4.8	0.6	D
7	M25	B26	Basic Segment	4440	4440	12000	10461	0.42	0.42	0	74.1	13.8	12.0	0.22	0.22	0.0	0.0	299.6	299.6	4.0	0.1	B
8	US 70 - B26	D27	Off Ramp	4440	4440	12000	10461	0.42	0.42	0	72.0	14.2	12.3	0.24	0.23	0.0	0.0	315.3	315.3	4.4	0.2	C
9	US 70 - D27	B28	Basic Segment	3478	3478	12000	10319	0.34	0.34	0	74.2	10.9	9.4	0.02	0.02	0.0	0.0	16.5	16.5	0.2	0.0	A
10	US 70 - B28	D29	Off Ramp	3478	3478	12000	10319	0.34	0.34	0	73.9	10.9	9.4	0.23	0.23	0.0	0.0	247.0	247.0	3.3	0.0	B
11	US 70 - D29	B30	Basic Segment	3054	3054	12000	10230	0.30	0.30	0	75.0	9.6	8.1	0.63	0.63	0.0	0.0	600.1	600.1	8.0	0.0	A

12	US 70 - B30	M31	On Ramp	4690	4690	12000	10537	0.45	0.45	0	68.4	15.2	13.3	0.25	0.23	0.0	0.0	333.1	333.1	4.9	0.4	C
13	US 70 - M31	B32	Basic Segment	4690	4690	12000	10537	0.45	0.45	0	73.2	14.6	12.8	0.02	0.02	0.0	0.0	22.2	22.2	0.3	0.0	B
14	US 70 - B32	M33	On Ramp	6154	6154	12000	10680	0.58	0.58	0	69.4	19.6	17.4	0.25	0.23	0.0	0.0	437.1	437.1	6.3	0.5	C
15	M33	B34	Basic Segment	6154	6154	12000	10680	0.58	0.58	0	73.4	18.8	16.8	2.04	1.99	0.0	0.0	3831.7	3831.7	52.2	1.1	C
16	US 70 BUS - B34	D35	Off Ramp	6154	6154	12000	10680	0.58	0.58	0	69.9	19.8	17.6	0.24	0.24	0.0	0.0	437.1	437.1	6.3	0.0	C
17	US 70 BUS - D35	B36	Basic Segment	5938	5938	12000	10663	0.56	0.56	0	69.8	19.2	17.0	0.30	0.30	0.0	0.0	513.1	513.1	7.4	0.0	C
18	US 70 BUS - B36	W37	Weaving	6424	6424	12854	11461	0.56	0.56	0	56.1	21.4	19.1	0.11	0.09	0.0	0.0	159.7	159.7	2.8	0.6	C
19	US 70 BUS - W37	B38	Basic Segment	5882	5882	12000	10658	0.55	0.55	0	68.4	19.4	17.2	0.35	0.34	0.0	0.0	591.8	591.8	8.7	0.2	C
20	US 70 BUS - B38	M39	On Ramp	7498	7498	12000	10763	0.70	0.70	0	63.3	26.0	23.3	0.27	0.24	0.0	0.0	532.5	532.5	8.4	0.8	C
21	M39	B40	Basic Segment	7498	7498	12000	10763	0.70	0.70	0	67.4	24.8	22.2	0.89	0.86	0.0	0.0	1874.5	1874.5	27.8	1.0	C

Time Period 4

Seg #	From	To	Type	Adj. Demand	Vol. Served	Capacity (pc/h)	Capacity (veh/h)	d/c Ratio	v/c ratio	Queue Length (ft)	Avg. Speed (mi/h)	Density (pc/mi/ln)	Density (veh/mi/ln)	Avg. Travel Time (min/veh)	Free-Flow Travel Time (min/veh)	Mainline Delay (min/veh)	System Delay (min/veh)	VMT Demand (veh-min)	VMT Volume (veh-min)	VHT (veh-hrs)	VHD (veh-hrs)	LOS
1	Begin I-40 WB	B20	Basic Segment	3128	3128	7200	6344	0.49	0.49	0	74.6	15.9	14.0	0.80	0.80	0.0	0.0	782.0	782.0	10.5	0.1	B
2	NC 42 - B20	D21	Off Ramp	3128	3128	7200	6344	0.49	0.49	0	69.9	16.9	14.9	0.24	0.23	0.0	0.0	222.2	222.2	3.2	0.2	C
3	NC 42 - D21	B22	Basic Segment	2668	2668	7200	6244	0.43	0.43	0	74.5	13.8	11.9	0.21	0.20	0.0	0.0	170.5	170.5	2.3	0.0	B
4	NC 42 - B22	M23	On Ramp	3832	3832	7200	6274	0.61	0.61	0	66.3	21.2	18.5	0.26	0.23	0.0	0.0	272.2	272.2	4.1	0.5	C
5	NC 42 - M23	B24	Basic Segment	3832	3832	7200	6274	0.61	0.61	0	72.6	20.2	17.6	0.03	0.03	0.0	0.0	31.8	31.8	0.4	0.0	C
6	NC 42 - B24	M25	On Ramp	3998	3998	7200	6277	0.64	0.64	0	65.9	23.1	20.1	0.26	0.23	0.0	0.0	283.9	283.9	4.3	0.5	C
7	M25	B26	Basic Segment	3998	3998	12000	10461	0.38	0.38	0	74.1	12.4	10.8	0.22	0.22	0.0	0.0	269.8	269.8	3.6	0.0	B
8	US 70 - B26	D27	Off Ramp	3998	3998	12000	10461	0.38	0.38	0	72.2	12.7	11.1	0.24	0.23	0.0	0.0	283.9	283.9	3.9	0.1	C
9	US 70 - D27	B28	Basic Segment	3131	3131	12000	10319	0.30	0.30	0	74.2	9.8	8.4	0.02	0.02	0.0	0.0	14.8	14.8	0.2	0.0	A
10	US 70 - B28	D29	Off Ramp	3131	3131	12000	10319	0.30	0.30	0	73.3	9.9	8.5	0.23	0.23	0.0	0.0	222.4	222.4	3.0	0.1	B
11	US 70 - D29	B30	Basic Segment	2749	2749	12000	10230	0.27	0.27	0	75.0	8.6	7.3	0.63	0.63	0.0	0.0	540.2	540.2	7.2	0.0	A
12	US 70 - B30	M31	On Ramp	4223	4223	12000	10537	0.40	0.40	0	68.9	13.6	11.9	0.25	0.23	0.0	0.0	299.9	299.9	4.4	0.4	C
13	US 70 - M31	B32	Basic Segment	4223	4223	12000	10537	0.40	0.40	0	73.3	13.1	11.5	0.02	0.02	0.0	0.0	20.0	20.0	0.3	0.0	B
14	US 70 - B32	M33	On Ramp	5542	5542	12000	10680	0.52	0.52	0	70.0	17.5	15.5	0.24	0.23	0.0	0.0	393.6	393.6	5.6	0.4	B
15	M33	B34	Basic Segment	5542	5542	12000	10680	0.52	0.52	0	74.3	16.8	14.9	2.01	1.99	0.0	0.0	3450.6	3450.6	46.4	0.4	B
16	US 70 BUS - B34	D35	Off Ramp	5542	5542	12000	10680	0.52	0.52	0	70.0	17.8	15.8	0.24	0.24	0.0	0.0	393.6	393.6	5.6	0.0	C
17	US 70 BUS - D35	B36	Basic Segment	5347	5347	12000	10663	0.50	0.50	0	70.0	17.2	15.3	0.30	0.30	0.0	0.0	462.0	462.0	6.6	0.0	B
18	US 70 BUS - B36	W37	Weaving	5785	5785	12854	11461	0.50	0.50	0	57.4	18.8	16.8	0.10	0.09	0.0	0.0	143.8	143.8	2.5	0.5	B
19	US 70 BUS - W37	B38	Basic Segment	5297	5297	12000	10658	0.50	0.50	0	68.5	17.4	15.5	0.35	0.34	0.0	0.0	533.0	533.0	7.8	0.2	B
20	US 70 BUS - B38	M39	On Ramp	6753	6753	12000	10763	0.63	0.63	0	64.3	23.0	20.7	0.27	0.24	0.0	0.0	479.6	479.6	7.5	0.6	C
			Basic																			

21	M39	B40	Segment	6753	6753	12000	10763	0.63	0.63	0	68.9	21.8	19.6	0.87	0.86	0.0	0.0	1688.3	1688.3	24.5	0.4	C

Overall Results

Segment	Segment Type	Maximum d/c Ratio	Avg. Speed (mi/h)	Density (pc/mi/ln)	Density (veh/mi/ln)	Avg. Travel Time (min/veh)	Free-Flow Travel Time (min/veh)	VMT Demand (veh-min)	VMT Volume (veh-min)	VHT (veh-hrs)	VHD (veh-hrs)
Begin I-40 WB-B20	Basic	0.55	74.5	15.9	14.0	0.81	0.80	3,128.0	3,128.0	41.99	0.28
NC 42 - B20-D21	OffRamp	0.55	69.9	16.9	14.9	0.24	0.23	0,888.6	0,888.6	12.71	0.86
NC 42 - D21-B22	Basic	0.47	74.5	13.8	11.9	0.21	0.20	0,682.2	0,682.2	9.16	0.06
NC 42 - B22-M23	OnRamp	0.68	66.2	21.2	18.5	0.26	0.23	1,088.6	1,088.6	16.46	1.94
NC 42 - M23-B24	Basic	0.68	72.1	20.3	17.7	0.03	0.03	0,127.0	0,127.0	1.76	0.07
NC 42 - B24-M25	OnRamp	0.71	65.8	23.1	20.1	0.26	0.23	1,135.8	1,135.8	17.27	2.12
M25-B26	Basic	0.42	74.1	12.4	10.8	0.22	0.22	1,079.0	1,079.0	14.55	0.17
US 70 - B26-D27	OffRamp	0.42	72.2	12.7	11.1	0.24	0.23	1,135.8	1,135.8	15.74	0.60
US 70 - D27-B28	Basic	0.34	74.2	9.8	8.4	0.02	0.02	0,059.3	0,059.3	0.80	0.01
US 70 - B28-D29	OffRamp	0.34	73.5	9.9	8.5	0.23	0.23	0,889.5	0,889.5	12.11	0.25
US 70 - D29-B30	Basic	0.30	75.0	8.6	7.3	0.63	0.63	2,160.7	2,160.7	28.81	0.01
US 70 - B30-M31	OnRamp	0.45	68.8	13.6	11.9	0.25	0.23	1,199.7	1,199.7	17.43	1.43
US 70 - M31-B32	Basic	0.45	73.3	13.1	11.5	0.02	0.02	0,080.0	0,080.0	1.09	0.02
US 70 - B32-M33	OnRamp	0.58	69.9	17.5	15.6	0.24	0.23	1,574.4	1,574.4	22.51	1.52
M33-B34	Basic	0.58	74.2	16.8	14.9	2.01	1.99	13,802.5	13,802.5	186.06	2.03
US 70 BUS - B34-D35	OffRamp	0.58	70.0	17.8	15.8	0.24	0.24	1,574.4	1,574.4	22.50	0.01
US 70 BUS - D35-B36	Basic	0.56	69.9	17.2	15.3	0.30	0.30	1,848.2	1,848.2	26.42	0.02
US 70 BUS - B36-W37	Weaving	0.56	57.3	18.9	16.8	0.10	0.09	0,575.2	0,575.2	10.04	1.82
US 70 BUS - W37-B38	Basic	0.55	68.5	17.4	15.5	0.35	0.34	2,131.8	2,131.8	31.11	0.66
US 70 BUS - B38-M39	OnRamp	0.70	64.1	23.1	20.7	0.27	0.24	1,918.5	1,918.5	29.91	2.50
M39-B40	Basic	0.70	68.7	21.9	19.7	0.87	0.86	6,753.0	6,753.0	98.33	1.85
Freeway			71.1	16.4	14.6	7.79	7.56	43,832.3	43,832.3	0,616.8	0,018.2

	Density-Based LOS by Segment														
Segment	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Time Step	Basic	Off Ramp	Basic	On Ramp	Basic	On Ramp	Basic	Off Ramp	Basic	Off Ramp	Basic	On Ramp	Basic	On Ramp	Basic
1	B	C	B	B	B	C	A	B	A	B	A	B	B	B	B
2	B	C	B	C	C	C	B	C	A	B	A	C	B	B	B
3	B	C	B	C	C	D	B	C	A	B	A	C	B	C	C
4	B	C	B	C	C	C	B	C	A	B	A	C	B	B	B

	Density-Based LOS by Segment					
Segment	16	17	18	19	20	21
Time Step	Off Ramp	Basic	Weaving	Basic	On Ramp	Basic
1	B	B	B	B	B	C
2	C	B	B	B	C	C
3	C	C	C	C	C	C
4	C	B	B	B	C	C

	Demand-Based LOS by Segment														
Time Step	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
3	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
4	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

	Demand-Based LOS by Segment					
Time Step	16	17	18	19	20	21
1	.	.	.	.	.	.
2	.	.	.	.	.	.
3	.	.	.	.	.	.
4	.	.	.	.	.	.

HCS 2010 Freeway Facilities

Project Properties

Analyst	HNTB	**Freeway Name**	I-40 - 2040 Build WB PM	**Analysis Period**	PM Peak
Analysis Date	9/19/2014 1:46:28 PM	**From**	NC 42	**Version Date**	1/20/16
Agency	HNTB	**To**	US 70 Business		
Location	Complete 540	**Analysis Direction**	Westbound/Southbound		
User Notes					
File Name	C:\Temp\preview.xml				

Facility-wide Values

Jam Density (pc/h/ln)	190	**Time Period Duration (min)**	15	**Facility Length (mi)**	**9.27700**

Segment Input Data

Time Period 1

Mainline Data

Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin I-40 WB	B20	Basic Segment	5280	Rolling	1850	9.00	0.00	3	75
2	NC 42 - B20	D21	Off Ramp	1500	Rolling	1850	9.00	0.00	3	75
3	NC 42 - D21	B22	Basic Segment	1350	Rolling	1544	10.39	0.00	3	75
4	NC 42 - B22	M23	On Ramp	1500	Rolling	2225	9.96	0.00	3	75
5	NC 42 - M23	B24	Basic Segment	175	Rolling	2225	9.96	0.00	3	75
6	NC 42 - B24	M25	On Ramp	1500	Rolling	2376	9.90	0.00	3	75
7	M25	B26	Basic Segment	1425	Rolling	2376	9.90	0.00	5	75
8	US 70 - B26	D27	Off Ramp	1500	Rolling	2376	9.90	0.00	5	75
9	US 70 - D27	B28	Basic Segment	100	Rolling	1867	10.97	0.00	5	75
10	US 70 - B28	D29	Off Ramp	1500	Rolling	1867	10.97	0.00	5	75
11	US 70 - D29	B30	Basic Segment	4150	Rolling	1513	12.13	0.00	5	75
12	US 70 - B30	M31	On Ramp	1500	Rolling	2309	9.67	0.00	5	75
13	US 70 - M31	B32	Basic Segment	100	Rolling	2309	9.67	0.00	5	75
14	US 70 - B32	M33	On Ramp	1500	Rolling	3315	8.25	0.00	5	75
15	M33	B34	Basic Segment	13150	Rolling	3315	8.25	0.00	5	75
16	US 70 BUS - B34	D35	Off Ramp	1500	Rolling	3315	8.25	0.00	5	70
17	US 70 BUS - D35	B36	Basic Segment	1825	Rolling	3165	8.41	0.00	5	70
18	US 70 BUS - B36	W37	Weaving	525	Rolling	3523	8.06	0.00	6	70

RampData

Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	Off Ramp	306	2.00	0.00	1	275	50
4	On Ramp	681	9.00	0.00	1	1350	30
6	On Ramp	151	9.00	0.00	1	325	50
8	Off Ramp	509	6.00	0.00	1	250	50
10	Off Ramp	354	6.00	0.00	1	325	50
12	On Ramp	796	5.00	0.00	1	650	50
14	On Ramp	1006	5.00	0.00	1	1500	50
16	Off Ramp	150	5.00	0.00	1	325	50
20	On Ramp	967	5.00	0.00	1	1500	40

Weaving Segment Data

Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp				
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS

19	US 70 BUS - W37	B38	Basic Segment	2125	Rolling	3220	8.35	0.00	5	70
20	US 70 BUS - B38	M39	On Ramp	1500	Rolling	4187	7.58	0.00	5	70
21	M39	B40	Basic Segment	5280	Rolling	4187	7.58	0.00	5	70

18	0.093	358	5.00	0.00	1	50	303	5.00	0.00	1	40

Time Period 2

Mainline Data

Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin I-40 WB	B20	Basic Segment	5280	Rolling	2081	9.00	0.00	3	75
2	NC 42 - B20	D21	Off Ramp	1500	Rolling	2081	9.00	0.00	3	75
3	NC 42 - D21	B22	Basic Segment	1350	Rolling	1737	10.39	0.00	3	75
4	NC 42 - B22	M23	On Ramp	1500	Rolling	2502	9.96	0.00	3	75
5	NC 42 - M23	B24	Basic Segment	175	Rolling	1000	9.96	0.00	3	75
6	NC 42 - B24	M25	On Ramp	1500	Rolling	2672	9.90	0.00	3	75
7	M25	B26	Basic Segment	1425	Rolling	1000	9.90	0.00	5	75
8	US 70 - B26	D27	Off Ramp	1500	Rolling	2672	9.90	0.00	5	75
9	US 70 - D27	B28	Basic Segment	100	Rolling	1000	10.96	0.00	5	75
10	US 70 - B28	D29	Off Ramp	1500	Rolling	2100	10.96	0.00	5	75
11	US 70 - D29	B30	Basic Segment	4150	Rolling	1000	12.12	0.00	5	75
12	US 70 - B30	M31	On Ramp	1500	Rolling	2596	9.67	0.00	5	75
13	US 70 - M31	B32	Basic Segment	100	Rolling	1000	9.67	0.00	5	75
14	US 70 - B32	M33	On Ramp	1500	Rolling	3726	8.25	0.00	5	75
15	M33	B34	Basic Segment	13150	Rolling	1000	8.25	0.00	5	75
16	US 70 BUS - B34	D35	Off Ramp	1500	Rolling	3726	8.25	0.00	5	70
17	US 70 BUS - D35	B36	Basic Segment	1825	Rolling	1000	8.41	0.00	5	70
18	US 70 BUS - B36	W37	Weaving	525	Rolling	3960	8.06	0.00	6	70
19	US 70 BUS - W37	B38	Basic Segment	2125	Rolling	1000	8.35	0.00	5	70
20	US 70 BUS - B38	M39	On Ramp	1500	Rolling	4705	7.58	0.00	5	70
21	M39	B40	Basic Segment	5280	Rolling	1000	7.58	0.00	5	70

RampData

Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	Off Ramp	344	2.00	0.00	1	275	50
4	On Ramp	765	9.00	0.00	1	1350	30
6	On Ramp	170	9.00	0.00	1	325	50
8	Off Ramp	572	6.00	0.00	1	250	50
10	Off Ramp	398	6.00	0.00	1	325	50
12	On Ramp	894	5.00	0.00	1	650	50
14	On Ramp	1130	5.00	0.00	1	1500	50
16	Off Ramp	168	5.00	0.00	1	325	50
20	On Ramp	1086	5.00	0.00	1	1500	40

Weaving Segment Data

Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp				
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS
18	0.093	402	5.00	0.00	1	50	341	5.00	0.00	1	40

Time Period 3

Mainline Data										
Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin I-40 WB	B20	Basic Segment	5280	Rolling	2312	9.00	0.00	3	75
2	NC 42 - B20	D21	Off Ramp	1500	Rolling	3000	9.00	0.00	3	75
3	NC 42 - D21	B22	Basic Segment	1350	Rolling	1000	10.96	0.00	3	75
4	NC 42 - B22	M23	On Ramp	1500	Rolling	2878	9.25	0.00	3	75
5	NC 42 - M23	B24	Basic Segment	175	Rolling	1000	9.25	0.00	3	75
6	NC 42 - B24	M25	On Ramp	1500	Rolling	3222	8.59	0.00	3	75
7	M25	B26	Basic Segment	1425	Rolling	1000	8.59	0.00	5	75
8	US 70 - B26	D27	Off Ramp	1500	Rolling	3222	8.59	0.00	5	75
9	US 70 - D27	B28	Basic Segment	100	Rolling	1000	8.72	0.00	5	75
10	US 70 - B28	D29	Off Ramp	1500	Rolling	2620	8.72	0.00	5	75
11	US 70 - D29	B30	Basic Segment	4150	Rolling	1000	9.59	0.00	5	75
12	US 70 - B30	M31	On Ramp	1500	Rolling	2813	8.40	0.00	5	75
13	US 70 - M31	B32	Basic Segment	100	Rolling	1000	8.40	0.00	5	75
14	US 70 - B32	M33	On Ramp	1500	Rolling	3766	8.55	0.00	5	75
15	M33	B34	Basic Segment	13150	Rolling	1000	8.55	0.00	5	75
16	US 70 BUS - B34	D35	Off Ramp	1500	Rolling	3766	8.55	0.00	5	70
17	US 70 BUS - D35	B36	Basic Segment	1825	Rolling	1000	8.62	0.00	5	70
18	US 70 BUS - B36	W37	Weaving	525	Rolling	4449	7.85	0.00	6	70
19	US 70 BUS - W37	B38	Basic Segment	2125	Rolling	1000	8.25	0.00	5	70
20	US 70 BUS - B38	M39	On Ramp	1500	Rolling	5418	7.16	0.00	5	70
21	M39	B40	Basic Segment	5280	Rolling	1000	7.16	0.00	5	70

RampData							
Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	Off Ramp	382	2.00	0.00	1	275	50
4	On Ramp	849	9.00	0.00	1	1350	30
6	On Ramp	189	9.00	0.00	1	325	50
8	Off Ramp	635	6.00	0.00	1	250	50
10	Off Ramp	442	6.00	0.00	1	325	50
12	On Ramp	992	5.00	0.00	1	650	50
14	On Ramp	1254	5.00	0.00	1	1500	50
16	Off Ramp	186	5.00	0.00	1	325	50
20	On Ramp	1205	5.00	0.00	1	1500	40

Weaving Segment Data											
Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp				
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS
18	0.093	446	5.00	0.00	1	50	379	5.00	0.00	1	40

Time Period 4

Mainline Data										
Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin I-40 WB	B20	Basic Segment	5280	Rolling	2081	9.00	0.00	3	75
2	NC 42 - B20	D21	Off Ramp	1500	Rolling	2700	9.00	0.00	3	75

RampData							
Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	Off Ramp	344	2.00	0.00	1	275	50
4	On Ramp	765	9.00	0.00	1	1350	30
6	On	170	9.00	0.00	1	325	50

3	NC 42 - D21	B22	Basic Segment	1350	Rolling	1000	10.96	0.00	3	75
4	NC 42 - B22	M23	On Ramp	1500	Rolling	2590	9.25	0.00	3	75
5	NC 42 - M23	B24	Basic Segment	175	Rolling	1000	9.25	0.00	3	75
6	NC 42 - B24	M25	On Ramp	1500	Rolling	2900	8.59	0.00	3	75
7	M25	B26	Basic Segment	1425	Rolling	1000	8.59	0.00	5	75
8	US 70 - B26	D27	Off Ramp	1500	Rolling	2900	8.59	0.00	5	75
9	US 70 - D27	B28	Basic Segment	100	Rolling	1000	8.72	0.00	5	75
10	US 70 - B28	D29	Off Ramp	1500	Rolling	2358	8.72	0.00	5	75
11	US 70 - D29	B30	Basic Segment	4150	Rolling	1000	9.59	0.00	5	75
12	US 70 - B30	M31	On Ramp	1500	Rolling	2532	8.40	0.00	5	75
13	US 70 - M31	B32	Basic Segment	100	Rolling	1000	8.40	0.00	5	75
14	US 70 - B32	M33	On Ramp	1500	Rolling	3391	8.55	0.00	5	75
15	M33	B34	Basic Segment	13150	Rolling	1000	8.55	0.00	5	75
16	US 70 BUS - B34	D35	Off Ramp	1500	Rolling	3391	8.55	0.00	5	70
17	US 70 BUS - D35	B36	Basic Segment	1825	Rolling	1000	8.62	0.00	5	70
18	US 70 BUS - B36	W37	Weaving	525	Rolling	4006	7.85	0.00	6	70
19	US 70 BUS - W37	B38	Basic Segment	2125	Rolling	1000	8.25	0.00	5	70
20	US 70 BUS - B38	M39	On Ramp	1500	Rolling	4879	7.16	0.00	5	70
21	M39	B40	Basic Segment	5280	Rolling	1000	7.16	0.00	5	75

	Ramp					
8	Off Ramp	572	6.00	0.00	1	250	50
10	Off Ramp	398	6.00	0.00	1	325	50
12	On Ramp	894	5.00	0.00	1	650	50
14	On Ramp	1130	5.00	0.00	1	1500	50
16	Off Ramp	168	5.00	0.00	1	325	50
20	On Ramp	1086	5.00	0.00	1	1500	40

Weaving Segment Data											
Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp				
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS
18	0.093	402	5.00	0.00	1	50	341	5.00	0.00	1	40

Time Period Independent Weaving Segment Data

Seg #	Configuration	Short Length	# Weaving Lanes	Min. Lane Changes Freeway-Ramp	Min. Lane Changes Ramp-Freeway	Min. Lane Changes Ramp-Ramp
18	OneSide	525	2	1	1	0

HCS 2010 Freeway Facilities

Project Properties

Analyst	HNTB	**Freeway Name**	US 70 - 2040 Build EB AM	**Analysis Period**	AM Peak
Analysis Date	9/19/2014 11:24:07 AM	**From**	US 70	**Version Date**	1/20/16
Agency	HNTB	**To**	NC 42		
Location	Complete 540	**Analysis Direction**	Eastbound/Northbound		
User Notes					
File Name	C:\Temp\preview.xml				

Facility-wide Values

Jam Density (pc/h/ln)	190	**Time Period Duration (min)**	15	**Facility Length (mi)**	**5.84900**

Segment Input Data

Time Period 1

Mainline Data

Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin of US 70 EB	B1	Basic Segment	5280	Rolling	784	5.00	0.00	2	75
2	US 70 - B1	M2	On Ramp	1500	Rolling	1075	5.00	0.00	2	75
3	US 70 - M2	B3	Basic Segment	375	Rolling	1075	5.00	0.00	2	75
4	US 70 - B3	M4	On Ramp	1500	Rolling	1415	5.00	0.00	2	75
5	US 70 - M4	B5	Basic Segment	4050	Rolling	1415	5.00	0.00	2	75
6	US 70 - B5	M6	On Ramp	1500	Rolling	1894	5.00	0.00	2	75
7	M6	B7	Basic Segment	5000	Rolling	1894	5.00	0.00	2	75
8	NC 42 - B7	D8	Off Ramp	1500	Rolling	1894	5.00	0.00	2	75
9	NC 42 - D8	B9	Basic Segment	3400	Rolling	1161	6.89	0.00	2	75
10	NC 42 - B9	M10	On Ramp	1500	Rolling	1553	6.42	0.00	2	75
11	M10	End of US 70 EB	Basic Segment	5280	Rolling	1553	6.42	0.00	2	75

RampData

Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	On Ramp	291	5.00	0.00	1	1250	30
4	On Ramp	340	5.00	0.00	1	750	50
6	On Ramp	479	5.00	0.00	1	900	50
8	Off Ramp	733	2.00	0.00	1	275	50
10	On Ramp	392	5.00	0.00	1	650	50

Weaving Segment Data

Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp				
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS

Time Period 2

Mainline Data

Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin of US 70 EB	B1	Basic Segment	5280	Rolling	882	5.00	0.00	2	75
2	US 70 - B1	M2	On Ramp	1500	Rolling	1209	5.00	0.00	2	75
3	US 70 -	B3	Basic Segment	375	Rolling	1209	5.00	0.00	2	75

RampData

Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	On Ramp	327	5.00	0.00	1	1250	30
4	On Ramp	382	5.00	0.00	1	750	50
6	On Ramp	538	5.00	0.00	1	900	50
8	Off Ramp	824	2.00	0.00	1	275	50

	M2									
4	US 70 - B3	M4	On Ramp	1500	Rolling	1591	5.00	0.00	2	75
5	US 70 - M4	B5	Basic Segment	4050	Rolling	1591	5.00	0.00	2	75
6	US 70 - B5	M6	On Ramp	1500	Rolling	2129	5.00	0.00	2	75
7	M6	B7	Basic Segment	5000	Rolling	2129	5.00	0.00	2	75
8	NC 42 - B7	D8	Off Ramp	1500	Rolling	2129	5.00	0.00	2	75
9	NC 42 - D8	B9	Basic Segment	3400	Rolling	1305	6.89	0.00	2	75
10	NC 42 - B9	M10	On Ramp	1500	Rolling	1746	6.42	0.00	2	75
11	M10	End of US 70 EB	Basic Segment	5280	Rolling	1746	6.42	0.00	2	75

10	On Ramp	441	5.00	0.00	1	650	50

Weaving Segment Data											
Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp				
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS

Time Period 3

Mainline Data										
Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin of US 70 EB	B1	Basic Segment	5280	Rolling	980	5.00	0.00	2	75
2	US 70 - B1	M2	On Ramp	1500	Rolling	1343	5.00	0.00	2	75
3	US 70 - M2	B3	Basic Segment	375	Rolling	1343	5.00	0.00	2	75
4	US 70 - B3	M4	On Ramp	1500	Rolling	1767	5.00	0.00	2	75
5	US 70 - M4	B5	Basic Segment	4050	Rolling	1767	5.00	0.00	2	75
6	US 70 - B5	M6	On Ramp	1500	Rolling	2364	5.00	0.00	2	75
7	M6	B7	Basic Segment	5000	Rolling	2364	5.00	0.00	2	75
8	NC 42 - B7	D8	Off Ramp	1500	Rolling	2364	5.00	0.00	2	75
9	NC 42 - D8	B9	Basic Segment	3400	Rolling	1449	6.89	0.00	2	75
10	NC 42 - B9	M10	On Ramp	1500	Rolling	1939	6.42	0.00	2	75
11	M10	End of US 70 EB	Basic Segment	5280	Rolling	1939	6.42	0.00	2	75

RampData							
Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	On Ramp	363	5.00	0.00	1	1250	30
4	On Ramp	424	5.00	0.00	1	750	50
6	On Ramp	597	5.00	0.00	1	900	50
8	Off Ramp	915	2.00	0.00	1	275	50
10	On Ramp	490	5.00	0.00	1	650	50

Weaving Segment Data											
Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp				
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS

Time Period 4

Mainline Data										
Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin of US 70 EB	B1	Basic Segment	5280	Rolling	882	5.00	0.00	2	75
2	US 70 -	M2	On	1500	Rolling	1209	5.00	0.00	2	75

RampData							
Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	On Ramp	327	5.00	0.00	1	1250	30
4	On Ramp	382	5.00	0.00	1	750	50
6	On	538	5.00	0.00	1	900	50

	B1		Ramp							
3	US 70 - M2	B3	Basic Segment	375	Rolling	1209	5.00	0.00	2	75
4	US 70 - B3	M4	On Ramp	1500	Rolling	1591	5.00	0.00	2	75
5	US 70 - M4	B5	Basic Segment	4050	Rolling	1591	5.00	0.00	2	75
6	US 70 - B5	M6	On Ramp	1500	Rolling	2129	5.00	0.00	2	75
7	M6	B7	Basic Segment	5000	Rolling	2129	5.00	0.00	2	75
8	NC 42 - B7	D8	Off Ramp	1500	Rolling	2129	5.00	0.00	2	75
9	NC 42 - D8	B9	Basic Segment	3400	Rolling	1305	6.89	0.00	2	75
10	NC 42 - B9	M10	On Ramp	1500	Rolling	1746	6.42	0.00	2	75
11	M10	End of US 70 EB	Basic Segment	5280	Rolling	1746	6.42	0.00	2	75

	Ramp						
8	Off Ramp	824	2.00	0.00	1	275	50
10	On Ramp	441	5.00	0.00	1	650	50

Weaving Segment Data											
Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp				
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS

Time Period Independent Weaving Segment Data

Seg #	Configuration	Short Length	# Weaving Lanes	Min. Lane Changes Freeway-Ramp	Min. Lane Changes Ramp-Freeway	Min. Lane Changes Ramp-Ramp

HCS 2010 Freeway Facilities

Project Properties

Analyst	HNTB	**Freeway Name**	US 70 - 2040 Build EB PM	**Analysis Period**	PM Peak
Analysis Date	9/19/2014 11:24:07 AM	**From**	US 70	**Version Date**	1/20/16
Agency	HNTB	**To**	NC 42		
Location	Complete 540	**Analysis Direction**	Eastbound/Northbound		
User Notes					
File Name	C:\Temp\preview.xml				

Facility-wide Values

Jam Density (pc/h/ln)	190	**Time Period Duration (min)**	15	**Facility Length (mi)**	**5.84900**

Segment Input Data

Time Period 1

Mainline Data

Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin of US 70 EB	B1	Basic Segment	5280	Rolling	1322	5.00	0.00	2	75
2	US 70 - B1	M2	On Ramp	1500	Rolling	1658	5.00	0.00	2	75
3	US 70 - M2	B3	Basic Segment	375	Rolling	1658	5.00	0.00	2	75
4	US 70 - B3	M4	On Ramp	1500	Rolling	2012	5.00	0.00	2	75
5	US 70 - M4	B5	Basic Segment	4050	Rolling	2012	5.00	0.00	2	75
6	US 70 - B5	M6	On Ramp	1500	Rolling	2871	5.00	0.00	2	75
7	M6	B7	Basic Segment	5000	Rolling	2871	5.00	0.00	2	75
8	NC 42 - B7	D8	Off Ramp	1500	Rolling	2871	5.00	0.00	2	75
9	NC 42 - D8	B9	Basic Segment	3400	Rolling	2063	6.17	0.00	2	75
10	NC 42 - B9	M10	On Ramp	1500	Rolling	2528	5.96	0.00	2	75
11	M10	End of US 70 EB	Basic Segment	5280	Rolling	2528	5.96	0.00	2	75

RampData

Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	On Ramp	336	5.00	0.00	1	1250	30
4	On Ramp	354	5.00	0.00	1	750	50
6	On Ramp	859	5.00	0.00	1	900	50
8	Off Ramp	808	2.00	0.00	1	275	50
10	On Ramp	465	5.00	0.00	1	650	50

Weaving Segment Data

Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp				
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS

Time Period 2

Mainline Data

Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin of US 70 EB	B1	Basic Segment	5280	Rolling	1487	5.00	0.00	2	75
2	US 70 - B1	M2	On Ramp	1500	Rolling	1864	5.00	0.00	2	75
3	US 70 -	B3	Basic Segment	375	Rolling	1864	5.00	0.00	2	75

RampData

Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	On Ramp	377	5.00	0.00	1	1250	30
4	On Ramp	398	5.00	0.00	1	750	50
6	On Ramp	965	5.00	0.00	1	900	50
8	Off Ramp	908	2.00	0.00	1	275	50

	M2									
4	US 70 - B3	M4	On Ramp	1500	Rolling	2262	5.00	0.00	2	75
5	US 70 - M4	B5	Basic Segment	4050	Rolling	2262	5.00	0.00	2	75
6	US 70 - B5	M6	On Ramp	1500	Rolling	3227	5.00	0.00	2	75
7	M6	B7	Basic Segment	5000	Rolling	3227	5.00	0.00	2	75
8	NC 42 - B7	D8	Off Ramp	1500	Rolling	3227	5.00	0.00	2	75
9	NC 42 - D8	B9	Basic Segment	3400	Rolling	2319	6.17	0.00	2	75
10	NC 42 - B9	M10	On Ramp	1500	Rolling	2841	5.96	0.00	2	75
11	M10	End of US 70 EB	Basic Segment	5280	Rolling	2841	5.96	0.00	2	75

10	On Ramp	522	5.00	0.00	1	650	50

Weaving Segment Data											
Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp				
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS

Time Period 3

Mainline Data										
Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin of US 70 EB	B1	Basic Segment	5280	Rolling	1652	5.00	0.00	2	75
2	US 70 - B1	M2	On Ramp	1500	Rolling	2070	5.00	0.00	2	75
3	US 70 - M2	B3	Basic Segment	375	Rolling	2070	5.00	0.00	2	75
4	US 70 - B3	M4	On Ramp	1500	Rolling	2512	5.00	0.00	2	75
5	US 70 - M4	B5	Basic Segment	4050	Rolling	2512	5.00	0.00	2	75
6	US 70 - B5	M6	On Ramp	1500	Rolling	3583	5.00	0.00	2	75
7	M6	B7	Basic Segment	5000	Rolling	3583	5.00	0.00	2	75
8	NC 42 - B7	D8	Off Ramp	1500	Rolling	3583	5.00	0.00	2	75
9	NC 42 - D8	B9	Basic Segment	3400	Rolling	2575	6.17	0.00	2	75
10	NC 42 - B9	M10	On Ramp	1500	Rolling	3154	5.96	0.00	2	75
11	M10	End of US 70 EB	Basic Segment	5280	Rolling	3154	5.96	0.00	2	75

RampData							
Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	On Ramp	418	5.00	0.00	1	1250	30
4	On Ramp	442	5.00	0.00	1	750	50
6	On Ramp	1071	5.00	0.00	1	900	50
8	Off Ramp	1008	2.00	0.00	1	275	50
10	On Ramp	579	5.00	0.00	1	650	50

Weaving Segment Data											
Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp				
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS

Time Period 4

Mainline Data										
Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin of US 70 EB	B1	Basic Segment	5280	Rolling	1487	5.00	0.00	2	75
2	US 70 -	M2	On	1500	Rolling	1864	5.00	0.00	2	75

RampData							
Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	On Ramp	377	5.00	0.00	1	1250	30
4	On Ramp	398	5.00	0.00	1	750	50
6	On	965	5.00	0.00	1	900	50

	B1		Ramp							
3	US 70 - M2	B3	Basic Segment	375	Rolling	1864	5.00	0.00	2	75
4	US 70 - B3	M4	On Ramp	1500	Rolling	2262	5.00	0.00	2	75
5	US 70 - M4	B5	Basic Segment	4050	Rolling	2262	5.00	0.00	2	75
6	US 70 - B5	M6	On Ramp	1500	Rolling	3227	5.00	0.00	2	75
7	M6	B7	Basic Segment	5000	Rolling	3227	5.00	0.00	2	75
8	NC 42 - B7	D8	Off Ramp	1500	Rolling	3227	5.00	0.00	2	75
9	NC 42 - D8	B9	Basic Segment	3400	Rolling	2319	6.17	0.00	2	75
10	NC 42 - B9	M10	On Ramp	1500	Rolling	2841	5.96	0.00	2	75
11	M10	End of US 70 EB	Basic Segment	5280	Rolling	2841	5.96	0.00	2	75

	Ramp						
8	Off Ramp	908	2.00	0.00	1	275	50
10	On Ramp	522	5.00	0.00	1	650	50

Weaving Segment Data											
Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp				
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS

Time Period Independent Weaving Segment Data

Seg #	Configuration	Short Length	# Weaving Lanes	Min. Lane Changes Freeway-Ramp	Min. Lane Changes Ramp-Freeway	Min. Lane Changes Ramp-Ramp

HCS 2010 Freeway Facilities

Project Properties

Analyst	HNTB	**Freeway Name**	US 70 - 2040 Build WB AM	**Analysis Period**	AM Peak
Analysis Date	9/19/2014 11:24:07 AM	**From**	NC 42	**Version Date**	1/20/16
Agency	HNTB	**To**	US 70		
Location	Complete 540	**Analysis Direction**	Westbound/Southbound		
User Notes					
File Name	C:\Temp\preview.xml				

Facility-wide Values

Jam Density (pc/h/ln)	190	**Time Period Duration (min)**	15	**Facility Length (mi)**	**5.39900**

Segment Input Data

Time Period 1

Mainline Data

Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin US 70 WB	B12	Basic Segment	5280	Rolling	2466	5.00	0.00	2	75
2	NC 42 - B12	D13	Off Ramp	1500	Rolling	2466	5.00	0.00	2	75
3	NC 42 - D13	B14	Basic Segment	3375	Rolling	2001	5.70	0.00	2	75
4	NC 42 - B14	M15	On Ramp	1500	Rolling	2809	5.50	0.00	2	75
5	M15	B16	Basic Segment	8750	Rolling	2809	5.50	0.00	2	75
6	US 70 - B16	D17	Off Ramp	1500	Rolling	2809	5.50	0.00	2	75
7	US 70 - D17	B18	Basic Segment	650	Rolling	2473	5.56	0.00	2	75
8	US 70 - B18	D19	Off Ramp	1500	Rolling	2473	5.56	0.00	2	75
9	US 70 - D19	B20	Basic Segment	2950	Rolling	317	9.40	0.00	2	75
10	B20	End US 70 WB	Off Ramp	1500	Rolling	317	9.40	0.00	2	75

RampData

Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	Off Ramp	465	2.00	0.00	1	325	50
4	On Ramp	808	5.00	0.00	1	675	50
6	Off Ramp	336	5.00	0.00	2	175	50
8	Off Ramp	2156	5.00	0.00	2	475	50
10	Off Ramp	321	5.00	0.00	1	475	30

Weaving Segment Data

Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp				
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS

Time Period 2

Mainline Data

Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin US 70 WB	B12	Basic Segment	5280	Rolling	2774	5.00	0.00	2	75
2	NC 42 - B12	D13	Off Ramp	1500	Rolling	2774	5.00	0.00	2	75
3	NC 42 - D13	B14	Basic Segment	3375	Rolling	2252	5.70	0.00	2	75
4	NC 42 - B14	M15	On Ramp	1500	Rolling	3160	5.50	0.00	2	75

RampData

Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	Off Ramp	522	2.00	0.00	1	325	50
4	On Ramp	908	5.00	0.00	1	675	50
6	Off Ramp	377	5.00	0.00	2	175	50
8	Off Ramp	2422	5.00	0.00	2	475	50
10	Off Ramp	361	5.00	0.00	1	475	30

5	M15	B16	Basic Segment	8750	Rolling	3160	5.50	0.00	2	75
6	US 70 - B16	D17	Off Ramp	1500	Rolling	3160	5.50	0.00	2	75
7	US 70 - D17	B18	Basic Segment	650	Rolling	2783	5.56	0.00	2	75
8	US 70 - B18	D19	Off Ramp	1500	Rolling	2783	5.56	0.00	2	75
9	US 70 - D19	B20	Basic Segment	2950	Rolling	361	9.34	0.00	2	75
10	B20	End US 70 WB	Off Ramp	1500	Rolling	361	9.34	0.00	2	75

Weaving Segment Data											
Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp				
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS

Time Period 3

Mainline Data										
Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin US 70 WB	B12	Basic Segment	5280	Rolling	3082	5.00	0.00	2	75
2	NC 42 - B12	D13	Off Ramp	1500	Rolling	3212	4.00	0.00	2	75
3	NC 42 - D13	B14	Basic Segment	3375	Rolling	2607	4.00	0.00	2	75
4	NC 42 - B14	M15	On Ramp	1500	Rolling	3182	4.00	0.00	2	75
5	M15	B16	Basic Segment	8750	Rolling	3182	4.00	0.00	2	75
6	US 70 - B16	D17	Off Ramp	1500	Rolling	3182	4.00	0.00	2	75
7	US 70 - D17	B18	Basic Segment	650	Rolling	3058	3.84	0.00	2	75
8	US 70 - B18	D19	Off Ramp	1500	Rolling	3058	3.84	0.00	2	75
9	US 70 - D19	B20	Basic Segment	2950	Rolling	405	-29.98	0.00	2	75
10	B20	End US 70 WB	Off Ramp	1500	Rolling	405	-29.98	0.00	2	75

RampData							
Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	Off Ramp	579	2.00	0.00	1	325	50
4	On Ramp	1008	5.00	0.00	1	675	50
6	Off Ramp	418	5.00	0.00	2	175	50
8	Off Ramp	2688	5.00	0.00	2	475	50
10	Off Ramp	401	5.00	0.00	1	475	30

Weaving Segment Data											
Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp				
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS

Time Period 4

Mainline Data										
Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin US 70 WB	B12	Basic Segment	5280	Rolling	2774	5.00	0.00	2	75
2	NC 42 - B12	D13	Off Ramp	1500	Rolling	2891	4.00	0.00	2	75
3	NC 42 - D13	B14	Basic Segment	3375	Rolling	2346	4.00	0.00	2	75
4	NC 42 - B14	M15	On Ramp	1500	Rolling	2864	4.00	0.00	2	75
5	M15	B16	Basic Segment	8750	Rolling	2864	4.00	0.00	2	75
6	US 70 - B16	D17	Off Ramp	1500	Rolling	2864	4.00	0.00	2	75

RampData							
Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	Off Ramp	522	2.00	0.00	1	325	50
4	On Ramp	908	5.00	0.00	1	675	50
6	Off Ramp	377	5.00	0.00	2	175	50
8	Off Ramp	2422	5.00	0.00	2	475	50
10	Off Ramp	361	5.00	0.00	1	475	30

7	US 70 - D17	B18	Basic Segment	650	Rolling	2752	3.84	0.00	2	75
8	US 70 - B18	D19	Off Ramp	1500	Rolling	2752	3.84	0.00	2	75
9	US 70 - D19	B20	Basic Segment	2950	Rolling	362	-30.25	0.00	2	75
10	B20	End US 70 WB	Off Ramp	1500	Rolling	362	-30.25	0.00	2	75

Weaving Segment Data										
Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp			
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS

Time Period Independent Weaving Segment Data

Seg #	Configuration	Short Length	# Weaving Lanes	Min. Lane Changes Freeway-Ramp	Min. Lane Changes Ramp-Freeway	Min. Lane Changes Ramp-Ramp

HCS 2010 Freeway Facilities

Project Properties

Analyst	HNTB	**Freeway Name**	US 70 - 2040 Build WB PM	**Analysis Period**	PM Peak
Analysis Date	10/6/2014 11:24:07 AM	**From**	NC 42	**Version Date**	1/20/16
Agency	HNTB	**To**	US 70		
Location	Complete 540	**Analysis Direction**	Westbound/Southbound		
User Notes					
File Name	C:\Temp\preview.xml				

Facility-wide Values

Jam Density (pc/h/ln)	190	**Time Period Duration (min)**	15	**Facility Length (mi)**	**5.39900**

Segment Input Data

Time Period 1

Mainline Data

Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin US 70 WB	B12	Basic Segment	5280	Rolling	1592	5.00	0.00	2	75
2	NC 42 - B12	D13	Off Ramp	1500	Rolling	1592	5.00	0.00	2	75
3	NC 42 - D13	B14	Basic Segment	3375	Rolling	1200	5.98	0.00	2	75
4	NC 42 - B14	M15	On Ramp	1500	Rolling	1933	5.61	0.00	2	75
5	M15	B16	Basic Segment	8750	Rolling	1933	5.61	0.00	2	75
6	US 70 - B16	D17	Off Ramp	1500	Rolling	1933	5.61	0.00	2	75
7	US 70 - D17	B18	Basic Segment	650	Rolling	1642	5.72	0.00	2	75
8	US 70 - B18	D19	Off Ramp	1500	Rolling	1642	5.72	0.00	2	75
9	US 70 - D19	B20	Basic Segment	2950	Rolling	367	8.20	0.00	2	75
10	B20	End US 70 WB	Off Ramp	1500	Rolling	367	8.20	0.00	2	75

RampData

Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	Off Ramp	392	2.00	0.00	1	325	50
4	On Ramp	733	5.00	0.00	1	675	50
6	Off Ramp	291	5.00	0.00	2	175	50
8	Off Ramp	1275	5.00	0.00	2	475	50
10	Off Ramp	368	5.00	0.00	1	475	30

Weaving Segment Data

Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp				
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS

Time Period 2

Mainline Data

Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin US 70 WB	B12	Basic Segment	5280	Rolling	1791	5.00	0.00	2	75
2	NC 42 - B12	D13	Off Ramp	1500	Rolling	1791	5.00	0.00	2	75
3	NC 42 - D13	B14	Basic Segment	3375	Rolling	1350	5.98	0.00	2	75
4	NC 42 - B14	M15	On Ramp	1500	Rolling	2174	5.61	0.00	2	75

RampData

Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	Off Ramp	441	2.00	0.00	1	325	50
4	On Ramp	824	5.00	0.00	1	675	50
6	Off Ramp	327	5.00	0.00	2	175	50
8	Off Ramp	1433	5.00	0.00	2	475	50
10	Off Ramp	414	5.00	0.00	1	475	30

5	M15	B16	Basic Segment	8750	Rolling	2174	5.61	0.00	2	75
6	US 70 - B16	D17	Off Ramp	1500	Rolling	2174	5.61	0.00	2	75
7	US 70 - D17	B18	Basic Segment	650	Rolling	1847	5.72	0.00	2	75
8	US 70 - B18	D19	Off Ramp	1500	Rolling	1847	5.72	0.00	2	75
9	US 70 - D19	B20	Basic Segment	2950	Rolling	414	8.20	0.00	2	75
10	B20	End US 70 WB	Off Ramp	1500	Rolling	414	8.20	0.00	2	75

Weaving Segment Data											
Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp				
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS

Time Period 3

Mainline Data										
Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin US 70 WB	B12	Basic Segment	5280	Rolling	1990	5.00	0.00	2	75
2	NC 42 - B12	D13	Off Ramp	1500	Rolling	1986	4.00	0.00	2	75
3	NC 42 - D13	B14	Basic Segment	3375	Rolling	1445	4.00	0.00	2	75
4	NC 42 - B14	M15	On Ramp	1500	Rolling	1764	4.00	0.00	2	75
5	M15	B16	Basic Segment	8750	Rolling	1764	4.00	0.00	2	75
6	US 70 - B16	D17	Off Ramp	1500	Rolling	1764	4.00	0.00	2	75
7	US 70 - D17	B18	Basic Segment	650	Rolling	1682	3.80	0.00	2	75
8	US 70 - B18	D19	Off Ramp	1500	Rolling	1682	3.80	0.00	2	75
9	US 70 - D19	B20	Basic Segment	2950	Rolling	368	-14.74	0.00	2	75
10	B20	End US 70 WB	Off Ramp	1500	Rolling	368	-14.74	0.00	2	75

RampData							
Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	Off Ramp	490	2.00	0.00	1	325	50
4	On Ramp	915	5.00	0.00	1	675	50
6	Off Ramp	363	5.00	0.00	2	175	50
8	Off Ramp	1591	5.00	0.00	2	475	50
10	Off Ramp	460	5.00	0.00	1	475	30

Weaving Segment Data											
Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp				
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS

Time Period 4

Mainline Data										
Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin US 70 WB	B12	Basic Segment	5280	Rolling	1791	5.00	0.00	2	75
2	NC 42 - B12	D13	Off Ramp	1500	Rolling	1788	4.00	0.00	2	75
3	NC 42 - D13	B14	Basic Segment	3375	Rolling	1301	4.00	0.00	2	75
4	NC 42 - B14	M15	On Ramp	1500	Rolling	1588	4.00	0.00	2	75
5	M15	B16	Basic Segment	8750	Rolling	1588	4.00	0.00	2	75
6	US 70 - B16	D17	Off Ramp	1500	Rolling	1588	4.00	0.00	2	75

RampData							
Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	Off Ramp	441	2.00	0.00	1	325	50
4	On Ramp	824	5.00	0.00	1	675	50
6	Off Ramp	327	5.00	0.00	2	175	50
8	Off Ramp	1433	5.00	0.00	2	475	50
10	Off Ramp	414	5.00	0.00	1	475	30

7	US 70 - D17	B18	Basic Segment	650	Rolling	1514	3.80	0.00	2	75
8	US 70 - B18	D19	Off Ramp	1500	Rolling	1514	3.80	0.00	2	75
9	US 70 - D19	B20	Basic Segment	2950	Rolling	330	-14.84	0.00	2	75
10	B20	End US 70 WB	Off Ramp	1500	Rolling	330	-14.84	0.00	2	75

Weaving Segment Data											
Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp				
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS

Time Period Independent Weaving Segment Data

Seg #	Configuration	Short Length	# Weaving Lanes	Min. Lane Changes Freeway-Ramp	Min. Lane Changes Ramp-Freeway	Min. Lane Changes Ramp-Ramp

HCS 2010 Freeway Facilities

Project Properties

Analyst	HNTB	**Freeway Name**	I-495 - 2040 Build EB AM	**Analysis Period**	AM Peak
Analysis Date	9/19/2014 9:50:57 AM	**From**	Hodge Road	**Version Date**	1/20/16
Agency	HNTB	**To**	Smithfield Road		
Location	Complete 540	**Analysis Direction**	Eastbound/Northbound		
User Notes					
File Name	C:\Temp\preview.xml				

Facility-wide Values

Jam Density (pc/h/ln)	190	**Time Period Duration (min)**	15	**Facility Length (mi)**	**6.38900**

Segment Input Data

Time Period 1

Mainline Data

Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin of US 64 EB	B1	Basic Segment	5280	Rolling	4073	4.00	0.00	4	75
2	Hodge - B1	D2	Off Ramp	1500	Rolling	4073	4.00	0.00	4	75
3	Hodge - D2	B3	Basic Segment	1650	Rolling	3360	4.42	0.00	4	75
4	B3	W4	Weaving	1575	Rolling	3982	4.36	0.00	5	75
5	I-540 - W4	B5	Basic Segment	2750	Rolling	2264	2.35	0.00	4	75
6	I-540 - B5	M6	On Ramp	1500	Rolling	3340	2.88	0.00	4	75
7	I-540 - B6	B7	Basic Segment	575	Rolling	3340	2.88	0.00	4	75
8	I-540 - B7	M8	On Ramp	1500	Rolling	3890	3.47	0.00	4	75
9	M8	B9	Basic Segment	6100	Rolling	3890	3.47	0.00	4	75
10	Smithfield - B9	D10	Off Ramp	1500	Rolling	3890	3.47	0.00	4	75
11	Smithfield - D10	B11	Basic Segment	3025	Rolling	2930	3.95	0.00	4	75
12	Smithfield - M11	M12	On Ramp	1500	Rolling	3108	4.12	0.00	4	75
13	M12	End of US 64 EB	Basic Segment	5280	Rolling	3108	4.12	0.00	4	75

RampData

Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	Off Ramp	713	2.00	0.00	1	350	50
6	On Ramp	1076	4.00	0.00	1	1475	30
8	On Ramp	550	7.00	0.00	1	525	50
10	Off Ramp	960	2.00	0.00	1	225	50
12	On Ramp	178	7.00	0.00	1	1050	50

Weaving Segment Data

Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp				
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS
4	0.431	622	4.00	0.00	1	50	1718	7.00	0.00	1	50

Time Period 2

Mainline Data

Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin of US 64 EB	B1	Basic Segment	5280	Rolling	4581	4.00	0.00	4	75
2	Hodge - B1	D2	Off Ramp	1500	Rolling	4581	4.00	0.00	4	75
3	Hodge - D2	B3	Basic Segment	1650	Rolling	3780	4.42	0.00	4	75
4	B3	W4	Weaving	1575	Rolling	4479	4.36	0.00	5	75
5	I-540 - W4	B5	Basic Segment	2750	Rolling	2549	2.36	0.00	4	75
6	I-540 - B5	M6	On Ramp	1500	Rolling	3758	2.89	0.00	4	75
7	I-540 - B6	B7	Basic Segment	575	Rolling	3758	2.89	0.00	4	75
8	I-540 - B7	M8	On Ramp	1500	Rolling	4376	3.47	0.00	4	75

RampData

Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	Off Ramp	801	2.00	0.00	1	350	50
6	On Ramp	1209	4.00	0.00	1	1475	30
8	On Ramp	618	7.00	0.00	1	525	50
10	Off Ramp	1079	2.00	0.00	1	225	50
12	On Ramp	200	7.00	0.00	1	1050	50

9	M8	B9	Basic Segment	6100	Rolling	4376	3.47	0.00	4	75
10	Smithfield - B9	D10	Off Ramp	1500	Rolling	4376	3.47	0.00	4	75
11	Smithfield - D10	B11	Basic Segment	3025	Rolling	3297	3.95	0.00	4	75
12	Smithfield - M11	M12	On Ramp	1500	Rolling	3497	4.12	0.00	4	75
13	M12	End of US 64 EB	Basic Segment	5280	Rolling	3497	4.12	0.00	4	75

Weaving Segment Data										
Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp			
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS
4	0.431	699	4.00	0.00	1	50	1930	7.00	0.00	1	50

Time Period 3

Mainline Data										
Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin of US 64 EB	B1	Basic Segment	5280	Rolling	5089	4.00	0.00	4	75
2	Hodge - B1	D2	Off Ramp	1500	Rolling	5089	4.00	0.00	4	75
3	Hodge - D2	B3	Basic Segment	1650	Rolling	4200	4.42	0.00	4	75
4	B3	W4	Weaving	1575	Rolling	4976	4.36	0.00	5	75
5	I-540 - W4	B5	Basic Segment	2750	Rolling	2834	2.36	0.00	4	75
6	I-540 - B5	M6	On Ramp	1500	Rolling	4176	2.89	0.00	4	75
7	I-540 - B6	B7	Basic Segment	575	Rolling	4176	2.89	0.00	4	75
8	I-540 - B7	M8	On Ramp	1500	Rolling	4862	3.47	0.00	4	75
9	M8	B9	Basic Segment	6100	Rolling	4862	3.47	0.00	4	75
10	Smithfield - B9	D10	Off Ramp	1500	Rolling	4862	3.47	0.00	4	75
11	Smithfield - D10	B11	Basic Segment	3025	Rolling	3664	3.95	0.00	4	75
12	Smithfield - M11	M12	On Ramp	1500	Rolling	3886	4.12	0.00	4	75
13	M12	End of US 64 EB	Basic Segment	5280	Rolling	3886	4.12	0.00	4	75

RampData							
Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	Off Ramp	889	2.00	0.00	1	350	50
6	On Ramp	1342	4.00	0.00	1	1475	30
8	On Ramp	686	7.00	0.00	1	525	50
10	Off Ramp	1198	2.00	0.00	1	225	50
12	On Ramp	222	7.00	0.00	1	1050	50

Weaving Segment Data										
Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp			
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS
4	0.431	776	4.00	0.00	1	50	2142	7.00	0.00	1	50

Time Period 4

Mainline Data										
Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin of US 64 EB	B1	Basic Segment	5280	Rolling	4581	4.00	0.00	4	75
2	Hodge - B1	D2	Off Ramp	1500	Rolling	4581	4.00	0.00	4	75
3	Hodge - D2	B3	Basic Segment	1650	Rolling	3780	4.42	0.00	4	75
4	B3	W4	Weaving	1575	Rolling	4479	4.36	0.00	5	75
5	I-540 - W4	B5	Basic Segment	2750	Rolling	2549	2.36	0.00	4	75
6	I-540 - B5	M6	On Ramp	1500	Rolling	3758	2.89	0.00	4	75
7	I-540 - B6	B7	Basic Segment	575	Rolling	3758	2.89	0.00	4	75
8	I-540 - B7	M8	On Ramp	1500	Rolling	4376	3.47	0.00	4	75
9	M8	B9	Basic Segment	6100	Rolling	4376	3.47	0.00	4	75
10	Smithfield - B9	D10	Off Ramp	1500	Rolling	4376	3.47	0.00	4	75
11	Smithfield - D10	B11	Basic Segment	3025	Rolling	3297	3.95	0.00	4	75
12	Smithfield - M11	M12	On Ramp	1500	Rolling	3497	4.12	0.00	4	75
		End of								

RampData							
Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	Off Ramp	801	2.00	0.00	1	350	50
6	On Ramp	1209	4.00	0.00	1	1475	30
8	On Ramp	618	7.00	0.00	1	525	50
10	Off Ramp	1079	2.00	0.00	1	225	50
12	On Ramp	200	7.00	0.00	1	1050	50

Weaving Segment Data										
Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp			
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS
4	0.431	699	4.00	0.00	1	50	1930	7.00	0.00	1	50

13	M12	US 64 EB	Basic Segment	5280	Rolling	3497	4.12	0.00	4	75

Time Period Independent Weaving Segment Data

Seg #	Configuration	Short Length	# Weaving Lanes	Min. Lane Changes Freeway-Ramp	Min. Lane Changes Ramp-Freeway	Min. Lane Changes Ramp-Ramp
4	OneSide	1575	2	1	1	0

HCS 2010 Freeway Facilities

Project Properties

Analyst	HNTB	**Freeway Name**	I-495 - 2040 Build EB PM	**Analysis Period**	PM Peak
Analysis Date	9/19/2014 9:50:57 AM	**From**	Hodge Road	**Version Date**	1/20/16
Agency	HNTB	**To**	Smithfield Road		
Location	Complete 540	**Analysis Direction**	Eastbound/Northbound		
User Notes					
File Name	C:\Temp\preview.xml				

Facility-wide Values

Jam Density (pc/h/ln)	190	**Time Period Duration (min)**	15	**Facility Length (mi)**	**6.38900**

Segment Input Data

Time Period 1

Mainline Data

Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin of US 64 EB	B1	Basic Segment	5280	Rolling	7764	4.00	0.00	4	75
2	Hodge - B1	D2	Off Ramp	1500	Rolling	7764	4.00	0.00	4	75
3	Hodge - D2	B3	Basic Segment	1650	Rolling	6521	4.38	0.00	4	75
4	B3	W4	Weaving	1575	Rolling	7204	4.35	0.00	5	75
5	I-540 - W4	B5	Basic Segment	2750	Rolling	4772	2.99	0.00	4	75
6	I-540 - B5	M6	On Ramp	1500	Rolling	6551	3.27	0.00	4	75
7	I-540 - B6	B7	Basic Segment	575	Rolling	6551	3.27	0.00	4	75
8	I-540 - B7	M8	On Ramp	1500	Rolling	7258	3.63	0.00	4	75
9	M8	B9	Basic Segment	6100	Rolling	7258	3.63	0.00	4	75
10	Smithfield - B9	D10	Off Ramp	1500	Rolling	7258	3.63	0.00	4	75
11	Smithfield - D10	B11	Basic Segment	3025	Rolling	5944	3.99	0.00	4	75
12	Smithfield - M11	M12	On Ramp	1500	Rolling	6198	4.11	0.00	4	75
13	M12	End of US 64 EB	Basic Segment	5280	Rolling	6198	4.11	0.00	4	75

RampData

Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	Off Ramp	1243	2.00	0.00	1	350	50
6	On Ramp	1779	4.00	0.00	1	1475	30
8	On Ramp	707	7.00	0.00	1	525	50
10	Off Ramp	1314	2.00	0.00	1	225	50
12	On Ramp	254	7.00	0.00	1	1050	50

Weaving Segment Data

Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp				
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS
4	0.337	683	4.00	0.00	1	50	2432	7.00	0.00	1	50

Time Period 2

Mainline Data

Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin of US 64 EB	B1	Basic Segment	5280	Rolling	8733	4.00	0.00	4	75
2	Hodge - B1	D2	Off Ramp	1500	Rolling	8733	4.00	0.00	4	75
3	Hodge - D2	B3	Basic Segment	1650	Rolling	1000	4.38	0.00	4	75
4	B3	W4	Weaving	1575	Rolling	8103	4.34	0.00	5	75
5	I-540 - W4	B5	Basic Segment	2750	Rolling	1000	2.99	0.00	4	75
6	I-540 - B5	M6	On Ramp	1500	Rolling	7369	3.27	0.00	4	75
7	I-540 - B6	B7	Basic Segment	575	Rolling	1000	3.27	0.00	4	75
8	I-540 - B7	M8	On Ramp	1500	Rolling	8163	3.63	0.00	4	75

RampData

Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	Off Ramp	1397	2.00	0.00	1	350	50
6	On Ramp	1999	4.00	0.00	1	1475	30
8	On Ramp	794	7.00	0.00	1	525	50
10	Off Ramp	1476	2.00	0.00	1	225	50
12	On Ramp	285	7.00	0.00	1	1050	50

9	M8	B9	Basic Segment	6100	Rolling	1000	3.63	0.00	4	75
10	Smithfield - B9	D10	Off Ramp	1500	Rolling	8163	3.63	0.00	4	75
11	Smithfield - D10	B11	Basic Segment	3025	Rolling	1000	3.99	0.00	4	75
12	Smithfield - M11	M12	On Ramp	1500	Rolling	6972	4.11	0.00	4	75
13	M12	End of US 64 EB	Basic Segment	5280	Rolling	1000	4.11	0.00	4	75

Weaving Segment Data										
Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp			
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS
4	0.337	767	4.00	0.00	1	50	2733	7.00	0.00	1	50

Time Period 3

Mainline Data										
Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin of US 64 EB	B1	Basic Segment	5280	Rolling	9702	4.00	0.00	4	75
2	Hodge - B1	D2	Off Ramp	1500	Rolling	7730	8.00	0.00	4	75
3	Hodge - D2	B3	Basic Segment	1650	Rolling	1000	9.68	0.00	4	75
4	B3	W4	Weaving	1575	Rolling	6694	8.93	0.00	5	75
5	I-540 - W4	B5	Basic Segment	2750	Rolling	1000	9.22	0.00	4	75
6	I-540 - B5	M6	On Ramp	1500	Rolling	7051	8.88	0.00	4	75
7	I-540 - B6	B7	Basic Segment	575	Rolling	1000	8.88	0.00	4	75
8	I-540 - B7	M8	On Ramp	1500	Rolling	8060	8.77	0.00	4	75
9	M8	B9	Basic Segment	6100	Rolling	1000	8.77	0.00	4	75
10	Smithfield - B9	D10	Off Ramp	1500	Rolling	8060	8.77	0.00	4	75
11	Smithfield - D10	B11	Basic Segment	3025	Rolling	1000	10.62	0.00	4	75
12	Smithfield - M11	M12	On Ramp	1500	Rolling	6464	10.20	0.00	4	75
13	M12	End of US 64 EB	Basic Segment	5280	Rolling	1000	10.20	0.00	4	75

RampData							
Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	Off Ramp	1551	2.00	0.00	1	350	50
6	On Ramp	2219	4.00	0.00	1	1475	30
8	On Ramp	881	7.00	0.00	1	525	50
10	Off Ramp	1638	2.00	0.00	1	225	50
12	On Ramp	316	7.00	0.00	1	1050	50

Weaving Segment Data										
Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp			
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS
4	0.337	851	4.00	0.00	1	50	3034	7.00	0.00	1	50

Time Period 4

Mainline Data										
Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin of US 64 EB	B1	Basic Segment	5280	Rolling	8733	4.00	0.00	4	75
2	Hodge - B1	D2	Off Ramp	1500	Rolling	6958	8.00	0.00	4	75
3	Hodge - D2	B3	Basic Segment	1650	Rolling	1000	9.69	0.00	4	75
4	B3	W4	Weaving	1575	Rolling	6025	8.93	0.00	5	75
5	I-540 - W4	B5	Basic Segment	2750	Rolling	1000	9.22	0.00	4	75
6	I-540 - B5	M6	On Ramp	1500	Rolling	6347	8.88	0.00	4	75
7	I-540 - B6	B7	Basic Segment	575	Rolling	1000	8.88	0.00	4	75
8	I-540 - B7	M8	On Ramp	1500	Rolling	7256	8.77	0.00	4	75
9	M8	B9	Basic Segment	6100	Rolling	1000	8.77	0.00	4	75
10	Smithfield - B9	D10	Off Ramp	1500	Rolling	7256	8.77	0.00	4	75
11	Smithfield - D10	B11	Basic Segment	3025	Rolling	1000	10.62	0.00	4	75
12	Smithfield - M11	M12	On Ramp	1500	Rolling	5818	10.20	0.00	4	75
		End of								

RampData							
Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	Off Ramp	1397	2.00	0.00	1	350	50
6	On Ramp	1999	4.00	0.00	1	1475	30
8	On Ramp	794	7.00	0.00	1	525	50
10	Off Ramp	1476	2.00	0.00	1	225	50
12	On Ramp	285	7.00	0.00	1	1050	50

Weaving Segment Data										
Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp			
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS
4	0.337	767	4.00	0.00	1	50	2733	7.00	0.00	1	50

13	M12	US 64 EB	Basic Segment	5280	Rolling	1000	10.20	0.00	4	75

Time Period Independent Weaving Segment Data

Seg #	Configuration	Short Length	# Weaving Lanes	Min. Lane Changes Freeway-Ramp	Min. Lane Changes Ramp-Freeway	Min. Lane Changes Ramp-Ramp
4	OneSide	1575	2	1	1	0

HCS 2010 Freeway Facilities

Project Properties

Analyst	HNTB	**Freeway Name**	I-495 - 2040 Build WB AM	**Analysis Period**	AM Peak
Analysis Date	9/19/2014 9:50:57 AM	**From**	Smithfield Road	**Version Date**	1/20/16
Agency	HNTB	**To**	Hodge Road		
Location	Complete 540	**Analysis Direction**	Westbound/Southbound		
User Notes					
File Name	C:\Temp\preview.xml				

Facility-wide Values

Jam Density (pc/h/ln)	190	**Time Period Duration (min)**	15	**Facility Length (mi)**	**5.93500**

Segment Input Data

Time Period 1

Mainline Data

Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin US 64 WB	B14	Basic Segment	5280	Rolling	6077	7.00	0.00	4	75
2	Smithfield - B14	D15	Off Ramp	1500	Rolling	6077	7.00	0.00	4	75
3	Smithfield - D15	B16	Basic Segment	2925	Rolling	5822	7.22	0.00	4	75
4	Smithfield - B16	M17	On Ramp	1500	Rolling	7136	7.18	0.00	4	75
5	M17	B18	Basic Segment	2175	Rolling	7136	7.18	0.00	4	75
6	I-540 - B18	D19	Off Ramp	1500	Rolling	7136	7.18	0.00	4	75
7	I-540 - D19	B20	Basic Segment	2775	Rolling	4650	7.27	0.00	4	75
8	I-540 - D20	M21	On Ramp	1500	Rolling	5581	7.23	0.00	4	75
9	I-540 - D21	B22	Basic Segment	325	Rolling	5581	7.23	0.00	4	75
10	B22	W23	Weaving	3200	Rolling	7082	6.54	0.00	5	75
11	Hodge - W23	B24	Basic Segment	1875	Rolling	6399	7.03	0.00	4	75
12	Hodge - M24	M25	On Ramp	1500	Rolling	7642	6.54	0.00	4	75
13	M25	End US 64 WB	Basic Segment	5280	Rolling	7642	6.54	0.00	4	75

RampData

Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	Off Ramp	255	2.00	0.00	1	175	50
4	On Ramp	1314	7.00	0.00	1	900	50
6	Off Ramp	2486	7.00	0.00	2	425	50
8	On Ramp	931	7.00	0.00	1	1350	30
12	On Ramp	1243	4.00	0.00	1	850	50

Weaving Segment Data

Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp				
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS
10	0.096	1501	4.00	0.00	1	50	683	2.00	0.00	1	30

Time Period 2

Mainline Data

Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin US 64 WB	B14	Basic Segment	5280	Rolling	6836	7.00	0.00	4	75
2	Smithfield - B14	D15	Off Ramp	1500	Rolling	6836	7.00	0.00	4	75
3	Smithfield - D15	B16	Basic Segment	2925	Rolling	6550	7.22	0.00	4	75
4	Smithfield - B16	M17	On Ramp	1500	Rolling	8026	7.18	0.00	4	75
5	M17	B18	Basic Segment	2175	Rolling	8026	7.18	0.00	4	75
6	I-540 - B18	D19	Off Ramp	1500	Rolling	8026	7.18	0.00	4	75
7	I-540 - D19	B20	Basic Segment	2775	Rolling	5233	7.27	0.00	4	75
8	I-540 - D20	M21	On Ramp	1500	Rolling	6279	7.23	0.00	4	75

RampData

Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	Off Ramp	286	2.00	0.00	1	175	50
4	On Ramp	1476	7.00	0.00	1	900	50
6	Off Ramp	2793	7.00	0.00	2	425	50
8	On Ramp	1046	7.00	0.00	1	1350	30
12	On Ramp	1397	4.00	0.00	1	850	50

9	I-540 - D21	B22	Basic Segment	325	Rolling	6279	7.23	0.00	4	75
10	B22	W23	Weaving	3200	Rolling	7966	6.54	0.00	5	75
11	Hodge - W23	B24	Basic Segment	1875	Rolling	7199	7.03	0.00	4	75
12	Hodge - M24	M25	On Ramp	1500	Rolling	8596	6.54	0.00	4	75
13	M25	End US 64 WB	Basic Segment	5280	Rolling	8596	6.54	0.00	4	75

Weaving Segment Data

Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp				
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS
10	0.096	1687	4.00	0.00	1	50	767	2.00	0.00	1	30

Time Period 3

Mainline Data

Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin US 64 WB	B14	Basic Segment	5280	Rolling	7595	7.00	0.00	4	75
2	Smithfield - B14	D15	Off Ramp	1500	Rolling	7595	7.00	0.00	4	75
3	Smithfield - D15	B16	Basic Segment	2925	Rolling	7278	7.22	0.00	4	75
4	Smithfield - B16	M17	On Ramp	1500	Rolling	8916	7.18	0.00	4	75
5	M17	B18	Basic Segment	2175	Rolling	8916	7.18	0.00	4	75
6	I-540 - B18	D19	Off Ramp	1500	Rolling	8916	7.18	0.00	4	75
7	I-540 - D19	B20	Basic Segment	2775	Rolling	5816	7.27	0.00	4	75
8	I-540 - D20	M21	On Ramp	1500	Rolling	6977	7.23	0.00	4	75
9	I-540 - D21	B22	Basic Segment	325	Rolling	6977	7.23	0.00	4	75
10	B22	W23	Weaving	3200	Rolling	8850	6.54	0.00	5	75
11	Hodge - W23	B24	Basic Segment	1875	Rolling	7999	7.03	0.00	4	75
12	Hodge - M24	M25	On Ramp	1500	Rolling	9550	6.54	0.00	4	75
13	M25	End US 64 WB	Basic Segment	5280	Rolling	9550	6.54	0.00	4	75

RampData

Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	Off Ramp	317	2.00	0.00	1	175	50
4	On Ramp	1638	7.00	0.00	1	900	50
6	Off Ramp	3100	7.00	0.00	2	425	50
8	On Ramp	1161	7.00	0.00	1	1350	30
12	On Ramp	1551	4.00	0.00	1	850	50

Weaving Segment Data

Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp				
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS
10	0.096	1873	4.00	0.00	1	50	851	2.00	0.00	1	30

Time Period 4

Mainline Data

Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin US 64 WB	B14	Basic Segment	5280	Rolling	6836	7.00	0.00	4	75
2	Smithfield - B14	D15	Off Ramp	1500	Rolling	6836	7.00	0.00	4	75
3	Smithfield - D15	B16	Basic Segment	2925	Rolling	6550	7.22	0.00	4	75
4	Smithfield - B16	M17	On Ramp	1500	Rolling	8026	7.18	0.00	4	75
5	M17	B18	Basic Segment	2175	Rolling	8026	7.18	0.00	4	75
6	I-540 - B18	D19	Off Ramp	1500	Rolling	8026	7.18	0.00	4	75
7	I-540 - D19	B20	Basic Segment	2775	Rolling	5233	7.27	0.00	4	75
8	I-540 - D20	M21	On Ramp	1500	Rolling	6279	7.23	0.00	4	75
9	I-540 - D21	B22	Basic Segment	325	Rolling	6279	7.23	0.00	4	75
10	B22	W23	Weaving	3200	Rolling	7966	6.54	0.00	5	75
11	Hodge - W23	B24	Basic Segment	1875	Rolling	7199	7.03	0.00	4	75
12	Hodge - M24	M25	On Ramp	1500	Rolling	8596	6.54	0.00	4	75
13	M25	End US 64 WB	Basic Segment	5280	Rolling	8596	6.54	0.00	4	75

RampData

Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	Off Ramp	286	2.00	0.00	1	175	50
4	On Ramp	1476	7.00	0.00	1	900	50
6	Off Ramp	2793	7.00	0.00	2	425	50
8	On Ramp	1046	7.00	0.00	1	1350	30
12	On Ramp	1397	4.00	0.00	1	850	50

Weaving Segment Data

Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp				
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS
10	0.096	1687	4.00	0.00	1	50	767	2.00	0.00	1	30

Time Period Independent Weaving Segment Data

Seg #	Configuration	Short Length	# Weaving Lanes	Min. Lane Changes Freeway-Ramp	Min. Lane Changes Ramp-Freeway	Min. Lane Changes Ramp-Ramp
10	OneSide	3200	2	1	1	0

HCS 2010 Freeway Facilities

Project Properties

Analyst	HNTB	**Freeway Name**	I-495 - 2040 Build WB PM	**Analysis Period**	PM Peak
Analysis Date	9/19/2014 9:50:57 AM	**From**	Smithfield Road	**Version Date**	1/20/16
Agency	HNTB	**To**	Hodge Road		
Location	Complete 540	**Analysis Direction**	Westbound/Southbound		
User Notes					
File Name	C:\Temp\preview.xml				

Facility-wide Values

Jam Density (pc/h/ln)	190	**Time Period Duration (min)**	15	**Facility Length (mi)**	**5.93500**

Segment Input Data

Time Period 1

Mainline Data

Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin US 64 WB	B14	Basic Segment	5280	Rolling	3176	7.00	0.00	4	75
2	Smithfield - B14	D15	Off Ramp	1500	Rolling	3176	7.00	0.00	4	75
3	Smithfield - D15	B16	Basic Segment	2925	Rolling	2998	7.30	0.00	4	75
4	Smithfield - B16	M17	On Ramp	1500	Rolling	3958	7.22	0.00	4	75
5	M17	B18	Basic Segment	2175	Rolling	3958	7.22	0.00	4	75
6	I-540 - B18	D19	Off Ramp	1500	Rolling	3958	7.22	0.00	4	75
7	I-540 - D19	B20	Basic Segment	2775	Rolling	2332	7.38	0.00	4	75
8	I-540 - D20	M21	On Ramp	1500	Rolling	2891	7.31	0.00	4	75
9	I-540 - D21	B22	Basic Segment	325	Rolling	2891	7.31	0.00	4	75
10	B22	W23	Weaving	3200	Rolling	4050	6.36	0.00	5	75
11	Hodge - W23	B24	Basic Segment	1875	Rolling	3428	7.15	0.00	4	75
12	Hodge - M24	M25	On Ramp	1500	Rolling	4141	6.61	0.00	4	75
13	M25	End US 64 WB	Basic Segment	5280	Rolling	4141	6.61	0.00	4	75

RampData

Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	Off Ramp	178	2.00	0.00	1	175	50
4	On Ramp	960	7.00	0.00	1	900	50
6	Off Ramp	1626	7.00	0.00	1	425	50
8	On Ramp	559	7.00	0.00	1	1350	30
12	On Ramp	713	4.00	0.00	1	850	50

Weaving Segment Data

Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp				
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS
10	0.153	1159	4.00	0.00	1	50	622	2.00	0.00	1	30

Time Period 2

Mainline Data

Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin US 64 WB	B14	Basic Segment	5280	Rolling	3573	7.00	0.00	4	75
2	Smithfield - B14	D15	Off Ramp	1500	Rolling	3573	7.00	0.00	4	75
3	Smithfield - D15	B16	Basic Segment	2925	Rolling	1000	7.30	0.00	4	75
4	Smithfield - B16	M17	On Ramp	1500	Rolling	4452	7.22	0.00	4	75
5	M17	B18	Basic Segment	2175	Rolling	1000	7.22	0.00	4	75
6	I-540 - B18	D19	Off Ramp	1500	Rolling	4452	7.22	0.00	4	75
7	I-540 - D19	B20	Basic Segment	2775	Rolling	1000	7.38	0.00	4	75
8	I-540 - D20	M21	On Ramp	1500	Rolling	3253	7.31	0.00	4	75

RampData

Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	Off Ramp	200	2.00	0.00	1	175	50
4	On Ramp	1079	7.00	0.00	1	900	50
6	Off Ramp	1827	7.00	0.00	1	425	50
8	On Ramp	628	7.00	0.00	1	1350	30
12	On Ramp	801	4.00	0.00	1	850	50

9	I-540 - D21	B22	Basic Segment	325	Rolling	1000	7.31	0.00	4	75
10	B22	W23	Weaving	3200	Rolling	4555	6.36	0.00	5	75
11	Hodge - W23	B24	Basic Segment	1875	Rolling	1000	7.15	0.00	4	75
12	Hodge - M24	M25	On Ramp	1500	Rolling	4657	6.61	0.00	4	75
13	M25	End US 64 WB	Basic Segment	5280	Rolling	1000	6.61	0.00	4	75

Weaving Segment Data

Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp				
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS
10	0.153	1302	4.00	0.00	1	50	699	2.00	0.00	1	30

Time Period 3

Mainline Data

Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin US 64 WB	B14	Basic Segment	5280	Rolling	3970	7.00	0.00	4	75
2	Smithfield - B14	D15	Off Ramp	1500	Rolling	3636	8.00	0.00	4	75
3	Smithfield - D15	B16	Basic Segment	2925	Rolling	1000	8.49	0.00	4	75
4	Smithfield - B16	M17	On Ramp	1500	Rolling	4354	7.18	0.00	4	75
5	M17	B18	Basic Segment	2175	Rolling	1000	7.18	0.00	4	75
6	I-540 - B18	D19	Off Ramp	1500	Rolling	4354	7.18	0.00	4	75
7	I-540 - D19	B20	Basic Segment	2775	Rolling	1000	6.62	0.00	4	75
8	I-540 - D20	M21	On Ramp	1500	Rolling	3356	6.93	0.00	4	75
9	I-540 - D21	B22	Basic Segment	325	Rolling	1000	6.93	0.00	4	75
10	B22	W23	Weaving	3200	Rolling	3822	7.06	0.00	5	75
11	Hodge - W23	B24	Basic Segment	1875	Rolling	1000	8.42	0.00	4	75
12	Hodge - M24	M25	On Ramp	1500	Rolling	3708	7.22	0.00	4	75
13	M25	End US 64 WB	Basic Segment	5280	Rolling	1000	7.22	0.00	4	75

RampData

Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	Off Ramp	222	2.00	0.00	1	175	50
4	On Ramp	1198	7.00	0.00	1	900	50
6	Off Ramp	2028	7.00	0.00	1	425	50
8	On Ramp	697	7.00	0.00	1	1350	30
12	On Ramp	889	4.00	0.00	1	850	50

Weaving Segment Data

Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp				
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS
10	0.153	1445	4.00	0.00	1	50	776	2.00	0.00	1	30

Time Period 4

Mainline Data

Seg #	From	To	Type	Length	Terrain	Adj. Demand	% Trucks	% RVs	# Lanes	FFS
1	Begin US 64 WB	B14	Basic Segment	5280	Rolling	3573	7.00	0.00	4	75
2	Smithfield - B14	D15	Off Ramp	1500	Rolling	3273	8.00	0.00	4	75
3	Smithfield - D15	B16	Basic Segment	2925	Rolling	1000	8.49	0.00	4	75
4	Smithfield - B16	M17	On Ramp	1500	Rolling	3920	7.17	0.00	4	75
5	M17	B18	Basic Segment	2175	Rolling	1000	7.17	0.00	4	75
6	I-540 - B18	D19	Off Ramp	1500	Rolling	3920	7.17	0.00	4	75
7	I-540 - D19	B20	Basic Segment	2775	Rolling	1000	6.62	0.00	4	75
8	I-540 - D20	M21	On Ramp	1500	Rolling	3021	6.93	0.00	4	75
9	I-540 - D21	B22	Basic Segment	325	Rolling	1000	6.93	0.00	4	75
10	B22	W23	Weaving	3200	Rolling	3441	7.06	0.00	5	75
11	Hodge - W23	B24	Basic Segment	1875	Rolling	1000	8.42	0.00	4	75
12	Hodge - M24	M25	On Ramp	1500	Rolling	3338	7.22	0.00	4	75
13	M25	End US 64 WB	Basic Segment	5280	Rolling	1000	7.22	0.00	4	75

RampData

Seg #	Type	Adj. Demand	% Trucks	% RVs	Lanes	Accel/Decel Length	FFS
2	Off Ramp	200	2.00	0.00	1	175	50
4	On Ramp	1079	7.00	0.00	1	900	50
6	Off Ramp	1827	7.00	0.00	1	425	50
8	On Ramp	628	7.00	0.00	1	1350	30
12	On Ramp	801	4.00	0.00	1	850	50

Weaving Segment Data

Seg #	Ramp to Ramp Prop.	On-Ramp					Off-Ramp				
		Adj. Demand	% Trucks	% RVs	Lanes	FFS	Adj. Demand	% Trucks	% RVs	Lanes	FFS
10	0.153	1302	4.00	0.00	1	50	699	2.00	0.00	1	30

Time Period Independent Weaving Segment Data

Seg #	Configuration	Short Length	# Weaving Lanes	Min. Lane Changes Freeway-Ramp	Min. Lane Changes Ramp-Freeway	Min. Lane Changes Ramp-Ramp
10	OneSide	3200	2	1	1	0

Appendix E – Synchro/SimTraffic Analysis

1) Synchro/SimTraffic Analysis Summary Tables
2) 2016 No-Build Synchro Results
    a. 2016 No-Build AM Peak
    b. 2016 No-Build PM Peak
3) 2016 No-Build SimTraffic Results
    a. 2016 No-Build AM Peak
    b. 2016 No-Build PM Peak
4) 2016 Build Preferred Alternative Synchro Results
    a. 2016 Build AM Peak
    b. 2016 Build PM Peak
5) 2016 Build Preferred Alternative SimTraffic Results
    a. 2016 Build AM Peak
    b. 2016 Build PM Peak
6) 2040 Build Preferred Alternative Synchro Results
    a. 2040 Build AM Peak
    b. 2040 Build PM Peak
7) 2040 Build Preferred Alternative SimTraffic Results
    a. 2040 Build AM Peak
    b. 2040 Build PM Peak

Synchro/SimTraffic Results Summary Tables

ID#	Intersection	LOS	Delay	Approach	LOS	Delay	Movement	LOS	Delay	Synchro 95th Percentile Maximum Queue AM	Synchro 95th Percentile Maximum Queue PM	SimTraffic Maximum Queue AM	SimTraffic Maximum Queue PM
1	NC 55 Bypass & Mid-block U-turn	-	-										
2	NC 55 Bypass & Old Smithfield Road*	-	-	Eastbound	***E (F)***	***35.0 (187.7)***	R	***E (F)***	***35.0 (187.7)***	63 ft	113 ft	1,056 ft	1,074 ft
				Westbound	***F*** (D)	***1028.7*** (30.6)	R	***F*** (D)	***1028.7*** (30.6)	935 ft	100 ft	1,413 ft	140 ft
				Northbound	-	-	L	D ***(F)***	30.7 ***(549.9)***	18 ft	125 ft	35 ft	209 ft
							T	-	-	-			
							R	-	-	-			
				Southbound	-	-	T-R	-	-	-		1,026 ft	1,049 ft
11	Holly Springs Road (SR 1152) & Kildaire Farm Road	B ***(E)***	15.2 ***(60.9)***	Eastbound	C ***(F)***	20.0 ***(120.9)***	L	D (D)	36.8 (36.8)	30 ft	31 ft	88 ft	174 ft
							R	B ***(F)***	19.4 ***(122.8)***	206 ft	#781 ft	231 ft	944 ft
				Northbound	B (B)	11.2 (10.0)	L	B (B)	18.0 (16.5)	#527 ft	266 ft	315 ft	243 ft
							T-R	A (A)	2.5 (1.7)	145 ft	62 ft	397 ft	76 ft
				Southbound	C (D)	25.4 (44.7)	T-R	C (D)	25.4 (44.7)	#331 ft	#646 ft	283 ft	606 ft
14	US 401 & Chandler Ridge Circle/Wake Technical Community College	C (B)	20.4 (15.2)	Eastbound	D (B)	48.6 (39.9)	L-T-R	D (D)	48.6 (39.9)	88 ft	59 ft	111 ft	67 ft
							-	-	-	-	-	-	-
				Westbound	***E (E)***	***57.0 (57.2)***	L-T-R	***E (E)***	***57.0 (57.2)***	191 ft	220 ft	229 ft	182 ft
				Northbound	C (B)	22.2 (20.0)	L	D (D)	53.4 (53.5)	28 ft	29 ft	110 ft	40 ft
							T-R	C (B)	22.0 (19.6)	674 ft	384 ft	371 ft	253 ft
							-						
				Southbound	B (A)	10.9 (6.7)	L	***E*** (D)	***77.7*** (41.8)	#212 ft	m123 ft	198 ft	131 ft
							T	A (A)	2.7 (4.1)	80 ft	275 ft	126 ft	221 ft
							R	A (A)	2.7 (1.8)	m7 ft	m4 ft	18 ft	17 ft
15	US 401 & Donnybrook Road (SR 1503)/Old McCullers Road (SR 2779)	B (C)	17.6 (20.8)	Eastbound	***E*** (D)	***64.9*** (53.5)	L	***F (E)***	***80.9 (61.7)***	#144 ft	95 ft	124 ft	125 ft
							T-R	D (D)	52.1 (48.2)	140 ft	123 ft	191 ft	299 ft
				Westbound	***E (E)***	***60.5 (58.9)***	L	D (D)	45.5 (45.1)	42 ft	60 ft	130 ft	73 ft
							T-R	***E (E)***	***62.7 (61.8)***	193 ft	216 ft	222 ft	199 ft
				Northbound	A (A)	8.4 (8.4)	L	D (D)	43.5 (53.1)	m55 ft	m75 ft	108 ft	74 ft
							T-R	A (A)	7.2 (6.4)	90 ft	107 ft	199 ft	118 ft
				Southbound	B (C)	16.6 (21.1)	L	***E (E)***	***65.1 (59.9)***	158 ft	152 ft	194 ft	156 ft
							T-R	B (B)	11.5 (18.4)	298 ft	640 ft	243 ft	397 ft
20	NC 50 & Steven Oaks Road (SR 5324)/Cleveland School Road (SR 1010)	***E*** (C)	***61.1*** (24.8)	Eastbound	B (C)	17.8 (20.4)	L-T-R	B (C)	17.8 (20.4)	36 ft	27 ft	71 ft	73 ft
				Westbound	***E*** (D)	***69.4*** (44.7)	L-T	B (C)	17.8 (21.2)	37 ft	39 ft	935 ft	310 ft
							R	***E*** (D)	***73.1*** (48.2)	#560 ft	#244 ft	175 ft	175 ft
				Northbound	***E*** (C)	***62.1*** (28.7)	L	C (B)	21.2 (18.5)	11 ft	11 ft	159 ft	30 ft
							T-R	***E*** (C)	***62.6*** (28.9)	#515 ft	#187 ft	912 ft	273 ft
				Southbound	D (B)	54.4 (17.6)	L	***F*** (C)	***91.0*** (25.8)	#304 ft	#301 ft	235 ft	273 ft
							T-R	B (A)	14.5 (8.7)	144 ft	166 ft	218 ft	300 ft
23	White Oak Road (SR 2700) & Raynor Road (SR 2555)*	-	-	Eastbound	-	-	L-T	B (A)	10.4 (8.5)	5 ft	3 ft	217 ft	244 ft
				Westbound	-	-	T-R	-	-	-		40 ft	
				-	-	-	-	-	-	-	-	-	-
				Southbound	***F (F)***	***161.5 (294.7)***	L-R	***F (F)***	***161.5 (294.7)***	235 ft	490 ft	252 ft	350 ft
28	Rock Quarry Road (SR 2542) & Auburn Knightdale Road (SR 2555)	B (B)	12.9 (12.9)	Eastbound	A (A)	6.7 (9.0)	L-T-R	A (A)	6.7 (9.0)	68 ft	144 ft	92 ft	152 ft
				Westbound	A (A)	8.5 (7.7)	L-T-R	A (A)	8.5 (7.7)	139 ft	77 ft	146 ft	96 ft
				Northbound	C (C)	23.4 (22.1)	L-T-R	C (C)	23.4 (22.1)	100 ft	112 ft	136 ft	113 ft
				Southbound	C (B)	21.6 (18.7)	L-T-R	C (B)	21.6 (18.7)	93 ft	73 ft	124 ft	112 ft
31	Rock Quarry Road (SR 2542) & Old Baucom Road (SR 5204)*	-	-	Westbound	B (B)	11.2 (10.2)	L-R	B (B)	11.2 (10.1)	10 ft	5 ft	45 ft	46 ft
				Southbound	-	-	L-T	A (A)	8.1 (7.8)	3 ft	5 ft	49 ft	54 ft
34	Poole Road (SR 1007) & Hodge Road (SR 2516)	D (D)	45.6 (38.4)	Eastbound	D (C)	41.8 (34.2)	L	***E*** (C)	65.4 (34.0)	#267	#141 ft	325 ft	172 ft
							T-R	B (C)	11.9 (34.2)	109 ft	301 ft	1,151 ft	259 ft
				Westbound	D (D)	37.2 (45.2)	L	B (C)	10.4 (26.4)	16 ft	28 ft	259 ft	349 ft
							T-R	D (D)	37.7 (46.0)	#878	#456 ft	857 ft	434 ft
				Northbound	D (B)	40.0 (16.7)	L	D (B)	38.3 (16.3)	33 ft	13 ft	76 ft	28 ft
							T-R	D (B)	40.4 (16.8)	91 ft	35 ft	139 ft	68 ft
				Southbound	***E*** (D)	***66.0*** (38.7)	L	***F*** (D)	***95.6*** (53.6)	#359	#565 ft	867 ft	473 ft
							T	D (B)	37.9 (16.9)	36 ft	44 ft	884 ft	69 ft
							R	C (B)	32.5 (12.3)	188 ft	133 ft	812 ft	210 ft

X (X) – AM (PM) Peak Hour Level of Service; XX.X (XX.X) – AM (PM) Peak Hour Delay in Seconds Per Vehicle

Cell Shading – Green = LOS A – D, Orange = LOS E, Red = LOS F; N/A – Analysis not applicable for comparable location or segment.

BOLD/ITALIC = Intersection/Approach/Movement that has Operational Deficiencies (LOS E or F)

* Unsignalized Intersection – No Overall or Approach LOS/Delay Reported by HCM Methodology

ID#	Intersection	LOS	Delay	Approach	LOS	Delay	Movement	LOS	Delay	Synchro 95th Percentile AM	Synchro 95th Percentile PM	SimTraffic Maximum Queue AM	SimTraffic Maximum Queue PM
1	NC 55 Bypass & Mid-block U-turn	C (A)	27.5 (8.2)	Northbound	C (B)	34.1 (15.9)	T	C (B)	34.1 (15.9)	#1872 ft	459 ft	1,015 ft	329 ft
				Southbound	B (A)	17.2 (4.4)	U	***F*** (D)	***131.3*** (35.9)	#471 ft	m253 ft	700 ft	426 ft
							T	A (A)	0.2 (0.3)	0 ft	0 ft	826 ft	410 ft
2	NC 55 Bypass & Old Smithfield Road	A (A)	1.2 (2.4)	Eastbound	A (A)	0.1 (0.1)	R	A (A)	0.1 (0.1)	0 ft	0 ft		
				Westbound	A (A)	0.4 (0.2)	R	A (A)	0.4 (0.2)	0 ft	0 ft	1,406 ft	140 ft
				Northbound	A (A)	1.5 (1.3)	L	***F*** (D)	***85.6*** (46.5)	m37 ft	m35 ft	117 ft	82 ft
							T	A (A)	0.6 (0.3)	m0 ft	0 ft		
							R	A (A)	0.0 (0.3)	m0 ft	0 ft		
				Southbound	A (A)	0.9 (3.3)	T-R	A (A)	0.9 (3.3)	34 ft	87 ft	422 ft	502 ft
3	NC 55 Bypass & NC 540 EB Ramps	B (A)	15.1 (5.2)	Eastbound	A (A)	0.6 (2.7)	R	A (A)	0.6 (2.7)	0 ft	0 ft		
				Westbound	***F*** (D)	***84.1*** (35.3)	R	***F*** (D)	***84.1*** (35.3)	59 ft	39 ft	172 ft	
				Northbound	B (A)	14.4 (5.4)	T	B (A)	14.8 (5.5)	#803 ft	148 ft	284 ft	320 ft
							R	A (A)	1.3 (3.6)	m12 ft	21 ft		
				Southbound	B (A)	19.6 (5.4)	L	***F*** (C)	***132.8*** (34.9)	#272 ft	m143 ft	329 ft	211 ft
							T	A (A)	0.3 (0.4)	0 ft	0 ft		
4	NC 55 Bypass & NC 540 WB Ramps	B (A)	11.0 (9.1)	Westbound	***E*** (D)	***79.4*** (45.3)	L	***E*** (D)	***64.7*** (39.7)	73 ft	51 ft	151 ft	109 ft
							R	***F*** (D)	***83.5*** (47.8)	265 ft	112 ft	293 ft	54 ft
				Northbound	A (A)	3.1 (0.8)	T	A (A)	4.4 (1.0)	m383 ft	17 ft	196 ft	75 ft
							R	A (A)	0.8 (0.5)	m0 ft	0 ft		
				Southbound	A (B)	7.7 (10.7)	T	A (B)	8.0 (10.9)	357 ft	489 ft	292 ft	835 ft
							R	A (A)	0.1 (0.0)	0 ft	0 ft		324 ft
5	Holly Springs Road & NC 540 EB Off-ramp Right-turn	A (A)	1.7 (3.9)	Eastbound	A (B)	7.9 (15.9)	R	A (B)	7.9 (15.9)	30 ft	86 ft	132 ft	161 ft
				Southbound	A (A)	0.8 (1.6)	T	A (A)	0.8 (1.6)	17 ft	22 ft	190 ft	48 ft
6	Holly Springs Road & NC 540 EB Ramps Crossover	B (B)	14.1 (17.4)	Northbound	C (B)	21.4 (18.0)	T	C (B)	21.4 (18.0)	121 ft	142 ft	202 ft	171 ft
				Southbound	A (B)	9.6 (16.0)	T	A (B)	9.6 (16.0)	183 ft	119 ft	180 ft	188 ft
7	Holly Springs Road & NC 540 EB Off-ramp Left-turn	A (A)	2.9 (3.9)	Eastbound	D (C)	45.1 (31.0)	L	D (C)	45.1 (31.0)	48 ft	39 ft	75 ft	86 ft
				Northbound	A (A)	0.1 (0.1)	T	A (A)	0.1 (0.1)	0 ft	0 ft		
8	Holly Springs Road & NC 540 WB Off-ramp Left-turn	B (A)	11.5 (8.6)	Westbound	D (D)	40.1 (50.5)	L	D (D)	40.1 (50.5)	122 ft	144 ft	228 ft	245 ft
				Southbound	A (A)	0.1 (0.1)	T	A (A)	0.1 (0.1)	0 ft	0 ft		45 ft
9	Holly Springs Road & NC 540 WB Ramps Crossover	C (B)	21.0 (15.1)	Northbound	C (C)	26.8 (25.4)	T	C (C)	26.8 (25.4)	270 ft	157 ft	216 ft	144 ft
				Southbound	B (B)	12.1 (11.2)	T	B (B)	12.1 (11.2)	150 ft	252 ft	137 ft	166 ft
10	Holly Springs Road & NC 540 WB Off-ramp Right-turn	A (A)	4.3 (2.6)	Westbound	B (A)	13.9 (8.8)	R	B (A)	13.9 (8.8)	146 ft	59 ft	223 ft	103 ft
				Northbound	A (A)	0.1 (0.1)	T	A (A)	0.1 (0.1)	0 ft	0 ft		
11	Holly Springs Road (SR 1152) & Kildaire Farm Road (SR 1300)/Sancroft Drive	B (C)	19.9 (26.1)	Eastbound	C (C)	25.2 (23.5)	L	D (C)	53.6 (34.7)	151 ft	114 ft	141 ft	152 ft
							L-T	D (C)	53.8 (34.6)	153 ft	112 ft	177 ft	128 ft
							R	B (C)	11.9 (21.1)	129 ft	342 ft	184 ft	301 ft
				Westbound	D (D)	53.3 (52.9)	L-T	D (D)	53.7 (53.1)	37 ft	25 ft	51 ft	45 ft
							R	D (D)	52.0 (52.0)	18 ft	13 ft	31 ft	31 ft
				Northbound	B (C)	13.1 (28.6)	L	B (D)	19.7 (41.1)	350 ft	114 ft	286 ft	249 ft
							T-R	A (A)	2.2 (3.7)	32 ft	21 ft	113 ft	76 ft
				Southbound	C (C)	32.0 (26.8)	L	D (C)	42.0 (31.6)	9 ft	14 ft	30 ft	34 ft
							T	D (C)	41.0 (34.9)	133 ft	252 ft	165 ft	256 ft
							R	C (A)	20.1 (8.1)	130 ft	94 ft	202 ft	144 ft
12	Bells Lake Road (SR 1386) & NC 540 EB Ramps	B (B)	12.2 (14.9)	Eastbound	C (C)	23.2 (20.3)	L	D (C)	37.5 (32.7)	76 ft	79 ft	138 ft	130 ft
							R	B (B)	17.7 (17.3)	110 ft	187 ft	55 ft	130 ft
				Northbound	B (B)	10.3 (13.6)	L	C (C)	31.3 (30.7)	115 ft	122 ft	139 ft	185 ft
							T	A (A)	5.1 (5.5)	151 ft	92 ft	173 ft	
				Southbound	A (B)	8.7 (12.1)	T	B (B)	11.4 (17.5)	96 ft	149 ft	94 ft	144 ft
							R	A (A)	5.2 (7.3)	49 ft	101 ft		
13	Bells Lake Road (SR 1386) & NC 540 WB Ramps	B (B)	15.1 (13.6)	Westbound	C (C)	21.4 (28.0)	L	D (D)	35.1 (39.9)	122 ft	119 ft	184 ft	171 ft
							R	B (C)	15.7 (20.1)	167 ft	120 ft	170 ft	
				Northbound	B (A)	12.9 (7.7)	T	B (B)	18.7 (11.1)	123 ft	78 ft	138 ft	105 ft
							R	A (A)	8.6 (4.2)	119 ft	43 ft		
				Southbound	B (A)	10.6 (9.4)	L	C (C)	27.5 (34.0)	75 ft	75 ft	160 ft	115 ft
							T	A (A)	6.1 (6.0)	107 ft	175 ft	96 ft	157 ft
14	US 401 & Donnybrook Road (SR 1503)/Wake Tech Driveway	C (C)	31.4 (23.3)	Eastbound	***E (E)***	***77.5 (72.2)***	L-T	***E (E)***	***79.8 (76.0)***	#332 ft	219 ft	476 ft	256 ft
							R	C (C)	30.1 (27.0)	22 ft	24 ft	44 ft	39 ft
				Westbound	D (D)	41.3 (43.8)	L-T	D ***(E)***	49.6 ***(58.6)***	123 ft	161 ft	201 ft	192 ft
							R	D (C)	37.0 (32.8)	179 ft	162 ft	223 ft	192 ft
				Northbound	D (B)	36.8 (19.5)	L	***E*** (D)	***59.6*** (53.5)	38 ft	29 ft	50 ft	42 ft
							T	D (B)	37.4 (19.4)	#1057 ft	465 ft	484 ft	329 ft
							R	B (B)	12.8 (13.7)	49 ft	36 ft	400 ft	56 ft
				Southbound	B (B)	15.5 (18.3)	L	***E*** (D)	***73.8*** (52.1)	#137 ft	109 ft	237 ft	122 ft
							T	A (B)	8.2 (16.3)	217 ft	#992	308 ft	441 ft
							R	A (A)	6.4 (7.2)	45 ft	66 ft	160 ft	102 ft
16	US 401 & NC 540 EB Ramps	A (B)	7.6 (10.1)	Eastbound	***E*** (D)	***57.6*** (48.3)	L	***E*** (D)	***56.0*** (43.0)	111 ft	104 ft	156 ft	174 ft
							R	***E*** (D)	***59.2*** (51.6)	122 ft	187 ft	164 ft	253 ft
				Northbound	A (A)	1.3 (3.4)	T	A (A)	1.5 (4.8)	m52 ft	54 ft	145 ft	110 ft
							R	A (A)	0.2 (0.5)	m0 ft	0 ft		
				Southbound	A (A)	5.1 (5.5)	T	A (A)	5.1 (5.5)	169 ft	185 ft	115 ft	212 ft
							R	-	-	-			
17	US 401 & NC 540 WB Ramps	B (B)	15.2 (13.2)	Westbound	D (D)	50.6 (49.1)	L	D (D)	47.5 (49.8)	240 ft	216 ft	273 ft	273 ft
							R	***E*** (D)	***56.5*** (46.9)	288 ft	158 ft	271 ft	177 ft
				Northbound	A (A)	4.2 (4.0)	T	A (A)	4.2 (4.0)	96 ft	78 ft	115 ft	99 ft
							R	-	-	-	-		
				Southbound	A (A)	7.7 (7.5)	T	A (A)	9.2 (8.3)	182 ft	275 ft	263 ft	259 ft
							R	A (A)	0.2 (0.2)	0 ft	0 ft		
18	Old Stage Road (SR 1006) & NC 540 EB Ramps	B (B)	16.2 (17.9)	Eastbound	D (C)	35.1 (28.1)	L	D (C)	35.6 (24.6)	143 ft	112 ft	204 ft	188 ft
							R	C (C)	34.3 (30.6)	113 ft	193 ft	196 ft	261 ft
				Northbound	A (B)	7.0 (10.5)	T	A (B)	7.0 (10.3)	166 ft	105 ft	244 ft	207 ft
							R	A (B)	6.3 (11.4)	29 ft	41 ft		
				Southbound	A (A)	4.3 (6.5)	L	A (A)	5.5 (7.2)	17 ft	22 ft	91 ft	102 ft
							T	A (A)	4.1 (6.4)	30 ft	43 ft	118 ft	131 ft

ID#	Intersection	LOS	Delay	Approach	LOS	Delay	Movement	LOS	Delay	Synchro 95th Percentile AM	Synchro 95th Percentile PM	SimTraffic Maximum Queue AM	SimTraffic Maximum Queue PM
19	Old Stage Road (SR 1006) & NC 540 WB Ramps	B (B)	18.2 (13.7)	Westbound	D (D)	45.0 (40.2)	L	D (D)	42.2 (41.1)	73 ft	72 ft	118 ft	114 ft
							R	D (D)	47.3 (38.8)	90 ft	47 ft		
				Northbound	B (B)	15.1 (11.8)	L	C (C)	31.3 (33.9)	188 ft	96 ft	257 ft	174 ft
							T	A (A)	3.3 (1.4)	87 ft	24 ft	99 ft	146 ft
				Southbound	B (B)	18.6 (12.4)	T	B (B)	13.7 (10.2)	59 ft	98 ft	131 ft	153 ft
							R	C (B)	21.2 (14.9)	265 ft	223 ft		
20	NC 50 & Steven Oaks Road (SR 5324)/Cleveland School Road (SR 1010)	B (B)	15.2 (15.7)	Eastbound	D (D)	43.6 (41.0)	L-T-R	D (D)	43.6 (41.0)	54 ft	42 ft	137 ft	64 ft
				Westbound	A (A)	2.5 (3.3)	L-T	D (D)	41.1 (40.9)	41 ft	41 ft	87 ft	57 ft
							R	A (A)	0.8 (0.3)	0 ft	0 ft		
				Northbound	C (C)	22.4 (32.1)	L	B (C)	12.6 (25.0)	11 ft	17 ft	31 ft	67 ft
							T-R	C (C)	22.6 (32.2)	#477 ft	#315 ft	401 ft	306 ft
				Southbound	B (B)	18.9 (14.1)	L	D (C)	37.4 (27.1)	#332 ft	#543 ft	397 ft	441 ft
							T	A (A)	0.9 (1.5)	21 ft	43 ft	70 ft	122 ft
							R	A (A)	0.8 (0.9)	m1 ft	m2 ft	22 ft	24 ft
21	NC 50 & NC 540 EB Ramps	B (B)	14.7 (18.5)	Eastbound	D (C)	41.7 (33.7)	L	C (C)	33.5 (21.9)	48 ft	38 ft	52 ft	72 ft
							R	D (C)	42.8 (34.5)	134 ft	222 ft	341 ft	382 ft
				Northbound	A (B)	8.5 (16.1)	T	A (B)	8.8 (16.6)	126 ft	175 ft	1,586 ft	298 ft
							R	A (B)	5.8 (13.7)	m30 ft	m56 ft		
				Southbound	B (B)	13.9 (11.2)	L	D (C)	38.6 (29.0)	118 ft	170 ft	203 ft	208 ft
							T	A (A)	0.7 (2.6)	6 ft	21 ft	97 ft	128 ft
22	NC 50 & NC 540 WB Ramps[1]	B (B)	16.0 (16.7)	Eastbound	C (C)	30.7 (30.9)	L	D (D)	37.3 (37.7)	139 ft	91 ft	231 ft	208 ft
							R	A (B)	8.3 (19.5)	45 ft	87 ft		32 ft
				Northbound	A (A)	5.6 (9.5)	L	B (C)	11.4 (20.8)	171 ft	146 ft	275 ft	166 ft
							T	A (A)	0.3 (0.2)	2 ft	0 ft	29 ft	42 ft
				Southbound	C (B)	26.7 (16.3)	T	C (B)	27.9 (16.8)	186 ft	266 ft	199 ft	270 ft
							R	B (A)	10.8 (4.6)	27 ft	15 ft		
23	White Oak Road (SR 2700) & Raynor Road (SR 2555)/Tiffany Creek Drive	B (B)	11.4 (14.5)	Eastbound	A (B)	9.0 (12.7)	L	B (A)	11.1 (6.3)	36 ft	23 ft	63 ft	50 ft
							T-R	A (B)	8.7 (13.0)	209 ft	565 ft	209 ft	301 ft
				Westbound	A (A)	8.9 (3.0)	L	A (A)	3.4 (2.3)	m3 ft	4 ft	18 ft	32 ft
							T	B (A)	10.0 (3.3)	595 ft	37 ft	388 ft	130 ft
							R	A (A)	1.7 (0.6)	20 ft	4 ft	31 ft	11 ft
				Northbound	D (D)	39.2 (38.7)	L-T-R	D (D)	39.2 (38.7)	53 ft	40 ft	72 ft	75 ft
				Southbound	D (D)	36.3 (52.7)	L	D ***(E)***	43.7 ***(62.8)***	72 ft	#168 ft	132 ft	197 ft
							T-R	C (C)	26.3 (30.5)	44 ft	57 ft	96 ft	112 ft
24	White Oak Road (SR 2700) & NC 540 SB Ramps	B (B)	11.1 (10.9)	Eastbound	A (A)	5.6 (6.4)	T	A (A)	9.5 (8.9)	43 ft	92 ft	72 ft	89 ft
							R	A (A)	2.4 (2.8)	28 ft	36 ft		
				Westbound	A (A)	4.3 (1.7)	L	D (B)	45.8 (20.0)	m20 ft	m5 ft	30 ft	42 ft
							T	A (A)	3.4 (1.3)	53 ft	16 ft	108 ft	53 ft
				Northbound	C (C)	30.2 (31.4)	L	D (D)	38.3 (39.3)	174 ft	109 ft	268 ft	155 ft
							R	C (C)	21.6 (28.2)	125 ft	192 ft		
25	White Oak Road (SR 2700) & NC 540 NB Ramps	C (C)	23.6 (20.2)	Eastbound	D (D)	35.7 (36.5)	L	D (D)	36.3 (37.9)	151 ft	121 ft	160 ft	159 ft
							R	A (B)	7.6 (12.7)	7 ft	15 ft		
				Northbound	B (C)	19.9 (25.2)	L	D (D)	37.7 (39.4)	222 ft	169 ft	272 ft	216 ft
							T	A (A)	5.5 (3.9)	58 ft	20 ft	111 ft	54 ft
				Southbound	B (B)	18.0 (12.3)	T	C (B)	20.9 (14.2)	114 ft	148 ft	171 ft	207 ft
							R	A (A)	9.6 (6.7)	60 ft	69 ft		
26	US 70 Business & NC 540 SB Ramps	A (A)	3.9 (8.1)	Eastbound	A (A)	3.7 (7.4)	T	A (A)	4.2 (8.0)	92 ft	151 ft	107 ft	136 ft
							R	A (A)	0.2 (0.1)	0 ft	0 ft		
				Westbound	A (A)	1.3 (5.5)	T	A (A)	1.3 (5.5)	23 ft	74 ft	41 ft	158 ft
				Southbound	C (B)	25.4 (18.3)	L	C (C)	32.7 (22.2)	65 ft	92 ft	125 ft	179 ft
							R	A (A)	0.0 (0.1)	0 ft	0 ft		
27	US 70 Business & NC 540 NB Ramps	A (A)	6.8 (8.9)	Eastbound	A (A)	4.1 (6.1)	T	A (A)	4.1 (6.1)	89 ft	109 ft	168 ft	168 ft
				Westbound	A (A)	5.0 (6.8)	T	A (A)	6.0 (7.7)	182 ft	119 ft	152 ft	151 ft
							R	A (A)	0.4 (0.1)	0 ft	0 ft		
				Northbound	C (C)	33.8 (23.4)	L	D (C)	35.1 (22.8)	96 ft	107 ft	126 ft	157 ft
							R	C (C)	33.0 (23.6)	73 ft	106 ft		203 ft
28	Rock Quarry Road (SR 2542) & Auburn Knightdale Road (SR 2555)	B (B)	10.9 (11.4)	Eastbound	A (A)	3.3 (3.4)	L	A (A)	3.4 (3.1)	8 ft	12 ft	26 ft	39 ft
							T-R	A (A)	3.3 (3.4)	46 ft	82 ft	53 ft	112 ft
				Westbound	A (A)	1.3 (1.0)	L	A (A)	0.3 (0.3)	1 ft	1 ft	21 ft	31 ft
							T	A (A)	1.5 (1.2)	30 ft	4 ft	52 ft	57 ft
							R	A (A)	0.3 (0.5)	1 ft	2 ft	42 ft	35 ft
				Northbound	D (D)	40.6 (42.8)	L-T-R	D (D)	40.6 (42.8)	69 ft	81 ft	115 ft	124 ft
				Southbound	D (D)	44.2 (43.8)	L-T-R	D (D)	44.2 (43.8)	93 ft	81 ft	137 ft	101 ft
29	Rock Quarry Road (SR 2542) & NC 540 SB Ramps	B (C)	19.4 (23.3)	Eastbound	B (B)	18.9 (17.5)	L	C (C)	28.4 (26.7)	112 ft	131 ft	157 ft	194 ft
							T	A (A)	3.4 (5.6)	10 ft	26 ft	63 ft	68 ft
				Westbound	B (B)	10.7 (13.8)	T-R	B (B)	10.7 (13.8)	111 ft	73 ft	138 ft	113 ft
				Southbound	D (D)	35.3 (36.0)	L	D (D)	39.6 (38.1)	142 ft	212 ft	194 ft	258 ft
							R	B (A)	11.9 (7.1)	22 ft	12 ft		
30	Rock Quarry Road (SR 2542) & NC 540 NB Ramps	B (A)	12.9 (9.3)	Eastbound	A (A)	2.1 (3.1)	L	C (C)	20.7 (28.6)	13 ft	m24 ft	49 ft	67 ft
							T	A (A)	0.3 (1.2)	3 ft	15 ft	28 ft	45 ft
				Westbound	A (A)	7.7 (6.6)	T-R	A (A)	7.7 (6.6)	95 ft	47 ft	119 ft	36 ft
				Southbound	C (C)	34.9 (32.2)	L	D (D)	38.0 (38.4)	35 ft	45 ft	52 ft	71 ft
							R	C (C)	34.6 (30.5)	145 ft	94 ft		
31	Rock Quarry Road (SR 2542) & Old Baucom Road (SR 5204)*	-	-	Westbound	B (A)	11.3 (9.9)	L	B (C)	13.9 (15.5)	0 ft	0 ft	21 ft	16 ft
							R	B (A)	11.2 (9.6)	13 ft	5 ft	58 ft	52 ft
				Southbound	-	-	L	A (A)	8.1 (7.8)	3 ft	5 ft	32 ft	42 ft
32	Auburn Knightdale Road (SR 2555) & NC 540 SB Ramps	A (A)	8.5 (8.4)	Eastbound	A (A)	4.1 (3.8)	L	A (A)	4.0 (4.0)	3 ft	4 ft	28 ft	17 ft
							T	A (A)	4.1 (3.8)	20 ft	11 ft	31 ft	46 ft
				Westbound	A (A)	1.3 (1.2)	T	A (A)	3.7 (4.1)	5 ft	4 ft	30 ft	31 ft
							R	A (A)	0.1 (0.0)	0 ft	0 ft		
				Southbound	C (C)	22.7 (22.6)	L	B (C)	20.0 (20.4)	12 ft	16 ft	87 ft	63 ft
							R	C (C)	23.1 (23.1)	46 ft	43 ft	74 ft	86 ft

ID#	Intersection	LOS	Delay	Approach	LOS	Delay	Movement	LOS	Delay	Synchro 95th Percentile AM	Synchro 95th Percentile PM	SimTraffic Maximum Queue AM	SimTraffic Maximum Queue PM
33	Auburn Knightdale Road (SR 2555) & NC 540 NB Ramps	A (A)	8.1 (8.1)	Eastbound	A (A)	2.5 (2.5)	L	A (A)	2.5 (2.6)	10 ft	11 ft	74 ft	55 ft
							T	A (A)	2.5 (2.4)	3 ft	4 ft		35 ft
				Westbound	A (A)	3.2 (3.2)	T	A (A)	3.7 (3.7)	23 ft	20 ft	52 ft	40 ft
							R	A (A)	0.0 (0.0)	0 ft	0 ft		
				Southbound	C (C)	23.0 (23.0)	L-R	C (C)	23.0 (23.0)	47 ft	47 ft	99 ft	97 ft
34	Poole Road (SR 1007) & Hodge Road (SR 2516)	B (B)	15.2 (14.3)	Eastbound	B (B)	14.6 (10.9)	L	D (D)	46.3 (43.7)	132 ft	107 ft	154 ft	136 ft
							T-R	A (A)	6.3 (6.2)	85 ft	116 ft	107 ft	120 ft
				Westbound	A (A)	6.4 (4.3)	L	A (A)	5.9 (4.1)	m9 ft	m7 ft	26 ft	33 ft
							T	A (A)	6.5 (4.4)	124 ft	59 ft	136 ft	130 ft
							R	A (A)	5.3 (3.7)	30 ft	12 ft	67 ft	33 ft
				Northbound	D (D)	54.7 (54.1)	L	D (D)	49.8 (51.5)	38 ft	28 ft	91 ft	53 ft
							T-R	***E*** (D)	***56.1*** (54.9)	99 ft	64 ft	206 ft	94 ft
				Southbound	C (C)	31.1 (34.9)	L	D (D)	52.5 (53.2)	32 ft	50 ft	49 ft	79 ft
							T	D (D)	35.5 (38.6)	40 ft	70 ft	73 ft	106 ft
							R	C (C)	20.1 (21.3)	65 ft	81 ft	118 ft	133 ft
35	Poole Road (SR 1007) & NC 540 SB Ramps	C (C)	22.7 (25.5)	Eastbound	A (A)	6.7 (5.6)	T	A (A)	7.6 (6.4)	53 ft	73 ft	143 ft	155 ft
							R	A (A)	0.0 (0.1)	0 ft	0 ft		
				Westbound	A (A)	7.5 (5.1)	L	A (A)	8.6 (5.8)	m8 ft	6 ft	17 ft	32 ft
							T	A (A)	7.5 (5.0)	56 ft	30 ft	159 ft	85 ft
				Northbound	D (D)	41.3 (49.7)	L	D (D)	45.6 (49.6)	311 ft	267 ft	386 ft	288 ft
							R	D (D)	36.3 (49.7)	135 ft	217 ft	200 ft	279 ft
36	Poole Road (SR 1007) & NC 540 NB Ramps	B (B)	17.6 (15.8)	Eastbound	B (B)	16.4 (14.4)	L	D (D)	38.4 (38.2)	64 ft	200 ft	232 ft	277 ft
							T	A (A)	1.8 (1.4)	31 ft	35 ft	208 ft	232 ft
				Westbound	B (B)	13.5 (13.4)	T	B (B)	11.9 (12.2)	71 ft	44 ft	129 ft	71 ft
							R	B (B)	14.3 (13.9)	149 ft	107 ft	191 ft	118 ft
				Northbound	***E*** (D)	***55.7*** (54.6)	L	***E (E)***	***56.4 (55.4)***	115 ft	82 ft	135 ft	107 ft
							R	D (D)	45.8 (48.6)	19 ft	21 ft	52 ft	37 ft

X (X) – AM (PM) Peak Hour Level of Service; XX.X (XX.X) – AM (PM) Peak Hour Delay in Seconds Per Vehicle

Cell Shading – Green = LOS A – D, Orange = LOS E, Red = LOS F; N/A – Analysis not applicable for comparable location or segment.

BOLD/ITALIC = Intersection/Approach/Movement that has Operational Deficiencies (LOS E or F)

* Unsignalized Intersection – No Overall or Approach LOS/Delay Reported by HCM Methodology

[1] Signalized Intersection in Build Alternative Only

ID#	Intersection	LOS	Delay	Approach	LOS	Delay	Movement	LOS	Delay	Synchro 95th Percentile Maximum Queue AM	Synchro 95th Percentile Maximum Queue PM	SimTraffic Maximum Queue AM	SimTraffic Maximum Queue PM
1	NC 55 Bypass & Mid-block U-turn	C (A)	27.5 (8.2)	Northbound	C (B)	34.1 (15.9)	T	C (B)	34.1 (15.9)	#1872 ft	459 ft	984 ft	354 ft
				Southbound	B (A)	17.2 (4.4)	U	***F*** (D)	***131.3*** (35.9)	#471 ft	m253 ft	696 ft	363 ft
							T	A (A)	0.2 (0.3)	0 ft	0 ft	765 ft	356 ft
2	NC 55 Bypass & Old Smithfield Road	A (A)	1.2 (2.4)	Eastbound	A (A)	0.1 (0.1)	R	A (A)	0.1 (0.1)	0 ft	0 ft		
				Westbound	A (A)	0.4 (0.2)	R	A (A)	0.4 (0.2)	0 ft	0 ft	1,394 ft	150 ft
				Northbound	A (A)	1.5 (1.3)	L	***F*** (D)	***85.6*** (46.5)	m37 ft	m35 ft	86 ft	88 ft
							T	A (A)	0.6 (0.3)	m0 ft	0 ft	1 ft	
							R	A (A)	0.0 (0.3)	m0 ft	0 ft	493 ft	
				Southbound	A (A)	0.9 (3.3)	T-R	A (A)	0.9 (3.3)	34 ft	87 ft	457 ft	549 ft
3	NC 55 Bypass & NC 540 EB Ramps	B (A)	15.1 (5.2)	Eastbound	A (A)	0.6 (2.7)	R	A (A)	0.6 (2.7)	0 ft	0 ft	118 ft	
				Westbound	***F*** (D)	***84.1*** (35.3)	R	***F*** (D)	***84.1*** (35.3)	59 ft	39 ft		
				Northbound	B (A)	14.4 (5.4)	T	B (A)	14.8 (5.5)	#803 ft	148 ft	273 ft	173 ft
							R	A (A)	1.3 (3.6)	m12 ft	21 ft		
				Southbound	B (A)	19.6 (5.4)	L	***F*** (C)	***132.8*** (34.9)	#272 ft	m143 ft	425 ft	225 ft
							T	A (A)	0.3 (0.4)	0 ft	0 ft	266 ft	
4	NC 55 Bypass & NC 540 WB Ramps	B (A)	11.0 (9.1)	Westbound	***E*** (D)	***79.4*** (45.3)	L	***E*** (D)	***64.7*** (39.7)	73 ft	51 ft	138 ft	110 ft
							R	***F*** (D)	***83.5*** (47.8)	265 ft	112 ft	251 ft	122 ft
				Northbound	A (A)	3.1 (0.8)	T	A (A)	4.4 (1.0)	m383 ft	17 ft	156 ft	81 ft
							R	A (A)	0.8 (0.5)	m0 ft	0 ft		
				Southbound	A (B)	7.7 (10.7)	T	A (B)	8.0 (10.9)	357 ft	489 ft	333 ft	1,012 ft
							R	A (A)	0.1 (0.0)	0 ft	0 ft		325 ft
5	Holly Springs Road & NC 540 EB Off-ramp Right-turn	A (A)	1.7 (3.9)	Eastbound	A (B)	7.9 (15.9)	R	A (B)	7.9 (15.9)	30 ft	86 ft	95 ft	153 ft
				Southbound	A (A)	0.8 (1.6)	T	A (A)	0.8 (1.6)	17 ft	22 ft	6 ft	32 ft
6	Holly Springs Road & NC 540 EB Ramps Crossover	B (B)	14.1 (17.4)	Northbound	C (B)	21.4 (18.0)	T	C (B)	21.4 (18.0)	121 ft	142 ft	186 ft	198 ft
				Southbound	A (B)	9.6 (16.0)	T	A (B)	9.6 (16.0)	183 ft	119 ft	216 ft	172 ft
7	Holly Springs Road & NC 540 EB Off-ramp Left-turn	A (A)	2.9 (3.9)	Eastbound	D (C)	45.1 (31.0)	L	D (C)	45.1 (31.0)	48 ft	39 ft	99 ft	82 ft
				Northbound	A (A)	0.1 (0.1)	T	A (A)	0.1 (0.1)	0 ft	0 ft	6 ft	
8	Holly Springs Road & NC 540 WB Off-ramp Left-turn	B (A)	11.5 (8.6)	Westbound	D (D)	40.1 (50.5)	L	D (D)	40.1 (50.5)	122 ft	144 ft	228 ft	246 ft
				Southbound	A (A)	0.1 (0.1)	T	A (A)	0.1 (0.1)	0 ft	0 ft		44 ft
9	Holly Springs Road & NC 540 WB Ramps Crossover	C (B)	21.0 (15.1)	Northbound	C (C)	26.8 (25.4)	T	C (C)	26.8 (25.4)	270 ft	157 ft	222 ft	154 ft
				Southbound	B (B)	12.1 (11.2)	T	B (B)	12.1 (11.2)	150 ft	252 ft	140 ft	168 ft
10	Holly Springs Road & NC 540 WB Off-ramp Right-turn	A (A)	4.3 (2.6)	Westbound	B (A)	13.9 (8.8)	R	B (A)	13.9 (8.8)	146 ft	59 ft	179 ft	100 ft
				Northbound	A (A)	0.1 (0.1)	T	A (A)	0.1 (0.1)	0 ft	0 ft		
11	Holly Springs Road (SR 1152) & Kildaire Farm Road (SR 1300)/Sancroft Drive	B (C)	19.9 (26.1)	Eastbound	C (C)	25.2 (23.5)	L	D (C)	53.6 (34.7)	151 ft	114 ft	160 ft	155 ft
							L-T	D (C)	53.8 (34.6)	153 ft	112 ft	183 ft	125 ft
							R	B (C)	11.9 (21.1)	129 ft	342 ft	192 ft	310 ft
				Westbound	D (D)	53.3 (52.9)	L-T	D (D)	53.7 (53.1)	37 ft	25 ft	56 ft	51 ft
							R	D (D)	52.0 (52.0)	18 ft	13 ft	35 ft	26 ft
				Northbound	B (C)	13.1 (28.6)	L	B (D)	19.7 (41.1)	350 ft	114 ft	234 ft	256 ft
							T-R	A (A)	2.2 (3.7)	32 ft	21 ft	79 ft	88 ft
				Southbound	C (C)	32.0 (26.8)	L	D (C)	42.0 (31.6)	9 ft	14 ft	30 ft	35 ft
							T	D (C)	41.0 (34.9)	133 ft	252 ft	166 ft	250 ft
							R	C (A)	20.1 (8.1)	130 ft	94 ft	169 ft	146 ft
12	Bells Lake Road (SR 1386) & NC 540 EB Ramps	B (B)	12.2 (14.9)	Eastbound	C (C)	23.2 (20.3)	L	D (C)	37.5 (32.7)	76 ft	79 ft	125 ft	138 ft
							R	B (B)	17.7 (17.3)	110 ft	187 ft	64 ft	139 ft
				Northbound	B (B)	10.3 (13.6)	L	C (C)	31.3 (30.7)	115 ft	122 ft	161 ft	190 ft
							T	A (A)	5.1 (5.5)	151 ft	92 ft	141 ft	111 ft
				Southbound	A (B)	8.7 (12.1)	T	B (B)	11.4 (17.5)	96 ft	149 ft	123 ft	156 ft
							R	A (A)	5.2 (7.3)	49 ft	101 ft		34 ft
13	Bells Lake Road (SR 1386) & NC 540 WB Ramps	B (B)	15.1 (13.6)	Westbound	C (C)	21.4 (28.0)	L	D (D)	35.1 (39.9)	122 ft	119 ft	174 ft	157 ft
							R	B (C)	15.7 (20.1)	167 ft	120 ft	40 ft	
				Northbound	B (A)	12.9 (7.7)	T	B (B)	18.7 (11.1)	123 ft	78 ft	156 ft	123 ft
							R	A (A)	8.6 (4.2)	119 ft	43 ft	23 ft	
				Southbound	B (A)	10.6 (9.4)	L	C (C)	27.5 (34.0)	75 ft	75 ft	125 ft	120 ft
							T	A (A)	6.1 (6.0)	107 ft	175 ft	107 ft	156 ft
14	US 401 & Donnybrook Road (SR 1503)/Wake Tech Driveway	C (C)	31.4 (23.3)	Eastbound	***E (E)***	***77.5 (72.2)***	L-T	***E (E)***	***79.8 (76.0)***	#332 ft	219 ft	304 ft	257 ft
							R	C (C)	30.1 (27.0)	22 ft	24 ft	31 ft	45 ft
				Westbound	D (D)	41.3 (43.8)	L-T	D ***(E)***	49.6 ***(58.6)***	123 ft	161 ft	159 ft	210 ft
							R	D (C)	37.0 (32.8)	179 ft	162 ft	231 ft	208 ft
				Northbound	D (B)	36.8 (19.5)	L	***E*** (D)	***59.6*** (53.5)	38 ft	29 ft	55 ft	42 ft
							T	D (B)	37.4 (19.4)	#1057 ft	465 ft	570 ft	327 ft
							R	B (B)	12.8 (13.7)	49 ft	36 ft	266 ft	58 ft
				Southbound	B (B)	15.5 (18.3)	L	***E*** (D)	***73.8*** (52.1)	#137 ft	109 ft	158 ft	138 ft
							T	A (B)	8.2 (16.3)	217 ft	#992	252 ft	444 ft
							R	A (A)	6.4 (7.2)	45 ft	66 ft	92 ft	105 ft
16	US 401 & NC 540 EB Ramps	A (B)	7.6 (10.1)	Eastbound	***E*** (D)	***57.6*** (48.3)	L	***E*** (D)	***56.0*** (43.0)	111 ft	104 ft	184 ft	171 ft
							R	***E*** (D)	***59.2*** (51.6)	122 ft	187 ft	170 ft	272 ft
				Northbound	A (A)	1.3 (3.4)	T	A (A)	1.5 (4.8)	m52 ft	54 ft	125 ft	117 ft
							R	A (A)	0.2 (0.5)	m0 ft	0 ft		
				Southbound	A (A)	5.1 (5.5)	T	A (A)	5.1 (5.5)	169 ft	185 ft	143 ft	208 ft
							R	-	-	-			
17	US 401 & NC 540 WB Ramps	B (B)	15.2 (13.2)	Westbound	D (D)	50.6 (49.1)	L	D (D)	47.5 (49.8)	240 ft	216 ft	290 ft	276 ft
							R	***E*** (D)	***56.5*** (46.9)	288 ft	158 ft	299 ft	171 ft
				Northbound	A (A)	4.2 (4.0)	T	A (A)	4.2 (4.0)	96 ft	78 ft	122 ft	103 ft
							R	-	-	-	-		
				Southbound	A (A)	7.7 (7.5)	T	A (A)	9.2 (8.3)	182 ft	275 ft	231 ft	279 ft
							R	A (A)	0.2 (0.2)	0 ft	0 ft		
18	Old Stage Road (SR 1006) & NC 540 EB Ramps	B (B)	16.2 (17.9)	Eastbound	D (C)	35.1 (28.1)	L	D (C)	35.6 (24.6)	143 ft	112 ft	223 ft	194 ft
							R	C (C)	34.3 (30.6)	113 ft	193 ft	98 ft	256 ft
				Northbound	A (B)	7.0 (10.5)	T	A (B)	7.0 (10.3)	166 ft	105 ft	287 ft	200 ft
							R	A (B)	6.3 (11.4)	29 ft	41 ft		
				Southbound	A (A)	4.3 (6.5)	L	A (A)	5.5 (7.2)	17 ft	22 ft	80 ft	110 ft
							T	A (A)	4.1 (6.4)	30 ft	43 ft	136 ft	128 ft

ID#	Intersection	LOS	Delay	Approach	LOS	Delay	Movement	LOS	Delay	Synchro 95th Percentile Maximum Queue AM	Synchro 95th Percentile Maximum Queue PM	SimTraffic Maximum Queue AM	SimTraffic Maximum Queue PM
19	Old Stage Road (SR 1006) & NC 540 WB Ramps	B (B)	18.2 (13.7)	Westbound	D (D)	45.0 (40.2)	L	D (D)	42.2 (41.1)	73 ft	72 ft	103 ft	109 ft
							R	D (D)	47.3 (38.8)	90 ft	47 ft		
				Northbound	B (B)	15.1 (11.8)	L	C (C)	31.3 (33.9)	188 ft	96 ft	263 ft	180 ft
							T	A (A)	3.3 (1.4)	87 ft	24 ft	98 ft	139 ft
				Southbound	B (B)	18.6 (12.4)	T	B (B)	13.7 (10.2)	59 ft	98 ft	123 ft	144 ft
							R	C (B)	21.2 (14.9)	265 ft	223 ft	43 ft	
20	NC 50 & Steven Oaks Road (SR 5324)/Cleveland School Road (SR 1010)	B (B)	15.2 (15.7)	Eastbound	D (D)	43.6 (41.0)	L-T-R	D (D)	43.6 (41.0)	54 ft	42 ft	92 ft	66 ft
				Westbound	A (A)	2.5 (3.3)	L-T	D (D)	41.1 (40.9)	41 ft	41 ft	54 ft	66 ft
							R	A (A)	0.8 (0.3)	0 ft	0 ft		
				Northbound	C (C)	22.4 (32.1)	L	B (C)	12.6 (25.0)	11 ft	17 ft	105 ft	102 ft
							T-R	C (C)	22.6 (32.2)	#477 ft	#315 ft	377 ft	256 ft
				Southbound	B (B)	18.9 (14.1)	L	D (C)	37.4 (27.1)	#332 ft	#543 ft	307 ft	519 ft
							T	A (A)	0.9 (1.5)	21 ft	43 ft	96 ft	135 ft
							R	A (A)	0.8 (0.9)	m1 ft	m2 ft	14 ft	24 ft
21	NC 50 & NC 540 EB Ramps	B (B)	14.7 (18.5)	Eastbound	D (C)	41.7 (33.7)	L	C (C)	33.5 (21.9)	48 ft	38 ft	74 ft	67 ft
							R	D (C)	42.8 (34.5)	134 ft	222 ft	285 ft	370 ft
				Northbound	A (B)	8.5 (16.1)	T	A (B)	8.8 (16.6)	126 ft	175 ft	216 ft	272 ft
							R	A (B)	5.8 (13.7)	m30 ft	m56 ft		
				Southbound	B (B)	13.9 (11.2)	L	D (C)	38.6 (29.0)	118 ft	170 ft	183 ft	230 ft
							T	A (A)	0.7 (2.6)	6 ft	21 ft	46 ft	141 ft
22	NC 50 & NC 540 WB Ramps[1]	B (B)	16.0 (16.7)	Eastbound	C (C)	30.7 (30.9)	L	D (D)	37.3 (37.7)	139 ft	91 ft	219 ft	198 ft
							R	A (B)	8.3 (19.5)	45 ft	87 ft		
				Northbound	A (A)	5.6 (9.5)	L	B (C)	11.4 (20.8)	171 ft	146 ft	229 ft	135 ft
							T	A (A)	0.3 (0.2)	2 ft	0 ft	40 ft	47 ft
				Southbound	C (B)	26.7 (16.3)	T	C (B)	27.9 (16.8)	186 ft	266 ft	218 ft	249 ft
							R	B (A)	10.8 (4.6)	27 ft	15 ft		
23	White Oak Road (SR 2700) & Raynor Road (SR 2555)/Tiffany Creek Drive	B (B)	11.4 (14.5)	Eastbound	A (B)	9.0 (12.7)	L	B (A)	11.1 (6.3)	36 ft	23 ft	69 ft	51 ft
							T-R	A (B)	8.7 (13.0)	209 ft	565 ft	184 ft	325 ft
				Westbound	A (A)	8.9 (3.0)	L	A (A)	3.4 (2.3)	m3 ft	4 ft	41 ft	36 ft
							T	B (A)	10.0 (3.3)	595 ft	37 ft	283 ft	132 ft
							R	A (A)	1.7 (0.6)	20 ft	4 ft	40 ft	27 ft
				Northbound	D (D)	39.2 (38.7)	L-T-R	D (D)	39.2 (38.7)	53 ft	40 ft	82 ft	67 ft
				Southbound	D (D)	36.3 (52.7)	L	D ***(E)***	43.7 ***(62.8)***	72 ft	#168 ft	98 ft	174 ft
							T-R	C (C)	26.3 (30.5)	44 ft	57 ft	81 ft	105 ft
24	White Oak Road (SR 2700) & NC 540 SB Ramps	B (B)	11.1 (10.9)	Eastbound	A (A)	5.6 (6.4)	T	A (A)	9.5 (8.9)	43 ft	92 ft	71 ft	82 ft
							R	A (A)	2.4 (2.8)	28 ft	36 ft		
				Westbound	A (A)	4.3 (1.7)	L	D (B)	45.8 (20.0)	m20 ft	m5 ft	56 ft	42 ft
							T	A (A)	3.4 (1.3)	53 ft	16 ft	105 ft	61 ft
				Northbound	C (C)	30.2 (31.4)	L	D (D)	38.3 (39.3)	174 ft	109 ft	237 ft	151 ft
							R	C (C)	21.6 (28.2)	125 ft	192 ft		
25	White Oak Road (SR 2700) & NC 540 NB Ramps	C (C)	23.6 (20.2)	Eastbound	D (D)	35.7 (36.5)	L	D (D)	36.3 (37.9)	151 ft	121 ft	184 ft	157 ft
							R	A (B)	7.6 (12.7)	7 ft	15 ft		
				Northbound	B (C)	19.9 (25.2)	L	D (D)	37.7 (39.4)	222 ft	169 ft	272 ft	220 ft
							T	A (A)	5.5 (3.9)	58 ft	20 ft	93 ft	56 ft
				Southbound	B (B)	18.0 (12.3)	T	C (B)	20.9 (14.2)	114 ft	148 ft	153 ft	217 ft
							R	A (A)	9.6 (6.7)	60 ft	69 ft		
26	US 70 Business & NC 540 SB Ramps	A (A)	3.9 (8.1)	Eastbound	A (A)	3.7 (7.4)	T	A (A)	4.2 (8.0)	92 ft	151 ft	100 ft	138 ft
							R	A (A)	0.2 (0.1)	0 ft	0 ft		
				Westbound	A (A)	1.3 (5.5)	T	A (A)	1.3 (5.5)	23 ft	74 ft	49 ft	177 ft
				Southbound	C (B)	25.4 (18.3)	L	C (C)	32.7 (22.2)	65 ft	92 ft	139 ft	174 ft
							R	A (A)	0.0 (0.1)	0 ft	0 ft		
27	US 70 Business & NC 540 NB Ramps	A (A)	6.8 (8.9)	Eastbound	A (A)	4.1 (6.1)	T	A (A)	4.1 (6.1)	89 ft	109 ft	126 ft	174 ft
				Westbound	A (A)	5.0 (6.8)	T	A (A)	6.0 (7.7)	182 ft	119 ft	166 ft	151 ft
							R	A (A)	0.4 (0.1)	0 ft	0 ft		
				Northbound	C (C)	33.8 (23.4)	L	D (C)	35.1 (22.8)	96 ft	107 ft	147 ft	165 ft
							R	C (C)	33.0 (23.6)	73 ft	106 ft	18 ft	180 ft
28	Rock Quarry Road (SR 2542) & Auburn Knightdale Road (SR 2555)	B (B)	10.9 (11.4)	Eastbound	A (A)	3.3 (3.4)	L	A (A)	3.4 (3.1)	8 ft	12 ft	36 ft	48 ft
							T-R	A (A)	3.3 (3.4)	46 ft	82 ft	70 ft	107 ft
				Westbound	A (A)	1.3 (1.0)	L	A (A)	0.3 (0.3)	1 ft	1 ft	25 ft	27 ft
							T	A (A)	1.5 (1.2)	30 ft	4 ft	58 ft	50 ft
							R	A (A)	0.3 (0.5)	1 ft	2 ft	28 ft	31 ft
				Northbound	D (D)	40.6 (42.8)	L-T-R	D (D)	40.6 (42.8)	69 ft	81 ft	106 ft	134 ft
				Southbound	D (D)	44.2 (43.8)	L-T-R	D (D)	44.2 (43.8)	93 ft	81 ft	139 ft	115 ft
29	Rock Quarry Road (SR 2542) & NC 540 SB Ramps	B (C)	19.4 (23.3)	Eastbound	B (B)	18.9 (17.5)	L	C (C)	28.4 (26.7)	112 ft	131 ft	143 ft	180 ft
							T	A (A)	3.4 (5.6)	10 ft	26 ft	35 ft	65 ft
				Westbound	B (B)	10.7 (13.8)	T-R	B (B)	10.7 (13.8)	111 ft	73 ft	147 ft	110 ft
				Southbound	D (D)	35.3 (36.0)	L	D (D)	39.6 (38.1)	142 ft	212 ft	194 ft	256 ft
							R	B (A)	11.9 (7.1)	22 ft	12 ft	5 ft	
30	Rock Quarry Road (SR 2542) & NC 540 NB Ramps	B (A)	12.9 (9.3)	Eastbound	A (A)	2.1 (3.1)	L	C (C)	20.7 (28.6)	13 ft	m24 ft	58 ft	82 ft
							T	A (A)	0.3 (1.2)	3 ft	15 ft	27 ft	41 ft
				Westbound	A (A)	7.7 (6.6)	T-R	A (A)	7.7 (6.6)	95 ft	47 ft	58 ft	49 ft
				Southbound	C (C)	34.9 (32.2)	L	D (D)	38.0 (38.4)	35 ft	45 ft	70 ft	85 ft
							R	C (C)	34.6 (30.5)	145 ft	94 ft		
31	Rock Quarry Road (SR 2542) & Old Baucom Road (SR 5204)*	-	-	Westbound	B (A)	11.3 (9.9)	L	B (C)	13.9 (15.5)	0 ft	0 ft	19 ft	21 ft
							R	B (A)	11.2 (9.6)	13 ft	5 ft	71 ft	51 ft
				Southbound	-	-	L	A (A)	8.1 (7.8)	3 ft	5 ft	38 ft	42 ft
32	Auburn Knightdale Road (SR 2555) & NC 540 SB Ramps	A (A)	8.4 (8.4)	Eastbound	A (A)	3.9 (3.8)	L	A (A)	4.0 (4.0)	3 ft	4 ft	14 ft	25 ft
							T	A (A)	3.9 (3.8)	10 ft	11 ft	47 ft	58 ft
				Westbound	A (A)	1.3 (1.2)	T	A (A)	3.7 (4.1)	5 ft	4 ft	35 ft	31 ft
							R	A (A)	0.1 (0.0)	0 ft	0 ft		
				Southbound	C (C)	22.7 (22.6)	L	B (C)	20.0 (20.4)	12 ft	16 ft	74 ft	57 ft
							R	C (C)	23.1 (23.1)	46 ft	43 ft	82 ft	78 ft

ID#	Intersection	LOS	Delay	Approach	LOS	Delay	Movement	LOS	Delay	Synchro 95th Percentile AM	Synchro 95th Percentile PM	SimTraffic Maximum Queue AM	SimTraffic Maximum Queue PM
33	Auburn Knightdale Road (SR 2555) & NC 540 NB Ramps	A (A)	8.1 (8.1)	Eastbound	A (A)	2.6 (2.5)	L	A (A)	2.6 (2.6)	10 ft	11 ft	44 ft	57 ft
							T	A (A)	2.5 (2.4)	3 ft	4 ft	27 ft	32 ft
				Westbound	A (A)	3.2 (3.2)	T	A (A)	3.7 (3.7)	23 ft	20 ft	48 ft	39 ft
							R	A (A)	0.0 (0.0)	0 ft	0 ft		
				Southbound	C (C)	23.0 (23.0)	L-R	C (C)	23.0 (23.0)	47 ft	47 ft	100 ft	108 ft
34	Poole Road (SR 1007) & Hodge Road (SR 2516)	B (B)	15.2 (14.3)	Eastbound	B (B)	14.6 (10.9)	L	D (D)	46.3 (43.7)	132 ft	107 ft	146 ft	132 ft
							T-R	A (A)	6.3 (6.2)	85 ft	116 ft	90 ft	230 ft
				Westbound	A (A)	6.4 (4.3)	L	A (A)	5.9 (4.1)	m9 ft	m7 ft	32 ft	38 ft
							T	A (A)	6.5 (4.4)	124 ft	59 ft	142 ft	205 ft
							R	A (A)	5.3 (3.7)	30 ft	12 ft	40 ft	
				Northbound	D (D)	54.7 (54.1)	L	D (D)	49.8 (51.5)	38 ft	28 ft	53 ft	42 ft
							T-R	***E*** (D)	***56.1*** (54.9)	99 ft	64 ft	137 ft	97 ft
				Southbound	C (C)	31.1 (34.9)	L	D (D)	52.5 (53.2)	32 ft	50 ft	63 ft	130 ft
							T	D (D)	35.5 (38.6)	40 ft	70 ft	61 ft	102 ft
							R	C (C)	20.1 (21.3)	65 ft	81 ft	122 ft	124 ft
35	Poole Road (SR 1007) & NC 540 SB Ramps	C (C)	22.7 (25.5)	Eastbound	A (A)	6.7 (5.6)	T	A (A)	7.6 (6.4)	53 ft	73 ft	130 ft	157 ft
							R	A (A)	0.0 (0.1)	0 ft	0 ft		
				Westbound	A (A)	7.5 (5.1)	L	A (A)	8.6 (5.8)	m8 ft	6 ft	39 ft	29 ft
							T	A (A)	7.5 (5.0)	56 ft	30 ft	104 ft	97 ft
				Northbound	D (D)	41.3 (49.7)	L	D (D)	45.6 (49.6)	311 ft	267 ft	366 ft	307 ft
							R	D (D)	36.3 (49.7)	135 ft	217 ft	198 ft	251 ft
36	Poole Road (SR 1007) & NC 540 NB Ramps	B (B)	17.6 (15.8)	Eastbound	B (B)	16.4 (14.4)	L	D (D)	38.4 (38.2)	64 ft	200 ft	220 ft	241 ft
							T	A (A)	1.8 (1.4)	31 ft	35 ft	154 ft	241 ft
				Westbound	B (B)	13.5 (13.4)	T	B (B)	11.9 (12.2)	71 ft	44 ft	84 ft	70 ft
							R	B (B)	14.3 (13.9)	149 ft	107 ft	166 ft	142 ft
				Northbound	***E*** (D)	***55.7*** (54.6)	L	***E (E)***	***56.4 (55.4)***	115 ft	82 ft	144 ft	110 ft
							R	D (D)	45.8 (48.6)	19 ft	21 ft	28 ft	46 ft

X (X) – AM (PM) Peak Hour Level of Service; XX.X (XX.X) – AM (PM) Peak Hour Delay in Seconds Per Vehicle

Cell Shading – Green = LOS A – D, Orange = LOS E, Red = LOS F; N/A – Analysis not applicable for comparable location or segment.

BOLD/ITALIC = Intersection/Approach/Movement that has Operational Deficiencies (LOS E or F)

* Unsignalized Intersection – No Overall or Approach LOS/Delay Reported by HCM Methodology

[1] Signalized Intersection in Build Alternative Only

2016 No-Build
Synchro Results

Intersection

Int Delay, s/veh 78

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	103	0	0	354	30	2514	195	0	1504	27
Future Vol, veh/h	0	0	103	0	0	354	30	2514	195	0	1504	27
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	-	-	0	-	-	0	550	-	0	-	-	-
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, %	21	21	21	6	6	6	4	4	4	4	4	4
Mvmt Flow	0	0	114	0	0	393	33	2793	217	0	1671	30

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	-	-	851	-	-	1397	1701	0	0	-	-	0
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	7.52	-	-	7.02	5.38	-	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	4.11	-	-	3.36	3.14	-	-	-	-	-
Pot Cap-1 Maneuver	0	0	231	0	0	~ 126	173	-	-	0	-	-
Stage 1	0	0	-	0	0	-	-	-	-	0	-	-
Stage 2	0	0	-	0	0	-	-	-	-	0	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	-	-	231	-	-	~ 126	173	-	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	35	$ 1028.7	0.3	0
HCM LOS	E	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBT	SBR
Capacity (veh/h)	173	-	-	231	126	-	-
HCM Lane V/C Ratio	0.193	-	-	0.495	3.122	-	-
HCM Control Delay (s)	30.7	-	-	35	$ 1028.7	-	-
HCM Lane LOS	D	-	-	E	F	-	-
HCM 95th %tile Q(veh)	0.7	-	-	2.5	37.4	-	-

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

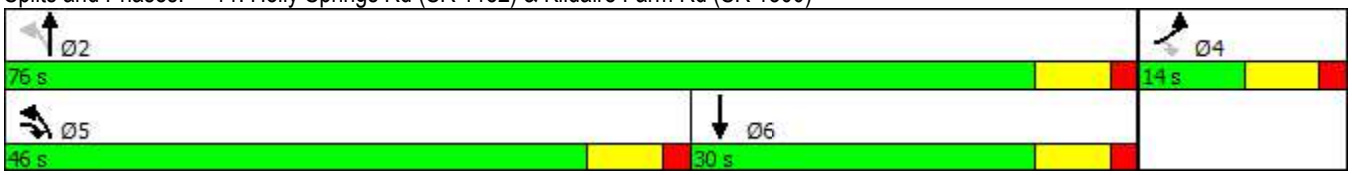
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	16	421	788	619	329	16
Future Volume (vph)	16	421	788	619	329	16
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)	-3%			-2%	4%	
Storage Length (ft)	100	0	225			0
Storage Lanes	1	1	1			0
Taper Length (ft)	75		100			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.850			0.994	
Flt Protected	0.950		0.950			
Satd. Flow (prot)	1796	1607	1787	1881	1815	0
Flt Permitted	0.950		0.342			
Satd. Flow (perm)	1796	1607	643	1881	1815	0
Right Turn on Red		No				No
Satd. Flow (RTOR)						
Link Speed (mph)	45			45	45	
Link Distance (ft)	927			662	599	
Travel Time (s)	14.0			10.0	9.1	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	18	468	876	688	366	18
Shared Lane Traffic (%)						
Lane Group Flow (vph)	18	468	876	688	384	0
Turn Type	Prot	pm+ov	pm+pt	NA	NA	
Protected Phases	4	5	5	2	6	
Permitted Phases		4	2			
Detector Phase	4	5	5	2	6	
Switch Phase						
Minimum Initial (s)	7.0	7.0	7.0	12.0	12.0	
Minimum Split (s)	14.0	14.0	14.0	19.0	19.0	
Total Split (s)	14.0	46.0	46.0	76.0	30.0	
Total Split (%)	15.6%	51.1%	51.1%	84.4%	33.3%	
Maximum Green (s)	7.0	39.0	39.0	69.0	23.0	
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0	
All-Red Time (s)	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		Lead	Lead		Lag	
Lead-Lag Optimize?		Yes	Yes		Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0	
Time Before Reduce (s)	0.0	0.0	0.0	15.0	15.0	
Time To Reduce (s)	0.0	0.0	0.0	45.0	45.0	
Recall Mode	None	None	None	Max	Max	
Act Effct Green (s)	9.1	37.5	71.5	74.7	34.1	
Actuated g/C Ratio	0.11	0.46	0.88	0.92	0.42	
v/c Ratio	0.09	0.63	0.86	0.40	0.51	
Control Delay	36.8	19.4	18.0	2.5	25.4	
Queue Delay	0.0	0.0	0.0	0.0	0.0	

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Total Delay	36.8	19.4	18.0	2.5	25.4	
LOS	D	B	B	A	C	
Approach Delay	20.0			11.2	25.4	
Approach LOS	C			B	C	
Queue Length 50th (ft)	8	166	107	0	128	
Queue Length 95th (ft)	30	206	#527	145	#331	
Internal Link Dist (ft)	847			582	519	
Turn Bay Length (ft)	100		225			
Base Capacity (vph)	199	912	1141	1722	757	
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	0.09	0.51	0.77	0.40	0.51	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 81.6
Natural Cycle: 80
Control Type: Semi Act-Uncoord
Maximum v/c Ratio: 0.86
Intersection Signal Delay: 15.2 Intersection LOS: B
Intersection Capacity Utilization 80.3% 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: 11: Holly Springs Rd (SR 1152) & Kildaire Farm Rd (SR 1300)



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	43	7	11	40	4	113	10	1428	64	117	932	26
Future Volume (vph)	43	7	11	40	4	113	10	1428	64	117	932	26
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		1%			-4%			4%			-3%	
Storage Length (ft)	0		0	0		0	100		0	300		175
Storage Lanes	0		0	0		0	1		0	1		1
Taper Length (ft)	100			100			175			250		
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		0.976			0.902			0.994				0.850
Flt Protected		0.966			0.988		0.950			0.950		
Satd. Flow (prot)	0	1747	0	0	1693	0	1734	3448	0	1796	3592	1607
Flt Permitted		0.575			0.909		0.950			0.950		
Satd. Flow (perm)	0	1040	0	0	1558	0	1734	3448	0	1796	3592	1607
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		10			20			55			55	
Link Distance (ft)		1098			1012			1074			1123	
Travel Time (s)		74.9			34.5			13.3			13.9	
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)	48	8	12	44	4	126	11	1587	71	130	1036	29
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	68	0	0	174	0	11	1658	0	130	1036	29
Turn Type	Perm	NA		Perm	NA		Prot	NA		Prot	NA	Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8								6
Detector Phase	4	4		8	8		5	2		1	6	6
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		7.0	14.0		7.0	14.0	14.0
Minimum Split (s)	35.5	35.5		14.5	14.5		14.0	21.0		14.0	21.0	21.0
Total Split (s)	35.5	35.5		35.5	35.5		14.0	68.5		16.0	70.5	70.5
Total Split (%)	29.6%	29.6%		29.6%	29.6%		11.7%	57.1%		13.3%	58.8%	58.8%
Maximum Green (s)	28.5	28.5		28.5	28.5		7.0	61.5		9.0	63.5	63.5
Yellow Time (s)	5.0	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	2.0
Lost Time Adjust (s)		-2.0			-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	5.0
Lead/Lag							Lag	Lead		Lag	Lead	Lead
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
Minimum Gap (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	15.0		0.0	15.0	15.0
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	30.0		0.0	30.0	30.0
Recall Mode	None	None		None	None		None	C-Max		None	C-Max	C-Max
Walk Time (s)	5.0	5.0										
Flash Dont Walk (s)	23.0	23.0										
Pedestrian Calls (#/hr)	0	0										
Act Effct Green (s)		20.7			20.7		9.0	73.3		11.0	86.5	86.5
Actuated g/C Ratio		0.17			0.17		0.08	0.61		0.09	0.72	0.72

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio		0.38			0.65		0.08	0.79		0.79	0.40	0.03
Control Delay		48.6			57.0		53.4	22.0		77.7	2.7	2.7
Queue Delay		0.0			0.0		0.0	0.0		0.0	0.0	0.0
Total Delay		48.6			57.0		53.4	22.0		77.7	2.7	2.7
LOS		D			E		D	C		E	A	A
Approach Delay		48.6			57.0			22.2			10.9	
Approach LOS		D			E			C			B	
Queue Length 50th (ft)		47			127		8	475		104	28	1
Queue Length 95th (ft)		88			191		28	674		#212	80	m7
Internal Link Dist (ft)		1018			932			994			1043	
Turn Bay Length (ft)							100			300		175
Base Capacity (vph)		264			395		130	2106		164	2589	1158
Starvation Cap Reductn		0			0		0	0		0	0	0
Spillback Cap Reductn		0			0		0	0		0	0	0
Storage Cap Reductn		0			0		0	0		0	0	0
Reduced v/c Ratio		0.26			0.44		0.08	0.79		0.79	0.40	0.03

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 114 (95%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle: 100
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.79
Intersection Signal Delay: 20.4 Intersection LOS: C
Intersection Capacity Utilization 69.7% 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: 14: US 401 (Fayetteville Road) & Chandler Ridge Circle/Wake Technical Community College



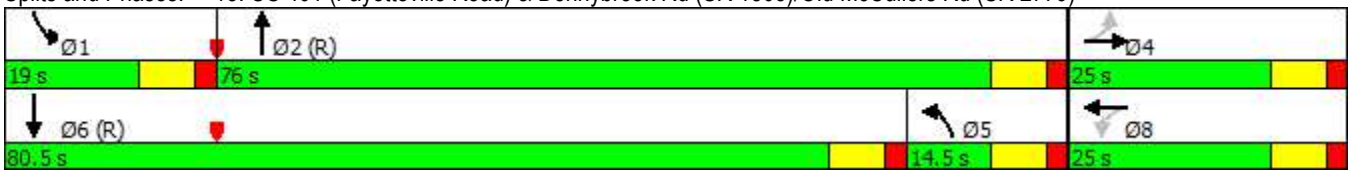
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	83	58	46	22	40	108	51	1524	36	112	990	59
Future Volume (vph)	83	58	46	22	40	108	51	1524	36	112	990	59
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		1%			2%			2%			-2%	
Storage Length (ft)	50		0	75		0	125		0	300		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	75			75			175			175		
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		0.933			0.890			0.997			0.992	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1761	1729	0	1752	1641	0	1752	3493	0	1787	3546	0
Flt Permitted	0.459			0.607			0.950			0.950		
Satd. Flow (perm)	851	1729	0	1119	1641	0	1752	3493	0	1787	3546	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		45			35			55			55	
Link Distance (ft)		1213			1259			1123			1001	
Travel Time (s)		18.4			24.5			13.9			12.4	
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)	92	64	51	24	44	120	57	1693	40	124	1100	66
Shared Lane Traffic (%)												
Lane Group Flow (vph)	92	115	0	24	164	0	57	1733	0	124	1166	0
Turn Type	Perm	NA		Perm	NA		Prot	NA		Prot	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8								
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	14.0		7.0	14.0	
Minimum Split (s)	14.0	14.0		14.0	14.0		14.5	21.0		14.5	21.0	
Total Split (s)	25.0	25.0		25.0	25.0		14.5	76.0		19.0	80.5	
Total Split (%)	20.8%	20.8%		20.8%	20.8%		12.1%	63.3%		15.8%	67.1%	
Maximum Green (s)	18.0	18.0		18.0	18.0		7.5	69.0		12.0	73.5	
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		-2.0	-2.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Lead/Lag							Lag	Lag		Lead	Lead	
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	
Minimum Gap (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	15.0		0.0	15.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	30.0		0.0	30.0	
Recall Mode	None	None		None	None		None	C-Max		None	C-Max	
Act Effct Green (s)	17.7	17.7		17.7	17.7		9.4	74.0		13.4	80.7	
Actuated g/C Ratio	0.15	0.15		0.15	0.15		0.08	0.62		0.11	0.67	
v/c Ratio	0.74	0.45		0.15	0.68		0.42	0.81		0.62	0.49	
Control Delay	80.9	52.1		45.5	62.7		43.5	7.2		65.1	11.5	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay	80.9	52.1		45.5	62.7		43.5	7.2		65.1	11.5	
LOS	F	D		D	E		D	A		E	B	
Approach Delay		64.9			60.5			8.4			16.6	
Approach LOS		E			E			A			B	
Queue Length 50th (ft)	68	81		16	120		43	435		92	240	
Queue Length 95th (ft)	#144	140		42	193		m55	90		158	298	
Internal Link Dist (ft)		1133			1179			1043			921	
Turn Bay Length (ft)	50			75			125			300		
Base Capacity (vph)	141	288		186	273		138	2152		210	2385	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.65	0.40		0.13	0.60		0.41	0.81		0.59	0.49	

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green, Master Intersection
Natural Cycle: 75
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.81
Intersection Signal Delay: 17.6 Intersection LOS: B
Intersection Capacity Utilization 80.7% 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: 15: US 401 (Fayetteville Road) & Donnybrook Rd (SR 1503)/Old McCullers Rd (SR 2779)



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	17	14	6	27	12	530	5	469	27	276	246	8
Future Volume (vph)	17	14	6	27	12	530	5	469	27	276	246	8
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	10	12	12	11	12	11	11	12	11	11	12
Grade (%)		-1%			1%			2%			-2%	
Storage Length (ft)	0		0	0		75	100		0	125		0
Storage Lanes	0		0	0		1	1		0	1		0
Taper Length (ft)	100			100			75			150		
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		0.977				0.850		0.992			0.995	
Flt Protected		0.978			0.966		0.950			0.950		
Satd. Flow (prot)	0	1653	0	0	1731	1575	1694	1768	0	1728	1810	0
Flt Permitted		0.902			0.840		0.587			0.118		
Satd. Flow (perm)	0	1525	0	0	1505	1575	1046	1768	0	215	1810	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		25			55			55			55	
Link Distance (ft)		1037			1021			1133			1101	
Travel Time (s)		28.3			12.7			14.0			13.6	
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
Heavy Vehicles (%)	3%	3%	3%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Adj. Flow (vph)	19	16	7	30	13	589	6	521	30	307	273	9
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	42	0	0	43	589	6	551	0	307	282	0
Turn Type	Perm	NA		Perm	NA	Perm	Perm	NA		pm+pt	NA	
Protected Phases		4			8			2		1	6	
Permitted Phases	4			8		8	2			6		
Detector Phase	4	4		8	8	8	2	2		1	6	
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0	7.0	14.0	14.0		7.0	14.0	
Minimum Split (s)	14.0	14.0		14.0	14.0	14.0	21.0	21.0		14.0	21.0	
Total Split (s)	40.0	40.0		40.0	40.0	40.0	34.0	34.0		16.0	50.0	
Total Split (%)	44.4%	44.4%		44.4%	44.4%	44.4%	37.8%	37.8%		17.8%	55.6%	
Maximum Green (s)	33.0	33.0		33.0	33.0	33.0	27.0	27.0		9.0	43.0	
Yellow Time (s)	5.0	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	2.0	
Lost Time Adjust (s)		-2.0			-2.0	0.0	-2.0	-2.0		-2.0	-2.0	
Total Lost Time (s)		5.0			5.0	7.0	5.0	5.0		5.0	5.0	
Lead/Lag							Lag	Lag		Lead		
Lead-Lag Optimize?							Yes	Yes		Yes		
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Minimum Gap (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Time Before Reduce (s)	0.0	0.0		0.0	0.0	0.0	15.0	15.0		0.0	15.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0	0.0	40.0	40.0		0.0	40.0	
Recall Mode	None	None		None	None	None	Max	Max		None	Max	
Act Effct Green (s)		35.0			35.0	33.0	29.0	29.0		45.0	45.0	
Actuated g/C Ratio		0.39			0.39	0.37	0.32	0.32		0.50	0.50	
v/c Ratio		0.07			0.07	1.02	0.02	0.97		1.05	0.31	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Control Delay		17.8			17.8	73.1	21.2	62.6		91.0	14.5	
Queue Delay		0.0			0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay		17.8			17.8	73.1	21.2	62.6		91.0	14.5	
LOS		B			B	E	C	E		F	B	
Approach Delay		17.8			69.4			62.1			54.4	
Approach LOS		B			E			E			D	
Queue Length 50th (ft)		15			15	~344	2	306		~142	91	
Queue Length 95th (ft)		36			37	#560	11	#515		#304	144	
Internal Link Dist (ft)		957			941			1053			1021	
Turn Bay Length (ft)						75	100			125		
Base Capacity (vph)		593			585	577	337	569		292	905	
Starvation Cap Reductn		0			0	0	0	0		0	0	
Spillback Cap Reductn		0			0	0	0	0		0	0	
Storage Cap Reductn		0			0	0	0	0		0	0	
Reduced v/c Ratio		0.07			0.07	1.02	0.02	0.97		1.05	0.31	

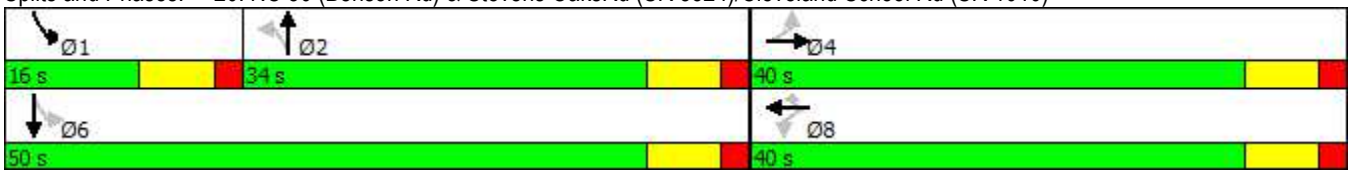
Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Natural Cycle: 90
Control Type: Semi Act-Uncoord
Maximum v/c Ratio: 1.05
Intersection Signal Delay: 61.1 Intersection LOS: E
Intersection Capacity Utilization 79.1% 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.

Splits and Phases: 20: NC 50 (Benson Rd) & Stevens OaksRd (SR 5324)/Cleveland School Rd (SR 1010)



Intersection

Int Delay, s/veh 18.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	38	326	617	249	124	36
Future Vol, veh/h	38	326	617	249	124	36
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	42	362	686	277	138	40

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	962	0	-	0	1271	824
Stage 1	-	-	-	-	824	-
Stage 2	-	-	-	-	447	-
Critical Hdwy	4.12	-	-	-	7.12	6.22
Critical Hdwy Stg 1	-	-	-	-	6.12	-
Critical Hdwy Stg 2	-	-	-	-	6.12	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	715	-	-	-	145	373
Stage 1	-	-	-	-	367	-
Stage 2	-	-	-	-	591	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	715	-	-	-	~ 137	373
Mov Cap-2 Maneuver	-	-	-	-	~ 137	-
Stage 1	-	-	-	-	340	-
Stage 2	-	-	-	-	547	-

Approach	EB	WB	SB
HCM Control Delay, s	1.1	0	161.5
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	715	-	-	-	160
HCM Lane V/C Ratio	0.059	-	-	-	1.111
HCM Control Delay (s)	10.4	0	-	-	161.5
HCM Lane LOS	B	A	-	-	F
HCM 95th %tile Q(veh)	0.2	-	-	-	9.4

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

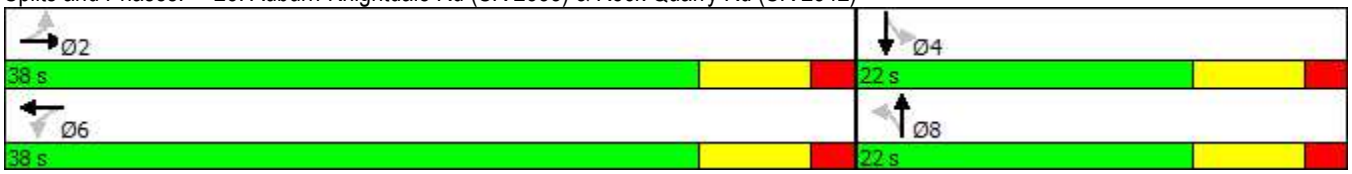
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	4	155	42	35	312	32	52	85	22	27	115	7
Future Volume (vph)	4	155	42	35	312	32	52	85	22	27	115	7
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		-3%			1%			-2%			1%	
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		0.972			0.988			0.982			0.993	
Flt Protected		0.999			0.995			0.984			0.991	
Satd. Flow (prot)	0	1836	0	0	1822	0	0	1800	0	0	1806	0
Flt Permitted		0.993			0.958			0.843			0.923	
Satd. Flow (perm)	0	1825	0	0	1754	0	0	1542	0	0	1682	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		55			55			45			45	
Link Distance (ft)		786			2456			1019			1148	
Travel Time (s)		9.7			30.4			15.4			17.4	
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%	3%	3%	3%	3%	3%	3%
Adj. Flow (vph)	4	172	47	39	347	36	58	94	24	30	128	8
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	223	0	0	422	0	0	176	0	0	166	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Detector Phase	2	2		6	6		8	8		4	4	
Switch Phase												
Minimum Initial (s)	14.0	14.0		14.0	14.0		7.0	7.0		7.0	7.0	
Minimum Split (s)	22.0	22.0		22.0	22.0		14.0	14.0		14.0	14.0	
Total Split (s)	38.0	38.0		38.0	38.0		22.0	22.0		22.0	22.0	
Total Split (%)	63.3%	63.3%		63.3%	63.3%		36.7%	36.7%		36.7%	36.7%	
Maximum Green (s)	31.0	31.0		31.0	31.0		15.0	15.0		15.0	15.0	
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	
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		3.0	3.0		3.0	3.0	
Minimum Gap (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Time Before Reduce (s)	15.0	15.0		15.0	15.0		0.0	0.0		0.0	0.0	
Time To Reduce (s)	30.0	30.0		30.0	30.0		0.0	0.0		0.0	0.0	
Recall Mode	Max	Max		Max	Max		Min	Min		Min	Min	
Act Effct Green (s)		33.1			33.1			13.2			13.2	
Actuated g/C Ratio		0.59			0.59			0.23			0.23	
v/c Ratio		0.21			0.41			0.49			0.42	
Control Delay		6.7			8.5			23.4			21.6	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		6.7			8.5			23.4			21.6	
LOS		A			A			C			C	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		6.7			8.5			23.4			21.6	
Approach LOS		A			A			C			C	
Queue Length 50th (ft)		31			68			51			47	
Queue Length 95th (ft)		68			139			100			93	
Internal Link Dist (ft)		706			2376			939			1068	
Turn Bay Length (ft)												
Base Capacity (vph)		1071			1030			466			508	
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		0.21			0.41			0.38			0.33	

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 56.3
Natural Cycle: 40
Control Type: Semi Act-Uncoord
Maximum v/c Ratio: 0.49
Intersection Signal Delay: 12.9 — Intersection LOS: B
Intersection Capacity Utilization 59.5% — ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 28: Auburn-Knightdale Rd (SR 2555) & Rock Quarry Rd (SR 2542)



Intersection

Int Delay, s/veh 1.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	5	71	309	5	37	166
Future Vol, veh/h	5	71	309	5	37	166
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	1
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	5	5	2	2	2	2
Mvmt Flow	6	79	343	6	41	184

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	613	346	0	0	349	0
Stage 1	346	-	-	-	-	-
Stage 2	267	-	-	-	-	-
Critical Hdwy	6.45	6.25	-	-	4.12	-
Critical Hdwy Stg 1	5.45	-	-	-	-	-
Critical Hdwy Stg 2	5.45	-	-	-	-	-
Follow-up Hdwy	3.545	3.345	-	-	2.218	-
Pot Cap-1 Maneuver	451	690	-	-	1210	-
Stage 1	710	-	-	-	-	-
Stage 2	771	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	434	690	-	-	1210	-
Mov Cap-2 Maneuver	434	-	-	-	-	-
Stage 1	710	-	-	-	-	-
Stage 2	742	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.2	0	1.5
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	664	1210	-
HCM Lane V/C Ratio	-	-	0.127	0.034	-
HCM Control Delay (s)	-	-	11.2	8.1	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.4	0.1	-

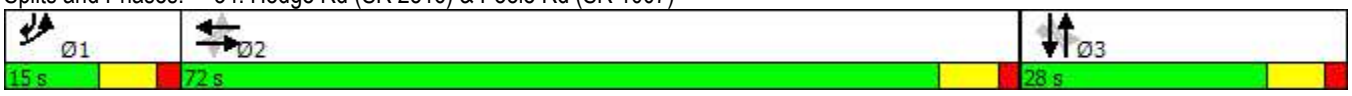
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	241	182	9	16	307	504	17	50	18	232	20	188
Future Volume (vph)	241	182	9	16	307	504	17	50	18	232	20	188
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		2%			1%			-1%			-1%	
Storage Length (ft)	200		0	200		0	50		0	425		800
Storage Lanes	1		0	1		0	1		0	1		1
Taper Length (ft)	125			150			50			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		0.993			0.907			0.961				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1752	1831	0	1761	1681	0	1744	1764	0	1778	1872	1591
Flt Permitted	0.118			0.612			0.743			0.708		
Satd. Flow (perm)	218	1831	0	1134	1681	0	1364	1764	0	1325	1872	1591
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		45			45			35			45	
Link Distance (ft)		1162			1072			1063			954	
Travel Time (s)		17.6			16.2			20.7			14.5	
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%	4%	4%	4%	2%	2%	2%
Adj. Flow (vph)	268	202	10	18	341	560	19	56	20	258	22	209
Shared Lane Traffic (%)												
Lane Group Flow (vph)	268	212	0	18	901	0	19	76	0	258	22	209
Turn Type	pm+pt	NA		Perm	NA		Perm	NA		Perm	NA	pm+ov
Protected Phases	1	2			2			3			3	1
Permitted Phases	2			2			3			3		3
Detector Phase	1	2		2	2		3	3		3	3	1
Switch Phase												
Minimum Initial (s)	7.0	12.0		12.0	12.0		7.0	7.0		7.0	7.0	7.0
Minimum Split (s)	14.0	19.0		19.0	19.0		14.0	14.0		14.0	14.0	14.0
Total Split (s)	15.0	72.0		72.0	72.0		28.0	28.0		28.0	28.0	15.0
Total Split (%)	13.0%	62.6%		62.6%	62.6%		24.3%	24.3%		24.3%	24.3%	13.0%
Maximum Green (s)	8.0	65.0		65.0	65.0		21.0	21.0		21.0	21.0	8.0
Yellow Time (s)	5.0	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	2.0
Lost Time Adjust (s)	-2.0	-2.0		-2.0	-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		5.0	5.0	5.0
Lead/Lag	Lead	Lag		Lag	Lag							Lead
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							Yes
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
Minimum Gap (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
Time Before Reduce (s)	0.0	15.0		15.0	15.0		0.0	0.0		0.0	0.0	0.0
Time To Reduce (s)	0.0	40.0		40.0	40.0		0.0	0.0		0.0	0.0	0.0
Recall Mode	None	Max		Max	Max		None	None		None	None	None
Act Effct Green (s)	77.0	67.0		67.0	67.0		23.0	23.0		23.0	23.0	38.0
Actuated g/C Ratio	0.67	0.58		0.58	0.58		0.20	0.20		0.20	0.20	0.33
v/c Ratio	0.96	0.20		0.03	0.92		0.07	0.22		0.97	0.06	0.40
Control Delay	65.4	11.9		10.4	37.7		38.3	40.4		95.6	37.9	32.5

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Delay	65.4	11.9		10.4	37.7		38.3	40.4		95.6	37.9	32.5
LOS	E	B		B	D		D	D		F	D	C
Approach Delay		41.8			37.2			40.0			66.0	
Approach LOS		D			D			D			E	
Queue Length 50th (ft)	98	70		5	567		12	47		191	13	119
Queue Length 95th (ft)	#267	109		16	#878		33	91		#359	36	188
Internal Link Dist (ft)		1082			992			983			874	
Turn Bay Length (ft)	200			200			50			425		800
Base Capacity (vph)	279	1066		660	979		272	352		265	374	525
Starvation Cap Reductn	0	0		0	0		0	0		0	0	0
Spillback Cap Reductn	0	0		0	0		0	0		0	0	0
Storage Cap Reductn	0	0		0	0		0	0		0	0	0
Reduced v/c Ratio	0.96	0.20		0.03	0.92		0.07	0.22		0.97	0.06	0.40

Intersection Summary

Area Type: Other
Cycle Length: 115
Actuated Cycle Length: 115
Natural Cycle: 90
Control Type: Semi Act-Uncoord
Maximum v/c Ratio: 0.97
Intersection Signal Delay: 45.6 Intersection LOS: D
Intersection Capacity Utilization 92.4% ICU Level of Service F
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 34: Hodge Rd (SR 2516) & Poole Rd (SR 1007)



Intersection

Int Delay, s/veh 7.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	56	0	0	196	39	1331	354	0	2802	64
Future Vol, veh/h	0	0	56	0	0	196	39	1331	354	0	2802	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	-	-	0	-	-	0	550	-	0	-	-	-
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, %	21	21	21	6	6	6	4	4	4	4	4	4
Mvmt Flow	0	0	62	0	0	218	43	1479	393	0	3113	71

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	-	-	1592	-	-	739	3184	0	0	-	-	0
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	7.52	-	-	7.02	5.38	-	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	4.11	-	-	3.36	3.14	-	-	-	-	-
Pot Cap-1 Maneuver	0	0	68	0	0	351	~ 29	-	-	0	-	-
Stage 1	0	0	-	0	0	-	-	-	-	0	-	-
Stage 2	0	0	-	0	0	-	-	-	-	0	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	-	-	68	-	-	351	~ 29	-	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	187.7	30.6	12.4	0
HCM LOS	F	D		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBT	SBR
Capacity (veh/h)	~ 29	-	-	68	351	-	-
HCM Lane V/C Ratio	1.494	-	-	0.915	0.62	-	-
HCM Control Delay (s)	$ 549.9	-	-	187.7	30.6	-	-
HCM Lane LOS	F	-	-	F	D	-	-
HCM 95th %tile Q(veh)	5	-	-	4.5	4	-	-

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	17	787	420	328	618	17
Future Volume (vph)	17	787	420	328	618	17
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)	-3%			-2%	4%	
Storage Length (ft)	100	0	225			0
Storage Lanes	1	1	1			0
Taper Length (ft)	75		100			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.850			0.996	
Flt Protected	0.950		0.950			
Satd. Flow (prot)	1796	1607	1787	1881	1818	0
Flt Permitted	0.950		0.102			
Satd. Flow (perm)	1796	1607	192	1881	1818	0
Right Turn on Red		No				No
Satd. Flow (RTOR)						
Link Speed (mph)	45			45	45	
Link Distance (ft)	927			662	599	
Travel Time (s)	14.0			10.0	9.1	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	19	874	467	364	687	19
Shared Lane Traffic (%)						
Lane Group Flow (vph)	19	874	467	364	706	0
Turn Type	Prot	pm+ov	pm+pt	NA	NA	
Protected Phases	4	5	5	2	6	
Permitted Phases		4	2			
Detector Phase	4	5	5	2	6	
Switch Phase						
Minimum Initial (s)	7.0	7.0	7.0	12.0	12.0	
Minimum Split (s)	14.0	14.0	14.0	19.0	19.0	
Total Split (s)	14.0	37.0	37.0	76.0	39.0	
Total Split (%)	15.6%	41.1%	41.1%	84.4%	43.3%	
Maximum Green (s)	7.0	30.0	30.0	69.0	32.0	
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0	
All-Red Time (s)	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		Lead	Lead		Lag	
Lead-Lag Optimize?		Yes	Yes		Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0	
Time Before Reduce (s)	0.0	0.0	0.0	15.0	15.0	
Time To Reduce (s)	0.0	0.0	0.0	45.0	45.0	
Recall Mode	None	None	None	Max	Max	
Act Effct Green (s)	9.1	37.3	71.5	74.7	34.2	
Actuated g/C Ratio	0.11	0.46	0.88	0.92	0.42	
v/c Ratio	0.10	1.19	0.59	0.21	0.93	
Control Delay	36.8	122.8	16.5	1.7	44.7	
Queue Delay	0.0	0.0	0.0	0.0	0.0	

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Total Delay	36.8	122.8	16.5	1.7	44.7	
LOS	D	F	B	A	D	
Approach Delay	120.9			10.0	44.7	
Approach LOS	F			B	D	
Queue Length 50th (ft)	8	~536	96	0	289	
Queue Length 95th (ft)	31	#781	266	62	#646	
Internal Link Dist (ft)	847			582	519	
Turn Bay Length (ft)	100		225			
Base Capacity (vph)	199	734	797	1722	762	
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	0.10	1.19	0.59	0.21	0.93	

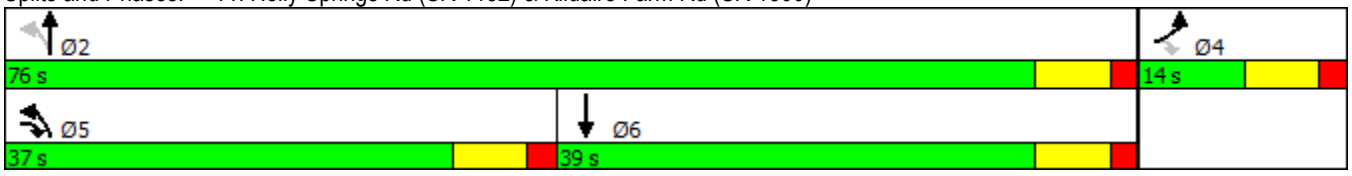
Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 81.6
Natural Cycle: 100
Control Type: Semi Act-Uncoord
Maximum v/c Ratio: 1.19
Intersection Signal Delay: 60.9 Intersection LOS: E
Intersection Capacity Utilization 90.6% ICU Level of Service E
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: 11: Holly Springs Rd (SR 1152) & Kildaire Farm Rd (SR 1300)



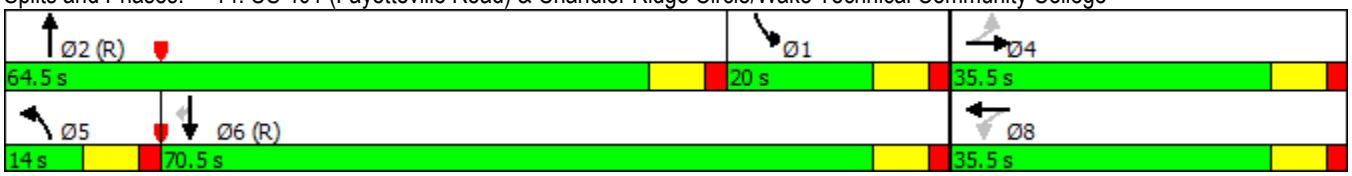
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	26	4	10	63	7	117	11	932	40	113	1428	43
Future Volume (vph)	26	4	10	63	7	117	11	932	40	113	1428	43
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		1%			-4%			4%			-3%	
Storage Length (ft)	0		0	0		0	100		0	300		175
Storage Lanes	0		0	0		0	1		0	1		1
Taper Length (ft)	100			100			175			250		
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		0.966			0.916			0.994				0.850
Flt Protected		0.968			0.983		0.950			0.950		
Satd. Flow (prot)	0	1733	0	0	1711	0	1734	3448	0	1796	3592	1607
Flt Permitted		0.684			0.876		0.950			0.950		
Satd. Flow (perm)	0	1225	0	0	1525	0	1734	3448	0	1796	3592	1607
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		10			20			55			55	
Link Distance (ft)		1098			1012			1074			1123	
Travel Time (s)		74.9			34.5			13.3			13.9	
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)	29	4	11	70	8	130	12	1036	44	126	1587	48
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	44	0	0	208	0	12	1080	0	126	1587	48
Turn Type	Perm	NA		Perm	NA		Prot	NA		Prot	NA	Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8								6
Detector Phase	4	4		8	8		5	2		1	6	6
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		7.0	14.0		7.0	14.0	14.0
Minimum Split (s)	35.5	35.5		14.5	14.5		14.0	21.0		14.0	21.0	21.0
Total Split (s)	35.5	35.5		35.5	35.5		14.0	64.5		20.0	70.5	70.5
Total Split (%)	29.6%	29.6%		29.6%	29.6%		11.7%	53.8%		16.7%	58.8%	58.8%
Maximum Green (s)	28.5	28.5		28.5	28.5		7.0	57.5		13.0	63.5	63.5
Yellow Time (s)	5.0	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	2.0
Lost Time Adjust (s)		-2.0			-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	5.0
Lead/Lag							Lead	Lead		Lag	Lag	Lag
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
Minimum Gap (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	15.0		0.0	15.0	15.0
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	30.0		0.0	30.0	30.0
Recall Mode	None	None		None	None		None	C-Max		None	C-Max	C-Max
Walk Time (s)	5.0	5.0										
Flash Dont Walk (s)	23.0	23.0										
Pedestrian Calls (#/hr)	0	0										
Act Effct Green (s)		23.4			23.4		9.0	66.6		15.0	81.0	81.0
Actuated g/C Ratio		0.20			0.20		0.08	0.56		0.12	0.68	0.68

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio		0.18			0.70		0.09	0.56		0.56	0.65	0.04
Control Delay		39.9			57.2		53.5	19.6		41.8	4.1	1.8
Queue Delay		0.0			0.0		0.0	0.0		0.0	0.0	0.0
Total Delay		39.9			57.2		53.5	19.6		41.8	4.1	1.8
LOS		D			E		D	B		D	A	A
Approach Delay		39.9			57.2			20.0			6.7	
Approach LOS		D			E			B			A	
Queue Length 50th (ft)		29			151		9	273		94	39	2
Queue Length 95th (ft)		59			220		29	384		m123	275	m4
Internal Link Dist (ft)		1018			932			994			1043	
Turn Bay Length (ft)							100			300		175
Base Capacity (vph)		311			387		130	1913		224	2425	1085
Starvation Cap Reductn		0			0		0	0		0	0	0
Spillback Cap Reductn		0			0		0	0		0	0	0
Storage Cap Reductn		0			0		0	0		0	0	0
Reduced v/c Ratio		0.14			0.54		0.09	0.56		0.56	0.65	0.04

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 21 (18%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.70
Intersection Signal Delay: 15.2 Intersection LOS: B
Intersection Capacity Utilization 69.1% ICU Level of Service C
Analysis Period (min) 15
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 14: US 401 (Fayetteville Road) & Chandler Ridge Circle/Wake Technical Community College



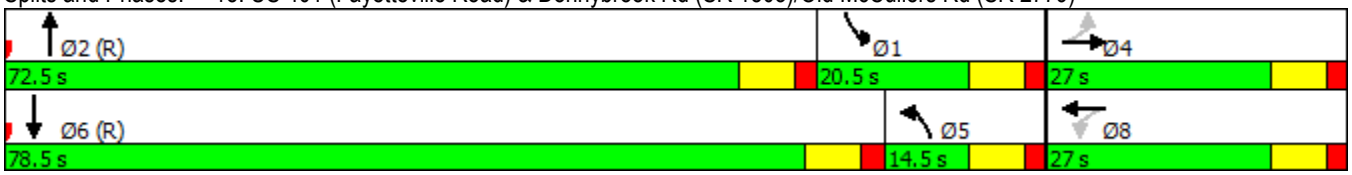
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	59	40	51	36	58	112	46	990	22	108	1524	83
Future Volume (vph)	59	40	51	36	58	112	46	990	22	108	1524	83
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		1%			2%			2%			-2%	
Storage Length (ft)	50		0	75		0	125		0	300		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	75			75			175			175		
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		0.915			0.901			0.997			0.992	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1761	1696	0	1752	1662	0	1752	3493	0	1787	3546	0
Flt Permitted	0.416			0.656			0.950			0.950		
Satd. Flow (perm)	771	1696	0	1210	1662	0	1752	3493	0	1787	3546	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		45			35			55			55	
Link Distance (ft)		1213			1259			1123			1001	
Travel Time (s)		18.4			24.5			13.9			12.4	
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)	66	44	57	40	64	124	51	1100	24	120	1693	92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	66	101	0	40	188	0	51	1124	0	120	1785	0
Turn Type	Perm	NA		Perm	NA		Prot	NA		Prot	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8								
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	14.0		7.0	14.0	
Minimum Split (s)	14.0	14.0		14.0	14.0		14.5	21.0		14.5	21.0	
Total Split (s)	27.0	27.0		27.0	27.0		14.5	72.5		20.5	78.5	
Total Split (%)	22.5%	22.5%		22.5%	22.5%		12.1%	60.4%		17.1%	65.4%	
Maximum Green (s)	20.0	20.0		20.0	20.0		7.5	65.5		13.5	71.5	
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		-2.0	-2.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Lead/Lag							Lag	Lead		Lag	Lead	
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	
Minimum Gap (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	15.0		0.0	15.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	30.0		0.0	30.0	
Recall Mode	None	None		None	None		None	C-Max		None	C-Max	
Act Effct Green (s)	19.3	19.3		19.3	19.3		9.4	71.2		14.5	79.1	
Actuated g/C Ratio	0.16	0.16		0.16	0.16		0.08	0.59		0.12	0.66	
v/c Ratio	0.53	0.37		0.21	0.70		0.37	0.54		0.56	0.76	
Control Delay	61.7	48.2		45.1	61.8		53.1	6.4		59.9	18.4	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay	61.7	48.2		45.1	61.8		53.1	6.4		59.9	18.4	
LOS	E	D		D	E		D	A		E	B	
Approach Delay		53.5			58.9			8.4			21.1	
Approach LOS		D			E			A			C	
Queue Length 50th (ft)	47	70		27	137		41	107		88	515	
Queue Length 95th (ft)	95	123		60	216		m75	107		152	640	
Internal Link Dist (ft)		1133			1179			1043			921	
Turn Bay Length (ft)	50			75			125			300		
Base Capacity (vph)	141	310		221	304		138	2072		230	2336	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.47	0.33		0.18	0.62		0.37	0.54		0.52	0.76	

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green, Master Intersection
Natural Cycle: 75
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.76
Intersection Signal Delay: 20.8 Intersection LOS: C
Intersection Capacity Utilization 83.0% ICU Level of Service E
Analysis Period (min) 15
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 15: US 401 (Fayetteville Road) & Donnybrook Rd (SR 1503)/Old McCullers Rd (SR 2779)



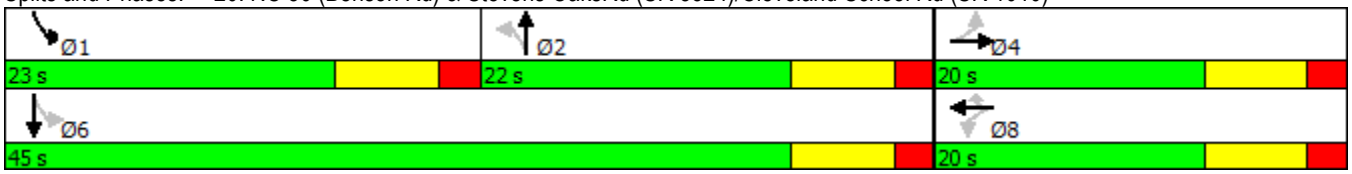
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	8	12	5	27	14	276	6	246	27	531	469	17
Future Volume (vph)	8	12	5	27	14	276	6	246	27	531	469	17
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	10	12	12	11	12	11	11	12	11	11	12
Grade (%)		-1%			1%			2%			-2%	
Storage Length (ft)	0		0	0		75	100		0	125		0
Storage Lanes	0		0	0		1	1		0	1		0
Taper Length (ft)	100			100			75			150		
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		0.971				0.850		0.985			0.995	
Flt Protected		0.984			0.968		0.950			0.950		
Satd. Flow (prot)	0	1653	0	0	1734	1575	1694	1756	0	1728	1810	0
Flt Permitted		0.915			0.818		0.463			0.327		
Satd. Flow (perm)	0	1537	0	0	1466	1575	825	1756	0	595	1810	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		25			55			55			55	
Link Distance (ft)		1037			1021			1133			1101	
Travel Time (s)		28.3			12.7			14.0			13.6	
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
Heavy Vehicles (%)	3%	3%	3%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Adj. Flow (vph)	9	13	6	30	16	307	7	273	30	590	521	19
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	28	0	0	46	307	7	303	0	590	540	0
Turn Type	Perm	NA		Perm	NA	Perm	Perm	NA		pm+pt	NA	
Protected Phases		4			8			2		1	6	
Permitted Phases	4			8		8	2			6		
Detector Phase	4	4		8	8	8	2	2		1	6	
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0	7.0	14.0	14.0		7.0	14.0	
Minimum Split (s)	14.0	14.0		14.0	14.0	14.0	21.0	21.0		14.0	21.0	
Total Split (s)	20.0	20.0		20.0	20.0	20.0	22.0	22.0		23.0	45.0	
Total Split (%)	30.8%	30.8%		30.8%	30.8%	30.8%	33.8%	33.8%		35.4%	69.2%	
Maximum Green (s)	13.0	13.0		13.0	13.0	13.0	15.0	15.0		16.0	38.0	
Yellow Time (s)	5.0	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	2.0	
Lost Time Adjust (s)		-2.0			-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	5.0	
Lead/Lag							Lag	Lag		Lead		
Lead-Lag Optimize?							Yes	Yes		Yes		
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Minimum Gap (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Time Before Reduce (s)	0.0	0.0		0.0	0.0	0.0	15.0	15.0		0.0	15.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0	0.0	40.0	40.0		0.0	40.0	
Recall Mode	None	None		None	None	None	Max	Max		None	Max	
Act Effct Green (s)		14.9			14.9	14.9	17.3	17.3		40.0	40.0	
Actuated g/C Ratio		0.23			0.23	0.23	0.27	0.27		0.62	0.62	
v/c Ratio		0.08			0.14	0.85	0.03	0.65		0.88	0.48	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Control Delay		20.4			21.2	48.2	18.5	28.9		25.8	8.7	
Queue Delay		0.0			0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay		20.4			21.2	48.2	18.5	28.9		25.8	8.7	
LOS		C			C	D	B	C		C	A	
Approach Delay		20.4			44.7			28.7			17.6	
Approach LOS		C			D			C			B	
Queue Length 50th (ft)		9			15	117	2	107		118	102	
Queue Length 95th (ft)		27			39	#244	11	#187		#301	166	
Internal Link Dist (ft)		957			941			1053			1021	
Turn Bay Length (ft)						75	100			125		
Base Capacity (vph)		354			338	363	220	469		680	1114	
Starvation Cap Reductn		0			0	0	0	0		0	0	
Spillback Cap Reductn		0			0	0	0	0		0	0	
Storage Cap Reductn		0			0	0	0	0		0	0	
Reduced v/c Ratio		0.08			0.14	0.85	0.03	0.65		0.87	0.48	

Intersection Summary

Area Type: Other
Cycle Length: 65
Actuated Cycle Length: 64.9
Natural Cycle: 65
Control Type: Semi Act-Uncoord
Maximum v/c Ratio: 0.88
Intersection Signal Delay: 24.8 Intersection LOS: C
Intersection Capacity Utilization 64.5% 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.

Splits and Phases: 20: NC 50 (Benson Rd) & Stevens OaksRd (SR 5324)/Cleveland School Rd (SR 1010)



Intersection

Int Delay, s/veh 61.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	36	617	326	124	249	38
Future Vol, veh/h	36	617	326	124	249	38
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	40	686	362	138	277	42

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	500	0	-	0	1197	431
Stage 1	-	-	-	-	431	-
Stage 2	-	-	-	-	766	-
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	1064	-	-	-	~ 205	624
Stage 1	-	-	-	-	655	-
Stage 2	-	-	-	-	459	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1064	-	-	-	~ 192	624
Mov Cap-2 Maneuver	-	-	-	-	~ 192	-
Stage 1	-	-	-	-	655	-
Stage 2	-	-	-	-	431	-

Approach	EB	WB	SB
HCM Control Delay, s	0.5	0	294.7
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1064	-	-	-	211
HCM Lane V/C Ratio	0.038	-	-	-	1.511
HCM Control Delay (s)	8.5	0	-	-	294.7
HCM Lane LOS	A	A	-	-	F
HCM 95th %tile Q(veh)	0.1	-	-	-	19.6

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

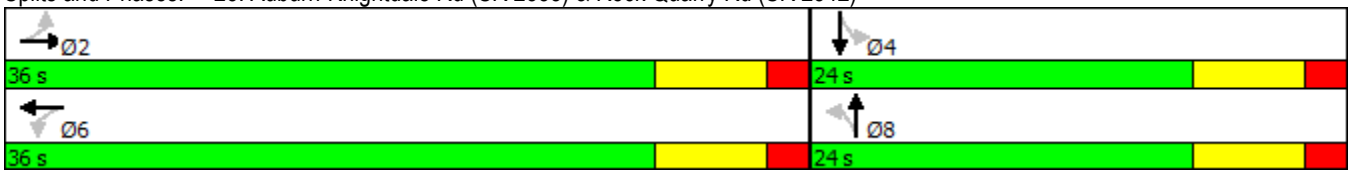
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	7	312	52	22	155	27	42	115	35	32	85	4
Future Volume (vph)	7	312	52	22	155	27	42	115	35	32	85	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		-3%			1%			-2%			1%	
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		0.981			0.982			0.975			0.996	
Flt Protected		0.999			0.995			0.989			0.987	
Satd. Flow (prot)	0	1853	0	0	1811	0	0	1797	0	0	1804	0
Flt Permitted		0.994			0.940			0.900			0.878	
Satd. Flow (perm)	0	1844	0	0	1711	0	0	1635	0	0	1605	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		55			55			45			45	
Link Distance (ft)		786			2456			1019			1148	
Travel Time (s)		9.7			30.4			15.4			17.4	
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%	3%	3%	3%	3%	3%	3%
Adj. Flow (vph)	8	347	58	24	172	30	47	128	39	36	94	4
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	413	0	0	226	0	0	214	0	0	134	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Detector Phase	2	2		6	6		8	8		4	4	
Switch Phase												
Minimum Initial (s)	14.0	14.0		14.0	14.0		7.0	7.0		7.0	7.0	
Minimum Split (s)	22.0	22.0		22.0	22.0		14.0	14.0		14.0	14.0	
Total Split (s)	36.0	36.0		36.0	36.0		24.0	24.0		24.0	24.0	
Total Split (%)	60.0%	60.0%		60.0%	60.0%		40.0%	40.0%		40.0%	40.0%	
Maximum Green (s)	29.0	29.0		29.0	29.0		17.0	17.0		17.0	17.0	
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	
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		3.0	3.0		3.0	3.0	
Minimum Gap (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Time Before Reduce (s)	15.0	15.0		15.0	15.0		0.0	0.0		0.0	0.0	
Time To Reduce (s)	30.0	30.0		30.0	30.0		0.0	0.0		0.0	0.0	
Recall Mode	Max	Max		Max	Max		Min	Min		Min	Min	
Act Effct Green (s)		31.1			31.1			14.1			14.1	
Actuated g/C Ratio		0.56			0.56			0.26			0.26	
v/c Ratio		0.40			0.23			0.51			0.33	
Control Delay		9.0			7.7			22.1			18.7	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		9.0			7.7			22.1			18.7	
LOS		A			A			C			B	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		9.0			7.7			22.1			18.7	
Approach LOS		A			A			C			B	
Queue Length 50th (ft)		67			33			60			36	
Queue Length 95th (ft)		144			77			112			73	
Internal Link Dist (ft)		706			2376			939			1068	
Turn Bay Length (ft)												
Base Capacity (vph)		1038			964			564			554	
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		0.40			0.23			0.38			0.24	

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 55.2
Natural Cycle: 40
Control Type: Semi Act-Uncoord
Maximum v/c Ratio: 0.51
Intersection Signal Delay: 12.9 Intersection LOS: B
Intersection Capacity Utilization 43.7% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 28: Auburn-Knightdale Rd (SR 2555) & Rock Quarry Rd (SR 2542)



Intersection

Int Delay, s/veh 1.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	4	37	166	5	71	309
Future Vol, veh/h	4	37	166	5	71	309
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	1
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	5	5	2	2	2	2
Mvmt Flow	4	41	184	6	79	343

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	688	187	0	0	190	0
Stage 1	187	-	-	-	-	-
Stage 2	501	-	-	-	-	-
Critical Hdwy	6.45	6.25	-	-	4.12	-
Critical Hdwy Stg 1	5.45	-	-	-	-	-
Critical Hdwy Stg 2	5.45	-	-	-	-	-
Follow-up Hdwy	3.545	3.345	-	-	2.218	-
Pot Cap-1 Maneuver	408	847	-	-	1384	-
Stage 1	838	-	-	-	-	-
Stage 2	603	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	379	847	-	-	1384	-
Mov Cap-2 Maneuver	379	-	-	-	-	-
Stage 1	838	-	-	-	-	-
Stage 2	560	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.1	0	1.4
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	756	1384	-
HCM Lane V/C Ratio	-	-	0.06	0.057	-
HCM Control Delay (s)	-	-	10.1	7.8	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.2	0.2	-

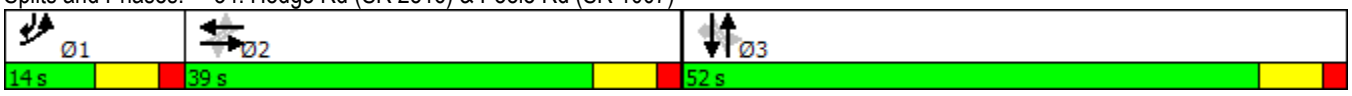
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	188	307	17	18	182	232	9	20	16	504	50	241
Future Volume (vph)	188	307	17	18	182	232	9	20	16	504	50	241
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		2%			1%			-1%			-1%	
Storage Length (ft)	200		0	200		0	50		0	425		800
Storage Lanes	1		0	1		0	1		0	1		1
Taper Length (ft)	125			150			50			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		0.992			0.916			0.932				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1752	1829	0	1761	1698	0	1744	1711	0	1778	1872	1591
Flt Permitted	0.226			0.350			0.720			0.731		
Satd. Flow (perm)	417	1829	0	649	1698	0	1322	1711	0	1368	1872	1591
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		45			45			35			45	
Link Distance (ft)		1162			1072			1063			954	
Travel Time (s)		17.6			16.2			20.7			14.5	
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%	4%	4%	4%	2%	2%	2%
Adj. Flow (vph)	209	341	19	20	202	258	10	22	18	560	56	268
Shared Lane Traffic (%)												
Lane Group Flow (vph)	209	360	0	20	460	0	10	40	0	560	56	268
Turn Type	pm+pt	NA		Perm	NA		Perm	NA		Perm	NA	pm+ov
Protected Phases	1	2			2			3			3	1
Permitted Phases	2			2			3			3		3
Detector Phase	1	2		2	2		3	3		3	3	1
Switch Phase												
Minimum Initial (s)	7.0	12.0		12.0	12.0		7.0	7.0		7.0	7.0	7.0
Minimum Split (s)	14.0	19.0		19.0	19.0		14.0	14.0		14.0	14.0	14.0
Total Split (s)	14.0	39.0		39.0	39.0		52.0	52.0		52.0	52.0	14.0
Total Split (%)	13.3%	37.1%		37.1%	37.1%		49.5%	49.5%		49.5%	49.5%	13.3%
Maximum Green (s)	7.0	32.0		32.0	32.0		45.0	45.0		45.0	45.0	7.0
Yellow Time (s)	5.0	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	2.0
Lost Time Adjust (s)	-2.0	-2.0		-2.0	-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		5.0	5.0	5.0
Lead/Lag	Lead	Lag		Lag	Lag							Lead
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							Yes
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
Minimum Gap (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
Time Before Reduce (s)	0.0	15.0		15.0	15.0		0.0	0.0		0.0	0.0	0.0
Time To Reduce (s)	0.0	40.0		40.0	40.0		0.0	0.0		0.0	0.0	0.0
Recall Mode	None	Max		Max	Max		None	None		None	None	None
Act Effct Green (s)	43.1	34.1		34.1	34.1		44.9	44.9		44.9	44.9	58.9
Actuated g/C Ratio	0.42	0.33		0.33	0.33		0.44	0.44		0.44	0.44	0.57
v/c Ratio	0.72	0.60		0.09	0.82		0.02	0.05		0.94	0.07	0.29
Control Delay	34.0	34.2		26.4	46.0		16.3	16.8		53.6	16.9	12.3

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Delay	34.0	34.2		26.4	46.0		16.3	16.8		53.6	16.9	12.3
LOS	C	C		C	D		B	B		D	B	B
Approach Delay		34.2			45.2			16.7			38.7	
Approach LOS		C			D			B			D	
Queue Length 50th (ft)	84	202		9	285		4	15		342	21	85
Queue Length 95th (ft)	#141	301		28	#456		13	35		#565	44	133
Internal Link Dist (ft)		1082			992			983			874	
Turn Bay Length (ft)	200			200			50			425		800
Base Capacity (vph)	291	605		214	561		604	781		625	855	910
Starvation Cap Reductn	0	0		0	0		0	0		0	0	0
Spillback Cap Reductn	0	0		0	0		0	0		0	0	0
Storage Cap Reductn	0	0		0	0		0	0		0	0	0
Reduced v/c Ratio	0.72	0.60		0.09	0.82		0.02	0.05		0.90	0.07	0.29

Intersection Summary

Area Type: Other
Cycle Length: 105
Actuated Cycle Length: 103
Natural Cycle: 90
Control Type: Semi Act-Uncoord
Maximum v/c Ratio: 0.94
Intersection Signal Delay: 38.4 — Intersection LOS: D
Intersection Capacity Utilization 81.3% — 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: 34: Hodge Rd (SR 2516) & Poole Rd (SR 1007)



2016 No-Build
SimTraffic Results

Total Network Performance By Run

Run Number	1	10	2	3	4	5	6
Stop Del/Veh (s)	73.5	79.7	79.1	85.7	67.9	75.1	70.0
Travel Dist (mi)	8500.2	8427.4	8321.3	8551.0	8550.8	8559.0	8475.9
Travel Time (hr)	1030.5	1180.2	1202.1	1194.3	947.7	953.1	1114.2
Avg Speed (mph)	16	15	15	14	16	15	16
Vehicles Entered	14321	14238	14097	14338	14435	14419	14173
Vehicles Exited	14154	14037	13915	14177	14266	14293	13967
Hourly Exit Rate	14154	14037	13915	14177	14266	14293	13967
Input Volume	43107	43107	43107	43107	43107	43107	43107
% of Volume	33	33	32	33	33	33	32
Denied Entry Before	8	5	3	7	4	7	4
Denied Entry After	1387	1568	1583	1430	1174	1138	1476

Total Network Performance By Run

Run Number	7	8	9	Avg
Stop Del/Veh (s)	71.3	75.5	71.3	74.9
Travel Dist (mi)	8617.3	8537.0	8514.3	8505.4
Travel Time (hr)	982.9	1184.4	1008.7	1079.8
Avg Speed (mph)	16	15	16	15
Vehicles Entered	14555	14315	14406	14333
Vehicles Exited	14309	14130	14199	14145
Hourly Exit Rate	14309	14130	14199	14145
Input Volume	43107	43107	43107	43107
% of Volume	33	33	33	33
Denied Entry Before	6	3	9	4
Denied Entry After	1243	1586	1274	1384

Intersection: 1: NC 55 & Mid Block U-Turn

Movement	SB	SB	SB	SB
Directions Served	U	T	T	T
Maximum Queue (ft)	700	769	644	25
Average Queue (ft)	687	738	59	1
95th Queue (ft)	702	761	356	12
Link Distance (ft)		721	721	721
Upstream Blk Time (%)		97	0	
Queuing Penalty (veh)		519	1	
Storage Bay Dist (ft)	650			
Storage Blk Time (%)	99	2		
Queuing Penalty (veh)	462	3		

Intersection: 2: NC 55 & Old Smithfield Rd

Movement	EB	WB	NB	SB	SB	SB
Directions Served	R	R	L	T	T	TR
Maximum Queue (ft)	1056	1413	35	1026	1016	991
Average Queue (ft)	841	1350	3	926	773	212
95th Queue (ft)	1387	1555	17	1265	1375	857
Link Distance (ft)	1040	1361		997	997	997
Upstream Blk Time (%)	62	90		78	49	4
Queuing Penalty (veh)	0	0		0	0	0
Storage Bay Dist (ft)			550			
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 11: Holly Springs Rd (SR 1152) & Kildaire Farm Rd (SR 1300)

Movement	EB	EB	NB	NB	SB
Directions Served	L	R	L	T	TR
Maximum Queue (ft)	88	231	315	397	283
Average Queue (ft)	14	114	165	48	149
95th Queue (ft)	53	201	285	207	248
Link Distance (ft)		881		634	554
Upstream Blk Time (%)				0	
Queuing Penalty (veh)				0	
Storage Bay Dist (ft)	100		225		
Storage Blk Time (%)		11	3	0	
Queuing Penalty (veh)		2	18	0	

Intersection: 14: US 401 (Fayetteville Road) & Chandler Ridge Circle/Wake Technical Community College

Movement	EB	WB	NB	NB	NB	SB	SB	SB	SB
Directions Served	LTR	LTR	L	T	TR	L	T	T	R
Maximum Queue (ft)	111	229	110	371	342	198	126	105	18
Average Queue (ft)	40	110	10	230	200	91	22	24	1
95th Queue (ft)	90	189	58	354	330	173	80	74	9
Link Distance (ft)	1030	949		1044	1044		1046	1046	
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)			100			300			175
Storage Blk Time (%)				21		0			
Queuing Penalty (veh)				2		0			

Intersection: 15: US 401 (Fayetteville Road) & Donnybrook Rd (SR 1503)/Old McCullers Rd (SR 2779)

Movement	EB	EB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	TR	L	TR	L	T	TR	L	T	TR
Maximum Queue (ft)	124	191	130	222	108	190	199	194	210	243
Average Queue (ft)	63	80	24	108	41	95	109	86	113	128
95th Queue (ft)	114	152	82	192	85	175	189	158	192	210
Link Distance (ft)		1157		1201		1046	1046		939	939
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)	50		75		125			300		
Storage Blk Time (%)	35	35	0	39	0	3				
Queuing Penalty (veh)	36	29	1	9	1	2				

Intersection: 20: NC 50 (Benson Rd) & Stevens OaksRd (SR 5324)/Cleveland School Rd (SR 1010)

Movement	EB	WB	WB	NB	NB	SB	SB
Directions Served	LTR	LT	R	L	TR	L	TR
Maximum Queue (ft)	71	935	175	159	912	235	218
Average Queue (ft)	19	591	172	13	573	125	91
95th Queue (ft)	53	1058	199	80	1036	208	176
Link Distance (ft)	999	983			1098		1076
Upstream Blk Time (%)		13			6		
Queuing Penalty (veh)		0			0		
Storage Bay Dist (ft)			75	100		125	
Storage Blk Time (%)		0	59		67	12	2
Queuing Penalty (veh)		1	23		3	30	4

Intersection: 23: White Oak Rd & Raynor Rd

Movement	EB	WB	SB
Directions Served	LT	TR	LR
Maximum Queue (ft)	217	40	252
Average Queue (ft)	44	3	96
95th Queue (ft)	142	19	218
Link Distance (ft)	1588	1684	1199
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 28: Auburn-Knightdale Rd (SR 2555) & Rock Quarry Rd (SR 2542)

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	92	146	136	124
Average Queue (ft)	38	68	62	60
95th Queue (ft)	78	123	110	106
Link Distance (ft)	752	2412	985	1114
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 31: Rock Quarry Rd (SR 2542) & Old Baucom Rd (SR 5204)

Movement	WB	SB
Directions Served	LR	LT
Maximum Queue (ft)	45	49
Average Queue (ft)	15	10
95th Queue (ft)	32	36
Link Distance (ft)	2271	2412
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 34: Hodge Rd (SR 2516) & Poole Rd (SR 1007)

Movement	EB	EB	WB	WB	NB	NB	SB	SB	SB	B18
Directions Served	L	TR	L	TR	L	TR	L	T	R	T
Maximum Queue (ft)	325	1151	259	857	76	139	514	884	812	353
Average Queue (ft)	297	799	27	498	16	54	466	594	445	159
95th Queue (ft)	405	1465	159	847	48	110	641	1278	1076	491
Link Distance (ft)		1111		1032		1024		886		431
Upstream Blk Time (%)		43		1				36	1	22
Queuing Penalty (veh)		0		0				0	0	0
Storage Bay Dist (ft)	200		200		50		425		800	
Storage Blk Time (%)	85	0		36	3	21	72	0		
Queuing Penalty (veh)	162	1		6	2	4	150	0		

Network Summary

Network wide Queuing Penalty: 1470

1: NC 55 & Mid Block U-Turn Performance by approach

Approach	NB	SB	All
Denied Delay (hr)	0.1	0.0	0.1
Denied Del/Veh (s)	0.3	0.0	0.2
Total Delay (hr)	0.5	36.7	37.2
Total Del/Veh (s)	1.3	83.0	44.1
Stop Delay (hr)	0.0	33.8	33.8
Stop Del/Veh (s)	0.0	76.4	40.0
Travel Dist (mi)	269.3	229.2	498.5
Travel Time (hr)	5.6	41.2	46.8
Avg Speed (mph)	49	6	11
Vehicles Entered	1444	1546	2990
Vehicles Exited	1443	1550	2993
Hourly Exit Rate	1443	1550	2993
Input Volume	1400	2868	4268
% of Volume	103	54	70
Denied Entry Before	0	0	0
Denied Entry After	0	0	0

2: NC 55 & Old Smithfield Rd Performance by approach

Approach	EB	WB	NB	SB	All
Denied Delay (hr)	5.2	0.0	0.0	464.7	469.9
Denied Del/Veh (s)	372.7	0.2	0.0	591.2	364.4
Total Delay (hr)	31.7	0.7	1.9	47.7	81.9
Total Del/Veh (s)	2075.2	14.2	4.3	106.4	85.7
Stop Delay (hr)	31.8	0.6	1.4	42.9	76.7
Stop Del/Veh (s)	2079.9	13.1	3.2	95.6	80.2
Travel Dist (mi)	4.4	42.7	234.2	297.1	578.4
Travel Time (hr)	37.0	2.1	7.1	517.9	564.1
Avg Speed (mph)	0	21	33	6	6
Vehicles Entered	40	165	1597	1567	3369
Vehicles Exited	16	165	1595	1566	3342
Hourly Exit Rate	16	165	1595	1566	3342
Input Volume	56	196	1724	2866	4842
% of Volume	29	84	93	55	69
Denied Entry Before	0	0	0	0	0
Denied Entry After	10	0	0	1263	1273

11: Holly Springs Rd (SR 1152) & Kildaire Farm Rd (SR 1300) Performance by approach

Approach	EB	NB	SB	All
Denied Delay (hr)	62.2	0.5	1.1	63.8
Denied Del/Veh (s)	284.3	2.4	5.9	106.8
Total Delay (hr)	30.7	1.7	10.6	43.1
Total Del/Veh (s)	163.9	8.7	58.4	75.8
Stop Delay (hr)	27.9	1.1	8.0	37.0
Stop Del/Veh (s)	148.9	5.6	43.9	65.1
Travel Dist (mi)	108.8	85.9	67.0	261.7
Travel Time (hr)	96.5	4.5	13.2	114.2
Avg Speed (mph)	3	21	6	5
Vehicles Entered	652	714	646	2012
Vehicles Exited	642	714	630	1986
Hourly Exit Rate	642	714	630	1986
Input Volume	804	748	635	2187
% of Volume	80	95	99	91
Denied Entry Before	1	0	1	2
Denied Entry After	136	1	1	138

14: US 401 (Fayetteville Road) & Chandler Ridge Circle/Wake Technical Community College Performanc

Approach	EB	WB	NB	SB	All
Denied Delay (hr)	0.0	0.0	0.1	0.0	0.1
Denied Del/Veh (s)	0.2	0.2	0.2	0.0	0.1
Total Delay (hr)	0.6	2.4	4.8	5.8	13.6
Total Del/Veh (s)	43.3	48.4	17.1	12.7	16.9
Stop Delay (hr)	0.6	2.3	2.7	2.0	7.6
Stop Del/Veh (s)	43.9	46.5	9.7	4.4	9.5
Travel Dist (mi)	9.2	31.9	199.4	348.8	589.3
Travel Time (hr)	1.5	4.0	8.6	12.6	26.8
Avg Speed (mph)	6	8	23	28	22
Vehicles Entered	46	177	1000	1648	2871
Vehicles Exited	47	175	993	1651	2866
Hourly Exit Rate	47	175	993	1651	2866
Input Volume	40	187	983	1611	2821
% of Volume	118	94	101	102	102
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	0	0	0	0

15: US 401 (Fayetteville Road) & Donnybrook Rd (SR 1503)/Old McCullers Rd (SR 2779) Performance by

Approach	EB	WB	NB	SB	All
Denied Delay (hr)	0.1	0.0	0.0	0.0	0.1
Denied Del/Veh (s)	1.9	0.9	0.0	0.0	0.1
Total Delay (hr)	2.4	2.8	3.7	10.4	19.3
Total Del/Veh (s)	53.1	53.8	12.0	21.3	21.7
Stop Delay (hr)	2.1	2.6	1.7	5.1	11.5
Stop Del/Veh (s)	47.6	49.5	5.5	10.4	12.9
Travel Dist (mi)	34.7	42.9	226.7	328.3	632.7
Travel Time (hr)	3.4	4.3	8.2	17.0	32.9
Avg Speed (mph)	11	10	27	19	19
Vehicles Entered	159	188	1090	1737	3174
Vehicles Exited	158	188	1088	1740	3174
Hourly Exit Rate	158	188	1088	1740	3174
Input Volume	150	206	1075	1715	3146
% of Volume	105	91	101	101	101
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	0	0	0	0

20: NC 50 (Benson Rd) & Stevens OaksRd (SR 5324)/Cleveland School Rd (SR 1010) Performance by a

Approach	EB	WB	NB	SB	All
Denied Delay (hr)	0.0	0.3	0.0	0.8	1.1
Denied Del/Veh (s)	0.1	3.4	0.4	2.7	2.4
Total Delay (hr)	0.2	2.6	2.5	5.7	10.9
Total Del/Veh (s)	18.5	26.8	30.9	19.1	22.6
Stop Delay (hr)	0.1	2.0	1.6	2.5	6.2
Stop Del/Veh (s)	17.0	20.3	20.2	8.3	12.9
Travel Dist (mi)	5.7	61.9	59.9	216.6	344.0
Travel Time (hr)	0.4	4.5	3.7	11.3	19.8
Avg Speed (mph)	15	15	16	21	18
Vehicles Entered	30	349	289	1060	1728
Vehicles Exited	30	337	290	1064	1721
Hourly Exit Rate	30	337	290	1064	1721
Input Volume	25	317	279	1017	1638
% of Volume	120	106	104	105	105
Denied Entry Before	0	0	0	1	1
Denied Entry After	0	0	0	1	1

23: White Oak Rd & Raynor Rd Performance by approach

Approach	EB	WB	SB	All
Denied Delay (hr)	0.1	0.0	0.0	0.2
Denied Del/Veh (s)	0.5	0.3	0.3	0.4
Total Delay (hr)	0.7	0.3	5.2	6.2
Total Del/Veh (s)	3.7	2.1	64.0	15.9
Stop Delay (hr)	0.1	0.0	5.0	5.1
Stop Del/Veh (s)	0.5	0.0	60.7	13.0
Travel Dist (mi)	197.4	138.6	65.3	401.3
Travel Time (hr)	5.2	3.5	7.0	15.8
Avg Speed (mph)	38	40	9	26
Vehicles Entered	658	432	289	1379
Vehicles Exited	657	436	283	1376
Hourly Exit Rate	657	436	283	1376
Input Volume	653	450	287	1390
% of Volume	101	97	99	99
Denied Entry Before	0	0	0	0
Denied Entry After	0	0	1	1

28: Auburn-Knightdale Rd (SR 2555) & Rock Quarry Rd (SR 2542) Performance by approach

Approach	EB	WB	NB	SB	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.1
Denied Del/Veh (s)	0.3	0.0	0.2	0.2	0.2
Total Delay (hr)	0.9	0.5	1.1	0.7	3.2
Total Del/Veh (s)	9.4	8.6	20.1	19.3	12.9
Stop Delay (hr)	0.4	0.3	0.8	0.5	1.9
Stop Del/Veh (s)	3.5	4.7	14.2	14.3	7.6
Travel Dist (mi)	52.0	96.0	36.2	26.3	210.5
Travel Time (hr)	2.0	2.4	2.0	1.3	7.7
Avg Speed (mph)	26	40	18	20	27
Vehicles Entered	364	207	195	124	890
Vehicles Exited	362	207	191	127	887
Hourly Exit Rate	362	207	191	127	887
Input Volume	371	205	192	121	889
% of Volume	98	101	99	105	100
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	0	0	0	0

31: Rock Quarry Rd (SR 2542) & Old Baucom Rd (SR 5204) Performance by approach

Approach	WB	NB	SB	All
Denied Delay (hr)	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.2	0.2	0.0	0.1
Total Delay (hr)	0.0	0.0	0.6	0.7
Total Del/Veh (s)	2.3	0.8	5.5	3.9
Stop Delay (hr)	0.0	0.0	0.0	0.1
Stop Del/Veh (s)	2.1	0.0	0.2	0.3
Travel Dist (mi)	23.2	57.2	180.9	261.4
Travel Time (hr)	0.6	1.1	4.1	5.8
Avg Speed (mph)	38	53	44	45
Vehicles Entered	53	167	389	609
Vehicles Exited	54	164	387	605
Hourly Exit Rate	54	164	387	605
Input Volume	41	171	381	593
% of Volume	132	96	102	102
Denied Entry Before	0	0	0	0
Denied Entry After	0	0	0	0

34: Hodge Rd (SR 2516) & Poole Rd (SR 1007) Performance by approach

Approach	EB	WB	NB	SB	All
Denied Delay (hr)	0.2	0.1	0.0	0.0	0.3
Denied Del/Veh (s)	1.7	0.6	0.5	0.0	0.6
Total Delay (hr)	4.5	6.1	0.2	6.6	17.4
Total Del/Veh (s)	31.5	49.1	17.7	29.4	34.6
Stop Delay (hr)	3.5	4.7	0.2	5.1	13.5
Stop Del/Veh (s)	24.5	38.2	15.9	22.4	26.7
Travel Dist (mi)	107.7	84.8	6.8	144.2	343.5
Travel Time (hr)	7.4	8.4	0.4	10.8	27.0
Avg Speed (mph)	15	10	18	13	13
Vehicles Entered	509	435	35	809	1788
Vehicles Exited	509	426	35	803	1773
Hourly Exit Rate	509	426	35	803	1773
Input Volume	512	432	45	795	1784
% of Volume	99	99	78	101	99
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	0	0	0	0

Total Network Performance

Denied Delay (hr)	536.0
Denied Del/Veh (s)	122.4
Total Delay (hr)	248.3
Total Del/Veh (s)	60.7
Stop Delay (hr)	196.4
Stop Del/Veh (s)	48.0
Travel Dist (mi)	8636.4
Travel Time (hr)	982.4
Avg Speed (mph)	19
Vehicles Entered	14346
Vehicles Exited	14249
Hourly Exit Rate	14249
Input Volume	43321
% of Volume	33
Denied Entry Before	3
Denied Entry After	1413

Intersection: 1: NC 55 & Mid Block U-Turn

Movement	SB	SB	SB	SB
Directions Served	U	T	T	T
Maximum Queue (ft)	700	791	535	155
Average Queue (ft)	697	759	75	42
95th Queue (ft)	709	781	291	126
Link Distance (ft)		721	721	721
Upstream Blk Time (%)		90		
Queuing Penalty (veh)		853		
Storage Bay Dist (ft)	650			
Storage Blk Time (%)	100			
Queuing Penalty (veh)	844			

Intersection: 2: NC 55 & Old Smithfield Rd

Movement	EB	WB	NB	SB	SB	SB
Directions Served	R	R	L	T	T	TR
Maximum Queue (ft)	1074	140	209	1049	1024	1012
Average Queue (ft)	904	60	38	993	940	594
95th Queue (ft)	1239	112	145	1154	1278	1311
Link Distance (ft)	1040	1361		997	997	997
Upstream Blk Time (%)	63			84	30	2
Queuing Penalty (veh)	0			0	0	0
Storage Bay Dist (ft)			550			
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 11: Holly Springs Rd (SR 1152) & Kildaire Farm Rd (SR 1300)

Movement	EB	EB	NB	NB	SB
Directions Served	L	R	L	T	TR
Maximum Queue (ft)	174	944	243	76	606
Average Queue (ft)	23	866	119	10	393
95th Queue (ft)	96	1043	200	46	673
Link Distance (ft)		881		634	554
Upstream Blk Time (%)		83			18
Queuing Penalty (veh)		0			0
Storage Bay Dist (ft)	100		225		
Storage Blk Time (%)	0	66	0		
Queuing Penalty (veh)	0	11	1		

Intersection: 14: US 401 (Fayetteville Road) & Chandler Ridge Circle/Wake Technical Community College

Movement	EB	WB	NB	NB	NB	SB	SB	SB	SB
Directions Served	LTR	LTR	L	T	TR	L	T	T	R
Maximum Queue (ft)	67	182	40	253	206	131	221	211	17
Average Queue (ft)	33	115	10	182	146	67	54	60	3
95th Queue (ft)	67	186	30	250	211	122	160	156	13
Link Distance (ft)	1030	949		1044	1044		1046	1046	
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)			100			300			175
Storage Blk Time (%)				19				1	
Queuing Penalty (veh)				2				0	

Intersection: 15: US 401 (Fayetteville Road) & Donnybrook Rd (SR 1503)/Old McCullers Rd (SR 2779)

Movement	EB	EB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	TR	L	TR	L	T	TR	L	T	TR
Maximum Queue (ft)	125	299	73	199	74	118	110	156	372	397
Average Queue (ft)	51	69	27	105	38	61	54	74	246	273
95th Queue (ft)	101	163	63	169	79	95	108	134	342	366
Link Distance (ft)		1157		1201		1046	1046		939	939
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)	50		75		125			300		
Storage Blk Time (%)	31	24	2	37		0			1	
Queuing Penalty (veh)	28	14	3	13		0			1	

Intersection: 20: NC 50 (Benson Rd) & Stevens OaksRd (SR 5324)/Cleveland School Rd (SR 1010)

Movement	EB	WB	WB	NB	NB	SB	SB
Directions Served	LTR	LT	R	L	TR	L	TR
Maximum Queue (ft)	73	310	175	30	273	273	300
Average Queue (ft)	20	120	128	6	121	151	119
95th Queue (ft)	55	301	229	23	212	245	206
Link Distance (ft)	999	983			1098		1076
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)			75	100		125	
Storage Blk Time (%)		1	39		15	12	4
Queuing Penalty (veh)		2	16		1	59	19

Intersection: 23: White Oak Rd & Raynor Rd

Movement	EB	SB
Directions Served	LT	LR
Maximum Queue (ft)	244	350
Average Queue (ft)	22	187
95th Queue (ft)	100	326
Link Distance (ft)	1588	1199
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 28: Auburn-Knightdale Rd (SR 2555) & Rock Quarry Rd (SR 2542)

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	152	96	113	112
Average Queue (ft)	61	48	68	50
95th Queue (ft)	116	82	111	87
Link Distance (ft)	752	2412	985	1114
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 31: Rock Quarry Rd (SR 2542) & Old Baucom Rd (SR 5204)

Movement	WB	SB
Directions Served	LR	LT
Maximum Queue (ft)	46	54
Average Queue (ft)	12	12
95th Queue (ft)	31	42
Link Distance (ft)	2271	2412
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 34: Hodge Rd (SR 2516) & Poole Rd (SR 1007)

Movement	EB	EB	WB	WB	NB	NB	SB	SB	SB
Directions Served	L	TR	L	TR	L	TR	L	T	R
Maximum Queue (ft)	172	259	349	434	28	68	473	69	210
Average Queue (ft)	94	128	38	244	4	19	268	19	76
95th Queue (ft)	159	210	178	383	17	50	433	52	145
Link Distance (ft)		1111		1032		1024		886	
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)	200		200		50		425		800
Storage Blk Time (%)		2		24		2	1		
Queuing Penalty (veh)		3		4		0	4		

Network Summary

Network wide Queuing Penalty: 1880

2016 Build
Synchro Results

Lane Group	WBL	WBR	NBT	NBR	SBU	SBL	SBT
Lane Configurations			↑↑		↓		↑↑↑
Traffic Volume (vph)	0	0	2488	0	205	0	1377
Future Volume (vph)	0	0	2488	0	205	0	1377
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0		0		650	
Storage Lanes	0	0		0		1	
Taper Length (ft)	100					50	
Lane Util. Factor	1.00	1.00	0.95	1.00	1.00	1.00	0.91
Frt							
Flt Protected					0.950		
Satd. Flow (prot)	0	0	3406	0	1703	0	4893
Flt Permitted					0.950		
Satd. Flow (perm)	0	0	3406	0	1703	0	4893
Right Turn on Red		No		No			
Satd. Flow (RTOR)							
Link Speed (mph)	45		55				55
Link Distance (ft)	105		998				787
Travel Time (s)	1.6		12.4				9.8
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	2%	2%	6%	6%	6%	6%	6%
Adj. Flow (vph)	0	0	2764	0	228	0	1530
Shared Lane Traffic (%)							
Lane Group Flow (vph)	0	0	2764	0	228	0	1530
Turn Type			NA		Prot		NA
Protected Phases			2		1		Free
Permitted Phases							
Detector Phase			2		1		
Switch Phase							
Minimum Initial (s)			14.0		7.0		
Minimum Split (s)			21.0		14.0		
Total Split (s)			151.0		29.0		
Total Split (%)			83.9%		16.1%		
Maximum Green (s)			144.0		22.0		
Yellow Time (s)			5.0		5.0		
All-Red Time (s)			2.0		2.0		
Lost Time Adjust (s)			-2.0		-2.0		
Total Lost Time (s)			5.0		5.0		
Lead/Lag			Lead		Lag		
Lead-Lag Optimize?			Yes		Yes		
Vehicle Extension (s)			3.0		3.0		
Recall Mode			C-Max		None		
Act Effct Green (s)			146.0		24.0		180.0
Actuated g/C Ratio			0.81		0.13		1.00
v/c Ratio			1.00		1.00		0.31
Control Delay			34.1		131.3		0.2
Queue Delay			0.0		0.0		0.0
Total Delay			34.1		131.3		0.2
LOS			C		F		A
Approach Delay			34.1				17.2

Lane Group	WBL	WBR	NBT	NBR	SBU	SBL	SBT
Approach LOS			C				B
Queue Length 50th (ft)			~1507		~277		0
Queue Length 95th (ft)			#1872		#471		0
Internal Link Dist (ft)	25		918				707
Turn Bay Length (ft)					650		
Base Capacity (vph)			2762		227		4893
Starvation Cap Reductn			0		0		0
Spillback Cap Reductn			0		0		0
Storage Cap Reductn			0		0		0
Reduced v/c Ratio			1.00		1.00		0.31

Intersection Summary

Area Type: Other
Cycle Length: 180
Actuated Cycle Length: 180
Offset: 155 (86%), Referenced to phase 2:NBT, Start of Green
Natural Cycle: 140
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.00
Intersection Signal Delay: 27.5 Intersection LOS: C
Intersection Capacity Utilization 88.5% ICU Level of Service E
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: 1: NC 55 & Mid Block U-Turn



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	103	0	0	354	30	2468	195	0	1479	27
Future Volume (vph)	0	0	103	0	0	354	30	2468	195	0	1479	27
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	550		0	0		0
Storage Lanes	0		1	0		1	1		1	0		0
Taper Length (ft)	100			100			100			100		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.91	0.91
Frt			0.865			0.865			0.850		0.997	
Flt Protected							0.950					
Satd. Flow (prot)	0	0	1358	0	0	1550	1703	3406	1524	0	4879	0
Flt Permitted							0.950					
Satd. Flow (perm)	0	0	1358	0	0	1550	1703	3406	1524	0	4879	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		35			35			55			55	
Link Distance (ft)		1117			1426			787			743	
Travel Time (s)		21.8			27.8			9.8			9.2	
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
Heavy Vehicles (%)	21%	21%	21%	6%	6%	6%	6%	6%	6%	6%	6%	6%
Adj. Flow (vph)	0	0	114	0	0	393	33	2742	217	0	1643	30
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	114	0	0	393	33	2742	217	0	1673	0
Turn Type			Perm			Perm	Prot	NA	custom		NA	
Protected Phases							5	Free	Free		6	
Permitted Phases			5 6			5 6			Free			
Detector Phase			5 6			5 6	5				6	
Switch Phase												
Minimum Initial (s)							7.0				14.0	
Minimum Split (s)							14.0				21.0	
Total Split (s)							43.0				137.0	
Total Split (%)							23.9%				76.1%	
Maximum Green (s)							36.0				130.0	
Yellow Time (s)							5.0				5.0	
All-Red Time (s)							2.0				2.0	
Lost Time Adjust (s)							-2.0				-2.0	
Total Lost Time (s)							5.0				5.0	
Lead/Lag							Lead				Lag	
Lead-Lag Optimize?							Yes				Yes	
Vehicle Extension (s)							3.0				3.0	
Recall Mode							None				C-Max	
Act Effct Green (s)			180.0			180.0	11.4	180.0	180.0		158.6	
Actuated g/C Ratio			1.00			1.00	0.06	1.00	1.00		0.88	
v/c Ratio			0.08			0.25	0.31	0.81	0.14		0.39	
Control Delay			0.1			0.4	85.6	0.5	0.0		0.8	
Queue Delay			0.0			0.0	0.0	0.1	0.0		0.1	
Total Delay			0.1			0.4	85.6	0.6	0.0		0.9	
LOS			A			A	F	A	A		A	
Approach Delay		0.1			0.4			1.5			0.9	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		A			A			A			A	
Queue Length 50th (ft)			0			0	38	0	0		24	
Queue Length 95th (ft)			0			0	m37	m0	m0		34	
Internal Link Dist (ft)		1037			1346			707			663	
Turn Bay Length (ft)							550					
Base Capacity (vph)			1358			1550	359	3406	1524		4298	
Starvation Cap Reductn			0			0	0	0	0		876	
Spillback Cap Reductn			0			38	0	84	0		0	
Storage Cap Reductn			0			0	0	0	0		0	
Reduced v/c Ratio			0.08			0.26	0.09	0.83	0.14		0.49	

Intersection Summary

Area Type: Other
Cycle Length: 180
Actuated Cycle Length: 180
Offset: 62 (34%), Referenced to phase 6:SBT, Start of Green
Natural Cycle: 40
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.81
Intersection Signal Delay: 1.2 Intersection LOS: A
Intersection Capacity Utilization 97.6% ICU Level of Service F
Analysis Period (min) 15
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: NC 55 & Old Smithfield Rd



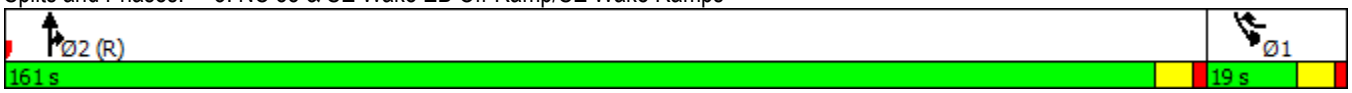
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	476	0	0	44	0	2619	85	187	1097	0
Future Volume (vph)	0	0	476	0	0	44	0	2619	85	187	1097	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	0		300	240		0
Storage Lanes	0		1	0		2	1		1	1		0
Taper Length (ft)	100			100			100			150		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	0.88	1.00	0.95	1.00	*0.80	0.95	1.00
Frt			0.865			0.850			0.850			
Flt Protected										0.950		
Satd. Flow (prot)	0	0	1550	0	0	2682	0	3406	1524	2725	3406	0
Flt Permitted										0.950		
Satd. Flow (perm)	0	0	1550	0	0	2682	0	3406	1524	2725	3406	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		45			25			55			55	
Link Distance (ft)		1183			273			743			755	
Travel Time (s)		17.9			7.4			9.2			9.4	
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 (%)	6%	6%	6%	2%	2%	6%	6%	6%	6%	6%	6%	6%
Adj. Flow (vph)	0	0	529	0	0	49	0	2910	94	208	1219	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	529	0	0	49	0	2910	94	208	1219	0
Turn Type			Free			Over		NA	Prot	Prot	NA	
Protected Phases						1		2	2	1	Free	
Permitted Phases			Free									
Detector Phase						1		2	2	1		
Switch Phase												
Minimum Initial (s)						7.0		14.0	14.0	7.0		
Minimum Split (s)						14.0		21.0	21.0	14.0		
Total Split (s)						19.0		161.0	161.0	19.0		
Total Split (%)						10.6%		89.4%	89.4%	10.6%		
Maximum Green (s)						12.0		154.0	154.0	12.0		
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)						0.0		-2.0	0.0	-2.0		
Total Lost Time (s)						7.0		5.0	7.0	5.0		
Lead/Lag						Lag		Lead	Lead	Lag		
Lead-Lag Optimize?						Yes		Yes	Yes	Yes		
Vehicle Extension (s)						3.0		3.0	3.0	3.0		
Recall Mode						None		C-Max	C-Max	None		
Act Effct Green (s)			180.0			12.0		156.0	154.0	14.0	180.0	
Actuated g/C Ratio			1.00			0.07		0.87	0.86	0.08	1.00	
v/c Ratio			0.34			0.28		0.99	0.07	0.99	0.36	
Control Delay			0.6			84.1		14.8	1.3	132.8	0.3	
Queue Delay			0.0			0.0		0.0	0.0	0.0	0.0	
Total Delay			0.6			84.1		14.8	1.3	132.8	0.3	
LOS			A			F		B	A	F	A	
Approach Delay		0.6			84.1			14.4			19.6	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		A			F			B			B	
Queue Length 50th (ft)			0			31		170	8	156	0	
Queue Length 95th (ft)			0			59		#803	m12	#272	0	
Internal Link Dist (ft)		1103			193			663			675	
Turn Bay Length (ft)									300	240		
Base Capacity (vph)			1550			178		2951	1303	211	3406	
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			0.34			0.28		0.99	0.07	0.99	0.36	

Intersection Summary

Area Type: Other
Cycle Length: 180
Actuated Cycle Length: 180
Offset: 164 (91%), Referenced to phase 2:NBT, Start of Green
Natural Cycle: 130
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.99
Intersection Signal Delay: 15.1 Intersection LOS: B
Intersection Capacity Utilization 88.2% ICU Level of Service E
Analysis Period (min) 15
* User Entered Value
\# 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: 3: NC 55 & SE Wake EB Off-Ramp/SE Wake Ramps



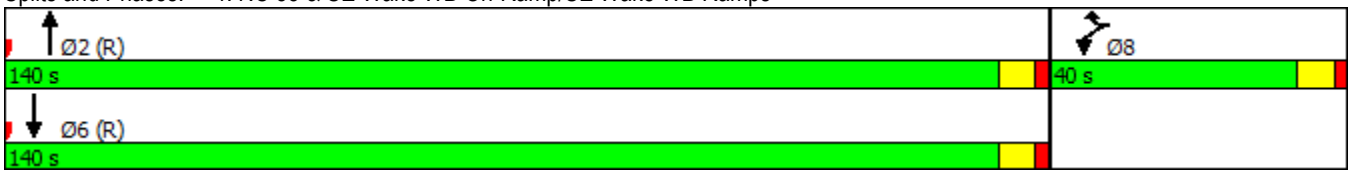
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	80	0	292	0	1682	981	0	1204	56
Future Volume (vph)	0	0	0	80	0	292	0	1682	981	0	1204	56
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	0		0	0		500
Storage Lanes	0		0	2		2	0		1	0		1
Taper Length (ft)	100			100			150			100		
Lane Util. Factor	1.00	1.00	1.00	0.97	1.00	0.88	1.00	0.95	1.00	1.00	0.95	1.00
Frt						0.850			0.850			0.850
Flt Protected				0.950								
Satd. Flow (prot)	0	0	0	3303	0	2682	0	3406	1524	0	3406	1524
Flt Permitted				0.950								
Satd. Flow (perm)	0	0	0	3303	0	2682	0	3406	1524	0	3406	1524
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		45			45			55			55	
Link Distance (ft)		1805			356			176			1313	
Travel Time (s)		27.3			5.4			2.2			16.3	
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 (%)	6%	6%	6%	6%	6%	6%	6%	6%	6%	6%	6%	6%
Adj. Flow (vph)	0	0	0	89	0	324	0	1869	1090	0	1338	62
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	89	0	324	0	1869	1090	0	1338	62
Turn Type				Prot		Prot		NA	Free		NA	Free
Protected Phases				8		8		2			6	
Permitted Phases									Free			Free
Detector Phase				8		8		2			6	
Switch Phase												
Minimum Initial (s)				7.0		7.0		14.0			14.0	
Minimum Split (s)				19.0		19.0		21.0			21.0	
Total Split (s)				40.0		40.0		140.0			140.0	
Total Split (%)				22.2%		22.2%		77.8%			77.8%	
Maximum Green (s)				33.0		33.0		133.0			133.0	
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		None		C-Max			C-Max	
Act Effct Green (s)				28.8		28.8		141.2	180.0		141.2	180.0
Actuated g/C Ratio				0.16		0.16		0.78	1.00		0.78	1.00
v/c Ratio				0.17		0.76		0.70	0.72		0.50	0.04
Control Delay				64.7		83.5		4.0	0.8		8.0	0.1
Queue Delay				0.0		0.0		0.4	0.0		0.0	0.0
Total Delay				64.7		83.5		4.4	0.8		8.0	0.1
LOS				E		F		A	A		A	A
Approach Delay					79.4			3.1			7.7	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS					E			A			A	
Queue Length 50th (ft)				47		210		253	0		266	0
Queue Length 95th (ft)				73		265		m383	m0		357	0
Internal Link Dist (ft)		1725			276			96			1233	
Turn Bay Length (ft)												500
Base Capacity (vph)				642		521		2671	1524		2671	1524
Starvation Cap Reductn				0		0		319	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				0.14		0.62		0.79	0.72		0.50	0.04

Intersection Summary

Area Type: Other
Cycle Length: 180
Actuated Cycle Length: 180
Offset: 20 (11%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.76
Intersection Signal Delay: 11.0 Intersection LOS: B
Intersection Capacity Utilization 65.0% ICU Level of Service C
Analysis Period (min) 15
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 4: NC 55 & SE Wake WB On-Ramp/SE Wake WB Ramps



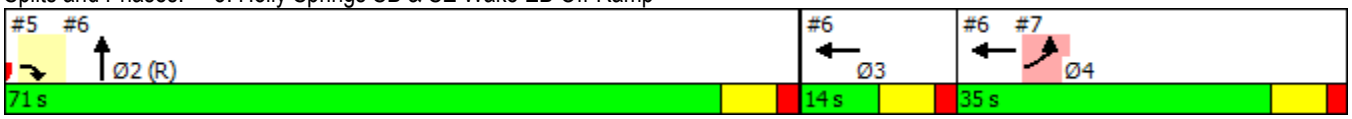
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR	Ø3	Ø4
Lane Configurations								
Traffic Volume (vph)	0	97	0	0	651	0		
Future Volume (vph)	0	97	0	0	651	0		
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900		
Lane Util. Factor	1.00	0.88	1.00	1.00	*0.70	1.00		
Frt		0.850						
Flt Protected								
Satd. Flow (prot)	0	2787	0	0	3912	0		
Flt Permitted								
Satd. Flow (perm)	0	2787	0	0	3912	0		
Right Turn on Red		No				No		
Satd. Flow (RTOR)								
Link Speed (mph)	25			25	25			
Link Distance (ft)	348			188	304			
Travel Time (s)	9.5			5.1	8.3			
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90		
Adj. Flow (vph)	0	108	0	0	723	0		
Shared Lane Traffic (%)								
Lane Group Flow (vph)	0	108	0	0	723	0		
Turn Type		Prot			NA			
Protected Phases		2!			Free!		3	4
Permitted Phases								
Detector Phase		2			3			
Switch Phase								
Minimum Initial (s)		4.0					4.0	4.0
Minimum Split (s)		19.0					14.0	19.0
Total Split (s)		71.0					14.0	35.0
Total Split (%)		59.2%					12%	29%
Maximum Green (s)		64.0					7.0	28.0
Yellow Time (s)		5.0					5.0	5.0
All-Red Time (s)		2.0					2.0	2.0
Lost Time Adjust (s)		-2.0						
Total Lost Time (s)		5.0						
Lead/Lag							Lead	Lag
Lead-Lag Optimize?							Yes	
Vehicle Extension (s)		3.0					3.0	3.0
Recall Mode		C-Max					None	None
Act Effct Green (s)		79.5			120.0			
Actuated g/C Ratio		0.66			1.00			
v/c Ratio		0.06			0.18			
Control Delay		7.9			0.8			
Queue Delay		0.0			0.0			
Total Delay		7.9			0.8			
LOS		A			A			
Approach Delay	7.9				0.8			
Approach LOS	A				A			
Queue Length 50th (ft)		15			13			
Queue Length 95th (ft)		30			17			
Internal Link Dist (ft)	268			108	224			

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR	Ø3	Ø4
Turn Bay Length (ft)								
Base Capacity (vph)		1847			3912			
Starvation Cap Reductn		0			0			
Spillback Cap Reductn		0			0			
Storage Cap Reductn		0			0			
Reduced v/c Ratio		0.06			0.18			

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 44 (37%), Referenced to phase 2:EBR, Start of Green
Natural Cycle: 55
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.56
Intersection Signal Delay: 1.7 Intersection LOS: A
Intersection Capacity Utilization 41.4% ICU Level of Service A
Analysis Period (min) 15
* User Entered Value
! Phase conflict between lane groups.

Splits and Phases: 5: Holly Springs SB & SE Wake EB Off-Ramp



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	0	651	0	0	1062	0	0	0	0
Future Volume (vph)	0	0	0	0	651	0	0	1062	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	0.91	1.00	1.00	0.91	1.00	1.00	1.00	1.00
Frt												
Flt Protected												
Satd. Flow (prot)	0	0	0	0	5085	0	0	5085	0	0	0	0
Flt Permitted												
Satd. Flow (perm)	0	0	0	0	5085	0	0	5085	0	0	0	0
Right Turn on Red			No			No	No		No			No
Satd. Flow (RTOR)												
Link Speed (mph)		25			25			45			45	
Link Distance (ft)		304			167			208			175	
Travel Time (s)		8.3			4.6			3.2			2.7	
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)	0	0	0	0	723	0	0	1180	0	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	723	0	0	1180	0	0	0	0
Turn Type					NA			NA				
Protected Phases					4 3			2				
Permitted Phases												
Detector Phase					4 3			2				
Switch Phase												
Minimum Initial (s)								4.0				
Minimum Split (s)								19.0				
Total Split (s)								71.0				
Total Split (%)								59.2%				
Maximum Green (s)								64.0				
Yellow Time (s)								5.0				
All-Red Time (s)								2.0				
Lost Time Adjust (s)								-2.0				
Total Lost Time (s)								5.0				
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)								3.0				
Recall Mode								C-Max				
Act Effct Green (s)					30.5			79.5				
Actuated g/C Ratio					0.25			0.66				
v/c Ratio					0.56			0.35				
Control Delay					21.4			9.6				
Queue Delay					0.0			0.0				
Total Delay					21.4			9.6				
LOS					C			A				
Approach Delay					21.4			9.6				
Approach LOS					C			A				
Queue Length 50th (ft)					108			134				
Queue Length 95th (ft)					121			183				
Internal Link Dist (ft)		224			87			128			95	

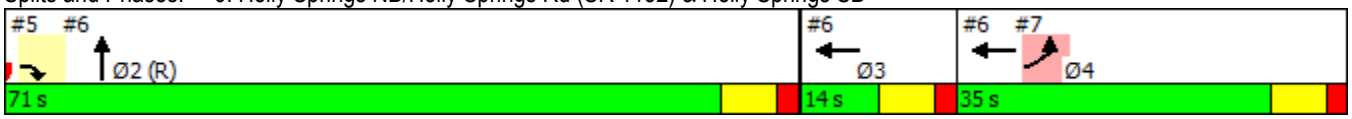
Lane Group	Ø3	Ø4
Lane Configurations		
Traffic Volume (vph)		
Future Volume (vph)		
Ideal Flow (vphpl)		
Lane Util. Factor		
Frt		
Flt Protected		
Satd. Flow (prot)		
Flt Permitted		
Satd. Flow (perm)		
Right Turn on Red		
Satd. Flow (RTOR)		
Link Speed (mph)		
Link Distance (ft)		
Travel Time (s)		
Peak Hour Factor		
Adj. Flow (vph)		
Shared Lane Traffic (%)		
Lane Group Flow (vph)		
Turn Type		
Protected Phases	3	4
Permitted Phases		
Detector Phase		
Switch Phase		
Minimum Initial (s)	4.0	4.0
Minimum Split (s)	14.0	19.0
Total Split (s)	14.0	35.0
Total Split (%)	12%	29%
Maximum Green (s)	7.0	28.0
Yellow Time (s)	5.0	5.0
All-Red Time (s)	2.0	2.0
Lost Time Adjust (s)		
Total Lost Time (s)		
Lead/Lag	Lead	Lag
Lead-Lag Optimize?	Yes	
Vehicle Extension (s)	3.0	3.0
Recall Mode	None	None
Act Effct Green (s)		
Actuated g/C Ratio		
v/c Ratio		
Control Delay		
Queue Delay		
Total Delay		
LOS		
Approach Delay		
Approach LOS		
Queue Length 50th (ft)		
Queue Length 95th (ft)		
Internal Link Dist (ft)		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Bay Length (ft)												
Base Capacity (vph)					1864			3370				
Starvation Cap Reductn					0			0				
Spillback Cap Reductn					0			0				
Storage Cap Reductn					0			0				
Reduced v/c Ratio					0.39			0.35				

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 44 (37%), Referenced to phase 2:EBR, Start of Green
Natural Cycle: 55
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.56
Intersection Signal Delay: 14.1 Intersection LOS: B
Intersection Capacity Utilization 41.4% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 6: Holly Springs NB/Holly Springs Rd (SR 1152) & Holly Springs SB



Lane Group	Ø3	Ø4
Turn Bay Length (ft)		
Base Capacity (vph)		
Starvation Cap Reductn		
Spillback Cap Reductn		
Storage Cap Reductn		
Reduced v/c Ratio		

Intersection Summary

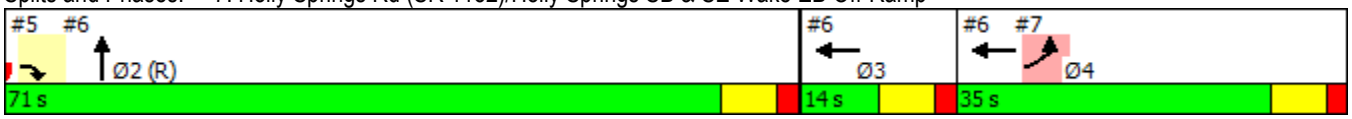
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR	Ø2	Ø3
Lane Configurations								
Traffic Volume (vph)	70	0	0	1062	0	0		
Future Volume (vph)	70	0	0	1062	0	0		
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900		
Lane Util. Factor	0.97	1.00	1.00	0.91	1.00	1.00		
Frt								
Flt Protected	0.950							
Satd. Flow (prot)	3433	0	0	5085	0	0		
Flt Permitted	0.950							
Satd. Flow (perm)	3433	0	0	5085	0	0		
Right Turn on Red	No	No				No		
Satd. Flow (RTOR)								
Link Speed (mph)	25			45	45			
Link Distance (ft)	330			175	324			
Travel Time (s)	9.0			2.7	4.9			
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90		
Adj. Flow (vph)	78	0	0	1180	0	0		
Shared Lane Traffic (%)								
Lane Group Flow (vph)	78	0	0	1180	0	0		
Turn Type	Prot			NA				
Protected Phases	4!			Free!			2	3
Permitted Phases								
Detector Phase	4							
Switch Phase								
Minimum Initial (s)	4.0						4.0	4.0
Minimum Split (s)	19.0						19.0	14.0
Total Split (s)	35.0						71.0	14.0
Total Split (%)	29.2%						59%	12%
Maximum Green (s)	28.0						64.0	7.0
Yellow Time (s)	5.0						5.0	5.0
All-Red Time (s)	2.0						2.0	2.0
Lost Time Adjust (s)	-2.0							
Total Lost Time (s)	5.0							
Lead/Lag	Lag							Lead
Lead-Lag Optimize?								Yes
Vehicle Extension (s)	3.0						3.0	3.0
Recall Mode	None						C-Max	None
Act Effct Green (s)	16.5			120.0				
Actuated g/C Ratio	0.14			1.00				
v/c Ratio	0.17			0.23				
Control Delay	45.1			0.1				
Queue Delay	0.0			0.0				
Total Delay	45.1			0.1				
LOS	D			A				
Approach Delay	45.1			0.1				
Approach LOS	D			A				
Queue Length 50th (ft)	27			0				
Queue Length 95th (ft)	48			0				
Internal Link Dist (ft)	250			95	244			

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR	Ø2	Ø3
Turn Bay Length (ft)								
Base Capacity (vph)	858			5085				
Starvation Cap Reductn	0			0				
Spillback Cap Reductn	0			0				
Storage Cap Reductn	0			0				
Reduced v/c Ratio	0.09			0.23				

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 44 (37%), Referenced to phase 2:EBR, Start of Green
Natural Cycle: 55
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.56
Intersection Signal Delay: 2.9 Intersection LOS: A
Intersection Capacity Utilization 32.0% ICU Level of Service A
Analysis Period (min) 15
! Phase conflict between lane groups.

Splits and Phases: 7: Holly Springs Rd (SR 1152)/Holly Springs SB & SE Wake EB Off-Ramp



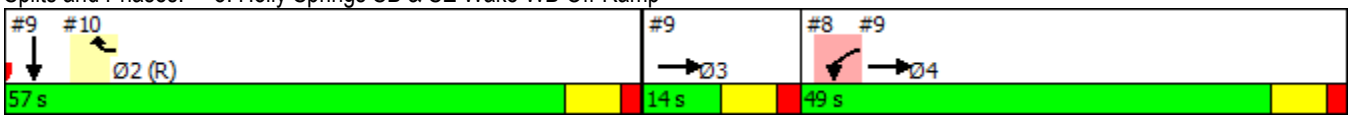
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	Ø2	Ø3
Lane Configurations								
Traffic Volume (vph)	244	0	0	0	0	608		
Future Volume (vph)	244	0	0	0	0	608		
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900		
Lane Util. Factor	0.97	1.00	1.00	1.00	1.00	0.91		
Frt								
Flt Protected	0.950							
Satd. Flow (prot)	3433	0	0	0	0	5085		
Flt Permitted	0.950							
Satd. Flow (perm)	3433	0	0	0	0	5085		
Right Turn on Red	No	No		No				
Satd. Flow (RTOR)								
Link Speed (mph)	25		25			25		
Link Distance (ft)	219		441			139		
Travel Time (s)	6.0		12.0			3.8		
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90		
Adj. Flow (vph)	271	0	0	0	0	676		
Shared Lane Traffic (%)								
Lane Group Flow (vph)	271	0	0	0	0	676		
Turn Type	Prot					NA		
Protected Phases	4!					Free!	2	3
Permitted Phases								
Detector Phase	4							
Switch Phase								
Minimum Initial (s)	4.0						4.0	4.0
Minimum Split (s)	19.0						19.0	14.0
Total Split (s)	49.0						57.0	14.0
Total Split (%)	40.8%						48%	12%
Maximum Green (s)	42.0						50.0	7.0
Yellow Time (s)	5.0						5.0	5.0
All-Red Time (s)	2.0						2.0	2.0
Lost Time Adjust (s)	-2.0							
Total Lost Time (s)	5.0							
Lead/Lag	Lag							Lead
Lead-Lag Optimize?								Yes
Vehicle Extension (s)	3.0						3.0	3.0
Recall Mode	None						C-Max	None
Act Effct Green (s)	26.4					120.0		
Actuated g/C Ratio	0.22					1.00		
v/c Ratio	0.36					0.13		
Control Delay	40.1					0.1		
Queue Delay	0.0					0.0		
Total Delay	40.1					0.1		
LOS	D					A		
Approach Delay	40.1					0.1		
Approach LOS	D					A		
Queue Length 50th (ft)	92					0		
Queue Length 95th (ft)	122					0		
Internal Link Dist (ft)	139		361			59		

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	Ø2	Ø3
Turn Bay Length (ft)								
Base Capacity (vph)	1258					5085		
Starvation Cap Reductn	0					0		
Spillback Cap Reductn	0					0		
Storage Cap Reductn	0					0		
Reduced v/c Ratio	0.22					0.13		

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 5 (4%), Referenced to phase 2:SBT, Start of Green
Natural Cycle: 55
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.60
Intersection Signal Delay: 11.5 Intersection LOS: B
Intersection Capacity Utilization 35.1% ICU Level of Service A
Analysis Period (min) 15
! Phase conflict between lane groups.

Splits and Phases: 8: Holly Springs SB & SE Wake WB Off-Ramp



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	924	0	0	0	0	0	0	0	0	608	0
Future Volume (vph)	0	924	0	0	0	0	0	0	0	0	608	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	0.91	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91	1.00
Frt												
Flt Protected												
Satd. Flow (prot)	0	5085	0	0	0	0	0	0	0	0	5085	0
Flt Permitted												
Satd. Flow (perm)	0	5085	0	0	0	0	0	0	0	0	5085	0
Right Turn on Red			No			No			No	No		No
Satd. Flow (RTOR)												
Link Speed (mph)		45			45			25			25	
Link Distance (ft)		247			129			139			134	
Travel Time (s)		3.7			2.0			3.8			3.7	
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)	0	1027	0	0	0	0	0	0	0	0	676	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1027	0	0	0	0	0	0	0	0	676	0
Turn Type		NA									NA	
Protected Phases		4 3									2	
Permitted Phases												
Detector Phase		4 3									2	
Switch Phase												
Minimum Initial (s)											4.0	
Minimum Split (s)											19.0	
Total Split (s)											57.0	
Total Split (%)											47.5%	
Maximum Green (s)											50.0	
Yellow Time (s)											5.0	
All-Red Time (s)											2.0	
Lost Time Adjust (s)											-2.0	
Total Lost Time (s)											5.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)											3.0	
Recall Mode											C-Max	
Act Effct Green (s)		40.4									69.6	
Actuated g/C Ratio		0.34									0.58	
v/c Ratio		0.60									0.23	
Control Delay		26.8									12.1	
Queue Delay		0.0									0.0	
Total Delay		26.8									12.1	
LOS		C									B	
Approach Delay		26.8									12.1	
Approach LOS		C									B	
Queue Length 50th (ft)		246									77	
Queue Length 95th (ft)		270									150	
Internal Link Dist (ft)		167			49			59			54	

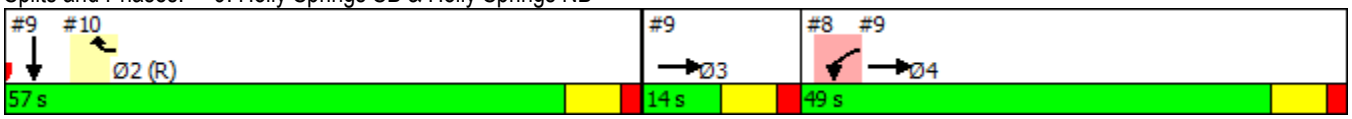
Lane Group	Ø3	Ø4
Lane Configurations		
Traffic Volume (vph)		
Future Volume (vph)		
Ideal Flow (vphpl)		
Lane Util. Factor		
Frt		
Flt Protected		
Satd. Flow (prot)		
Flt Permitted		
Satd. Flow (perm)		
Right Turn on Red		
Satd. Flow (RTOR)		
Link Speed (mph)		
Link Distance (ft)		
Travel Time (s)		
Peak Hour Factor		
Adj. Flow (vph)		
Shared Lane Traffic (%)		
Lane Group Flow (vph)		
Turn Type		
Protected Phases	3	4
Permitted Phases		
Detector Phase		
Switch Phase		
Minimum Initial (s)	4.0	4.0
Minimum Split (s)	14.0	19.0
Total Split (s)	14.0	49.0
Total Split (%)	12%	41%
Maximum Green (s)	7.0	42.0
Yellow Time (s)	5.0	5.0
All-Red Time (s)	2.0	2.0
Lost Time Adjust (s)		
Total Lost Time (s)		
Lead/Lag	Lead	Lag
Lead-Lag Optimize?	Yes	
Vehicle Extension (s)	3.0	3.0
Recall Mode	None	None
Act Effct Green (s)		
Actuated g/C Ratio		
v/c Ratio		
Control Delay		
Queue Delay		
Total Delay		
LOS		
Approach Delay		
Approach LOS		
Queue Length 50th (ft)		
Queue Length 95th (ft)		
Internal Link Dist (ft)		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Bay Length (ft)												
Base Capacity (vph)		2457									2949	
Starvation Cap Reductn		0									0	
Spillback Cap Reductn		0									0	
Storage Cap Reductn		0									0	
Reduced v/c Ratio		0.42									0.23	

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 5 (4%), Referenced to phase 2:SBT, Start of Green
Natural Cycle: 55
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.60
Intersection Signal Delay: 21.0 Intersection LOS: C
Intersection Capacity Utilization 37.9% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 9: Holly Springs SB & Holly Springs NB



Lane Group	Ø3	Ø4
Turn Bay Length (ft)		
Base Capacity (vph)		
Starvation Cap Reductn		
Spillback Cap Reductn		
Storage Cap Reductn		
Reduced v/c Ratio		

Intersection Summary

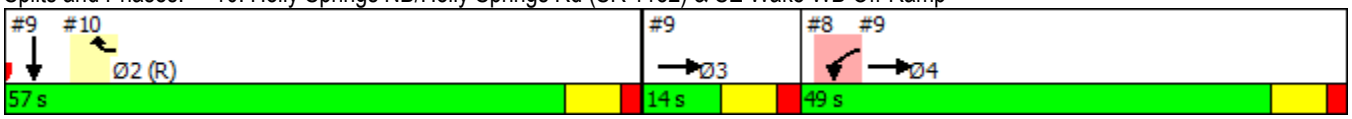
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	Ø3	Ø4
Lane Configurations								
Traffic Volume (vph)	0	404	924	0	0	0		
Future Volume (vph)	0	404	924	0	0	0		
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900		
Lane Util. Factor	1.00	0.88	0.91	1.00	1.00	1.00		
Frt		0.850						
Flt Protected								
Satd. Flow (prot)	0	2787	5085	0	0	0		
Flt Permitted								
Satd. Flow (perm)	0	2787	5085	0	0	0		
Right Turn on Red		No		No				
Satd. Flow (RTOR)								
Link Speed (mph)	25		45			45		
Link Distance (ft)	349		129			227		
Travel Time (s)	9.5		2.0			3.4		
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90		
Adj. Flow (vph)	0	449	1027	0	0	0		
Shared Lane Traffic (%)								
Lane Group Flow (vph)	0	449	1027	0	0	0		
Turn Type		Prot	NA					
Protected Phases		2!	Free!				3	4
Permitted Phases								
Detector Phase		2						
Switch Phase								
Minimum Initial (s)		4.0					4.0	4.0
Minimum Split (s)		19.0					14.0	19.0
Total Split (s)		57.0					14.0	49.0
Total Split (%)		47.5%					12%	41%
Maximum Green (s)		50.0					7.0	42.0
Yellow Time (s)		5.0					5.0	5.0
All-Red Time (s)		2.0					2.0	2.0
Lost Time Adjust (s)		-2.0						
Total Lost Time (s)		5.0						
Lead/Lag							Lead	Lag
Lead-Lag Optimize?							Yes	
Vehicle Extension (s)		3.0					3.0	3.0
Recall Mode		C-Max					None	None
Act Effct Green (s)		69.6	120.0					
Actuated g/C Ratio		0.58	1.00					
v/c Ratio		0.28	0.20					
Control Delay		13.9	0.1					
Queue Delay		0.0	0.0					
Total Delay		13.9	0.1					
LOS		B	A					
Approach Delay	13.9		0.1					
Approach LOS	B		A					
Queue Length 50th (ft)		93	0					
Queue Length 95th (ft)		146	0					
Internal Link Dist (ft)	269		49			147		

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	Ø3	Ø4
Turn Bay Length (ft)								
Base Capacity (vph)		1616	5085					
Starvation Cap Reductn		0	0					
Spillback Cap Reductn		0	0					
Storage Cap Reductn		0	0					
Reduced v/c Ratio		0.28	0.20					

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 5 (4%), Referenced to phase 2:SBT, Start of Green
Natural Cycle: 55
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.60
Intersection Signal Delay: 4.3 Intersection LOS: A
Intersection Capacity Utilization 39.5% ICU Level of Service A
Analysis Period (min) 15
! Phase conflict between lane groups.

Splits and Phases: 10: Holly Springs NB/Holly Springs Rd (SR 1152) & SE Wake WB Off-Ramp



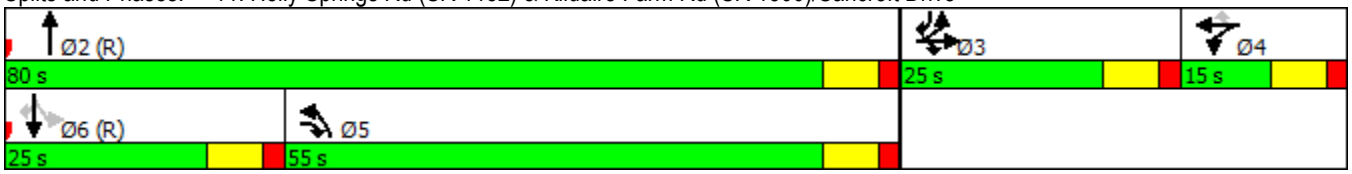
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	215	1	464	11	5	5	818	494	4	2	222	171
Future Volume (vph)	215	1	464	11	5	5	818	494	4	2	222	171
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		-3%			0%			-2%			4%	
Storage Length (ft)	400		650	50		75	0		0	150		450
Storage Lanes	1		1	0		1	2		0	1		1
Taper Length (ft)	200			100			150			150		
Lane Util. Factor	0.95	0.95	0.88	1.00	1.00	1.00	0.97	0.95	0.95	1.00	0.95	1.00
Frt			0.850			0.850		0.999				0.850
Flt Protected	0.950	0.953			0.968		0.950			0.950		
Satd. Flow (prot)	1706	1712	2828	0	1803	1583	3467	3571	0	1734	3468	1552
Flt Permitted	0.950	0.953			0.968		0.950			0.403		
Satd. Flow (perm)	1706	1712	2828	0	1803	1583	3467	3571	0	736	3468	1552
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		45			35			45			45	
Link Distance (ft)		1366			504			485			616	
Travel Time (s)		20.7			9.8			7.3			9.3	
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)	239	1	516	12	6	6	909	549	4	2	247	190
Shared Lane Traffic (%)	50%											
Lane Group Flow (vph)	119	121	516	0	18	6	909	553	0	2	247	190
Turn Type	Split	NA	pt+ov	Split	NA	Perm	Prot	NA		Perm	NA	pm+ov
Protected Phases	3	3	3 5	4	4		5	2			6	3
Permitted Phases						4				6		6
Detector Phase	3	3	3 5	4	4	4	5	2		6	6	3
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0	7.0	7.0	12.0		12.0	12.0	7.0
Minimum Split (s)	14.0	14.0		14.0	14.0	14.0	14.0	19.0		19.0	19.0	14.0
Total Split (s)	25.0	25.0		15.0	15.0	15.0	55.0	80.0		25.0	25.0	25.0
Total Split (%)	20.8%	20.8%		12.5%	12.5%	12.5%	45.8%	66.7%		20.8%	20.8%	20.8%
Maximum Green (s)	18.0	18.0		8.0	8.0	8.0	48.0	73.0		18.0	18.0	18.0
Yellow Time (s)	5.0	5.0		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	2.0	2.0
Lost Time Adjust (s)	-2.0	-2.0			-2.0	-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		5.0	5.0	5.0
Lead/Lag	Lead	Lead		Lag	Lag	Lag	Lag			Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes			Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Recall Mode	None	None		None	None	None	None	C-Max		C-Max	C-Max	None
Act Effct Green (s)	17.2	17.2	72.2		9.3	9.3	50.0	84.1		29.1	29.1	48.3
Actuated g/C Ratio	0.14	0.14	0.60		0.08	0.08	0.42	0.70		0.24	0.24	0.40
v/c Ratio	0.49	0.49	0.30		0.13	0.05	0.63	0.22		0.01	0.29	0.30
Control Delay	53.6	53.8	11.9		53.7	52.0	19.7	2.2		42.0	41.0	20.1
Queue Delay	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	53.6	53.8	11.9		53.7	52.0	19.7	2.2		42.0	41.0	20.1
LOS	D	D	B		D	D	B	A		D	D	C
Approach Delay		25.2			53.3			13.1			32.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		C			D			B			C	
Queue Length 50th (ft)	89	90	100		13	4	305	23		1	89	81
Queue Length 95th (ft)	151	153	129		37	18	350	32		9	133	130
Internal Link Dist (ft)		1286			424			405			536	
Turn Bay Length (ft)	400		650			75				150		450
Base Capacity (vph)	284	285	1767		150	131	1444	2503		178	841	625
Starvation Cap Reductn	0	0	0		0	0	0	0		0	0	0
Spillback Cap Reductn	0	0	0		0	0	0	0		0	0	0
Storage Cap Reductn	0	0	0		0	0	0	0		0	0	0
Reduced v/c Ratio	0.42	0.42	0.29		0.12	0.05	0.63	0.22		0.01	0.29	0.30

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 68 (57%), Referenced to phase 2:NBT and 6:SBTL, Start of Green
Natural Cycle: 70
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.63
Intersection Signal Delay: 19.9 Intersection LOS: B
Intersection Capacity Utilization 58.5% ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 11: Holly Springs Rd (SR 1152) & Kildaire Farm Rd (SR 1300)/Sancroft Drive



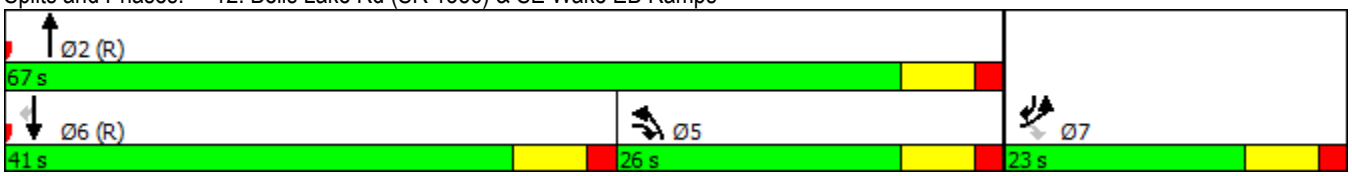
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	66	172	121	479	234	180
Future Volume (vph)	66	172	121	479	234	180
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	500	0	325			675
Storage Lanes	1	1	1			1
Taper Length (ft)	200		200			
Lane Util. Factor	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	1770	1863	1863	1583
Flt Permitted	0.950		0.950			
Satd. Flow (perm)	1770	1583	1770	1863	1863	1583
Right Turn on Red		No				No
Satd. Flow (RTOR)						
Link Speed (mph)	45			45	45	
Link Distance (ft)	766			1124	1065	
Travel Time (s)	11.6			17.0	16.1	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	73	191	134	532	260	200
Shared Lane Traffic (%)						
Lane Group Flow (vph)	73	191	134	532	260	200
Turn Type	Prot	pm+ov	Prot	NA	NA	pm+ov
Protected Phases	7	5	5	2	6	7
Permitted Phases		7				6
Detector Phase	7	5	5	2	6	7
Switch Phase						
Minimum Initial (s)	7.0	7.0	7.0	12.0	12.0	7.0
Minimum Split (s)	14.0	14.0	14.0	19.0	19.0	14.0
Total Split (s)	23.0	26.0	26.0	67.0	41.0	23.0
Total Split (%)	25.6%	28.9%	28.9%	74.4%	45.6%	25.6%
Maximum Green (s)	16.0	19.0	19.0	60.0	34.0	16.0
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	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	7.0
Lead/Lag		Lag	Lag		Lead	
Lead-Lag Optimize?		Yes	Yes		Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None	None	C-Max	C-Max	None
Act Effct Green (s)	12.3	38.3	21.0	67.7	41.7	57.0
Actuated g/C Ratio	0.14	0.43	0.23	0.75	0.46	0.63
v/c Ratio	0.30	0.28	0.32	0.38	0.30	0.20
Control Delay	37.5	17.7	31.3	5.1	11.4	5.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	37.5	17.7	31.3	5.1	11.4	5.2
LOS	D	B	C	A	B	A
Approach Delay	23.2			10.3	8.7	
Approach LOS	C			B	A	

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Queue Length 50th (ft)	38	69	63	84	57	28
Queue Length 95th (ft)	76	110	115	151	96	49
Internal Link Dist (ft)	686			1044	985	
Turn Bay Length (ft)	500		325			675
Base Capacity (vph)	354	674	413	1400	862	972
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	0.21	0.28	0.32	0.38	0.30	0.21

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 82 (91%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle: 50
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.38
Intersection Signal Delay: 12.2 Intersection LOS: B
Intersection Capacity Utilization 39.4% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 12: Bells Lake Rd (SR 1386) & SE Wake EB Ramps





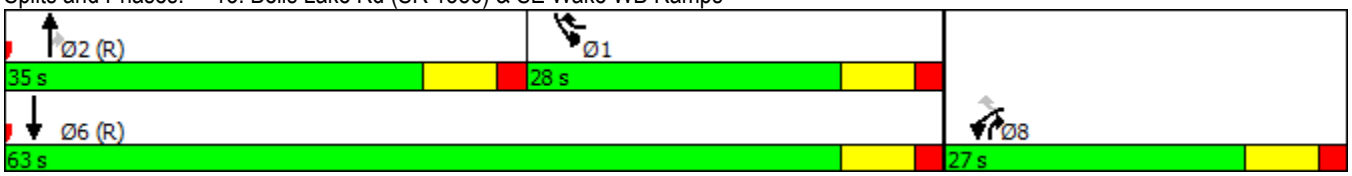
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	131	313	231	314	75	283
Future Volume (vph)	131	313	231	314	75	283
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	350	0		700	375	
Storage Lanes	1	1		1	1	
Taper Length (ft)	200				300	
Lane Util. Factor	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				0.950	
Satd. Flow (perm)	1770	1583	1863	1583	1770	1863
Right Turn on Red		No		No		
Satd. Flow (RTOR)						
Link Speed (mph)	45		45			45
Link Distance (ft)	764		1065			1466
Travel Time (s)	11.6		16.1			22.2
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	146	348	257	349	83	314
Shared Lane Traffic (%)						
Lane Group Flow (vph)	146	348	257	349	83	314
Turn Type	Prot	pm+ov	NA	pm+ov	Prot	NA
Protected Phases	8	1	2	8	1	6
Permitted Phases		8		2		
Detector Phase	8	1	2	8	1	6
Switch Phase						
Minimum Initial (s)	7.0	7.0	12.0	7.0	7.0	12.0
Minimum Split (s)	19.0	14.0	19.0	19.0	14.0	19.0
Total Split (s)	27.0	28.0	35.0	27.0	28.0	63.0
Total Split (%)	30.0%	31.1%	38.9%	30.0%	31.1%	70.0%
Maximum Green (s)	20.0	21.0	28.0	20.0	21.0	56.0
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	0.0	-2.0	-2.0
Total Lost Time (s)	5.0	5.0	5.0	7.0	5.0	5.0
Lead/Lag		Lag	Lead		Lag	
Lead-Lag Optimize?		Yes	Yes		Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None	C-Max	None	None	C-Max
Act Effct Green (s)	17.3	45.3	34.7	55.0	23.0	62.7
Actuated g/C Ratio	0.19	0.50	0.39	0.61	0.26	0.70
v/c Ratio	0.43	0.44	0.36	0.36	0.18	0.24
Control Delay	35.1	15.7	18.7	8.6	27.5	6.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	35.1	15.7	18.7	8.6	27.5	6.1
LOS	D	B	B	A	C	A
Approach Delay	21.4		12.9			10.6
Approach LOS	C		B			B

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Queue Length 50th (ft)	74	120	82	77	37	56
Queue Length 95th (ft)	122	167	123	119	75	107
Internal Link Dist (ft)	684		985			1386
Turn Bay Length (ft)	350			700	375	
Base Capacity (vph)	432	797	717	941	452	1297
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	0.34	0.44	0.36	0.37	0.18	0.24

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle: 55
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.44
Intersection Signal Delay: 15.1 Intersection LOS: B
Intersection Capacity Utilization 39.9% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 13: Bells Lake Rd (SR 1386) & SE Wake WB Ramps



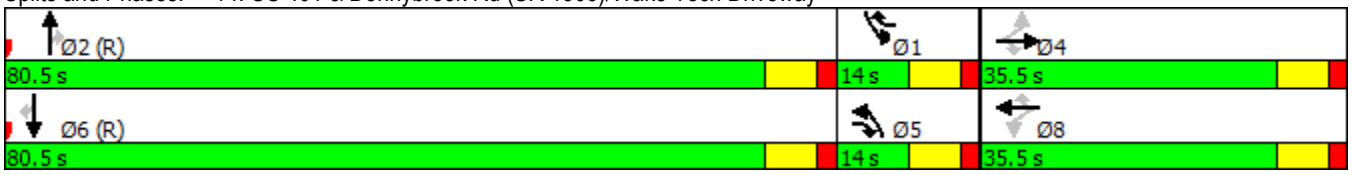
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	159	62	11	39	46	160	14	1805	62	166	1167	125
Future Volume (vph)	159	62	11	39	46	160	14	1805	62	166	1167	125
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		1%			-4%			4%			-3%	
Storage Length (ft)	550		0	350		0	475		350	500		0
Storage Lanes	1		1	1		1	1		1	2		1
Taper Length (ft)	75			75			200			200		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	0.97	0.95	1.00
Frt			0.850			0.850			0.850			0.850
Flt Protected		0.965			0.978		0.950			0.950		
Satd. Flow (prot)	0	1789	1575	0	1858	1615	1734	3468	1552	3485	3592	1607
Flt Permitted		0.709			0.536		0.950			0.950		
Satd. Flow (perm)	0	1314	1575	0	1018	1615	1734	3468	1552	3485	3592	1607
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		45			20			55			55	
Link Distance (ft)		2528			1077			1156			1108	
Travel Time (s)		38.3			36.7			14.3			13.7	
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)	177	69	12	43	51	178	16	2006	69	184	1297	139
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	246	12	0	94	178	16	2006	69	184	1297	139
Turn Type	Perm	NA	pm+ov	Perm	NA	pm+ov	Prot	NA	Perm	Prot	NA	Perm
Protected Phases		4	5		8	1	5	2		1	6	
Permitted Phases	4		4	8		8			2			6
Detector Phase	4	4	5	8	8	1	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	14.0	14.0	7.0	14.0	14.0
Minimum Split (s)	35.5	35.5	14.0	14.5	14.5	14.0	14.0	21.0	21.0	14.0	21.0	21.0
Total Split (s)	35.5	35.5	14.0	35.5	35.5	14.0	14.0	80.5	80.5	14.0	80.5	80.5
Total Split (%)	27.3%	27.3%	10.8%	27.3%	27.3%	10.8%	10.8%	61.9%	61.9%	10.8%	61.9%	61.9%
Maximum Green (s)	28.5	28.5	7.0	28.5	28.5	7.0	7.0	73.5	73.5	7.0	73.5	73.5
Yellow Time (s)	5.0	5.0	5.0	5.0	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	2.0	2.0	2.0	2.0
Lost Time Adjust (s)		-2.0	0.0		-2.0	0.0	-2.0	-2.0	0.0	-2.0	-2.0	-2.0
Total Lost Time (s)		5.0	7.0		5.0	7.0	5.0	5.0	7.0	5.0	5.0	5.0
Lead/Lag			Lag			Lag	Lag	Lead	Lead	Lag	Lead	Lead
Lead-Lag Optimize?			Yes			Yes	Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	6.0	6.0	1.0	6.0	6.0
Minimum Gap (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	6.0	6.0	1.0	6.0	6.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	15.0	15.0	0.0	15.0	15.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	30.0	30.0	0.0	30.0	30.0
Recall Mode	None	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Walk Time (s)	5.0	5.0										
Flash Dont Walk (s)	23.0	23.0										
Pedestrian Calls (#/hr)	0	0										
Act Effct Green (s)		26.8	38.8		26.8	38.8	9.0	79.2	77.2	9.0	84.8	84.8
Actuated g/C Ratio		0.21	0.30		0.21	0.30	0.07	0.61	0.59	0.07	0.65	0.65

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio		0.91	0.03		0.45	0.37	0.13	0.95	0.07	0.76	0.55	0.13
Control Delay		85.8	30.4		51.4	37.6	59.6	35.5	12.5	73.8	8.0	6.3
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		85.8	30.4		51.4	37.6	59.6	35.5	12.5	73.8	8.0	6.3
LOS		F	C		D	D	E	D	B	E	A	A
Approach Delay		83.2			42.4			34.9			15.3	
Approach LOS		F			D			C			B	
Queue Length 50th (ft)		200	7		68	116	13	814	24	82	193	28
Queue Length 95th (ft)		#332	22		123	179	38	#1057	49	#137	217	45
Internal Link Dist (ft)		2448			997			1076			1028	
Turn Bay Length (ft)							475		350	500		
Base Capacity (vph)		308	469		238	481	120	2113	921	241	2343	1048
Starvation Cap Reductn		0	0		0	0	0	0	0	0	0	0
Spillback Cap Reductn		0	0		0	0	0	0	0	0	0	0
Storage Cap Reductn		0	0		0	0	0	0	0	0	0	0
Reduced v/c Ratio		0.80	0.03		0.39	0.37	0.13	0.95	0.07	0.76	0.55	0.13

Intersection Summary

Area Type: Other
Cycle Length: 130
Actuated Cycle Length: 130
Offset: 100 (77%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle: 120
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.95
Intersection Signal Delay: 30.8 Intersection LOS: C
Intersection Capacity Utilization 87.0% ICU Level of Service E
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 14: US 401 & Donnybrook Rd (SR 1503)/Wake Tech Driveway



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	169	0	164	0	0	0	0	1693	418	0	1304	0
Future Volume (vph)	169	0	164	0	0	0	0	1693	418	0	1304	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	400		500	0		0	0		350	0		0
Storage Lanes	2		1	0		0	0		1	0		0
Taper Length (ft)	150			100			100			100		
Lane Util. Factor	0.97	1.00	0.88	1.00	1.00	1.00	1.00	0.91	1.00	1.00	0.91	1.00
Frt			0.850						0.850			
Flt Protected	0.950											
Satd. Flow (prot)	3433	0	2787	0	0	0	0	5085	1583	0	5085	0
Flt Permitted	0.950											
Satd. Flow (perm)	3433	0	2787	0	0	0	0	5085	1583	0	5085	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		45			45			55			55	
Link Distance (ft)		1618			2204			1108			230	
Travel Time (s)		24.5			33.4			13.7			2.9	
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)	188	0	182	0	0	0	0	1881	464	0	1449	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	188	0	182	0	0	0	0	1881	464	0	1449	0
Turn Type	Prot		Prot					NA	Free		NA	
Protected Phases	4		4					2			6	
Permitted Phases									Free			
Detector Phase	4		4					2			6	
Switch Phase												
Minimum Initial (s)	7.0		7.0					14.0			14.0	
Minimum Split (s)	14.0		14.0					21.0			21.0	
Total Split (s)	30.0		30.0					100.0			100.0	
Total Split (%)	23.1%		23.1%					76.9%			76.9%	
Maximum Green (s)	23.0		23.0					93.0			93.0	
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		None					C-Max			C-Max	
Act Effct Green (s)	15.8		15.8					104.2	130.0		104.2	
Actuated g/C Ratio	0.12		0.12					0.80	1.00		0.80	
v/c Ratio	0.45		0.54					0.46	0.29		0.36	
Control Delay	56.0		59.2					1.5	0.2		5.1	
Queue Delay	0.0		0.0					0.0	0.0		0.0	
Total Delay	56.0		59.2					1.5	0.2		5.1	
LOS	E		E					A	A		A	
Approach Delay		57.6						1.3			5.1	
Approach LOS		E						A			A	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 50th (ft)	77		82					47	0		159	
Queue Length 95th (ft)	111		122					m52	m0		169	
Internal Link Dist (ft)		1538			2124			1028			150	
Turn Bay Length (ft)	400		500						350			
Base Capacity (vph)	660		535					4075	1583		4075	
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	0.28		0.34					0.46	0.29		0.36	

Intersection Summary

Area Type: Other
Cycle Length: 130
Actuated Cycle Length: 130
Offset: 117 (90%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle: 40
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.54
Intersection Signal Delay: 7.6 Intersection LOS: A
Intersection Capacity Utilization 46.9% ICU Level of Service A
Analysis Period (min) 15
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 16: US 401 & SE Wake EB Off-Ramp/SE Wake EB Ramp



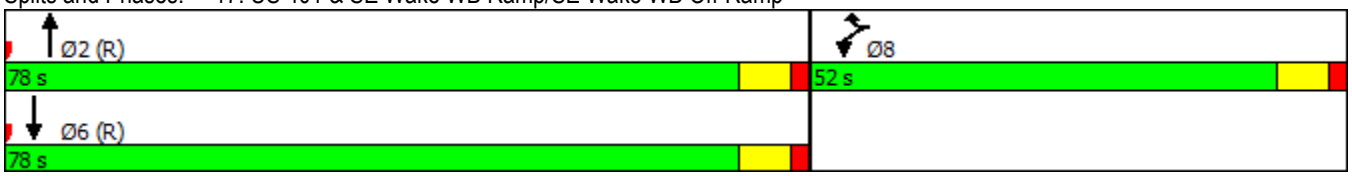
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	476	0	249	0	1551	0	0	959	191
Future Volume (vph)	0	0	0	476	0	249	0	1551	0	0	959	191
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	400		400	0		0	0		0
Storage Lanes	0		0	1		1	0		0	0		1
Taper Length (ft)	100			175			100			100		
Lane Util. Factor	1.00	1.00	1.00	0.97	1.00	1.00	1.00	0.91	1.00	1.00	0.91	1.00
Frt						0.850						0.850
Flt Protected				0.950								
Satd. Flow (prot)	0	0	0	3433	0	1583	0	5085	0	0	5085	1583
Flt Permitted				0.950								
Satd. Flow (perm)	0	0	0	3433	0	1583	0	5085	0	0	5085	1583
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		45			45			55			55	
Link Distance (ft)		1627			1555			227			831	
Travel Time (s)		24.7			23.6			2.8			10.3	
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)	0	0	0	529	0	277	0	1723	0	0	1066	212
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	529	0	277	0	1723	0	0	1066	212
Turn Type				Prot		Prot		NA			NA	Free
Protected Phases				8		8		2			6	
Permitted Phases												Free
Detector Phase				8		8		2			6	
Switch Phase												
Minimum Initial (s)				7.0		7.0		14.0			14.0	
Minimum Split (s)				14.0		14.0		21.0			21.0	
Total Split (s)				52.0		52.0		78.0			78.0	
Total Split (%)				40.0%		40.0%		60.0%			60.0%	
Maximum Green (s)				45.0		45.0		71.0			71.0	
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		None		C-Max			C-Max	
Act Effct Green (s)				31.1		31.1		88.9			88.9	130.0
Actuated g/C Ratio				0.24		0.24		0.68			0.68	1.00
v/c Ratio				0.64		0.73		0.50			0.31	0.13
Control Delay				47.5		56.5		4.2			9.2	0.2
Queue Delay				0.0		0.0		0.0			0.0	0.0
Total Delay				47.5		56.5		4.2			9.2	0.2
LOS				D		E		A			A	A
Approach Delay					50.6			4.2			7.7	
Approach LOS					D			A			A	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 50th (ft)				207		216		89			121	0
Queue Length 95th (ft)				240		288		96			182	0
Internal Link Dist (ft)		1547			1475			147			751	
Turn Bay Length (ft)				400		400						
Base Capacity (vph)				1241		572		3477			3477	1583
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				0.43		0.48		0.50			0.31	0.13

Intersection Summary

Area Type: Other
Cycle Length: 130
Actuated Cycle Length: 130
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle: 40
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.73
Intersection Signal Delay: 15.2 Intersection LOS: B
Intersection Capacity Utilization 75.6% ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 17: US 401 & SE Wake WB Ramp/SE Wake WB Off-Ramp



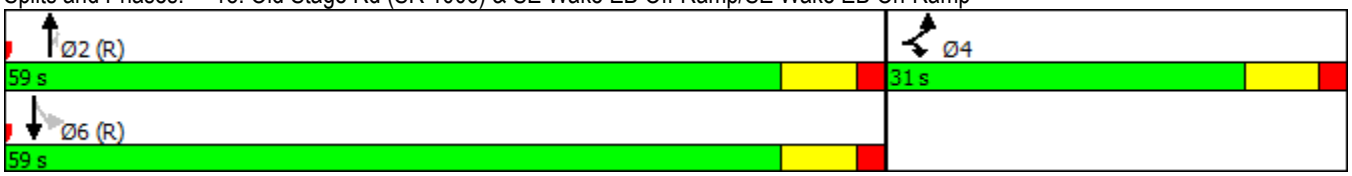
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	363	0	247	0	0	0	0	860	58	35	219	0
Future Volume (vph)	363	0	247	0	0	0	0	860	58	35	219	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	400		450	0		0	0		350	300		0
Storage Lanes	1		2	0		0	0		1	1		0
Taper Length (ft)	150			100			100			150		
Lane Util. Factor	0.97	1.00	0.88	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt			0.850						0.850			
Flt Protected	0.950									0.950		
Satd. Flow (prot)	3433	0	2787	0	0	0	0	3539	1583	1770	3539	0
Flt Permitted	0.950									0.271		
Satd. Flow (perm)	3433	0	2787	0	0	0	0	3539	1583	505	3539	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		1797			1507			713			1050	
Travel Time (s)		27.2			22.8			10.8			15.9	
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)	403	0	274	0	0	0	0	956	64	39	243	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	403	0	274	0	0	0	0	956	64	39	243	0
Turn Type	Prot		Prot					NA	Perm	Perm	NA	
Protected Phases	4		4					2			6	
Permitted Phases									2	6		
Detector Phase	4		4					2	2	6	6	
Switch Phase												
Minimum Initial (s)	7.0		7.0					12.0	12.0	12.0	12.0	
Minimum Split (s)	14.0		14.0					19.0	19.0	19.0	19.0	
Total Split (s)	31.0		31.0					59.0	59.0	59.0	59.0	
Total Split (%)	34.4%		34.4%					65.6%	65.6%	65.6%	65.6%	
Maximum Green (s)	24.0		24.0					52.0	52.0	52.0	52.0	
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	0.0	-2.0	-2.0	
Total Lost Time (s)	5.0		5.0					5.0	7.0	5.0	5.0	
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-Max	C-Max	C-Max	C-Max	
Act Effct Green (s)	18.1		18.1					61.9	59.9	61.9	61.9	
Actuated g/C Ratio	0.20		0.20					0.69	0.67	0.69	0.69	
v/c Ratio	0.58		0.49					0.39	0.06	0.11	0.10	
Control Delay	35.6		34.3					7.0	6.3	5.5	4.1	
Queue Delay	0.0		0.0					0.0	0.0	0.0	0.0	
Total Delay	35.6		34.3					7.0	6.3	5.5	4.1	
LOS	D		C					A	A	A	A	
Approach Delay		35.1						7.0			4.3	
Approach LOS		D						A			A	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 50th (ft)	108		79					104	11	5	16	
Queue Length 95th (ft)	143		113					166	29	17	30	
Internal Link Dist (ft)		1717			1427			633			970	
Turn Bay Length (ft)	400		450						350	300		
Base Capacity (vph)	991		805					2432	1052	347	2432	
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	0.41		0.34					0.39	0.06	0.11	0.10	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 40 (44%), Referenced to phase 2:NBT and 6:SBTL, Start of Green
Natural Cycle: 40
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.58
Intersection Signal Delay: 16.2 Intersection LOS: B
Intersection Capacity Utilization 56.8% ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 18: Old Stage Rd (SR 1006) & SE Wake EB Off-Ramp/SE Wake EB On-Ramp



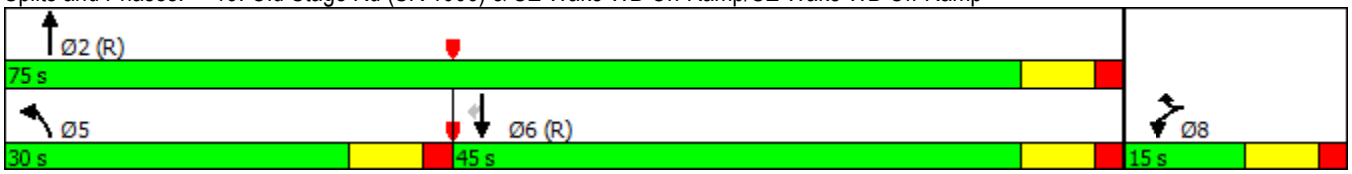
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	58	0	73	516	707	0	0	196	357
Future Volume (vph)	0	0	0	58	0	73	516	707	0	0	196	357
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		200	400		0	0		350
Storage Lanes	0		0	1		1	2		0	0		1
Taper Length (ft)	100			100			150			100		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	*0.88	0.95	1.00	1.00	0.95	1.00
Frt						0.850						0.850
Flt Protected				0.950			0.950					
Satd. Flow (prot)	0	0	0	1770	0	1583	3115	3539	0	0	3539	1583
Flt Permitted				0.950			0.950					
Satd. Flow (perm)	0	0	0	1770	0	1583	3115	3539	0	0	3539	1583
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		1394			1871			1050			784	
Travel Time (s)		21.1			28.3			15.9			11.9	
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)	0	0	0	64	0	81	573	786	0	0	218	397
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	64	0	81	573	786	0	0	218	397
Turn Type				Prot		Prot	Prot	NA			NA	Perm
Protected Phases				8		8	5	2			6	
Permitted Phases												6
Detector Phase				8		8	5	2			6	6
Switch Phase												
Minimum Initial (s)				7.0		7.0	7.0	12.0			12.0	12.0
Minimum Split (s)				14.0		14.0	14.0	19.0			19.0	19.0
Total Split (s)				15.0		15.0	30.0	75.0			45.0	45.0
Total Split (%)				16.7%		16.7%	33.3%	83.3%			50.0%	50.0%
Maximum Green (s)				8.0		8.0	23.0	68.0			38.0	38.0
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	0.0
Total Lost Time (s)				5.0		5.0	5.0	5.0			5.0	7.0
Lead/Lag							Lead				Lag	Lag
Lead-Lag Optimize?							Yes				Yes	Yes
Vehicle Extension (s)				3.0		3.0	3.0	3.0			3.0	3.0
Recall Mode				None		None	None	C-Max			C-Max	C-Max
Act Effct Green (s)				9.8		9.8	22.6	74.0			45.4	43.4
Actuated g/C Ratio				0.11		0.11	0.25	0.82			0.50	0.48
v/c Ratio				0.33		0.47	0.73	0.27			0.12	0.52
Control Delay				42.2		47.3	31.3	3.3			13.7	21.2
Queue Delay				0.0		0.0	0.0	0.0			0.0	0.0
Total Delay				42.2		47.3	31.3	3.3			13.7	21.2
LOS				D		D	C	A			B	C
Approach Delay					45.0			15.1			18.6	
Approach LOS					D			B			B	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 50th (ft)				34		44	134	74			36	164
Queue Length 95th (ft)				73		90	188	87			59	265
Internal Link Dist (ft)		1314			1791			970			704	
Turn Bay Length (ft)						200	400					350
Base Capacity (vph)				196		175	865	2909			1784	762
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				0.33		0.46	0.66	0.27			0.12	0.52

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 70 (78%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.73
Intersection Signal Delay: 18.2 Intersection LOS: B
Intersection Capacity Utilization 56.8% ICU Level of Service B
Analysis Period (min) 15
* User Entered Value

Splits and Phases: 19: Old Stage Rd (SR 1006) & SE Wake WB On-Ramp/SE Wake WB Off-Ramp



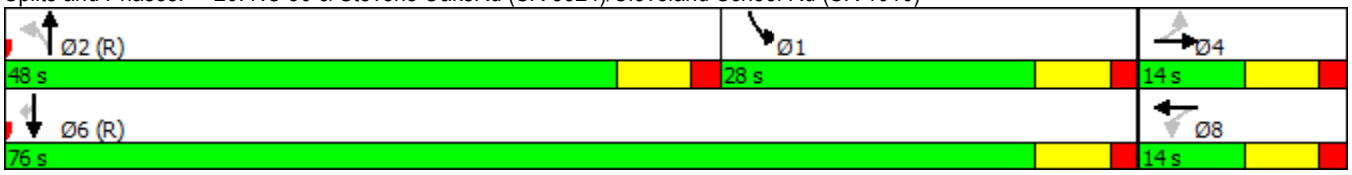
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	18	10	9	16	9	599	8	595	16	317	315	9
Future Volume (vph)	18	10	9	16	9	599	8	595	16	317	315	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	10	12	12	11	12	11	11	12	11	11	12
Grade (%)		-1%			1%			2%			-2%	
Storage Length (ft)	0		0	0		150	100		0	1000		0
Storage Lanes	0		0	0		1	1		0	1		1
Taper Length (ft)	100			100			75			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		0.967				0.850		0.996				0.850
Flt Protected		0.976			0.969		0.950			0.950		
Satd. Flow (prot)	0	1633	0	0	1736	1575	1694	1776	0	1728	1819	1599
Flt Permitted		0.831			0.781		0.551			0.950		
Satd. Flow (perm)	0	1390	0	0	1399	1575	982	1776	0	1728	1819	1599
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		25			55			55			55	
Link Distance (ft)		1058			1031			566			1632	
Travel Time (s)		28.9			12.8			7.0			20.2	
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
Heavy Vehicles (%)	3%	3%	3%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Adj. Flow (vph)	20	11	10	18	10	666	9	661	18	352	350	10
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	41	0	0	28	666	9	679	0	352	350	10
Turn Type	Perm	NA		Perm	NA	Free	Perm	NA		Prot	NA	Perm
Protected Phases		4			8			2		1	6	
Permitted Phases	4			8		Free	2					6
Detector Phase	4	4		8	8		2	2		1	6	6
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		14.0	14.0		7.0	14.0	14.0
Minimum Split (s)	14.0	14.0		14.0	14.0		21.0	21.0		14.0	21.0	21.0
Total Split (s)	14.0	14.0		14.0	14.0		48.0	48.0		28.0	76.0	76.0
Total Split (%)	15.6%	15.6%		15.6%	15.6%		53.3%	53.3%		31.1%	84.4%	84.4%
Maximum Green (s)	7.0	7.0		7.0	7.0		41.0	41.0		21.0	69.0	69.0
Yellow Time (s)	5.0	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	2.0
Lost Time Adjust (s)		-2.0			-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	5.0
Lead/Lag							Lead	Lead		Lag		
Lead-Lag Optimize?							Yes	Yes		Yes		
Vehicle Extension (s)	1.0	1.0		1.0	1.0		6.0	6.0		1.0	6.0	6.0
Minimum Gap (s)	1.0	1.0		1.0	1.0		6.0	6.0		1.0	6.0	6.0
Time Before Reduce (s)	0.0	0.0		0.0	0.0		15.0	15.0		0.0	15.0	15.0
Time To Reduce (s)	0.0	0.0		0.0	0.0		40.0	40.0		0.0	40.0	40.0
Recall Mode	None	None		None	None		C-Max	C-Max		None	C-Max	C-Max
Act Effct Green (s)		9.0			9.0	90.0	48.6	48.6		23.0	78.6	78.6
Actuated g/C Ratio		0.10			0.10	1.00	0.54	0.54		0.26	0.87	0.87
v/c Ratio		0.29			0.20	0.42	0.02	0.71		0.80	0.22	0.01

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Control Delay		43.6			41.1	0.8	12.6	22.6		37.4	0.9	0.8
Queue Delay		0.0			0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay		43.6			41.1	0.8	12.6	22.6		37.4	0.9	0.8
LOS		D			D	A	B	C		D	A	A
Approach Delay		43.6			2.5			22.4			18.9	
Approach LOS		D			A			C			B	
Queue Length 50th (ft)		22			15	0	3	313		206	15	0
Queue Length 95th (ft)		54			41	0	11	#477		#332	21	m1
Internal Link Dist (ft)		978			951			486			1552	
Turn Bay Length (ft)						150	100			1000		
Base Capacity (vph)		139			139	1575	530	958		441	1588	1396
Starvation Cap Reductn		0			0	0	0	0		0	0	0
Spillback Cap Reductn		0			0	0	0	0		0	0	0
Storage Cap Reductn		0			0	0	0	0		0	0	0
Reduced v/c Ratio		0.29			0.20	0.42	0.02	0.71		0.80	0.22	0.01

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 74 (82%), Referenced to phase 2:NBTL and 6:SBT, Start of Green
Natural Cycle: 70
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.80
Intersection Signal Delay: 15.2 Intersection LOS: B
Intersection Capacity Utilization 71.1% 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.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 20: NC 50 & Stevens OaksRd (SR 5324)/Cleveland School Rd (SR 1010)



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	36	0	260	0	0	0	0	1100	119	200	375	0
Future Volume (vph)	36	0	260	0	0	0	0	1100	119	200	375	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	600		600	0		0	0		400	400		0
Storage Lanes	1		1	0		0	0		1	1		0
Taper Length (ft)	100			100			100			225		
Lane Util. Factor	1.00	1.00	0.88	1.00	1.00	1.00	1.00	0.95	1.00	*0.88	0.95	1.00
Frt			0.850						0.850			
Flt Protected	0.950									0.950		
Satd. Flow (prot)	1770	0	2787	0	0	0	0	3539	1583	3115	3539	0
Flt Permitted	0.950									0.950		
Satd. Flow (perm)	1770	0	2787	0	0	0	0	3539	1583	3115	3539	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		45			45			55			55	
Link Distance (ft)		1729			1389			1632			1116	
Travel Time (s)		26.2			21.0			20.2			13.8	
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
Heavy Vehicles (%)	2%	6%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Adj. Flow (vph)	40	0	289	0	0	0	0	1222	132	222	417	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	40	0	289	0	0	0	0	1222	132	222	417	0
Turn Type	Prot		Prot					NA	Perm	Prot	NA	
Protected Phases	4		4					2		1	6	
Permitted Phases									2			
Detector Phase	4		4					2	2	1	6	
Switch Phase												
Minimum Initial (s)	7.0		7.0					14.0	14.0	7.0	14.0	
Minimum Split (s)	19.0		19.0					21.0	21.0	14.0	21.0	
Total Split (s)	20.0		20.0					53.0	53.0	17.0	70.0	
Total Split (%)	22.2%		22.2%					58.9%	58.9%	18.9%	77.8%	
Maximum Green (s)	13.0		13.0					46.0	46.0	10.0	63.0	
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	-2.0	
Total Lost Time (s)	5.0		5.0					5.0	5.0	5.0	5.0	
Lead/Lag								Lead	Lead	Lag		
Lead-Lag Optimize?								Yes	Yes	Yes		
Vehicle Extension (s)	3.0		3.0					3.0	3.0	3.0	3.0	
Recall Mode	None		None					C-Max	C-Max	None	C-Max	
Act Effct Green (s)	14.4		14.4					48.6	48.6	12.0	65.6	
Actuated g/C Ratio	0.16		0.16					0.54	0.54	0.13	0.73	
v/c Ratio	0.14		0.65					0.64	0.15	0.53	0.16	
Control Delay	33.5		42.8					8.8	5.8	38.6	0.7	
Queue Delay	0.0		0.0					0.0	0.0	0.0	0.0	
Total Delay	33.5		42.8					8.8	5.8	38.6	0.7	
LOS	C		D					A	A	D	A	
Approach Delay		41.7						8.5			13.9	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		D						A			B	
Queue Length 50th (ft)	20		87					104	19	77	5	
Queue Length 95th (ft)	48		134					126	m30	118	6	
Internal Link Dist (ft)		1649			1309			1552			1036	
Turn Bay Length (ft)	600		600						400	400		
Base Capacity (vph)	295		464					1911	855	415	2580	
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	0.14		0.62					0.64	0.15	0.53	0.16	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 89 (99%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.65
Intersection Signal Delay: 14.7 Intersection LOS: B
Intersection Capacity Utilization 51.2% ICU Level of Service A
Analysis Period (min) 15
* User Entered Value
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 21: NC 50 & SE Wake EB Ramp



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	330	97	540	596	478	38
Future Volume (vph)	330	97	540	596	478	38
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0	450			350
Storage Lanes	2	1	1			1
Taper Length (ft)	150		225			
Lane Util. Factor	0.97	1.00	*0.88	0.95	0.95	1.00
Ped Bike Factor	0.69					
Frt		0.850				0.850
Flt Protected	0.950		0.950			
Satd. Flow (prot)	3433	1583	3115	3539	3539	1583
Flt Permitted	0.950		0.950			
Satd. Flow (perm)	2384	1583	3115	3539	3539	1583
Right Turn on Red		No				No
Satd. Flow (RTOR)						
Link Speed (mph)	25			55	55	
Link Distance (ft)	455			1116	682	
Travel Time (s)	12.4			13.8	8.5	
Confl. Peds. (#/hr)	129					
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	367	108	600	662	531	42
Shared Lane Traffic (%)						
Lane Group Flow (vph)	367	108	600	662	531	42
Turn Type	Prot	pm+ov	Prot	NA	NA	pm+ov
Protected Phases	4	5	5	2	6	4
Permitted Phases		4				6
Detector Phase	4	5	5	2	6	4
Switch Phase						
Minimum Initial (s)	7.0	7.0	7.0	14.0	14.0	7.0
Minimum Split (s)	19.0	14.0	14.0	21.0	21.0	19.0
Total Split (s)	24.0	36.0	36.0	66.0	30.0	24.0
Total Split (%)	26.7%	40.0%	40.0%	73.3%	33.3%	26.7%
Maximum Green (s)	17.0	29.0	29.0	59.0	23.0	17.0
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	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	7.0
Lead/Lag		Lag	Lag		Lead	
Lead-Lag Optimize?		Yes	Yes		Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None	None	C-Max	C-Max	None
Act Effct Green (s)	16.5	52.5	31.0	63.5	27.5	47.0
Actuated g/C Ratio	0.18	0.58	0.34	0.71	0.31	0.52
v/c Ratio	0.59	0.12	0.56	0.27	0.49	0.05
Control Delay	37.3	8.3	11.4	0.3	27.9	10.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	37.3	8.3	11.4	0.3	27.9	10.8
LOS	D	A	B	A	C	B

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Approach Delay	30.7			5.6	26.7	
Approach LOS	C			A	C	
Queue Length 50th (ft)	98	25	131	0	130	11
Queue Length 95th (ft)	139	45	171	2	186	27
Internal Link Dist (ft)	375			1036	602	
Turn Bay Length (ft)			450			350
Base Capacity (vph)	724	922	1072	2498	1082	772
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	0.51	0.12	0.56	0.27	0.49	0.05

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.59
Intersection Signal Delay: 16.0 Intersection LOS: B
Intersection Capacity Utilization 50.5% ICU Level of Service A
Analysis Period (min) 15
* User Entered Value

Splits and Phases: 22: NC 50 & SE Wake WB Ramps



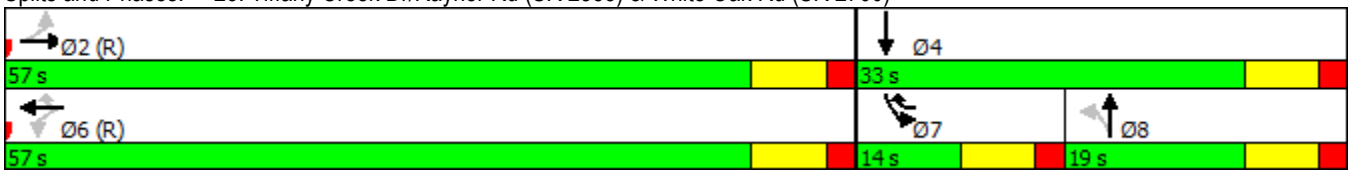
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	45	433	3	7	818	121	10	10	19	55	3	38
Future Volume (vph)	45	433	3	7	818	121	10	10	19	55	3	38
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	150		0	0		0	300		0
Storage Lanes	1		0	1		1	0		0	1		0
Taper Length (ft)	250			100			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		0.999				0.850		0.934			0.860	
Flt Protected	0.950			0.950				0.987		0.950		
Satd. Flow (prot)	1770	1861	0	1770	1863	1583	0	1717	0	1770	1602	0
Flt Permitted	0.176			0.432				0.898		0.950		
Satd. Flow (perm)	328	1861	0	805	1863	1583	0	1562	0	1770	1602	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		45			45			35			45	
Link Distance (ft)		1051			1339			1001			1394	
Travel Time (s)		15.9			20.3			19.5			21.1	
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)	50	481	3	8	909	134	11	11	21	61	3	42
Shared Lane Traffic (%)												
Lane Group Flow (vph)	50	484	0	8	909	134	0	43	0	61	45	0
Turn Type	Perm	NA		Perm	NA	pm+ov	Perm	NA		Prot	NA	
Protected Phases		2			6	7		8		7	4	
Permitted Phases	2			6		6	8					
Detector Phase	2	2		6	6	7	8	8		7	4	
Switch Phase												
Minimum Initial (s)	12.0	12.0		12.0	12.0	7.0	7.0	7.0		7.0	7.0	
Minimum Split (s)	19.0	19.0		19.0	19.0	14.0	19.0	19.0		14.0	19.0	
Total Split (s)	57.0	57.0		57.0	57.0	14.0	19.0	19.0		14.0	33.0	
Total Split (%)	63.3%	63.3%		63.3%	63.3%	15.6%	21.1%	21.1%		15.6%	36.7%	
Maximum Green (s)	50.0	50.0		50.0	50.0	7.0	12.0	12.0		7.0	26.0	
Yellow Time (s)	5.0	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	2.0	
Lost Time Adjust (s)	-2.0	-2.0		-2.0	-2.0	1.0		-2.0		-2.0	-2.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0	8.0		5.0		5.0	5.0	
Lead/Lag						Lead	Lag	Lag		Lead		
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	3.0	
Recall Mode	C-Max	C-Max		C-Max	C-Max	None	None	None		None	None	
Act Effct Green (s)	61.3	61.3		61.3	61.3	75.5		10.3		9.0	18.7	
Actuated g/C Ratio	0.68	0.68		0.68	0.68	0.84		0.11		0.10	0.21	
v/c Ratio	0.22	0.38		0.01	0.72	0.10		0.24		0.34	0.14	
Control Delay	11.1	8.7		3.4	10.0	1.7		39.3		43.7	26.4	
Queue Delay	0.0	0.0		0.0	0.0	0.0		0.0		0.0	0.0	
Total Delay	11.1	8.7		3.4	10.0	1.7		39.3		43.7	26.4	
LOS	B	A		A	A	A		D		D	C	
Approach Delay		8.9			8.9			39.3			36.3	
Approach LOS		A			A			D			D	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 50th (ft)	11	126		1	175	10		23		33	19	
Queue Length 95th (ft)	36	208		m3	234	20		53		72	44	
Internal Link Dist (ft)		971			1259			921			1314	
Turn Bay Length (ft)	150			150						300		
Base Capacity (vph)	223	1268		548	1269	1328		242		177	498	
Starvation Cap Reductn	0	0		0	0	0		0		0	0	
Spillback Cap Reductn	0	0		0	0	0		0		0	0	
Storage Cap Reductn	0	0		0	0	0		0		0	0	
Reduced v/c Ratio	0.22	0.38		0.01	0.72	0.10		0.18		0.34	0.09	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 64 (71%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green
Natural Cycle: 80
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.72
Intersection Signal Delay: 11.3 Intersection LOS: B
Intersection Capacity Utilization 60.8% ICU Level of Service B
Analysis Period (min) 15
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 23: Tiffany Creek Dr/Raynor Rd (SR 2555) & White Oak Rd (SR 2700)



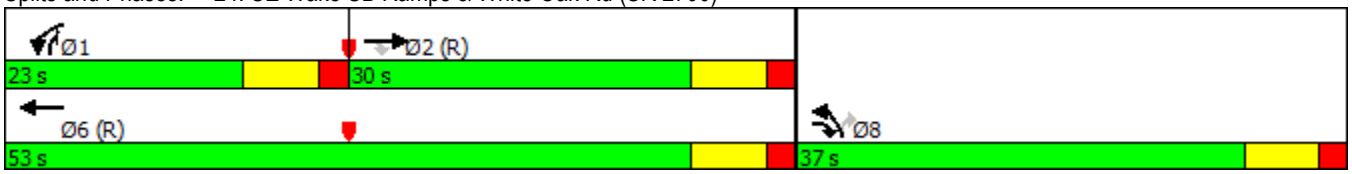
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	230	276	16	704	204	193
Future Volume (vph)	230	276	16	704	204	193
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		200	250		450	0
Storage Lanes		1	1		1	1
Taper Length (ft)			150		300	
Lane Util. Factor	0.95	1.00	1.00	0.95	1.00	1.00
Frt		0.850				0.850
Flt Protected			0.950		0.950	
Satd. Flow (prot)	3539	1583	1770	3539	1770	1583
Flt Permitted			0.950		0.950	
Satd. Flow (perm)	3539	1583	1770	3539	1770	1583
Right Turn on Red		No				No
Satd. Flow (RTOR)						
Link Speed (mph)	45			45	25	
Link Distance (ft)	1339			1453	684	
Travel Time (s)	20.3			22.0	18.7	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	256	307	18	782	227	214
Shared Lane Traffic (%)						
Lane Group Flow (vph)	256	307	18	782	227	214
Turn Type	NA	pm+ov	Prot	NA	Prot	pm+ov
Protected Phases	2	8	1	6	8	1
Permitted Phases		2				8
Detector Phase	2	8	1	6	8	1
Switch Phase						
Minimum Initial (s)	12.0	7.0	7.0	12.0	7.0	7.0
Minimum Split (s)	19.0	14.0	14.0	19.0	14.0	14.0
Total Split (s)	30.0	37.0	23.0	53.0	37.0	23.0
Total Split (%)	33.3%	41.1%	25.6%	58.9%	41.1%	25.6%
Maximum Green (s)	23.0	30.0	16.0	46.0	30.0	16.0
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	0.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)	5.0	7.0	5.0	5.0	5.0	5.0
Lead/Lag	Lag		Lead			Lead
Lead-Lag Optimize?	Yes		Yes			Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	C-Max	None	None	C-Max	None	None
Act Effct Green (s)	46.7	68.8	9.2	60.9	19.1	33.3
Actuated g/C Ratio	0.52	0.76	0.10	0.68	0.21	0.37
v/c Ratio	0.14	0.25	0.10	0.33	0.61	0.37
Control Delay	9.5	2.4	45.8	3.4	38.3	21.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	9.5	2.4	45.8	3.4	38.3	21.6
LOS	A	A	D	A	D	C
Approach Delay	5.6			4.3	30.2	
Approach LOS	A			A	C	

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Queue Length 50th (ft)	26	21	10	35	118	88
Queue Length 95th (ft)	43	28	m20	53	174	125
Internal Link Dist (ft)	1259			1373	604	
Turn Bay Length (ft)		200	250		450	
Base Capacity (vph)	1837	1438	354	2396	629	739
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	0.14	0.21	0.05	0.33	0.36	0.29

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green
Natural Cycle: 50
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.61
Intersection Signal Delay: 11.1 Intersection LOS: B
Intersection Capacity Utilization 39.1% ICU Level of Service A
Analysis Period (min) 15
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 24: SE Wake SB Ramps & White Oak Rd (SR 2700)



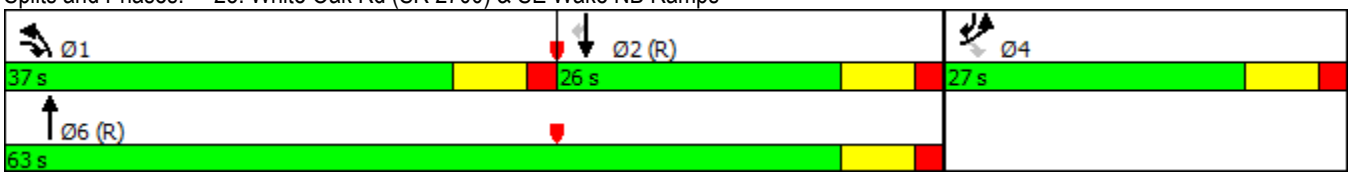
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	378	8	277	342	314	109
Future Volume (vph)	378	8	277	342	314	109
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	300	150	500			300
Storage Lanes	1	1	1			1
Taper Length (ft)	150		150			
Lane Util. Factor	0.97	1.00	1.00	0.95	0.95	1.00
Frt		0.850				0.850
Flt Protected	0.950		0.950			
Satd. Flow (prot)	3433	1583	1770	3539	3539	1583
Flt Permitted	0.950		0.950			
Satd. Flow (perm)	3433	1583	1770	3539	3539	1583
Right Turn on Red		No				No
Satd. Flow (RTOR)						
Link Speed (mph)	45			45	45	
Link Distance (ft)	432			833	1453	
Travel Time (s)	6.5			12.6	22.0	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	420	9	308	380	349	121
Shared Lane Traffic (%)						
Lane Group Flow (vph)	420	9	308	380	349	121
Turn Type	Prot	pm+ov	Prot	NA	NA	pm+ov
Protected Phases	4	1	1	6	2	4
Permitted Phases		4				2
Detector Phase	4	1	1	6	2	4
Switch Phase						
Minimum Initial (s)	7.0	7.0	7.0	12.0	12.0	7.0
Minimum Split (s)	14.0	14.0	14.0	19.0	19.0	14.0
Total Split (s)	27.0	37.0	37.0	63.0	26.0	27.0
Total Split (%)	30.0%	41.1%	41.1%	70.0%	28.9%	30.0%
Maximum Green (s)	20.0	30.0	30.0	56.0	19.0	20.0
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	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	7.0
Lead/Lag		Lead	Lead		Lag	
Lead-Lag Optimize?		Yes	Yes		Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None	None	C-Max	C-Max	None
Act Effct Green (s)	18.1	46.0	22.9	61.9	34.0	55.1
Actuated g/C Ratio	0.20	0.51	0.25	0.69	0.38	0.61
v/c Ratio	0.61	0.01	0.68	0.16	0.26	0.12
Control Delay	36.3	7.6	37.7	5.5	20.8	9.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	36.3	7.6	37.7	5.5	20.8	9.6
LOS	D	A	D	A	C	A
Approach Delay	35.7			19.9	17.9	
Approach LOS	D			B	B	

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Queue Length 50th (ft)	112	2	158	34	59	23
Queue Length 95th (ft)	151	7	222	58	114	60
Internal Link Dist (ft)	352			753	1373	
Turn Bay Length (ft)	300	150	500			300
Base Capacity (vph)	839	969	629	2434	1336	1037
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	0.50	0.01	0.49	0.16	0.26	0.12

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 14 (16%), Referenced to phase 2:SBT and 6:NBT, Start of Green
Natural Cycle: 50
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.68
Intersection Signal Delay: 23.6 Intersection LOS: C
Intersection Capacity Utilization 48.6% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 25: White Oak Rd (SR 2700) & SE Wake NB Ramps



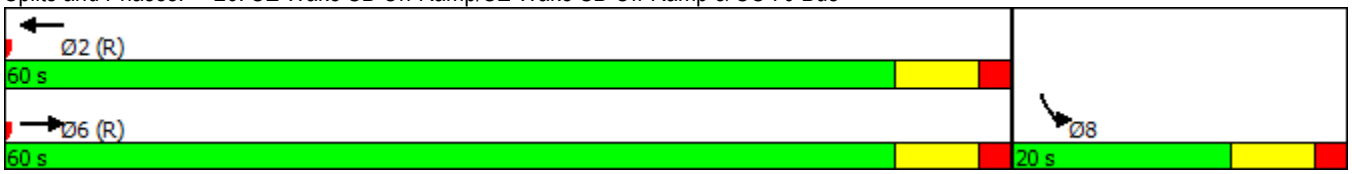
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1097	170	0	1464	0	0	0	0	150	0	43
Future Volume (vph)	0	1097	170	0	1464	0	0	0	0	150	0	43
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		325	0		0	0		0	400		400
Storage Lanes	0		1	0		0	0		0	1		1
Taper Length (ft)	100			100			100			150		
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91	1.00	1.00	1.00	1.00	0.97	1.00	1.00
Frt			0.850									0.850
Flt Protected										0.950		
Satd. Flow (prot)	0	4940	1538	0	4940	0	0	0	0	3335	0	1538
Flt Permitted										0.950		
Satd. Flow (perm)	0	4940	1538	0	4940	0	0	0	0	3335	0	1538
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		55			55			45			45	
Link Distance (ft)		1299			336			452			1767	
Travel Time (s)		16.1			4.2			6.8			26.8	
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
Heavy Vehicles (%)	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
Adj. Flow (vph)	0	1219	189	0	1627	0	0	0	0	167	0	48
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1219	189	0	1627	0	0	0	0	167	0	48
Turn Type		NA	Free		NA					Prot		Free
Protected Phases		6			2					8		
Permitted Phases			Free									Free
Detector Phase		6			2					8		
Switch Phase												
Minimum Initial (s)		14.0			14.0					7.0		
Minimum Split (s)		21.0			21.0					14.0		
Total Split (s)		60.0			60.0					20.0		
Total Split (%)		75.0%			75.0%					25.0%		
Maximum Green (s)		53.0			53.0					13.0		
Yellow Time (s)		5.0			5.0					5.0		
All-Red Time (s)		2.0			2.0					2.0		
Lost Time Adjust (s)		-2.0			-2.0					-2.0		
Total Lost Time (s)		5.0			5.0					5.0		
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)		3.0			3.0					3.0		
Recall Mode		C-Max			C-Max					None		
Act Effct Green (s)		58.6	80.0		58.6					11.4		80.0
Actuated g/C Ratio		0.73	1.00		0.73					0.14		1.00
v/c Ratio		0.34	0.12		0.45					0.35		0.03
Control Delay		4.2	0.2		1.3					32.7		0.0
Queue Delay		0.0	0.0		0.0					0.0		0.0
Total Delay		4.2	0.2		1.3					32.7		0.0
LOS		A	A		A					C		A
Approach Delay		3.7			1.3						25.4	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		A			A						C	
Queue Length 50th (ft)		63	0		20					39		0
Queue Length 95th (ft)		92	0		23					65		0
Internal Link Dist (ft)		1219			256			372			1687	
Turn Bay Length (ft)			325							400		400
Base Capacity (vph)		3619	1538		3619					625		1538
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		0.34	0.12		0.45					0.27		0.03

Intersection Summary

Area Type: Other
Cycle Length: 80
Actuated Cycle Length: 80
Offset: 15 (19%), Referenced to phase 2:WBT and 6:EBT, Start of Green
Natural Cycle: 40
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.45
Intersection Signal Delay: 3.9 Intersection LOS: A
Intersection Capacity Utilization 42.5% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 26: SE Wake SB On-Ramp/SE Wake SB Off-Ramp & US 70 Bus



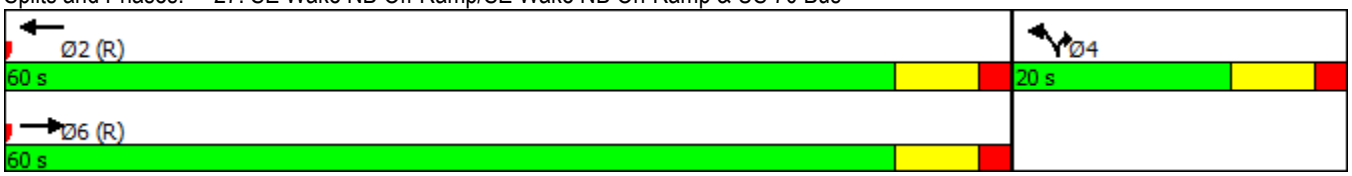
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1174	0	0	1703	341	101	0	152	0	0	0
Future Volume (vph)	0	1174	0	0	1703	341	101	0	152	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		325	250		450	0		0
Storage Lanes	0		0	0		1	1		1	0		0
Taper Length (ft)	100			100			200			100		
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91	1.00	1.00	1.00	0.88	1.00	1.00	1.00
Frt						0.850			0.850			
Flt Protected							0.950					
Satd. Flow (prot)	0	4940	0	0	4940	1538	1719	0	2707	0	0	0
Flt Permitted							0.950					
Satd. Flow (perm)	0	4940	0	0	4940	1538	1719	0	2707	0	0	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		55			55			45			45	
Link Distance (ft)		343			1050			1551			462	
Travel Time (s)		4.3			13.0			23.5			7.0	
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 (%)	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
Adj. Flow (vph)	0	1304	0	0	1892	379	112	0	169	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1304	0	0	1892	379	112	0	169	0	0	0
Turn Type		NA			NA	Free	Prot		Prot			
Protected Phases		6			2		4		4			
Permitted Phases						Free						
Detector Phase		6			2		4		4			
Switch Phase												
Minimum Initial (s)		14.0			14.0		7.0		7.0			
Minimum Split (s)		21.0			21.0		14.0		14.0			
Total Split (s)		60.0			60.0		20.0		20.0			
Total Split (%)		75.0%			75.0%		25.0%		25.0%			
Maximum Green (s)		53.0			53.0		13.0		13.0			
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		C-Max			C-Max		None		None			
Act Effct Green (s)		57.7			57.7	80.0	12.3		12.3			
Actuated g/C Ratio		0.72			0.72	1.00	0.15		0.15			
v/c Ratio		0.37			0.53	0.25	0.42		0.41			
Control Delay		4.1			6.0	0.4	35.1		33.0			
Queue Delay		0.0			0.0	0.0	0.0		0.0			
Total Delay		4.1			6.0	0.4	35.1		33.0			
LOS		A			A	A	D		C			
Approach Delay		4.1			5.0			33.8				

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		A			A			C				
Queue Length 50th (ft)		63			128	0	51		43			
Queue Length 95th (ft)		89			182	0	96		73			
Internal Link Dist (ft)		263			970			1471			382	
Turn Bay Length (ft)						325	250		450			
Base Capacity (vph)		3560			3560	1538	322		507			
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		0.37			0.53	0.25	0.35		0.33			

Intersection Summary

Area Type: Other
Cycle Length: 80
Actuated Cycle Length: 80
Offset: 0 (0%), Referenced to phase 2:WBT and 6:EBT, Start of Green
Natural Cycle: 40
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.53
Intersection Signal Delay: 6.8 Intersection LOS: A
Intersection Capacity Utilization 47.1% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 27: SE Wake NB Off-Ramp/SE Wake NB On-Ramp & US 70 Bus



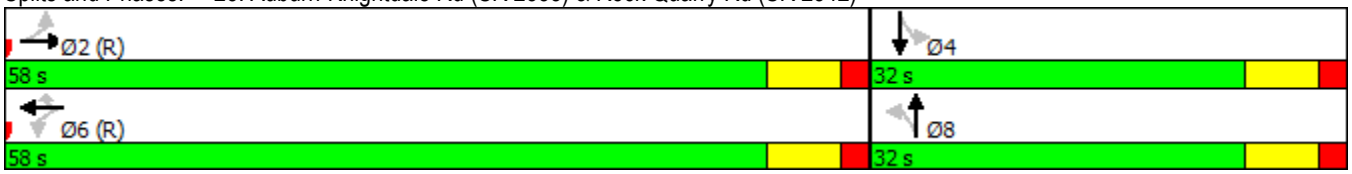
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	17	125	35	19	260	43	38	9	10	38	15	31
Future Volume (vph)	17	125	35	19	260	43	38	9	10	38	15	31
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		-3%			1%			-2%			1%	
Storage Length (ft)	200		0	150		0	0		0	0		0
Storage Lanes	1		0	1		1	0		0	0		0
Taper Length (ft)	100			300			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
Ped Bike Factor								1.00				
Frt		0.967				0.850		0.976			0.951	
Flt Protected	0.950			0.950				0.968			0.978	
Satd. Flow (prot)	1796	1828	0	1761	1853	1575	0	1760	0	0	1707	0
Flt Permitted	0.583			0.645				0.760			0.862	
Satd. Flow (perm)	1102	1828	0	1195	1853	1575	0	1379	0	0	1505	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		55			55			45			45	
Link Distance (ft)		1019			1254			1019			1037	
Travel Time (s)		12.6			15.5			15.4			15.7	
Confl. Peds. (#/hr)							3					
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%	3%	3%	3%	3%	3%	3%
Adj. Flow (vph)	19	139	39	21	289	48	42	10	11	42	17	34
Shared Lane Traffic (%)												
Lane Group Flow (vph)	19	178	0	21	289	48	0	63	0	0	93	0
Turn Type	Perm	NA		Perm	NA	Perm	Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2			6		6	8			4		
Detector Phase	2	2		6	6	6	8	8		4	4	
Switch Phase												
Minimum Initial (s)	14.0	14.0		14.0	14.0	14.0	7.0	7.0		7.0	7.0	
Minimum Split (s)	21.0	21.0		21.0	21.0	21.0	14.0	14.0		14.0	14.0	
Total Split (s)	58.0	58.0		58.0	58.0	58.0	32.0	32.0		32.0	32.0	
Total Split (%)	64.4%	64.4%		64.4%	64.4%	64.4%	35.6%	35.6%		35.6%	35.6%	
Maximum Green (s)	51.0	51.0		51.0	51.0	51.0	25.0	25.0		25.0	25.0	
Yellow Time (s)	5.0	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	2.0	
Lost Time Adjust (s)	-2.0	-2.0		-2.0	-2.0	0.0		-2.0			-2.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0	7.0		5.0			5.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	6.0	6.0		6.0	6.0	6.0	1.0	1.0		1.0	1.0	
Minimum Gap (s)	6.0	6.0		6.0	6.0	6.0	1.0	1.0		1.0	1.0	
Time Before Reduce (s)	20.0	20.0		20.0	20.0	20.0	0.0	0.0		0.0	0.0	
Time To Reduce (s)	40.0	40.0		40.0	40.0	40.0	0.0	0.0		0.0	0.0	
Recall Mode	C-Max	C-Max		C-Max	C-Max	C-Max	None	None		None	None	
Act Effct Green (s)	72.2	72.2		72.2	72.2	70.6		11.6			11.6	
Actuated g/C Ratio	0.80	0.80		0.80	0.80	0.78		0.13			0.13	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.02	0.12		0.02	0.19	0.04		0.36			0.48	
Control Delay	3.4	3.3		0.3	1.5	0.3		40.6			44.2	
Queue Delay	0.0	0.0		0.0	0.0	0.0		0.0			0.0	
Total Delay	3.4	3.3		0.3	1.5	0.3		40.6			44.2	
LOS	A	A		A	A	A		D			D	
Approach Delay		3.3			1.3			40.6			44.2	
Approach LOS		A			A			D			D	
Queue Length 50th (ft)	2	21		0	6	1		33			50	
Queue Length 95th (ft)	8	46		1	30	1		69			93	
Internal Link Dist (ft)		939			1174			939			957	
Turn Bay Length (ft)	200			150								
Base Capacity (vph)	884	1466		959	1486	1235		413			451	
Starvation Cap Reductn	0	0		0	0	0		0			0	
Spillback Cap Reductn	0	0		0	0	0		0			0	
Storage Cap Reductn	0	0		0	0	0		0			0	
Reduced v/c Ratio	0.02	0.12		0.02	0.19	0.04		0.15			0.21	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 26 (29%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green
Natural Cycle: 40
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.48
Intersection Signal Delay: 10.9 Intersection LOS: B
Intersection Capacity Utilization 43.3% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 28: Auburn-Knightdale Rd (SR 2555) & Rock Quarry Rd (SR 2542)



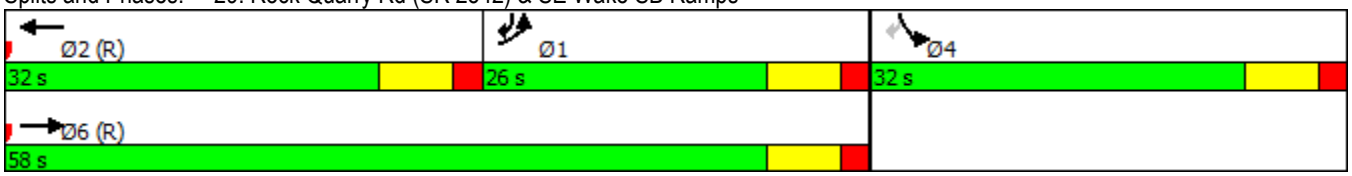
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	107	65	295	30	153	28
Future Volume (vph)	107	65	295	30	153	28
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	400			200	0	0
Storage Lanes	1			0	1	1
Taper Length (ft)	300				200	
Lane Util. Factor	1.00	0.95	0.95	0.95	1.00	1.00
Frt			0.986			0.850
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1770	3539	3490	0	1770	1583
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	1770	3539	3490	0	1770	1583
Right Turn on Red				No		No
Satd. Flow (RTOR)						
Link Speed (mph)		55	55		45	
Link Distance (ft)		1254	1133		576	
Travel Time (s)		15.5	14.0		8.7	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	119	72	328	33	170	31
Shared Lane Traffic (%)						
Lane Group Flow (vph)	119	72	361	0	170	31
Turn Type	Prot	NA	NA		Prot	pm+ov
Protected Phases	1	6	2		4	1
Permitted Phases						4
Detector Phase	1	6	2		4	1
Switch Phase						
Minimum Initial (s)	7.0	14.0	14.0		7.0	7.0
Minimum Split (s)	14.0	21.0	21.0		14.0	14.0
Total Split (s)	26.0	58.0	32.0		32.0	26.0
Total Split (%)	28.9%	64.4%	35.6%		35.6%	28.9%
Maximum Green (s)	19.0	51.0	25.0		25.0	19.0
Yellow Time (s)	5.0	5.0	5.0		5.0	5.0
All-Red Time (s)	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			Lag
Lead-Lag Optimize?	Yes		Yes			Yes
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0
Recall Mode	None	C-Max	C-Max		None	None
Act Effct Green (s)	21.0	64.1	38.1		15.9	41.9
Actuated g/C Ratio	0.23	0.71	0.42		0.18	0.47
v/c Ratio	0.29	0.03	0.24		0.54	0.04
Control Delay	28.4	3.4	10.7		39.6	11.9
Queue Delay	0.0	0.0	0.0		0.0	0.0
Total Delay	28.4	3.4	10.7		39.6	11.9
LOS	C	A	B		D	B
Approach Delay		18.9	10.7		35.3	
Approach LOS		B	B		D	

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Queue Length 50th (ft)	62	3	52		89	9
Queue Length 95th (ft)	112	10	111		142	22
Internal Link Dist (ft)		1174	1053		496	
Turn Bay Length (ft)	400					
Base Capacity (vph)	413	2519	1476		531	737
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	0.29	0.03	0.24		0.32	0.04

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 6 (7%), Referenced to phase 2:WBT and 6:EBT, Start of Green
Natural Cycle: 50
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.54
Intersection Signal Delay: 19.4 Intersection LOS: B
Intersection Capacity Utilization 38.6% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 29: Rock Quarry Rd (SR 2542) & SE Wake SB Ramps



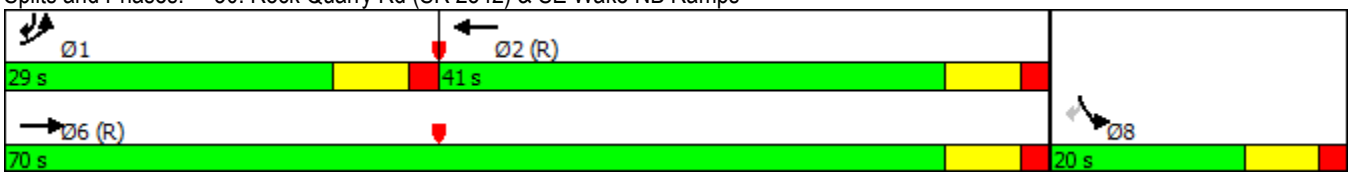
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	19	199	143	262	21	182
Future Volume (vph)	19	199	143	262	21	182
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	400			375	250	0
Storage Lanes	1			0	1	1
Taper Length (ft)	150				150	
Lane Util. Factor	1.00	0.95	0.95	0.95	1.00	1.00
Frt			0.903			0.850
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1770	3539	3196	0	1770	1583
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	1770	3539	3196	0	1770	1583
Right Turn on Red				No		No
Satd. Flow (RTOR)						
Link Speed (mph)		55	55		25	
Link Distance (ft)		1133	954		511	
Travel Time (s)		14.0	11.8		13.9	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	21	221	159	291	23	202
Shared Lane Traffic (%)						
Lane Group Flow (vph)	21	221	450	0	23	202
Turn Type	Prot	NA	NA		Prot	pm+ov
Protected Phases	1	6	2		8	1
Permitted Phases						8
Detector Phase	1	6	2		8	1
Switch Phase						
Minimum Initial (s)	7.0	14.0	14.0		7.0	7.0
Minimum Split (s)	14.0	21.0	21.0		14.0	14.0
Total Split (s)	29.0	70.0	41.0		20.0	29.0
Total Split (%)	32.2%	77.8%	45.6%		22.2%	32.2%
Maximum Green (s)	22.0	63.0	34.0		13.0	22.0
Yellow Time (s)	5.0	5.0	5.0		5.0	5.0
All-Red Time (s)	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	Lead		Lag			Lead
Lead-Lag Optimize?	Yes		Yes			Yes
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0
Recall Mode	None	C-Max	C-Max		None	None
Act Effct Green (s)	15.0	82.0	59.0		9.4	21.0
Actuated g/C Ratio	0.17	0.91	0.66		0.10	0.23
v/c Ratio	0.07	0.07	0.21		0.12	0.55
Control Delay	20.7	0.3	7.7		38.0	34.6
Queue Delay	0.0	0.0	0.0		0.0	0.0
Total Delay	20.7	0.3	7.7		38.0	34.6
LOS	C	A	A		D	C
Approach Delay		2.1	7.7		34.9	
Approach LOS		A	A		C	

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Queue Length 50th (ft)	8	0	43		12	105
Queue Length 95th (ft)	13	3	95		35	145
Internal Link Dist (ft)		1053	874		431	
Turn Bay Length (ft)	400				250	
Base Capacity (vph)	472	3225	2096		295	527
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	0.04	0.07	0.21		0.08	0.38

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 23 (26%), Referenced to phase 2:WBT and 6:EBT, Start of Green
Natural Cycle: 50
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.55
Intersection Signal Delay: 12.9 Intersection LOS: B
Intersection Capacity Utilization 32.0% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 30: Rock Quarry Rd (SR 2542) & SE Wake NB Ramps



Intersection						
Int Delay, s/veh	2.4					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	4	96	312	4	50	167
Future Vol, veh/h	4	96	312	4	50	167
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	150	-	-	0	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	5	5	2	2	2	2
Mvmt Flow	4	107	347	4	56	186

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	646	349	0	0	351	0
Stage 1	349	-	-	-	-	-
Stage 2	297	-	-	-	-	-
Critical Hdwy	6.45	6.25	-	-	4.12	-
Critical Hdwy Stg 1	5.45	-	-	-	-	-
Critical Hdwy Stg 2	5.45	-	-	-	-	-
Follow-up Hdwy	3.545	3.345	-	-	2.218	-
Pot Cap-1 Maneuver	431	688	-	-	1208	-
Stage 1	707	-	-	-	-	-
Stage 2	747	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	411	688	-	-	1208	-
Mov Cap-2 Maneuver	411	-	-	-	-	-
Stage 1	707	-	-	-	-	-
Stage 2	712	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.3	0	1.9
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	411	688	1208	-
HCM Lane V/C Ratio	-	-	0.011	0.155	0.046	-
HCM Control Delay (s)	-	-	13.9	11.2	8.1	-
HCM Lane LOS	-	-	B	B	A	-
HCM 95th %tile Q(veh)	-	-	0	0.5	0.1	-



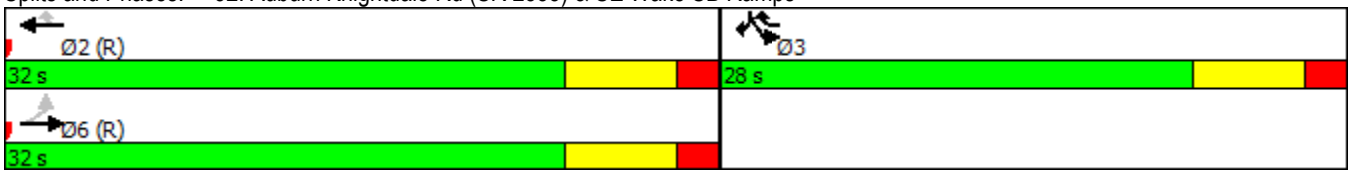
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	4	65	29	55	8	55
Future Volume (vph)	4	65	29	55	8	55
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150			300	0	200
Storage Lanes	1			1	1	1
Taper Length (ft)	150				175	
Lane Util. Factor	1.00	0.95	0.95	1.00	1.00	1.00
Frt				0.850		0.850
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1703	3505	3505	1524	1752	1568
Flt Permitted	0.735				0.950	
Satd. Flow (perm)	1317	3505	3505	1524	1752	1568
Right Turn on Red				No		No
Satd. Flow (RTOR)						
Link Speed (mph)		45	45		45	
Link Distance (ft)		186	1320		348	
Travel Time (s)		2.8	20.0		5.3	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	6%	3%	3%	6%	3%	3%
Adj. Flow (vph)	4	72	32	61	9	61
Shared Lane Traffic (%)						
Lane Group Flow (vph)	4	72	32	61	9	61
Turn Type	Perm	NA	NA	pm+ov	Prot	Prot
Protected Phases		6	2	3	3	3
Permitted Phases	6			2		
Detector Phase	6	6	2	3	3	3
Switch Phase						
Minimum Initial (s)	12.0	12.0	12.0	7.0	7.0	7.0
Minimum Split (s)	19.0	19.0	19.0	14.0	14.0	14.0
Total Split (s)	32.0	32.0	32.0	28.0	28.0	28.0
Total Split (%)	53.3%	53.3%	53.3%	46.7%	46.7%	46.7%
Maximum Green (s)	25.0	25.0	25.0	21.0	21.0	21.0
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	0.0	-2.0	-2.0
Total Lost Time (s)	5.0	5.0	5.0	7.0	5.0	5.0
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	C-Max	C-Max	C-Max	None	None	None
Act Effct Green (s)	43.6	43.6	43.6	60.0	10.2	10.2
Actuated g/C Ratio	0.73	0.73	0.73	1.00	0.17	0.17
v/c Ratio	0.00	0.03	0.01	0.04	0.03	0.23
Control Delay	4.0	3.9	3.7	0.1	20.0	23.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	4.0	3.9	3.7	0.1	20.0	23.1
LOS	A	A	A	A	B	C
Approach Delay		3.9	1.3		22.7	

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Approach LOS		A	A		C	
Queue Length 50th (ft)	1	3	1	0	3	20
Queue Length 95th (ft)	3	10	5	0	12	46
Internal Link Dist (ft)		106	1240		268	
Turn Bay Length (ft)	150			300		200
Base Capacity (vph)	956	2544	2544	1524	671	601
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	0.00	0.03	0.01	0.04	0.01	0.10

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 60
Offset: 47 (78%), Referenced to phase 2:WBT and 6:EBTL, Start of Green
Natural Cycle: 40
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.23
Intersection Signal Delay: 8.4 Intersection LOS: A
Intersection Capacity Utilization 25.8% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 32: Auburn Knightdale Rd (SR 2555) & SE Wake SB Ramps



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	50	23	78	11	50	6
Future Volume (vph)	50	23	78	11	50	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	250			150	0	0
Storage Lanes	1			1	1	0
Taper Length (ft)	150				100	
Lane Util. Factor	1.00	0.95	1.00	1.00	1.00	1.00
Frt				0.850	0.985	
Flt Protected	0.950				0.957	
Satd. Flow (prot)	1703	3505	1845	1524	1739	0
Flt Permitted	0.701				0.957	
Satd. Flow (perm)	1257	3505	1845	1524	1739	0
Right Turn on Red				No		No
Satd. Flow (RTOR)						
Link Speed (mph)		45	45		45	
Link Distance (ft)		1320	674		221	
Travel Time (s)		20.0	10.2		3.3	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	6%	3%	3%	6%	3%	3%
Adj. Flow (vph)	56	26	87	12	56	7
Shared Lane Traffic (%)						
Lane Group Flow (vph)	56	26	87	12	63	0
Turn Type	Perm	NA	NA	pm+ov	Prot	
Protected Phases		6	2	8	8	
Permitted Phases	6			2		
Detector Phase	6	6	2	8	8	
Switch Phase						
Minimum Initial (s)	12.0	12.0	12.0	7.0	7.0	
Minimum Split (s)	19.0	19.0	19.0	14.0	14.0	
Total Split (s)	34.0	34.0	34.0	26.0	26.0	
Total Split (%)	56.7%	56.7%	56.7%	43.3%	43.3%	
Maximum Green (s)	27.0	27.0	27.0	19.0	19.0	
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	
Lost Time Adjust (s)	-2.0	-2.0	-2.0	0.0	-2.0	
Total Lost Time (s)	5.0	5.0	5.0	7.0	5.0	
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	
Recall Mode	C-Max	C-Max	C-Max	None	None	
Act Effct Green (s)	47.5	47.5	47.5	60.0	10.1	
Actuated g/C Ratio	0.79	0.79	0.79	1.00	0.17	
v/c Ratio	0.06	0.01	0.06	0.01	0.22	
Control Delay	2.6	2.5	3.7	0.0	23.0	
Queue Delay	0.0	0.0	0.0	0.0	0.0	
Total Delay	2.6	2.5	3.7	0.0	23.0	
LOS	A	A	A	A	C	
Approach Delay		2.6	3.2		23.0	

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Approach LOS		A	A		C	
Queue Length 50th (ft)	4	1	9	0	20	
Queue Length 95th (ft)	10	3	23	0	47	
Internal Link Dist (ft)		1240	594		141	
Turn Bay Length (ft)	250			150		
Base Capacity (vph)	996	2777	1462	1524	608	
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	0.06	0.01	0.06	0.01	0.10	

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 60
Offset: 0 (0%), Referenced to phase 2:WBT and 6:EBTL, Start of Green
Natural Cycle: 40
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.22
Intersection Signal Delay: 8.1 Intersection LOS: A
Intersection Capacity Utilization 25.8% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 33: Auburn Knightdale Rd (SR 2555) & SE Wake NB Ramps



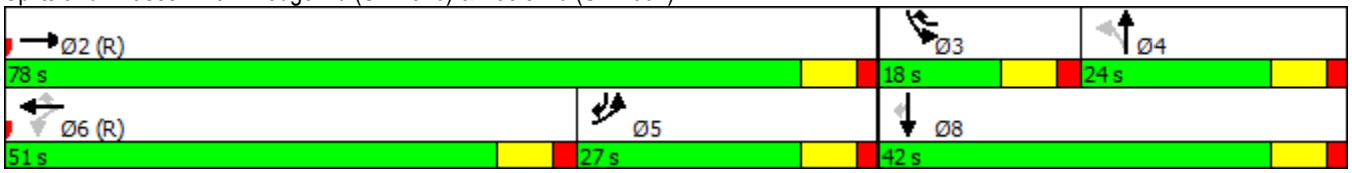
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	100	371	11	12	524	64	18	51	14	35	24	78
Future Volume (vph)	100	371	11	12	524	64	18	51	14	35	24	78
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		2%			1%			-1%			-1%	
Storage Length (ft)	450		0	150		300	100		0	300		300
Storage Lanes	1		0	1		1	1		0	2		1
Taper Length (ft)	125			150			50			100		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	1.00	1.00	1.00	1.00	0.97	1.00	1.00
Frt		0.996				0.850		0.967				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1752	3490	0	1761	3522	1575	1744	1775	0	3450	1872	1591
Flt Permitted	0.950			0.505			0.740			0.950		
Satd. Flow (perm)	1752	3490	0	936	3522	1575	1359	1775	0	3450	1872	1591
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		45			45			35			45	
Link Distance (ft)		845			1458			1027			1086	
Travel Time (s)		12.8			22.1			20.0			16.5	
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%	4%	4%	4%	2%	2%	2%
Adj. Flow (vph)	111	412	12	13	582	71	20	57	16	39	27	87
Shared Lane Traffic (%)												
Lane Group Flow (vph)	111	424	0	13	582	71	20	73	0	39	27	87
Turn Type	Prot	NA		Perm	NA	pm+ov	Perm	NA		Prot	NA	pm+ov
Protected Phases	5	2			6	3		4		3	8	5
Permitted Phases				6		6	4					8
Detector Phase	5	2		6	6	3	4	4		3	8	5
Switch Phase												
Minimum Initial (s)	7.0	12.0		12.0	12.0	7.0	7.0	7.0		7.0	7.0	7.0
Minimum Split (s)	14.0	19.0		19.0	19.0	14.0	19.0	19.0		14.0	19.0	14.0
Total Split (s)	27.0	78.0		51.0	51.0	18.0	24.0	24.0		18.0	42.0	27.0
Total Split (%)	22.5%	65.0%		42.5%	42.5%	15.0%	20.0%	20.0%		15.0%	35.0%	22.5%
Maximum Green (s)	20.0	71.0		44.0	44.0	11.0	17.0	17.0		11.0	35.0	20.0
Yellow Time (s)	5.0	5.0		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	2.0	2.0
Lost Time Adjust (s)	-2.0	-2.0		-2.0	-2.0	1.0	-2.0	-2.0		-2.0	-2.0	-2.0
Total Lost Time (s)	5.0	5.0		5.0	5.0	8.0	5.0	5.0		5.0	5.0	5.0
Lead/Lag	Lag			Lead	Lead	Lead	Lag	Lag		Lead		Lag
Lead-Lag Optimize?	Yes			Yes	Yes							Yes
Vehicle Extension (s)	1.0	8.0		8.0	8.0	3.0	3.0	3.0		3.0	3.0	1.0
Minimum Gap (s)	1.0	8.0		8.0	8.0	3.0	3.0	3.0		3.0	3.0	1.0
Time Before Reduce (s)	0.0	15.0		15.0	15.0	0.0	0.0	0.0		0.0	0.0	0.0
Time To Reduce (s)	0.0	40.0		40.0	40.0	0.0	0.0	0.0		0.0	0.0	0.0
Recall Mode	None	C-Max		C-Max	C-Max	None	None	None		None	None	None
Act Effct Green (s)	22.0	89.7		61.7	61.7	64.0	12.4	12.4		9.5	24.1	48.3
Actuated g/C Ratio	0.18	0.75		0.51	0.51	0.53	0.10	0.10		0.08	0.20	0.40
v/c Ratio	0.35	0.16		0.03	0.32	0.08	0.14	0.40		0.14	0.07	0.14
Control Delay	46.3	6.3		5.9	6.5	5.3	49.8	56.1		52.5	35.5	20.1

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	46.3	6.3		5.9	6.5	5.3	49.8	56.1		52.5	35.5	20.1
LOS	D	A		A	A	A	D	E		D	D	C
Approach Delay		14.6			6.4			54.7			31.1	
Approach LOS		B			A			D			C	
Queue Length 50th (ft)	76	53		2	56	3	14	54		14	17	39
Queue Length 95th (ft)	132	85		m9	124	30	38	99		32	40	65
Internal Link Dist (ft)		765			1378			947			1006	
Turn Bay Length (ft)	450			150		300	100			300		300
Base Capacity (vph)	321	2609		481	1811	875	215	281		373	577	640
Starvation Cap Reductn	0	0		0	0	0	0	0		0	0	0
Spillback Cap Reductn	0	0		0	0	0	0	0		0	0	0
Storage Cap Reductn	0	0		0	0	0	0	0		0	0	0
Reduced v/c Ratio	0.35	0.16		0.03	0.32	0.08	0.09	0.26		0.10	0.05	0.14

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 93 (78%), Referenced to phase 2:EBT and 6:WBTL, Start of Green
Natural Cycle: 70
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.40
Intersection Signal Delay: 15.2 Intersection LOS: B
Intersection Capacity Utilization 40.8% ICU Level of Service A
Analysis Period (min) 15
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 34: Hodge Rd (SR 2516) & Poole Rd (SR 1007)



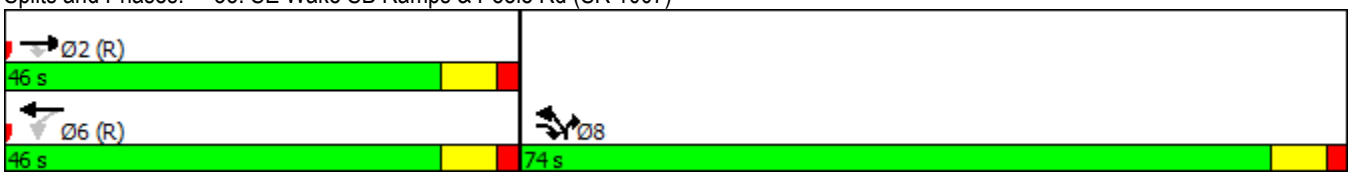
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	366	50	7	285	323	272
Future Volume (vph)	366	50	7	285	323	272
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		150	250		0	0
Storage Lanes		1	1		1	2
Taper Length (ft)			200		150	
Lane Util. Factor	0.95	1.00	1.00	0.95	1.00	0.88
Frt		0.850				0.850
Flt Protected			0.950		0.950	
Satd. Flow (prot)	3539	1583	1770	3539	1770	2787
Flt Permitted			0.506		0.950	
Satd. Flow (perm)	3539	1583	943	3539	1770	2787
Right Turn on Red		No				No
Satd. Flow (RTOR)						
Link Speed (mph)	45			45	25	
Link Distance (ft)	1458			761	576	
Travel Time (s)	22.1			11.5	15.7	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	407	56	8	317	359	302
Shared Lane Traffic (%)						
Lane Group Flow (vph)	407	56	8	317	359	302
Turn Type	NA	pm+ov	Perm	NA	Prot	Prot
Protected Phases	2	8		6	8	8
Permitted Phases		2	6			
Detector Phase	2	8	6	6	8	8
Switch Phase						
Minimum Initial (s)	12.0	7.0	12.0	12.0	7.0	7.0
Minimum Split (s)	19.0	14.0	19.0	19.0	14.0	14.0
Total Split (s)	46.0	74.0	46.0	46.0	74.0	74.0
Total Split (%)	38.3%	61.7%	38.3%	38.3%	61.7%	61.7%
Maximum Green (s)	39.0	67.0	39.0	39.0	67.0	67.0
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	0.0	-2.0	-2.0	-2.0	0.0
Total Lost Time (s)	5.0	7.0	5.0	5.0	5.0	7.0
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	C-Max	None	C-Max	C-Max	None	None
Act Effct Green (s)	75.7	120.0	75.7	75.7	34.3	32.3
Actuated g/C Ratio	0.63	1.00	0.63	0.63	0.29	0.27
v/c Ratio	0.18	0.04	0.01	0.14	0.71	0.40
Control Delay	7.6	0.0	8.6	7.5	45.6	36.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	7.6	0.0	8.6	7.5	45.6	36.3
LOS	A	A	A	A	D	D
Approach Delay	6.7			7.5	41.3	
Approach LOS	A			A	D	

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Queue Length 50th (ft)	40	0	2	35	249	109
Queue Length 95th (ft)	53	0	m8	56	311	135
Internal Link Dist (ft)	1378			681	496	
Turn Bay Length (ft)		150	250			
Base Capacity (vph)	2233	1583	595	2233	1017	1556
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	0.18	0.04	0.01	0.14	0.35	0.19

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 12 (10%), Referenced to phase 2:EBT and 6:WBTL, Start of Green
Natural Cycle: 40
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.71
Intersection Signal Delay: 22.7 Intersection LOS: C
Intersection Capacity Utilization 36.3% ICU Level of Service A
Analysis Period (min) 15
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 35: SE Wake SB Ramps & Poole Rd (SR 1007)



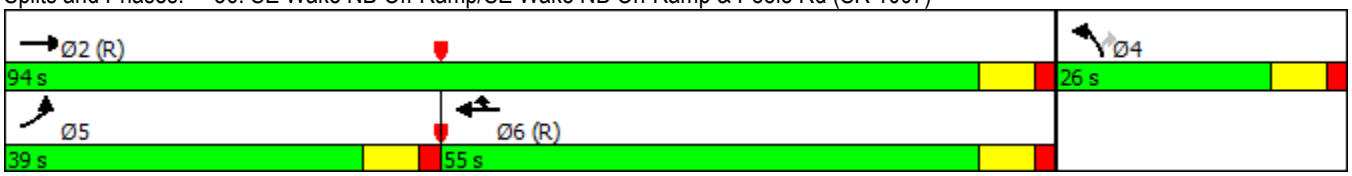
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	254	384	0	0	212	390	80	0	6	0	0	0
Future Volume (vph)	254	384	0	0	212	390	80	0	6	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	300		0	0		550	250		0	0		0
Storage Lanes	1		0	0		2	1		1	0		0
Taper Length (ft)	200			100			150			100		
Lane Util. Factor	*0.74	0.95	1.00	1.00	0.95	0.88	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)	2619	3539	0	0	3539	2787	1770	0	1583	0	0	0
Flt Permitted	0.950						0.950					
Satd. Flow (perm)	2619	3539	0	0	3539	2787	1770	0	1583	0	0	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		761			759			1432			799	
Travel Time (s)		11.5			11.5			21.7			12.1	
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%	6%	2%	2%	2%	2%
Adj. Flow (vph)	282	427	0	0	236	433	89	0	7	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	282	427	0	0	236	433	89	0	7	0	0	0
Turn Type	Prot	NA			NA	Prot	Prot		Perm			
Protected Phases	5	2			6	6	4					
Permitted Phases									4			
Detector Phase	5	2			6	6	4		4			
Switch Phase												
Minimum Initial (s)	7.0	12.0			12.0	12.0	7.0		7.0			
Minimum Split (s)	14.0	19.0			19.0	19.0	14.0		14.0			
Total Split (s)	39.0	94.0			55.0	55.0	26.0		26.0			
Total Split (%)	32.5%	78.3%			45.8%	45.8%	21.7%		21.7%			
Maximum Green (s)	32.0	87.0			48.0	48.0	19.0		19.0			
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	0.0	-2.0		-2.0			
Total Lost Time (s)	5.0	5.0			5.0	7.0	5.0		5.0			
Lead/Lag	Lead				Lag	Lag						
Lead-Lag Optimize?	Yes				Yes	Yes						
Vehicle Extension (s)	3.0	3.0			3.0	3.0	3.0		3.0			
Recall Mode	None	C-Max			C-Max	C-Max	None		None			
Act Effct Green (s)	20.3	96.6			71.4	69.4	13.4		13.4			
Actuated g/C Ratio	0.17	0.80			0.60	0.58	0.11		0.11			
v/c Ratio	0.64	0.15			0.11	0.27	0.45		0.04			
Control Delay	38.4	1.8			11.9	14.3	56.4		45.8			
Queue Delay	0.0	0.0			0.0	0.0	0.0		0.0			
Total Delay	38.4	1.8			11.9	14.3	56.4		45.8			
LOS	D	A			B	B	E		D			
Approach Delay		16.4			13.5			55.7				

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		B			B			E				
Queue Length 50th (ft)	95	15			39	90	66		5			
Queue Length 95th (ft)	64	31			71	149	115		19			
Internal Link Dist (ft)		681			679			1352			719	
Turn Bay Length (ft)	300					550	250					
Base Capacity (vph)	742	2849			2104	1610	309		277			
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	0.38	0.15			0.11	0.27	0.29		0.03			

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 41 (34%), Referenced to phase 2:EBT and 6:WBT, Start of Green
Natural Cycle: 50
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.64
Intersection Signal Delay: 17.6 Intersection LOS: B
Intersection Capacity Utilization 33.3% ICU Level of Service A
Analysis Period (min) 15
* User Entered Value

Splits and Phases: 36: SE Wake NB Off-Ramp/SE Wake NB On-Ramp & Poole Rd (SR 1007)



Lane Group	WBL	WBR	NBT	NBR	SBU	SBL	SBT
Lane Configurations							
Traffic Volume (vph)	0	0	1375	0	323	0	2487
Future Volume (vph)	0	0	1375	0	323	0	2487
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0		0		650	
Storage Lanes	0	0		0		1	
Taper Length (ft)	100					50	
Lane Util. Factor	1.00	1.00	0.95	1.00	1.00	1.00	0.91
Frt							
Flt Protected					0.950		
Satd. Flow (prot)	0	0	3406	0	1703	0	4893
Flt Permitted					0.950		
Satd. Flow (perm)	0	0	3406	0	1703	0	4893
Right Turn on Red		No		No			
Satd. Flow (RTOR)							
Link Speed (mph)	45		55				55
Link Distance (ft)	105		998				787
Travel Time (s)	1.6		12.4				9.8
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	2%	2%	6%	6%	6%	6%	6%
Adj. Flow (vph)	0	0	1528	0	359	0	2763
Shared Lane Traffic (%)							
Lane Group Flow (vph)	0	0	1528	0	359	0	2763
Turn Type			NA		Prot		NA
Protected Phases			2		1		Free
Permitted Phases							
Detector Phase			2		1		
Switch Phase							
Minimum Initial (s)			14.0		7.0		
Minimum Split (s)			21.0		14.0		
Total Split (s)			63.0		37.0		
Total Split (%)			63.0%		37.0%		
Maximum Green (s)			56.0		30.0		
Yellow Time (s)			5.0		5.0		
All-Red Time (s)			2.0		2.0		
Lost Time Adjust (s)			-2.0		-2.0		
Total Lost Time (s)			5.0		5.0		
Lead/Lag			Lead		Lag		
Lead-Lag Optimize?			Yes		Yes		
Vehicle Extension (s)			3.0		3.0		
Recall Mode			C-Max		None		
Act Effct Green (s)			62.8		27.2		100.0
Actuated g/C Ratio			0.63		0.27		1.00
v/c Ratio			0.72		0.78		0.56
Control Delay			15.9		35.9		0.3
Queue Delay			0.0		0.0		0.0
Total Delay			15.9		35.9		0.3
LOS			B		D		A
Approach Delay			15.9				4.4

Lane Group	WBL	WBR	NBT	NBR	SBU	SBL	SBT
Approach LOS			B				A
Queue Length 50th (ft)			326		191		0
Queue Length 95th (ft)			459		m253		0
Internal Link Dist (ft)	25		918				707
Turn Bay Length (ft)					650		
Base Capacity (vph)			2137		544		4893
Starvation Cap Reductn			0		0		0
Spillback Cap Reductn			0		0		0
Storage Cap Reductn			0		0		0
Reduced v/c Ratio			0.72		0.66		0.56

Intersection Summary

Area Type: Other
Cycle Length: 100
Actuated Cycle Length: 100
Offset: 84 (84%), Referenced to phase 2:NBT, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.78
Intersection Signal Delay: 8.2 Intersection LOS: A
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: 1: NC 55 & Mid Block U-Turn



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	56	0	0	196	39	1306	353	0	2754	64
Future Volume (vph)	0	0	56	0	0	196	39	1306	353	0	2754	64
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	550		0	0		0
Storage Lanes	0		1	0		1	1		1	0		0
Taper Length (ft)	100			100			100			100		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.91	0.91
Frt			0.865			0.865			0.850		0.997	
Flt Protected							0.950					
Satd. Flow (prot)	0	0	1358	0	0	1550	1703	3406	1524	0	4879	0
Flt Permitted							0.950					
Satd. Flow (perm)	0	0	1358	0	0	1550	1703	3406	1524	0	4879	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		35			35			55			55	
Link Distance (ft)		1117			1426			787			743	
Travel Time (s)		21.8			27.8			9.8			9.2	
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
Heavy Vehicles (%)	21%	21%	21%	6%	6%	6%	6%	6%	6%	6%	6%	6%
Adj. Flow (vph)	0	0	62	0	0	218	43	1451	392	0	3060	71
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	62	0	0	218	43	1451	392	0	3131	0
Turn Type			Perm			Perm	Prot	NA	custom		NA	
Protected Phases							5	Free	Free		6	
Permitted Phases			5 6			5 6			Free			
Detector Phase			5 6			5 6	5				6	
Switch Phase												
Minimum Initial (s)							7.0				14.0	
Minimum Split (s)							14.0				21.0	
Total Split (s)							14.0				86.0	
Total Split (%)							14.0%				86.0%	
Maximum Green (s)							7.0				79.0	
Yellow Time (s)							5.0				5.0	
All-Red Time (s)							2.0				2.0	
Lost Time Adjust (s)							-2.0				-2.0	
Total Lost Time (s)							5.0				5.0	
Lead/Lag							Lead				Lag	
Lead-Lag Optimize?							Yes				Yes	
Vehicle Extension (s)							3.0				3.0	
Recall Mode							None				C-Max	
Act Effct Green (s)			100.0			100.0	9.0	100.0	100.0		81.0	
Actuated g/C Ratio			1.00			1.00	0.09	1.00	1.00		0.81	
v/c Ratio			0.05			0.14	0.28	0.43	0.26		0.79	
Control Delay			0.1			0.2	46.5	0.3	0.3		3.3	
Queue Delay			0.0			0.0	0.0	0.0	0.0		0.0	
Total Delay			0.1			0.2	46.5	0.3	0.3		3.3	
LOS			A			A	D	A	A		A	
Approach Delay		0.1			0.2			1.3			3.3	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		A			A			A			A	
Queue Length 50th (ft)			0			0	23	0	0		81	
Queue Length 95th (ft)			0			0	m35	0	0		87	
Internal Link Dist (ft)		1037			1346			707			663	
Turn Bay Length (ft)							550					
Base Capacity (vph)			1358			1550	153	3406	1524		3951	
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			0.05			0.14	0.28	0.43	0.26		0.79	

Intersection Summary

Area Type: Other
Cycle Length: 100
Actuated Cycle Length: 100
Offset: 19 (19%), Referenced to phase 6:SBT, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.79
Intersection Signal Delay: 2.4 Intersection LOS: A
Intersection Capacity Utilization 68.8% ICU Level of Service C
Analysis Period (min) 15
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: NC 55 & Old Smithfield Rd



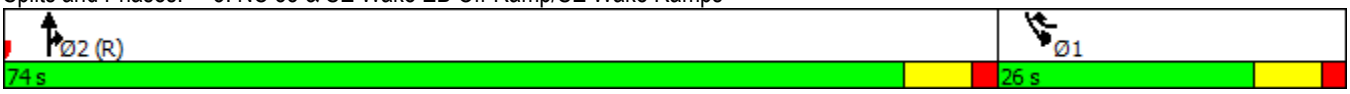
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	981	0	0	56	0	1488	80	292	1718	0
Future Volume (vph)	0	0	981	0	0	56	0	1488	80	292	1718	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	0		300	240		0
Storage Lanes	0		1	0		2	1		1	1		0
Taper Length (ft)	100			100			100			150		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	0.88	1.00	0.95	1.00	*0.80	0.95	1.00
Frt			0.865			0.850			0.850			
Flt Protected										0.950		
Satd. Flow (prot)	0	0	1550	0	0	2682	0	3406	1524	2725	3406	0
Flt Permitted										0.950		
Satd. Flow (perm)	0	0	1550	0	0	2682	0	3406	1524	2725	3406	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		45			25			55			55	
Link Distance (ft)		1183			273			743			755	
Travel Time (s)		17.9			7.4			9.2			9.4	
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 (%)	6%	6%	6%	2%	2%	6%	6%	6%	6%	6%	6%	6%
Adj. Flow (vph)	0	0	1090	0	0	62	0	1653	89	324	1909	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	1090	0	0	62	0	1653	89	324	1909	0
Turn Type			Free			Over		NA	Prot	Prot	NA	
Protected Phases						1		2	2	1	Free	
Permitted Phases			Free									
Detector Phase						1		2	2	1		
Switch Phase												
Minimum Initial (s)						7.0		14.0	14.0	7.0		
Minimum Split (s)						14.0		21.0	21.0	14.0		
Total Split (s)						26.0		74.0	74.0	26.0		
Total Split (%)						26.0%		74.0%	74.0%	26.0%		
Maximum Green (s)						19.0		67.0	67.0	19.0		
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)						0.0		-2.0	0.0	-2.0		
Total Lost Time (s)						7.0		5.0	7.0	5.0		
Lead/Lag						Lag		Lead	Lead	Lag		
Lead-Lag Optimize?						Yes		Yes	Yes	Yes		
Vehicle Extension (s)						3.0		3.0	3.0	3.0		
Recall Mode						None		C-Max	C-Max	None		
Act Effct Green (s)			100.0			16.4		71.6	69.6	18.4	100.0	
Actuated g/C Ratio			1.00			0.16		0.72	0.70	0.18	1.00	
v/c Ratio			0.70			0.14		0.68	0.08	0.65	0.56	
Control Delay			2.7			35.3		5.5	3.6	34.9	0.4	
Queue Delay			0.0			0.0		0.0	0.0	0.0	0.0	
Total Delay			2.7			35.3		5.5	3.6	34.9	0.4	
LOS			A			D		A	A	C	A	
Approach Delay		2.7			35.3			5.4			5.4	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		A			D			A			A	
Queue Length 50th (ft)			0			19		129	12	120	0	
Queue Length 95th (ft)			0			39		148	21	m143	0	
Internal Link Dist (ft)		1103			193			663			675	
Turn Bay Length (ft)									300	240		
Base Capacity (vph)			1550			509		2438	1060	572	3406	
Starvation Cap Reductn			0			0		30	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			0.70			0.12		0.69	0.08	0.57	0.56	

Intersection Summary

Area Type: Other
Cycle Length: 100
Actuated Cycle Length: 100
Offset: 92 (92%), Referenced to phase 2:NBT, Start of Green
Natural Cycle: 55
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.70
Intersection Signal Delay: 5.2 Intersection LOS: A
Intersection Capacity Utilization 57.8% ICU Level of Service B
Analysis Period (min) 15
* User Entered Value
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 3: NC 55 & SE Wake EB Off-Ramp/SE Wake Ramps



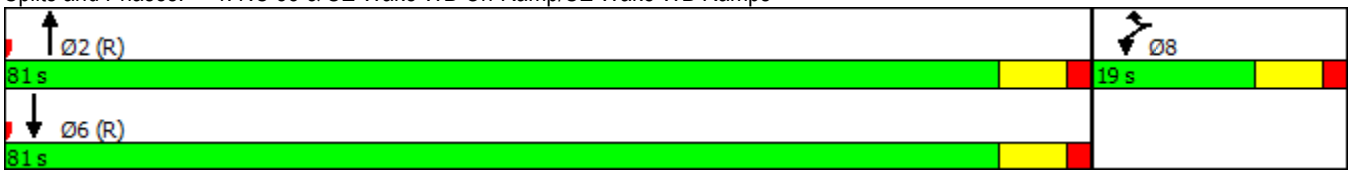
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	85	0	187	0	1068	476	0	1925	44
Future Volume (vph)	0	0	0	85	0	187	0	1068	476	0	1925	44
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	0		0	0		500
Storage Lanes	0		0	2		2	0		1	0		1
Taper Length (ft)	100			100			150			100		
Lane Util. Factor	1.00	1.00	1.00	0.97	1.00	0.88	1.00	0.95	1.00	1.00	0.95	1.00
Frt						0.850			0.850			0.850
Flt Protected				0.950								
Satd. Flow (prot)	0	0	0	3303	0	2682	0	3406	1524	0	3406	1524
Flt Permitted				0.950								
Satd. Flow (perm)	0	0	0	3303	0	2682	0	3406	1524	0	3406	1524
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		45			45			55			55	
Link Distance (ft)		1805			356			176			1313	
Travel Time (s)		27.3			5.4			2.2			16.3	
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 (%)	6%	6%	6%	6%	6%	6%	6%	6%	6%	6%	6%	6%
Adj. Flow (vph)	0	0	0	94	0	208	0	1187	529	0	2139	49
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	94	0	208	0	1187	529	0	2139	49
Turn Type				Prot		Prot		NA	Free		NA	Free
Protected Phases				8		8		2			6	
Permitted Phases									Free			Free
Detector Phase				8		8		2			6	
Switch Phase												
Minimum Initial (s)				7.0		7.0		14.0			14.0	
Minimum Split (s)				19.0		19.0		21.0			21.0	
Total Split (s)				19.0		19.0		81.0			81.0	
Total Split (%)				19.0%		19.0%		81.0%			81.0%	
Maximum Green (s)				12.0		12.0		74.0			74.0	
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		None		C-Max			C-Max	
Act Effct Green (s)				13.3		13.3		76.7	100.0		76.7	100.0
Actuated g/C Ratio				0.13		0.13		0.77	1.00		0.77	1.00
v/c Ratio				0.21		0.58		0.45	0.35		0.82	0.03
Control Delay				39.7		47.8		1.0	0.5		10.9	0.0
Queue Delay				0.0		0.0		0.0	0.0		0.0	0.0
Total Delay				39.7		47.8		1.0	0.5		10.9	0.0
LOS				D		D		A	A		B	A
Approach Delay					45.3			0.8			10.7	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS					D			A			B	
Queue Length 50th (ft)				27		71		15	0		379	0
Queue Length 95th (ft)				51		112		17	0		489	0
Internal Link Dist (ft)		1725			276			96			1233	
Turn Bay Length (ft)												500
Base Capacity (vph)				462		375		2612	1524		2612	1524
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				0.20		0.55		0.45	0.35		0.82	0.03

Intersection Summary

Area Type: Other
Cycle Length: 100
Actuated Cycle Length: 100
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle: 70
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.82
Intersection Signal Delay: 9.1 Intersection LOS: A
Intersection Capacity Utilization 64.0% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 4: NC 55 & SE Wake WB On-Ramp/SE Wake WB Ramps



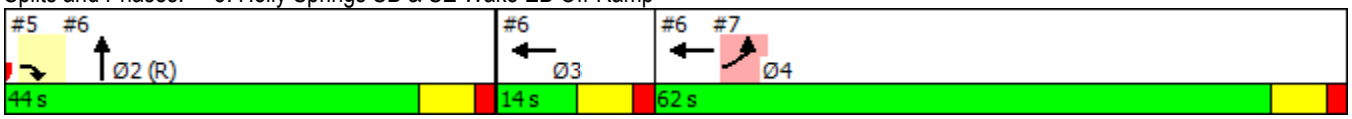
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR	Ø3	Ø4
Lane Configurations								
Traffic Volume (vph)	0	208	0	0	1109	0		
Future Volume (vph)	0	208	0	0	1109	0		
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900		
Lane Util. Factor	1.00	0.88	1.00	1.00	*0.70	1.00		
Frt		0.850						
Flt Protected								
Satd. Flow (prot)	0	2787	0	0	3912	0		
Flt Permitted								
Satd. Flow (perm)	0	2787	0	0	3912	0		
Right Turn on Red		No				No		
Satd. Flow (RTOR)								
Link Speed (mph)	25			25	25			
Link Distance (ft)	348			188	304			
Travel Time (s)	9.5			5.1	8.3			
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90		
Adj. Flow (vph)	0	231	0	0	1232	0		
Shared Lane Traffic (%)								
Lane Group Flow (vph)	0	231	0	0	1232	0		
Turn Type		Prot			NA			
Protected Phases		2!			Free!		3	4
Permitted Phases								
Detector Phase		2			3			
Switch Phase								
Minimum Initial (s)		4.0					4.0	4.0
Minimum Split (s)		19.0					14.0	19.0
Total Split (s)		44.0					14.0	62.0
Total Split (%)		36.7%					12%	52%
Maximum Green (s)		37.0					7.0	55.0
Yellow Time (s)		5.0					5.0	5.0
All-Red Time (s)		2.0					2.0	2.0
Lost Time Adjust (s)		-2.0						
Total Lost Time (s)		5.0						
Lead/Lag							Lead	Lag
Lead-Lag Optimize?							Yes	
Vehicle Extension (s)		3.0					3.0	3.0
Recall Mode		C-Max					None	None
Act Effct Green (s)		63.5			120.0			
Actuated g/C Ratio		0.53			1.00			
v/c Ratio		0.16			0.31			
Control Delay		15.9			1.6			
Queue Delay		0.0			0.0			
Total Delay		15.9			1.6			
LOS		B			A			
Approach Delay	15.9				1.6			
Approach LOS	B				A			
Queue Length 50th (ft)		50			53			
Queue Length 95th (ft)		86			22			
Internal Link Dist (ft)	268			108	224			

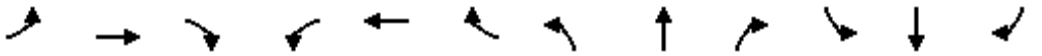
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR	Ø3	Ø4
Turn Bay Length (ft)								
Base Capacity (vph)		1474			3912			
Starvation Cap Reductn		0			0			
Spillback Cap Reductn		0			0			
Storage Cap Reductn		0			0			
Reduced v/c Ratio		0.16			0.31			

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 70 (58%), Referenced to phase 2:EBR, Start of Green
Natural Cycle: 55
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.63
Intersection Signal Delay: 3.9 Intersection LOS: A
Intersection Capacity Utilization 39.5% ICU Level of Service A
Analysis Period (min) 15
* User Entered Value
! Phase conflict between lane groups.

Splits and Phases: 5: Holly Springs SB & SE Wake EB Off-Ramp





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	0	1109	0	0	504	0	0	0	0
Future Volume (vph)	0	0	0	0	1109	0	0	504	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	0.91	1.00	1.00	0.91	1.00	1.00	1.00	1.00
Frt												
Flt Protected												
Satd. Flow (prot)	0	0	0	0	5085	0	0	5085	0	0	0	0
Flt Permitted												
Satd. Flow (perm)	0	0	0	0	5085	0	0	5085	0	0	0	0
Right Turn on Red			No			No	No		No			No
Satd. Flow (RTOR)												
Link Speed (mph)		25			25			45			45	
Link Distance (ft)		304			167			208			175	
Travel Time (s)		8.3			4.6			3.2			2.7	
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)	0	0	0	0	1232	0	0	560	0	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	1232	0	0	560	0	0	0	0
Turn Type					NA			NA				
Protected Phases					4 3			2				
Permitted Phases												
Detector Phase					4 3			2				
Switch Phase												
Minimum Initial (s)								4.0				
Minimum Split (s)								19.0				
Total Split (s)								44.0				
Total Split (%)								36.7%				
Maximum Green (s)								37.0				
Yellow Time (s)								5.0				
All-Red Time (s)								2.0				
Lost Time Adjust (s)								-2.0				
Total Lost Time (s)								5.0				
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)								3.0				
Recall Mode								C-Max				
Act Effct Green (s)					46.5			63.5				
Actuated g/C Ratio					0.39			0.53				
v/c Ratio					0.63			0.21				
Control Delay					18.0			16.0				
Queue Delay					0.0			0.0				
Total Delay					18.0			16.0				
LOS					B			B				
Approach Delay					18.0			16.0				
Approach LOS					B			B				
Queue Length 50th (ft)					200			80				
Queue Length 95th (ft)					142			119				
Internal Link Dist (ft)		224			87			128			95	

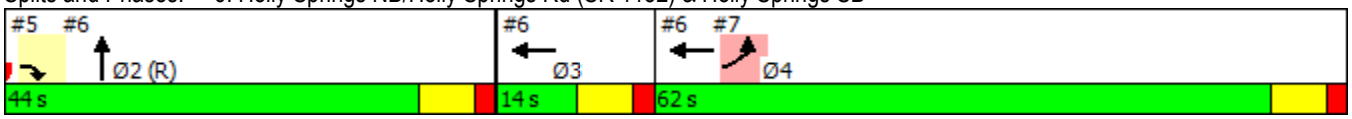
Lane Group	Ø3	Ø4
Lane Configurations		
Traffic Volume (vph)		
Future Volume (vph)		
Ideal Flow (vphpl)		
Lane Util. Factor		
Frt		
Flt Protected		
Satd. Flow (prot)		
Flt Permitted		
Satd. Flow (perm)		
Right Turn on Red		
Satd. Flow (RTOR)		
Link Speed (mph)		
Link Distance (ft)		
Travel Time (s)		
Peak Hour Factor		
Adj. Flow (vph)		
Shared Lane Traffic (%)		
Lane Group Flow (vph)		
Turn Type		
Protected Phases	3	4
Permitted Phases		
Detector Phase		
Switch Phase		
Minimum Initial (s)	4.0	4.0
Minimum Split (s)	14.0	19.0
Total Split (s)	14.0	62.0
Total Split (%)	12%	52%
Maximum Green (s)	7.0	55.0
Yellow Time (s)	5.0	5.0
All-Red Time (s)	2.0	2.0
Lost Time Adjust (s)		
Total Lost Time (s)		
Lead/Lag	Lead	Lag
Lead-Lag Optimize?	Yes	
Vehicle Extension (s)	3.0	3.0
Recall Mode	None	None
Act Effct Green (s)		
Actuated g/C Ratio		
v/c Ratio		
Control Delay		
Queue Delay		
Total Delay		
LOS		
Approach Delay		
Approach LOS		
Queue Length 50th (ft)		
Queue Length 95th (ft)		
Internal Link Dist (ft)		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Bay Length (ft)												
Base Capacity (vph)					3008			2689				
Starvation Cap Reductn					0			0				
Spillback Cap Reductn					0			0				
Storage Cap Reductn					0			0				
Reduced v/c Ratio					0.41			0.21				

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 70 (58%), Referenced to phase 2:EBR, Start of Green
Natural Cycle: 55
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.63
Intersection Signal Delay: 17.4 Intersection LOS: B
Intersection Capacity Utilization 39.5% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 6: Holly Springs NB/Holly Springs Rd (SR 1152) & Holly Springs SB



Lane Group	Ø3	Ø4
Turn Bay Length (ft)		
Base Capacity (vph)		
Starvation Cap Reductn		
Spillback Cap Reductn		
Storage Cap Reductn		
Reduced v/c Ratio		

Intersection Summary

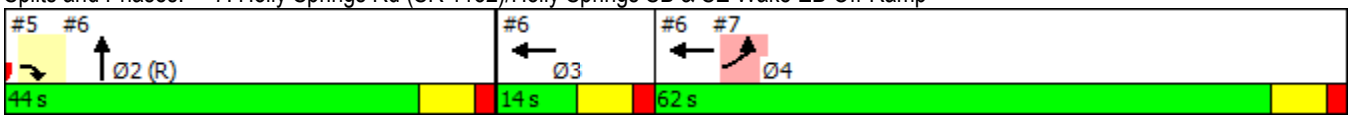
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR	Ø2	Ø3
Lane Configurations								
Traffic Volume (vph)	71	0	0	504	0	0		
Future Volume (vph)	71	0	0	504	0	0		
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900		
Lane Util. Factor	0.97	1.00	1.00	0.91	1.00	1.00		
Frt								
Flt Protected	0.950							
Satd. Flow (prot)	3433	0	0	5085	0	0		
Flt Permitted	0.950							
Satd. Flow (perm)	3433	0	0	5085	0	0		
Right Turn on Red	No	No				No		
Satd. Flow (RTOR)								
Link Speed (mph)	25			45	45			
Link Distance (ft)	330			175	324			
Travel Time (s)	9.0			2.7	4.9			
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90		
Adj. Flow (vph)	79	0	0	560	0	0		
Shared Lane Traffic (%)								
Lane Group Flow (vph)	79	0	0	560	0	0		
Turn Type	Prot			NA				
Protected Phases	4!			Free!			2	3
Permitted Phases								
Detector Phase	4							
Switch Phase								
Minimum Initial (s)	4.0						4.0	4.0
Minimum Split (s)	19.0						19.0	14.0
Total Split (s)	62.0						44.0	14.0
Total Split (%)	51.7%						37%	12%
Maximum Green (s)	55.0						37.0	7.0
Yellow Time (s)	5.0						5.0	5.0
All-Red Time (s)	2.0						2.0	2.0
Lost Time Adjust (s)	-2.0							
Total Lost Time (s)	5.0							
Lead/Lag	Lag							Lead
Lead-Lag Optimize?								Yes
Vehicle Extension (s)	3.0						3.0	3.0
Recall Mode	None						C-Max	None
Act Effct Green (s)	32.5			120.0				
Actuated g/C Ratio	0.27			1.00				
v/c Ratio	0.08			0.11				
Control Delay	31.0			0.1				
Queue Delay	0.0			0.0				
Total Delay	31.0			0.1				
LOS	C			A				
Approach Delay	31.0			0.1				
Approach LOS	C			A				
Queue Length 50th (ft)	23			0				
Queue Length 95th (ft)	39			0				
Internal Link Dist (ft)	250			95	244			

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR	Ø2	Ø3
Turn Bay Length (ft)								
Base Capacity (vph)	1630			5085				
Starvation Cap Reductn	0			0				
Spillback Cap Reductn	0			0				
Storage Cap Reductn	0			0				
Reduced v/c Ratio	0.05			0.11				

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 70 (58%), Referenced to phase 2:EBR, Start of Green
Natural Cycle: 55
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.63
Intersection Signal Delay: 3.9 Intersection LOS: A
Intersection Capacity Utilization 25.0% ICU Level of Service A
Analysis Period (min) 15
! Phase conflict between lane groups.

Splits and Phases: 7: Holly Springs Rd (SR 1152)/Holly Springs SB & SE Wake EB Off-Ramp



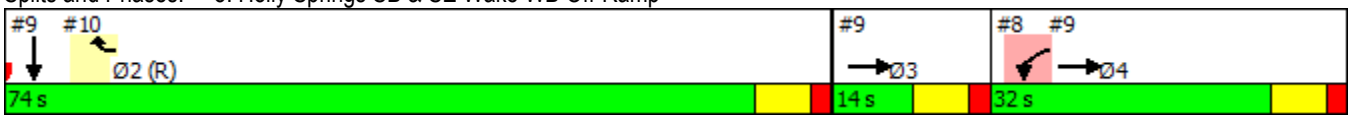
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	Ø2	Ø3
Lane Configurations								
Traffic Volume (vph)	255	0	0	0	0	1258		
Future Volume (vph)	255	0	0	0	0	1258		
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900		
Lane Util. Factor	0.97	1.00	1.00	1.00	1.00	0.91		
Frt								
Flt Protected	0.950							
Satd. Flow (prot)	3433	0	0	0	0	5085		
Flt Permitted	0.950							
Satd. Flow (perm)	3433	0	0	0	0	5085		
Right Turn on Red	No	No		No				
Satd. Flow (RTOR)								
Link Speed (mph)	25		25			25		
Link Distance (ft)	219		441			139		
Travel Time (s)	6.0		12.0			3.8		
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90		
Adj. Flow (vph)	283	0	0	0	0	1398		
Shared Lane Traffic (%)								
Lane Group Flow (vph)	283	0	0	0	0	1398		
Turn Type	Prot					NA		
Protected Phases	4!					Free!	2	3
Permitted Phases								
Detector Phase	4							
Switch Phase								
Minimum Initial (s)	4.0						4.0	4.0
Minimum Split (s)	19.0						19.0	14.0
Total Split (s)	32.0						74.0	14.0
Total Split (%)	26.7%						62%	12%
Maximum Green (s)	25.0						67.0	7.0
Yellow Time (s)	5.0						5.0	5.0
All-Red Time (s)	2.0						2.0	2.0
Lost Time Adjust (s)	-2.0							
Total Lost Time (s)	5.0							
Lead/Lag	Lag							Lead
Lead-Lag Optimize?								Yes
Vehicle Extension (s)	3.0						3.0	3.0
Recall Mode	None						C-Max	None
Act Effct Green (s)	18.3					120.0		
Actuated g/C Ratio	0.15					1.00		
v/c Ratio	0.54					0.27		
Control Delay	50.5					0.1		
Queue Delay	0.0					0.0		
Total Delay	50.5					0.1		
LOS	D					A		
Approach Delay	50.5					0.1		
Approach LOS	D					A		
Queue Length 50th (ft)	106					0		
Queue Length 95th (ft)	144					0		
Internal Link Dist (ft)	139		361			59		

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	Ø2	Ø3
Turn Bay Length (ft)								
Base Capacity (vph)	772					5085		
Starvation Cap Reductn	0					0		
Spillback Cap Reductn	0					0		
Storage Cap Reductn	0					0		
Reduced v/c Ratio	0.37					0.27		

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 1 (1%), Referenced to phase 2:SBT, Start of Green
Natural Cycle: 55
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.54
Intersection Signal Delay: 8.6 Intersection LOS: A
Intersection Capacity Utilization 40.4% ICU Level of Service A
Analysis Period (min) 15
! Phase conflict between lane groups.

Splits and Phases: 8: Holly Springs SB & SE Wake WB Off-Ramp



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	478	0	0	0	0	0	0	0	0	1258	0
Future Volume (vph)	0	478	0	0	0	0	0	0	0	0	1258	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	0.91	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91	1.00
Frt												
Flt Protected												
Satd. Flow (prot)	0	5085	0	0	0	0	0	0	0	0	5085	0
Flt Permitted												
Satd. Flow (perm)	0	5085	0	0	0	0	0	0	0	0	5085	0
Right Turn on Red			No			No			No	No		No
Satd. Flow (RTOR)												
Link Speed (mph)		45			45			25			25	
Link Distance (ft)		247			129			139			134	
Travel Time (s)		3.7			2.0			3.8			3.7	
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)	0	531	0	0	0	0	0	0	0	0	1398	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	531	0	0	0	0	0	0	0	0	1398	0
Turn Type		NA									NA	
Protected Phases		4 3									2	
Permitted Phases												
Detector Phase		4 3									2	
Switch Phase												
Minimum Initial (s)											4.0	
Minimum Split (s)											19.0	
Total Split (s)											74.0	
Total Split (%)											61.7%	
Maximum Green (s)											67.0	
Yellow Time (s)											5.0	
All-Red Time (s)											2.0	
Lost Time Adjust (s)											-2.0	
Total Lost Time (s)											5.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)											3.0	
Recall Mode											C-Max	
Act Effct Green (s)		32.3									77.7	
Actuated g/C Ratio		0.27									0.65	
v/c Ratio		0.39									0.42	
Control Delay		25.4									11.2	
Queue Delay		0.0									0.0	
Total Delay		25.4									11.2	
LOS		C									B	
Approach Delay		25.4									11.2	
Approach LOS		C									B	
Queue Length 50th (ft)		128									99	
Queue Length 95th (ft)		157									252	
Internal Link Dist (ft)		167			49			59			54	

Lane Group	Ø3	Ø4
Lane Configurations		
Traffic Volume (vph)		
Future Volume (vph)		
Ideal Flow (vphpl)		
Lane Util. Factor		
Frt		
Flt Protected		
Satd. Flow (prot)		
Flt Permitted		
Satd. Flow (perm)		
Right Turn on Red		
Satd. Flow (RTOR)		
Link Speed (mph)		
Link Distance (ft)		
Travel Time (s)		
Peak Hour Factor		
Adj. Flow (vph)		
Shared Lane Traffic (%)		
Lane Group Flow (vph)		
Turn Type		
Protected Phases	3	4
Permitted Phases		
Detector Phase		
Switch Phase		
Minimum Initial (s)	4.0	4.0
Minimum Split (s)	14.0	19.0
Total Split (s)	14.0	32.0
Total Split (%)	12%	27%
Maximum Green (s)	7.0	25.0
Yellow Time (s)	5.0	5.0
All-Red Time (s)	2.0	2.0
Lost Time Adjust (s)		
Total Lost Time (s)		
Lead/Lag	Lead	Lag
Lead-Lag Optimize?	Yes	
Vehicle Extension (s)	3.0	3.0
Recall Mode	None	None
Act Effct Green (s)		
Actuated g/C Ratio		
v/c Ratio		
Control Delay		
Queue Delay		
Total Delay		
LOS		
Approach Delay		
Approach LOS		
Queue Length 50th (ft)		
Queue Length 95th (ft)		
Internal Link Dist (ft)		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Bay Length (ft)												
Base Capacity (vph)		1737									3294	
Starvation Cap Reductn		0									0	
Spillback Cap Reductn		0									0	
Storage Cap Reductn		0									0	
Reduced v/c Ratio		0.31									0.42	

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 1 (1%), Referenced to phase 2:SBT, Start of Green
Natural Cycle: 55
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.54
Intersection Signal Delay: 15.1 Intersection LOS: B
Intersection Capacity Utilization 41.9% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 9: Holly Springs SB & Holly Springs NB



Lane Group	Ø3	Ø4
Turn Bay Length (ft)		
Base Capacity (vph)		
Starvation Cap Reductn		
Spillback Cap Reductn		
Storage Cap Reductn		
Reduced v/c Ratio		

Intersection Summary

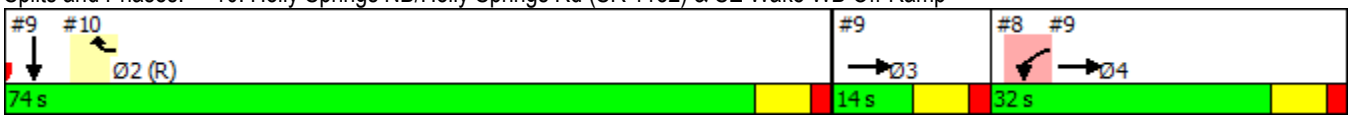
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	Ø3	Ø4
Lane Configurations								
Traffic Volume (vph)	0	201	478	0	0	0		
Future Volume (vph)	0	201	478	0	0	0		
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900		
Lane Util. Factor	1.00	0.88	0.91	1.00	1.00	1.00		
Frt		0.850						
Flt Protected								
Satd. Flow (prot)	0	2787	5085	0	0	0		
Flt Permitted								
Satd. Flow (perm)	0	2787	5085	0	0	0		
Right Turn on Red		No		No				
Satd. Flow (RTOR)								
Link Speed (mph)	25		45			45		
Link Distance (ft)	349		129			227		
Travel Time (s)	9.5		2.0			3.4		
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90		
Adj. Flow (vph)	0	223	531	0	0	0		
Shared Lane Traffic (%)								
Lane Group Flow (vph)	0	223	531	0	0	0		
Turn Type		Prot	NA					
Protected Phases		2!	Free!				3	4
Permitted Phases								
Detector Phase		2						
Switch Phase								
Minimum Initial (s)		4.0					4.0	4.0
Minimum Split (s)		19.0					14.0	19.0
Total Split (s)		74.0					14.0	32.0
Total Split (%)		61.7%					12%	27%
Maximum Green (s)		67.0					7.0	25.0
Yellow Time (s)		5.0					5.0	5.0
All-Red Time (s)		2.0					2.0	2.0
Lost Time Adjust (s)		-2.0						
Total Lost Time (s)		5.0						
Lead/Lag							Lead	Lag
Lead-Lag Optimize?							Yes	
Vehicle Extension (s)		3.0					3.0	3.0
Recall Mode		C-Max					None	None
Act Effct Green (s)		77.7	120.0					
Actuated g/C Ratio		0.65	1.00					
v/c Ratio		0.12	0.10					
Control Delay		8.8	0.1					
Queue Delay		0.0	0.0					
Total Delay		8.8	0.1					
LOS		A	A					
Approach Delay	8.8		0.1					
Approach LOS	A		A					
Queue Length 50th (ft)		34	0					
Queue Length 95th (ft)		59	0					
Internal Link Dist (ft)	269		49			147		

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	Ø3	Ø4
Turn Bay Length (ft)								
Base Capacity (vph)		1805	5085					
Starvation Cap Reductn		0	0					
Spillback Cap Reductn		0	0					
Storage Cap Reductn		0	0					
Reduced v/c Ratio		0.12	0.10					

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 1 (1%), Referenced to phase 2:SBT, Start of Green
Natural Cycle: 55
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.54
Intersection Signal Delay: 2.6 Intersection LOS: A
Intersection Capacity Utilization 41.9% ICU Level of Service A
Analysis Period (min) 15
! Phase conflict between lane groups.

Splits and Phases: 10: Holly Springs NB/Holly Springs Rd (SR 1152) & SE Wake WB Off-Ramp



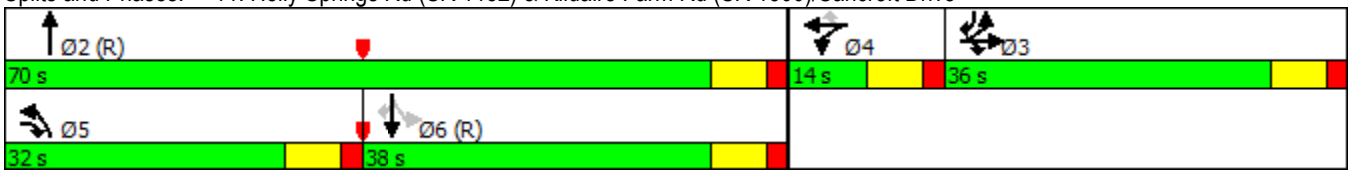
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	171	5	818	6	3	3	464	222	10	5	494	215
Future Volume (vph)	171	5	818	6	3	3	464	222	10	5	494	215
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		-3%			0%			-2%			4%	
Storage Length (ft)	400		650	50		75	0		0	150		450
Storage Lanes	1		1	0		1	2		0	1		1
Taper Length (ft)	200			100			150			150		
Lane Util. Factor	0.95	0.95	0.88	1.00	1.00	1.00	0.97	0.95	0.95	1.00	0.95	1.00
Frt			0.850			0.850		0.994				0.850
Flt Protected	0.950	0.955			0.966		0.950			0.950		
Satd. Flow (prot)	1706	1715	2828	0	1799	1583	3467	3553	0	1734	3468	1552
Flt Permitted	0.950	0.955			0.966		0.950			0.592		
Satd. Flow (perm)	1706	1715	2828	0	1799	1583	3467	3553	0	1081	3468	1552
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		45			35			45			45	
Link Distance (ft)		1366			504			485			616	
Travel Time (s)		20.7			9.8			7.3			9.3	
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)	190	6	909	7	3	3	516	247	11	6	549	239
Shared Lane Traffic (%)	48%											
Lane Group Flow (vph)	99	97	909	0	10	3	516	258	0	6	549	239
Turn Type	Split	NA	pt+ov	Split	NA	Perm	Prot	NA		Perm	NA	pm+ov
Protected Phases	3	3	3 5	4	4		5	2			6	3
Permitted Phases						4				6		6
Detector Phase	3	3	3 5	4	4	4	5	2		6	6	3
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0	7.0	7.0	12.0		12.0	12.0	7.0
Minimum Split (s)	14.0	14.0		14.0	14.0	14.0	14.0	19.0		19.0	19.0	14.0
Total Split (s)	36.0	36.0		14.0	14.0	14.0	32.0	70.0		38.0	38.0	36.0
Total Split (%)	30.0%	30.0%		11.7%	11.7%	11.7%	26.7%	58.3%		31.7%	31.7%	30.0%
Maximum Green (s)	29.0	29.0		7.0	7.0	7.0	25.0	63.0		31.0	31.0	29.0
Yellow Time (s)	5.0	5.0		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	2.0	2.0
Lost Time Adjust (s)	-2.0	-2.0			-2.0	-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		5.0	5.0	5.0
Lead/Lag	Lag	Lag		Lead	Lead	Lead	Lead			Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes			Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Recall Mode	None	None		None	None	None	None	C-Max		C-Max	C-Max	None
Act Effct Green (s)	34.0	34.0	64.4		9.0	9.0	25.4	70.4		40.0	40.0	77.0
Actuated g/C Ratio	0.28	0.28	0.54		0.08	0.08	0.21	0.59		0.33	0.33	0.64
v/c Ratio	0.21	0.20	0.60		0.07	0.03	0.70	0.12		0.02	0.47	0.24
Control Delay	34.7	34.6	21.1		53.1	52.0	41.1	3.7		31.6	34.9	8.1
Queue Delay	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	34.7	34.6	21.1		53.1	52.0	41.1	3.7		31.6	34.9	8.1
LOS	C	C	C		D	D	D	A		C	C	A
Approach Delay		23.5			52.9			28.6			26.8	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		C			D			C			C	
Queue Length 50th (ft)	57	56	225		7	2	87	13		3	179	62
Queue Length 95th (ft)	114	112	342		25	13	114	21		14	252	94
Internal Link Dist (ft)		1286			424			405			536	
Turn Bay Length (ft)	400		650			75				150		450
Base Capacity (vph)	482	485	1556		134	118	782	2085		360	1156	995
Starvation Cap Reductn	0	0	0		0	0	0	0		0	0	0
Spillback Cap Reductn	0	0	0		0	0	0	0		0	0	0
Storage Cap Reductn	0	0	0		0	0	0	0		0	0	0
Reduced v/c Ratio	0.21	0.20	0.58		0.07	0.03	0.66	0.12		0.02	0.47	0.24

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 112 (93%), Referenced to phase 2:NBT and 6:SBTL, Start of Green
Natural Cycle: 65
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.70
Intersection Signal Delay: 26.1 Intersection LOS: C
Intersection Capacity Utilization 60.6% ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 11: Holly Springs Rd (SR 1152) & Kildaire Farm Rd (SR 1300)/Sancroft Drive



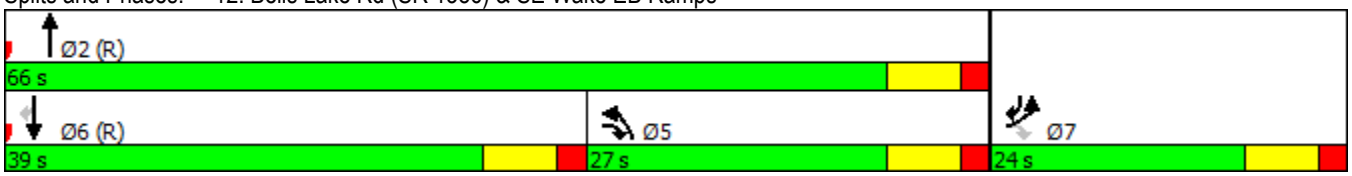
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	75	314	131	275	286	313
Future Volume (vph)	75	314	131	275	286	313
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	500	0	325			675
Storage Lanes	1	1	1			1
Taper Length (ft)	200		200			
Lane Util. Factor	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	1770	1863	1863	1583
Flt Permitted	0.950		0.950			
Satd. Flow (perm)	1770	1583	1770	1863	1863	1583
Right Turn on Red		No				No
Satd. Flow (RTOR)						
Link Speed (mph)	45			45	45	
Link Distance (ft)	766			1124	1065	
Travel Time (s)	11.6			17.0	16.1	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	83	349	146	306	318	348
Shared Lane Traffic (%)						
Lane Group Flow (vph)	83	349	146	306	318	348
Turn Type	Prot	pm+ov	Prot	NA	NA	pm+ov
Protected Phases	7	5	5	2	6	7
Permitted Phases		7				6
Detector Phase	7	5	5	2	6	7
Switch Phase						
Minimum Initial (s)	7.0	7.0	7.0	12.0	12.0	7.0
Minimum Split (s)	14.0	14.0	14.0	19.0	19.0	14.0
Total Split (s)	24.0	27.0	27.0	66.0	39.0	24.0
Total Split (%)	26.7%	30.0%	30.0%	73.3%	43.3%	26.7%
Maximum Green (s)	17.0	20.0	20.0	59.0	32.0	17.0
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	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	7.0
Lead/Lag		Lag	Lag		Lead	
Lead-Lag Optimize?		Yes	Yes		Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None	None	C-Max	C-Max	None
Act Effct Green (s)	16.4	43.4	22.0	63.6	36.6	56.0
Actuated g/C Ratio	0.18	0.48	0.24	0.71	0.41	0.62
v/c Ratio	0.26	0.46	0.34	0.23	0.42	0.35
Control Delay	32.7	17.3	30.7	5.5	17.5	7.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	32.7	17.3	30.7	5.5	17.5	7.3
LOS	C	B	C	A	B	A
Approach Delay	20.3			13.6	12.1	
Approach LOS	C			B	B	

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Queue Length 50th (ft)	41	125	69	53	104	66
Queue Length 95th (ft)	79	187	122	92	149	101
Internal Link Dist (ft)	686			1044	985	
Turn Bay Length (ft)	500		325			675
Base Capacity (vph)	373	764	432	1315	756	955
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	0.22	0.46	0.34	0.23	0.42	0.36

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 2 (2%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle: 50
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.46
Intersection Signal Delay: 14.9 Intersection LOS: B
Intersection Capacity Utilization 42.8% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 12: Bells Lake Rd (SR 1386) & SE Wake EB Ramps



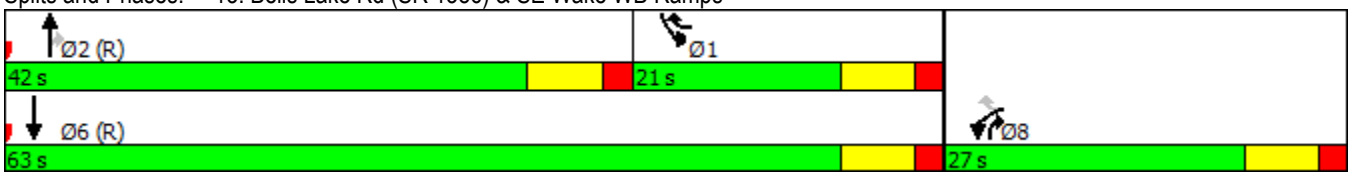
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	121	180	178	172	66	478
Future Volume (vph)	121	180	178	172	66	478
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	350	0		700	375	
Storage Lanes	1	1		1	1	
Taper Length (ft)	200				300	
Lane Util. Factor	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				0.950	
Satd. Flow (perm)	1770	1583	1863	1583	1770	1863
Right Turn on Red		No		No		
Satd. Flow (RTOR)						
Link Speed (mph)	45		45			45
Link Distance (ft)	764		1065			1466
Travel Time (s)	11.6		16.1			22.2
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	134	200	198	191	73	531
Shared Lane Traffic (%)						
Lane Group Flow (vph)	134	200	198	191	73	531
Turn Type	Prot	pm+ov	NA	pm+ov	Prot	NA
Protected Phases	8	1	2	8	1	6
Permitted Phases		8		2		
Detector Phase	8	1	2	8	1	6
Switch Phase						
Minimum Initial (s)	7.0	7.0	12.0	7.0	7.0	12.0
Minimum Split (s)	19.0	14.0	19.0	19.0	14.0	19.0
Total Split (s)	27.0	21.0	42.0	27.0	21.0	63.0
Total Split (%)	30.0%	23.3%	46.7%	30.0%	23.3%	70.0%
Maximum Green (s)	20.0	14.0	35.0	20.0	14.0	56.0
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	0.0	-2.0	-2.0
Total Lost Time (s)	5.0	5.0	5.0	7.0	5.0	5.0
Lead/Lag		Lag	Lead		Lag	
Lead-Lag Optimize?		Yes	Yes		Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None	C-Max	None	None	C-Max
Act Effct Green (s)	14.1	35.1	44.9	62.0	16.0	65.9
Actuated g/C Ratio	0.16	0.39	0.50	0.69	0.18	0.73
v/c Ratio	0.49	0.32	0.21	0.18	0.23	0.39
Control Delay	39.9	20.1	11.1	4.2	34.0	6.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	39.9	20.1	11.1	4.2	34.0	6.0
LOS	D	C	B	A	C	A
Approach Delay	28.0		7.7			9.4
Approach LOS	C		A			A

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Queue Length 50th (ft)	70	78	46	26	36	94
Queue Length 95th (ft)	119	120	78	43	75	175
Internal Link Dist (ft)	684		985			1386
Turn Bay Length (ft)	350			700	375	
Base Capacity (vph)	432	616	929	1073	314	1364
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	0.31	0.32	0.21	0.18	0.23	0.39

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 88 (98%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle: 55
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.49
Intersection Signal Delay: 13.6 Intersection LOS: B
Intersection Capacity Utilization 40.2% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 13: Bells Lake Rd (SR 1386) & SE Wake WB Ramps



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	125	46	14	62	62	167	11	1167	39	160	1805	159
Future Volume (vph)	125	46	14	62	62	167	11	1167	39	160	1805	159
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		1%			-4%			4%			-3%	
Storage Length (ft)	550		0	350		0	475		350	500		0
Storage Lanes	1		1	1		1	1		1	2		1
Taper Length (ft)	75			75			200			200		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	0.97	0.95	1.00
Frt			0.850			0.850			0.850			0.850
Flt Protected		0.965			0.976		0.950			0.950		
Satd. Flow (prot)	0	1789	1575	0	1854	1615	1734	3468	1552	3485	3592	1607
Flt Permitted		0.599			0.525		0.950			0.950		
Satd. Flow (perm)	0	1110	1575	0	998	1615	1734	3468	1552	3485	3592	1607
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		45			20			55			55	
Link Distance (ft)		2528			1077			1156			1108	
Travel Time (s)		38.3			36.7			14.3			13.7	
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)	139	51	16	69	69	186	12	1297	43	178	2006	177
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	190	16	0	138	186	12	1297	43	178	2006	177
Turn Type	Perm	NA	pm+ov	Perm	NA	pm+ov	Prot	NA	Perm	Prot	NA	Perm
Protected Phases		4	5		8	1	5	2		1	6	
Permitted Phases	4		4	8		8			2			6
Detector Phase	4	4	5	8	8	1	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	14.0	14.0	7.0	14.0	14.0
Minimum Split (s)	35.5	35.5	14.0	14.5	14.5	14.0	14.0	21.0	21.0	14.0	21.0	21.0
Total Split (s)	35.5	35.5	14.0	35.5	35.5	16.0	14.0	68.5	68.5	16.0	70.5	70.5
Total Split (%)	29.6%	29.6%	11.7%	29.6%	29.6%	13.3%	11.7%	57.1%	57.1%	13.3%	58.8%	58.8%
Maximum Green (s)	28.5	28.5	7.0	28.5	28.5	9.0	7.0	61.5	61.5	9.0	63.5	63.5
Yellow Time (s)	5.0	5.0	5.0	5.0	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	2.0	2.0	2.0	2.0
Lost Time Adjust (s)		-2.0	0.0		-2.0	0.0	-2.0	-2.0	0.0	-2.0	-2.0	-2.0
Total Lost Time (s)		5.0	7.0		5.0	7.0	5.0	5.0	7.0	5.0	5.0	5.0
Lead/Lag			Lag			Lag	Lag	Lead	Lead	Lag	Lead	Lead
Lead-Lag Optimize?			Yes			Yes	Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	6.0	6.0	1.0	6.0	6.0
Minimum Gap (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	6.0	6.0	1.0	6.0	6.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	15.0	15.0	0.0	15.0	15.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	30.0	30.0	0.0	30.0	30.0
Recall Mode	None	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Walk Time (s)	5.0	5.0										
Flash Dont Walk (s)	23.0	23.0										
Pedestrian Calls (#/hr)	0	0										
Act Effct Green (s)		22.1	34.1		22.1	36.1	9.0	71.9	69.9	11.0	79.5	79.5
Actuated g/C Ratio		0.18	0.28		0.18	0.30	0.08	0.60	0.58	0.09	0.66	0.66

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio		0.93	0.04		0.75	0.38	0.09	0.62	0.05	0.56	0.84	0.17
Control Delay		94.9	28.1		70.0	34.4	53.5	18.1	12.9	52.1	14.5	6.8
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		94.9	28.1		70.0	34.4	53.5	18.1	12.9	52.1	14.5	6.8
LOS		F	C		E	C	D	B	B	D	B	A
Approach Delay		89.7			49.6			18.2			16.8	
Approach LOS		F			D			B			B	
Queue Length 50th (ft)		146	9		102	114	9	320	14	71	333	34
Queue Length 95th (ft)		#223	24		164	162	29	464	36	109	#991	65
Internal Link Dist (ft)		2448			997			1076			1028	
Turn Bay Length (ft)							475		350	500		
Base Capacity (vph)		282	447		253	485	130	2078	904	319	2380	1064
Starvation Cap Reductn		0	0		0	0	0	0	0	0	0	0
Spillback Cap Reductn		0	0		0	0	0	0	0	0	0	0
Storage Cap Reductn		0	0		0	0	0	0	0	0	0	0
Reduced v/c Ratio		0.67	0.04		0.55	0.38	0.09	0.62	0.05	0.56	0.84	0.17

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 112 (93%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle: 120
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.93
Intersection Signal Delay: 23.3 Intersection LOS: C
Intersection Capacity Utilization 84.2% ICU Level of Service E
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 14: US 401 & Donnybrook Rd (SR 1503)/Wake Tech Driveway



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	191	0	311	0	0	0	0	992	476	0	1800	0
Future Volume (vph)	191	0	311	0	0	0	0	992	476	0	1800	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	400		500	0		0	0		350	0		0
Storage Lanes	2		1	0		0	0		1	0		0
Taper Length (ft)	150			100			100			100		
Lane Util. Factor	0.97	1.00	0.88	1.00	1.00	1.00	1.00	0.91	1.00	1.00	0.91	1.00
Frt			0.850						0.850			
Flt Protected	0.950											
Satd. Flow (prot)	3433	0	2787	0	0	0	0	5085	1583	0	5085	0
Flt Permitted	0.950											
Satd. Flow (perm)	3433	0	2787	0	0	0	0	5085	1583	0	5085	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		45			45			55			55	
Link Distance (ft)		1618			2204			1108			230	
Travel Time (s)		24.5			33.4			13.7			2.9	
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)	212	0	346	0	0	0	0	1102	529	0	2000	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	212	0	346	0	0	0	0	1102	529	0	2000	0
Turn Type	Prot		Prot					NA	Free		NA	
Protected Phases	4		4					2			6	
Permitted Phases									Free			
Detector Phase	4		4					2			6	
Switch Phase												
Minimum Initial (s)	7.0		7.0					14.0			14.0	
Minimum Split (s)	14.0		14.0					21.0			21.0	
Total Split (s)	36.0		36.0					84.0			84.0	
Total Split (%)	30.0%		30.0%					70.0%			70.0%	
Maximum Green (s)	29.0		29.0					77.0			77.0	
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		None					C-Max			C-Max	
Act Effct Green (s)	22.3		22.3					87.7	120.0		87.7	
Actuated g/C Ratio	0.19		0.19					0.73	1.00		0.73	
v/c Ratio	0.33		0.67					0.30	0.33		0.54	
Control Delay	43.0		51.6					2.8	0.5		6.1	
Queue Delay	0.0		0.0					0.0	0.0		0.0	
Total Delay	43.0		51.6					2.8	0.5		6.1	
LOS	D		D					A	A		A	
Approach Delay		48.3						2.1			6.1	
Approach LOS		D						A			A	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 50th (ft)	74		143					37	0		170	
Queue Length 95th (ft)	104		187					54	0		185	
Internal Link Dist (ft)		1538			2124			1028			150	
Turn Bay Length (ft)	400		500						350			
Base Capacity (vph)	886		719					3716	1583		3716	
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	0.24		0.48					0.30	0.33		0.54	

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 6 (5%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle: 40
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.67
Intersection Signal Delay: 10.2 Intersection LOS: B
Intersection Capacity Utilization 54.0% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 16: US 401 & SE Wake EB Off-Ramp/SE Wake EB Ramp



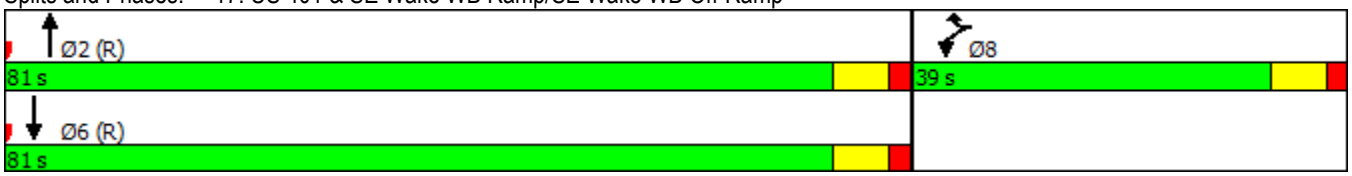
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	418	0	131	0	1019	0	0	1631	169
Future Volume (vph)	0	0	0	418	0	131	0	1019	0	0	1631	169
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	400		400	0		0	0		0
Storage Lanes	0		0	1		1	0		0	0		1
Taper Length (ft)	100			175			100			100		
Lane Util. Factor	1.00	1.00	1.00	0.97	1.00	1.00	1.00	0.91	1.00	1.00	0.91	1.00
Frt						0.850						0.850
Flt Protected				0.950								
Satd. Flow (prot)	0	0	0	3433	0	1583	0	5085	0	0	5085	1583
Flt Permitted				0.950								
Satd. Flow (perm)	0	0	0	3433	0	1583	0	5085	0	0	5085	1583
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		45			45			55			55	
Link Distance (ft)		1627			1555			227			831	
Travel Time (s)		24.7			23.6			2.8			10.3	
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)	0	0	0	464	0	146	0	1132	0	0	1812	188
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	464	0	146	0	1132	0	0	1812	188
Turn Type				Prot		Prot		NA			NA	Free
Protected Phases				8		8		2			6	
Permitted Phases												Free
Detector Phase				8		8		2			6	
Switch Phase												
Minimum Initial (s)				7.0		7.0		14.0			14.0	
Minimum Split (s)				14.0		14.0		21.0			21.0	
Total Split (s)				39.0		39.0		81.0			81.0	
Total Split (%)				32.5%		32.5%		67.5%			67.5%	
Maximum Green (s)				32.0		32.0		74.0			74.0	
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		None		C-Max			C-Max	
Act Effct Green (s)				23.7		23.7		86.3			86.3	120.0
Actuated g/C Ratio				0.20		0.20		0.72			0.72	1.00
v/c Ratio				0.69		0.47		0.31			0.50	0.12
Control Delay				49.8		46.9		4.0			8.3	0.2
Queue Delay				0.0		0.0		0.0			0.0	0.0
Total Delay				49.8		46.9		4.0			8.3	0.2
LOS				D		D		A			A	A
Approach Delay					49.1			4.0			7.5	
Approach LOS					D			A			A	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 50th (ft)				173		101		77			197	0
Queue Length 95th (ft)				216		158		78			275	0
Internal Link Dist (ft)		1547			1475			147			751	
Turn Bay Length (ft)				400		400						
Base Capacity (vph)				972		448		3657			3657	1583
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				0.48		0.33		0.31			0.50	0.12

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 7 (6%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle: 40
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.69
Intersection Signal Delay: 13.2 Intersection LOS: B
Intersection Capacity Utilization 74.8% ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 17: US 401 & SE Wake WB Ramp/SE Wake WB Off-Ramp



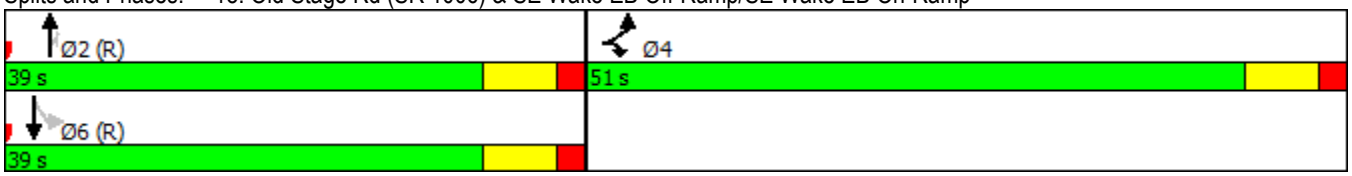
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	357	0	516	0	0	0	0	408	58	73	402	0
Future Volume (vph)	357	0	516	0	0	0	0	408	58	73	402	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	400		450	0		0	0		350	300		0
Storage Lanes	1		2	0		0	0		1	1		0
Taper Length (ft)	150			100			100			150		
Lane Util. Factor	0.97	1.00	0.88	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt			0.850						0.850			
Flt Protected	0.950									0.950		
Satd. Flow (prot)	3433	0	2787	0	0	0	0	3539	1583	1770	3539	0
Flt Permitted	0.950									0.483		
Satd. Flow (perm)	3433	0	2787	0	0	0	0	3539	1583	900	3539	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		1797			1507			713			1050	
Travel Time (s)		27.2			22.8			10.8			15.9	
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)	397	0	573	0	0	0	0	453	64	81	447	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	397	0	573	0	0	0	0	453	64	81	447	0
Turn Type	Prot		Prot					NA	Perm	Perm	NA	
Protected Phases	4		4					2			6	
Permitted Phases									2	6		
Detector Phase	4		4					2	2	6	6	
Switch Phase												
Minimum Initial (s)	7.0		7.0					12.0	12.0	12.0	12.0	
Minimum Split (s)	14.0		14.0					19.0	19.0	19.0	19.0	
Total Split (s)	51.0		51.0					39.0	39.0	39.0	39.0	
Total Split (%)	56.7%		56.7%					43.3%	43.3%	43.3%	43.3%	
Maximum Green (s)	44.0		44.0					32.0	32.0	32.0	32.0	
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	0.0	-2.0	-2.0	
Total Lost Time (s)	5.0		5.0					5.0	7.0	5.0	5.0	
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-Max	C-Max	C-Max	C-Max	
Act Effct Green (s)	27.7		27.7					52.3	50.3	52.3	52.3	
Actuated g/C Ratio	0.31		0.31					0.58	0.56	0.58	0.58	
v/c Ratio	0.38		0.67					0.22	0.07	0.15	0.22	
Control Delay	24.6		30.6					10.3	11.4	7.2	6.4	
Queue Delay	0.0		0.0					0.0	0.0	0.0	0.0	
Total Delay	24.6		30.6					10.3	11.4	7.2	6.4	
LOS	C		C					B	B	A	A	
Approach Delay		28.1						10.5			6.5	
Approach LOS		C						B			A	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 50th (ft)	90		160					60	16	11	32	
Queue Length 95th (ft)	112		193					105	41	22	43	
Internal Link Dist (ft)		1717			1427			633			970	
Turn Bay Length (ft)	400		450						350	300		
Base Capacity (vph)	1754		1424					2057	885	523	2057	
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	0.23		0.40					0.22	0.07	0.15	0.22	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 18 (20%), Referenced to phase 2:NBT and 6:SBTL, Start of Green
Natural Cycle: 40
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.67
Intersection Signal Delay: 17.9 Intersection LOS: B
Intersection Capacity Utilization 49.5% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 18: Old Stage Rd (SR 1006) & SE Wake EB Off-Ramp/SE Wake EB On-Ramp



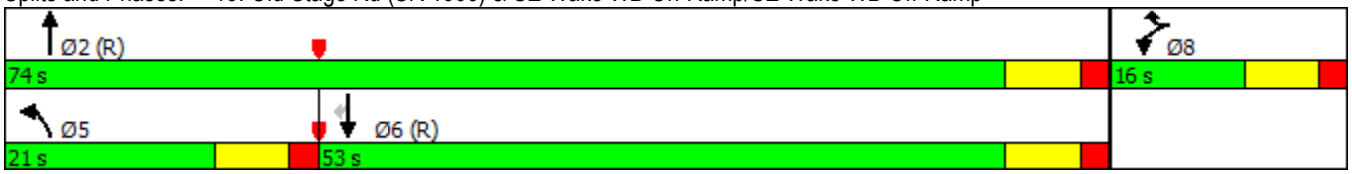
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	58	0	32	247	518	0	0	417	363
Future Volume (vph)	0	0	0	58	0	32	247	518	0	0	417	363
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		200	400		0	0		350
Storage Lanes	0		0	1		1	2		0	0		1
Taper Length (ft)	100			100			150			100		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	*0.88	0.95	1.00	1.00	0.95	1.00
Frt						0.850						0.850
Flt Protected				0.950			0.950					
Satd. Flow (prot)	0	0	0	1770	0	1583	3115	3539	0	0	3539	1583
Flt Permitted				0.950			0.950					
Satd. Flow (perm)	0	0	0	1770	0	1583	3115	3539	0	0	3539	1583
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		1394			1871			1050			784	
Travel Time (s)		21.1			28.3			15.9			11.9	
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)	0	0	0	64	0	36	274	576	0	0	463	403
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	64	0	36	274	576	0	0	463	403
Turn Type				Prot		Prot	Prot	NA			NA	Perm
Protected Phases				8		8	5	2			6	
Permitted Phases												6
Detector Phase				8		8	5	2			6	6
Switch Phase												
Minimum Initial (s)				7.0		7.0	7.0	12.0			12.0	12.0
Minimum Split (s)				14.0		14.0	14.0	19.0			19.0	19.0
Total Split (s)				16.0		16.0	21.0	74.0			53.0	53.0
Total Split (%)				17.8%		17.8%	23.3%	82.2%			58.9%	58.9%
Maximum Green (s)				9.0		9.0	14.0	67.0			46.0	46.0
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	0.0
Total Lost Time (s)				5.0		5.0	5.0	5.0			5.0	7.0
Lead/Lag							Lead				Lag	Lag
Lead-Lag Optimize?							Yes				Yes	Yes
Vehicle Extension (s)				3.0		3.0	3.0	3.0			3.0	3.0
Recall Mode				None		None	None	C-Max			C-Max	C-Max
Act Effct Green (s)				10.2		10.2	14.4	73.6			53.2	51.2
Actuated g/C Ratio				0.11		0.11	0.16	0.82			0.59	0.57
v/c Ratio				0.32		0.20	0.55	0.20			0.22	0.45
Control Delay				41.1		38.8	33.9	1.4			10.2	14.9
Queue Delay				0.0		0.0	0.0	0.0			0.0	0.0
Total Delay				41.1		38.8	33.9	1.4			10.2	14.9
LOS				D		D	C	A			B	B
Approach Delay					40.2			11.8			12.4	
Approach LOS					D			B			B	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 50th (ft)				34		19	60	17			67	138
Queue Length 95th (ft)				72		47	96	24			98	223
Internal Link Dist (ft)		1314			1791			970			704	
Turn Bay Length (ft)						200	400					350
Base Capacity (vph)				216		193	553	2895			2091	900
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				0.30		0.19	0.50	0.20			0.22	0.45

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 88 (98%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle: 55
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.55
Intersection Signal Delay: 13.7 Intersection LOS: B
Intersection Capacity Utilization 49.5% ICU Level of Service A
Analysis Period (min) 15
* User Entered Value

Splits and Phases: 19: Old Stage Rd (SR 1006) & SE Wake WB On-Ramp/SE Wake WB Off-Ramp



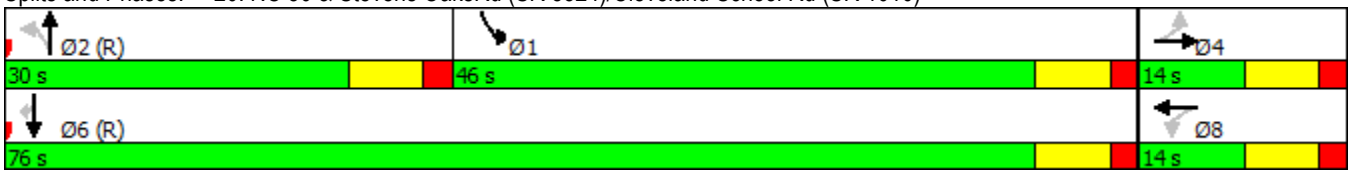
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	9	9	8	15	10	317	9	315	15	600	596	19
Future Volume (vph)	9	9	8	15	10	317	9	315	15	600	596	19
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	10	12	12	11	12	11	11	12	11	11	12
Grade (%)		-1%			1%			2%			-2%	
Storage Length (ft)	0		0	0		150	100		0	1000		0
Storage Lanes	0		0	0		1	1		0	1		1
Taper Length (ft)	100			100			75			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		0.958				0.850		0.993				0.850
Flt Protected		0.983			0.971		0.950			0.950		
Satd. Flow (prot)	0	1629	0	0	1740	1575	1694	1770	0	1728	1819	1599
Flt Permitted		0.874			0.797		0.348			0.950		
Satd. Flow (perm)	0	1449	0	0	1428	1575	620	1770	0	1728	1819	1599
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		25			55			55			55	
Link Distance (ft)		1058			1031			566			1632	
Travel Time (s)		28.9			12.8			7.0			20.2	
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
Heavy Vehicles (%)	3%	3%	3%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Adj. Flow (vph)	10	10	9	17	11	352	10	350	17	667	662	21
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	29	0	0	28	352	10	367	0	667	662	21
Turn Type	Perm	NA		Perm	NA	Free	Perm	NA		Prot	NA	Perm
Protected Phases		4			8			2		1	6	
Permitted Phases	4			8		Free	2					6
Detector Phase	4	4		8	8		2	2		1	6	6
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		14.0	14.0		7.0	14.0	14.0
Minimum Split (s)	14.0	14.0		14.0	14.0		21.0	21.0		14.0	21.0	21.0
Total Split (s)	14.0	14.0		14.0	14.0		30.0	30.0		46.0	76.0	76.0
Total Split (%)	15.6%	15.6%		15.6%	15.6%		33.3%	33.3%		51.1%	84.4%	84.4%
Maximum Green (s)	7.0	7.0		7.0	7.0		23.0	23.0		39.0	69.0	69.0
Yellow Time (s)	5.0	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	2.0
Lost Time Adjust (s)		-2.0			-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	5.0
Lead/Lag							Lead	Lead		Lag		
Lead-Lag Optimize?							Yes	Yes		Yes		
Vehicle Extension (s)	1.0	1.0		1.0	1.0		6.0	6.0		1.0	6.0	6.0
Minimum Gap (s)	1.0	1.0		1.0	1.0		6.0	6.0		1.0	6.0	6.0
Time Before Reduce (s)	0.0	0.0		0.0	0.0		15.0	15.0		0.0	15.0	15.0
Time To Reduce (s)	0.0	0.0		0.0	0.0		40.0	40.0		0.0	40.0	40.0
Recall Mode	None	None		None	None		C-Max	C-Max		None	C-Max	C-Max
Act Effct Green (s)		9.0			9.0	90.0	30.6	30.6		41.0	78.6	78.6
Actuated g/C Ratio		0.10			0.10	1.00	0.34	0.34		0.46	0.87	0.87
v/c Ratio		0.20			0.20	0.22	0.05	0.61		0.85	0.42	0.02

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Control Delay		41.0			40.9	0.3	25.0	32.2		27.1	1.5	0.9
Queue Delay		0.0			0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay		41.0			40.9	0.3	25.0	32.2		27.1	1.5	0.9
LOS		D			D	A	C	C		C	A	A
Approach Delay		41.0			3.3			32.1			14.1	
Approach LOS		D			A			C			B	
Queue Length 50th (ft)		15			15	0	4	190		361	34	1
Queue Length 95th (ft)		42			41	0	17	#315		#543	43	m2
Internal Link Dist (ft)		978			951			486			1552	
Turn Bay Length (ft)						150	100			1000		
Base Capacity (vph)		144			142	1575	210	601		787	1588	1396
Starvation Cap Reductn		0			0	0	0	0		0	0	0
Spillback Cap Reductn		0			0	0	0	0		0	0	0
Storage Cap Reductn		0			0	0	0	0		0	0	0
Reduced v/c Ratio		0.20			0.20	0.22	0.05	0.61		0.85	0.42	0.02

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 81 (90%), Referenced to phase 2:NBTL and 6:SBT, Start of Green
Natural Cycle: 75
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.85
Intersection Signal Delay: 15.7 Intersection LOS: B
Intersection Capacity Utilization 71.4% 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: 20: NC 50 & Stevens OaksRd (SR 5324)/Cleveland School Rd (SR 1010)



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	38	0	540	0	0	0	0	538	97	330	679	0
Future Volume (vph)	38	0	540	0	0	0	0	538	97	330	679	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	600		600	0		0	0		400	400		0
Storage Lanes	1		1	0		0	0		1	1		0
Taper Length (ft)	100			100			100			225		
Lane Util. Factor	1.00	1.00	0.88	1.00	1.00	1.00	1.00	0.95	1.00	*0.88	0.95	1.00
Frt			0.850						0.850			
Flt Protected	0.950									0.950		
Satd. Flow (prot)	1770	0	2787	0	0	0	0	3539	1583	3115	3539	0
Flt Permitted	0.950									0.950		
Satd. Flow (perm)	1770	0	2787	0	0	0	0	3539	1583	3115	3539	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		45			45			55			55	
Link Distance (ft)		1729			1389			1632			1116	
Travel Time (s)		26.2			21.0			20.2			13.8	
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
Heavy Vehicles (%)	2%	6%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Adj. Flow (vph)	42	0	600	0	0	0	0	598	108	367	754	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	42	0	600	0	0	0	0	598	108	367	754	0
Turn Type	Prot		Prot					NA	Perm	Prot	NA	
Protected Phases	4		4					2		1	6	
Permitted Phases									2			
Detector Phase	4		4					2	2	1	6	
Switch Phase												
Minimum Initial (s)	7.0		7.0					14.0	14.0	7.0	14.0	
Minimum Split (s)	19.0		19.0					21.0	21.0	14.0	21.0	
Total Split (s)	36.0		36.0					30.0	30.0	24.0	54.0	
Total Split (%)	40.0%		40.0%					33.3%	33.3%	26.7%	60.0%	
Maximum Green (s)	29.0		29.0					23.0	23.0	17.0	47.0	
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	-2.0	
Total Lost Time (s)	5.0		5.0					5.0	5.0	5.0	5.0	
Lead/Lag								Lead	Lead	Lag		
Lead-Lag Optimize?								Yes	Yes	Yes		
Vehicle Extension (s)	3.0		3.0					3.0	3.0	3.0	3.0	
Recall Mode	None		None					C-Max	C-Max	None	C-Max	
Act Effct Green (s)	26.2		26.2					29.8	29.8	19.0	53.8	
Actuated g/C Ratio	0.29		0.29					0.33	0.33	0.21	0.60	
v/c Ratio	0.08		0.74					0.51	0.21	0.56	0.36	
Control Delay	21.9		34.5					16.6	13.7	29.0	2.6	
Queue Delay	0.0		0.0					0.0	0.0	0.0	0.0	
Total Delay	21.9		34.5					16.6	13.7	29.0	2.6	
LOS	C		C					B	B	C	A	
Approach Delay		33.7						16.1			11.2	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		C						B			B	
Queue Length 50th (ft)	17		173					83	22	113	9	
Queue Length 95th (ft)	38		222					175	m56	170	21	
Internal Link Dist (ft)		1649			1309			1552			1036	
Turn Bay Length (ft)	600		600						400	400		
Base Capacity (vph)	609		959					1173	524	657	2117	
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	0.07		0.63					0.51	0.21	0.56	0.36	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 18 (20%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle: 55
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.74
Intersection Signal Delay: 18.5 Intersection LOS: B
Intersection Capacity Utilization 46.0% ICU Level of Service A
Analysis Period (min) 15
* User Entered Value
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 21: NC 50 & SE Wake EB Ramp



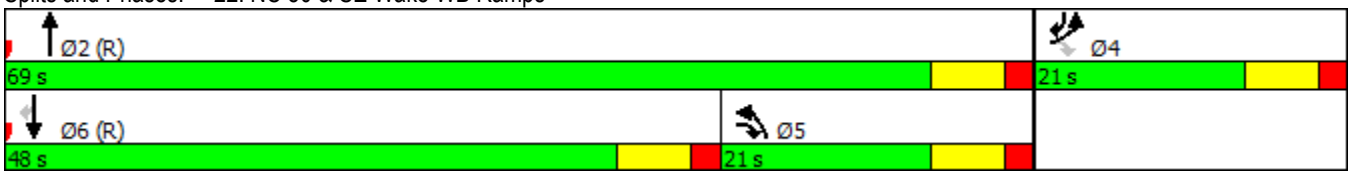
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	200	119	260	316	890	36
Future Volume (vph)	200	119	260	316	890	36
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0	450			350
Storage Lanes	2	1	1			1
Taper Length (ft)	150		225			
Lane Util. Factor	0.97	1.00	*0.88	0.95	0.95	1.00
Ped Bike Factor	0.64					
Frt		0.850				0.850
Flt Protected	0.950		0.950			
Satd. Flow (prot)	3433	1583	3115	3539	3539	1583
Flt Permitted	0.950		0.950			
Satd. Flow (perm)	2187	1583	3115	3539	3539	1583
Right Turn on Red		No				No
Satd. Flow (RTOR)						
Link Speed (mph)	25			55	55	
Link Distance (ft)	455			1116	682	
Travel Time (s)	12.4			13.8	8.5	
Confl. Peds. (#/hr)	129					
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	222	132	289	351	989	40
Shared Lane Traffic (%)						
Lane Group Flow (vph)	222	132	289	351	989	40
Turn Type	Prot	pm+ov	Prot	NA	NA	pm+ov
Protected Phases	4	5	5	2	6	4
Permitted Phases		4				6
Detector Phase	4	5	5	2	6	4
Switch Phase						
Minimum Initial (s)	7.0	7.0	7.0	14.0	14.0	7.0
Minimum Split (s)	19.0	14.0	14.0	21.0	21.0	19.0
Total Split (s)	21.0	21.0	21.0	69.0	48.0	21.0
Total Split (%)	23.3%	23.3%	23.3%	76.7%	53.3%	23.3%
Maximum Green (s)	14.0	14.0	14.0	62.0	41.0	14.0
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	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	7.0
Lead/Lag		Lag	Lag		Lead	
Lead-Lag Optimize?		Yes	Yes		Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None	None	C-Max	C-Max	None
Act Effct Green (s)	13.0	34.0	16.0	67.0	46.0	62.0
Actuated g/C Ratio	0.14	0.38	0.18	0.74	0.51	0.69
v/c Ratio	0.45	0.22	0.52	0.13	0.55	0.04
Control Delay	37.7	19.5	20.8	0.2	16.8	4.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	37.7	19.5	20.8	0.2	16.8	4.6
LOS	D	B	C	A	B	A

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Approach Delay	30.9			9.5	16.3	
Approach LOS	C			A	B	
Queue Length 50th (ft)	60	50	98	0	191	6
Queue Length 95th (ft)	91	87	146	0	266	15
Internal Link Dist (ft)	375			1036	602	
Turn Bay Length (ft)			450			350
Base Capacity (vph)	610	598	553	2632	1807	1044
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	0.36	0.22	0.52	0.13	0.55	0.04

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.55
Intersection Signal Delay: 16.7 Intersection LOS: B
Intersection Capacity Utilization 50.4% ICU Level of Service A
Analysis Period (min) 15
* User Entered Value

Splits and Phases: 22: NC 50 & SE Wake WB Ramps



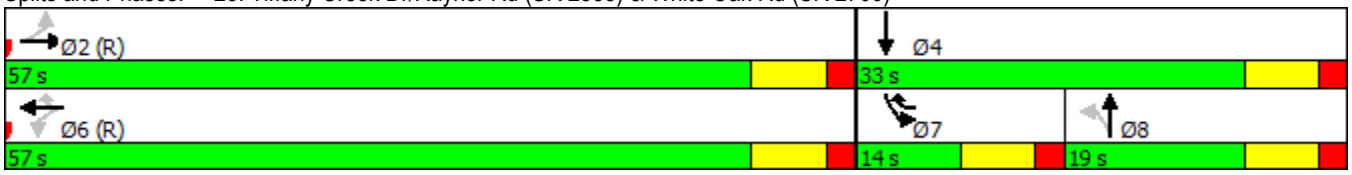
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	38	818	11	21	433	55	7	6	12	121	10	45
Future Volume (vph)	38	818	11	21	433	55	7	6	12	121	10	45
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	150		0	0		0	300		0
Storage Lanes	1		0	1		1	0		0	1		0
Taper Length (ft)	250			100			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		0.998				0.850		0.937			0.877	
Flt Protected	0.950			0.950				0.986		0.950		
Satd. Flow (prot)	1770	1859	0	1770	1863	1583	0	1721	0	1770	1634	0
Flt Permitted	0.441			0.183				0.882		0.950		
Satd. Flow (perm)	821	1859	0	341	1863	1583	0	1539	0	1770	1634	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		45			45			35			45	
Link Distance (ft)		1051			1339			1001			1394	
Travel Time (s)		15.9			20.3			19.5			21.1	
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)	42	909	12	23	481	61	8	7	13	134	11	50
Shared Lane Traffic (%)												
Lane Group Flow (vph)	42	921	0	23	481	61	0	28	0	134	61	0
Turn Type	Perm	NA		Perm	NA	pm+ov	Perm	NA		Prot	NA	
Protected Phases		2			6	7		8		7	4	
Permitted Phases	2			6		6	8					
Detector Phase	2	2		6	6	7	8	8		7	4	
Switch Phase												
Minimum Initial (s)	12.0	12.0		12.0	12.0	7.0	7.0	7.0		7.0	7.0	
Minimum Split (s)	19.0	19.0		19.0	19.0	14.0	19.0	19.0		14.0	19.0	
Total Split (s)	57.0	57.0		57.0	57.0	14.0	19.0	19.0		14.0	33.0	
Total Split (%)	63.3%	63.3%		63.3%	63.3%	15.6%	21.1%	21.1%		15.6%	36.7%	
Maximum Green (s)	50.0	50.0		50.0	50.0	7.0	12.0	12.0		7.0	26.0	
Yellow Time (s)	5.0	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	2.0	
Lost Time Adjust (s)	-2.0	-2.0		-2.0	-2.0	1.0		-2.0		-2.0	-2.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0	8.0		5.0		5.0	5.0	
Lead/Lag						Lead	Lag	Lag		Lead		
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	3.0	
Recall Mode	C-Max	C-Max		C-Max	C-Max	None	None	None		None	None	
Act Effct Green (s)	64.4	64.4		64.4	64.4	80.6		9.6		9.4	15.6	
Actuated g/C Ratio	0.72	0.72		0.72	0.72	0.90		0.11		0.10	0.17	
v/c Ratio	0.07	0.69		0.09	0.36	0.04		0.17		0.72	0.22	
Control Delay	6.3	13.0		2.3	3.3	0.6		38.7		62.8	30.6	
Queue Delay	0.0	0.0		0.0	0.0	0.0		0.0		0.0	0.0	
Total Delay	6.3	13.0		2.3	3.3	0.6		38.7		62.8	30.6	
LOS	A	B		A	A	A		D		E	C	
Approach Delay		12.7			3.0			38.7			52.7	
Approach LOS		B			A			D			D	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 50th (ft)	5	187		1	22	0		15		74	32	
Queue Length 95th (ft)	23	565		4	37	4		40		#168	57	
Internal Link Dist (ft)		971			1259			921			1314	
Turn Bay Length (ft)	150			150						300		
Base Capacity (vph)	586	1329		243	1332	1417		239		185	508	
Starvation Cap Reductn	0	0		0	0	0		0		0	0	
Spillback Cap Reductn	0	0		0	0	0		0		0	0	
Storage Cap Reductn	0	0		0	0	0		0		0	0	
Reduced v/c Ratio	0.07	0.69		0.09	0.36	0.04		0.12		0.72	0.12	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 56 (62%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green
Natural Cycle: 80
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.72
Intersection Signal Delay: 14.4 Intersection LOS: B
Intersection Capacity Utilization 65.4% 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: 23: Tiffany Creek Dr/Raynor Rd (SR 2555) & White Oak Rd (SR 2700)



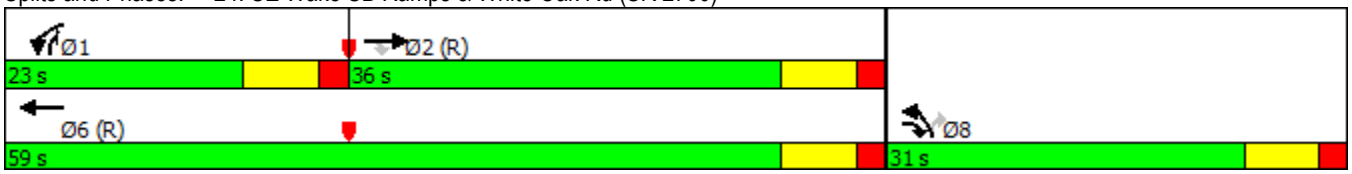
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	530	378	8	397	109	277
Future Volume (vph)	530	378	8	397	109	277
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		200	250		450	0
Storage Lanes		1	1		1	1
Taper Length (ft)			150		300	
Lane Util. Factor	0.95	1.00	1.00	0.95	1.00	1.00
Frt		0.850				0.850
Flt Protected			0.950		0.950	
Satd. Flow (prot)	3539	1583	1770	3539	1770	1583
Flt Permitted			0.950		0.950	
Satd. Flow (perm)	3539	1583	1770	3539	1770	1583
Right Turn on Red		No				No
Satd. Flow (RTOR)						
Link Speed (mph)	45			45	25	
Link Distance (ft)	1339			1453	684	
Travel Time (s)	20.3			22.0	18.7	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	589	420	9	441	121	308
Shared Lane Traffic (%)						
Lane Group Flow (vph)	589	420	9	441	121	308
Turn Type	NA	pm+ov	Prot	NA	Prot	pm+ov
Protected Phases	2	8	1	6	8	1
Permitted Phases		2				8
Detector Phase	2	8	1	6	8	1
Switch Phase						
Minimum Initial (s)	12.0	7.0	7.0	12.0	7.0	7.0
Minimum Split (s)	19.0	14.0	14.0	19.0	14.0	14.0
Total Split (s)	36.0	31.0	23.0	59.0	31.0	23.0
Total Split (%)	40.0%	34.4%	25.6%	65.6%	34.4%	25.6%
Maximum Green (s)	29.0	24.0	16.0	52.0	24.0	16.0
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	0.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)	5.0	7.0	5.0	5.0	5.0	5.0
Lead/Lag	Lag		Lead			Lead
Lead-Lag Optimize?	Yes		Yes			Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	C-Max	None	None	C-Max	None	None
Act Effct Green (s)	49.7	66.3	11.7	66.4	13.6	30.3
Actuated g/C Ratio	0.55	0.74	0.13	0.74	0.15	0.34
v/c Ratio	0.30	0.36	0.04	0.17	0.45	0.58
Control Delay	8.9	2.8	20.0	1.3	39.3	28.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	8.9	2.8	20.0	1.3	39.3	28.2
LOS	A	A	B	A	D	C
Approach Delay	6.4			1.7	31.4	
Approach LOS	A			A	C	

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Queue Length 50th (ft)	93	85	3	9	64	144
Queue Length 95th (ft)	92	36	m5	16	109	192
Internal Link Dist (ft)	1259			1373	604	
Turn Bay Length (ft)		200	250		450	
Base Capacity (vph)	1953	1383	354	2609	511	644
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	0.30	0.30	0.03	0.17	0.24	0.48

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 2 (2%), Referenced to phase 2:EBT and 6:WBT, Start of Green
Natural Cycle: 50
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.58
Intersection Signal Delay: 10.9 Intersection LOS: B
Intersection Capacity Utilization 40.1% ICU Level of Service A
Analysis Period (min) 15
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 24: SE Wake SB Ramps & White Oak Rd (SR 2700)





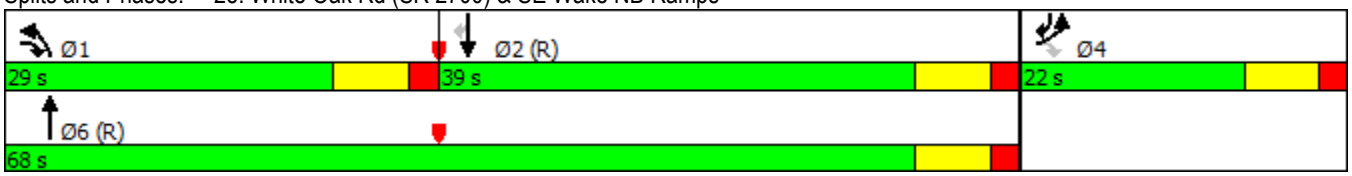
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	276	16	193	129	603	204
Future Volume (vph)	276	16	193	129	603	204
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	300	150	500			300
Storage Lanes	1	1	1			1
Taper Length (ft)	150		150			
Lane Util. Factor	0.97	1.00	1.00	0.95	0.95	1.00
Frt		0.850				0.850
Flt Protected	0.950		0.950			
Satd. Flow (prot)	3433	1583	1770	3539	3539	1583
Flt Permitted	0.950		0.950			
Satd. Flow (perm)	3433	1583	1770	3539	3539	1583
Right Turn on Red		No				No
Satd. Flow (RTOR)						
Link Speed (mph)	45			45	45	
Link Distance (ft)	432			833	1453	
Travel Time (s)	6.5			12.6	22.0	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	307	18	214	143	670	227
Shared Lane Traffic (%)						
Lane Group Flow (vph)	307	18	214	143	670	227
Turn Type	Prot	pm+ov	Prot	NA	NA	pm+ov
Protected Phases	4	1	1	6	2	4
Permitted Phases		4				2
Detector Phase	4	1	1	6	2	4
Switch Phase						
Minimum Initial (s)	7.0	7.0	7.0	12.0	12.0	7.0
Minimum Split (s)	14.0	14.0	14.0	19.0	19.0	14.0
Total Split (s)	22.0	29.0	29.0	68.0	39.0	22.0
Total Split (%)	24.4%	32.2%	32.2%	75.6%	43.3%	24.4%
Maximum Green (s)	15.0	22.0	22.0	61.0	32.0	15.0
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	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	7.0
Lead/Lag		Lead	Lead		Lag	
Lead-Lag Optimize?		Yes	Yes		Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None	None	C-Max	C-Max	None
Act Effct Green (s)	14.9	37.9	18.1	65.1	42.1	59.9
Actuated g/C Ratio	0.17	0.42	0.20	0.72	0.47	0.67
v/c Ratio	0.54	0.03	0.60	0.06	0.41	0.22
Control Delay	37.9	12.7	39.4	3.9	14.2	6.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	37.9	12.7	39.4	3.9	14.2	6.7
LOS	D	B	D	A	B	A
Approach Delay	36.5			25.2	12.3	
Approach LOS	D			C	B	

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Queue Length 50th (ft)	82	6	111	10	98	46
Queue Length 95th (ft)	121	15	169	20	148	69
Internal Link Dist (ft)	352			753	1373	
Turn Bay Length (ft)	300	150	500			300
Base Capacity (vph)	648	771	472	2561	1654	1092
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	0.02	0.45	0.06	0.41	0.21

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 2 (2%), Referenced to phase 2:SBT and 6:NBT, Start of Green
Natural Cycle: 50
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.60
Intersection Signal Delay: 20.2 Intersection LOS: C
Intersection Capacity Utilization 47.7% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 25: White Oak Rd (SR 2700) & SE Wake NB Ramps



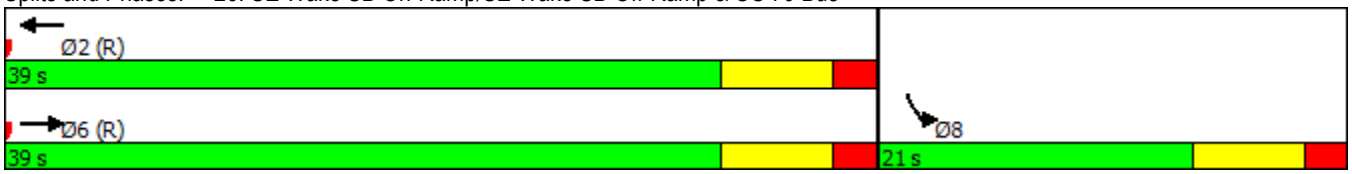
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↱		↑↑↑					↰↰		↱
Traffic Volume (vph)	0	1406	101	0	1194	0	0	0	0	341	0	73
Future Volume (vph)	0	1406	101	0	1194	0	0	0	0	341	0	73
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		325	0		0	0		0	400		400
Storage Lanes	0		1	0		0	0		0	1		1
Taper Length (ft)	100			100			100			150		
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91	1.00	1.00	1.00	1.00	0.97	1.00	1.00
Frt			0.850									0.850
Flt Protected										0.950		
Satd. Flow (prot)	0	4940	1538	0	4940	0	0	0	0	3335	0	1538
Flt Permitted										0.950		
Satd. Flow (perm)	0	4940	1538	0	4940	0	0	0	0	3335	0	1538
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		55			55			45			45	
Link Distance (ft)		1299			336			452			1767	
Travel Time (s)		16.1			4.2			6.8			26.8	
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
Heavy Vehicles (%)	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
Adj. Flow (vph)	0	1562	112	0	1327	0	0	0	0	379	0	81
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1562	112	0	1327	0	0	0	0	379	0	81
Turn Type		NA	Free		NA					Prot		Free
Protected Phases		6			2					8		
Permitted Phases			Free									Free
Detector Phase		6			2					8		
Switch Phase												
Minimum Initial (s)		14.0			14.0					7.0		
Minimum Split (s)		21.0			21.0					14.0		
Total Split (s)		39.0			39.0					21.0		
Total Split (%)		65.0%			65.0%					35.0%		
Maximum Green (s)		32.0			32.0					14.0		
Yellow Time (s)		5.0			5.0					5.0		
All-Red Time (s)		2.0			2.0					2.0		
Lost Time Adjust (s)		-2.0			-2.0					-2.0		
Total Lost Time (s)		5.0			5.0					5.0		
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)		3.0			3.0					3.0		
Recall Mode		C-Max			C-Max					None		
Act Effct Green (s)		36.3	60.0		36.3					13.7		60.0
Actuated g/C Ratio		0.60	1.00		0.60					0.23		1.00
v/c Ratio		0.52	0.07		0.44					0.50		0.05
Control Delay		8.0	0.1		5.5					22.2		0.1
Queue Delay		0.0	0.0		0.0					0.0		0.0
Total Delay		8.0	0.1		5.5					22.2		0.1
LOS		A	A		A					C		A
Approach Delay		7.4			5.5						18.3	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		A			A						B	
Queue Length 50th (ft)		104	0		60					61		0
Queue Length 95th (ft)		151	0		74					92		0
Internal Link Dist (ft)		1219			256			372			1687	
Turn Bay Length (ft)			325							400		400
Base Capacity (vph)		2987	1538		2987					889		1538
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		0.52	0.07		0.44					0.43		0.05

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 60
Offset: 55 (92%), Referenced to phase 2:WBT and 6:EBT, Start of Green
Natural Cycle: 40
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.52
Intersection Signal Delay: 8.1 Intersection LOS: A
Intersection Capacity Utilization 45.2% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 26: SE Wake SB On-Ramp/SE Wake SB Off-Ramp & US 70 Bus



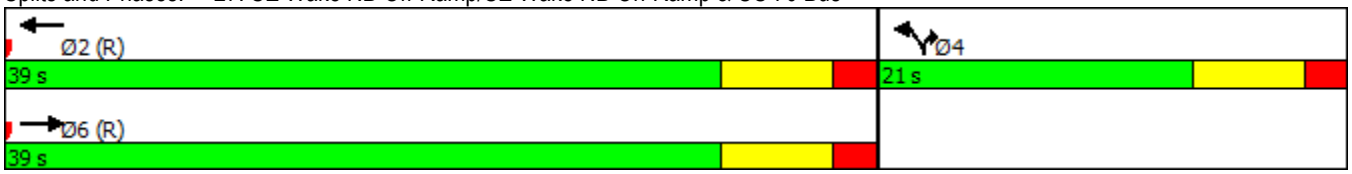
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1704	0	0	1176	150	170	0	340	0	0	0
Future Volume (vph)	0	1704	0	0	1176	150	170	0	340	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		325	250		450	0		0
Storage Lanes	0		0	0		1	1		1	0		0
Taper Length (ft)	100			100			200			100		
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91	1.00	1.00	1.00	0.88	1.00	1.00	1.00
Frt						0.850			0.850			
Flt Protected							0.950					
Satd. Flow (prot)	0	4940	0	0	4940	1538	1719	0	2707	0	0	0
Flt Permitted							0.950					
Satd. Flow (perm)	0	4940	0	0	4940	1538	1719	0	2707	0	0	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		55			55			45			45	
Link Distance (ft)		343			1050			1551			462	
Travel Time (s)		4.3			13.0			23.5			7.0	
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 (%)	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
Adj. Flow (vph)	0	1893	0	0	1307	167	189	0	378	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1893	0	0	1307	167	189	0	378	0	0	0
Turn Type		NA			NA	Free	Prot		Prot			
Protected Phases		6			2		4		4			
Permitted Phases						Free						
Detector Phase		6			2		4		4			
Switch Phase												
Minimum Initial (s)		14.0			14.0		7.0		7.0			
Minimum Split (s)		21.0			21.0		14.0		14.0			
Total Split (s)		39.0			39.0		21.0		21.0			
Total Split (%)		65.0%			65.0%		35.0%		35.0%			
Maximum Green (s)		32.0			32.0		14.0		14.0			
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		C-Max			C-Max		None		None			
Act Effct Green (s)		35.5			35.5	60.0	14.5		14.5			
Actuated g/C Ratio		0.59			0.59	1.00	0.24		0.24			
v/c Ratio		0.65			0.45	0.11	0.45		0.58			
Control Delay		6.1			7.7	0.1	22.8		23.6			
Queue Delay		0.0			0.0	0.0	0.0		0.0			
Total Delay		6.1			7.7	0.1	22.8		23.6			
LOS		A			A	A	C		C			
Approach Delay		6.1			6.8			23.4				

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		A			A			C				
Queue Length 50th (ft)		94			87	0	57		67			
Queue Length 95th (ft)		109			119	0	107		106			
Internal Link Dist (ft)		263			970			1471			382	
Turn Bay Length (ft)						325	250		450			
Base Capacity (vph)		2921			2921	1538	458		721			
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			0.45	0.11	0.41		0.52			

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 60
Offset: 0 (0%), Referenced to phase 2:WBT and 6:EBT, Start of Green
Natural Cycle: 40
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.65
Intersection Signal Delay: 8.9 Intersection LOS: A
Intersection Capacity Utilization 53.2% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 27: SE Wake NB Off-Ramp/SE Wake NB On-Ramp & US 70 Bus



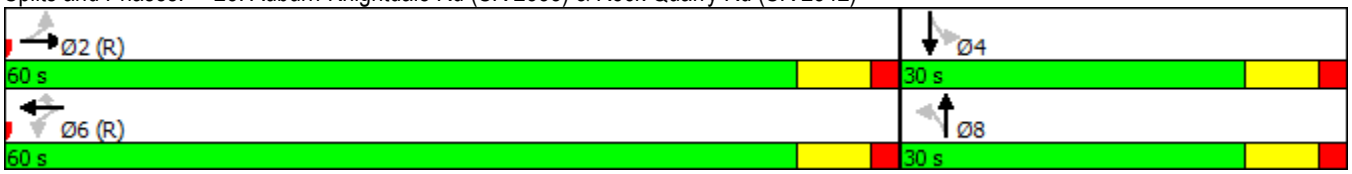
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	31	260	38	10	125	38	35	15	19	43	9	17
Future Volume (vph)	31	260	38	10	125	38	35	15	19	43	9	17
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		-3%			1%			-2%			1%	
Storage Length (ft)	200		0	150		0	0		0	0		0
Storage Lanes	1		0	1		1	0		0	0		0
Taper Length (ft)	100			300			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
Ped Bike Factor								1.00				
Frt		0.981				0.850		0.963			0.967	
Flt Protected	0.950			0.950				0.975			0.970	
Satd. Flow (prot)	1796	1855	0	1761	1853	1575	0	1749	0	0	1722	0
Flt Permitted	0.668			0.561				0.839			0.809	
Satd. Flow (perm)	1263	1855	0	1040	1853	1575	0	1501	0	0	1436	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		55			55			45			45	
Link Distance (ft)		1019			1254			1019			1037	
Travel Time (s)		12.6			15.5			15.4			15.7	
Confl. Peds. (#/hr)							3					
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%	3%	3%	3%	3%	3%	3%
Adj. Flow (vph)	34	289	42	11	139	42	39	17	21	48	10	19
Shared Lane Traffic (%)												
Lane Group Flow (vph)	34	331	0	11	139	42	0	77	0	0	77	0
Turn Type	Perm	NA		Perm	NA	Perm	Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2			6		6	8			4		
Detector Phase	2	2		6	6	6	8	8		4	4	
Switch Phase												
Minimum Initial (s)	14.0	14.0		14.0	14.0	14.0	7.0	7.0		7.0	7.0	
Minimum Split (s)	21.0	21.0		21.0	21.0	21.0	14.0	14.0		14.0	14.0	
Total Split (s)	60.0	60.0		60.0	60.0	60.0	30.0	30.0		30.0	30.0	
Total Split (%)	66.7%	66.7%		66.7%	66.7%	66.7%	33.3%	33.3%		33.3%	33.3%	
Maximum Green (s)	53.0	53.0		53.0	53.0	53.0	23.0	23.0		23.0	23.0	
Yellow Time (s)	5.0	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	2.0	
Lost Time Adjust (s)	-2.0	-2.0		-2.0	-2.0	0.0		-2.0			-2.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0	7.0		5.0			5.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	6.0	6.0		6.0	6.0	6.0	1.0	1.0		1.0	1.0	
Minimum Gap (s)	6.0	6.0		6.0	6.0	6.0	1.0	1.0		1.0	1.0	
Time Before Reduce (s)	20.0	20.0		20.0	20.0	20.0	0.0	0.0		0.0	0.0	
Time To Reduce (s)	40.0	40.0		40.0	40.0	40.0	0.0	0.0		0.0	0.0	
Recall Mode	C-Max	C-Max		C-Max	C-Max	C-Max	None	None		None	None	
Act Effct Green (s)	72.7	72.7		72.7	72.7	71.1		11.1			11.1	
Actuated g/C Ratio	0.81	0.81		0.81	0.81	0.79		0.12			0.12	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.03	0.22		0.01	0.09	0.03		0.42			0.44	
Control Delay	3.1	3.4		0.3	1.2	0.5		42.8			43.8	
Queue Delay	0.0	0.0		0.0	0.0	0.0		0.0			0.0	
Total Delay	3.1	3.4		0.3	1.2	0.5		42.8			43.8	
LOS	A	A		A	A	A		D			D	
Approach Delay		3.4			1.0			42.8			43.8	
Approach LOS		A			A			D			D	
Queue Length 50th (ft)	4	40		0	2	1		42			42	
Queue Length 95th (ft)	12	82		1	4	2		81			81	
Internal Link Dist (ft)		939			1174			939			957	
Turn Bay Length (ft)	200			150								
Base Capacity (vph)	1020	1498		840	1497	1244		416			398	
Starvation Cap Reductn	0	0		0	0	0		0			0	
Spillback Cap Reductn	0	0		0	0	0		0			0	
Storage Cap Reductn	0	0		0	0	0		0			0	
Reduced v/c Ratio	0.03	0.22		0.01	0.09	0.03		0.19			0.19	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 27 (30%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green
Natural Cycle: 40
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.44
Intersection Signal Delay: 11.4 Intersection LOS: B
Intersection Capacity Utilization 43.3% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 28: Auburn-Knightdale Rd (SR 2555) & Rock Quarry Rd (SR 2542)



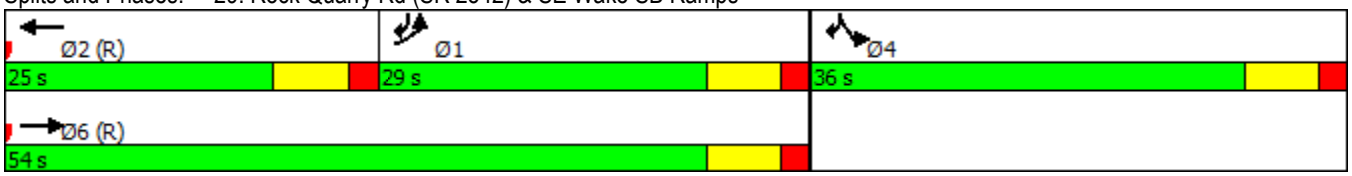
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	182	141	153	21	262	19
Future Volume (vph)	182	141	153	21	262	19
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	400			200	0	0
Storage Lanes	1			0	1	1
Taper Length (ft)	300				200	
Lane Util. Factor	1.00	0.95	0.95	0.95	1.00	1.00
Frt			0.982			0.850
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1770	3539	3476	0	1770	1583
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	1770	3539	3476	0	1770	1583
Right Turn on Red				No		No
Satd. Flow (RTOR)						
Link Speed (mph)		55	55		45	
Link Distance (ft)		1254	1133		576	
Travel Time (s)		15.5	14.0		8.7	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	202	157	170	23	291	21
Shared Lane Traffic (%)						
Lane Group Flow (vph)	202	157	193	0	291	21
Turn Type	Prot	NA	NA		Prot	pt+ov
Protected Phases	1	6	2		4	4 1
Permitted Phases						
Detector Phase	1	6	2		4	4 1
Switch Phase						
Minimum Initial (s)	7.0	14.0	14.0		7.0	
Minimum Split (s)	14.0	21.0	21.0		14.0	
Total Split (s)	29.0	54.0	25.0		36.0	
Total Split (%)	32.2%	60.0%	27.8%		40.0%	
Maximum Green (s)	22.0	47.0	18.0		29.0	
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	Lag		Lead			
Lead-Lag Optimize?	Yes		Yes			
Vehicle Extension (s)	3.0	3.0	3.0		3.0	
Recall Mode	None	C-Max	C-Max		None	
Act Effct Green (s)	24.0	58.0	29.0		22.0	51.0
Actuated g/C Ratio	0.27	0.64	0.32		0.24	0.57
v/c Ratio	0.43	0.07	0.17		0.67	0.02
Control Delay	26.7	5.6	13.8		38.1	7.1
Queue Delay	0.0	0.0	0.0		0.0	0.0
Total Delay	26.7	5.6	13.8		38.1	7.1
LOS	C	A	B		D	A
Approach Delay		17.5	13.8		36.0	
Approach LOS		B	B		D	

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Queue Length 50th (ft)	102	12	44		150	5
Queue Length 95th (ft)	131	26	73		212	12
Internal Link Dist (ft)		1174	1053		496	
Turn Bay Length (ft)	400					
Base Capacity (vph)	472	2279	1119		609	1055
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	0.43	0.07	0.17		0.48	0.02

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 5 (6%), Referenced to phase 2:WBT and 6:EBT, Start of Green
Natural Cycle: 55
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.67
Intersection Signal Delay: 23.3 Intersection LOS: C
Intersection Capacity Utilization 48.8% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 29: Rock Quarry Rd (SR 2542) & SE Wake SB Ramps



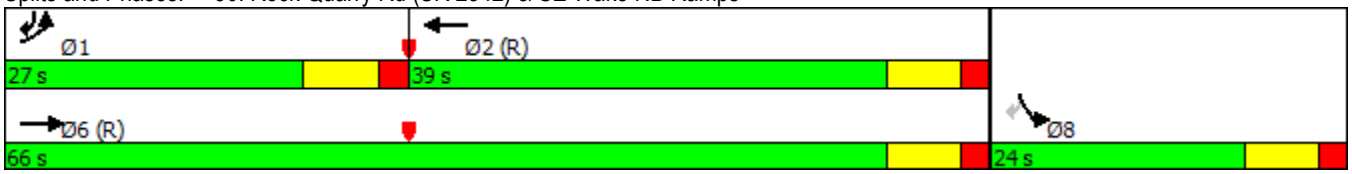
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	28	375	67	153	30	107
Future Volume (vph)	28	375	67	153	30	107
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	400			375	250	0
Storage Lanes	1			0	1	1
Taper Length (ft)	150				150	
Lane Util. Factor	1.00	0.95	0.95	0.95	1.00	1.00
Frt			0.895			0.850
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1770	3539	3168	0	1770	1583
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	1770	3539	3168	0	1770	1583
Right Turn on Red				No		No
Satd. Flow (RTOR)						
Link Speed (mph)		55	55		25	
Link Distance (ft)		1133	954		511	
Travel Time (s)		14.0	11.8		13.9	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	31	417	74	170	33	119
Shared Lane Traffic (%)						
Lane Group Flow (vph)	31	417	244	0	33	119
Turn Type	Prot	NA	NA		Prot	pm+ov
Protected Phases	1	6	2		8	1
Permitted Phases						8
Detector Phase	1	6	2		8	1
Switch Phase						
Minimum Initial (s)	7.0	14.0	14.0		7.0	7.0
Minimum Split (s)	14.0	21.0	21.0		14.0	14.0
Total Split (s)	27.0	66.0	39.0		24.0	27.0
Total Split (%)	30.0%	73.3%	43.3%		26.7%	30.0%
Maximum Green (s)	20.0	59.0	32.0		17.0	20.0
Yellow Time (s)	5.0	5.0	5.0		5.0	5.0
All-Red Time (s)	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	Lead		Lag			Lead
Lead-Lag Optimize?	Yes		Yes			Yes
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0
Recall Mode	None	C-Max	C-Max		None	None
Act Effct Green (s)	10.3	77.9	60.6		9.7	19.4
Actuated g/C Ratio	0.11	0.87	0.67		0.11	0.22
v/c Ratio	0.15	0.14	0.11		0.17	0.35
Control Delay	28.6	1.2	6.6		38.4	30.5
Queue Delay	0.0	0.0	0.0		0.0	0.0
Total Delay	28.6	1.2	6.6		38.4	30.5
LOS	C	A	A		D	C
Approach Delay		3.1	6.6		32.2	
Approach LOS		A	A		C	

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Queue Length 50th (ft)	8	4	26		18	54
Queue Length 95th (ft)	m24	15	47		45	94
Internal Link Dist (ft)		1053	874		431	
Turn Bay Length (ft)	400				250	
Base Capacity (vph)	432	3063	2134		373	546
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	0.07	0.14	0.11		0.09	0.22

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 24 (27%), Referenced to phase 2:WBT and 6:EBT, Start of Green
Natural Cycle: 50
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.35
Intersection Signal Delay: 9.3 Intersection LOS: A
Intersection Capacity Utilization 35.8% ICU Level of Service A
Analysis Period (min) 15
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 30: Rock Quarry Rd (SR 2542) & SE Wake NB Ramps



Intersection						
Int Delay, s/veh	2					

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	3	51	168	3	96	311
Future Vol, veh/h	3	51	168	3	96	311
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	150	-	-	0	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	5	5	2	2	2	2
Mvmt Flow	3	57	187	3	107	346

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	747	188	0	0	190	0
Stage 1	188	-	-	-	-	-
Stage 2	559	-	-	-	-	-
Critical Hdwy	6.45	6.25	-	-	4.12	-
Critical Hdwy Stg 1	5.45	-	-	-	-	-
Critical Hdwy Stg 2	5.45	-	-	-	-	-
Follow-up Hdwy	3.545	3.345	-	-	2.218	-
Pot Cap-1 Maneuver	376	846	-	-	1384	-
Stage 1	837	-	-	-	-	-
Stage 2	567	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	347	846	-	-	1384	-
Mov Cap-2 Maneuver	347	-	-	-	-	-
Stage 1	837	-	-	-	-	-
Stage 2	523	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.9	0	1.8
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	347	846	1384	-
HCM Lane V/C Ratio	-	-	0.01	0.067	0.077	-
HCM Control Delay (s)	-	-	15.5	9.6	7.8	-
HCM Lane LOS	-	-	C	A	A	-
HCM 95th %tile Q(veh)	-	-	0	0.2	0.2	-

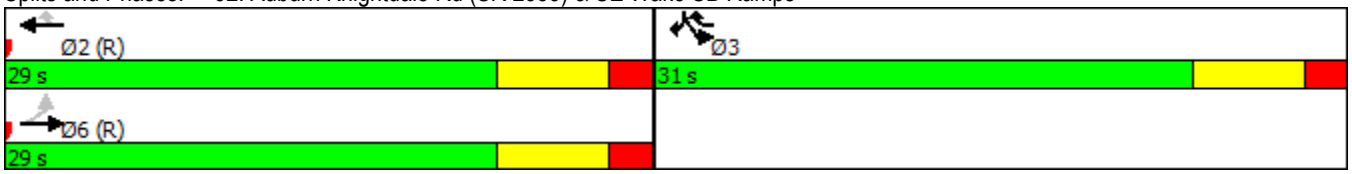
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	5	79	19	49	12	50
Future Volume (vph)	5	79	19	49	12	50
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0			300	0	200
Storage Lanes	1			1	1	1
Taper Length (ft)	150				175	
Lane Util. Factor	1.00	0.95	0.95	1.00	1.00	1.00
Frt				0.850		0.850
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1703	3505	3505	1524	1752	1568
Flt Permitted	0.743				0.950	
Satd. Flow (perm)	1332	3505	3505	1524	1752	1568
Right Turn on Red				No		No
Satd. Flow (RTOR)						
Link Speed (mph)		45	45		45	
Link Distance (ft)		186	1320		348	
Travel Time (s)		2.8	20.0		5.3	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	6%	3%	3%	6%	3%	3%
Adj. Flow (vph)	6	88	21	54	13	56
Shared Lane Traffic (%)						
Lane Group Flow (vph)	6	88	21	54	13	56
Turn Type	Perm	NA	NA	pm+ov	Prot	Prot
Protected Phases		6	2	3	3	3
Permitted Phases	6			2		
Detector Phase	6	6	2	3	3	3
Switch Phase						
Minimum Initial (s)	12.0	12.0	12.0	7.0	7.0	7.0
Minimum Split (s)	19.0	19.0	19.0	14.0	14.0	14.0
Total Split (s)	29.0	29.0	29.0	31.0	31.0	31.0
Total Split (%)	48.3%	48.3%	48.3%	51.7%	51.7%	51.7%
Maximum Green (s)	22.0	22.0	22.0	24.0	24.0	24.0
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	0.0	-2.0	-2.0
Total Lost Time (s)	5.0	5.0	5.0	7.0	5.0	5.0
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	C-Max	C-Max	C-Max	None	None	None
Act Effct Green (s)	43.7	43.7	43.7	60.0	10.1	10.1
Actuated g/C Ratio	0.73	0.73	0.73	1.00	0.17	0.17
v/c Ratio	0.01	0.03	0.01	0.04	0.04	0.21
Control Delay	4.0	3.8	4.1	0.0	20.4	23.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	4.0	3.8	4.1	0.0	20.4	23.1
LOS	A	A	A	A	C	C
Approach Delay		3.8	1.2		22.6	

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Approach LOS		A	A		C	
Queue Length 50th (ft)	1	4	1	0	4	18
Queue Length 95th (ft)	4	11	4	0	16	43
Internal Link Dist (ft)		106	1240		268	
Turn Bay Length (ft)				300		200
Base Capacity (vph)	970	2554	2554	1524	759	679
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	0.01	0.03	0.01	0.04	0.02	0.08

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 60
Offset: 49 (82%), Referenced to phase 2:WBT and 6:EBTL, Start of Green
Natural Cycle: 40
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.21
Intersection Signal Delay: 8.4 Intersection LOS: A
Intersection Capacity Utilization 25.8% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 32: Auburn Knightdale Rd (SR 2555) & SE Wake SB Ramps



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	56	35	64	9	54	4
Future Volume (vph)	56	35	64	9	54	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	250			150	0	0
Storage Lanes	1			1	1	0
Taper Length (ft)	150				100	
Lane Util. Factor	1.00	0.95	1.00	1.00	1.00	1.00
Frt				0.850	0.992	
Flt Protected	0.950				0.955	
Satd. Flow (prot)	1703	3505	1845	1524	1748	0
Flt Permitted	0.711				0.955	
Satd. Flow (perm)	1274	3505	1845	1524	1748	0
Right Turn on Red				No		No
Satd. Flow (RTOR)						
Link Speed (mph)		45	45		45	
Link Distance (ft)		1320	676		221	
Travel Time (s)		20.0	10.2		3.3	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	6%	3%	3%	6%	3%	3%
Adj. Flow (vph)	62	39	71	10	60	4
Shared Lane Traffic (%)						
Lane Group Flow (vph)	62	39	71	10	64	0
Turn Type	Perm	NA	NA	pm+ov	Prot	
Protected Phases		6	2	8	8	
Permitted Phases	6			2		
Detector Phase	6	6	2	8	8	
Switch Phase						
Minimum Initial (s)	12.0	12.0	12.0	7.0	7.0	
Minimum Split (s)	19.0	19.0	19.0	14.0	14.0	
Total Split (s)	34.0	34.0	34.0	26.0	26.0	
Total Split (%)	56.7%	56.7%	56.7%	43.3%	43.3%	
Maximum Green (s)	27.0	27.0	27.0	19.0	19.0	
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	
Lost Time Adjust (s)	-2.0	-2.0	-2.0	0.0	-2.0	
Total Lost Time (s)	5.0	5.0	5.0	7.0	5.0	
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	
Recall Mode	C-Max	C-Max	C-Max	None	None	
Act Effct Green (s)	47.5	47.5	47.5	60.0	10.1	
Actuated g/C Ratio	0.79	0.79	0.79	1.00	0.17	
v/c Ratio	0.06	0.01	0.05	0.01	0.22	
Control Delay	2.6	2.4	3.7	0.0	23.0	
Queue Delay	0.0	0.0	0.0	0.0	0.0	
Total Delay	2.6	2.4	3.7	0.0	23.0	
LOS	A	A	A	A	C	
Approach Delay		2.5	3.2		23.0	

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Approach LOS		A	A		C	
Queue Length 50th (ft)	5	1	7	0	21	
Queue Length 95th (ft)	11	4	20	0	47	
Internal Link Dist (ft)		1240	596		141	
Turn Bay Length (ft)	250			150		
Base Capacity (vph)	1008	2775	1460	1524	611	
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	0.06	0.01	0.05	0.01	0.10	

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 60
Offset: 0 (0%), Referenced to phase 2:WBT and 6:EBTL, Start of Green
Natural Cycle: 40
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.22
Intersection Signal Delay: 8.1 Intersection LOS: A
Intersection Capacity Utilization 25.8% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 33: Auburn Knightdale Rd (SR 2555) & SE Wake NB Ramps



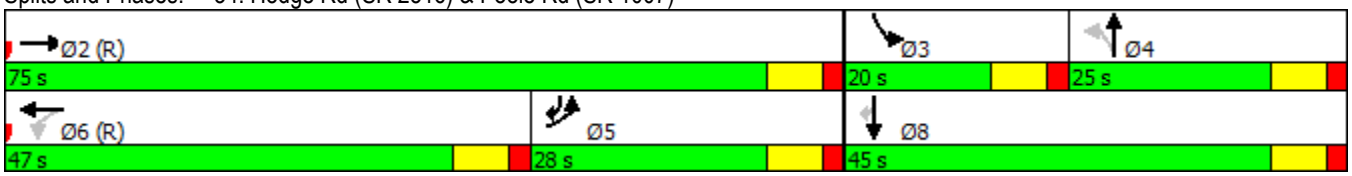
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	78	524	18	14	371	35	11	24	12	64	51	100
Future Volume (vph)	78	524	18	14	371	35	11	24	12	64	51	100
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		2%			1%			-1%			-1%	
Storage Length (ft)	450		0	0		300	100		0	300		300
Storage Lanes	1		0	1		0	1		0	1		1
Taper Length (ft)	125			150			50			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		0.995			0.987			0.951				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1752	1835	0	1761	1829	0	1744	1746	0	1778	1872	1591
Flt Permitted	0.950			0.342			0.720			0.950		
Satd. Flow (perm)	1752	1835	0	634	1829	0	1322	1746	0	1778	1872	1591
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		45			45			35			45	
Link Distance (ft)		845			1458			1027			1086	
Travel Time (s)		12.8			22.1			20.0			16.5	
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%	4%	4%	4%	2%	2%	2%
Adj. Flow (vph)	87	582	20	16	412	39	12	27	13	71	57	111
Shared Lane Traffic (%)												
Lane Group Flow (vph)	87	602	0	16	451	0	12	40	0	71	57	111
Turn Type	Prot	NA		Perm	NA		Perm	NA		Prot	NA	pm+ov
Protected Phases	5	2			6			4		3	8	5
Permitted Phases				6			4					8
Detector Phase	5	2		6	6		4	4		3	8	5
Switch Phase												
Minimum Initial (s)	7.0	12.0		12.0	12.0		7.0	7.0		7.0	7.0	7.0
Minimum Split (s)	14.0	19.0		19.0	19.0		19.0	19.0		14.0	19.0	14.0
Total Split (s)	28.0	75.0		47.0	47.0		25.0	25.0		20.0	45.0	28.0
Total Split (%)	23.3%	62.5%		39.2%	39.2%		20.8%	20.8%		16.7%	37.5%	23.3%
Maximum Green (s)	21.0	68.0		40.0	40.0		18.0	18.0		13.0	38.0	21.0
Yellow Time (s)	5.0	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	2.0
Lost Time Adjust (s)	-2.0	-2.0		-2.0	-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		5.0	5.0	5.0
Lead/Lag	Lag			Lead	Lead		Lag	Lag		Lead		Lag
Lead-Lag Optimize?	Yes			Yes	Yes							Yes
Vehicle Extension (s)	1.0	8.0		8.0	8.0		3.0	3.0		3.0	3.0	1.0
Minimum Gap (s)	1.0	8.0		8.0	8.0		3.0	3.0		3.0	3.0	1.0
Time Before Reduce (s)	0.0	15.0		15.0	15.0		0.0	0.0		0.0	0.0	0.0
Time To Reduce (s)	0.0	40.0		40.0	40.0		0.0	0.0		0.0	0.0	0.0
Recall Mode	None	C-Max		C-Max	C-Max		None	None		None	None	None
Act Effct Green (s)	23.0	89.0		60.0	60.0		10.5	10.5		12.1	24.8	50.0
Actuated g/C Ratio	0.19	0.74		0.50	0.50		0.09	0.09		0.10	0.21	0.42
v/c Ratio	0.26	0.44		0.05	0.49		0.10	0.26		0.40	0.15	0.17
Control Delay	43.7	9.8		5.3	10.6		51.5	54.9		56.6	36.3	19.8

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Delay	43.7	9.8		5.3	10.6		51.5	54.9		56.6	36.3	19.8
LOS	D	A		A	B		D	D		E	D	B
Approach Delay		14.1			10.4			54.1			34.7	
Approach LOS		B			B			D			C	
Queue Length 50th (ft)	58	194		2	271		9	30		52	35	49
Queue Length 95th (ft)	107	320		m11	358		28	64		98	68	77
Internal Link Dist (ft)		765			1378			947			1006	
Turn Bay Length (ft)	450						100			300		300
Base Capacity (vph)	335	1361		317	915		220	291		222	624	662
Starvation Cap Reductn	0	0		0	0		0	0		0	0	0
Spillback Cap Reductn	0	0		0	0		0	0		0	0	0
Storage Cap Reductn	0	0		0	0		0	0		0	0	0
Reduced v/c Ratio	0.26	0.44		0.05	0.49		0.05	0.14		0.32	0.09	0.17

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBTL, Start of Green
Natural Cycle: 70
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.49
Intersection Signal Delay: 17.7 Intersection LOS: B
Intersection Capacity Utilization 61.4% ICU Level of Service B
Analysis Period (min) 15
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 34: Hodge Rd (SR 2516) & Poole Rd (SR 1007)



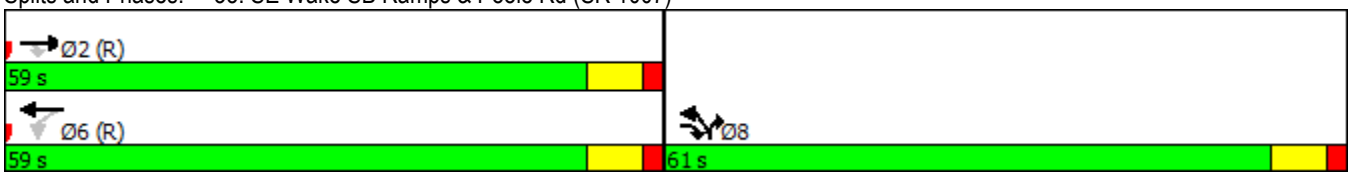
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	528	80	6	162	254	390
Future Volume (vph)	528	80	6	162	254	390
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		150	250		0	0
Storage Lanes		1	1		1	2
Taper Length (ft)			200		150	
Lane Util. Factor	0.95	1.00	1.00	0.95	1.00	0.88
Frt		0.850				0.850
Flt Protected			0.950		0.950	
Satd. Flow (prot)	3539	1583	1770	3539	1770	2787
Flt Permitted			0.415		0.950	
Satd. Flow (perm)	3539	1583	773	3539	1770	2787
Right Turn on Red		No				No
Satd. Flow (RTOR)						
Link Speed (mph)	45			45	25	
Link Distance (ft)	1458			761	576	
Travel Time (s)	22.1			11.5	15.7	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	587	89	7	180	282	433
Shared Lane Traffic (%)						
Lane Group Flow (vph)	587	89	7	180	282	433
Turn Type	NA	pm+ov	Perm	NA	Prot	Prot
Protected Phases	2	8		6	8	8
Permitted Phases		2	6			
Detector Phase	2	8	6	6	8	8
Switch Phase						
Minimum Initial (s)	12.0	7.0	12.0	12.0	7.0	7.0
Minimum Split (s)	19.0	14.0	19.0	19.0	14.0	14.0
Total Split (s)	59.0	61.0	59.0	59.0	61.0	61.0
Total Split (%)	49.2%	50.8%	49.2%	49.2%	50.8%	50.8%
Maximum Green (s)	52.0	54.0	52.0	52.0	54.0	54.0
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	0.0	-2.0	-2.0	-2.0	0.0
Total Lost Time (s)	5.0	7.0	5.0	5.0	5.0	7.0
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	C-Max	None	C-Max	C-Max	None	None
Act Effct Green (s)	81.9	120.0	81.9	81.9	28.1	26.1
Actuated g/C Ratio	0.68	1.00	0.68	0.68	0.23	0.22
v/c Ratio	0.24	0.06	0.01	0.07	0.68	0.71
Control Delay	6.2	0.1	5.8	5.0	49.6	49.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	6.2	0.1	5.8	5.0	49.6	49.7
LOS	A	A	A	A	D	D
Approach Delay	5.4			5.1	49.7	
Approach LOS	A			A	D	

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Queue Length 50th (ft)	54	0	1	15	200	177
Queue Length 95th (ft)	73	0	6	30	267	217
Internal Link Dist (ft)	1378			681	496	
Turn Bay Length (ft)		150	250			
Base Capacity (vph)	2414	1583	527	2414	826	1254
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	0.24	0.06	0.01	0.07	0.34	0.35

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 24 (20%), Referenced to phase 2:EBT and 6:WBTL, Start of Green
Natural Cycle: 40
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.71
Intersection Signal Delay: 25.4 Intersection LOS: C
Intersection Capacity Utilization 38.2% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 35: SE Wake SB Ramps & Poole Rd (SR 1007)



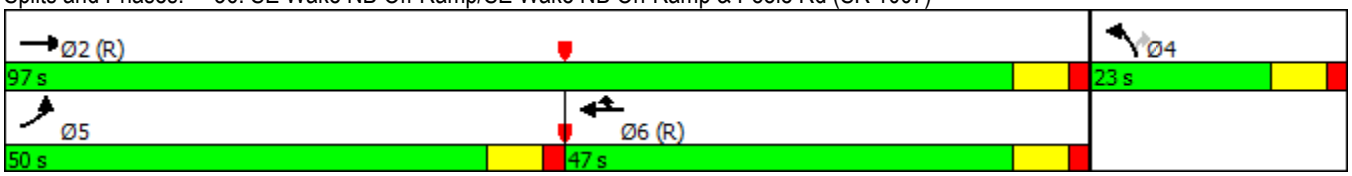
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	323	595	0	0	118	272	50	0	7	0	0	0
Future Volume (vph)	323	595	0	0	118	272	50	0	7	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	300		0	0		550	250		0	0		0
Storage Lanes	1		0	0		2	1		1	0		0
Taper Length (ft)	200			100			150			100		
Lane Util. Factor	*0.74	0.95	1.00	1.00	0.95	0.88	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)	2619	3539	0	0	3539	2787	1770	0	1583	0	0	0
Flt Permitted	0.950						0.950					
Satd. Flow (perm)	2619	3539	0	0	3539	2787	1770	0	1583	0	0	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		761			759			1432			799	
Travel Time (s)		11.5			11.5			21.7			12.1	
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%	6%	2%	2%	2%	2%
Adj. Flow (vph)	359	661	0	0	131	302	56	0	8	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	359	661	0	0	131	302	56	0	8	0	0	0
Turn Type	Prot	NA			NA	Prot	Prot		Perm			
Protected Phases	5	2			6	6	4					
Permitted Phases									4			
Detector Phase	5	2			6	6	4		4			
Switch Phase												
Minimum Initial (s)	7.0	12.0			12.0	12.0	7.0		7.0			
Minimum Split (s)	14.0	19.0			19.0	19.0	14.0		14.0			
Total Split (s)	50.0	97.0			47.0	47.0	23.0		23.0			
Total Split (%)	41.7%	80.8%			39.2%	39.2%	19.2%		19.2%			
Maximum Green (s)	43.0	90.0			40.0	40.0	16.0		16.0			
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	0.0	-2.0		-2.0			
Total Lost Time (s)	5.0	5.0			5.0	7.0	5.0		5.0			
Lead/Lag	Lead				Lag	Lag						
Lead-Lag Optimize?	Yes				Yes	Yes						
Vehicle Extension (s)	3.0	3.0			3.0	3.0	3.0		3.0			
Recall Mode	None	C-Max			C-Max	C-Max	None		None			
Act Effct Green (s)	24.0	102.4			72.3	70.3	11.4		11.4			
Actuated g/C Ratio	0.20	0.85			0.60	0.59	0.10		0.10			
v/c Ratio	0.69	0.22			0.06	0.18	0.33		0.05			
Control Delay	38.9	1.4			12.2	13.9	55.4		48.6			
Queue Delay	0.0	0.0			0.0	0.0	0.0		0.0			
Total Delay	38.9	1.4			12.2	13.9	55.4		48.6			
LOS	D	A			B	B	E		D			
Approach Delay		14.6			13.4			54.6				

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		B			B			D				
Queue Length 50th (ft)	118	30			22	61	41		6			
Queue Length 95th (ft)	159	35			44	107	82		21			
Internal Link Dist (ft)		681			679			1352			719	
Turn Bay Length (ft)	300					550	250					
Base Capacity (vph)	982	3018			2132	1633	265		237			
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	0.37	0.22			0.06	0.18	0.21		0.03			

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 74 (62%), Referenced to phase 2:EBT and 6:WBT, Start of Green
Natural Cycle: 50
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.69
Intersection Signal Delay: 15.9 Intersection LOS: B
Intersection Capacity Utilization 30.6% ICU Level of Service A
Analysis Period (min) 15
* User Entered Value

Splits and Phases: 36: SE Wake NB Off-Ramp/SE Wake NB On-Ramp & Poole Rd (SR 1007)



2016 Build
SimTraffic Results

Total Network Performance By Run

Run Number	1	10	2	3	4	5	6
Denied Delay (hr)	99.5	72.5	102.0	82.1	75.4	104.5	125.6
Denied Del/Veh (s)	12.5	9.1	12.9	10.3	9.5	13.2	15.9
Total Delay (hr)	413.7	415.9	394.2	386.7	396.3	452.5	406.4
Total Del/Veh (s)	50.8	50.8	48.8	47.5	48.5	56.0	50.2
Stop Delay (hr)	266.2	275.5	250.3	242.6	247.7	296.9	262.4
Stop Del/Veh (s)	32.7	33.7	31.0	29.8	30.3	36.7	32.4
Travel Dist (mi)	21989.9	22099.3	21853.0	22008.7	22038.5	21822.6	21761.8
Travel Time (hr)	1041.7	1019.4	1021.4	996.7	1000.2	1080.6	1055.9
Avg Speed (mph)	23	23	24	24	24	22	23
Vehicles Entered	28427	28587	28208	28417	28505	28197	28189
Vehicles Exited	28338	28449	28183	28346	28354	28092	28168
Hourly Exit Rate	28338	28449	28183	28346	28354	28092	28168
Input Volume	162404	162404	162404	162404	162404	162404	162404
% of Volume	17	18	17	17	17	17	17
Denied Entry Before	8	11	5	5	7	3	9
Denied Entry After	203	161	202	226	158	204	243

Total Network Performance By Run

Run Number	7	8	9	Avg
Denied Delay (hr)	87.6	115.6	94.8	96.0
Denied Del/Veh (s)	11.1	14.7	11.9	12.1
Total Delay (hr)	417.0	389.5	392.7	406.5
Total Del/Veh (s)	51.7	48.2	48.4	50.1
Stop Delay (hr)	273.2	248.0	248.1	261.1
Stop Del/Veh (s)	33.9	30.7	30.6	32.2
Travel Dist (mi)	21797.8	21873.9	21941.7	21918.7
Travel Time (hr)	1028.8	1030.3	1014.3	1028.9
Avg Speed (mph)	23	24	24	23
Vehicles Entered	28181	28163	28359	28321
Vehicles Exited	28064	28160	28279	28242
Hourly Exit Rate	28064	28160	28279	28242
Input Volume	162404	162404	162404	162404
% of Volume	17	17	17	17
Denied Entry Before	5	9	5	5
Denied Entry After	201	238	233	202

Intersection: 1: NC 55 & Mid Block U-Turn

Movement	NB	NB	SB	SB	SB	SB
Directions Served	T	T	U	T	T	T
Maximum Queue (ft)	889	984	696	765	716	708
Average Queue (ft)	393	477	591	458	200	54
95th Queue (ft)	877	991	830	1051	687	323
Link Distance (ft)	981	981		734	734	734
Upstream Blk Time (%)	0	3		35	0	0
Queuing Penalty (veh)	0	0		184	2	2
Storage Bay Dist (ft)			650			
Storage Blk Time (%)			50	2		
Queuing Penalty (veh)			228	4		

Intersection: 2: NC 55 & Old Smithfield Rd

Movement	WB	NB	NB	SB	SB	SB
Directions Served	R	L	T	T	T	TR
Maximum Queue (ft)	1394	86	1	466	493	457
Average Queue (ft)	1319	21	0	188	190	134
95th Queue (ft)	1551	64	1	499	495	354
Link Distance (ft)	1343		734	664	664	664
Upstream Blk Time (%)	88			4	3	0
Queuing Penalty (veh)	0			23	15	2
Storage Bay Dist (ft)		550				
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 3: NC 55 & SE Wake EB Off-Ramp/SE Wake Ramps

Movement	EB	NB	NB	SB	SB	SB	SB	B402	B402	B402	B401	B401
Directions Served	R	T	T	L	L	T	T	T	T	T	T	T
Maximum Queue (ft)	118	178	273	321	425	266	249	63	59	44	44	94
Average Queue (ft)	10	56	89	218	226	34	31	10	8	6	3	8
95th Queue (ft)	133	147	224	389	538	273	257	90	81	64	37	72
Link Distance (ft)	1140	664	664		705	705	705	199	199	199	123	123
Upstream Blk Time (%)			0		3	2	2	2	1	0	1	1
Queuing Penalty (veh)			1		14	9	8	7	5	1	3	7
Storage Bay Dist (ft)				240								
Storage Blk Time (%)				34	12							
Queuing Penalty (veh)				32	11							

Intersection: 4: NC 55 & SE Wake WB On-Ramp/SE Wake WB Ramps

Movement	WB	WB	WB	WB	NB	NB	B401	SB	SB
Directions Served	L	L	R	R	T	T	T	T	T
Maximum Queue (ft)	74	138	251	239	156	136	3	238	333
Average Queue (ft)	14	53	87	62	55	41	0	52	137
95th Queue (ft)	46	111	243	208	124	110	3	167	285
Link Distance (ft)	244	244	244	244	123	123	199	1256	1256
Upstream Blk Time (%)			0	0	1	0			
Queuing Penalty (veh)			0	0	5	3			
Storage Bay Dist (ft)									
Storage Blk Time (%)									0
Queuing Penalty (veh)									0

Intersection: 5: Holly Springs SB & SE Wake EB Off-Ramp

Movement	EB	EB	SB
Directions Served	R	R	T
Maximum Queue (ft)	95	36	6
Average Queue (ft)	31	6	0
95th Queue (ft)	71	26	4
Link Distance (ft)	186	186	188
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 6: Holly Springs NB/Holly Springs Rd (SR 1152) & Holly Springs SB

Movement	WB	WB	WB	NB	NB	NB
Directions Served	T	T	T	T	T	T
Maximum Queue (ft)	180	186	97	216	175	174
Average Queue (ft)	129	165	56	111	94	90
95th Queue (ft)	187	201	109	184	160	155
Link Distance (ft)	76	76	76	133	133	133
Upstream Blk Time (%)	28	47	3	3	2	2
Queuing Penalty (veh)	61	101	7	12	6	7
Storage Bay Dist (ft)						
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 7: Holly Springs Rd (SR 1152)/Holly Springs SB & SE Wake EB Off-Ramp

Movement	EB	EB	NB	NB
Directions Served	L	L	T	T
Maximum Queue (ft)	72	99	5	6
Average Queue (ft)	21	46	0	0
95th Queue (ft)	55	85	5	6
Link Distance (ft)	224	224	91	91
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 8: Holly Springs SB & SE Wake WB Off-Ramp

Movement	WB	WB
Directions Served	L	L
Maximum Queue (ft)	228	112
Average Queue (ft)	129	69
95th Queue (ft)	206	137
Link Distance (ft)	112	112
Upstream Blk Time (%)	17	1
Queuing Penalty (veh)	21	1
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 9: Holly Springs SB & Holly Springs NB

Movement	EB	EB	EB	SB	SB	SB
Directions Served	T	T	T	T	T	T
Maximum Queue (ft)	181	214	222	135	140	45
Average Queue (ft)	76	112	126	84	78	6
95th Queue (ft)	156	202	226	134	133	27
Link Distance (ft)	126	126	126	26	26	26
Upstream Blk Time (%)	2	5	7	28	24	2
Queuing Penalty (veh)	5	16	23	57	48	3
Storage Bay Dist (ft)						
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 10: Holly Springs NB/Holly Springs Rd (SR 1152) & SE Wake WB Off-Ramp

Movement	WB	WB
Directions Served	R	R
Maximum Queue (ft)	179	170
Average Queue (ft)	87	66
95th Queue (ft)	156	133
Link Distance (ft)	193	193
Upstream Blk Time (%)	0	0
Queuing Penalty (veh)	0	0
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 11: Holly Springs Rd (SR 1152) & Kildaire Farm Rd (SR 1300)/Sancroft Drive

Movement	EB	EB	EB	EB	WB	WB	NB	NB	NB	NB	SB	SB
Directions Served	L	LT	R	R	LT	R	L	L	T	TR	L	T
Maximum Queue (ft)	160	183	192	152	56	35	216	234	79	75	30	166
Average Queue (ft)	65	116	92	33	17	6	118	135	24	16	2	88
95th Queue (ft)	146	175	175	101	45	25	189	208	61	52	12	143
Link Distance (ft)		1300	1300		450		422	422	422	422		539
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	400			650		75					150	
Storage Blk Time (%)					0	0						1
Queuing Penalty (veh)					0	0						0

Intersection: 11: Holly Springs Rd (SR 1152) & Kildaire Farm Rd (SR 1300)/Sancroft Drive

Movement	SB	SB
Directions Served	T	R
Maximum Queue (ft)	136	169
Average Queue (ft)	57	74
95th Queue (ft)	119	138
Link Distance (ft)	539	
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		450
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 12: Bells Lake Rd (SR 1386) & SE Wake EB Ramps

Movement	EB	EB	NB	NB	SB
Directions Served	L	R	L	T	T
Maximum Queue (ft)	125	64	161	141	123
Average Queue (ft)	51	5	80	45	49
95th Queue (ft)	100	34	137	107	103
Link Distance (ft)		715		1068	982
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)	500		325		
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 13: Bells Lake Rd (SR 1386) & SE Wake WB Ramps

Movement	WB	WB	NB	NB	SB	SB
Directions Served	L	R	T	R	L	T
Maximum Queue (ft)	174	40	156	23	125	107
Average Queue (ft)	87	2	62	1	52	37
95th Queue (ft)	147	32	125	16	99	88
Link Distance (ft)		652	982			1402
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)	350			700	375	
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 14: US 401 & Donnybrook Rd (SR 1503)/Wake Tech Driveway

Movement	EB	EB	WB	WB	NB	NB	NB	NB	SB	SB	SB	SB
Directions Served	LT	R	LT	R	L	T	T	R	L	L	T	T
Maximum Queue (ft)	304	31	159	231	55	479	570	266	145	158	250	252
Average Queue (ft)	184	5	71	114	13	264	316	40	66	87	99	109
95th Queue (ft)	288	20	132	201	41	422	502	180	124	138	201	212
Link Distance (ft)		2454		1009		1111	1111				1029	1029
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	550		350		475			350	500	500		
Storage Blk Time (%)				0		0	6					
Queuing Penalty (veh)				0		0	4					

Intersection: 14: US 401 & Donnybrook Rd (SR 1503)/Wake Tech Driveway

Movement	SB
Directions Served	R
Maximum Queue (ft)	92
Average Queue (ft)	24
95th Queue (ft)	67
Link Distance (ft)	1029
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 16: US 401 & SE Wake EB Off-Ramp/SE Wake EB Ramp

Movement	EB	EB	EB	EB	NB	NB	NB	SB	SB	SB
Directions Served	L	L	R	R	T	T	T	T	T	T
Maximum Queue (ft)	150	184	170	74	63	89	125	143	130	112
Average Queue (ft)	44	97	79	5	22	29	41	69	56	19
95th Queue (ft)	113	157	157	37	52	67	93	126	120	63
Link Distance (ft)			1553		1029	1029	1029	138	138	138
Upstream Blk Time (%)								0	0	0
Queuing Penalty (veh)								1	0	0
Storage Bay Dist (ft)	400	400		500						
Storage Blk Time (%)										
Queuing Penalty (veh)										

Intersection: 17: US 401 & SE Wake WB Ramp/SE Wake WB Off-Ramp

Movement	WB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	L	R	T	T	T	T	T	T
Maximum Queue (ft)	250	290	299	113	122	112	231	193	141
Average Queue (ft)	139	179	133	42	56	44	130	88	57
95th Queue (ft)	230	262	282	91	99	94	205	169	119
Link Distance (ft)		1491		134	134	134	773	773	773
Upstream Blk Time (%)				0	0	0			
Queuing Penalty (veh)				0	0	0			
Storage Bay Dist (ft)	400		400						
Storage Blk Time (%)		0							
Queuing Penalty (veh)		0							

Intersection: 18: Old Stage Rd (SR 1006) & SE Wake EB Off-Ramp/SE Wake EB On-Ramp

Movement	EB	EB	EB	NB	NB	SB	SB	SB
Directions Served	L	L	R	T	T	L	T	T
Maximum Queue (ft)	223	181	98	287	196	80	136	92
Average Queue (ft)	134	67	4	154	71	25	50	18
95th Queue (ft)	204	147	49	249	154	60	105	59
Link Distance (ft)		1744		649	649		1001	1001
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)	400		450			300		
Storage Blk Time (%)								
Queuing Penalty (veh)								

Intersection: 19: Old Stage Rd (SR 1006) & SE Wake WB On-Ramp/SE Wake WB Off-Ramp

Movement	WB	NB	NB	NB	NB	SB	SB	SB
Directions Served	L	L	L	T	T	T	T	R
Maximum Queue (ft)	103	263	243	98	72	123	100	43
Average Queue (ft)	42	168	134	38	8	51	18	2
95th Queue (ft)	85	242	214	78	37	100	57	32
Link Distance (ft)	1819			1001	1001	714	714	
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)		400	400					350
Storage Blk Time (%)								
Queuing Penalty (veh)								

Intersection: 20: NC 50 & Stevens OaksRd (SR 5324)/Cleveland School Rd (SR 1010)

Movement	EB	WB	NB	NB	SB	SB	SB
Directions Served	LTR	LT	L	TR	L	T	R
Maximum Queue (ft)	92	54	105	377	307	96	14
Average Queue (ft)	35	16	9	189	182	24	1
95th Queue (ft)	76	43	55	326	296	71	9
Link Distance (ft)	1010	984		530		1578	1578
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)			100		1000		
Storage Blk Time (%)				23			
Queuing Penalty (veh)				2			

Intersection: 21: NC 50 & SE Wake EB Ramp

Movement	EB	EB	EB	NB	NB	SB	SB	SB	SB
Directions Served	L	R	R	T	T	L	L	T	T
Maximum Queue (ft)	74	285	176	216	154	183	154	46	36
Average Queue (ft)	27	74	11	114	80	96	56	9	3
95th Queue (ft)	61	251	93	189	135	160	130	34	19
Link Distance (ft)		1675		1578	1578		1056	1056	1056
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)	600		600			400			
Storage Blk Time (%)									
Queuing Penalty (veh)									

Intersection: 22: NC 50 & SE Wake WB Ramps

Movement	EB	EB	NB	NB	NB	NB	SB	SB
Directions Served	L	L	L	L	T	T	T	T
Maximum Queue (ft)	192	219	229	195	40	27	176	218
Average Queue (ft)	98	131	103	56	3	3	98	122
95th Queue (ft)	171	193	173	133	21	17	162	190
Link Distance (ft)	345	345		1056	1056	1056	592	592
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)			450					
Storage Blk Time (%)								
Queuing Penalty (veh)								

Intersection: 23: Tiffany Creek Dr/Raynor Rd (SR 2555) & White Oak Rd (SR 2700)

Movement	EB	EB	WB	WB	WB	NB	SB	SB
Directions Served	L	TR	L	T	R	LTR	L	TR
Maximum Queue (ft)	69	184	41	283	40	82	98	81
Average Queue (ft)	20	63	2	86	4	30	37	29
95th Queue (ft)	51	144	27	206	19	68	78	66
Link Distance (ft)		1003		1243	1243	940		1337
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)	150		150				300	
Storage Blk Time (%)		0		2				
Queuing Penalty (veh)		0		0				

Intersection: 24: SE Wake SB Ramps & White Oak Rd (SR 2700)

Movement	EB	EB	WB	WB	WB	NB
Directions Served	T	T	L	T	T	L
Maximum Queue (ft)	71	65	56	105	86	237
Average Queue (ft)	24	16	14	39	20	124
95th Queue (ft)	58	48	41	84	59	201
Link Distance (ft)	1243	1243		1373	1373	
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)			250			450
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 25: White Oak Rd (SR 2700) & SE Wake NB Ramps

Movement	EB	EB	NB	NB	NB	SB	SB
Directions Served	L	L	L	T	T	T	T
Maximum Queue (ft)	176	184	272	93	75	153	106
Average Queue (ft)	103	107	152	42	23	75	24
95th Queue (ft)	160	159	241	83	61	130	76
Link Distance (ft)		346		769	769	1373	1373
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)	300		500				
Storage Blk Time (%)		1					
Queuing Penalty (veh)		2					

Intersection: 26: SE Wake SB On-Ramp/SE Wake SB Off-Ramp & US 70 Bus

Movement	EB	EB	EB	WB	WB	WB	SB	SB
Directions Served	T	T	T	T	T	T	L	L
Maximum Queue (ft)	100	56	41	49	37	24	89	139
Average Queue (ft)	39	13	4	14	7	2	23	72
95th Queue (ft)	83	41	19	35	25	11	63	122
Link Distance (ft)	1234	1234	1234	190	190	190		1700
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)							400	
Storage Blk Time (%)								
Queuing Penalty (veh)								

Intersection: 27: SE Wake NB Off-Ramp/SE Wake NB On-Ramp & US 70 Bus

Movement	EB	EB	EB	WB	WB	WB	NB	NB
Directions Served	T	T	T	T	T	T	L	R
Maximum Queue (ft)	126	113	77	166	132	141	147	18
Average Queue (ft)	67	37	15	93	63	64	65	1
95th Queue (ft)	111	86	48	143	113	119	122	17
Link Distance (ft)	143	143	143	1034	1034	1034		1484
Upstream Blk Time (%)	0	0						
Queuing Penalty (veh)	0	0						
Storage Bay Dist (ft)							250	
Storage Blk Time (%)								
Queuing Penalty (veh)								

Intersection: 28: Auburn-Knightdale Rd (SR 2555) & Rock Quarry Rd (SR 2542)

Movement	EB	EB	WB	WB	WB	NB	SB
Directions Served	L	TR	L	T	R	LTR	LTR
Maximum Queue (ft)	36	70	25	58	28	106	139
Average Queue (ft)	6	21	2	7	3	39	60
95th Queue (ft)	25	56	14	34	17	85	113
Link Distance (ft)		984		1197	1197	972	982
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)	200		150				
Storage Blk Time (%)							
Queuing Penalty (veh)							

Intersection: 29: Rock Quarry Rd (SR 2542) & SE Wake SB Ramps

Movement	EB	EB	EB	WB	WB	SB	SB
Directions Served	L	T	T	T	TR	L	R
Maximum Queue (ft)	143	32	35	147	107	194	5
Average Queue (ft)	65	2	5	63	27	98	0
95th Queue (ft)	118	16	24	122	75	167	5
Link Distance (ft)		1197	1197	1052	1052	521	521
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)	400						
Storage Blk Time (%)							
Queuing Penalty (veh)							

Intersection: 30: Rock Quarry Rd (SR 2542) & SE Wake NB Ramps

Movement	EB	EB	EB	WB	WB	SB
Directions Served	L	T	T	T	TR	L
Maximum Queue (ft)	58	13	27	58	37	70
Average Queue (ft)	16	1	2	11	4	23
95th Queue (ft)	43	7	13	39	21	56
Link Distance (ft)		1052	1052	886	886	
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)	400					250
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 31: Rock Quarry Rd (SR 2542) & Old Baucom Rd (SR 5204)

Movement	WB	WB	SB
Directions Served	L	R	L
Maximum Queue (ft)	19	71	38
Average Queue (ft)	2	30	10
95th Queue (ft)	10	52	32
Link Distance (ft)	1407		886
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)		150	
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 32: Auburn Knightdale Rd (SR 2555) & SE Wake SB Ramps

Movement	EB	EB	EB	WB	SB	SB
Directions Served	L	T	T	T	L	R
Maximum Queue (ft)	14	47	3	35	74	82
Average Queue (ft)	1	6	0	3	13	38
95th Queue (ft)	8	28	3	18	46	74
Link Distance (ft)		119	119	1247	272	
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)	150					200
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 33: Auburn Knightdale Rd (SR 2555) & SE Wake NB Ramps

Movement	EB	EB	WB	SB
Directions Served	L	T	T	LR
Maximum Queue (ft)	44	27	48	100
Average Queue (ft)	8	2	7	41
95th Queue (ft)	31	14	31	83
Link Distance (ft)		1247	600	145
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)	250			
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 34: Hodge Rd (SR 2516) & Poole Rd (SR 1007)

Movement	EB	EB	EB	WB	WB	WB	WB	NB	NB	SB	SB	SB
Directions Served	L	T	TR	L	T	T	R	L	TR	L	L	T
Maximum Queue (ft)	146	90	88	32	129	142	40	53	137	49	63	61
Average Queue (ft)	71	31	25	5	45	50	9	17	60	13	18	16
95th Queue (ft)	129	73	64	22	94	108	29	46	113	38	49	46
Link Distance (ft)		758	758		1368	1368			976			1027
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	450			150			300	100		300	300	
Storage Blk Time (%)					0				4			
Queuing Penalty (veh)					0				1			

Intersection: 34: Hodge Rd (SR 2516) & Poole Rd (SR 1007)

Movement	SB
Directions Served	R
Maximum Queue (ft)	122
Average Queue (ft)	46
95th Queue (ft)	96
Link Distance (ft)	
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	300
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 35: SE Wake SB Ramps & Poole Rd (SR 1007)

Movement	EB	EB	WB	WB	WB	NB	NB	NB
Directions Served	T	T	L	T	T	L	R	R
Maximum Queue (ft)	130	111	39	96	104	366	198	182
Average Queue (ft)	51	30	5	32	33	201	113	82
95th Queue (ft)	108	84	23	76	81	322	170	157
Link Distance (ft)	1368	1368		689	689	481	481	481
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)			250					
Storage Blk Time (%)		0						
Queuing Penalty (veh)		0						

Intersection: 36: SE Wake NB Off-Ramp/SE Wake NB On-Ramp & Poole Rd (SR 1007)

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB
Directions Served	L	L	T	T	T	T	R	R	L	R
Maximum Queue (ft)	220	201	154	105	82	84	166	50	144	28
Average Queue (ft)	108	71	56	11	34	25	29	3	59	4
95th Queue (ft)	192	156	129	59	70	63	118	38	120	19
Link Distance (ft)		689	689	689	684	684				1374
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)	300						550	550	250	
Storage Blk Time (%)										
Queuing Penalty (veh)										

Intersection: 41: SE Wake EB Ramps/SE Wake EB Off-Ramp & SE Wake EB On-Ramp

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 51: SE Wake WB On-Ramp & SE Wake WB Off-Ramp & SE Wake WB Ramps

Movement	WB	WB
Directions Served	L	L
Maximum Queue (ft)	26	6
Average Queue (ft)	1	0
95th Queue (ft)	14	5
Link Distance (ft)	345	345
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 55: US 401 & SE Wake EB On-Ramp

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 56: SE Wake SB On-Ramp/SE Wake SB Ramps & SE Wake SB Off-Ramp

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 77: Holly Springs SB/Holly Springs NB & SE Wake WB On-Ramp

Movement	NB	NB	NB
Directions Served	LT	T	T
Maximum Queue (ft)	19	33	71
Average Queue (ft)	1	2	5
95th Queue (ft)	11	17	31
Link Distance (ft)	268	268	268
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 78: Holly Springs SB & Holly Springs Rd (SR 1152)

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 83: SE Wake WB On-Ramp

Movement	WB
Directions Served	T
Maximum Queue (ft)	51
Average Queue (ft)	2
95th Queue (ft)	36
Link Distance (ft)	168
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 85: Holly Springs NB & SE Wake EB On-Ramp

Movement	NB
Directions Served	T
Maximum Queue (ft)	27
Average Queue (ft)	1
95th Queue (ft)	12
Link Distance (ft)	235
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 88: SE Wake EB On-Ramp

Movement	EB
Directions Served	T
Maximum Queue (ft)	161
Average Queue (ft)	15
95th Queue (ft)	100
Link Distance (ft)	94
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 89: Holly Springs SB & SE Wake EB On-Ramp

Movement	SB	SB	SB
Directions Served	LT	T	T
Maximum Queue (ft)	172	163	81
Average Queue (ft)	43	40	4
95th Queue (ft)	140	119	41
Link Distance (ft)	381	381	381
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 94: Holly Springs Rd (SR 1152)/Holly Springs SB & Holly Springs NB

Movement	SB	SB
Directions Served	T	T
Maximum Queue (ft)	5	9
Average Queue (ft)	0	0
95th Queue (ft)	5	7
Link Distance (ft)	135	135
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 95: SE Wake WB On-Ramp & Holly Springs SB

Movement	SB	SB
Directions Served	T	T
Maximum Queue (ft)	50	40
Average Queue (ft)	4	2
95th Queue (ft)	27	18
Link Distance (ft)	366	366
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 103: SE Wake NB Off-Ramp & SE Wake NB On-Ramp/SE Wake NB Ramps

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 111: Bend

Movement	NB	NB
Directions Served	T	
Maximum Queue (ft)	163	72
Average Queue (ft)	5	2
95th Queue (ft)	115	71
Link Distance (ft)	716	716
Upstream Blk Time (%)	0	0
Queuing Penalty (veh)	0	0
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 134: SE Wake WB Off-Ramp

Movement	WB
Directions Served	L
Maximum Queue (ft)	21
Average Queue (ft)	1
95th Queue (ft)	12
Link Distance (ft)	
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	150
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 144: SE Wake EB Off-Ramp

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 149: SE Wake SB Ramps

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 157: SE Wake NB Ramps & SE Wake NB Off-Ramp & SE Wake NB On-Ramp

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 170: SE Wake WB On-Ramp & SE Wake WB Off-Ramp/SE Wake WB Ramps

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 176: Bend

Movement	SB
Directions Served	T
Maximum Queue (ft)	62
Average Queue (ft)	2
95th Queue (ft)	61
Link Distance (ft)	649
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 184: SE Wake SB On-Ramp/SE Wake SB Ramps & SE Wake SB Off-Ramp

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 195: SE Wake Ramps/SE Wake EB On-Ramp & SE Wake EB Off-Ramp

Movement	EB	EB
Directions Served	T	T
Maximum Queue (ft)	21	4
Average Queue (ft)	1	0
95th Queue (ft)	21	4
Link Distance (ft)	172	172
Upstream Blk Time (%)	0	
Queuing Penalty (veh)	0	
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 197: SE Wake WB On-Ramp & SE Wake WB Ramps/SE Wake WB Off-Ramp

Movement	WB
Directions Served	T
Maximum Queue (ft)	2
Average Queue (ft)	0
95th Queue (ft)	2
Link Distance (ft)	386
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 199: SE Wake NB Ramps/SE Wake NB On-Ramp & SE Wake NB Off-Ramp

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 411: US 401 & SE Wake WB Off-Ramp

Movement	NB	SB	SB
Directions Served	T	T	T
Maximum Queue (ft)	3	12	5
Average Queue (ft)	0	0	0
95th Queue (ft)	3	7	5
Link Distance (ft)	594	134	134
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 901: SE Wake NB On-Ramp & US 70 Bus

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 911: US 70 Bus & SE Wake SB On-Ramp

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 2106: SE Wake SB Ramps/SE Wake SB Off-Ramp & SE Wake SB On-Ramp

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Network Summary

Network wide Queuing Penalty: 946

Total Network Performance By Run

Run Number	1	10	2	3	4	5	6
Denied Delay (hr)	6.9	7.0	6.7	7.3	7.0	7.0	6.8
Denied Del/Veh (s)	0.9	0.9	0.8	0.9	0.9	0.9	0.8
Total Delay (hr)	377.4	375.1	351.9	369.3	371.7	364.8	376.3
Total Del/Veh (s)	45.6	45.2	43.4	45.0	45.2	44.4	45.7
Stop Delay (hr)	193.0	192.4	182.6	192.7	193.8	186.7	199.6
Stop Del/Veh (s)	23.3	23.2	22.5	23.5	23.6	22.7	24.3
Travel Dist (mi)	22426.0	22513.1	21995.8	22187.8	22246.7	22269.5	22257.2
Travel Time (hr)	923.0	924.4	888.7	910.8	914.7	909.7	919.8
Avg Speed (mph)	24	25	25	25	25	25	24
Vehicles Entered	28891	28998	28268	28569	28686	28737	28713
Vehicles Exited	28902	28996	28359	28649	28638	28660	28704
Hourly Exit Rate	28902	28996	28359	28649	28638	28660	28704
Input Volume	159902	159902	159902	159902	159902	159902	159902
% of Volume	18	18	18	18	18	18	18
Denied Entry Before	5	6	8	4	7	7	4
Denied Entry After	6	6	7	9	6	9	6

Total Network Performance By Run

Run Number	7	8	9	Avg
Denied Delay (hr)	6.9	6.8	6.9	6.9
Denied Del/Veh (s)	0.9	0.9	0.9	0.9
Total Delay (hr)	373.8	364.5	357.0	368.2
Total Del/Veh (s)	45.2	44.5	43.6	44.8
Stop Delay (hr)	194.6	187.4	186.6	191.0
Stop Del/Veh (s)	23.5	22.9	22.8	23.2
Travel Dist (mi)	22350.8	22171.1	22083.6	22250.2
Travel Time (hr)	918.8	904.9	895.8	911.1
Avg Speed (mph)	25	25	25	25
Vehicles Entered	28817	28568	28549	28674
Vehicles Exited	28883	28575	28525	28689
Hourly Exit Rate	28883	28575	28525	28689
Input Volume	159902	159902	159902	159902
% of Volume	18	18	18	18
Denied Entry Before	6	5	7	2
Denied Entry After	8	3	5	3

Intersection: 1: NC 55 & Mid Block U-Turn

Movement	NB	NB	SB	SB	SB	SB
Directions Served	T	T	U	T	T	T
Maximum Queue (ft)	278	354	363	212	188	356
Average Queue (ft)	148	185	211	42	80	77
95th Queue (ft)	251	305	349	145	159	210
Link Distance (ft)	981	981		734	734	734
Upstream Blk Time (%)						0
Queuing Penalty (veh)						0
Storage Bay Dist (ft)			650			
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 2: NC 55 & Old Smithfield Rd

Movement	WB	NB	SB	SB	SB
Directions Served	R	L	T	T	TR
Maximum Queue (ft)	150	88	329	549	206
Average Queue (ft)	35	27	103	130	100
95th Queue (ft)	107	68	226	322	193
Link Distance (ft)	1346		663	663	663
Upstream Blk Time (%)				0	
Queuing Penalty (veh)				0	
Storage Bay Dist (ft)		550			
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 3: NC 55 & SE Wake EB Off-Ramp/SE Wake Ramps

Movement	NB	NB	SB	SB	B402	B402	B401	B401
Directions Served	T	T	L	L	T	T	T	T
Maximum Queue (ft)	130	173	225	191	8	6	8	117
Average Queue (ft)	48	80	124	78	0	0	0	13
95th Queue (ft)	105	146	200	151	6	6	7	66
Link Distance (ft)	663	663		706	199	199	124	124
Upstream Blk Time (%)								0
Queuing Penalty (veh)								1
Storage Bay Dist (ft)			240					
Storage Blk Time (%)			0	0				
Queuing Penalty (veh)			0	0				

Intersection: 4: NC 55 & SE Wake WB On-Ramp/SE Wake WB Ramps

Movement	WB	WB	WB	WB	NB	NB	SB	SB	SB
Directions Served	L	L	R	R	T	T	T	T	R
Maximum Queue (ft)	64	110	122	18	48	81	888	1012	325
Average Queue (ft)	16	46	7	1	6	26	335	385	28
95th Queue (ft)	49	92	61	18	28	62	732	796	246
Link Distance (ft)	255	255	255	255	124	124	1259	1259	
Upstream Blk Time (%)						0	0	1	
Queuing Penalty (veh)						0	0	0	
Storage Bay Dist (ft)									500
Storage Blk Time (%)								6	
Queuing Penalty (veh)								2	

Intersection: 5: Holly Springs SB & SE Wake EB Off-Ramp

Movement	EB	EB	SB	SB
Directions Served	R	R	T	T
Maximum Queue (ft)	153	117	5	32
Average Queue (ft)	70	29	0	1
95th Queue (ft)	128	82	5	21
Link Distance (ft)	186	186	188	188
Upstream Blk Time (%)	0	0		0
Queuing Penalty (veh)	0	0		0
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 6: Holly Springs NB/Holly Springs Rd (SR 1152) & Holly Springs SB

Movement	WB	WB	WB	NB	NB	NB
Directions Served	T	T	T	T	T	T
Maximum Queue (ft)	191	198	159	172	146	126
Average Queue (ft)	162	168	60	83	69	58
95th Queue (ft)	193	210	135	148	131	114
Link Distance (ft)	76	76	76	133	133	133
Upstream Blk Time (%)	52	39	7	2	1	0
Queuing Penalty (veh)	193	143	27	3	1	0
Storage Bay Dist (ft)						
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 7: Holly Springs Rd (SR 1152)/Holly Springs SB & SE Wake EB Off-Ramp

Movement	EB	EB
Directions Served	L	L
Maximum Queue (ft)	56	82
Average Queue (ft)	16	39
95th Queue (ft)	45	75
Link Distance (ft)	224	224
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 8: Holly Springs SB & SE Wake WB Off-Ramp

Movement	WB	WB	SB	SB
Directions Served	L	L	T	T
Maximum Queue (ft)	246	124	44	30
Average Queue (ft)	151	80	11	1
95th Queue (ft)	244	140	37	13
Link Distance (ft)	112	112	25	25
Upstream Blk Time (%)	32	2	2	0
Queuing Penalty (veh)	41	3	8	1
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 9: Holly Springs SB & Holly Springs NB

Movement	EB	EB	EB	SB	SB	SB
Directions Served	T	T	T	T	T	T
Maximum Queue (ft)	113	140	154	168	138	91
Average Queue (ft)	32	56	55	135	87	29
95th Queue (ft)	88	120	125	152	147	74
Link Distance (ft)	126	126	126	26	26	26
Upstream Blk Time (%)	0	1	1	55	24	9
Queuing Penalty (veh)	0	1	1	232	103	39
Storage Bay Dist (ft)						
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 10: Holly Springs NB/Holly Springs Rd (SR 1152) & SE Wake WB Off-Ramp

Movement	WB	WB
Directions Served	R	R
Maximum Queue (ft)	100	89
Average Queue (ft)	49	31
95th Queue (ft)	96	76
Link Distance (ft)	193	193
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 11: Holly Springs Rd (SR 1152) & Kildaire Farm Rd (SR 1300)/Sancroft Drive

Movement	EB	EB	EB	EB	WB	WB	NB	NB	NB	NB	SB	SB
Directions Served	L	LT	R	R	LT	R	L	L	T	TR	L	T
Maximum Queue (ft)	155	125	310	290	51	26	244	256	88	36	35	250
Average Queue (ft)	76	24	182	131	11	4	138	151	22	4	4	162
95th Queue (ft)	129	75	280	258	36	18	214	227	63	21	20	231
Link Distance (ft)		1300	1300		450		422	422	422	422		539
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	400			650		75					150	
Storage Blk Time (%)					0							11
Queuing Penalty (veh)					0							1

Intersection: 11: Holly Springs Rd (SR 1152) & Kildaire Farm Rd (SR 1300)/Sancroft Drive

Movement	SB	SB
Directions Served	T	R
Maximum Queue (ft)	213	146
Average Queue (ft)	132	59
95th Queue (ft)	203	121
Link Distance (ft)	539	
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		450
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 12: Bells Lake Rd (SR 1386) & SE Wake EB Ramps

Movement	EB	EB	NB	NB	SB	SB
Directions Served	L	R	L	T	T	R
Maximum Queue (ft)	138	139	190	111	156	34
Average Queue (ft)	56	36	82	29	66	1
95th Queue (ft)	110	107	150	80	132	24
Link Distance (ft)		711		1068	982	
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)	500		325			675
Storage Blk Time (%)			0			
Queuing Penalty (veh)			0			

Intersection: 13: Bells Lake Rd (SR 1386) & SE Wake WB Ramps

Movement	WB	NB	SB	SB
Directions Served	L	T	L	T
Maximum Queue (ft)	157	123	120	156
Average Queue (ft)	85	38	47	59
95th Queue (ft)	141	90	94	126
Link Distance (ft)		982		1402
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)	350		375	
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 14: US 401 & Donnybrook Rd (SR 1503)/Wake Tech Driveway

Movement	EB	EB	WB	WB	NB	NB	NB	NB	SB	SB	SB	SB
Directions Served	LT	R	LT	R	L	T	T	R	L	L	T	T
Maximum Queue (ft)	257	45	210	208	42	242	327	58	114	138	444	442
Average Queue (ft)	123	7	89	104	9	136	178	10	46	73	248	256
95th Queue (ft)	218	28	168	178	31	224	296	37	98	119	419	418
Link Distance (ft)		2454		1009		1109	1109				1029	1029
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	550		350		475			350	500	500		
Storage Blk Time (%)							0				0	
Queuing Penalty (veh)							0				0	

Intersection: 14: US 401 & Donnybrook Rd (SR 1503)/Wake Tech Driveway

Movement	SB
Directions Served	R
Maximum Queue (ft)	105
Average Queue (ft)	32
95th Queue (ft)	81
Link Distance (ft)	1029
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 16: US 401 & SE Wake EB Off-Ramp/SE Wake EB Ramp

Movement	EB	EB	EB	EB	NB	NB	NB	SB	SB	SB
Directions Served	L	L	R	R	T	T	T	T	T	T
Maximum Queue (ft)	144	171	272	235	95	117	72	208	198	138
Average Queue (ft)	36	90	133	40	37	43	20	127	107	48
95th Queue (ft)	104	154	236	152	74	94	52	190	183	111
Link Distance (ft)			1553		1029	1029	1029	138	138	138
Upstream Blk Time (%)								4	2	0
Queuing Penalty (veh)								24	10	1
Storage Bay Dist (ft)	400	400		500						
Storage Blk Time (%)										
Queuing Penalty (veh)										

Intersection: 17: US 401 & SE Wake WB Ramp/SE Wake WB Off-Ramp

Movement	WB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	L	R	T	T	T	T	T	T
Maximum Queue (ft)	240	276	171	88	103	60	279	235	177
Average Queue (ft)	129	170	20	39	45	4	170	127	95
95th Queue (ft)	222	249	103	76	93	28	244	204	160
Link Distance (ft)		1491		134	134	134	773	773	773
Upstream Blk Time (%)					0	0			
Queuing Penalty (veh)					0	0			
Storage Bay Dist (ft)	400		400						
Storage Blk Time (%)									
Queuing Penalty (veh)									

Intersection: 18: Old Stage Rd (SR 1006) & SE Wake EB Off-Ramp/SE Wake EB On-Ramp

Movement	EB	EB	EB	EB	NB	NB	SB	SB	SB
Directions Served	L	L	R	R	T	T	L	T	T
Maximum Queue (ft)	194	146	256	77	200	148	110	128	108
Average Queue (ft)	102	43	62	3	112	56	37	60	35
95th Queue (ft)	167	109	222	45	183	124	82	110	81
Link Distance (ft)		1744			649	649		1001	1001
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)	400		450	450			300		
Storage Blk Time (%)									
Queuing Penalty (veh)									

Intersection: 19: Old Stage Rd (SR 1006) & SE Wake WB On-Ramp/SE Wake WB Off-Ramp

Movement	WB	NB	NB	NB	NB	SB	SB
Directions Served	L	L	L	T	T	T	T
Maximum Queue (ft)	109	180	139	139	76	144	110
Average Queue (ft)	44	105	64	57	6	74	35
95th Queue (ft)	90	161	119	119	38	128	90
Link Distance (ft)	1819			1001	1001	714	714
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)		400	400				
Storage Blk Time (%)							
Queuing Penalty (veh)							

Intersection: 20: NC 50 & Stevens OaksRd (SR 5324)/Cleveland School Rd (SR 1010)

Movement	EB	WB	NB	NB	SB	SB	SB
Directions Served	LTR	LT	L	TR	L	T	R
Maximum Queue (ft)	66	66	102	256	519	135	24
Average Queue (ft)	23	20	9	129	267	48	2
95th Queue (ft)	57	51	52	225	436	112	14
Link Distance (ft)	1016	993		531		1578	1578
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)			100		1000		
Storage Blk Time (%)				19			
Queuing Penalty (veh)				2			

Intersection: 21: NC 50 & SE Wake EB Ramp

Movement	EB	EB	EB	NB	NB	SB	SB	SB	SB
Directions Served	L	R	R	T	T	L	L	T	T
Maximum Queue (ft)	67	370	336	272	212	230	183	141	68
Average Queue (ft)	21	191	68	145	66	127	81	46	18
95th Queue (ft)	53	391	267	243	157	196	157	103	54
Link Distance (ft)		1675		1578	1578		1056	1056	1056
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)	600		600			400			
Storage Blk Time (%)									
Queuing Penalty (veh)									

Intersection: 22: NC 50 & SE Wake WB Ramps

Movement	EB	EB	NB	NB	NB	SB	SB
Directions Served	L	L	L	L	T	T	T
Maximum Queue (ft)	198	143	135	112	47	230	249
Average Queue (ft)	113	33	67	26	3	123	149
95th Queue (ft)	179	98	120	81	21	201	226
Link Distance (ft)	352	352		1056	1056	592	592
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)			450				
Storage Blk Time (%)							
Queuing Penalty (veh)							

Intersection: 23: Tiffany Creek Dr/Raynor Rd (SR 2555) & White Oak Rd (SR 2700)

Movement	EB	EB	WB	WB	WB	NB	SB	SB
Directions Served	L	TR	L	T	R	LTR	L	TR
Maximum Queue (ft)	51	325	36	132	27	67	174	105
Average Queue (ft)	15	134	8	34	2	21	88	38
95th Queue (ft)	38	268	26	90	11	51	156	82
Link Distance (ft)		1006		1243	1243	940		1350
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)	150		150				300	
Storage Blk Time (%)		5		0				
Queuing Penalty (veh)		2		0				

Intersection: 24: SE Wake SB Ramps & White Oak Rd (SR 2700)

Movement	EB	EB	WB	WB	WB	NB
Directions Served	T	T	L	T	T	L
Maximum Queue (ft)	82	80	42	61	32	151
Average Queue (ft)	28	20	7	14	4	76
95th Queue (ft)	68	59	27	43	20	129
Link Distance (ft)	1243	1243		1373	1373	
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)			250			450
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 25: White Oak Rd (SR 2700) & SE Wake NB Ramps

Movement	EB	EB	NB	NB	NB	SB	SB
Directions Served	L	L	L	T	T	T	T
Maximum Queue (ft)	157	152	220	56	40	217	159
Average Queue (ft)	82	82	119	16	5	115	56
95th Queue (ft)	136	131	193	44	23	186	131
Link Distance (ft)		346		769	769	1373	1373
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)	300		500				
Storage Blk Time (%)		0					
Queuing Penalty (veh)		0					

Intersection: 26: SE Wake SB On-Ramp/SE Wake SB Off-Ramp & US 70 Bus

Movement	EB	EB	EB	WB	WB	WB	SB	SB
Directions Served	T	T	T	T	T	T	L	L
Maximum Queue (ft)	138	118	70	177	162	128	156	174
Average Queue (ft)	74	40	12	102	89	54	56	107
95th Queue (ft)	123	89	44	153	141	112	120	158
Link Distance (ft)	1234	1234	1234	190	190	190		1700
Upstream Blk Time (%)				0	0			
Queuing Penalty (veh)				0	0			
Storage Bay Dist (ft)							400	
Storage Blk Time (%)								
Queuing Penalty (veh)								

Intersection: 27: SE Wake NB Off-Ramp/SE Wake NB On-Ramp & US 70 Bus

Movement	EB	EB	EB	WB	WB	WB	NB	NB
Directions Served	T	T	T	T	T	T	L	R
Maximum Queue (ft)	174	133	114	151	134	99	165	180
Average Queue (ft)	102	70	38	94	65	43	77	12
95th Queue (ft)	150	122	91	135	111	81	134	91
Link Distance (ft)	143	143	143	1034	1034	1034		1484
Upstream Blk Time (%)	1	0	0					
Queuing Penalty (veh)	6	0	0					
Storage Bay Dist (ft)							250	
Storage Blk Time (%)								0
Queuing Penalty (veh)								0

Intersection: 28: Auburn-Knightdale Rd (SR 2555) & Rock Quarry Rd (SR 2542)

Movement	EB	EB	WB	WB	WB	NB	SB
Directions Served	L	TR	L	T	R	LTR	LTR
Maximum Queue (ft)	48	107	27	50	31	134	115
Average Queue (ft)	7	35	3	5	3	48	49
95th Queue (ft)	30	81	17	27	16	97	96
Link Distance (ft)		984		1197	1197	972	988
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)	200		150				
Storage Blk Time (%)							
Queuing Penalty (veh)							

Intersection: 29: Rock Quarry Rd (SR 2542) & SE Wake SB Ramps

Movement	EB	EB	EB	WB	WB	SB
Directions Served	L	T	T	T	TR	L
Maximum Queue (ft)	180	65	63	110	71	256
Average Queue (ft)	94	10	17	48	22	144
95th Queue (ft)	158	40	48	95	57	221
Link Distance (ft)		1197	1197	1052	1052	521
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)	400					
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 30: Rock Quarry Rd (SR 2542) & SE Wake NB Ramps

Movement	EB	EB	EB	WB	WB	SB
Directions Served	L	T	T	T	TR	L
Maximum Queue (ft)	82	32	41	49	29	85
Average Queue (ft)	26	2	4	5	3	28
95th Queue (ft)	61	15	23	26	17	66
Link Distance (ft)		1052	1052	886	886	
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)	400					250
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 31: Rock Quarry Rd (SR 2542) & Old Baucom Rd (SR 5204)

Movement	WB	WB	SB
Directions Served	L	R	L
Maximum Queue (ft)	21	51	42
Average Queue (ft)	2	22	12
95th Queue (ft)	12	42	35
Link Distance (ft)	1407		886
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)		150	
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 32: Auburn Knightdale Rd (SR 2555) & SE Wake SB Ramps

Movement	EB	EB	WB	SB	SB
Directions Served	L	T	T	L	R
Maximum Queue (ft)	25	58	31	57	78
Average Queue (ft)	1	10	3	13	32
95th Queue (ft)	11	37	16	42	65
Link Distance (ft)	120	120	1247	272	
Upstream Blk Time (%)		0			
Queuing Penalty (veh)		0			
Storage Bay Dist (ft)					200
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 33: Auburn Knightdale Rd (SR 2555) & SE Wake NB Ramps

Movement	EB	EB	EB	WB	SB
Directions Served	L	T	T	T	LR
Maximum Queue (ft)	57	32	5	39	108
Average Queue (ft)	12	2	0	6	43
95th Queue (ft)	39	16	4	26	84
Link Distance (ft)		1247	1247	601	145
Upstream Blk Time (%)					0
Queuing Penalty (veh)					0
Storage Bay Dist (ft)	250				
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 34: Hodge Rd (SR 2516) & Poole Rd (SR 1007)

Movement	EB	EB	WB	WB	NB	NB	SB	SB	SB
Directions Served	L	TR	L	TR	L	TR	L	T	R
Maximum Queue (ft)	132	230	38	205	42	97	130	102	124
Average Queue (ft)	53	96	7	74	9	31	51	35	51
95th Queue (ft)	106	196	25	161	31	72	105	79	102
Link Distance (ft)		764	1374	1374		976		1033	
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)	450				100		300		300
Storage Blk Time (%)					0	0			
Queuing Penalty (veh)					0	0			

Intersection: 35: SE Wake SB Ramps & Poole Rd (SR 1007)

Movement	EB	EB	WB	WB	WB	NB	NB	NB
Directions Served	T	T	L	T	T	L	R	R
Maximum Queue (ft)	157	120	29	60	97	307	251	215
Average Queue (ft)	73	50	3	14	29	155	151	121
95th Queue (ft)	133	101	18	44	75	259	224	200
Link Distance (ft)	1374	1374		689	689	481	481	481
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)			250					
Storage Blk Time (%)		0						
Queuing Penalty (veh)		0						

Intersection: 36: SE Wake NB Off-Ramp/SE Wake NB On-Ramp & Poole Rd (SR 1007)

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB
Directions Served	L	L	T	T	T	T	R	L	R
Maximum Queue (ft)	241	210	241	214	51	70	142	110	46
Average Queue (ft)	139	103	87	31	11	20	11	49	9
95th Queue (ft)	215	186	199	121	36	54	70	95	32
Link Distance (ft)		689	689	689	684	684			1374
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)	300						550	250	
Storage Blk Time (%)									
Queuing Penalty (veh)									

Intersection: 41: SE Wake EB Ramps/SE Wake EB Off-Ramp & SE Wake EB On-Ramp

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 51: SE Wake WB On-Ramp & SE Wake WB Off-Ramp & SE Wake WB Ramps

Movement	WB
Directions Served	L
Maximum Queue (ft)	10
Average Queue (ft)	0
95th Queue (ft)	6
Link Distance (ft)	352
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 55: US 401 & SE Wake EB On-Ramp

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 56: SE Wake SB On-Ramp/SE Wake SB Ramps & SE Wake SB Off-Ramp

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 77: Holly Springs SB/Holly Springs NB & SE Wake WB On-Ramp

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 78: Holly Springs SB & Holly Springs Rd (SR 1152)

Movement	SB	SB
Directions Served	R	R
Maximum Queue (ft)	56	29
Average Queue (ft)	4	1
95th Queue (ft)	35	21
Link Distance (ft)	422	422
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 83: SE Wake WB On-Ramp

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 85: Holly Springs NB & SE Wake EB On-Ramp

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 86: Bend

Movement	SB	SB
Directions Served	T	T
Maximum Queue (ft)	475	422
Average Queue (ft)	69	36
95th Queue (ft)	298	210
Link Distance (ft)	555	555
Upstream Blk Time (%)	0	0
Queuing Penalty (veh)	0	0
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 88: SE Wake EB On-Ramp

Movement	EB
Directions Served	T
Maximum Queue (ft)	200
Average Queue (ft)	55
95th Queue (ft)	196
Link Distance (ft)	94
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 89: Holly Springs SB & SE Wake EB On-Ramp

Movement	SB	SB	SB
Directions Served	LT	T	T
Maximum Queue (ft)	416	412	336
Average Queue (ft)	334	285	31
95th Queue (ft)	468	471	187
Link Distance (ft)	381	381	381
Upstream Blk Time (%)	7	1	0
Queuing Penalty (veh)	33	6	0
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 94: Holly Springs Rd (SR 1152)/Holly Springs SB & Holly Springs NB

Movement	SB	SB
Directions Served	T	T
Maximum Queue (ft)	102	95
Average Queue (ft)	5	6
95th Queue (ft)	51	44
Link Distance (ft)	135	135
Upstream Blk Time (%)	0	0
Queuing Penalty (veh)	0	0
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 95: SE Wake WB On-Ramp & Holly Springs SB

Movement	SB	SB	SB
Directions Served	T	T	TR
Maximum Queue (ft)	417	370	192
Average Queue (ft)	224	133	10
95th Queue (ft)	398	338	82
Link Distance (ft)	366	366	366
Upstream Blk Time (%)	3	0	
Queuing Penalty (veh)	13	1	
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 103: SE Wake NB Off-Ramp & SE Wake NB On-Ramp/SE Wake NB Ramps

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 110: Bend

Movement	SB	SB	B86	B86
Directions Served	T		T	T
Maximum Queue (ft)	496	106	475	422
Average Queue (ft)	35	4	69	36
95th Queue (ft)	256	75	298	210
Link Distance (ft)	488	488	555	555
Upstream Blk Time (%)	0	0	0	0
Queuing Penalty (veh)	2	0	0	0
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 111: Bend

Movement	NB	NB
Directions Served	T	
Maximum Queue (ft)	396	147
Average Queue (ft)	16	5
95th Queue (ft)	198	104
Link Distance (ft)	716	716
Upstream Blk Time (%)	0	0
Queuing Penalty (veh)	0	0
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 134: SE Wake WB Off-Ramp

Movement	WB	WB
Directions Served	L	LR
Maximum Queue (ft)	86	13
Average Queue (ft)	7	2
95th Queue (ft)	49	25
Link Distance (ft)		
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)	150	150
Storage Blk Time (%)	0	0
Queuing Penalty (veh)	0	0

Intersection: 144: SE Wake EB Off-Ramp

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 149: SE Wake SB Ramps

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 157: SE Wake NB Ramps & SE Wake NB Off-Ramp & SE Wake NB On-Ramp

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 170: SE Wake WB On-Ramp & SE Wake WB Off-Ramp/SE Wake WB Ramps

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 176: Bend

Movement	SB
Directions Served	T
Maximum Queue (ft)	67
Average Queue (ft)	4
95th Queue (ft)	93
Link Distance (ft)	649
Upstream Blk Time (%)	0
Queuing Penalty (veh)	0
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 184: SE Wake SB On-Ramp/SE Wake SB Ramps & SE Wake SB Off-Ramp

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 195: SE Wake Ramps/SE Wake EB On-Ramp & SE Wake EB Off-Ramp

Movement	EB	EB
Directions Served	T	T
Maximum Queue (ft)	24	17
Average Queue (ft)	1	1
95th Queue (ft)	20	16
Link Distance (ft)	168	168
Upstream Blk Time (%)	0	0
Queuing Penalty (veh)	0	0
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 197: SE Wake WB On-Ramp & SE Wake WB Ramps/SE Wake WB Off-Ramp

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 199: SE Wake NB Ramps/SE Wake NB On-Ramp & SE Wake NB Off-Ramp

Movement	
Directions Served	
Maximum Queue (ft)	
Average Queue (ft)	
95th Queue (ft)	
Link Distance (ft)	
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 411: US 401 & SE Wake WB Off-Ramp

Movement	SB
Directions Served	T
Maximum Queue (ft)	12
Average Queue (ft)	1
95th Queue (ft)	8
Link Distance (ft)	134
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 901: SE Wake NB On-Ramp & US 70 Bus

Movement	WB
Directions Served	T
Maximum Queue (ft)	6
Average Queue (ft)	0
95th Queue (ft)	5
Link Distance (ft)	143
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 911: US 70 Bus & SE Wake SB On-Ramp

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 2106: SE Wake SB On-Ramp & SE Wake SB Ramps/SE Wake SB Off-Ramp

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Network Summary

Network wide Queuing Penalty: 905

2040 Build
Synchro Results

Lane Group	WBL	WBR	NBT	NBR	SBU	SBL	SBT
Lane Configurations							
Traffic Volume (vph)	0	0	4581	0	373	0	2537
Future Volume (vph)	0	0	4581	0	373	0	2537
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0		0		650	
Storage Lanes	0	0		0		1	
Taper Length (ft)	100					50	
Lane Util. Factor	1.00	1.00	0.91	1.00	1.00	1.00	0.86
Frt							
Flt Protected					0.950		
Satd. Flow (prot)	0	0	4893	0	1703	0	6166
Flt Permitted					0.950		
Satd. Flow (perm)	0	0	4893	0	1703	0	6166
Right Turn on Red		No		No			
Satd. Flow (RTOR)							
Link Speed (mph)	45		55				55
Link Distance (ft)	105		998				787
Travel Time (s)	1.6		12.4				9.8
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	2%	2%	6%	6%	6%	6%	6%
Adj. Flow (vph)	0	0	5090	0	414	0	2819
Shared Lane Traffic (%)							
Lane Group Flow (vph)	0	0	5090	0	414	0	2819
Turn Type			NA		Prot		NA
Protected Phases			2		1		Free
Permitted Phases							
Detector Phase			2		1		
Switch Phase							
Minimum Initial (s)			14.0		7.0		
Minimum Split (s)			21.0		14.0		
Total Split (s)			126.0		34.0		
Total Split (%)			78.8%		21.3%		
Maximum Green (s)			119.0		27.0		
Yellow Time (s)			5.0		5.0		
All-Red Time (s)			2.0		2.0		
Lost Time Adjust (s)			-2.0		-2.0		
Total Lost Time (s)			5.0		5.0		
Lead/Lag			Lead		Lag		
Lead-Lag Optimize?			Yes		Yes		
Vehicle Extension (s)			3.0		3.0		
Recall Mode			C-Max		None		
Act Effct Green (s)			121.0		29.0		160.0
Actuated g/C Ratio			0.76		0.18		1.00
v/c Ratio			1.38		1.34		0.46
Control Delay			193.0		214.5		0.2
Queue Delay			0.0		0.0		0.0
Total Delay			193.0		214.5		0.2
LOS			F		F		A
Approach Delay			193.0				27.7

Lane Group	WBL	WBR	NBT	NBR	SBU	SBL	SBT
Approach LOS			F				C
Queue Length 50th (ft)			~2572		~568		0
Queue Length 95th (ft)			#2565		#785		0
Internal Link Dist (ft)	25		918				707
Turn Bay Length (ft)					650		
Base Capacity (vph)			3700		308		6166
Starvation Cap Reductn			0		0		0
Spillback Cap Reductn			0		0		0
Storage Cap Reductn			0		0		0
Reduced v/c Ratio			1.38		1.34		0.46

Intersection Summary

Area Type: Other
Cycle Length: 160
Actuated Cycle Length: 160
Offset: 88 (55%), Referenced to phase 2:NBT, Start of Green
Natural Cycle: 150
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.38
Intersection Signal Delay: 128.8 Intersection LOS: F
Intersection Capacity Utilization 117.5% ICU Level of Service H
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: 1: NC 55 & Mid Block U-Turn



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	179	0	0	669	56	4527	371	0	2731	43
Future Volume (vph)	0	0	179	0	0	669	56	4527	371	0	2731	43
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	550		0	0		0
Storage Lanes	0		1	0		1	1		1	0		0
Taper Length (ft)	100			100			100			100		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91	1.00	1.00	0.86	0.86
Frt			0.865			0.865			0.850		0.998	
Flt Protected							0.950					
Satd. Flow (prot)	0	0	1358	0	0	1550	1703	4893	1524	0	6154	0
Flt Permitted							0.950					
Satd. Flow (perm)	0	0	1358	0	0	1550	1703	4893	1524	0	6154	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		35			35			55			55	
Link Distance (ft)		1117			1426			787			743	
Travel Time (s)		21.8			27.8			9.8			9.2	
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
Heavy Vehicles (%)	21%	21%	21%	6%	6%	6%	6%	6%	6%	6%	6%	6%
Adj. Flow (vph)	0	0	199	0	0	743	62	5030	412	0	3034	48
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	199	0	0	743	62	5030	412	0	3082	0
Turn Type			Perm			Perm	Prot	NA	custom		NA	
Protected Phases							5	Free	Free		6	
Permitted Phases			5 6			5 6			Free			
Detector Phase			5 6			5 6	5				6	
Switch Phase												
Minimum Initial (s)							7.0				14.0	
Minimum Split (s)							14.0				21.0	
Total Split (s)							45.0				115.0	
Total Split (%)							28.1%				71.9%	
Maximum Green (s)							38.0				108.0	
Yellow Time (s)							5.0				5.0	
All-Red Time (s)							2.0				2.0	
Lost Time Adjust (s)							-2.0				-2.0	
Total Lost Time (s)							5.0				5.0	
Lead/Lag							Lead				Lag	
Lead-Lag Optimize?							Yes				Yes	
Vehicle Extension (s)							3.0				3.0	
Recall Mode							None				C-Max	
Act Effct Green (s)			160.0			160.0	14.9	160.0	160.0		135.1	
Actuated g/C Ratio			1.00			1.00	0.09	1.00	1.00		0.84	
v/c Ratio			0.15			0.48	0.39	1.03	0.27		0.59	
Control Delay			0.2			1.1	65.4	27.7	0.0		2.3	
Queue Delay			0.0			0.4	0.0	30.7	0.0		0.0	
Total Delay			0.2			1.5	65.4	58.4	0.0		2.3	
LOS			A			A	E	E	A		A	
Approach Delay		0.2			1.5			54.1			2.3	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		A			A			D			A	
Queue Length 50th (ft)			0			0	61	~1361	0		73	
Queue Length 95th (ft)			0			0	m41	m0	m0		161	
Internal Link Dist (ft)		1037			1346			707			663	
Turn Bay Length (ft)							550					
Base Capacity (vph)			1358			1550	425	4893	1524		5197	
Starvation Cap Reductn			0			0	0	0	0		371	
Spillback Cap Reductn			0			344	0	1089	0		0	
Storage Cap Reductn			0			0	0	0	0		0	
Reduced v/c Ratio			0.15			0.62	0.15	1.32	0.27		0.64	

Intersection Summary

Area Type: Other
Cycle Length: 160
Actuated Cycle Length: 160
Offset: 41 (26%), Referenced to phase 6:SBT, Start of Green
Natural Cycle: 50
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.03
Intersection Signal Delay: 32.1 Intersection LOS: C
Intersection Capacity Utilization 136.4% ICU Level of Service H
Analysis Period (min) 15
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: NC 55 & Old Smithfield Rd



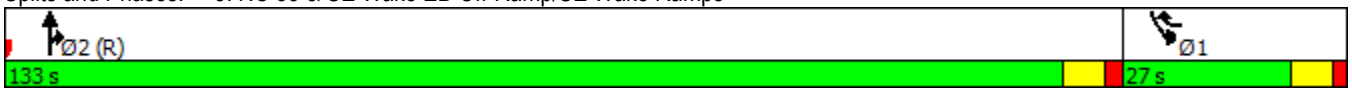
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	1056	0	0	397	0	4576	440	403	1816	0
Future Volume (vph)	0	0	1056	0	0	397	0	4576	440	403	1816	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	0		300	240		0
Storage Lanes	0		1	0		2	1		1	1		0
Taper Length (ft)	100			100			100			150		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	0.88	1.00	0.91	1.00	*0.80	0.91	1.00
Frt			0.865			0.850			0.850			
Flt Protected										0.950		
Satd. Flow (prot)	0	0	1550	0	0	2682	0	4893	1524	2725	4893	0
Flt Permitted										0.950		
Satd. Flow (perm)	0	0	1550	0	0	2682	0	4893	1524	2725	4893	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		45			25			55			55	
Link Distance (ft)		1183			273			743			755	
Travel Time (s)		17.9			7.4			9.2			9.4	
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 (%)	6%	6%	6%	2%	2%	6%	6%	6%	6%	6%	6%	6%
Adj. Flow (vph)	0	0	1173	0	0	441	0	5084	489	448	2018	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	1173	0	0	441	0	5084	489	448	2018	0
Turn Type			Free			Over		NA	Prot	Prot	NA	
Protected Phases						1		2	2	1	Free	
Permitted Phases			Free									
Detector Phase						1		2	2	1		
Switch Phase												
Minimum Initial (s)						7.0		14.0	14.0	7.0		
Minimum Split (s)						14.0		21.0	21.0	14.0		
Total Split (s)						27.0		133.0	133.0	27.0		
Total Split (%)						16.9%		83.1%	83.1%	16.9%		
Maximum Green (s)						20.0		126.0	126.0	20.0		
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)						0.0		-2.0	0.0	-2.0		
Total Lost Time (s)						7.0		5.0	7.0	5.0		
Lead/Lag						Lag		Lead	Lead	Lag		
Lead-Lag Optimize?						Yes		Yes	Yes	Yes		
Vehicle Extension (s)						3.0		3.0	3.0	3.0		
Recall Mode						None		C-Max	C-Max	None		
Act Effct Green (s)			160.0			20.0		128.0	126.0	22.0	160.0	
Actuated g/C Ratio			1.00			0.12		0.80	0.79	0.14	1.00	
v/c Ratio			0.76			1.32		1.30	0.41	1.20	0.41	
Control Delay			3.5			213.2		154.8	5.6	162.3	0.2	
Queue Delay			0.0			0.0		0.0	0.7	0.0	0.0	
Total Delay			3.5			213.2		154.8	6.3	162.3	0.2	
LOS			A			F		F	A	F	A	
Approach Delay		3.5			213.2			141.8			29.7	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		A			F			F			C	
Queue Length 50th (ft)			0			~336		~2482	140	~356	0	
Queue Length 95th (ft)			0			#464		m#2385	m141	#498	0	
Internal Link Dist (ft)		1103			193			663			675	
Turn Bay Length (ft)									300	240		
Base Capacity (vph)			1550			335		3914	1200	374	4893	
Starvation Cap Reductn			0			0		0	386	0	0	
Spillback Cap Reductn			0			0		100	0	0	0	
Storage Cap Reductn			0			0		0	0	0	0	
Reduced v/c Ratio			0.76			1.32		1.33	0.60	1.20	0.41	

Intersection Summary

Area Type: Other
Cycle Length: 160
Actuated Cycle Length: 160
Offset: 120 (75%), Referenced to phase 2:NBT, Start of Green
Natural Cycle: 150
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.32
Intersection Signal Delay: 99.6 Intersection LOS: F
Intersection Capacity Utilization 112.3% ICU Level of Service H
Analysis Period (min) 15
* User Entered Value
~ 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: 3: NC 55 & SE Wake EB Off-Ramp/SE Wake Ramps



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	433	0	704	0	2766	2207	0	1786	467
Future Volume (vph)	0	0	0	433	0	704	0	2766	2207	0	1786	467
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	0		0	0		500
Storage Lanes	0		0	2		2	0		1	0		1
Taper Length (ft)	100			100			150			100		
Lane Util. Factor	1.00	1.00	1.00	0.97	1.00	0.88	1.00	0.91	1.00	1.00	0.91	1.00
Frt						0.850			0.850			0.850
Flt Protected				0.950								
Satd. Flow (prot)	0	0	0	3303	0	2682	0	4893	1524	0	4893	1524
Flt Permitted				0.950								
Satd. Flow (perm)	0	0	0	3303	0	2682	0	4893	1524	0	4893	1524
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		45			45			55			55	
Link Distance (ft)		1805			356			176			1313	
Travel Time (s)		27.3			5.4			2.2			16.3	
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 (%)	6%	6%	6%	6%	6%	6%	6%	6%	6%	6%	6%	6%
Adj. Flow (vph)	0	0	0	481	0	782	0	3073	2452	0	1984	519
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	481	0	782	0	3073	2452	0	1984	519
Turn Type				Prot		Prot		NA	Free		NA	Free
Protected Phases				8		8		2			6	
Permitted Phases									Free			Free
Detector Phase				8		8		2			6	
Switch Phase												
Minimum Initial (s)				7.0		7.0		14.0			14.0	
Minimum Split (s)				19.0		19.0		21.0			21.0	
Total Split (s)				53.0		53.0		107.0			107.0	
Total Split (%)				33.1%		33.1%		66.9%			66.9%	
Maximum Green (s)				46.0		46.0		100.0			100.0	
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		None		C-Max			C-Max	
Act Effct Green (s)				48.0		48.0		102.0	160.0		102.0	160.0
Actuated g/C Ratio				0.30		0.30		0.64	1.00		0.64	1.00
v/c Ratio				0.49		0.97		0.99	1.61		0.64	0.34
Control Delay				47.9		80.5		21.7	292.2		18.9	0.6
Queue Delay				0.0		0.0		4.4	0.0		0.0	0.0
Total Delay				47.9		80.5		26.1	292.2		18.9	0.6
LOS				D		F		C	F		B	A
Approach Delay					68.1			144.2			15.1	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS					E			F			B	
Queue Length 50th (ft)				213		461		1010	~2566		441	0
Queue Length 95th (ft)				271		#613		m485	m#1326		486	0
Internal Link Dist (ft)		1725			276			96			1233	
Turn Bay Length (ft)												500
Base Capacity (vph)				990		804		3119	1524		3119	1524
Starvation Cap Reductn				0		0		65	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				0.49		0.97		1.01	1.61		0.64	0.34

Intersection Summary

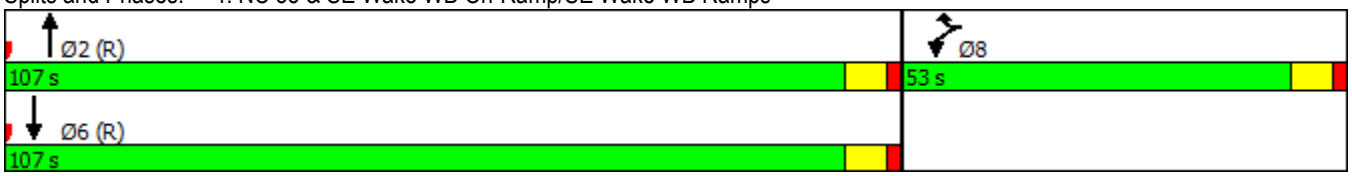
Area Type: Other
Cycle Length: 160
Actuated Cycle Length: 160
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle: 110
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.61
Intersection Signal Delay: 99.0 Intersection LOS: F
Intersection Capacity Utilization 86.4% ICU Level of Service E
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: 4: NC 55 & SE Wake WB On-Ramp/SE Wake WB Ramps



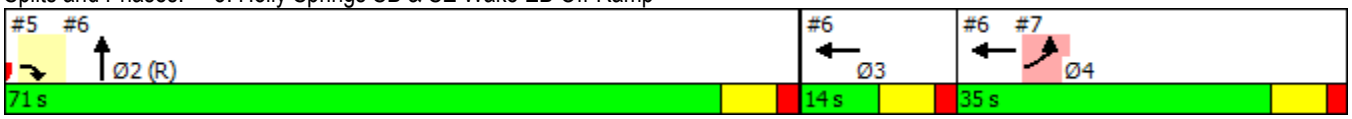
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR	Ø3	Ø4
Lane Configurations								
Traffic Volume (vph)	0	273	0	0	1134	0		
Future Volume (vph)	0	273	0	0	1134	0		
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900		
Lane Util. Factor	1.00	0.88	1.00	1.00	*0.70	1.00		
Frt		0.850						
Flt Protected								
Satd. Flow (prot)	0	2787	0	0	3912	0		
Flt Permitted								
Satd. Flow (perm)	0	2787	0	0	3912	0		
Right Turn on Red		No				No		
Satd. Flow (RTOR)								
Link Speed (mph)	25			25	25			
Link Distance (ft)	348			188	304			
Travel Time (s)	9.5			5.1	8.3			
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90		
Adj. Flow (vph)	0	303	0	0	1260	0		
Shared Lane Traffic (%)								
Lane Group Flow (vph)	0	303	0	0	1260	0		
Turn Type		Prot			NA			
Protected Phases		2!			Free!		3	4
Permitted Phases								
Detector Phase		2			3			
Switch Phase								
Minimum Initial (s)		4.0					4.0	4.0
Minimum Split (s)		19.0					14.0	19.0
Total Split (s)		71.0					14.0	35.0
Total Split (%)		59.2%					12%	29%
Maximum Green (s)		64.0					7.0	28.0
Yellow Time (s)		5.0					5.0	5.0
All-Red Time (s)		2.0					2.0	2.0
Lost Time Adjust (s)		-2.0						
Total Lost Time (s)		5.0						
Lead/Lag							Lead	Lag
Lead-Lag Optimize?							Yes	
Vehicle Extension (s)		3.0					3.0	3.0
Recall Mode		C-Max					None	None
Act Effct Green (s)		67.6			120.0			
Actuated g/C Ratio		0.56			1.00			
v/c Ratio		0.19			0.32			
Control Delay		13.6			2.7			
Queue Delay		0.0			0.0			
Total Delay		13.6			2.7			
LOS		B			A			
Approach Delay	13.6				2.7			
Approach LOS	B				A			
Queue Length 50th (ft)		64			60			
Queue Length 95th (ft)		92			58			
Internal Link Dist (ft)	268			108	224			

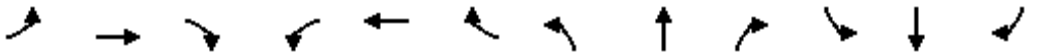
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR	Ø3	Ø4
Turn Bay Length (ft)								
Base Capacity (vph)		1569			3912			
Starvation Cap Reductn		0			0			
Spillback Cap Reductn		0			0			
Storage Cap Reductn		0			0			
Reduced v/c Ratio		0.19			0.32			

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 52 (43%), Referenced to phase 2:EBR, Start of Green
Natural Cycle: 65
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.70
Intersection Signal Delay: 4.8 Intersection LOS: A
Intersection Capacity Utilization 65.2% ICU Level of Service C
Analysis Period (min) 15
* User Entered Value
! Phase conflict between lane groups.

Splits and Phases: 5: Holly Springs SB & SE Wake EB Off-Ramp





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	0	1134	0	0	1808	0	0	0	0
Future Volume (vph)	0	0	0	0	1134	0	0	1808	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	0.91	1.00	1.00	0.91	1.00	1.00	1.00	1.00
Frt												
Flt Protected												
Satd. Flow (prot)	0	0	0	0	5085	0	0	5085	0	0	0	0
Flt Permitted												
Satd. Flow (perm)	0	0	0	0	5085	0	0	5085	0	0	0	0
Right Turn on Red			No			No	No		No			No
Satd. Flow (RTOR)												
Link Speed (mph)		25			25			45			45	
Link Distance (ft)		304			167			208			175	
Travel Time (s)		8.3			4.6			3.2			2.7	
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)	0	0	0	0	1260	0	0	2009	0	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	1260	0	0	2009	0	0	0	0
Turn Type					NA			NA				
Protected Phases					4 3			2				
Permitted Phases												
Detector Phase					4 3			2				
Switch Phase												
Minimum Initial (s)								4.0				
Minimum Split (s)								19.0				
Total Split (s)								71.0				
Total Split (%)								59.2%				
Maximum Green (s)								64.0				
Yellow Time (s)								5.0				
All-Red Time (s)								2.0				
Lost Time Adjust (s)								-2.0				
Total Lost Time (s)								5.0				
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)								3.0				
Recall Mode								C-Max				
Act Effct Green (s)					42.4			67.6				
Actuated g/C Ratio					0.35			0.56				
v/c Ratio					0.70			0.70				
Control Delay					24.6			20.9				
Queue Delay					0.0			0.0				
Total Delay					24.6			20.9				
LOS					C			C				
Approach Delay					24.6			20.9				
Approach LOS					C			C				
Queue Length 50th (ft)					213			405				
Queue Length 95th (ft)					260			463				
Internal Link Dist (ft)		224			87			128			95	

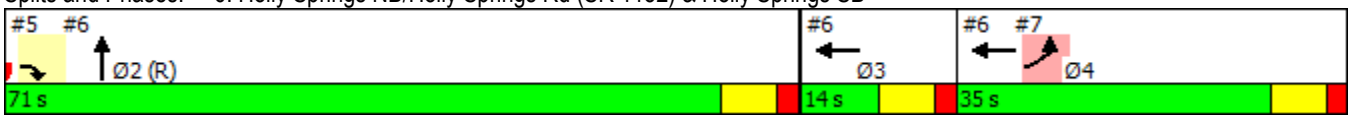
Lane Group	Ø3	Ø4
Lane Configurations		
Traffic Volume (vph)		
Future Volume (vph)		
Ideal Flow (vphpl)		
Lane Util. Factor		
Frt		
Flt Protected		
Satd. Flow (prot)		
Flt Permitted		
Satd. Flow (perm)		
Right Turn on Red		
Satd. Flow (RTOR)		
Link Speed (mph)		
Link Distance (ft)		
Travel Time (s)		
Peak Hour Factor		
Adj. Flow (vph)		
Shared Lane Traffic (%)		
Lane Group Flow (vph)		
Turn Type		
Protected Phases	3	4
Permitted Phases		
Detector Phase		
Switch Phase		
Minimum Initial (s)	4.0	4.0
Minimum Split (s)	14.0	19.0
Total Split (s)	14.0	35.0
Total Split (%)	12%	29%
Maximum Green (s)	7.0	28.0
Yellow Time (s)	5.0	5.0
All-Red Time (s)	2.0	2.0
Lost Time Adjust (s)		
Total Lost Time (s)		
Lead/Lag	Lead	Lag
Lead-Lag Optimize?	Yes	
Vehicle Extension (s)	3.0	3.0
Recall Mode	None	None
Act Effct Green (s)		
Actuated g/C Ratio		
v/c Ratio		
Control Delay		
Queue Delay		
Total Delay		
LOS		
Approach Delay		
Approach LOS		
Queue Length 50th (ft)		
Queue Length 95th (ft)		
Internal Link Dist (ft)		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Bay Length (ft)												
Base Capacity (vph)					1864			2864				
Starvation Cap Reductn					0			0				
Spillback Cap Reductn					0			0				
Storage Cap Reductn					0			0				
Reduced v/c Ratio					0.68			0.70				

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 52 (43%), Referenced to phase 2:EBR, Start of Green
Natural Cycle: 65
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.70
Intersection Signal Delay: 22.3 Intersection LOS: C
Intersection Capacity Utilization 65.2% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 6: Holly Springs NB/Holly Springs Rd (SR 1152) & Holly Springs SB



Lane Group	Ø3	Ø4
Turn Bay Length (ft)		
Base Capacity (vph)		
Starvation Cap Reductn		
Spillback Cap Reductn		
Storage Cap Reductn		
Reduced v/c Ratio		

Intersection Summary

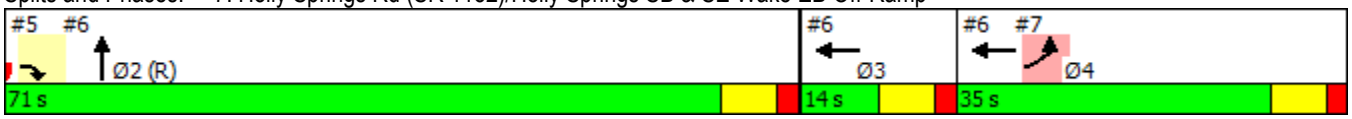
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR	Ø2	Ø3
Lane Configurations								
Traffic Volume (vph)	152	0	0	1808	0	0		
Future Volume (vph)	152	0	0	1808	0	0		
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900		
Lane Util. Factor	0.97	1.00	1.00	0.91	1.00	1.00		
Frt								
Flt Protected	0.950							
Satd. Flow (prot)	3433	0	0	5085	0	0		
Flt Permitted	0.950							
Satd. Flow (perm)	3433	0	0	5085	0	0		
Right Turn on Red	No	No				No		
Satd. Flow (RTOR)								
Link Speed (mph)	25			45	45			
Link Distance (ft)	330			175	324			
Travel Time (s)	9.0			2.7	4.9			
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90		
Adj. Flow (vph)	169	0	0	2009	0	0		
Shared Lane Traffic (%)								
Lane Group Flow (vph)	169	0	0	2009	0	0		
Turn Type	Prot			NA				
Protected Phases	4!			Free!			2	3
Permitted Phases								
Detector Phase	4							
Switch Phase								
Minimum Initial (s)	4.0						4.0	4.0
Minimum Split (s)	19.0						19.0	14.0
Total Split (s)	35.0						71.0	14.0
Total Split (%)	29.2%						59%	12%
Maximum Green (s)	28.0						64.0	7.0
Yellow Time (s)	5.0						5.0	5.0
All-Red Time (s)	2.0						2.0	2.0
Lost Time Adjust (s)	-2.0							
Total Lost Time (s)	5.0							
Lead/Lag	Lag							Lead
Lead-Lag Optimize?								Yes
Vehicle Extension (s)	3.0						3.0	3.0
Recall Mode	None						C-Max	None
Act Effct Green (s)	28.4			120.0				
Actuated g/C Ratio	0.24			1.00				
v/c Ratio	0.21			0.40				
Control Delay	37.0			0.2				
Queue Delay	0.0			0.0				
Total Delay	37.0			0.2				
LOS	D			A				
Approach Delay	37.0			0.2				
Approach LOS	D			A				
Queue Length 50th (ft)	53			0				
Queue Length 95th (ft)	83			0				
Internal Link Dist (ft)	250			95	244			

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR	Ø2	Ø3
Turn Bay Length (ft)								
Base Capacity (vph)	858			5085				
Starvation Cap Reductn	0			0				
Spillback Cap Reductn	0			0				
Storage Cap Reductn	0			0				
Reduced v/c Ratio	0.20			0.40				

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 52 (43%), Referenced to phase 2:EBR, Start of Green
Natural Cycle: 65
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.70
Intersection Signal Delay: 3.0 Intersection LOS: A
Intersection Capacity Utilization 53.2% ICU Level of Service A
Analysis Period (min) 15
! Phase conflict between lane groups.

Splits and Phases: 7: Holly Springs Rd (SR 1152)/Holly Springs SB & SE Wake EB Off-Ramp



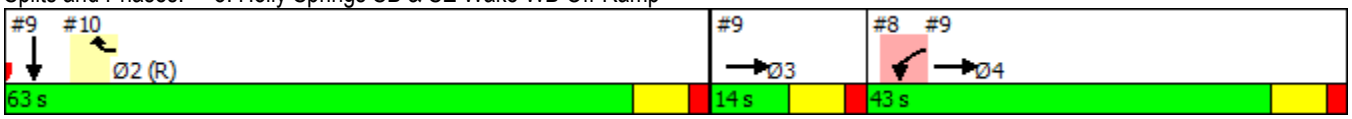
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	Ø2	Ø3
Lane Configurations								
Traffic Volume (vph)	592	0	0	0	0	921		
Future Volume (vph)	592	0	0	0	0	921		
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900		
Lane Util. Factor	0.97	1.00	1.00	1.00	1.00	0.91		
Frt								
Flt Protected	0.950							
Satd. Flow (prot)	3433	0	0	0	0	5085		
Flt Permitted	0.950							
Satd. Flow (perm)	3433	0	0	0	0	5085		
Right Turn on Red	No	No		No				
Satd. Flow (RTOR)								
Link Speed (mph)	25		25			25		
Link Distance (ft)	219		441			139		
Travel Time (s)	6.0		12.0			3.8		
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90		
Adj. Flow (vph)	658	0	0	0	0	1023		
Shared Lane Traffic (%)								
Lane Group Flow (vph)	658	0	0	0	0	1023		
Turn Type	Prot					NA		
Protected Phases	4!					Free!	2	3
Permitted Phases								
Detector Phase	4							
Switch Phase								
Minimum Initial (s)	4.0						4.0	4.0
Minimum Split (s)	19.0						19.0	14.0
Total Split (s)	43.0						63.0	14.0
Total Split (%)	35.8%						53%	12%
Maximum Green (s)	36.0						56.0	7.0
Yellow Time (s)	5.0						5.0	5.0
All-Red Time (s)	2.0						2.0	2.0
Lost Time Adjust (s)	-2.0							
Total Lost Time (s)	5.0							
Lead/Lag	Lag							Lead
Lead-Lag Optimize?								Yes
Vehicle Extension (s)	3.0						3.0	3.0
Recall Mode	None						C-Max	None
Act Effct Green (s)	36.9					120.0		
Actuated g/C Ratio	0.31					1.00		
v/c Ratio	0.62					0.20		
Control Delay	38.4					0.1		
Queue Delay	0.0					0.0		
Total Delay	38.4					0.1		
LOS	D					A		
Approach Delay	38.4					0.1		
Approach LOS	D					A		
Queue Length 50th (ft)	221					0		
Queue Length 95th (ft)	284					0		
Internal Link Dist (ft)	139		361			59		

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	Ø2	Ø3
Turn Bay Length (ft)								
Base Capacity (vph)	1087					5085		
Starvation Cap Reductn	0					0		
Spillback Cap Reductn	0					0		
Storage Cap Reductn	0					0		
Reduced v/c Ratio	0.61					0.20		

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 4 (3%), Referenced to phase 2:SBT, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.70
Intersection Signal Delay: 15.1 Intersection LOS: B
Intersection Capacity Utilization 56.0% ICU Level of Service B
Analysis Period (min) 15
! Phase conflict between lane groups.

Splits and Phases: 8: Holly Springs SB & SE Wake WB Off-Ramp



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1353	0	0	0	0	0	0	0	0	921	0
Future Volume (vph)	0	1353	0	0	0	0	0	0	0	0	921	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	0.91	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91	1.00
Frt												
Flt Protected												
Satd. Flow (prot)	0	5085	0	0	0	0	0	0	0	0	5085	0
Flt Permitted												
Satd. Flow (perm)	0	5085	0	0	0	0	0	0	0	0	5085	0
Right Turn on Red			No			No			No	No		No
Satd. Flow (RTOR)												
Link Speed (mph)		45			45			25			25	
Link Distance (ft)		247			129			139			134	
Travel Time (s)		3.7			2.0			3.8			3.7	
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)	0	1503	0	0	0	0	0	0	0	0	1023	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1503	0	0	0	0	0	0	0	0	1023	0
Turn Type		NA									NA	
Protected Phases		4 3									2	
Permitted Phases												
Detector Phase		4 3									2	
Switch Phase												
Minimum Initial (s)											4.0	
Minimum Split (s)											19.0	
Total Split (s)											63.0	
Total Split (%)											52.5%	
Maximum Green (s)											56.0	
Yellow Time (s)											5.0	
All-Red Time (s)											2.0	
Lost Time Adjust (s)											-2.0	
Total Lost Time (s)											5.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)											3.0	
Recall Mode											C-Max	
Act Effct Green (s)		50.9									59.1	
Actuated g/C Ratio		0.42									0.49	
v/c Ratio		0.70									0.41	
Control Delay		14.2									16.1	
Queue Delay		0.3									0.0	
Total Delay		14.5									16.1	
LOS		B									B	
Approach Delay		14.5									16.1	
Approach LOS		B									B	
Queue Length 50th (ft)		168									152	
Queue Length 95th (ft)		179									180	
Internal Link Dist (ft)		167			49			59			54	

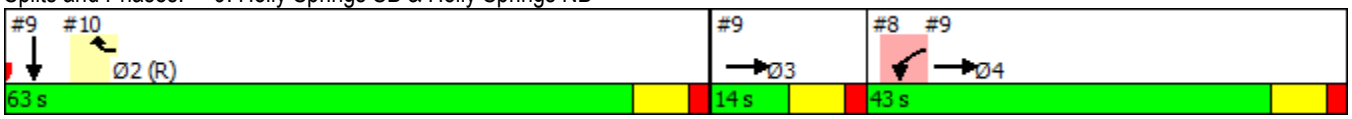
Lane Group	Ø3	Ø4
Lane Configurations		
Traffic Volume (vph)		
Future Volume (vph)		
Ideal Flow (vphpl)		
Lane Util. Factor		
Frt		
Flt Protected		
Satd. Flow (prot)		
Flt Permitted		
Satd. Flow (perm)		
Right Turn on Red		
Satd. Flow (RTOR)		
Link Speed (mph)		
Link Distance (ft)		
Travel Time (s)		
Peak Hour Factor		
Adj. Flow (vph)		
Shared Lane Traffic (%)		
Lane Group Flow (vph)		
Turn Type		
Protected Phases	3	4
Permitted Phases		
Detector Phase		
Switch Phase		
Minimum Initial (s)	4.0	4.0
Minimum Split (s)	14.0	19.0
Total Split (s)	14.0	43.0
Total Split (%)	12%	36%
Maximum Green (s)	7.0	36.0
Yellow Time (s)	5.0	5.0
All-Red Time (s)	2.0	2.0
Lost Time Adjust (s)		
Total Lost Time (s)		
Lead/Lag	Lead	Lag
Lead-Lag Optimize?	Yes	
Vehicle Extension (s)	3.0	3.0
Recall Mode	None	None
Act Effct Green (s)		
Actuated g/C Ratio		
v/c Ratio		
Control Delay		
Queue Delay		
Total Delay		
LOS		
Approach Delay		
Approach LOS		
Queue Length 50th (ft)		
Queue Length 95th (ft)		
Internal Link Dist (ft)		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Bay Length (ft)												
Base Capacity (vph)		2203									2504	
Starvation Cap Reductn		221									0	
Spillback Cap Reductn		0									0	
Storage Cap Reductn		0									0	
Reduced v/c Ratio		0.76									0.41	

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 4 (3%), Referenced to phase 2:SBT, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.70
Intersection Signal Delay: 15.2 Intersection LOS: B
Intersection Capacity Utilization 52.3% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 9: Holly Springs SB & Holly Springs NB



Lane Group	Ø3	Ø4
Turn Bay Length (ft)		
Base Capacity (vph)		
Starvation Cap Reductn		
Spillback Cap Reductn		
Storage Cap Reductn		
Reduced v/c Ratio		

Intersection Summary

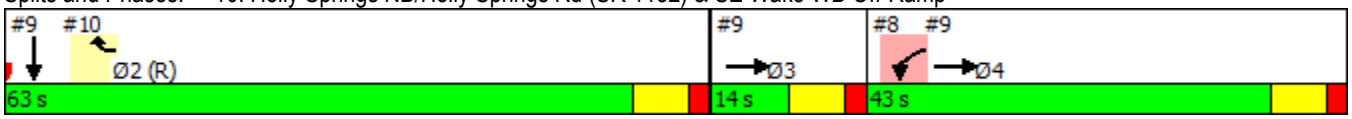
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	Ø3	Ø4
Lane Configurations								
Traffic Volume (vph)	0	765	1353	0	0	0		
Future Volume (vph)	0	765	1353	0	0	0		
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900		
Lane Util. Factor	1.00	0.88	0.91	1.00	1.00	1.00		
Frt		0.850						
Flt Protected								
Satd. Flow (prot)	0	2787	5085	0	0	0		
Flt Permitted								
Satd. Flow (perm)	0	2787	5085	0	0	0		
Right Turn on Red		No		No				
Satd. Flow (RTOR)								
Link Speed (mph)	25		45			45		
Link Distance (ft)	349		129			227		
Travel Time (s)	9.5		2.0			3.4		
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90		
Adj. Flow (vph)	0	850	1503	0	0	0		
Shared Lane Traffic (%)								
Lane Group Flow (vph)	0	850	1503	0	0	0		
Turn Type		Prot	NA					
Protected Phases		2!	Free!				3	4
Permitted Phases								
Detector Phase		2						
Switch Phase								
Minimum Initial (s)		4.0					4.0	4.0
Minimum Split (s)		19.0					14.0	19.0
Total Split (s)		63.0					14.0	43.0
Total Split (%)		52.5%					12%	36%
Maximum Green (s)		56.0					7.0	36.0
Yellow Time (s)		5.0					5.0	5.0
All-Red Time (s)		2.0					2.0	2.0
Lost Time Adjust (s)		-2.0						
Total Lost Time (s)		5.0						
Lead/Lag							Lead	Lag
Lead-Lag Optimize?							Yes	
Vehicle Extension (s)		3.0					3.0	3.0
Recall Mode		C-Max					None	None
Act Effct Green (s)		59.1	120.0					
Actuated g/C Ratio		0.49	1.00					
v/c Ratio		0.62	0.30					
Control Delay		25.0	0.1					
Queue Delay		0.0	0.0					
Total Delay		25.0	0.1					
LOS		C	A					
Approach Delay	25.0		0.1					
Approach LOS	C		A					
Queue Length 50th (ft)		270	0					
Queue Length 95th (ft)		346	0					
Internal Link Dist (ft)	269		49			147		

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	Ø3	Ø4
Turn Bay Length (ft)								
Base Capacity (vph)		1372	5085					
Starvation Cap Reductn		0	0					
Spillback Cap Reductn		0	0					
Storage Cap Reductn		0	0					
Reduced v/c Ratio		0.62	0.30					

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 4 (3%), Referenced to phase 2:SBT, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.70
Intersection Signal Delay: 9.1 Intersection LOS: A
Intersection Capacity Utilization 60.4% ICU Level of Service B
Analysis Period (min) 15
! Phase conflict between lane groups.

Splits and Phases: 10: Holly Springs NB/Holly Springs Rd (SR 1152) & SE Wake WB Off-Ramp



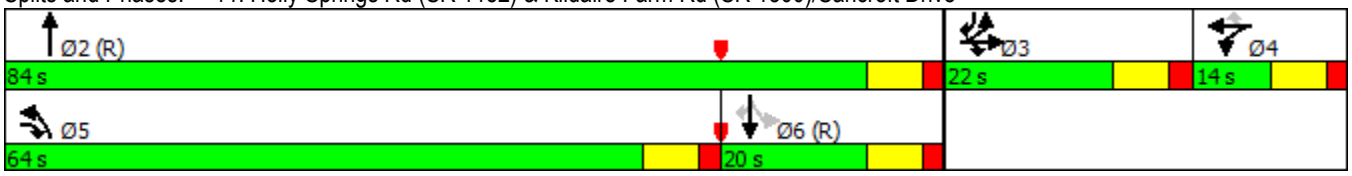
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	416	1	838	11	5	5	1502	589	4	2	248	314
Future Volume (vph)	416	1	838	11	5	5	1502	589	4	2	248	314
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		-3%			0%			-2%			4%	
Storage Length (ft)	400		650	50		75	0		0	150		450
Storage Lanes	1		1	0		1	2		0	1		1
Taper Length (ft)	200			100			150			150		
Lane Util. Factor	0.95	0.95	0.88	1.00	1.00	1.00	0.97	0.95	0.95	1.00	0.95	1.00
Frt			0.850			0.850		0.999				0.850
Flt Protected	0.950	0.953			0.968		0.950			0.950		
Satd. Flow (prot)	1706	1712	2828	0	1803	1583	3467	3571	0	1734	3468	1552
Flt Permitted	0.950	0.953			0.968		0.950			0.402		
Satd. Flow (perm)	1706	1712	2828	0	1803	1583	3467	3571	0	734	3468	1552
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		45			35			45			45	
Link Distance (ft)		1366			504			485			616	
Travel Time (s)		20.7			9.8			7.3			9.3	
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)	462	1	931	12	6	6	1669	654	4	2	276	349
Shared Lane Traffic (%)	50%											
Lane Group Flow (vph)	231	232	931	0	18	6	1669	658	0	2	276	349
Turn Type	Split	NA	pt+ov	Split	NA	Perm	Prot	NA		Perm	NA	pm+ov
Protected Phases	3	3	3 5	4	4		5	2			6	3
Permitted Phases						4				6		6
Detector Phase	3	3	3 5	4	4	4	5	2		6	6	3
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0	7.0	7.0	12.0		12.0	12.0	7.0
Minimum Split (s)	14.0	14.0		14.0	14.0	14.0	14.0	19.0		19.0	19.0	14.0
Total Split (s)	22.0	22.0		14.0	14.0	14.0	64.0	84.0		20.0	20.0	22.0
Total Split (%)	18.3%	18.3%		11.7%	11.7%	11.7%	53.3%	70.0%		16.7%	16.7%	18.3%
Maximum Green (s)	15.0	15.0		7.0	7.0	7.0	57.0	77.0		13.0	13.0	15.0
Yellow Time (s)	5.0	5.0		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	2.0	2.0
Lost Time Adjust (s)	-2.0	-2.0			-2.0	-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		5.0	5.0	5.0
Lead/Lag	Lead	Lead		Lag	Lag	Lag	Lead			Lag	Lag	Lead
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes			Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Recall Mode	None	None		None	None	None	None	C-Max		C-Max	C-Max	None
Act Effct Green (s)	17.0	17.0	80.7		9.0	9.0	61.7	84.6		17.9	17.9	39.9
Actuated g/C Ratio	0.14	0.14	0.67		0.08	0.08	0.51	0.70		0.15	0.15	0.33
v/c Ratio	0.96	0.96	0.49		0.13	0.05	0.94	0.26		0.02	0.53	0.68
Control Delay	99.8	99.8	7.2		54.4	52.8	30.3	6.8		47.0	52.6	43.4
Queue Delay	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	99.8	99.8	7.2		54.4	52.8	30.3	6.8		47.0	52.6	43.4
LOS	F	F	A		D	D	C	A		D	D	D
Approach Delay		38.0			54.0			23.7			47.4	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		D			D			C			D	
Queue Length 50th (ft)	189	190	103		13	4	328	87		1	108	241
Queue Length 95th (ft)	#356	#357	131		38	19	#800	108		10	155	355
Internal Link Dist (ft)		1286			424			405			536	
Turn Bay Length (ft)	400		650			75				150		450
Base Capacity (vph)	241	242	1901		135	118	1781	2517		109	517	516
Starvation Cap Reductn	0	0	0		0	0	0	0		0	0	0
Spillback Cap Reductn	0	0	0		0	0	0	0		0	0	0
Storage Cap Reductn	0	0	0		0	0	0	0		0	0	0
Reduced v/c Ratio	0.96	0.96	0.49		0.13	0.05	0.94	0.26		0.02	0.53	0.68

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green
Natural Cycle: 110
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.96
Intersection Signal Delay: 31.8 Intersection LOS: C
Intersection Capacity Utilization 83.6% ICU Level of Service E
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 11: Holly Springs Rd (SR 1152) & Kildaire Farm Rd (SR 1300)/Sancroft Drive



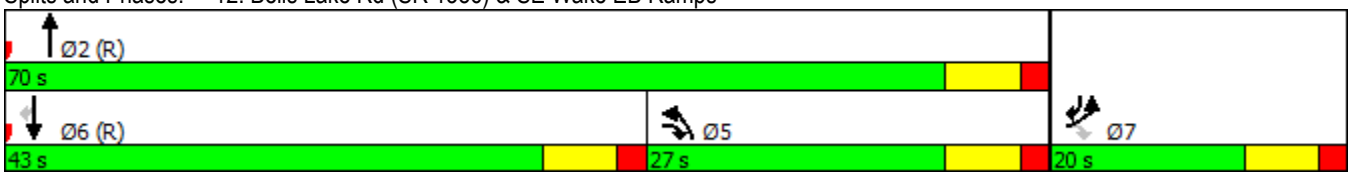
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	143	394	133	819	239	316
Future Volume (vph)	143	394	133	819	239	316
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	500	0	325			675
Storage Lanes	1	1	1			1
Taper Length (ft)	200		200			
Lane Util. Factor	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	1770	1863	1863	1583
Flt Permitted	0.950		0.950			
Satd. Flow (perm)	1770	1583	1770	1863	1863	1583
Right Turn on Red		No				No
Satd. Flow (RTOR)						
Link Speed (mph)	45			45	45	
Link Distance (ft)	766			1124	1065	
Travel Time (s)	11.6			17.0	16.1	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	159	438	148	910	266	351
Shared Lane Traffic (%)						
Lane Group Flow (vph)	159	438	148	910	266	351
Turn Type	Prot	pm+ov	Prot	NA	NA	pm+ov
Protected Phases	7	5	5	2	6	7
Permitted Phases		7				6
Detector Phase	7	5	5	2	6	7
Switch Phase						
Minimum Initial (s)	7.0	7.0	7.0	12.0	12.0	7.0
Minimum Split (s)	14.0	14.0	14.0	19.0	19.0	14.0
Total Split (s)	20.0	27.0	27.0	70.0	43.0	20.0
Total Split (%)	22.2%	30.0%	30.0%	77.8%	47.8%	22.2%
Maximum Green (s)	13.0	20.0	20.0	63.0	36.0	13.0
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	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	7.0
Lead/Lag		Lag	Lag		Lead	
Lead-Lag Optimize?		Yes	Yes		Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None	None	C-Max	C-Max	None
Act Effct Green (s)	14.5	41.5	22.0	65.5	38.5	56.0
Actuated g/C Ratio	0.16	0.46	0.24	0.73	0.43	0.62
v/c Ratio	0.56	0.60	0.34	0.67	0.33	0.36
Control Delay	43.0	22.2	30.8	9.7	15.8	5.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	43.0	22.2	30.8	9.7	15.8	5.6
LOS	D	C	C	A	B	A
Approach Delay	27.7			12.7	10.0	
Approach LOS	C			B	B	

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Queue Length 50th (ft)	84	177	70	235	105	45
Queue Length 95th (ft)	147	275	124	357	164	89
Internal Link Dist (ft)	686			1044	985	
Turn Bay Length (ft)	500		325			675
Base Capacity (vph)	295	729	432	1356	797	969
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	0.54	0.60	0.34	0.67	0.33	0.36

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 42 (47%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle: 55
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.67
Intersection Signal Delay: 15.9 Intersection LOS: B
Intersection Capacity Utilization 59.4% ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 12: Bells Lake Rd (SR 1386) & SE Wake EB Ramps



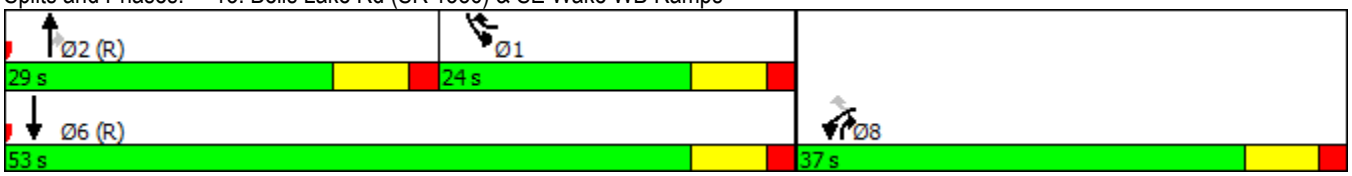
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	149	556	284	678	157	406
Future Volume (vph)	149	556	284	678	157	406
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	350	0		700	375	
Storage Lanes	1	1		1	1	
Taper Length (ft)	200				300	
Lane Util. Factor	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				0.950	
Satd. Flow (perm)	1770	1583	1863	1583	1770	1863
Right Turn on Red		No		No		
Satd. Flow (RTOR)						
Link Speed (mph)	45		45			45
Link Distance (ft)	764		1065			1466
Travel Time (s)	11.6		16.1			22.2
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	166	618	316	753	174	451
Shared Lane Traffic (%)						
Lane Group Flow (vph)	166	618	316	753	174	451
Turn Type	Prot	pm+ov	NA	pm+ov	Prot	NA
Protected Phases	8	1	2	8	1	6
Permitted Phases		8		2		
Detector Phase	8	1	2	8	1	6
Switch Phase						
Minimum Initial (s)	7.0	7.0	12.0	7.0	7.0	12.0
Minimum Split (s)	19.0	14.0	19.0	19.0	14.0	19.0
Total Split (s)	37.0	24.0	29.0	37.0	24.0	53.0
Total Split (%)	41.1%	26.7%	32.2%	41.1%	26.7%	58.9%
Maximum Green (s)	30.0	17.0	22.0	30.0	17.0	46.0
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	0.0	-2.0	-2.0
Total Lost Time (s)	5.0	5.0	5.0	7.0	5.0	5.0
Lead/Lag		Lag	Lead		Lag	
Lead-Lag Optimize?		Yes	Yes		Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None	C-Max	None	None	C-Max
Act Effct Green (s)	30.0	54.0	26.0	59.0	19.0	50.0
Actuated g/C Ratio	0.33	0.60	0.29	0.66	0.21	0.56
v/c Ratio	0.28	0.65	0.59	0.73	0.47	0.44
Control Delay	22.9	15.4	30.0	11.3	35.8	14.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	22.9	15.4	30.0	11.3	35.8	14.0
LOS	C	B	C	B	D	B
Approach Delay	17.0		16.8			20.1
Approach LOS	B		B			C

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Queue Length 50th (ft)	66	197	165	120	87	149
Queue Length 95th (ft)	115	306	255	265	150	224
Internal Link Dist (ft)	684		985			1386
Turn Bay Length (ft)	350			700	375	
Base Capacity (vph)	629	948	538	1017	373	1035
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	0.26	0.65	0.59	0.74	0.47	0.44

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.73
Intersection Signal Delay: 17.7 Intersection LOS: B
Intersection Capacity Utilization 60.7% ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 13: Bells Lake Rd (SR 1386) & SE Wake WB Ramps



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	237	31	94	54	20	343	102	2876	92	372	1838	165
Future Volume (vph)	237	31	94	54	20	343	102	2876	92	372	1838	165
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		1%			-4%			4%			-3%	
Storage Length (ft)	550		0	350		0	475		350	500		175
Storage Lanes	1		1	1		1	1		1	2		1
Taper Length (ft)	75			75			200			200		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91	1.00	0.97	0.91	1.00
Frt			0.850			0.850			0.850			0.850
Flt Protected		0.958			0.965		0.950			0.950		
Satd. Flow (prot)	0	1776	1575	0	1834	1615	1734	4984	1552	3485	5162	1607
Flt Permitted		0.683			0.313		0.950			0.950		
Satd. Flow (perm)	0	1266	1575	0	595	1615	1734	4984	1552	3485	5162	1607
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		45			20			55			55	
Link Distance (ft)		2528			1077			1156			1108	
Travel Time (s)		38.3			36.7			14.3			13.7	
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)	263	34	104	60	22	381	113	3196	102	413	2042	183
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	297	104	0	82	381	113	3196	102	413	2042	183
Turn Type	Perm	NA	pm+ov	Perm	NA	pm+ov	Prot	NA	Perm	Prot	NA	Perm
Protected Phases		4	5		8	1	5	2		1	6	
Permitted Phases	4		4	8		8			2			6
Detector Phase	4	4	5	8	8	1	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	14.0	14.0	7.0	14.0	14.0
Minimum Split (s)	35.5	35.5	14.0	14.5	14.5	14.0	14.0	21.0	21.0	14.0	21.0	21.0
Total Split (s)	36.0	36.0	22.0	36.0	36.0	19.0	22.0	90.0	90.0	19.0	87.0	87.0
Total Split (%)	24.8%	24.8%	15.2%	24.8%	24.8%	13.1%	15.2%	62.1%	62.1%	13.1%	60.0%	60.0%
Maximum Green (s)	29.0	29.0	15.0	29.0	29.0	12.0	15.0	83.0	83.0	12.0	80.0	80.0
Yellow Time (s)	5.0	5.0	5.0	5.0	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	2.0	2.0	2.0	2.0
Lost Time Adjust (s)		-2.0	0.0		-2.0	0.0	-2.0	-2.0	0.0	-2.0	-2.0	-2.0
Total Lost Time (s)		5.0	7.0		5.0	7.0	5.0	5.0	7.0	5.0	5.0	5.0
Lead/Lag			Lag			Lag	Lag	Lead	Lead	Lag	Lead	Lead
Lead-Lag Optimize?			Yes			Yes	Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	6.0	6.0	1.0	6.0	6.0
Minimum Gap (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	6.0	6.0	1.0	6.0	6.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	15.0	15.0	0.0	15.0	15.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	30.0	30.0	0.0	30.0	30.0
Recall Mode	None	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Walk Time (s)	5.0	5.0										
Flash Dont Walk (s)	23.0	23.0										
Pedestrian Calls (#/hr)	0	0										
Act Effct Green (s)		31.0	51.0		31.0	48.0	17.0	85.0	83.0	14.0	82.0	82.0
Actuated g/C Ratio		0.21	0.35		0.21	0.33	0.12	0.59	0.57	0.10	0.57	0.57

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio		1.10	0.19		0.65	0.71	0.56	1.09	0.11	1.23	0.70	0.20
Control Delay		135.8	33.8		76.4	51.2	71.8	78.3	14.6	175.0	14.4	9.6
Queue Delay		0.0	0.0		0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0
Total Delay		135.8	33.8		76.4	51.2	71.8	80.9	14.6	175.0	14.4	9.6
LOS		F	C		E	D	E	F	B	F	B	A
Approach Delay		109.3			55.7			78.6			39.2	
Approach LOS		F			E			E			D	
Queue Length 50th (ft)		~317	68		71	315	102	~1245	43	~251	315	57
Queue Length 95th (ft)		#507	116		#150	441	170	#1314	73	m#358	351	m74
Internal Link Dist (ft)		2448			997			1076			1028	
Turn Bay Length (ft)							475		350	500		175
Base Capacity (vph)		270	553		127	534	203	2921	888	336	2919	908
Starvation Cap Reductn		0	0		0	0	0	0	0	0	0	0
Spillback Cap Reductn		0	0		0	0	0	20	0	0	0	0
Storage Cap Reductn		0	0		0	0	0	0	0	0	0	0
Reduced v/c Ratio		1.10	0.19		0.65	0.71	0.56	1.10	0.11	1.23	0.70	0.20

Intersection Summary

Area Type: Other
Cycle Length: 145
Actuated Cycle Length: 145
Offset: 2 (1%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle: 150
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.23
Intersection Signal Delay: 63.8 Intersection LOS: E
Intersection Capacity Utilization 105.7% ICU Level of Service G
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: 14: US 401 & Donnybrook Rd (SR 1503)/Wake Tech Driveway



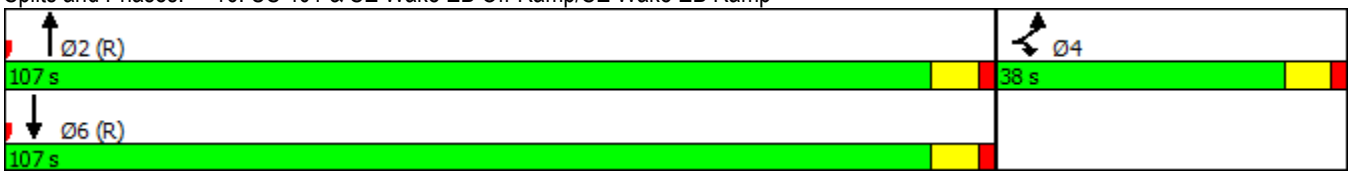
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	430	0	473	0	0	0	0	2941	559	0	1872	0
Future Volume (vph)	430	0	473	0	0	0	0	2941	559	0	1872	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	400		500	0		0	0		350	0		0
Storage Lanes	2		1	0		0	0		1	0		0
Taper Length (ft)	150			100			100			100		
Lane Util. Factor	0.97	1.00	0.88	1.00	1.00	1.00	1.00	0.91	1.00	1.00	0.91	1.00
Frt			0.850						0.850			
Flt Protected	0.950											
Satd. Flow (prot)	3433	0	2787	0	0	0	0	5085	1583	0	5085	0
Flt Permitted	0.950											
Satd. Flow (perm)	3433	0	2787	0	0	0	0	5085	1583	0	5085	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		45			45			55			55	
Link Distance (ft)		1618			2204			1108			230	
Travel Time (s)		24.5			33.4			13.7			2.9	
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)	478	0	526	0	0	0	0	3268	621	0	2080	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	478	0	526	0	0	0	0	3268	621	0	2080	0
Turn Type	Prot		Prot					NA	Free		NA	
Protected Phases	4		4					2			6	
Permitted Phases									Free			
Detector Phase	4		4					2			6	
Switch Phase												
Minimum Initial (s)	7.0		7.0					14.0			14.0	
Minimum Split (s)	14.0		14.0					21.0			21.0	
Total Split (s)	38.0		38.0					107.0			107.0	
Total Split (%)	26.2%		26.2%					73.8%			73.8%	
Maximum Green (s)	31.0		31.0					100.0			100.0	
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		None					C-Max			C-Max	
Act Effct Green (s)	31.8		31.8					103.2	145.0		103.2	
Actuated g/C Ratio	0.22		0.22					0.71	1.00		0.71	
v/c Ratio	0.64		0.86					0.90	0.39		0.57	
Control Delay	55.4		69.2					4.2	0.1		8.4	
Queue Delay	0.0		0.0					0.5	0.0		0.0	
Total Delay	55.4		69.2					4.8	0.1		8.4	
LOS	E		E					A	A		A	
Approach Delay		62.7						4.0			8.4	
Approach LOS		E						A			A	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 50th (ft)	210		271					199	0		327	
Queue Length 95th (ft)	271		#356					m179	m0		302	
Internal Link Dist (ft)		1538			2124			1028			150	
Turn Bay Length (ft)	400		500						350			
Base Capacity (vph)	781		634					3619	1583		3619	
Starvation Cap Reductn	0		0					97	0		0	
Spillback Cap Reductn	0		0					0	0		0	
Storage Cap Reductn	0		0					0	0		0	
Reduced v/c Ratio	0.61		0.83					0.93	0.39		0.57	

Intersection Summary

Area Type: Other
Cycle Length: 145
Actuated Cycle Length: 145
Offset: 144 (99%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle: 80
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.90
Intersection Signal Delay: 13.8 Intersection LOS: B
Intersection Capacity Utilization 121.2% ICU Level of Service H
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: 16: US 401 & SE Wake EB Off-Ramp/SE Wake EB Ramp



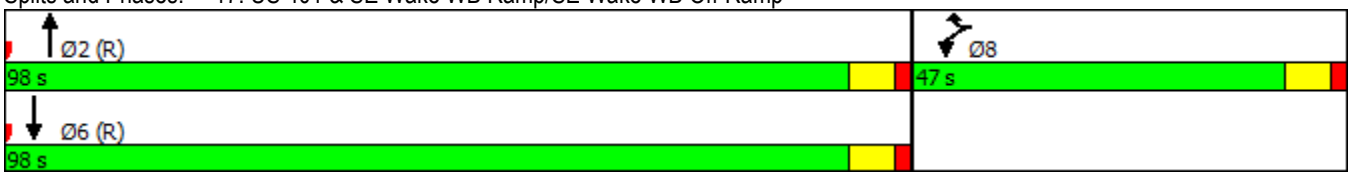
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	639	0	282	0	2505	0	0	1379	468
Future Volume (vph)	0	0	0	639	0	282	0	2505	0	0	1379	468
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	400		400	0		0	0		0
Storage Lanes	0		0	1		1	0		0	0		1
Taper Length (ft)	100			175			100			100		
Lane Util. Factor	1.00	1.00	1.00	0.97	1.00	1.00	1.00	0.91	1.00	1.00	0.91	1.00
Frt						0.850						0.850
Flt Protected				0.950								
Satd. Flow (prot)	0	0	0	3433	0	1583	0	5085	0	0	5085	1583
Flt Permitted				0.950								
Satd. Flow (perm)	0	0	0	3433	0	1583	0	5085	0	0	5085	1583
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		45			45			55			55	
Link Distance (ft)		1627			1555			227			831	
Travel Time (s)		24.7			23.6			2.8			10.3	
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)	0	0	0	710	0	313	0	2783	0	0	1532	520
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	710	0	313	0	2783	0	0	1532	520
Turn Type				Prot		Prot		NA			NA	Free
Protected Phases				8		8		2			6	
Permitted Phases												Free
Detector Phase				8		8		2			6	
Switch Phase												
Minimum Initial (s)				7.0		7.0		14.0			14.0	
Minimum Split (s)				14.0		14.0		21.0			21.0	
Total Split (s)				47.0		47.0		98.0			98.0	
Total Split (%)				32.4%		32.4%		67.6%			67.6%	
Maximum Green (s)				40.0		40.0		91.0			91.0	
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		None		C-Max			C-Max	
Act Effct Green (s)				37.3		37.3		97.7			97.7	145.0
Actuated g/C Ratio				0.26		0.26		0.67			0.67	1.00
v/c Ratio				0.80		0.77		0.81			0.45	0.33
Control Delay				57.8		62.8		9.8			11.9	0.6
Queue Delay				0.0		0.0		0.1			0.0	0.0
Total Delay				57.8		62.8		10.0			11.9	0.6
LOS				E		E		A			B	A
Approach Delay					59.4			10.0			9.1	
Approach LOS					E			A			A	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 50th (ft)				324		274		390			233	0
Queue Length 95th (ft)				383		375		557			290	0
Internal Link Dist (ft)		1547			1475			147			751	
Turn Bay Length (ft)				400		400						
Base Capacity (vph)				994		458		3426			3426	1583
Starvation Cap Reductn				0		0		96			0	0
Spillback Cap Reductn				0		0		0			0	0
Storage Cap Reductn				0		0		0			0	0
Reduced v/c Ratio				0.71		0.68		0.84			0.45	0.33

Intersection Summary

Area Type: Other
Cycle Length: 145
Actuated Cycle Length: 145
Offset: 21 (14%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.81
Intersection Signal Delay: 18.3 Intersection LOS: B
Intersection Capacity Utilization 110.2% ICU Level of Service H
Analysis Period (min) 15

Splits and Phases: 17: US 401 & SE Wake WB Ramp/SE Wake WB Off-Ramp



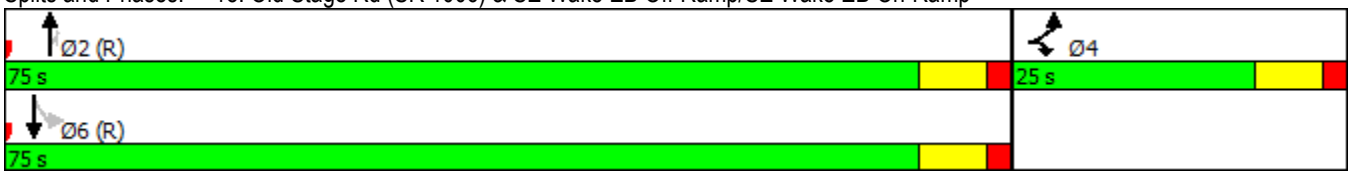
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	543	0	444	0	0	0	0	1674	81	50	460	0
Future Volume (vph)	543	0	444	0	0	0	0	1674	81	50	460	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	400		450	0		0	0		350	300		0
Storage Lanes	1		2	0		0	0		1	1		0
Taper Length (ft)	150			100			100			150		
Lane Util. Factor	0.97	1.00	0.88	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt			0.850						0.850			
Flt Protected	0.950									0.950		
Satd. Flow (prot)	3433	0	2787	0	0	0	0	3539	1583	1770	3539	0
Flt Permitted	0.950									0.067		
Satd. Flow (perm)	3433	0	2787	0	0	0	0	3539	1583	125	3539	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		1797			1507			713			1050	
Travel Time (s)		27.2			22.8			10.8			15.9	
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)	603	0	493	0	0	0	0	1860	90	56	511	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	603	0	493	0	0	0	0	1860	90	56	511	0
Turn Type	Prot		Prot					NA	Perm	Perm	NA	
Protected Phases	4		4					2			6	
Permitted Phases									2	6		
Detector Phase	4		4					2	2	6	6	
Switch Phase												
Minimum Initial (s)	7.0		7.0					12.0	12.0	12.0	12.0	
Minimum Split (s)	14.0		14.0					19.0	19.0	19.0	19.0	
Total Split (s)	25.0		25.0					75.0	75.0	75.0	75.0	
Total Split (%)	25.0%		25.0%					75.0%	75.0%	75.0%	75.0%	
Maximum Green (s)	18.0		18.0					68.0	68.0	68.0	68.0	
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	0.0	-2.0	-2.0	
Total Lost Time (s)	5.0		5.0					5.0	7.0	5.0	5.0	
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-Max	C-Max	C-Max	C-Max	
Act Effct Green (s)	20.0		20.0					70.0	68.0	70.0	70.0	
Actuated g/C Ratio	0.20		0.20					0.70	0.68	0.70	0.70	
v/c Ratio	0.88		0.89					0.75	0.08	0.64	0.21	
Control Delay	54.5		58.1					12.0	5.7	51.4	1.7	
Queue Delay	0.0		0.0					0.0	0.0	0.0	0.0	
Total Delay	54.5		58.1					12.0	5.7	51.4	1.7	
LOS	D		E					B	A	D	A	
Approach Delay		56.1						11.7			6.6	
Approach LOS		E						B			A	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 50th (ft)	193		175					344	17	35	28	
Queue Length 95th (ft)	#287		#274					432	34	m#99	32	
Internal Link Dist (ft)		1717			1427			633			970	
Turn Bay Length (ft)	400		450						350	300		
Base Capacity (vph)	686		557					2477	1076	87	2477	
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	0.88		0.89					0.75	0.08	0.64	0.21	

Intersection Summary

Area Type: Other
Cycle Length: 100
Actuated Cycle Length: 100
Offset: 13 (13%), Referenced to phase 2:NBT and 6:SBTL, Start of Green
Natural Cycle: 55
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.89
Intersection Signal Delay: 24.4 Intersection LOS: C
Intersection Capacity Utilization 84.3% ICU Level of Service E
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: 18: Old Stage Rd (SR 1006) & SE Wake EB Off-Ramp/SE Wake EB On-Ramp



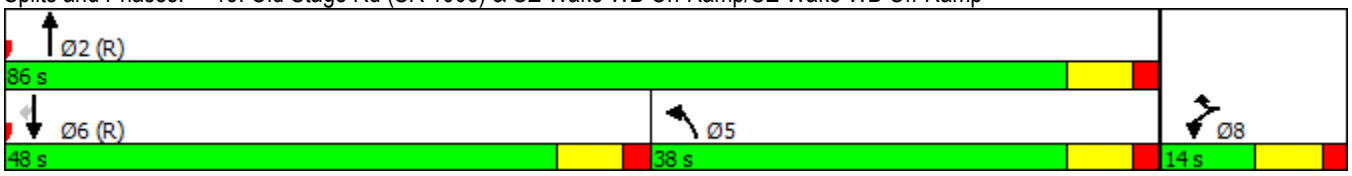
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	79	0	98	907	1310	0	0	431	551
Future Volume (vph)	0	0	0	79	0	98	907	1310	0	0	431	551
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		200	400		0	0		350
Storage Lanes	0		0	1		1	2		0	0		1
Taper Length (ft)	100			100			150			100		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	*0.88	0.95	1.00	1.00	0.95	1.00
Frt						0.850						0.850
Flt Protected				0.950			0.950					
Satd. Flow (prot)	0	0	0	1770	0	1583	3115	3539	0	0	3539	1583
Flt Permitted				0.950			0.950					
Satd. Flow (perm)	0	0	0	1770	0	1583	3115	3539	0	0	3539	1583
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		1394			1871			1050			784	
Travel Time (s)		21.1			28.3			15.9			11.9	
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)	0	0	0	88	0	109	1008	1456	0	0	479	612
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	88	0	109	1008	1456	0	0	479	612
Turn Type				Prot		Prot	Prot	NA			NA	Perm
Protected Phases				8		8	5	2			6	
Permitted Phases												6
Detector Phase				8		8	5	2			6	6
Switch Phase												
Minimum Initial (s)				7.0		7.0	7.0	12.0			12.0	12.0
Minimum Split (s)				14.0		14.0	14.0	19.0			19.0	19.0
Total Split (s)				14.0		14.0	38.0	86.0			48.0	48.0
Total Split (%)				14.0%		14.0%	38.0%	86.0%			48.0%	48.0%
Maximum Green (s)				7.0		7.0	31.0	79.0			41.0	41.0
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	0.0
Total Lost Time (s)				5.0		5.0	5.0	5.0			5.0	7.0
Lead/Lag							Lag				Lead	Lead
Lead-Lag Optimize?							Yes				Yes	Yes
Vehicle Extension (s)				3.0		3.0	3.0	3.0			3.0	3.0
Recall Mode				None		None	None	C-Max			C-Max	C-Max
Act Effct Green (s)				9.0		9.0	33.0	81.0			43.0	41.0
Actuated g/C Ratio				0.09		0.09	0.33	0.81			0.43	0.41
v/c Ratio				0.55		0.77	0.98	0.51			0.31	0.94
Control Delay				57.5		78.1	49.2	2.2			19.5	53.6
Queue Delay				0.0		0.0	0.0	0.0			0.0	0.0
Total Delay				57.5		78.1	49.2	2.2			19.5	53.6
LOS				E		E	D	A			B	D
Approach Delay					68.9			21.4			38.6	
Approach LOS					E			C			D	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 50th (ft)				55		69	371	72			103	367
Queue Length 95th (ft)				#109		#160	m#509	81			141	#594
Internal Link Dist (ft)		1314			1791			970			704	
Turn Bay Length (ft)						200	400					350
Base Capacity (vph)				159		142	1027	2866			1521	649
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				0.55		0.77	0.98	0.51			0.31	0.94

Intersection Summary

Area Type: Other
Cycle Length: 100
Actuated Cycle Length: 100
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.98
Intersection Signal Delay: 28.9 Intersection LOS: C
Intersection Capacity Utilization 84.3% ICU Level of Service E
Analysis Period (min) 15
* User Entered Value
\# 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: 19: Old Stage Rd (SR 1006) & SE Wake WB On-Ramp/SE Wake WB Off-Ramp



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	23	7	13	51	6	859	12	958	51	450	502	11
Future Volume (vph)	23	7	13	51	6	859	12	958	51	450	502	11
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	10	12	12	11	12	11	11	12	11	11	12
Grade (%)		-1%			1%			2%			-2%	
Storage Length (ft)	0		0	0		150	100		0	1000		0
Storage Lanes	0		0	0		1	1		0	1		1
Taper Length (ft)	100			100			75			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		0.961				0.850		0.992				0.850
Flt Protected		0.974			0.957		0.950			0.950		
Satd. Flow (prot)	0	1620	0	0	1715	1575	1694	1768	0	1728	1819	1599
Flt Permitted		0.796			0.806		0.435			0.950		
Satd. Flow (perm)	0	1324	0	0	1444	1575	775	1768	0	1728	1819	1599
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		25			55			55			55	
Link Distance (ft)		1058			1031			566			1632	
Travel Time (s)		28.9			12.8			7.0			20.2	
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
Heavy Vehicles (%)	3%	3%	3%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Adj. Flow (vph)	26	8	14	57	7	954	13	1064	57	500	558	12
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	48	0	0	64	954	13	1121	0	500	558	12
Turn Type	Perm	NA		Perm	NA	Free	Perm	NA		Prot	NA	Perm
Protected Phases		4			8			2		1	6	
Permitted Phases	4			8		Free	2					6
Detector Phase	4	4		8	8		2	2		1	6	6
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		14.0	14.0		7.0	14.0	14.0
Minimum Split (s)	14.0	14.0		14.0	14.0		21.0	21.0		14.0	21.0	21.0
Total Split (s)	14.0	14.0		14.0	14.0		71.0	71.0		35.0	106.0	106.0
Total Split (%)	11.7%	11.7%		11.7%	11.7%		59.2%	59.2%		29.2%	88.3%	88.3%
Maximum Green (s)	7.0	7.0		7.0	7.0		64.0	64.0		28.0	99.0	99.0
Yellow Time (s)	5.0	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	2.0
Lost Time Adjust (s)		-2.0			-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	5.0
Lead/Lag							Lead	Lead		Lag		
Lead-Lag Optimize?							Yes	Yes		Yes		
Vehicle Extension (s)	1.0	1.0		1.0	1.0		6.0	6.0		1.0	6.0	6.0
Minimum Gap (s)	1.0	1.0		1.0	1.0		6.0	6.0		1.0	6.0	6.0
Time Before Reduce (s)	0.0	0.0		0.0	0.0		15.0	15.0		0.0	15.0	15.0
Time To Reduce (s)	0.0	0.0		0.0	0.0		40.0	40.0		0.0	40.0	40.0
Recall Mode	None	None		None	None		C-Max	C-Max		None	C-Max	C-Max
Act Effct Green (s)		9.0			9.0	120.0	68.8	68.8		30.0	104.8	104.8
Actuated g/C Ratio		0.08			0.08	1.00	0.57	0.57		0.25	0.87	0.87
v/c Ratio		0.48			0.59	0.61	0.03	1.11		1.16	0.35	0.01

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Control Delay		70.3			76.3	1.7	12.8	89.0		129.6	1.1	0.7
Queue Delay		0.0			0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay		70.3			76.3	1.7	12.8	89.0		129.6	1.1	0.7
LOS		E			E	A	B	F		F	A	A
Approach Delay		70.3			6.4			88.1			61.1	
Approach LOS		E			A			F			E	
Queue Length 50th (ft)		36			49	0	4	~1023		~462	15	0
Queue Length 95th (ft)		78			#109	0	14	#1281		m#671	m33	m1
Internal Link Dist (ft)		978			951			486			1552	
Turn Bay Length (ft)						150	100			1000		
Base Capacity (vph)		99			108	1575	444	1013		432	1588	1396
Starvation Cap Reductn		0			0	0	0	0		0	0	0
Spillback Cap Reductn		0			0	0	0	0		0	0	0
Storage Cap Reductn		0			0	0	0	0		0	0	0
Reduced v/c Ratio		0.48			0.59	0.61	0.03	1.11		1.16	0.35	0.01

Intersection Summary

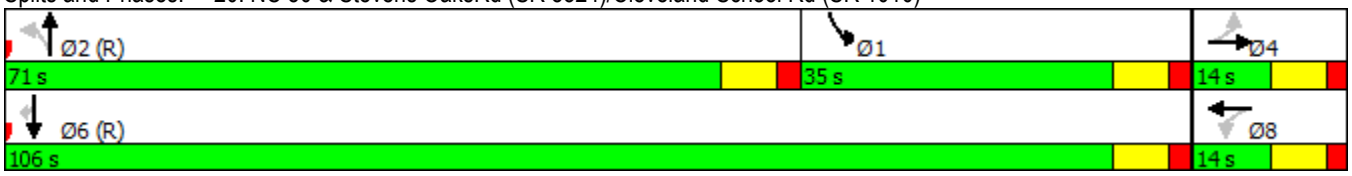
Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 94 (78%), Referenced to phase 2:NBTL and 6:SBT, Start of Green
Natural Cycle: 150
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.16
Intersection Signal Delay: 53.6 Intersection LOS: D
Intersection Capacity Utilization 100.0% ICU Level of Service G
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: 20: NC 50 & Stevens OaksRd (SR 5324)/Cleveland School Rd (SR 1010)



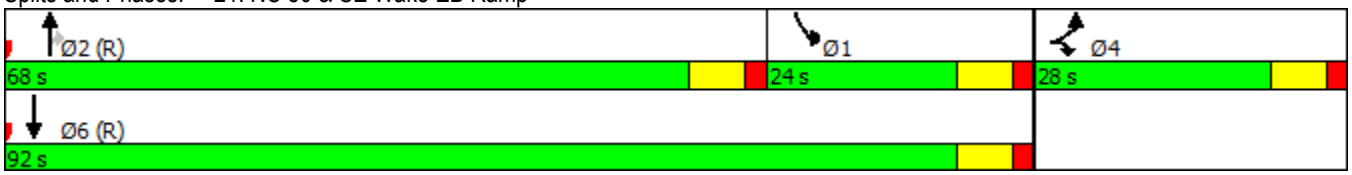
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	75	0	390	0	0	0	0	1411	416	363	579	0
Future Volume (vph)	75	0	390	0	0	0	0	1411	416	363	579	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	600		600	0		0	0		400	400		0
Storage Lanes	1		1	0		0	0		1	1		0
Taper Length (ft)	100			100			100			225		
Lane Util. Factor	1.00	1.00	0.88	1.00	1.00	1.00	1.00	0.95	1.00	*0.88	0.95	1.00
Frt			0.850						0.850			
Flt Protected	0.950									0.950		
Satd. Flow (prot)	1770	0	2787	0	0	0	0	3539	1583	3115	3539	0
Flt Permitted	0.950									0.950		
Satd. Flow (perm)	1770	0	2787	0	0	0	0	3539	1583	3115	3539	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		45			45			55			55	
Link Distance (ft)		1729			1389			1632			1116	
Travel Time (s)		26.2			21.0			20.2			13.8	
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
Heavy Vehicles (%)	2%	6%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Adj. Flow (vph)	83	0	433	0	0	0	0	1568	462	403	643	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	83	0	433	0	0	0	0	1568	462	403	643	0
Turn Type	Prot		Prot					NA	Perm	Prot	NA	
Protected Phases	4		4					2		1	6	
Permitted Phases									2			
Detector Phase	4		4					2	2	1	6	
Switch Phase												
Minimum Initial (s)	7.0		7.0					14.0	14.0	7.0	14.0	
Minimum Split (s)	19.0		19.0					21.0	21.0	14.0	21.0	
Total Split (s)	28.0		28.0					68.0	68.0	24.0	92.0	
Total Split (%)	23.3%		23.3%					56.7%	56.7%	20.0%	76.7%	
Maximum Green (s)	21.0		21.0					61.0	61.0	17.0	85.0	
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	-2.0	
Total Lost Time (s)	5.0		5.0					5.0	5.0	5.0	5.0	
Lead/Lag								Lead	Lead	Lag		
Lead-Lag Optimize?								Yes	Yes	Yes		
Vehicle Extension (s)	3.0		3.0					3.0	3.0	3.0	3.0	
Recall Mode	None		None					C-Max	C-Max	None	C-Max	
Act Effct Green (s)	22.4		22.4					63.6	63.6	19.0	87.6	
Actuated g/C Ratio	0.19		0.19					0.53	0.53	0.16	0.73	
v/c Ratio	0.25		0.83					0.84	0.55	0.82	0.25	
Control Delay	43.6		61.7					14.6	10.3	60.5	1.8	
Queue Delay	0.0		0.0					0.0	0.0	0.0	0.0	
Total Delay	43.6		61.7					14.6	10.3	60.5	1.8	
LOS	D		E					B	B	E	A	
Approach Delay		58.8						13.6			24.4	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		E						B			C	
Queue Length 50th (ft)	55		184					346	123	185	23	
Queue Length 95th (ft)	103		#266					m346	m140	#262	29	
Internal Link Dist (ft)		1649			1309			1552			1036	
Turn Bay Length (ft)	600		600						400	400		
Base Capacity (vph)	339		534					1875	839	493	2583	
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	0.24		0.81					0.84	0.55	0.82	0.25	

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 117 (98%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle: 80
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.84
Intersection Signal Delay: 23.2 Intersection LOS: C
Intersection Capacity Utilization 65.2% ICU Level of Service C
Analysis Period (min) 15
* User Entered Value
\# 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: 21: NC 50 & SE Wake EB Ramp



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	633	329	860	626	613	75
Future Volume (vph)	633	329	860	626	613	75
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0	450			350
Storage Lanes	2	1	1			1
Taper Length (ft)	150		225			
Lane Util. Factor	0.97	1.00	*0.88	0.95	0.95	1.00
Ped Bike Factor	0.74					
Frt		0.850				0.850
Flt Protected	0.950		0.950			
Satd. Flow (prot)	3433	1583	3115	3539	3539	1583
Flt Permitted	0.950		0.950			
Satd. Flow (perm)	2547	1583	3115	3539	3539	1583
Right Turn on Red		No				No
Satd. Flow (RTOR)						
Link Speed (mph)	25			55	55	
Link Distance (ft)	455			1116	682	
Travel Time (s)	12.4			13.8	8.5	
Confl. Peds. (#/hr)	129					
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	703	366	956	696	681	83
Shared Lane Traffic (%)						
Lane Group Flow (vph)	703	366	956	696	681	83
Turn Type	Prot	pm+ov	Prot	NA	NA	pm+ov
Protected Phases	4	5	5	2	6	4
Permitted Phases		4				6
Detector Phase	4	5	5	2	6	4
Switch Phase						
Minimum Initial (s)	7.0	7.0	7.0	14.0	14.0	7.0
Minimum Split (s)	19.0	14.0	14.0	21.0	21.0	19.0
Total Split (s)	35.0	49.0	49.0	85.0	36.0	35.0
Total Split (%)	29.2%	40.8%	40.8%	70.8%	30.0%	29.2%
Maximum Green (s)	28.0	42.0	42.0	78.0	29.0	28.0
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	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	7.0
Lead/Lag		Lag	Lag		Lead	
Lead-Lag Optimize?		Yes	Yes		Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None	None	C-Max	C-Max	None
Act Effct Green (s)	28.9	77.9	44.0	81.1	32.1	64.0
Actuated g/C Ratio	0.24	0.65	0.37	0.68	0.27	0.53
v/c Ratio	0.85	0.36	0.84	0.29	0.72	0.10
Control Delay	54.3	10.6	17.6	0.5	45.3	14.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	54.3	10.6	17.6	0.5	45.3	14.2
LOS	D	B	B	A	D	B

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Approach Delay	39.3			10.4	41.9	
Approach LOS	D			B	D	
Queue Length 50th (ft)	265	116	342	13	255	30
Queue Length 95th (ft)	338	170	379	m11	325	57
Internal Link Dist (ft)	375			1036	602	
Turn Bay Length (ft)			450			350
Base Capacity (vph)	858	1028	1142	2391	946	821
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	0.82	0.36	0.84	0.29	0.72	0.10

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 114 (95%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle: 70
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.85
Intersection Signal Delay: 26.2 Intersection LOS: C
Intersection Capacity Utilization 72.0% ICU Level of Service C
Analysis Period (min) 15
* User Entered Value
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 22: NC 50 & SE Wake WB Ramps



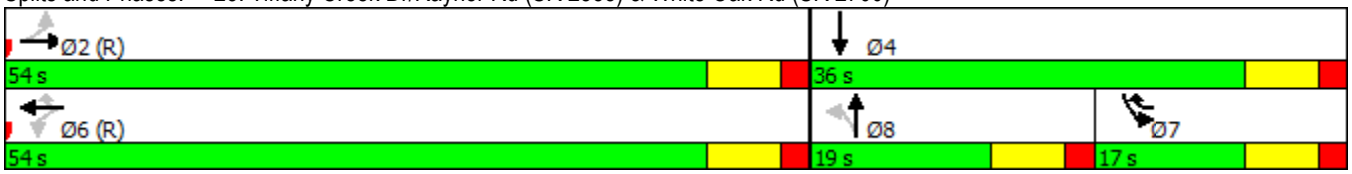
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	57	600	3	7	1130	265	10	10	19	127	3	52
Future Volume (vph)	57	600	3	7	1130	265	10	10	19	127	3	52
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	150		100	0		0	300		0
Storage Lanes	1		0	1		1	0		0	1		0
Taper Length (ft)	250			100			100			100		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.999				0.850		0.934			0.857	
Flt Protected	0.950			0.950				0.987		0.950		
Satd. Flow (prot)	1770	3536	0	1770	3539	1583	0	1717	0	1770	1596	0
Flt Permitted	0.158			0.370				0.893		0.950		
Satd. Flow (perm)	294	3536	0	689	3539	1583	0	1554	0	1770	1596	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		45			45			35			45	
Link Distance (ft)		1051			1339			1001			1394	
Travel Time (s)		15.9			20.3			19.5			21.1	
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)	63	667	3	8	1256	294	11	11	21	141	3	58
Shared Lane Traffic (%)												
Lane Group Flow (vph)	63	670	0	8	1256	294	0	43	0	141	61	0
Turn Type	Perm	NA		Perm	NA	pm+ov	Perm	NA		Prot	NA	
Protected Phases		2			6	7		8		7	4	
Permitted Phases	2			6		6	8					
Detector Phase	2	2		6	6	7	8	8		7	4	
Switch Phase												
Minimum Initial (s)	12.0	12.0		12.0	12.0	7.0	7.0	7.0		7.0	7.0	
Minimum Split (s)	19.0	19.0		19.0	19.0	14.0	19.0	19.0		14.0	19.0	
Total Split (s)	54.0	54.0		54.0	54.0	17.0	19.0	19.0		17.0	36.0	
Total Split (%)	60.0%	60.0%		60.0%	60.0%	18.9%	21.1%	21.1%		18.9%	40.0%	
Maximum Green (s)	47.0	47.0		47.0	47.0	10.0	12.0	12.0		10.0	29.0	
Yellow Time (s)	5.0	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	2.0	
Lost Time Adjust (s)	-2.0	-2.0		-2.0	-2.0	1.0		-2.0		-2.0	-2.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0	8.0		5.0		5.0	5.0	
Lead/Lag						Lag	Lead	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	3.0	
Recall Mode	C-Max	C-Max		C-Max	C-Max	None	None	None		None	None	
Act Effct Green (s)	57.3	57.3		57.3	57.3	75.5		10.3		13.0	22.7	
Actuated g/C Ratio	0.64	0.64		0.64	0.64	0.84		0.11		0.14	0.25	
v/c Ratio	0.34	0.30		0.02	0.56	0.22		0.24		0.55	0.15	
Control Delay	17.7	9.3		5.6	6.0	1.9		39.3		44.2	23.2	
Queue Delay	0.0	0.0		0.0	0.0	0.0		0.0		0.0	0.0	
Total Delay	17.7	9.3		5.6	6.0	1.9		39.3		44.2	23.2	
LOS	B	A		A	A	A		D		D	C	
Approach Delay		10.0			5.2			39.3			37.9	
Approach LOS		B			A			D			D	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 50th (ft)	19	100		1	128	17		23		74	24	
Queue Length 95th (ft)	58	142		m2	145	37		53		136	51	
Internal Link Dist (ft)		971			1259			921			1314	
Turn Bay Length (ft)	150			150		100				300		
Base Capacity (vph)	187	2252		438	2253	1308		241		265	549	
Starvation Cap Reductn	0	0		0	0	0		0		0	0	
Spillback Cap Reductn	0	0		0	0	0		0		0	0	
Storage Cap Reductn	0	0		0	0	0		0		0	0	
Reduced v/c Ratio	0.34	0.30		0.02	0.56	0.22		0.18		0.53	0.11	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 71 (79%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.56
Intersection Signal Delay: 9.8 Intersection LOS: A
Intersection Capacity Utilization 67.4% ICU Level of Service C
Analysis Period (min) 15
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 23: Tiffany Creek Dr/Raynor Rd (SR 2555) & White Oak Rd (SR 2700)



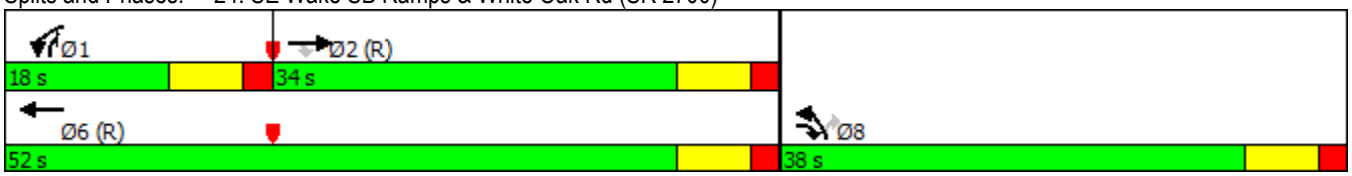
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	440	306	68	1039	321	280
Future Volume (vph)	440	306	68	1039	321	280
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		200	250		450	0
Storage Lanes		1	1		1	1
Taper Length (ft)			150		300	
Lane Util. Factor	0.95	1.00	1.00	0.95	1.00	1.00
Frt		0.850				0.850
Flt Protected			0.950		0.950	
Satd. Flow (prot)	3539	1583	1770	3539	1770	1583
Flt Permitted			0.950		0.950	
Satd. Flow (perm)	3539	1583	1770	3539	1770	1583
Right Turn on Red		No				No
Satd. Flow (RTOR)						
Link Speed (mph)	45			45	25	
Link Distance (ft)	1339			1453	684	
Travel Time (s)	20.3			22.0	18.7	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	489	340	76	1154	357	311
Shared Lane Traffic (%)						
Lane Group Flow (vph)	489	340	76	1154	357	311
Turn Type	NA	pm+ov	Prot	NA	Prot	pm+ov
Protected Phases	2	8	1	6	8	1
Permitted Phases		2				8
Detector Phase	2	8	1	6	8	1
Switch Phase						
Minimum Initial (s)	12.0	7.0	7.0	12.0	7.0	7.0
Minimum Split (s)	19.0	14.0	14.0	19.0	14.0	14.0
Total Split (s)	34.0	38.0	18.0	52.0	38.0	18.0
Total Split (%)	37.8%	42.2%	20.0%	57.8%	42.2%	20.0%
Maximum Green (s)	27.0	31.0	11.0	45.0	31.0	11.0
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	0.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)	5.0	7.0	5.0	5.0	5.0	5.0
Lead/Lag	Lag		Lead			Lead
Lead-Lag Optimize?	Yes		Yes			Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	C-Max	None	None	C-Max	None	None
Act Effct Green (s)	38.3	66.9	11.1	54.4	25.6	41.7
Actuated g/C Ratio	0.43	0.74	0.12	0.60	0.28	0.46
v/c Ratio	0.32	0.29	0.35	0.54	0.71	0.42
Control Delay	13.0	2.5	42.5	7.9	36.4	17.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	13.0	2.5	42.5	7.9	36.4	17.0
LOS	B	A	D	A	D	B
Approach Delay	8.7			10.1	27.3	
Approach LOS	A			B	C	

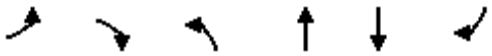
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Queue Length 50th (ft)	54	5	39	99	182	114
Queue Length 95th (ft)	93	40	m59	276	246	142
Internal Link Dist (ft)	1259			1373	604	
Turn Bay Length (ft)		200	250		450	
Base Capacity (vph)	1506	1307	255	2140	649	766
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.32	0.26	0.30	0.54	0.55	0.41

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 84 (93%), Referenced to phase 2:EBT and 6:WBT, Start of Green
Natural Cycle: 55
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.71
Intersection Signal Delay: 13.9 Intersection LOS: B
Intersection Capacity Utilization 54.8% ICU Level of Service A
Analysis Period (min) 15
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 24: SE Wake SB Ramps & White Oak Rd (SR 2700)





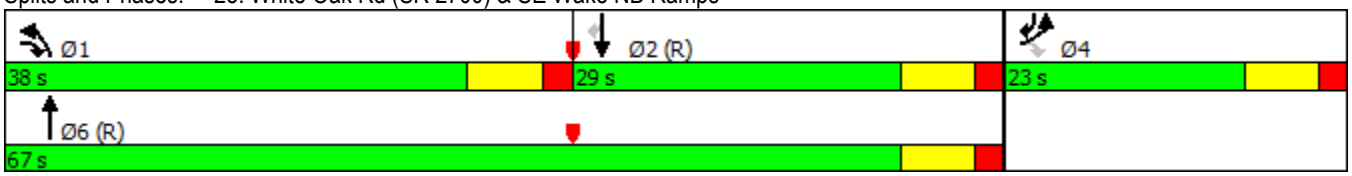
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	402	36	386	705	540	180
Future Volume (vph)	402	36	386	705	540	180
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	300	150	500			300
Storage Lanes	1	1	1			1
Taper Length (ft)	150		150			
Lane Util. Factor	0.97	1.00	1.00	0.95	0.95	1.00
Frt		0.850				0.850
Flt Protected	0.950		0.950			
Satd. Flow (prot)	3433	1583	1770	3539	3539	1583
Flt Permitted	0.950		0.950			
Satd. Flow (perm)	3433	1583	1770	3539	3539	1583
Right Turn on Red		No				No
Satd. Flow (RTOR)						
Link Speed (mph)	45			45	45	
Link Distance (ft)	432			833	1453	
Travel Time (s)	6.5			12.6	22.0	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	447	40	429	783	600	200
Shared Lane Traffic (%)						
Lane Group Flow (vph)	447	40	429	783	600	200
Turn Type	Prot	pm+ov	Prot	NA	NA	pm+ov
Protected Phases	4	1	1	6	2	4
Permitted Phases		4				2
Detector Phase	4	1	1	6	2	4
Switch Phase						
Minimum Initial (s)	7.0	7.0	7.0	12.0	12.0	7.0
Minimum Split (s)	14.0	14.0	14.0	19.0	19.0	14.0
Total Split (s)	23.0	38.0	38.0	67.0	29.0	23.0
Total Split (%)	25.6%	42.2%	42.2%	74.4%	32.2%	25.6%
Maximum Green (s)	16.0	31.0	31.0	60.0	22.0	16.0
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	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	7.0
Lead/Lag		Lead	Lead		Lag	
Lead-Lag Optimize?		Yes	Yes		Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None	None	C-Max	C-Max	None
Act Effct Green (s)	17.1	50.2	28.1	62.9	29.8	49.9
Actuated g/C Ratio	0.19	0.56	0.31	0.70	0.33	0.55
v/c Ratio	0.69	0.05	0.78	0.32	0.51	0.23
Control Delay	39.8	7.5	38.0	5.8	21.5	7.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	39.8	7.5	38.0	5.8	21.5	7.7
LOS	D	A	D	A	C	A
Approach Delay	37.2			17.2	18.1	
Approach LOS	D			B	B	

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Queue Length 50th (ft)	121	9	216	81	136	24
Queue Length 95th (ft)	172	20	306	107	122	49
Internal Link Dist (ft)	352			753	1373	
Turn Bay Length (ft)	300	150	500			300
Base Capacity (vph)	686	968	649	2473	1172	893
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	0.65	0.04	0.66	0.32	0.51	0.22

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 14 (16%), Referenced to phase 2:SBT and 6:NBT, Start of Green
Natural Cycle: 55
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.78
Intersection Signal Delay: 21.4 Intersection LOS: C
Intersection Capacity Utilization 60.3% ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 25: White Oak Rd (SR 2700) & SE Wake NB Ramps



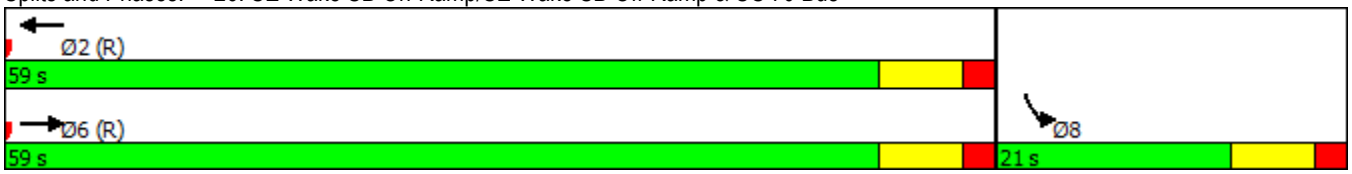
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↱		↑↑↑					↰↰		↱
Traffic Volume (vph)	0	2084	83	0	2284	0	0	0	0	377	0	313
Future Volume (vph)	0	2084	83	0	2284	0	0	0	0	377	0	313
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		325	0		0	0		0	400		400
Storage Lanes	0		1	0		0	0		0	1		1
Taper Length (ft)	100			100			100			150		
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91	1.00	1.00	1.00	1.00	0.97	1.00	1.00
Frt			0.850									0.850
Flt Protected										0.950		
Satd. Flow (prot)	0	4940	1538	0	4940	0	0	0	0	3335	0	1538
Flt Permitted										0.950		
Satd. Flow (perm)	0	4940	1538	0	4940	0	0	0	0	3335	0	1538
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		55			55			45			45	
Link Distance (ft)		1299			336			452			1767	
Travel Time (s)		16.1			4.2			6.8			26.8	
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
Heavy Vehicles (%)	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
Adj. Flow (vph)	0	2316	92	0	2538	0	0	0	0	419	0	348
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	2316	92	0	2538	0	0	0	0	419	0	348
Turn Type		NA	Free		NA					Prot		Free
Protected Phases		6			2					8		
Permitted Phases			Free									Free
Detector Phase		6			2					8		
Switch Phase												
Minimum Initial (s)		14.0			14.0					7.0		
Minimum Split (s)		21.0			21.0					14.0		
Total Split (s)		59.0			59.0					21.0		
Total Split (%)		73.8%			73.8%					26.3%		
Maximum Green (s)		52.0			52.0					14.0		
Yellow Time (s)		5.0			5.0					5.0		
All-Red Time (s)		2.0			2.0					2.0		
Lost Time Adjust (s)		-2.0			-2.0					-2.0		
Total Lost Time (s)		5.0			5.0					5.0		
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)		3.0			3.0					3.0		
Recall Mode		C-Max			C-Max					None		
Act Effct Green (s)		54.7	80.0		54.7					15.3		80.0
Actuated g/C Ratio		0.68	1.00		0.68					0.19		1.00
v/c Ratio		0.69	0.06		0.75					0.66		0.23
Control Delay		9.0	0.1		3.8					35.2		0.3
Queue Delay		0.0	0.0		0.0					0.0		0.0
Total Delay		9.0	0.1		3.8					35.2		0.3
LOS		A	A		A					D		A
Approach Delay		8.7			3.8						19.4	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		A			A						B	
Queue Length 50th (ft)		221	0		63					99		0
Queue Length 95th (ft)		271	0		69					145		0
Internal Link Dist (ft)		1219			256			372			1687	
Turn Bay Length (ft)			325							400		400
Base Capacity (vph)		3376	1538		3376					667		1538
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		0.69	0.06		0.75					0.63		0.23

Intersection Summary

Area Type: Other
Cycle Length: 80
Actuated Cycle Length: 80
Offset: 12 (15%), Referenced to phase 2:WBT and 6:EBT, Start of Green
Natural Cycle: 55
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.75
Intersection Signal Delay: 8.0 Intersection LOS: A
Intersection Capacity Utilization 63.2% ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 26: SE Wake SB On-Ramp/SE Wake SB Off-Ramp & US 70 Bus



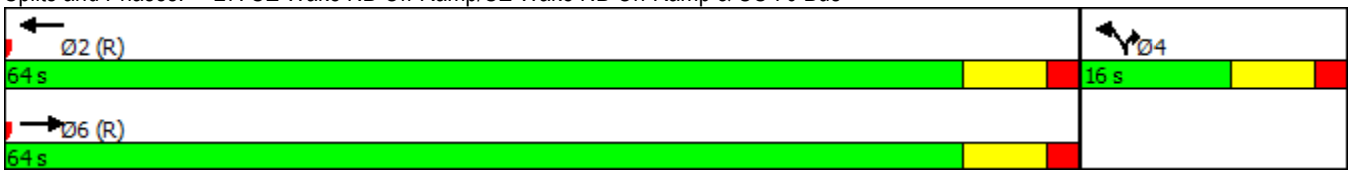
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	2010	0	0	2623	740	54	0	189	0	0	0
Future Volume (vph)	0	2010	0	0	2623	740	54	0	189	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		325	250		450	0		0
Storage Lanes	0		0	0		1	1		1	0		0
Taper Length (ft)	100			100			200			100		
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91	1.00	1.00	1.00	0.88	1.00	1.00	1.00
Frt						0.850			0.850			
Flt Protected							0.950					
Satd. Flow (prot)	0	4940	0	0	4940	1538	1719	0	2707	0	0	0
Flt Permitted							0.950					
Satd. Flow (perm)	0	4940	0	0	4940	1538	1719	0	2707	0	0	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		55			55			45			45	
Link Distance (ft)		343			1050			1551			462	
Travel Time (s)		4.3			13.0			23.5			7.0	
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 (%)	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
Adj. Flow (vph)	0	2233	0	0	2914	822	60	0	210	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	2233	0	0	2914	822	60	0	210	0	0	0
Turn Type		NA			NA	Free	Prot		Prot			
Protected Phases		6			2		4		4			
Permitted Phases						Free						
Detector Phase		6			2		4		4			
Switch Phase												
Minimum Initial (s)		14.0			14.0		7.0		7.0			
Minimum Split (s)		21.0			21.0		14.0		14.0			
Total Split (s)		64.0			64.0		16.0		16.0			
Total Split (%)		80.0%			80.0%		20.0%		20.0%			
Maximum Green (s)		57.0			57.0		9.0		9.0			
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		C-Max			C-Max		None		None			
Act Effct Green (s)		59.2			59.2	80.0	10.8		10.8			
Actuated g/C Ratio		0.74			0.74	1.00	0.14		0.14			
v/c Ratio		0.61			0.80	0.53	0.26		0.58			
Control Delay		4.0			8.8	1.3	34.1		39.3			
Queue Delay		0.0			0.0	0.0	0.0		0.0			
Total Delay		4.0			8.8	1.3	34.1		39.3			
LOS		A			A	A	C		D			
Approach Delay		4.0			7.2			38.2				

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		A			A			D				
Queue Length 50th (ft)		108			272	0	27		56			
Queue Length 95th (ft)		121			335	0	62		94			
Internal Link Dist (ft)		263			970			1471			382	
Turn Bay Length (ft)						325	250		450			
Base Capacity (vph)		3657			3657	1538	236		372			
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		0.61			0.80	0.53	0.25		0.56			

Intersection Summary

Area Type: Other
Cycle Length: 80
Actuated Cycle Length: 80
Offset: 0 (0%), Referenced to phase 2:WBT and 6:EBT, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.80
Intersection Signal Delay: 7.4 Intersection LOS: A
Intersection Capacity Utilization 64.8% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 27: SE Wake NB Off-Ramp/SE Wake NB On-Ramp & US 70 Bus



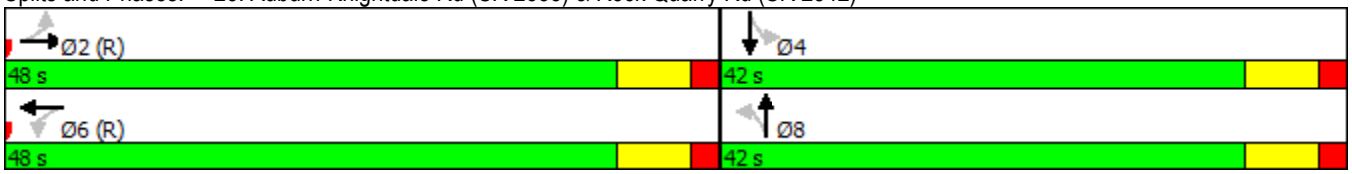
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	43	326	91	131	665	72	110	39	78	60	55	73
Future Volume (vph)	43	326	91	131	665	72	110	39	78	60	55	73
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		-3%			1%			-2%			1%	
Storage Length (ft)	200		0	150		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (ft)	100			300			100			100		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor								1.00				
Frt		0.967			0.985			0.953			0.948	
Flt Protected	0.950			0.950				0.976			0.984	
Satd. Flow (prot)	1796	3474	0	1761	3469	0	0	1733	0	0	1712	0
Flt Permitted	0.314			0.486				0.684			0.792	
Satd. Flow (perm)	594	3474	0	901	3469	0	0	1213	0	0	1378	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		55			55			45			45	
Link Distance (ft)		1019			1254			1019			1037	
Travel Time (s)		12.6			15.5			15.4			15.7	
Confl. Peds. (#/hr)							3					
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%	3%	3%	3%	3%	3%	3%
Adj. Flow (vph)	48	362	101	146	739	80	122	43	87	67	61	81
Shared Lane Traffic (%)												
Lane Group Flow (vph)	48	463	0	146	819	0	0	252	0	0	209	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Detector Phase	2	2		6	6		8	8		4	4	
Switch Phase												
Minimum Initial (s)	14.0	14.0		14.0	14.0		7.0	7.0		7.0	7.0	
Minimum Split (s)	21.0	21.0		21.0	21.0		14.0	14.0		14.0	14.0	
Total Split (s)	48.0	48.0		48.0	48.0		42.0	42.0		42.0	42.0	
Total Split (%)	53.3%	53.3%		53.3%	53.3%		46.7%	46.7%		46.7%	46.7%	
Maximum Green (s)	41.0	41.0		41.0	41.0		35.0	35.0		35.0	35.0	
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)	6.0	6.0		6.0	6.0		1.0	1.0		1.0	1.0	
Minimum Gap (s)	6.0	6.0		6.0	6.0		1.0	1.0		1.0	1.0	
Time Before Reduce (s)	20.0	20.0		20.0	20.0		0.0	0.0		0.0	0.0	
Time To Reduce (s)	40.0	40.0		40.0	40.0		0.0	0.0		0.0	0.0	
Recall Mode	C-Max	C-Max		C-Max	C-Max		None	None		None	None	
Act Effct Green (s)	58.5	58.5		58.5	58.5			21.5			21.5	
Actuated g/C Ratio	0.65	0.65		0.65	0.65			0.24			0.24	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.12	0.21		0.25	0.36			0.87			0.64	
Control Delay	9.0	7.5		3.4	2.7			60.1			38.5	
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	
Total Delay	9.0	7.5		3.4	2.7			60.1			38.5	
LOS	A	A		A	A			E			D	
Approach Delay		7.7			2.8			60.1			38.5	
Approach LOS		A			A			E			D	
Queue Length 50th (ft)	9	50		8	25			138			107	
Queue Length 95th (ft)	31	93		19	40			205			159	
Internal Link Dist (ft)		939			1174			939			957	
Turn Bay Length (ft)	200			150								
Base Capacity (vph)	385	2256		585	2252			498			566	
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	0.12	0.21		0.25	0.36			0.51			0.37	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 30 (33%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green
Natural Cycle: 40
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.87
Intersection Signal Delay: 15.4 Intersection LOS: B
Intersection Capacity Utilization 65.4% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 28: Auburn-Knightdale Rd (SR 2555) & Rock Quarry Rd (SR 2542)



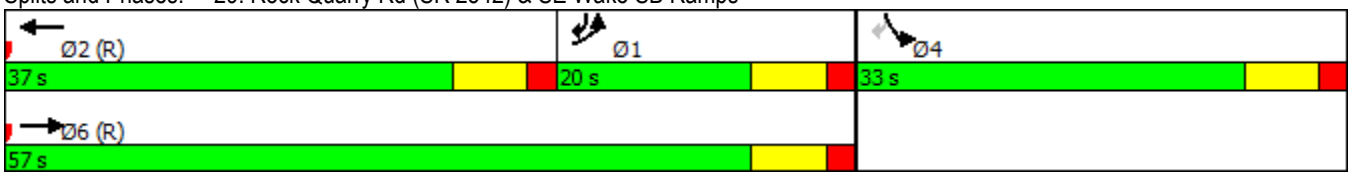
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	140	327	605	91	305	258
Future Volume (vph)	140	327	605	91	305	258
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	400			200	550	0
Storage Lanes	1			0	1	1
Taper Length (ft)	300				200	
Lane Util. Factor	1.00	0.95	0.95	0.95	1.00	1.00
Frt			0.980			0.850
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1770	3539	3468	0	1770	1583
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	1770	3539	3468	0	1770	1583
Right Turn on Red				No		No
Satd. Flow (RTOR)						
Link Speed (mph)		55	55		45	
Link Distance (ft)		1254	1133		576	
Travel Time (s)		15.5	14.0		8.7	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	156	363	672	101	339	287
Shared Lane Traffic (%)						
Lane Group Flow (vph)	156	363	773	0	339	287
Turn Type	Prot	NA	NA		Prot	pm+ov
Protected Phases	1	6	2		4	1
Permitted Phases						4
Detector Phase	1	6	2		4	1
Switch Phase						
Minimum Initial (s)	7.0	14.0	14.0		7.0	7.0
Minimum Split (s)	14.0	21.0	21.0		14.0	14.0
Total Split (s)	20.0	57.0	37.0		33.0	20.0
Total Split (%)	22.2%	63.3%	41.1%		36.7%	22.2%
Maximum Green (s)	13.0	50.0	30.0		26.0	13.0
Yellow Time (s)	5.0	5.0	5.0		5.0	5.0
All-Red Time (s)	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			Lag
Lead-Lag Optimize?	Yes		Yes			Yes
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0
Recall Mode	None	C-Max	C-Max		None	None
Act Effct Green (s)	15.0	56.4	36.4		23.6	43.6
Actuated g/C Ratio	0.17	0.63	0.40		0.26	0.48
v/c Ratio	0.53	0.16	0.55		0.73	0.37
Control Delay	36.0	5.2	19.8		39.7	15.6
Queue Delay	0.0	0.0	0.0		0.0	0.0
Total Delay	36.0	5.2	19.8		39.7	15.6
LOS	D	A	B		D	B
Approach Delay		14.5	19.8		28.6	
Approach LOS		B	B		C	

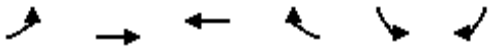
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Queue Length 50th (ft)	87	28	167		174	97
Queue Length 95th (ft)	149	40	247		255	142
Internal Link Dist (ft)		1174	1053		496	
Turn Bay Length (ft)	400				550	
Base Capacity (vph)	295	2218	1403		550	766
Starvation Cap Reductn	0	0	0		0	0
Spillback Cap Reductn	0	0	0		0	0
Storage Cap Reductn	0	0	0		0	0
Reduced v/c Ratio	0.53	0.16	0.55		0.62	0.37

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 6 (7%), Referenced to phase 2:WBT and 6:EBT, Start of Green
Natural Cycle: 55
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.73
Intersection Signal Delay: 21.3 Intersection LOS: C
Intersection Capacity Utilization 56.8% ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 29: Rock Quarry Rd (SR 2542) & SE Wake SB Ramps





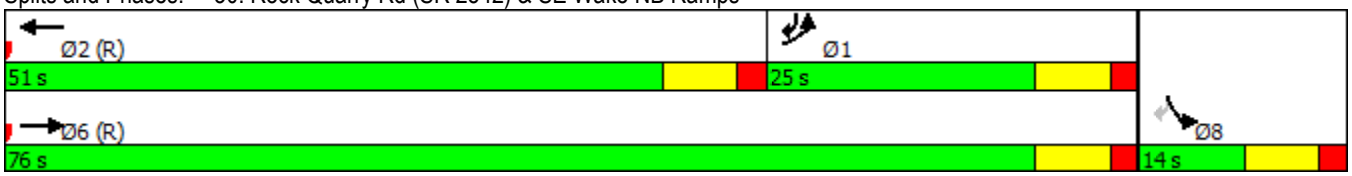
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	179	453	451	516	65	245
Future Volume (vph)	179	453	451	516	65	245
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	400			375	250	0
Storage Lanes	1			0	1	1
Taper Length (ft)	150				150	
Lane Util. Factor	1.00	0.95	0.95	0.95	1.00	1.00
Frt			0.920			0.850
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1770	3539	3256	0	1770	1583
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	1770	3539	3256	0	1770	1583
Right Turn on Red				No		No
Satd. Flow (RTOR)						
Link Speed (mph)		55	55		25	
Link Distance (ft)		1133	954		511	
Travel Time (s)		14.0	11.8		13.9	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	199	503	501	573	72	272
Shared Lane Traffic (%)						
Lane Group Flow (vph)	199	503	1074	0	72	272
Turn Type	Prot	NA	NA		Prot	pm+ov
Protected Phases	1	6	2		8	1
Permitted Phases						8
Detector Phase	1	6	2		8	1
Switch Phase						
Minimum Initial (s)	7.0	14.0	14.0		7.0	7.0
Minimum Split (s)	14.0	21.0	21.0		14.0	14.0
Total Split (s)	25.0	76.0	51.0		14.0	25.0
Total Split (%)	27.8%	84.4%	56.7%		15.6%	27.8%
Maximum Green (s)	18.0	69.0	44.0		7.0	18.0
Yellow Time (s)	5.0	5.0	5.0		5.0	5.0
All-Red Time (s)	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			Lag
Lead-Lag Optimize?	Yes		Yes			Yes
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0
Recall Mode	None	C-Max	C-Max		None	None
Act Effct Green (s)	20.0	74.8	48.8		9.0	31.2
Actuated g/C Ratio	0.22	0.83	0.54		0.10	0.35
v/c Ratio	0.51	0.17	0.61		0.41	0.50
Control Delay	28.6	1.1	16.8		45.5	25.9
Queue Delay	0.0	0.0	0.0		0.0	0.0
Total Delay	28.6	1.1	16.8		45.5	25.9
LOS	C	A	B		D	C
Approach Delay		8.9	16.8		30.0	
Approach LOS		A	B		C	

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Queue Length 50th (ft)	95	5	222		39	114
Queue Length 95th (ft)	156	15	291		82	186
Internal Link Dist (ft)		1053	874		431	
Turn Bay Length (ft)	400				250	
Base Capacity (vph)	393	2941	1765		177	549
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	0.17	0.61		0.41	0.50

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 49 (54%), Referenced to phase 2:WBT and 6:EBT, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.61
Intersection Signal Delay: 16.3 Intersection LOS: B
Intersection Capacity Utilization 57.3% ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 30: Rock Quarry Rd (SR 2542) & SE Wake NB Ramps



Intersection						
Int Delay, s/veh	5.6					

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	54	244	742	49	118	398
Future Vol, veh/h	54	244	742	49	118	398
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	150	-	-	150	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	5	5	2	2	2	2
Mvmt Flow	60	271	824	54	131	442

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1335	439	0	0	879	0
Stage 1	852	-	-	-	-	-
Stage 2	483	-	-	-	-	-
Critical Hdwy	6.9	7	-	-	4.14	-
Critical Hdwy Stg 1	5.9	-	-	-	-	-
Critical Hdwy Stg 2	5.9	-	-	-	-	-
Follow-up Hdwy	3.55	3.35	-	-	2.22	-
Pot Cap-1 Maneuver	141	557	-	-	764	-
Stage 1	371	-	-	-	-	-
Stage 2	578	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	117	557	-	-	764	-
Mov Cap-2 Maneuver	117	-	-	-	-	-
Stage 1	371	-	-	-	-	-
Stage 2	479	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	25.9	0	2.4
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	117	557	764	-
HCM Lane V/C Ratio	-	-	0.513	0.487	0.172	-
HCM Control Delay (s)	-	-	64.4	17.4	10.7	-
HCM Lane LOS	-	-	F	C	B	-
HCM 95th %tile Q(veh)	-	-	2.4	2.6	0.6	-

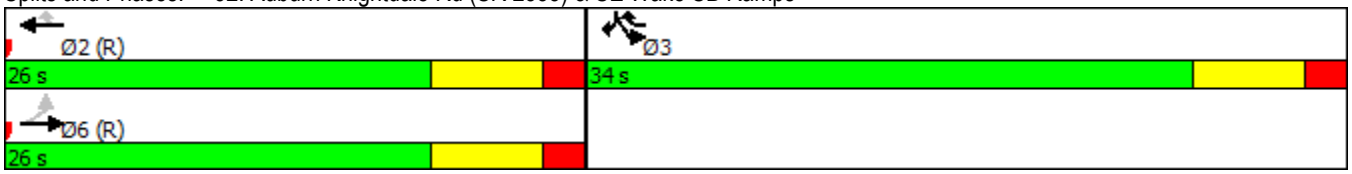
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	71	209	105	171	92	235
Future Volume (vph)	71	209	105	171	92	235
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0			300	0	200
Storage Lanes	1			1	1	1
Taper Length (ft)	150				175	
Lane Util. Factor	1.00	0.95	0.95	1.00	1.00	1.00
Frt				0.850		0.850
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1703	3505	3505	1524	1752	1568
Flt Permitted	0.678				0.950	
Satd. Flow (perm)	1215	3505	3505	1524	1752	1568
Right Turn on Red				No		No
Satd. Flow (RTOR)						
Link Speed (mph)		45	45		45	
Link Distance (ft)		186	1320		348	
Travel Time (s)		2.8	20.0		5.3	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	6%	3%	3%	6%	3%	3%
Adj. Flow (vph)	79	232	117	190	102	261
Shared Lane Traffic (%)						
Lane Group Flow (vph)	79	232	117	190	102	261
Turn Type	Perm	NA	NA	pm+ov	Prot	Prot
Protected Phases		6	2	3	3	3
Permitted Phases	6			2		
Detector Phase	6	6	2	3	3	3
Switch Phase						
Minimum Initial (s)	12.0	12.0	12.0	7.0	7.0	7.0
Minimum Split (s)	19.0	19.0	19.0	14.0	14.0	14.0
Total Split (s)	26.0	26.0	26.0	34.0	34.0	34.0
Total Split (%)	43.3%	43.3%	43.3%	56.7%	56.7%	56.7%
Maximum Green (s)	19.0	19.0	19.0	27.0	27.0	27.0
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	0.0	-2.0	-2.0
Total Lost Time (s)	5.0	5.0	5.0	7.0	5.0	5.0
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	C-Max	C-Max	C-Max	None	None	None
Act Effct Green (s)	32.5	32.5	32.5	60.0	17.5	17.5
Actuated g/C Ratio	0.54	0.54	0.54	1.00	0.29	0.29
v/c Ratio	0.12	0.12	0.06	0.12	0.20	0.57
Control Delay	9.3	8.2	7.0	0.2	15.1	22.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	9.3	8.2	7.0	0.2	15.1	22.2
LOS	A	A	A	A	B	C
Approach Delay		8.5	2.8		20.2	

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Approach LOS		A	A		C	
Queue Length 50th (ft)	13	19	5	0	28	80
Queue Length 95th (ft)	39	44	21	0	49	119
Internal Link Dist (ft)		106	1240		268	
Turn Bay Length (ft)				300		200
Base Capacity (vph)	657	1897	1897	1513	846	757
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	0.12	0.12	0.06	0.13	0.12	0.34

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 60
Offset: 3 (5%), Referenced to phase 2:WBT and 6:EBTL, Start of Green
Natural Cycle: 40
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.57
Intersection Signal Delay: 11.0 Intersection LOS: B
Intersection Capacity Utilization 32.9% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 32: Auburn Knightdale Rd (SR 2555) & SE Wake SB Ramps



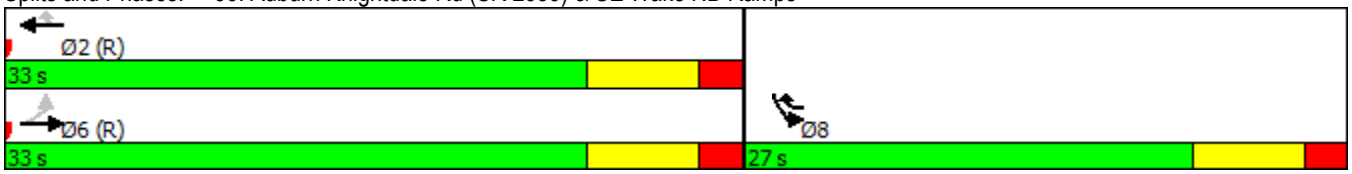
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	206	95	175	128	152	101
Future Volume (vph)	206	95	175	128	152	101
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	250			150	0	0
Storage Lanes	1			1	1	0
Taper Length (ft)	150				100	
Lane Util. Factor	1.00	0.95	1.00	1.00	1.00	1.00
Frt				0.850	0.946	
Flt Protected	0.950				0.971	
Satd. Flow (prot)	1703	3505	1845	1524	1694	0
Flt Permitted	0.636				0.971	
Satd. Flow (perm)	1140	3505	1845	1524	1694	0
Right Turn on Red				No		No
Satd. Flow (RTOR)						
Link Speed (mph)		45	45		45	
Link Distance (ft)		1320	677		221	
Travel Time (s)		20.0	10.3		3.3	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	6%	3%	3%	6%	3%	3%
Adj. Flow (vph)	229	106	194	142	169	112
Shared Lane Traffic (%)						
Lane Group Flow (vph)	229	106	194	142	281	0
Turn Type	Perm	NA	NA	pm+ov	Prot	
Protected Phases		6	2	8	8	
Permitted Phases	6			2		
Detector Phase	6	6	2	8	8	
Switch Phase						
Minimum Initial (s)	12.0	12.0	12.0	7.0	7.0	
Minimum Split (s)	19.0	19.0	19.0	14.0	14.0	
Total Split (s)	33.0	33.0	33.0	27.0	27.0	
Total Split (%)	55.0%	55.0%	55.0%	45.0%	45.0%	
Maximum Green (s)	26.0	26.0	26.0	20.0	20.0	
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	
Lost Time Adjust (s)	-2.0	-2.0	-2.0	0.0	-2.0	
Total Lost Time (s)	5.0	5.0	5.0	7.0	5.0	
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	
Recall Mode	C-Max	C-Max	C-Max	None	None	
Act Effct Green (s)	33.1	33.1	33.1	60.0	16.9	
Actuated g/C Ratio	0.55	0.55	0.55	1.00	0.28	
v/c Ratio	0.36	0.05	0.19	0.09	0.59	
Control Delay	9.2	5.8	8.5	0.1	23.1	
Queue Delay	0.0	0.0	0.0	0.0	0.0	
Total Delay	9.2	5.8	8.5	0.1	23.1	
LOS	A	A	A	A	C	
Approach Delay		8.2	5.0		23.1	

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Approach LOS		A	A		C	
Queue Length 50th (ft)	41	5	32	0	86	
Queue Length 95th (ft)	73	18	74	0	135	
Internal Link Dist (ft)		1240	597		141	
Turn Bay Length (ft)	250			150		
Base Capacity (vph)	628	1931	1016	1491	621	
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	0.36	0.05	0.19	0.10	0.45	

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 60
Offset: 0 (0%), Referenced to phase 2:WBT and 6:EBTL, Start of Green
Natural Cycle: 40
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.59
Intersection Signal Delay: 11.4 Intersection LOS: B
Intersection Capacity Utilization 48.5% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 33: Auburn Knightdale Rd (SR 2555) & SE Wake NB Ramps



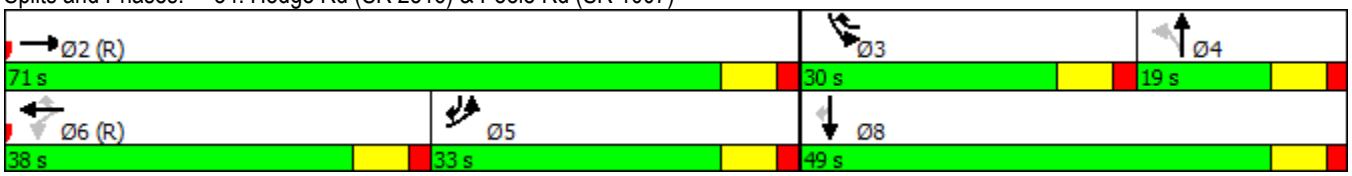
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	319	529	17	19	756	480	32	40	26	279	17	265
Future Volume (vph)	319	529	17	19	756	480	32	40	26	279	17	265
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		2%			1%			-1%			-1%	
Storage Length (ft)	450		0	150		300	100		0	300		300
Storage Lanes	1		0	1		1	1		0	2		1
Taper Length (ft)	125			150			50			100		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	1.00	1.00	1.00	1.00	0.97	1.00	1.00
Frt		0.995				0.850		0.940				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1752	3486	0	1761	3522	1575	1744	1726	0	3450	1872	1591
Flt Permitted	0.950			0.357			0.745			0.950		
Satd. Flow (perm)	1752	3486	0	662	3522	1575	1368	1726	0	3450	1872	1591
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		45			45			35			45	
Link Distance (ft)		845			1458			1027			1086	
Travel Time (s)		12.8			22.1			20.0			16.5	
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%	4%	4%	4%	2%	2%	2%
Adj. Flow (vph)	354	588	19	21	840	533	36	44	29	310	19	294
Shared Lane Traffic (%)												
Lane Group Flow (vph)	354	607	0	21	840	533	36	73	0	310	19	294
Turn Type	Prot	NA		Perm	NA	pm+ov	Perm	NA		Prot	NA	pm+ov
Protected Phases	5	2			6	3		4		3	8	5
Permitted Phases				6		6	4					8
Detector Phase	5	2		6	6	3	4	4		3	8	5
Switch Phase												
Minimum Initial (s)	7.0	12.0		12.0	12.0	7.0	7.0	7.0		7.0	7.0	7.0
Minimum Split (s)	14.0	19.0		19.0	19.0	14.0	19.0	19.0		14.0	19.0	14.0
Total Split (s)	33.0	71.0		38.0	38.0	30.0	19.0	19.0		30.0	49.0	33.0
Total Split (%)	27.5%	59.2%		31.7%	31.7%	25.0%	15.8%	15.8%		25.0%	40.8%	27.5%
Maximum Green (s)	26.0	64.0		31.0	31.0	23.0	12.0	12.0		23.0	42.0	26.0
Yellow Time (s)	5.0	5.0		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	2.0	2.0
Lost Time Adjust (s)	-2.0	-2.0		-2.0	-2.0	1.0	-2.0	-2.0		-2.0	-2.0	-2.0
Total Lost Time (s)	5.0	5.0		5.0	5.0	8.0	5.0	5.0		5.0	5.0	5.0
Lead/Lag	Lag			Lead	Lead	Lead	Lag	Lag		Lead		Lag
Lead-Lag Optimize?	Yes			Yes	Yes							Yes
Vehicle Extension (s)	1.0	8.0		8.0	8.0	3.0	3.0	3.0		3.0	3.0	1.0
Minimum Gap (s)	1.0	8.0		8.0	8.0	3.0	3.0	3.0		3.0	3.0	1.0
Time Before Reduce (s)	0.0	15.0		15.0	15.0	0.0	0.0	0.0		0.0	0.0	0.0
Time To Reduce (s)	0.0	40.0		40.0	40.0	0.0	0.0	0.0		0.0	0.0	0.0
Recall Mode	None	C-Max		C-Max	C-Max	None	None	None		None	None	None
Act Effct Green (s)	28.0	71.7		38.7	38.7	58.4	12.0	12.0		24.1	38.3	71.3
Actuated g/C Ratio	0.23	0.60		0.32	0.32	0.49	0.10	0.10		0.20	0.32	0.59
v/c Ratio	0.87	0.29		0.10	0.74	0.70	0.26	0.42		0.45	0.03	0.31
Control Delay	66.2	13.4		24.6	30.1	13.0	54.1	57.9		44.2	24.9	12.3

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	66.2	13.4		24.6	30.1	13.0	54.1	57.9		44.2	24.9	12.3
LOS	E	B		C	C	B	D	E		D	C	B
Approach Delay		32.8			23.5			56.6			28.6	
Approach LOS		C			C			E			C	
Queue Length 50th (ft)	265	124		9	255	101	26	54		108	10	97
Queue Length 95th (ft)	#431	166		m18	#373	192	60	102		153	26	139
Internal Link Dist (ft)		765			1378			947			1006	
Turn Bay Length (ft)	450			150		300	100			300		300
Base Capacity (vph)	408	2082		213	1135	757	159	201		718	686	945
Starvation Cap Reductn	0	0		0	0	0	0	0		0	0	0
Spillback Cap Reductn	0	0		0	0	0	0	0		0	0	0
Storage Cap Reductn	0	0		0	0	0	0	0		0	0	0
Reduced v/c Ratio	0.87	0.29		0.10	0.74	0.70	0.23	0.36		0.43	0.03	0.31

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 24 (20%), Referenced to phase 2:EBT and 6:WBTL, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.87
Intersection Signal Delay: 28.6 Intersection LOS: C
Intersection Capacity Utilization 68.2% 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: 34: Hodge Rd (SR 2516) & Poole Rd (SR 1007)



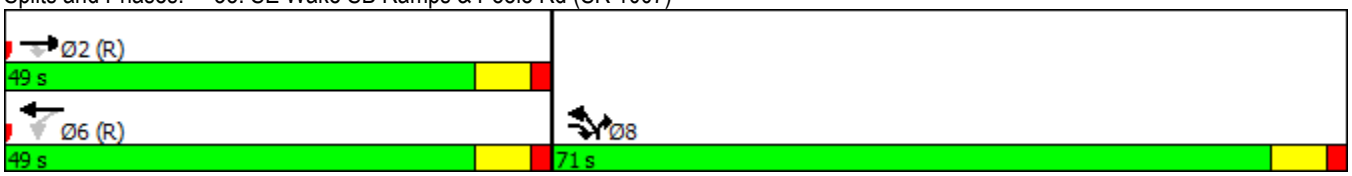
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	760	82	42	595	647	753
Future Volume (vph)	760	82	42	595	647	753
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		150	250		0	0
Storage Lanes		1	1		1	2
Taper Length (ft)			200		150	
Lane Util. Factor	0.95	1.00	1.00	0.95	1.00	0.88
Frt		0.850				0.850
Flt Protected			0.950		0.950	
Satd. Flow (prot)	3539	1583	1770	3539	1770	2787
Flt Permitted			0.217		0.950	
Satd. Flow (perm)	3539	1583	404	3539	1770	2787
Right Turn on Red		No				No
Satd. Flow (RTOR)						
Link Speed (mph)	45			45	25	
Link Distance (ft)	1458			761	576	
Travel Time (s)	22.1			11.5	15.7	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	844	91	47	661	719	837
Shared Lane Traffic (%)						
Lane Group Flow (vph)	844	91	47	661	719	837
Turn Type	NA	pm+ov	Perm	NA	Prot	Prot
Protected Phases	2	8		6	8	8
Permitted Phases		2	6			
Detector Phase	2	8	6	6	8	8
Switch Phase						
Minimum Initial (s)	12.0	7.0	12.0	12.0	7.0	7.0
Minimum Split (s)	19.0	14.0	19.0	19.0	14.0	14.0
Total Split (s)	49.0	71.0	49.0	49.0	71.0	71.0
Total Split (%)	40.8%	59.2%	40.8%	40.8%	59.2%	59.2%
Maximum Green (s)	42.0	64.0	42.0	42.0	64.0	64.0
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	0.0	-2.0	-2.0	-2.0	0.0
Total Lost Time (s)	5.0	7.0	5.0	5.0	5.0	7.0
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	C-Max	None	C-Max	C-Max	None	None
Act Effct Green (s)	50.5	120.0	50.5	50.5	59.5	57.5
Actuated g/C Ratio	0.42	1.00	0.42	0.42	0.50	0.48
v/c Ratio	0.57	0.06	0.28	0.44	0.82	0.63
Control Delay	25.1	0.1	33.2	29.2	33.7	25.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	25.1	0.1	33.2	29.2	33.7	25.0
LOS	C	A	C	C	C	C
Approach Delay	22.6			29.5	29.0	
Approach LOS	C			C	C	

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Queue Length 50th (ft)	231	0	28	222	440	256
Queue Length 95th (ft)	327	0	m60	281	565	302
Internal Link Dist (ft)	1378			681	496	
Turn Bay Length (ft)		150	250			
Base Capacity (vph)	1488	1560	169	1488	973	1486
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	0.57	0.06	0.28	0.44	0.74	0.56

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 12 (10%), Referenced to phase 2:EBT and 6:WBTL, Start of Green
Natural Cycle: 50
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.82
Intersection Signal Delay: 27.3 Intersection LOS: C
Intersection Capacity Utilization 79.1% ICU Level of Service D
Analysis Period (min) 15
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 35: SE Wake SB Ramps & Poole Rd (SR 1007)



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	507	1006	0	0	507	1084	130	0	36	0	0	0
Future Volume (vph)	507	1006	0	0	507	1084	130	0	36	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	300		0	0		550	250		0	0		0
Storage Lanes	1		0	0		2	1		1	0		0
Taper Length (ft)	200			100			150			100		
Lane Util. Factor	*0.74	0.95	1.00	1.00	0.95	0.88	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)	2619	3539	0	0	3539	2787	1770	0	1583	0	0	0
Flt Permitted	0.950						0.950					
Satd. Flow (perm)	2619	3539	0	0	3539	2787	1770	0	1583	0	0	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		761			759			1432			799	
Travel Time (s)		11.5			11.5			21.7			12.1	
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%	6%	2%	2%	2%	2%
Adj. Flow (vph)	563	1118	0	0	563	1204	144	0	40	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	563	1118	0	0	563	1204	144	0	40	0	0	0
Turn Type	Prot	NA			NA	Prot	Prot		Perm			
Protected Phases	5	2			6	6	4					
Permitted Phases									4			
Detector Phase	5	2			6	6	4		4			
Switch Phase												
Minimum Initial (s)	7.0	12.0			12.0	12.0	7.0		7.0			
Minimum Split (s)	14.0	19.0			19.0	19.0	14.0		14.0			
Total Split (s)	37.0	102.0			65.0	65.0	18.0		18.0			
Total Split (%)	30.8%	85.0%			54.2%	54.2%	15.0%		15.0%			
Maximum Green (s)	30.0	95.0			58.0	58.0	11.0		11.0			
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	0.0	-2.0		-2.0			
Total Lost Time (s)	5.0	5.0			5.0	7.0	5.0		5.0			
Lead/Lag	Lead				Lag	Lag						
Lead-Lag Optimize?	Yes				Yes	Yes						
Vehicle Extension (s)	3.0	3.0			3.0	3.0	3.0		3.0			
Recall Mode	None	C-Max			C-Max	C-Max	None		None			
Act Effct Green (s)	30.3	97.2			61.9	59.9	12.8		12.8			
Actuated g/C Ratio	0.25	0.81			0.52	0.50	0.11		0.11			
v/c Ratio	0.85	0.39			0.31	0.87	0.77		0.24			
Control Delay	24.1	2.1			17.7	35.1	77.9		52.9			
Queue Delay	0.0	0.0			0.0	0.0	0.0		0.0			
Total Delay	24.1	2.1			17.7	35.1	77.9		52.9			
LOS	C	A			B	D	E		D			
Approach Delay		9.4			29.6			72.5				

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		A			C			E				
Queue Length 50th (ft)	208	66			132	468	110		29			
Queue Length 95th (ft)	300	55			171	#606	#211		65			
Internal Link Dist (ft)		681			679			1352			719	
Turn Bay Length (ft)	300					550	250					
Base Capacity (vph)	698	2866			1824	1390	191		171			
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	0.81	0.39			0.31	0.87	0.75		0.23			

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 72 (60%), Referenced to phase 2:EBT and 6:WBT, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.87
Intersection Signal Delay: 22.4 Intersection LOS: C
Intersection Capacity Utilization 62.4% ICU Level of Service B
Analysis Period (min) 15
* User Entered Value
\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 36: SE Wake NB Off-Ramp/SE Wake NB On-Ramp & Poole Rd (SR 1007)



Lane Group	WBL	WBR	NBT	NBR	SBU	SBL	SBT
Lane Configurations			↑↑↑		↓		↑↑↑↑
Traffic Volume (vph)	0	0	2535	0	602	0	4580
Future Volume (vph)	0	0	2535	0	602	0	4580
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0		0		650	
Storage Lanes	0	0		0		1	
Taper Length (ft)	100					50	
Lane Util. Factor	1.00	1.00	0.91	1.00	1.00	1.00	0.86
Frt							
Flt Protected					0.950		
Satd. Flow (prot)	0	0	4893	0	1703	0	6166
Flt Permitted					0.950		
Satd. Flow (perm)	0	0	4893	0	1703	0	6166
Right Turn on Red		No		No			
Satd. Flow (RTOR)							
Link Speed (mph)	45		55				55
Link Distance (ft)	105		998				787
Travel Time (s)	1.6		12.4				9.8
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	2%	2%	6%	6%	6%	6%	6%
Adj. Flow (vph)	0	0	2817	0	669	0	5089
Shared Lane Traffic (%)							
Lane Group Flow (vph)	0	0	2817	0	669	0	5089
Turn Type			NA		Prot		NA
Protected Phases			2		1		Free
Permitted Phases							
Detector Phase			2		1		
Switch Phase							
Minimum Initial (s)			14.0		7.0		
Minimum Split (s)			21.0		14.0		
Total Split (s)			88.0		62.0		
Total Split (%)			58.7%		41.3%		
Maximum Green (s)			81.0		55.0		
Yellow Time (s)			5.0		5.0		
All-Red Time (s)			2.0		2.0		
Lost Time Adjust (s)			-2.0		-2.0		
Total Lost Time (s)			5.0		5.0		
Lead/Lag			Lead		Lag		
Lead-Lag Optimize?			Yes		Yes		
Vehicle Extension (s)			3.0		3.0		
Recall Mode			C-Max		None		
Act Effct Green (s)			83.0		57.0		150.0
Actuated g/C Ratio			0.55		0.38		1.00
v/c Ratio			1.04		1.03		0.83
Control Delay			62.0		58.0		0.5
Queue Delay			0.0		0.0		0.0
Total Delay			62.0		58.0		0.5
LOS			E		E		A
Approach Delay			62.0				7.2

Lane Group	WBL	WBR	NBT	NBR	SBU	SBL	SBT
Approach LOS			E				A
Queue Length 50th (ft)			~1087		~700		0
Queue Length 95th (ft)			#1164		m587		m0
Internal Link Dist (ft)	25		918				707
Turn Bay Length (ft)					650		
Base Capacity (vph)			2707		647		6166
Starvation Cap Reductn			0		0		0
Spillback Cap Reductn			0		0		0
Storage Cap Reductn			0		0		0
Reduced v/c Ratio			1.04		1.03		0.83

Intersection Summary

Area Type: Other
Cycle Length: 150
Actuated Cycle Length: 150
Offset: 138 (92%), Referenced to phase 2:NBT, Start of Green
Natural Cycle: 130
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.04
Intersection Signal Delay: 25.2 Intersection LOS: C
Intersection Capacity Utilization 90.7% ICU Level of Service E
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: 1: NC 55 & Mid Block U-Turn



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	99	0	0	370	75	2393	669	0	5083	104
Future Volume (vph)	0	0	99	0	0	370	75	2393	669	0	5083	104
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	550		0	0		0
Storage Lanes	0		1	0		1	1		1	0		0
Taper Length (ft)	100			100			100			100		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91	1.00	1.00	0.86	0.86
Frt			0.865			0.865			0.850		0.997	
Flt Protected							0.950					
Satd. Flow (prot)	0	0	1358	0	0	1550	1703	4893	1524	0	6148	0
Flt Permitted							0.950					
Satd. Flow (perm)	0	0	1358	0	0	1550	1703	4893	1524	0	6148	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		35			35			55			55	
Link Distance (ft)		1117			1426			787			743	
Travel Time (s)		21.8			27.8			9.8			9.2	
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
Heavy Vehicles (%)	21%	21%	21%	6%	6%	6%	6%	6%	6%	6%	6%	6%
Adj. Flow (vph)	0	0	110	0	0	411	83	2659	743	0	5648	116
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	110	0	0	411	83	2659	743	0	5764	0
Turn Type			Perm			Perm	Prot	NA	custom		NA	
Protected Phases							5	Free	Free		6	
Permitted Phases			5 6			5 6			Free			
Detector Phase			5 6			5 6	5				6	
Switch Phase												
Minimum Initial (s)							7.0				14.0	
Minimum Split (s)							14.0				21.0	
Total Split (s)							14.0				136.0	
Total Split (%)							9.3%				90.7%	
Maximum Green (s)							7.0				129.0	
Yellow Time (s)							5.0				5.0	
All-Red Time (s)							2.0				2.0	
Lost Time Adjust (s)							-2.0				-2.0	
Total Lost Time (s)							5.0				5.0	
Lead/Lag							Lead				Lag	
Lead-Lag Optimize?							Yes				Yes	
Vehicle Extension (s)							3.0				3.0	
Recall Mode							None				C-Max	
Act Effct Green (s)			150.0			150.0	9.0	150.0	150.0		131.0	
Actuated g/C Ratio			1.00			1.00	0.06	1.00	1.00		0.87	
v/c Ratio			0.08			0.27	0.81	0.54	0.49		1.07	
Control Delay			0.1			0.4	85.6	0.0	0.1		42.2	
Queue Delay			0.0			0.0	0.0	0.0	0.0		0.0	
Total Delay			0.1			0.4	85.6	0.0	0.1		42.2	
LOS			A			A	F	A	A		D	
Approach Delay		0.1			0.4			2.1			42.2	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		A			A			A			D	
Queue Length 50th (ft)			0			0	84	0	0		~1812	
Queue Length 95th (ft)			0			0	m80	m0	m0		m413	
Internal Link Dist (ft)		1037			1346			707			663	
Turn Bay Length (ft)							550					
Base Capacity (vph)			1358			1550	102	4893	1524		5369	
Starvation Cap Reductn			0			0	0	0	0		0	
Spillback Cap Reductn			0			33	0	107	0		0	
Storage Cap Reductn			0			0	0	0	0		0	
Reduced v/c Ratio			0.08			0.27	0.81	0.56	0.49		1.07	

Intersection Summary

Area Type: Other
Cycle Length: 150
Actuated Cycle Length: 150
Offset: 142 (95%), Referenced to phase 6:SBT, Start of Green
Natural Cycle: 150
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.07
Intersection Signal Delay: 25.7 Intersection LOS: C
Intersection Capacity Utilization 89.9% ICU Level of Service E
Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

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

Splits and Phases: 2: NC 55 & Old Smithfield Rd



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	2207	0	0	467	0	2429	433	704	2799	0
Future Volume (vph)	0	0	2207	0	0	467	0	2429	433	704	2799	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	0		300	240		0
Storage Lanes	0		1	0		2	1		1	1		0
Taper Length (ft)	100			100			100			150		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	0.88	1.00	0.91	1.00	*0.80	0.91	1.00
Frt			0.865			0.850			0.850			
Flt Protected										0.950		
Satd. Flow (prot)	0	0	1550	0	0	2682	0	4893	1524	2725	4893	0
Flt Permitted										0.950		
Satd. Flow (perm)	0	0	1550	0	0	2682	0	4893	1524	2725	4893	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		45			25			55			55	
Link Distance (ft)		1183			273			743			755	
Travel Time (s)		17.9			7.4			9.2			9.4	
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 (%)	6%	6%	6%	2%	2%	6%	6%	6%	6%	6%	6%	6%
Adj. Flow (vph)	0	0	2452	0	0	519	0	2699	481	782	3110	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	2452	0	0	519	0	2699	481	782	3110	0
Turn Type			Free			Over		NA	Prot	Prot	NA	
Protected Phases						1		2	2	1	Free	
Permitted Phases			Free									
Detector Phase						1		2	2	1		
Switch Phase												
Minimum Initial (s)						7.0		14.0	14.0	7.0		
Minimum Split (s)						14.0		21.0	21.0	14.0		
Total Split (s)						55.0		95.0	95.0	55.0		
Total Split (%)						36.7%		63.3%	63.3%	36.7%		
Maximum Green (s)						48.0		88.0	88.0	48.0		
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)						0.0		-2.0	0.0	-2.0		
Total Lost Time (s)						7.0		5.0	7.0	5.0		
Lead/Lag						Lag		Lead	Lead	Lag		
Lead-Lag Optimize?						Yes		Yes	Yes	Yes		
Vehicle Extension (s)						3.0		3.0	3.0	3.0		
Recall Mode						None		C-Max	C-Max	None		
Act Effct Green (s)			150.0			46.1		91.9	89.9	48.1	150.0	
Actuated g/C Ratio			1.00			0.31		0.61	0.60	0.32	1.00	
v/c Ratio			1.58			0.63		0.90	0.53	0.90	0.64	
Control Delay			278.9			48.3		16.0	10.8	52.6	0.3	
Queue Delay			0.2			0.0		0.0	0.3	0.0	0.0	
Total Delay			279.1			48.3		16.0	11.1	52.6	0.3	
LOS			F			D		B	B	D	A	
Approach Delay		279.1			48.3			15.2			10.8	

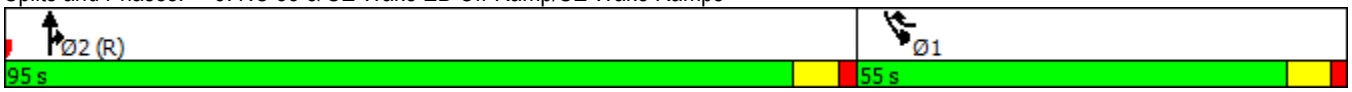
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		F			D			B			B	
Queue Length 50th (ft)			~1830			243		498	126	478	0	
Queue Length 95th (ft)			#2061			314		595	175	m533	0	
Internal Link Dist (ft)		1103			193			663			675	
Turn Bay Length (ft)									300	240		
Base Capacity (vph)			1550			858		2997	913	908	4893	
Starvation Cap Reductn			0			0		3	107	0	0	
Spillback Cap Reductn			72			0		0	0	0	229	
Storage Cap Reductn			0			0		0	0	0	0	
Reduced v/c Ratio			1.66			0.60		0.90	0.60	0.86	0.67	

Intersection Summary

Area Type: Other
Cycle Length: 150
Actuated Cycle Length: 150
Offset: 0 (0%), Referenced to phase 2:NBT, Start of Green
Natural Cycle: 80
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.58
Intersection Signal Delay: 79.6 Intersection LOS: E
Intersection Capacity Utilization 75.3% ICU Level of Service D
Analysis Period (min) 15

* User Entered Value
~ 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: 3: NC 55 & SE Wake EB Off-Ramp/SE Wake Ramps



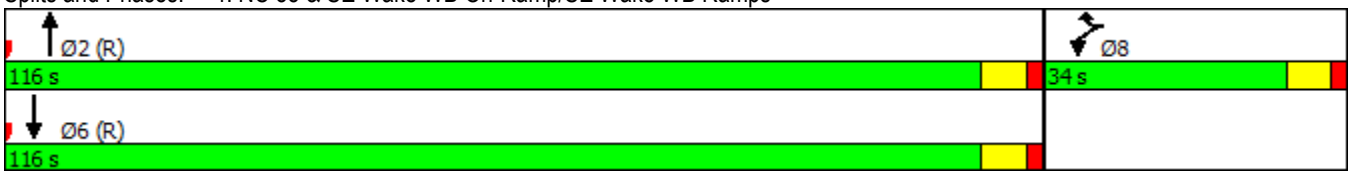
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	440	0	403	0	1840	1056	0	3063	397
Future Volume (vph)	0	0	0	440	0	403	0	1840	1056	0	3063	397
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	0		0	0		500
Storage Lanes	0		0	2		2	0		1	0		1
Taper Length (ft)	100			100			150			100		
Lane Util. Factor	1.00	1.00	1.00	0.97	1.00	0.88	1.00	0.91	1.00	1.00	0.91	1.00
Frt						0.850			0.850			0.850
Flt Protected				0.950								
Satd. Flow (prot)	0	0	0	3303	0	2682	0	4893	1524	0	4893	1524
Flt Permitted				0.950								
Satd. Flow (perm)	0	0	0	3303	0	2682	0	4893	1524	0	4893	1524
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		45			45			55			55	
Link Distance (ft)		1805			356			176			1313	
Travel Time (s)		27.3			5.4			2.2			16.3	
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 (%)	6%	6%	6%	6%	6%	6%	6%	6%	6%	6%	6%	6%
Adj. Flow (vph)	0	0	0	489	0	448	0	2044	1173	0	3403	441
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	489	0	448	0	2044	1173	0	3403	441
Turn Type				Prot		Prot		NA	Free		NA	Free
Protected Phases				8		8		2			6	
Permitted Phases									Free			Free
Detector Phase				8		8		2			6	
Switch Phase												
Minimum Initial (s)				7.0		7.0		14.0			14.0	
Minimum Split (s)				19.0		19.0		21.0			21.0	
Total Split (s)				34.0		34.0		116.0			116.0	
Total Split (%)				22.7%		22.7%		77.3%			77.3%	
Maximum Green (s)				27.0		27.0		109.0			109.0	
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		None		C-Max			C-Max	
Act Effct Green (s)				28.3		28.3		111.7	150.0		111.7	150.0
Actuated g/C Ratio				0.19		0.19		0.74	1.00		0.74	1.00
v/c Ratio				0.78		0.89		0.56	0.77		0.93	0.29
Control Delay				67.7		78.9		3.4	8.0		22.6	0.5
Queue Delay				0.0		0.0		0.0	0.0		0.0	0.0
Total Delay				67.7		78.9		3.4	8.0		22.6	0.5
LOS				E		E		A	A		C	A
Approach Delay					73.1			5.0			20.1	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS					E			A			C	
Queue Length 50th (ft)				236		244		77	398		939	0
Queue Length 95th (ft)				302		#343		93	m276		1019	0
Internal Link Dist (ft)		1725			276			96			1233	
Turn Bay Length (ft)												500
Base Capacity (vph)				638		518		3642	1524		3642	1524
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				0.77		0.86		0.56	0.77		0.93	0.29

Intersection Summary

Area Type: Other
Cycle Length: 150
Actuated Cycle Length: 150
Offset: 10 (7%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.93
Intersection Signal Delay: 20.2 Intersection LOS: C
Intersection Capacity Utilization 79.2% 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: 4: NC 55 & SE Wake WB On-Ramp/SE Wake WB Ramps



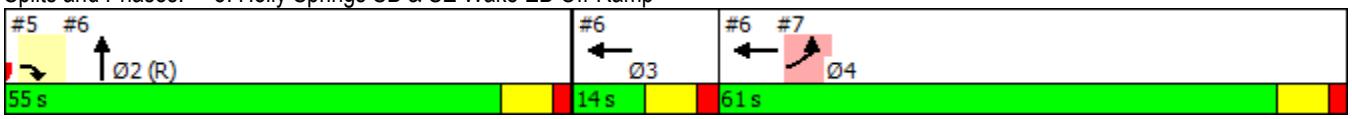
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR	Ø3	Ø4
Lane Configurations								
Traffic Volume (vph)	0	607	0	0	1850	0		
Future Volume (vph)	0	607	0	0	1850	0		
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900		
Lane Util. Factor	1.00	0.88	1.00	1.00	*0.70	1.00		
Frt		0.850						
Flt Protected								
Satd. Flow (prot)	0	2787	0	0	3912	0		
Flt Permitted								
Satd. Flow (perm)	0	2787	0	0	3912	0		
Right Turn on Red		No				No		
Satd. Flow (RTOR)								
Link Speed (mph)	25			25	25			
Link Distance (ft)	348			188	304			
Travel Time (s)	9.5			5.1	8.3			
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90		
Adj. Flow (vph)	0	674	0	0	2056	0		
Shared Lane Traffic (%)								
Lane Group Flow (vph)	0	674	0	0	2056	0		
Turn Type		Prot			NA			
Protected Phases		2!			Free!		3	4
Permitted Phases								
Detector Phase		2			3			
Switch Phase								
Minimum Initial (s)		4.0					4.0	4.0
Minimum Split (s)		19.0					14.0	19.0
Total Split (s)		55.0					14.0	61.0
Total Split (%)		42.3%					11%	47%
Maximum Green (s)		48.0					7.0	54.0
Yellow Time (s)		5.0					5.0	5.0
All-Red Time (s)		2.0					2.0	2.0
Lost Time Adjust (s)		-2.0						
Total Lost Time (s)		5.0						
Lead/Lag							Lead	Lag
Lead-Lag Optimize?							Yes	
Vehicle Extension (s)		3.0					3.0	3.0
Recall Mode		C-Max					None	None
Act Effct Green (s)		51.6			130.0			
Actuated g/C Ratio		0.40			1.00			
v/c Ratio		0.61			0.53			
Control Delay		34.5			5.1			
Queue Delay		0.0			0.0			
Total Delay		34.5			5.1			
LOS		C			A			
Approach Delay	34.5				5.1			
Approach LOS	C				A			
Queue Length 50th (ft)		259			81			
Queue Length 95th (ft)		332			253			
Internal Link Dist (ft)	268			108	224			

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR	Ø3	Ø4
Turn Bay Length (ft)								
Base Capacity (vph)		1105			3912			
Starvation Cap Reductn		0			0			
Spillback Cap Reductn		0			0			
Storage Cap Reductn		0			0			
Reduced v/c Ratio		0.61			0.53			

Intersection Summary

Area Type: Other
Cycle Length: 130
Actuated Cycle Length: 130
Offset: 71 (55%), Referenced to phase 2:EBR, Start of Green
Natural Cycle: 55
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.77
Intersection Signal Delay: 12.4 Intersection LOS: B
Intersection Capacity Utilization 64.5% ICU Level of Service C
Analysis Period (min) 15
* User Entered Value
! Phase conflict between lane groups.

Splits and Phases: 5: Holly Springs SB & SE Wake EB Off-Ramp



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	0	1850	0	0	815	0	0	0	0
Future Volume (vph)	0	0	0	0	1850	0	0	815	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	0.91	1.00	1.00	0.91	1.00	1.00	1.00	1.00
Frt												
Flt Protected												
Satd. Flow (prot)	0	0	0	0	5085	0	0	5085	0	0	0	0
Flt Permitted												
Satd. Flow (perm)	0	0	0	0	5085	0	0	5085	0	0	0	0
Right Turn on Red			No			No	No		No			No
Satd. Flow (RTOR)												
Link Speed (mph)		25			25			45			45	
Link Distance (ft)		304			167			208			175	
Travel Time (s)		8.3			4.6			3.2			2.7	
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)	0	0	0	0	2056	0	0	906	0	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	2056	0	0	906	0	0	0	0
Turn Type					NA			NA				
Protected Phases					4 3			2				
Permitted Phases												
Detector Phase					4 3			2				
Switch Phase												
Minimum Initial (s)								4.0				
Minimum Split (s)								19.0				
Total Split (s)								55.0				
Total Split (%)								42.3%				
Maximum Green (s)								48.0				
Yellow Time (s)								5.0				
All-Red Time (s)								2.0				
Lost Time Adjust (s)								-2.0				
Total Lost Time (s)								5.0				
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)								3.0				
Recall Mode								C-Max				
Act Effct Green (s)					68.4			51.6				
Actuated g/C Ratio					0.53			0.40				
v/c Ratio					0.77			0.45				
Control Delay					18.1			30.0				
Queue Delay					0.0			0.0				
Total Delay					18.1			30.0				
LOS					B			C				
Approach Delay					18.1			30.0				
Approach LOS					B			C				
Queue Length 50th (ft)					271			207				
Queue Length 95th (ft)					320			249				
Internal Link Dist (ft)		224			87			128			95	

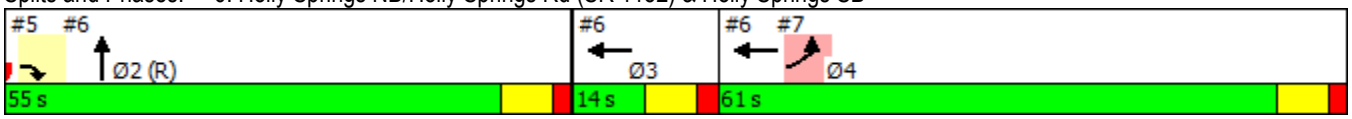
Lane Group	Ø3	Ø4
Lane Configurations		
Traffic Volume (vph)		
Future Volume (vph)		
Ideal Flow (vphpl)		
Lane Util. Factor		
Frt		
Flt Protected		
Satd. Flow (prot)		
Flt Permitted		
Satd. Flow (perm)		
Right Turn on Red		
Satd. Flow (RTOR)		
Link Speed (mph)		
Link Distance (ft)		
Travel Time (s)		
Peak Hour Factor		
Adj. Flow (vph)		
Shared Lane Traffic (%)		
Lane Group Flow (vph)		
Turn Type		
Protected Phases	3	4
Permitted Phases		
Detector Phase		
Switch Phase		
Minimum Initial (s)	4.0	4.0
Minimum Split (s)	14.0	19.0
Total Split (s)	14.0	61.0
Total Split (%)	11%	47%
Maximum Green (s)	7.0	54.0
Yellow Time (s)	5.0	5.0
All-Red Time (s)	2.0	2.0
Lost Time Adjust (s)		
Total Lost Time (s)		
Lead/Lag	Lead	Lag
Lead-Lag Optimize?	Yes	
Vehicle Extension (s)	3.0	3.0
Recall Mode	None	None
Act Effct Green (s)		
Actuated g/C Ratio		
v/c Ratio		
Control Delay		
Queue Delay		
Total Delay		
LOS		
Approach Delay		
Approach LOS		
Queue Length 50th (ft)		
Queue Length 95th (ft)		
Internal Link Dist (ft)		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Bay Length (ft)												
Base Capacity (vph)					2738			2016				
Starvation Cap Reductn					0			0				
Spillback Cap Reductn					0			0				
Storage Cap Reductn					0			0				
Reduced v/c Ratio					0.75			0.45				

Intersection Summary

Area Type: Other
Cycle Length: 130
Actuated Cycle Length: 130
Offset: 71 (55%), Referenced to phase 2:EBR, Start of Green
Natural Cycle: 55
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.77
Intersection Signal Delay: 21.7 Intersection LOS: C
Intersection Capacity Utilization 64.5% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 6: Holly Springs NB/Holly Springs Rd (SR 1152) & Holly Springs SB



Lane Group	Ø3	Ø4
Turn Bay Length (ft)		
Base Capacity (vph)		
Starvation Cap Reductn		
Spillback Cap Reductn		
Storage Cap Reductn		
Reduced v/c Ratio		

Intersection Summary

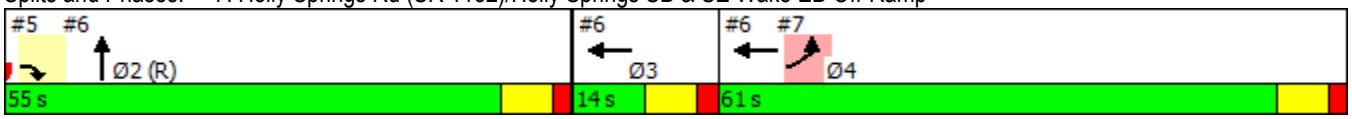
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR	Ø2	Ø3
Lane Configurations								
Traffic Volume (vph)	152	0	0	815	0	0		
Future Volume (vph)	152	0	0	815	0	0		
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900		
Lane Util. Factor	0.97	1.00	1.00	0.91	1.00	1.00		
Frt								
Flt Protected	0.950							
Satd. Flow (prot)	3433	0	0	5085	0	0		
Flt Permitted	0.950							
Satd. Flow (perm)	3433	0	0	5085	0	0		
Right Turn on Red	No	No				No		
Satd. Flow (RTOR)								
Link Speed (mph)	25			45	45			
Link Distance (ft)	330			175	324			
Travel Time (s)	9.0			2.7	4.9			
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90		
Adj. Flow (vph)	169	0	0	906	0	0		
Shared Lane Traffic (%)								
Lane Group Flow (vph)	169	0	0	906	0	0		
Turn Type	Prot			NA				
Protected Phases	4!			Free!			2	3
Permitted Phases								
Detector Phase	4							
Switch Phase								
Minimum Initial (s)	4.0						4.0	4.0
Minimum Split (s)	19.0						19.0	14.0
Total Split (s)	61.0						55.0	14.0
Total Split (%)	46.9%						42%	11%
Maximum Green (s)	54.0						48.0	7.0
Yellow Time (s)	5.0						5.0	5.0
All-Red Time (s)	2.0						2.0	2.0
Lost Time Adjust (s)	-2.0							
Total Lost Time (s)	5.0							
Lead/Lag	Lag							Lead
Lead-Lag Optimize?								Yes
Vehicle Extension (s)	3.0						3.0	3.0
Recall Mode	None						C-Max	None
Act Effct Green (s)	54.4			130.0				
Actuated g/C Ratio	0.42			1.00				
v/c Ratio	0.12			0.18				
Control Delay	23.0			0.1				
Queue Delay	0.0			0.0				
Total Delay	23.0			0.1				
LOS	C			A				
Approach Delay	23.0			0.1				
Approach LOS	C			A				
Queue Length 50th (ft)	43			0				
Queue Length 95th (ft)	67			0				
Internal Link Dist (ft)	250			95	244			

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR	Ø2	Ø3
Turn Bay Length (ft)								
Base Capacity (vph)	1478			5085				
Starvation Cap Reductn	0			0				
Spillback Cap Reductn	0			0				
Storage Cap Reductn	0			0				
Reduced v/c Ratio	0.11			0.18				

Intersection Summary

Area Type: Other
Cycle Length: 130
Actuated Cycle Length: 130
Offset: 71 (55%), Referenced to phase 2:EBR, Start of Green
Natural Cycle: 55
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.77
Intersection Signal Delay: 3.7 Intersection LOS: A
Intersection Capacity Utilization 47.8% ICU Level of Service A
Analysis Period (min) 15
! Phase conflict between lane groups.

Splits and Phases: 7: Holly Springs Rd (SR 1152)/Holly Springs SB & SE Wake EB Off-Ramp





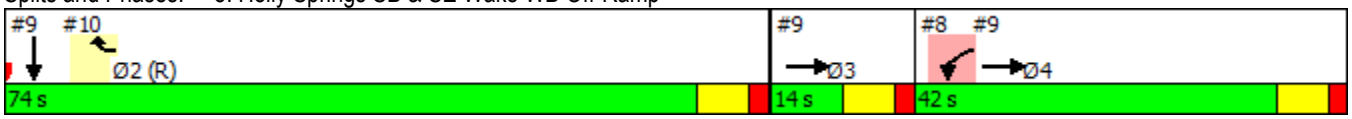
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	Ø2	Ø3
Lane Configurations								
Traffic Volume (vph)	649	0	0	0	0	1966		
Future Volume (vph)	649	0	0	0	0	1966		
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900		
Lane Util. Factor	0.97	1.00	1.00	1.00	1.00	0.91		
Frt								
Flt Protected	0.950							
Satd. Flow (prot)	3433	0	0	0	0	5085		
Flt Permitted	0.950							
Satd. Flow (perm)	3433	0	0	0	0	5085		
Right Turn on Red	No	No		No				
Satd. Flow (RTOR)								
Link Speed (mph)	25		25			25		
Link Distance (ft)	219		441			139		
Travel Time (s)	6.0		12.0			3.8		
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90		
Adj. Flow (vph)	721	0	0	0	0	2184		
Shared Lane Traffic (%)								
Lane Group Flow (vph)	721	0	0	0	0	2184		
Turn Type	Prot					NA		
Protected Phases	4!					Free!	2	3
Permitted Phases								
Detector Phase	4							
Switch Phase								
Minimum Initial (s)	4.0						4.0	4.0
Minimum Split (s)	19.0						19.0	14.0
Total Split (s)	42.0						74.0	14.0
Total Split (%)	32.3%						57%	11%
Maximum Green (s)	35.0						67.0	7.0
Yellow Time (s)	5.0						5.0	5.0
All-Red Time (s)	2.0						2.0	2.0
Lost Time Adjust (s)	-2.0							
Total Lost Time (s)	5.0							
Lead/Lag	Lag							Lead
Lead-Lag Optimize?								Yes
Vehicle Extension (s)	3.0						3.0	3.0
Recall Mode	None						C-Max	None
Act Effct Green (s)	35.2					130.0		
Actuated g/C Ratio	0.27					1.00		
v/c Ratio	0.78					0.43		
Control Delay	50.1					0.2		
Queue Delay	0.0					0.0		
Total Delay	50.1					0.2		
LOS	D					A		
Approach Delay	50.1					0.2		
Approach LOS	D					A		
Queue Length 50th (ft)	284					0		
Queue Length 95th (ft)	356					0		
Internal Link Dist (ft)	139		361			59		

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	Ø2	Ø3
Turn Bay Length (ft)								
Base Capacity (vph)	977					5085		
Starvation Cap Reductn	0					0		
Spillback Cap Reductn	0					0		
Storage Cap Reductn	0					0		
Reduced v/c Ratio	0.74					0.43		

Intersection Summary

Area Type: Other
Cycle Length: 130
Actuated Cycle Length: 130
Offset: 128 (98%), Referenced to phase 2:SBT, Start of Green
Natural Cycle: 75
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.79
Intersection Signal Delay: 12.5 Intersection LOS: B
Intersection Capacity Utilization 67.1% ICU Level of Service C
Analysis Period (min) 15
! Phase conflict between lane groups.

Splits and Phases: 8: Holly Springs SB & SE Wake WB Off-Ramp



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	694	0	0	0	0	0	0	0	0	1966	0
Future Volume (vph)	0	694	0	0	0	0	0	0	0	0	1966	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	0.91	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91	1.00
Frt												
Flt Protected												
Satd. Flow (prot)	0	5085	0	0	0	0	0	0	0	0	5085	0
Flt Permitted												
Satd. Flow (perm)	0	5085	0	0	0	0	0	0	0	0	5085	0
Right Turn on Red			No			No			No	No		No
Satd. Flow (RTOR)												
Link Speed (mph)		45			45			25			25	
Link Distance (ft)		247			129			139			134	
Travel Time (s)		3.7			2.0			3.8			3.7	
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)	0	771	0	0	0	0	0	0	0	0	2184	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	771	0	0	0	0	0	0	0	0	2184	0
Turn Type		NA									NA	
Protected Phases		4 3									2	
Permitted Phases												
Detector Phase		4 3									2	
Switch Phase												
Minimum Initial (s)											4.0	
Minimum Split (s)											19.0	
Total Split (s)											74.0	
Total Split (%)											56.9%	
Maximum Green (s)											67.0	
Yellow Time (s)											5.0	
All-Red Time (s)											2.0	
Lost Time Adjust (s)											-2.0	
Total Lost Time (s)											5.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)											3.0	
Recall Mode											C-Max	
Act Effct Green (s)		49.2									70.8	
Actuated g/C Ratio		0.38									0.54	
v/c Ratio		0.40									0.79	
Control Delay		12.8									18.7	
Queue Delay		0.0									0.0	
Total Delay		12.8									18.7	
LOS		B									B	
Approach Delay		12.8									18.7	
Approach LOS		B									B	
Queue Length 50th (ft)		54									468	
Queue Length 95th (ft)		64									m501	
Internal Link Dist (ft)		167			49			59			54	

Lane Group	Ø3	Ø4
Lane Configurations		
Traffic Volume (vph)		
Future Volume (vph)		
Ideal Flow (vphpl)		
Lane Util. Factor		
Frt		
Flt Protected		
Satd. Flow (prot)		
Flt Permitted		
Satd. Flow (perm)		
Right Turn on Red		
Satd. Flow (RTOR)		
Link Speed (mph)		
Link Distance (ft)		
Travel Time (s)		
Peak Hour Factor		
Adj. Flow (vph)		
Shared Lane Traffic (%)		
Lane Group Flow (vph)		
Turn Type		
Protected Phases	3	4
Permitted Phases		
Detector Phase		
Switch Phase		
Minimum Initial (s)	4.0	4.0
Minimum Split (s)	14.0	19.0
Total Split (s)	14.0	42.0
Total Split (%)	11%	32%
Maximum Green (s)	7.0	35.0
Yellow Time (s)	5.0	5.0
All-Red Time (s)	2.0	2.0
Lost Time Adjust (s)		
Total Lost Time (s)		
Lead/Lag	Lead	Lag
Lead-Lag Optimize?	Yes	
Vehicle Extension (s)	3.0	3.0
Recall Mode	None	None
Act Effct Green (s)		
Actuated g/C Ratio		
v/c Ratio		
Control Delay		
Queue Delay		
Total Delay		
LOS		
Approach Delay		
Approach LOS		
Queue Length 50th (ft)		
Queue Length 95th (ft)		
Internal Link Dist (ft)		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Bay Length (ft)												
Base Capacity (vph)		1994									2769	
Starvation Cap Reductn		0									0	
Spillback Cap Reductn		0									0	
Storage Cap Reductn		0									0	
Reduced v/c Ratio		0.39									0.79	

Intersection Summary

Area Type: Other
Cycle Length: 130
Actuated Cycle Length: 130
Offset: 128 (98%), Referenced to phase 2:SBT, Start of Green
Natural Cycle: 75
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.79
Intersection Signal Delay: 17.2 Intersection LOS: B
Intersection Capacity Utilization 59.7% ICU Level of Service B
Analysis Period (min) 15
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 9: Holly Springs SB & Holly Springs NB



Lane Group	Ø3	Ø4
Turn Bay Length (ft)		
Base Capacity (vph)		
Starvation Cap Reductn		
Spillback Cap Reductn		
Storage Cap Reductn		
Reduced v/c Ratio		

Intersection Summary

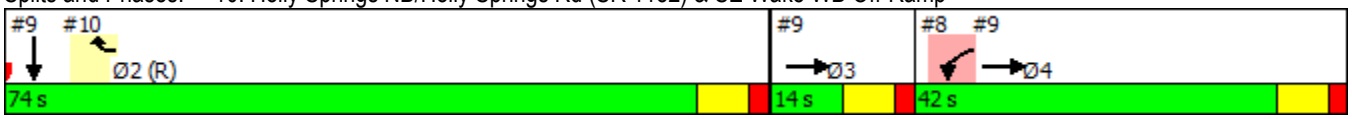
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	Ø3	Ø4
Lane Configurations								
Traffic Volume (vph)	0	379	694	0	0	0		
Future Volume (vph)	0	379	694	0	0	0		
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900		
Lane Util. Factor	1.00	0.88	0.91	1.00	1.00	1.00		
Frt		0.850						
Flt Protected								
Satd. Flow (prot)	0	2787	5085	0	0	0		
Flt Permitted								
Satd. Flow (perm)	0	2787	5085	0	0	0		
Right Turn on Red		No		No				
Satd. Flow (RTOR)								
Link Speed (mph)	25		45			45		
Link Distance (ft)	349		129			227		
Travel Time (s)	9.5		2.0			3.4		
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90		
Adj. Flow (vph)	0	421	771	0	0	0		
Shared Lane Traffic (%)								
Lane Group Flow (vph)	0	421	771	0	0	0		
Turn Type		Prot	NA					
Protected Phases		2!	Free!				3	4
Permitted Phases								
Detector Phase		2						
Switch Phase								
Minimum Initial (s)		4.0					4.0	4.0
Minimum Split (s)		19.0					14.0	19.0
Total Split (s)		74.0					14.0	42.0
Total Split (%)		56.9%					11%	32%
Maximum Green (s)		67.0					7.0	35.0
Yellow Time (s)		5.0					5.0	5.0
All-Red Time (s)		2.0					2.0	2.0
Lost Time Adjust (s)		-2.0						
Total Lost Time (s)		5.0						
Lead/Lag							Lead	Lag
Lead-Lag Optimize?							Yes	
Vehicle Extension (s)		3.0					3.0	3.0
Recall Mode		C-Max					None	None
Act Effct Green (s)		70.8	130.0					
Actuated g/C Ratio		0.54	1.00					
v/c Ratio		0.28	0.15					
Control Delay		16.8	0.1					
Queue Delay		0.0	0.0					
Total Delay		16.8	0.1					
LOS		B	A					
Approach Delay	16.8		0.1					
Approach LOS	B		A					
Queue Length 50th (ft)		107	0					
Queue Length 95th (ft)		144	0					
Internal Link Dist (ft)	269		49			147		

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	Ø3	Ø4
Turn Bay Length (ft)								
Base Capacity (vph)		1518	5085					
Starvation Cap Reductn		0	0					
Spillback Cap Reductn		0	0					
Storage Cap Reductn		0	0					
Reduced v/c Ratio		0.28	0.15					

Intersection Summary

Area Type: Other
Cycle Length: 130
Actuated Cycle Length: 130
Offset: 128 (98%), Referenced to phase 2:SBT, Start of Green
Natural Cycle: 75
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.79
Intersection Signal Delay: 6.0 Intersection LOS: A
Intersection Capacity Utilization 59.7% ICU Level of Service B
Analysis Period (min) 15
! Phase conflict between lane groups.

Splits and Phases: 10: Holly Springs NB/Holly Springs Rd (SR 1152) & SE Wake WB Off-Ramp



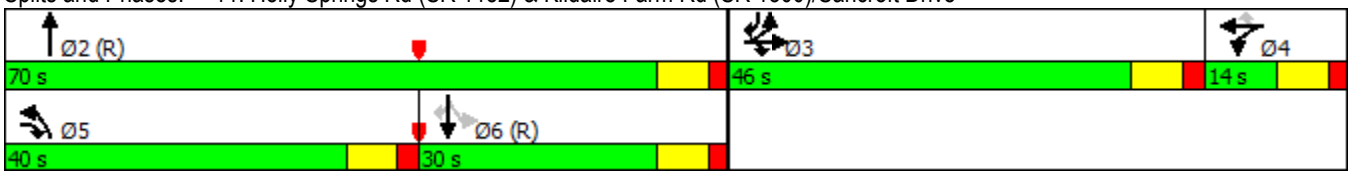
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	314	5	1502	6	3	3	838	248	10	5	589	416
Future Volume (vph)	314	5	1502	6	3	3	838	248	10	5	589	416
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		-3%			0%			-2%			4%	
Storage Length (ft)	400		650	50		75	0		0	150		450
Storage Lanes	1		1	0		1	2		0	1		1
Taper Length (ft)	200			100			150			150		
Lane Util. Factor	0.95	0.95	0.88	1.00	1.00	1.00	0.97	0.95	0.95	1.00	0.95	1.00
Frt			0.850			0.850		0.994				0.850
Flt Protected	0.950	0.954			0.966		0.950			0.950		
Satd. Flow (prot)	1706	1714	2828	0	1799	1583	3467	3553	0	1734	3468	1552
Flt Permitted	0.950	0.954			0.966		0.950			0.576		
Satd. Flow (perm)	1706	1714	2828	0	1799	1583	3467	3553	0	1051	3468	1552
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		45			35			45			45	
Link Distance (ft)		1366			504			485			616	
Travel Time (s)		20.7			9.8			7.3			9.3	
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)	349	6	1669	7	3	3	931	276	11	6	654	462
Shared Lane Traffic (%)	49%											
Lane Group Flow (vph)	178	177	1669	0	10	3	931	287	0	6	654	462
Turn Type	Split	NA	pt+ov	Split	NA	Perm	Prot	NA		Perm	NA	pm+ov
Protected Phases	3	3	3 5	4	4		5	2			6	3
Permitted Phases						4				6		6
Detector Phase	3	3	3 5	4	4	4	5	2		6	6	3
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0	7.0	7.0	12.0		12.0	12.0	7.0
Minimum Split (s)	14.0	14.0		14.0	14.0	14.0	14.0	19.0		19.0	19.0	14.0
Total Split (s)	46.0	46.0		14.0	14.0	14.0	40.0	70.0		30.0	30.0	46.0
Total Split (%)	35.4%	35.4%		10.8%	10.8%	10.8%	30.8%	53.8%		23.1%	23.1%	35.4%
Maximum Green (s)	39.0	39.0		7.0	7.0	7.0	33.0	63.0		23.0	23.0	39.0
Yellow Time (s)	5.0	5.0		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	2.0	2.0
Lost Time Adjust (s)	-2.0	-2.0			-2.0	-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		5.0	5.0	5.0
Lead/Lag	Lead	Lead		Lag	Lag	Lag	Lead			Lag	Lag	Lead
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes			Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Recall Mode	None	None		None	None	None	None	C-Max		C-Max	C-Max	None
Act Effct Green (s)	41.0	41.0	87.4		9.0	9.0	43.4	73.4		25.0	25.0	71.0
Actuated g/C Ratio	0.32	0.32	0.67		0.07	0.07	0.33	0.56		0.19	0.19	0.55
v/c Ratio	0.33	0.33	0.88		0.08	0.03	0.80	0.14		0.03	0.98	0.55
Control Delay	36.2	36.1	21.6		58.3	57.0	46.0	12.8		43.4	82.9	22.1
Queue Delay	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	36.2	36.1	21.6		58.3	57.0	46.0	12.8		43.4	82.9	22.1
LOS	D	D	C		E	E	D	B		D	F	C
Approach Delay		24.1			58.0			38.1			57.7	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		C			E			D			E	
Queue Length 50th (ft)	121	120	466		8	2	272	40		4	291	242
Queue Length 95th (ft)	189	188	#596		27	13	#530	62		17	#418	344
Internal Link Dist (ft)		1286			424			405			536	
Turn Bay Length (ft)	400		650			75				150		450
Base Capacity (vph)	538	540	1901		124	109	1157	2006		202	666	847
Starvation Cap Reductn	0	0	0		0	0	0	0		0	0	0
Spillback Cap Reductn	0	0	0		0	0	0	0		0	0	0
Storage Cap Reductn	0	0	0		0	0	0	0		0	0	0
Reduced v/c Ratio	0.33	0.33	0.88		0.08	0.03	0.80	0.14		0.03	0.98	0.55

Intersection Summary

Area Type: Other
Cycle Length: 130
Actuated Cycle Length: 130
Offset: 112 (86%), Referenced to phase 2:NBT and 6:SBTL, Start of Green
Natural Cycle: 120
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.98
Intersection Signal Delay: 36.7 Intersection LOS: D
Intersection Capacity Utilization 87.2% ICU Level of Service E
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 11: Holly Springs Rd (SR 1152) & Kildaire Farm Rd (SR 1300)/Sancroft Drive



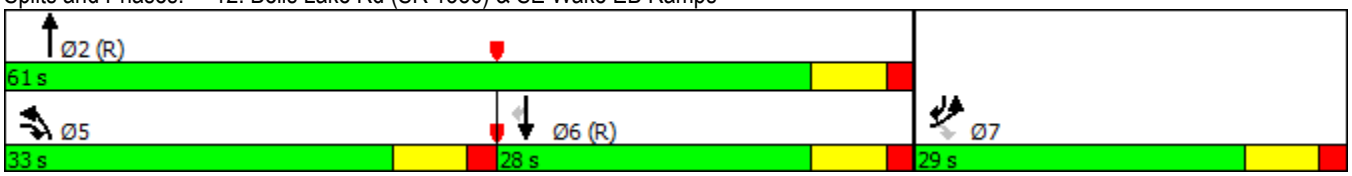
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	157	678	149	484	274	556
Future Volume (vph)	157	678	149	484	274	556
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	500	0	325			675
Storage Lanes	1	1	1			1
Taper Length (ft)	200		200			
Lane Util. Factor	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	1770	1863	1863	1583
Flt Permitted	0.950		0.950			
Satd. Flow (perm)	1770	1583	1770	1863	1863	1583
Right Turn on Red		No				No
Satd. Flow (RTOR)						
Link Speed (mph)	45			45	45	
Link Distance (ft)	766			1124	1065	
Travel Time (s)	11.6			17.0	16.1	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	174	753	166	538	304	618
Shared Lane Traffic (%)						
Lane Group Flow (vph)	174	753	166	538	304	618
Turn Type	Prot	pm+ov	Prot	NA	NA	pm+ov
Protected Phases	7	5	5	2	6	7
Permitted Phases		7				6
Detector Phase	7	5	5	2	6	7
Switch Phase						
Minimum Initial (s)	7.0	7.0	7.0	12.0	12.0	7.0
Minimum Split (s)	14.0	14.0	14.0	19.0	19.0	14.0
Total Split (s)	29.0	33.0	33.0	61.0	28.0	29.0
Total Split (%)	32.2%	36.7%	36.7%	67.8%	31.1%	32.2%
Maximum Green (s)	22.0	26.0	26.0	54.0	21.0	22.0
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	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	7.0
Lead/Lag		Lead	Lead		Lag	
Lead-Lag Optimize?		Yes	Yes		Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None	None	C-Max	C-Max	None
Act Effct Green (s)	19.7	53.5	28.8	60.3	26.5	49.2
Actuated g/C Ratio	0.22	0.59	0.32	0.67	0.29	0.55
v/c Ratio	0.45	0.80	0.29	0.43	0.55	0.72
Control Delay	33.1	21.3	24.9	9.1	26.8	17.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	33.1	21.3	24.9	9.1	26.8	17.2
LOS	C	C	C	A	C	B
Approach Delay	23.5			12.8	20.4	
Approach LOS	C			B	C	

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Queue Length 50th (ft)	83	270	69	138	127	284
Queue Length 95th (ft)	139	428	124	219	215	406
Internal Link Dist (ft)	686			1044	985	
Turn Bay Length (ft)	500		325			675
Base Capacity (vph)	472	940	566	1249	549	941
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	0.37	0.80	0.29	0.43	0.55	0.66

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 19 (21%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.80
Intersection Signal Delay: 19.4 Intersection LOS: B
Intersection Capacity Utilization 64.7% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 12: Bells Lake Rd (SR 1386) & SE Wake EB Ramps





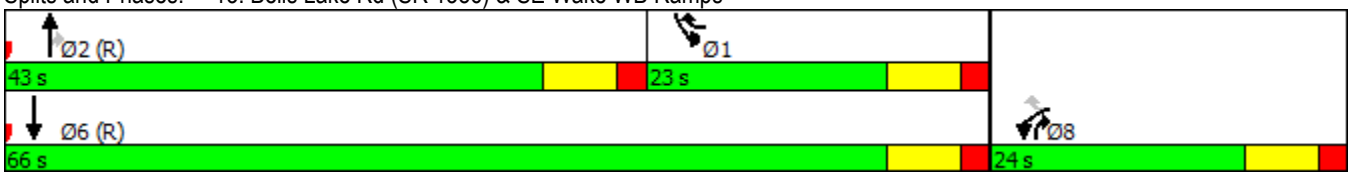
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	133	316	247	394	143	697
Future Volume (vph)	133	316	247	394	143	697
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	350	0		700	375	
Storage Lanes	1	1		1	1	
Taper Length (ft)	200				300	
Lane Util. Factor	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				0.950	
Satd. Flow (perm)	1770	1583	1863	1583	1770	1863
Right Turn on Red		No		No		
Satd. Flow (RTOR)						
Link Speed (mph)	45		45			45
Link Distance (ft)	764		1065			1466
Travel Time (s)	11.6		16.1			22.2
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	148	351	274	438	159	774
Shared Lane Traffic (%)						
Lane Group Flow (vph)	148	351	274	438	159	774
Turn Type	Prot	pm+ov	NA	pm+ov	Prot	NA
Protected Phases	8	1	2	8	1	6
Permitted Phases		8		2		
Detector Phase	8	1	2	8	1	6
Switch Phase						
Minimum Initial (s)	7.0	7.0	12.0	7.0	7.0	12.0
Minimum Split (s)	19.0	14.0	19.0	19.0	14.0	19.0
Total Split (s)	24.0	23.0	43.0	24.0	23.0	66.0
Total Split (%)	26.7%	25.6%	47.8%	26.7%	25.6%	73.3%
Maximum Green (s)	17.0	16.0	36.0	17.0	16.0	59.0
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	0.0	-2.0	-2.0
Total Lost Time (s)	5.0	5.0	5.0	7.0	5.0	5.0
Lead/Lag		Lag	Lead		Lag	
Lead-Lag Optimize?		Yes	Yes		Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None	C-Max	None	None	C-Max
Act Effct Green (s)	17.4	40.4	39.6	60.0	18.0	62.6
Actuated g/C Ratio	0.19	0.45	0.44	0.67	0.20	0.70
v/c Ratio	0.43	0.49	0.33	0.42	0.45	0.60
Control Delay	35.8	20.1	14.7	6.4	36.4	9.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	35.8	20.1	14.7	6.4	36.4	9.9
LOS	D	C	B	A	D	A
Approach Delay	24.7		9.6			14.4
Approach LOS	C		A			B

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Queue Length 50th (ft)	73	132	74	56	80	211
Queue Length 95th (ft)	130	208	108	100	140	315
Internal Link Dist (ft)	684		985			1386
Turn Bay Length (ft)	350			700	375	
Base Capacity (vph)	373	710	819	1009	354	1295
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	0.40	0.49	0.33	0.43	0.45	0.60

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 88 (98%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle: 55
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.60
Intersection Signal Delay: 15.2 Intersection LOS: B
Intersection Capacity Utilization 52.4% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 13: Bells Lake Rd (SR 1386) & SE Wake WB Ramps



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	165	20	102	92	31	372	94	1838	54	343	2876	237
Future Volume (vph)	165	20	102	92	31	372	94	1838	54	343	2876	237
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		1%			-4%			4%			-3%	
Storage Length (ft)	550		0	350		0	475		350	500		175
Storage Lanes	1		1	1		1	1		1	2		1
Taper Length (ft)	75			75			200			200		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91	1.00	0.97	0.91	1.00
Frt			0.850			0.850			0.850			0.850
Flt Protected		0.957			0.964		0.950			0.950		
Satd. Flow (prot)	0	1774	1575	0	1832	1615	1734	4984	1552	3485	5162	1607
Flt Permitted		0.552			0.417		0.950			0.950		
Satd. Flow (perm)	0	1023	1575	0	792	1615	1734	4984	1552	3485	5162	1607
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		45			20			55			55	
Link Distance (ft)		2528			1077			1156			1108	
Travel Time (s)		38.3			36.7			14.3			13.7	
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)	183	22	113	102	34	413	104	2042	60	381	3196	263
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	205	113	0	136	413	104	2042	60	381	3196	263
Turn Type	Perm	NA	pm+ov	Perm	NA	pm+ov	Prot	NA	Perm	Prot	NA	Perm
Protected Phases		4	5		8	1	5	2		1	6	
Permitted Phases	4		4	8		8			2			6
Detector Phase	4	4	5	8	8	1	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	14.0	14.0	7.0	14.0	14.0
Minimum Split (s)	35.5	35.5	14.0	14.5	14.5	14.0	14.0	21.0	21.0	14.0	21.0	21.0
Total Split (s)	35.5	35.5	14.0	35.5	35.5	26.0	14.0	73.5	73.5	26.0	85.5	85.5
Total Split (%)	26.3%	26.3%	10.4%	26.3%	26.3%	19.3%	10.4%	54.4%	54.4%	19.3%	63.3%	63.3%
Maximum Green (s)	28.5	28.5	7.0	28.5	28.5	19.0	7.0	66.5	66.5	19.0	78.5	78.5
Yellow Time (s)	5.0	5.0	5.0	5.0	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	2.0	2.0	2.0	2.0
Lost Time Adjust (s)		-2.0	0.0		-2.0	0.0	-2.0	-2.0	0.0	-2.0	-2.0	-2.0
Total Lost Time (s)		5.0	7.0		5.0	7.0	5.0	5.0	7.0	5.0	5.0	5.0
Lead/Lag			Lead			Lag	Lead	Lead	Lead	Lag	Lag	Lag
Lead-Lag Optimize?			Yes			Yes	Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	6.0	6.0	1.0	6.0	6.0
Minimum Gap (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	6.0	6.0	1.0	6.0	6.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	15.0	15.0	0.0	15.0	15.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	30.0	30.0	0.0	30.0	30.0
Recall Mode	None	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Walk Time (s)	5.0	5.0										
Flash Dont Walk (s)	23.0	23.0										
Pedestrian Calls (#/hr)	0	0										
Act Effct Green (s)		25.2	39.3		25.2	49.2	11.2	73.8	71.8	21.0	83.7	83.7
Actuated g/C Ratio		0.19	0.29		0.19	0.36	0.08	0.55	0.53	0.16	0.62	0.62

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio		1.07	0.25		0.93	0.70	0.73	0.75	0.07	0.70	1.00	0.26
Control Delay		137.5	37.0		109.7	43.2	88.0	26.5	17.3	45.4	23.6	7.2
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		137.5	37.0		109.7	43.2	88.0	26.5	17.3	45.4	23.6	7.2
LOS		F	D		F	D	F	C	B	D	C	A
Approach Delay		101.8			59.7			29.2			24.7	
Approach LOS		F			E			C			C	
Queue Length 50th (ft)		~192	73		117	304	89	494	25	159	~1098	61
Queue Length 95th (ft)		#325	124		#223	405	#208	597	53	m159	m#1106	m62
Internal Link Dist (ft)		2448			997			1076			1028	
Turn Bay Length (ft)							475		350	500		175
Base Capacity (vph)		231	458		178	588	143	2725	825	542	3199	995
Starvation Cap Reductn		0	0		0	0	0	0	0	0	0	0
Spillback Cap Reductn		0	0		0	0	0	0	0	0	0	0
Storage Cap Reductn		0	0		0	0	0	0	0	0	0	0
Reduced v/c Ratio		0.89	0.25		0.76	0.70	0.73	0.75	0.07	0.70	1.00	0.26

Intersection Summary

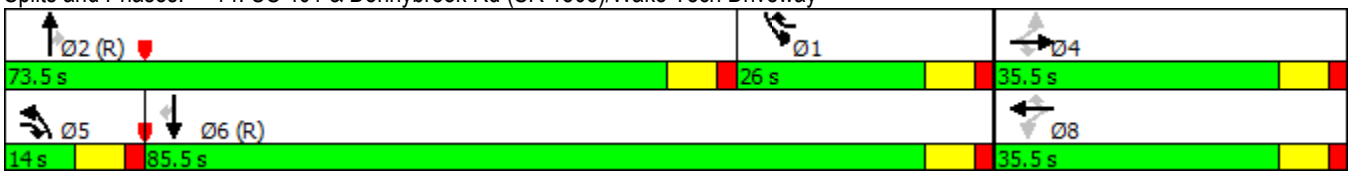
Area Type: Other
Cycle Length: 135
Actuated Cycle Length: 135
Offset: 10 (7%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle: 140
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.07
Intersection Signal Delay: 32.4 Intersection LOS: C
Intersection Capacity Utilization 90.8% ICU Level of Service E
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: 14: US 401 & Donnybrook Rd (SR 1503)/Wake Tech Driveway



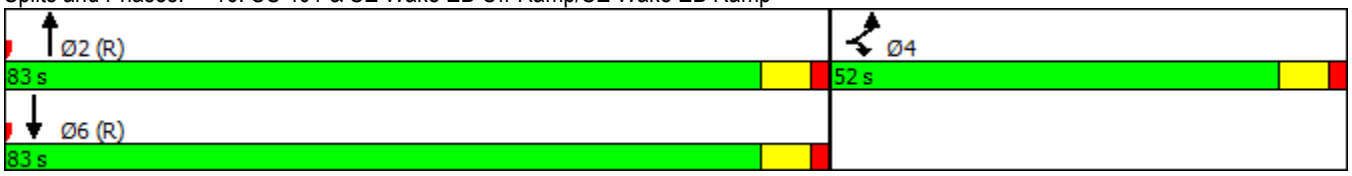
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	468	0	866	0	0	0	0	1706	639	0	2634	0
Future Volume (vph)	468	0	866	0	0	0	0	1706	639	0	2634	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	400		500	0		0	0		350	0		0
Storage Lanes	2		1	0		0	0		1	0		0
Taper Length (ft)	150			100			100			100		
Lane Util. Factor	0.97	1.00	0.88	1.00	1.00	1.00	1.00	0.91	1.00	1.00	0.91	1.00
Frt			0.850						0.850			
Flt Protected	0.950											
Satd. Flow (prot)	3433	0	2787	0	0	0	0	5085	1583	0	5085	0
Flt Permitted	0.950											
Satd. Flow (perm)	3433	0	2787	0	0	0	0	5085	1583	0	5085	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		45			45			55			55	
Link Distance (ft)		1618			2204			1108			230	
Travel Time (s)		24.5			33.4			13.7			2.9	
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)	520	0	962	0	0	0	0	1896	710	0	2927	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	520	0	962	0	0	0	0	1896	710	0	2927	0
Turn Type	Prot		Prot					NA	Free		NA	
Protected Phases	4		4					2			6	
Permitted Phases									Free			
Detector Phase	4		4					2			6	
Switch Phase												
Minimum Initial (s)	7.0		7.0					14.0			14.0	
Minimum Split (s)	14.0		14.0					21.0			21.0	
Total Split (s)	52.0		52.0					83.0			83.0	
Total Split (%)	38.5%		38.5%					61.5%			61.5%	
Maximum Green (s)	45.0		45.0					76.0			76.0	
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		None					C-Max			C-Max	
Act Effct Green (s)	47.0		47.0					78.0	135.0		78.0	
Actuated g/C Ratio	0.35		0.35					0.58	1.00		0.58	
v/c Ratio	0.44		0.99					0.65	0.45		1.00	
Control Delay	35.2		70.7					9.6	0.6		34.6	
Queue Delay	0.0		0.0					0.0	0.0		0.0	
Total Delay	35.2		70.7					9.6	0.6		34.6	
LOS	D		E					A	A		C	
Approach Delay		58.3						7.2			34.6	
Approach LOS		E						A			C	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 50th (ft)	179		475					152	0		478	
Queue Length 95th (ft)	231		#639					163	m0		#1042	
Internal Link Dist (ft)		1538			2124			1028			150	
Turn Bay Length (ft)	400		500						350			
Base Capacity (vph)	1195		970					2938	1583		2938	
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	0.44		0.99					0.65	0.45		1.00	

Intersection Summary

Area Type: Other
Cycle Length: 135
Actuated Cycle Length: 135
Offset: 134 (99%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle: 100
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.00
Intersection Signal Delay: 29.4 Intersection LOS: C
Intersection Capacity Utilization 125.8% ICU Level of Service H
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: 16: US 401 & SE Wake EB Off-Ramp/SE Wake EB Ramp



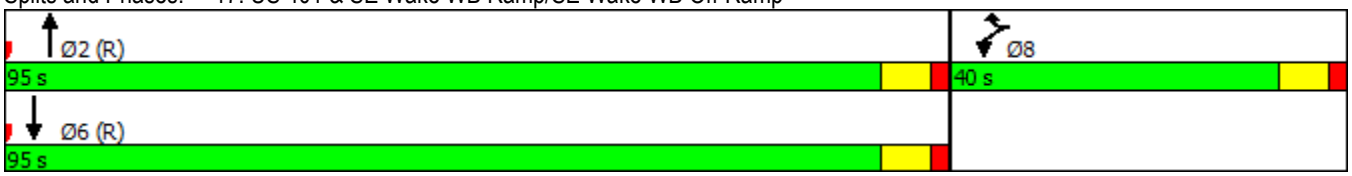
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	559	0	149	0	1701	0	0	2357	430
Future Volume (vph)	0	0	0	559	0	149	0	1701	0	0	2357	430
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	400		400	0		0	0		0
Storage Lanes	0		0	1		1	0		0	0		1
Taper Length (ft)	100			175			100			100		
Lane Util. Factor	1.00	1.00	1.00	0.97	1.00	1.00	1.00	0.91	1.00	1.00	0.91	1.00
Frt						0.850						0.850
Flt Protected				0.950								
Satd. Flow (prot)	0	0	0	3433	0	1583	0	5085	0	0	5085	1583
Flt Permitted				0.950								
Satd. Flow (perm)	0	0	0	3433	0	1583	0	5085	0	0	5085	1583
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		45			45			55			55	
Link Distance (ft)		1627			1555			227			831	
Travel Time (s)		24.7			23.6			2.8			10.3	
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)	0	0	0	621	0	166	0	1890	0	0	2619	478
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	621	0	166	0	1890	0	0	2619	478
Turn Type				Prot		Prot		NA			NA	Free
Protected Phases				8		8		2			6	
Permitted Phases												Free
Detector Phase				8		8		2			6	
Switch Phase												
Minimum Initial (s)				7.0		7.0		14.0			14.0	
Minimum Split (s)				14.0		14.0		21.0			21.0	
Total Split (s)				40.0		40.0		95.0			95.0	
Total Split (%)				29.6%		29.6%		70.4%			70.4%	
Maximum Green (s)				33.0		33.0		88.0			88.0	
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		None		C-Max			C-Max	
Act Effct Green (s)				31.3		31.3		93.7			93.7	135.0
Actuated g/C Ratio				0.23		0.23		0.69			0.69	1.00
v/c Ratio				0.78		0.45		0.54			0.74	0.30
Control Delay				55.9		48.1		4.7			15.2	0.5
Queue Delay				0.0		0.0		0.0			0.0	0.0
Total Delay				55.9		48.1		4.7			15.2	0.5
LOS				E		D		A			B	A
Approach Delay					54.3			4.7			12.9	
Approach LOS					D			A			B	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 50th (ft)				262		125		149			499	0
Queue Length 95th (ft)				322		192		278			594	0
Internal Link Dist (ft)		1547			1475			147			751	
Turn Bay Length (ft)				400		400						
Base Capacity (vph)				890		410		3531			3531	1583
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				0.70		0.40		0.54			0.74	0.30

Intersection Summary

Area Type: Other
Cycle Length: 135
Actuated Cycle Length: 135
Offset: 21 (16%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle: 55
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.78
Intersection Signal Delay: 15.9 Intersection LOS: B
Intersection Capacity Utilization 106.0% ICU Level of Service G
Analysis Period (min) 15

Splits and Phases: 17: US 401 & SE Wake WB Ramp/SE Wake WB Off-Ramp



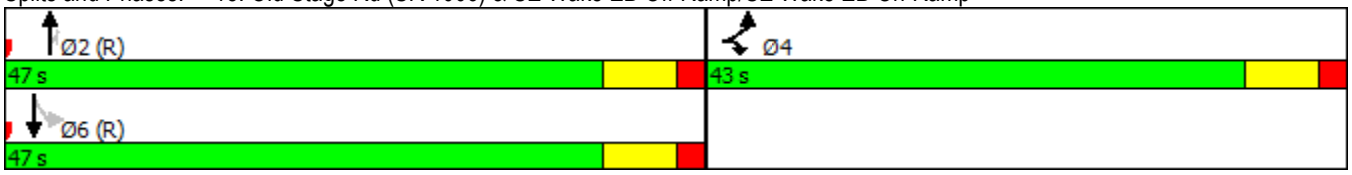
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	551	0	907	0	0	0	0	825	79	98	848	0
Future Volume (vph)	551	0	907	0	0	0	0	825	79	98	848	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	400		450	0		0	0		350	300		0
Storage Lanes	1		2	0		0	0		1	1		0
Taper Length (ft)	150			100			100			150		
Lane Util. Factor	0.97	1.00	0.88	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt			0.850						0.850			
Flt Protected	0.950									0.950		
Satd. Flow (prot)	3433	0	2787	0	0	0	0	3539	1583	1770	3539	0
Flt Permitted	0.950									0.222		
Satd. Flow (perm)	3433	0	2787	0	0	0	0	3539	1583	414	3539	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		1797			1507			713			1050	
Travel Time (s)		27.2			22.8			10.8			15.9	
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)	612	0	1008	0	0	0	0	917	88	109	942	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	612	0	1008	0	0	0	0	917	88	109	942	0
Turn Type	Prot		Prot					NA	Perm	Perm	NA	
Protected Phases	4		4					2			6	
Permitted Phases									2	6		
Detector Phase	4		4					2	2	6	6	
Switch Phase												
Minimum Initial (s)	7.0		7.0					12.0	12.0	12.0	12.0	
Minimum Split (s)	14.0		14.0					19.0	19.0	19.0	19.0	
Total Split (s)	43.0		43.0					47.0	47.0	47.0	47.0	
Total Split (%)	47.8%		47.8%					52.2%	52.2%	52.2%	52.2%	
Maximum Green (s)	36.0		36.0					40.0	40.0	40.0	40.0	
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	0.0	-2.0	-2.0	
Total Lost Time (s)	5.0		5.0					5.0	7.0	5.0	5.0	
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-Max	C-Max	C-Max	C-Max	
Act Effct Green (s)	37.1		37.1					42.9	40.9	42.9	42.9	
Actuated g/C Ratio	0.41		0.41					0.48	0.45	0.48	0.48	
v/c Ratio	0.43		0.88					0.54	0.12	0.55	0.56	
Control Delay	19.9		34.4					18.4	15.3	19.0	9.1	
Queue Delay	0.0		0.0					0.0	0.0	0.0	0.0	
Total Delay	19.9		34.4					18.4	15.3	19.0	9.1	
LOS	B		C					B	B	B	A	
Approach Delay		28.9						18.1			10.1	
Approach LOS		C						B			B	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 50th (ft)	122		286					190	29	13	57	
Queue Length 95th (ft)	167		#401					248	57	#114	69	
Internal Link Dist (ft)		1717			1427			633			970	
Turn Bay Length (ft)	400		450						350	300		
Base Capacity (vph)	1449		1176					1685	718	197	1685	
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	0.42		0.86					0.54	0.12	0.55	0.56	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 9 (10%), Referenced to phase 2:NBT and 6:SBTL, Start of Green
Natural Cycle: 45
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.88
Intersection Signal Delay: 20.6 Intersection LOS: C
Intersection Capacity Utilization 66.3% 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: 18: Old Stage Rd (SR 1006) & SE Wake EB Off-Ramp/SE Wake EB On-Ramp



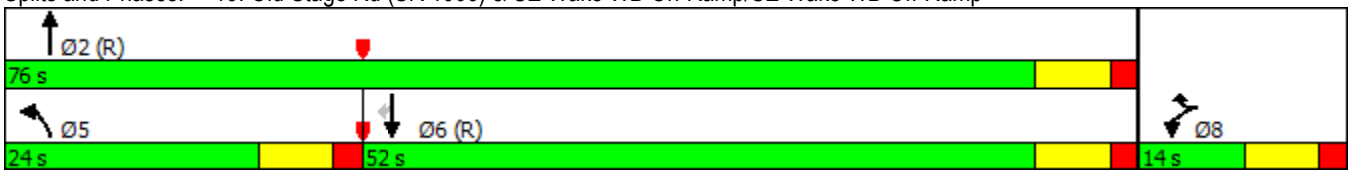
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	81	0	50	444	932	0	0	865	543
Future Volume (vph)	0	0	0	81	0	50	444	932	0	0	865	543
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		200	400		0	0		350
Storage Lanes	0		0	1		1	2		0	0		1
Taper Length (ft)	100			100			150			100		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	*0.88	0.95	1.00	1.00	0.95	1.00
Frt						0.850						0.850
Flt Protected				0.950			0.950					
Satd. Flow (prot)	0	0	0	1770	0	1583	3115	3539	0	0	3539	1583
Flt Permitted				0.950			0.950					
Satd. Flow (perm)	0	0	0	1770	0	1583	3115	3539	0	0	3539	1583
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		1394			1871			1050			784	
Travel Time (s)		21.1			28.3			15.9			11.9	
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)	0	0	0	90	0	56	493	1036	0	0	961	603
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	90	0	56	493	1036	0	0	961	603
Turn Type				Prot		Prot	Prot	NA			NA	Perm
Protected Phases				8		8	5	2			6	
Permitted Phases												6
Detector Phase				8		8	5	2			6	6
Switch Phase												
Minimum Initial (s)				7.0		7.0	7.0	12.0			12.0	12.0
Minimum Split (s)				14.0		14.0	14.0	19.0			19.0	19.0
Total Split (s)				14.0		14.0	24.0	76.0			52.0	52.0
Total Split (%)				15.6%		15.6%	26.7%	84.4%			57.8%	57.8%
Maximum Green (s)				7.0		7.0	17.0	69.0			45.0	45.0
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	0.0
Total Lost Time (s)				5.0		5.0	5.0	5.0			5.0	7.0
Lead/Lag							Lead				Lag	Lag
Lead-Lag Optimize?							Yes				Yes	Yes
Vehicle Extension (s)				3.0		3.0	3.0	3.0			3.0	3.0
Recall Mode				None		None	None	C-Max			C-Max	C-Max
Act Effct Green (s)				9.0		9.0	18.5	74.8			50.3	48.3
Actuated g/C Ratio				0.10		0.10	0.21	0.83			0.56	0.54
v/c Ratio				0.51		0.35	0.77	0.35			0.49	0.71
Control Delay				49.2		44.6	37.8	1.8			14.0	22.9
Queue Delay				0.0		0.0	0.0	0.0			0.0	0.0
Total Delay				49.2		44.6	37.8	1.8			14.0	22.9
LOS				D		D	D	A			B	C
Approach Delay					47.4			13.4			17.4	
Approach LOS					D			B			B	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 50th (ft)				49		30	126	35			178	264
Queue Length 95th (ft)				98		68	190	67			232	408
Internal Link Dist (ft)		1314			1791			970			704	
Turn Bay Length (ft)						200	400					350
Base Capacity (vph)				177		158	657	2941			1979	850
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				0.51		0.35	0.75	0.35			0.49	0.71

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 88 (98%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle: 65
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.77
Intersection Signal Delay: 16.9 Intersection LOS: B
Intersection Capacity Utilization 66.3% ICU Level of Service C
Analysis Period (min) 15
* User Entered Value

Splits and Phases: 19: Old Stage Rd (SR 1006) & SE Wake WB On-Ramp/SE Wake WB Off-Ramp



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	11	6	12	51	7	450	12	502	51	859	958	23
Future Volume (vph)	11	6	12	51	7	450	12	502	51	859	958	23
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	10	12	12	11	12	11	11	12	11	11	12
Grade (%)		-1%			1%			2%			-2%	
Storage Length (ft)	0		0	0		150	100		0	1000		0
Storage Lanes	0		0	0		1	1		0	1		1
Taper Length (ft)	100			100			75			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		0.945				0.850		0.986				0.850
Flt Protected		0.982			0.958		0.950			0.950		
Satd. Flow (prot)	0	1606	0	0	1716	1575	1694	1758	0	1728	1819	1599
Flt Permitted		0.849			0.729		0.136			0.950		
Satd. Flow (perm)	0	1388	0	0	1306	1575	242	1758	0	1728	1819	1599
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		25			55			55			55	
Link Distance (ft)		1058			1031			566			1632	
Travel Time (s)		28.9			12.8			7.0			20.2	
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
Heavy Vehicles (%)	3%	3%	3%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Adj. Flow (vph)	12	7	13	57	8	500	13	558	57	954	1064	26
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	32	0	0	65	500	13	615	0	954	1064	26
Turn Type	Perm	NA		Perm	NA	Free	Perm	NA		Prot	NA	Perm
Protected Phases		4			8			2		1	6	
Permitted Phases	4			8		Free	2					6
Detector Phase	4	4		8	8		2	2		1	6	6
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		14.0	14.0		7.0	14.0	14.0
Minimum Split (s)	14.0	14.0		14.0	14.0		21.0	21.0		14.0	21.0	21.0
Total Split (s)	14.0	14.0		14.0	14.0		43.0	43.0		63.0	106.0	106.0
Total Split (%)	11.7%	11.7%		11.7%	11.7%		35.8%	35.8%		52.5%	88.3%	88.3%
Maximum Green (s)	7.0	7.0		7.0	7.0		36.0	36.0		56.0	99.0	99.0
Yellow Time (s)	5.0	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	2.0
Lost Time Adjust (s)		-2.0			-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	5.0
Lead/Lag							Lead	Lead		Lag		
Lead-Lag Optimize?							Yes	Yes		Yes		
Vehicle Extension (s)	1.0	1.0		1.0	1.0		6.0	6.0		1.0	6.0	6.0
Minimum Gap (s)	1.0	1.0		1.0	1.0		6.0	6.0		1.0	6.0	6.0
Time Before Reduce (s)	0.0	0.0		0.0	0.0		15.0	15.0		0.0	15.0	15.0
Time To Reduce (s)	0.0	0.0		0.0	0.0		40.0	40.0		0.0	40.0	40.0
Recall Mode	None	None		None	None		C-Max	C-Max		None	C-Max	C-Max
Act Effct Green (s)		9.0			9.0	120.0	40.8	40.8		58.0	104.8	104.8
Actuated g/C Ratio		0.08			0.08	1.00	0.34	0.34		0.48	0.87	0.87
v/c Ratio		0.31			0.67	0.32	0.16	1.03		1.14	0.67	0.02

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Control Delay		60.8			86.1	0.5	35.9	84.9		104.2	3.6	0.9
Queue Delay		0.0			0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay		60.8			86.1	0.5	35.9	84.9		104.2	3.6	0.9
LOS		E			F	A	D	F		F	A	A
Approach Delay		60.8			10.4			83.9			50.5	
Approach LOS		E			B			F			D	
Queue Length 50th (ft)		24			50	0	7	~543		~876	36	1
Queue Length 95th (ft)		58			#121	0	26	#767		m#1059	m244	m3
Internal Link Dist (ft)		978			951			486			1552	
Turn Bay Length (ft)						150	100			1000		
Base Capacity (vph)		104			97	1575	82	597		835	1588	1396
Starvation Cap Reductn		0			0	0	0	0		0	0	0
Spillback Cap Reductn		0			0	0	0	0		0	0	0
Storage Cap Reductn		0			0	0	0	0		0	0	0
Reduced v/c Ratio		0.31			0.67	0.32	0.16	1.03		1.14	0.67	0.02

Intersection Summary

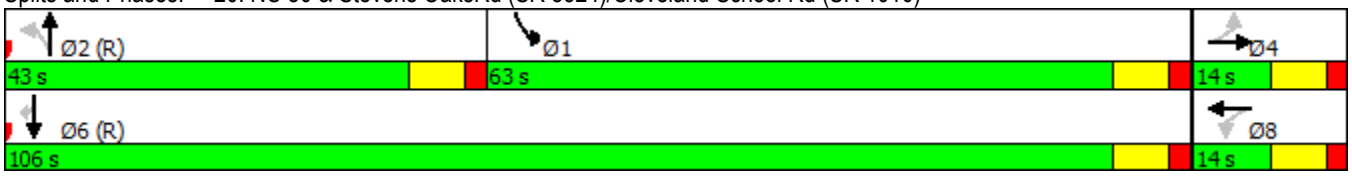
Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 93 (78%), Referenced to phase 2:NBTL and 6:SBT, Start of Green
Natural Cycle: 150
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.14
Intersection Signal Delay: 50.1 Intersection LOS: D
Intersection Capacity Utilization 97.9% ICU Level of Service F
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: 20: NC 50 & Stevens OaksRd (SR 5324)/Cleveland School Rd (SR 1010)



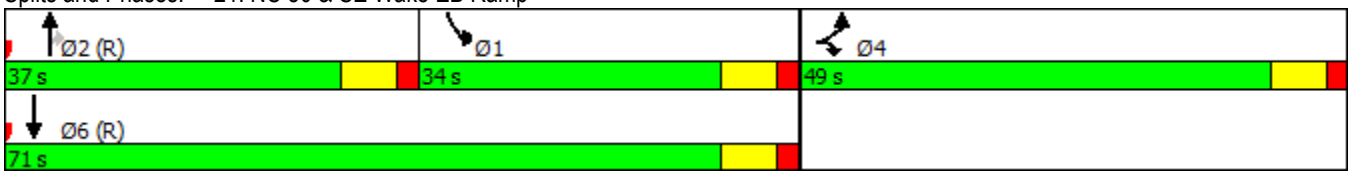
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	75	0	860	0	0	0	0	640	329	633	967	0
Future Volume (vph)	75	0	860	0	0	0	0	640	329	633	967	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	600		600	0		0	0		400	400		0
Storage Lanes	1		1	0		0	0		1	1		0
Taper Length (ft)	100			100			100			225		
Lane Util. Factor	1.00	1.00	0.88	1.00	1.00	1.00	1.00	0.95	1.00	*0.88	0.95	1.00
Frt			0.850						0.850			
Flt Protected	0.950									0.950		
Satd. Flow (prot)	1770	0	2787	0	0	0	0	3539	1583	3115	3539	0
Flt Permitted	0.950									0.950		
Satd. Flow (perm)	1770	0	2787	0	0	0	0	3539	1583	3115	3539	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		45			45			55			55	
Link Distance (ft)		1729			1389			1632			1116	
Travel Time (s)		26.2			21.0			20.2			13.8	
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
Heavy Vehicles (%)	2%	6%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Adj. Flow (vph)	83	0	956	0	0	0	0	711	366	703	1074	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	83	0	956	0	0	0	0	711	366	703	1074	0
Turn Type	Prot		Prot					NA	Perm	Prot	NA	
Protected Phases	4		4					2		1	6	
Permitted Phases									2			
Detector Phase	4		4					2	2	1	6	
Switch Phase												
Minimum Initial (s)	7.0		7.0					14.0	14.0	7.0	14.0	
Minimum Split (s)	19.0		19.0					21.0	21.0	14.0	21.0	
Total Split (s)	49.0		49.0					37.0	37.0	34.0	71.0	
Total Split (%)	40.8%		40.8%					30.8%	30.8%	28.3%	59.2%	
Maximum Green (s)	42.0		42.0					30.0	30.0	27.0	64.0	
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	-2.0	
Total Lost Time (s)	5.0		5.0					5.0	5.0	5.0	5.0	
Lead/Lag								Lead	Lead	Lag		
Lead-Lag Optimize?								Yes	Yes	Yes		
Vehicle Extension (s)	3.0		3.0					3.0	3.0	3.0	3.0	
Recall Mode	None		None					C-Max	C-Max	None	C-Max	
Act Effct Green (s)	43.6		43.6					32.4	32.4	29.0	66.4	
Actuated g/C Ratio	0.36		0.36					0.27	0.27	0.24	0.55	
v/c Ratio	0.13		0.94					0.75	0.86	0.93	0.55	
Control Delay	26.1		55.1					24.9	38.5	48.5	9.9	
Queue Delay	0.0		0.0					0.0	0.0	0.0	0.0	
Total Delay	26.1		55.1					24.9	38.5	48.5	9.9	
LOS	C		E					C	D	D	A	
Approach Delay		52.8						29.6			25.2	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		D						C			C	
Queue Length 50th (ft)	42		401					187	205	313	128	
Queue Length 95th (ft)	79		#550					m215	m270	#428	149	
Internal Link Dist (ft)		1649			1309			1552			1036	
Turn Bay Length (ft)	600		600						400	400		
Base Capacity (vph)	649		1021					954	427	752	1957	
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	0.13		0.94					0.75	0.86	0.93	0.55	

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.94
Intersection Signal Delay: 33.8 Intersection LOS: C
Intersection Capacity Utilization 65.1% ICU Level of Service C
Analysis Period (min) 15
* User Entered Value
\# 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: 21: NC 50 & SE Wake EB Ramp



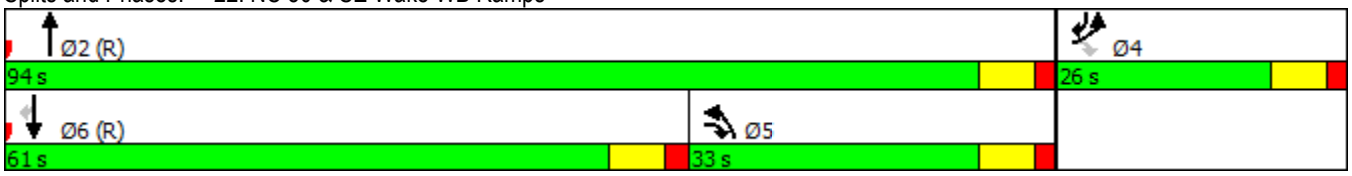
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	363	416	390	325	1184	75
Future Volume (vph)	363	416	390	325	1184	75
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0	450			350
Storage Lanes	2	1	1			1
Taper Length (ft)	150		225			
Lane Util. Factor	0.97	1.00	*0.88	0.95	0.95	1.00
Ped Bike Factor	0.63					
Frt		0.850				0.850
Flt Protected	0.950		0.950			
Satd. Flow (prot)	3433	1583	3115	3539	3539	1583
Flt Permitted	0.950		0.950			
Satd. Flow (perm)	2168	1583	3115	3539	3539	1583
Right Turn on Red		No				No
Satd. Flow (RTOR)						
Link Speed (mph)	25			55	55	
Link Distance (ft)	455			1116	682	
Travel Time (s)	12.4			13.8	8.5	
Confl. Peds. (#/hr)	129					
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	403	462	433	361	1316	83
Shared Lane Traffic (%)						
Lane Group Flow (vph)	403	462	433	361	1316	83
Turn Type	Prot	pm+ov	Prot	NA	NA	pm+ov
Protected Phases	4	5	5	2	6	4
Permitted Phases		4				6
Detector Phase	4	5	5	2	6	4
Switch Phase						
Minimum Initial (s)	7.0	7.0	7.0	14.0	14.0	7.0
Minimum Split (s)	19.0	14.0	14.0	21.0	21.0	19.0
Total Split (s)	26.0	33.0	33.0	94.0	61.0	26.0
Total Split (%)	21.7%	27.5%	27.5%	78.3%	50.8%	21.7%
Maximum Green (s)	19.0	26.0	26.0	87.0	54.0	19.0
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	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	7.0
Lead/Lag		Lag	Lag		Lead	
Lead-Lag Optimize?		Yes	Yes		Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None	None	C-Max	C-Max	None
Act Effct Green (s)	19.7	52.7	28.0	90.3	57.3	80.0
Actuated g/C Ratio	0.16	0.44	0.23	0.75	0.48	0.67
v/c Ratio	0.71	0.66	0.60	0.14	0.78	0.08
Control Delay	55.0	32.0	44.4	0.8	30.4	7.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	55.0	32.0	44.4	0.8	30.4	7.3
LOS	E	C	D	A	C	A

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Approach Delay	42.7			24.6	29.0	
Approach LOS	D			C	C	
Queue Length 50th (ft)	152	272	190	3	444	21
Queue Length 95th (ft)	206	392	252	10	539	39
Internal Link Dist (ft)	375			1036	602	
Turn Bay Length (ft)			450			350
Base Capacity (vph)	600	695	726	2662	1689	1035
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	0.67	0.66	0.60	0.14	0.78	0.08

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle: 65
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.78
Intersection Signal Delay: 31.8 Intersection LOS: C
Intersection Capacity Utilization 66.8% ICU Level of Service C
Analysis Period (min) 15
* User Entered Value

Splits and Phases: 22: NC 50 & SE Wake WB Ramps



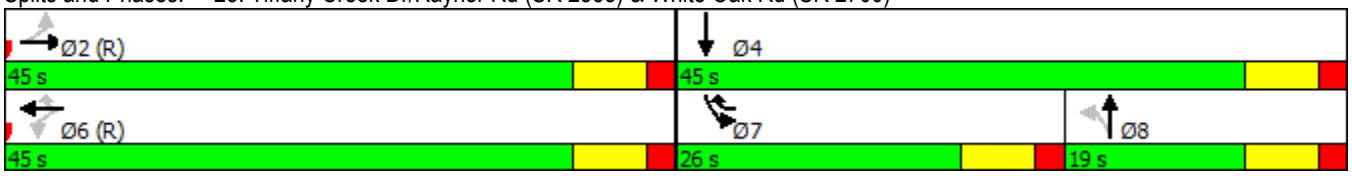
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	52	1130	11	21	600	127	7	6	12	265	10	57
Future Volume (vph)	52	1130	11	21	600	127	7	6	12	265	10	57
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	150		100	0		0	300		0
Storage Lanes	1		0	1		1	0		0	1		0
Taper Length (ft)	250			100			100			100		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.999				0.850		0.937			0.872	
Flt Protected	0.950			0.950				0.986		0.950		
Satd. Flow (prot)	1770	3536	0	1770	3539	1583	0	1721	0	1770	1624	0
Flt Permitted	0.361			0.138				0.878		0.950		
Satd. Flow (perm)	672	3536	0	257	3539	1583	0	1532	0	1770	1624	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		45			45			35			45	
Link Distance (ft)		1051			1339			1001			1394	
Travel Time (s)		15.9			20.3			19.5			21.1	
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)	58	1256	12	23	667	141	8	7	13	294	11	63
Shared Lane Traffic (%)												
Lane Group Flow (vph)	58	1268	0	23	667	141	0	28	0	294	74	0
Turn Type	Perm	NA		Perm	NA	pm+ov	Perm	NA		Prot	NA	
Protected Phases		2			6	7		8		7	4	
Permitted Phases	2			6		6	8					
Detector Phase	2	2		6	6	7	8	8		7	4	
Switch Phase												
Minimum Initial (s)	12.0	12.0		12.0	12.0	7.0	7.0	7.0		7.0	7.0	
Minimum Split (s)	19.0	19.0		19.0	19.0	14.0	19.0	19.0		14.0	19.0	
Total Split (s)	45.0	45.0		45.0	45.0	26.0	19.0	19.0		26.0	45.0	
Total Split (%)	50.0%	50.0%		50.0%	50.0%	28.9%	21.1%	21.1%		28.9%	50.0%	
Maximum Green (s)	38.0	38.0		38.0	38.0	19.0	12.0	12.0		19.0	38.0	
Yellow Time (s)	5.0	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	2.0	
Lost Time Adjust (s)	-2.0	-2.0		-2.0	-2.0	1.0		-2.0		-2.0	-2.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0	8.0		5.0		5.0	5.0	
Lead/Lag						Lead	Lag	Lag		Lead		
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	3.0	
Recall Mode	C-Max	C-Max		C-Max	C-Max	None	None	None		None	None	
Act Effct Green (s)	54.2	54.2		54.2	54.2	80.6		9.6		19.6	25.8	
Actuated g/C Ratio	0.60	0.60		0.60	0.60	0.90		0.11		0.22	0.29	
v/c Ratio	0.14	0.60		0.15	0.31	0.10		0.17		0.77	0.16	
Control Delay	12.4	14.6		6.7	4.1	1.0		38.8		47.0	21.5	
Queue Delay	0.0	0.0		0.0	0.0	0.0		0.0		0.0	0.0	
Total Delay	12.4	14.6		6.7	4.1	1.0		38.8		47.0	21.5	
LOS	B	B		A	A	A		D		D	C	
Approach Delay		14.5			3.7			38.8			41.8	
Approach LOS		B			A			D			D	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 50th (ft)	11	181		2	24	0		15		154	34	
Queue Length 95th (ft)	43	382		m9	67	13		40		#261	52	
Internal Link Dist (ft)		971			1259			921			1314	
Turn Bay Length (ft)	150			150		100				300		
Base Capacity (vph)	404	2129		154	2131	1386		238		413	721	
Starvation Cap Reductn	0	0		0	0	0		0		0	0	
Spillback Cap Reductn	0	0		0	0	0		0		0	0	
Storage Cap Reductn	0	0		0	0	0		0		0	0	
Reduced v/c Ratio	0.14	0.60		0.15	0.31	0.10		0.12		0.71	0.10	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 70 (78%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green
Natural Cycle: 70
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.77
Intersection Signal Delay: 15.2 Intersection LOS: B
Intersection Capacity Utilization 72.9% 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: 23: Tiffany Creek Dr/Raynor Rd (SR 2555) & White Oak Rd (SR 2700)



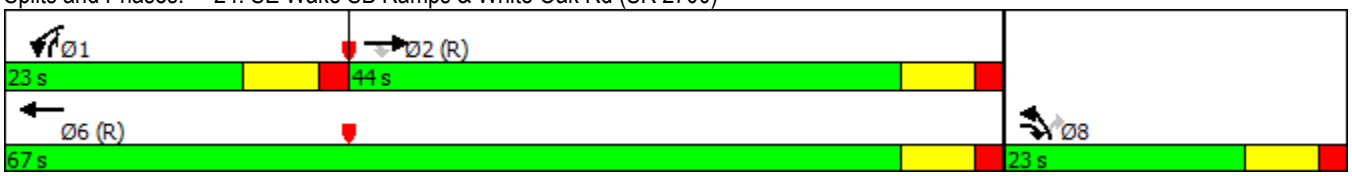
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	958	402	36	566	180	386
Future Volume (vph)	958	402	36	566	180	386
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		200	250		450	0
Storage Lanes		1	1		1	1
Taper Length (ft)			150		300	
Lane Util. Factor	0.95	1.00	1.00	0.95	1.00	1.00
Frt		0.850				0.850
Flt Protected			0.950		0.950	
Satd. Flow (prot)	3539	1583	1770	3539	1770	1583
Flt Permitted			0.950		0.950	
Satd. Flow (perm)	3539	1583	1770	3539	1770	1583
Right Turn on Red		No				No
Satd. Flow (RTOR)						
Link Speed (mph)	45			45	25	
Link Distance (ft)	1339			1453	684	
Travel Time (s)	20.3			22.0	18.7	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	1064	447	40	629	200	429
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1064	447	40	629	200	429
Turn Type	NA	pm+ov	Prot	NA	Prot	pm+ov
Protected Phases	2	8	1	6	8	1
Permitted Phases		2				8
Detector Phase	2	8	1	6	8	1
Switch Phase						
Minimum Initial (s)	12.0	7.0	7.0	12.0	7.0	7.0
Minimum Split (s)	19.0	14.0	14.0	19.0	14.0	14.0
Total Split (s)	44.0	23.0	23.0	67.0	23.0	23.0
Total Split (%)	48.9%	25.6%	25.6%	74.4%	25.6%	25.6%
Maximum Green (s)	37.0	16.0	16.0	60.0	16.0	16.0
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	0.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)	5.0	7.0	5.0	5.0	5.0	5.0
Lead/Lag	Lag		Lead			Lead
Lead-Lag Optimize?	Yes		Yes			Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	C-Max	None	None	C-Max	None	None
Act Effct Green (s)	44.3	63.3	14.7	64.0	16.0	35.7
Actuated g/C Ratio	0.49	0.70	0.16	0.71	0.18	0.40
v/c Ratio	0.61	0.40	0.14	0.25	0.64	0.68
Control Delay	13.1	4.4	23.2	2.4	43.7	28.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	13.1	4.4	23.2	2.4	43.7	28.0
LOS	B	A	C	A	D	C
Approach Delay	10.5			3.6	33.0	
Approach LOS	B			A	C	

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Queue Length 50th (ft)	258	138	12	26	104	192
Queue Length 95th (ft)	103	36	m23	35	174	274
Internal Link Dist (ft)	1259			1373	604	
Turn Bay Length (ft)		200	250		450	
Base Capacity (vph)	1743	1149	354	2517	354	685
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	0.61	0.39	0.11	0.25	0.56	0.63

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 86 (96%), Referenced to phase 2:EBT and 6:WBT, Start of Green
Natural Cycle: 55
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.68
Intersection Signal Delay: 13.9 Intersection LOS: B
Intersection Capacity Utilization 58.7% ICU Level of Service B
Analysis Period (min) 15
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 24: SE Wake SB Ramps & White Oak Rd (SR 2700)





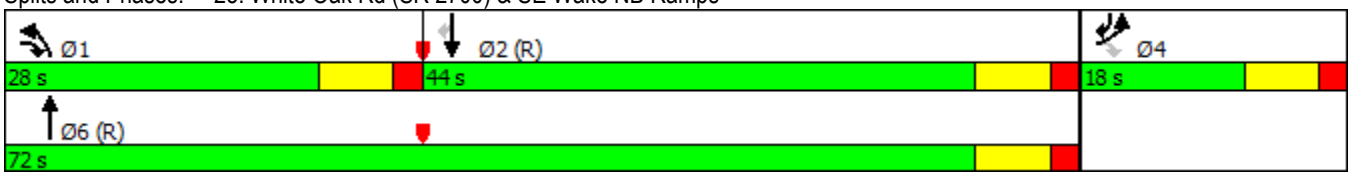
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	306	68	280	296	1023	321
Future Volume (vph)	306	68	280	296	1023	321
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	300	150	500			300
Storage Lanes	1	1	1			1
Taper Length (ft)	150		150			
Lane Util. Factor	0.97	1.00	1.00	0.95	0.95	1.00
Frt		0.850				0.850
Flt Protected	0.950		0.950			
Satd. Flow (prot)	3433	1583	1770	3539	3539	1583
Flt Permitted	0.950		0.950			
Satd. Flow (perm)	3433	1583	1770	3539	3539	1583
Right Turn on Red		No				No
Satd. Flow (RTOR)						
Link Speed (mph)	45			45	45	
Link Distance (ft)	432			833	1453	
Travel Time (s)	6.5			12.6	22.0	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	340	76	311	329	1137	357
Shared Lane Traffic (%)						
Lane Group Flow (vph)	340	76	311	329	1137	357
Turn Type	Prot	pm+ov	Prot	NA	NA	pm+ov
Protected Phases	4	1	1	6	2	4
Permitted Phases		4				2
Detector Phase	4	1	1	6	2	4
Switch Phase						
Minimum Initial (s)	7.0	7.0	7.0	12.0	12.0	7.0
Minimum Split (s)	14.0	14.0	14.0	19.0	19.0	14.0
Total Split (s)	18.0	28.0	28.0	72.0	44.0	18.0
Total Split (%)	20.0%	31.1%	31.1%	80.0%	48.9%	20.0%
Maximum Green (s)	11.0	21.0	21.0	65.0	37.0	11.0
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	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	7.0
Lead/Lag		Lead	Lead		Lag	
Lead-Lag Optimize?		Yes	Yes		Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None	None	C-Max	C-Max	None
Act Effct Green (s)	12.9	38.8	20.9	67.1	41.2	57.1
Actuated g/C Ratio	0.14	0.43	0.23	0.75	0.46	0.63
v/c Ratio	0.69	0.11	0.76	0.12	0.70	0.36
Control Delay	44.9	14.9	44.4	3.3	15.6	5.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	44.9	14.9	44.4	3.3	15.6	5.9
LOS	D	B	D	A	B	A
Approach Delay	39.4			23.3	13.3	
Approach LOS	D			C	B	

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Queue Length 50th (ft)	95	24	160	22	143	59
Queue Length 95th (ft)	141	50	252	33	228	80
Internal Link Dist (ft)	352			753	1373	
Turn Bay Length (ft)	300	150	500			300
Base Capacity (vph)	495	718	452	2640	1620	1006
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	0.11	0.69	0.12	0.70	0.35

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 2 (2%), Referenced to phase 2:SBT and 6:NBT, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.76
Intersection Signal Delay: 20.0 Intersection LOS: C
Intersection Capacity Utilization 65.0% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 25: White Oak Rd (SR 2700) & SE Wake NB Ramps



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	2543	54	0	1716	0	0	0	0	740	0	451
Future Volume (vph)	0	2543	54	0	1716	0	0	0	0	740	0	451
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		325	0		0	0		0	400		400
Storage Lanes	0		1	0		0	0		0	1		1
Taper Length (ft)	100			100			100			150		
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91	1.00	1.00	1.00	1.00	0.97	1.00	1.00
Frt			0.850									0.850
Flt Protected										0.950		
Satd. Flow (prot)	0	4940	1538	0	4940	0	0	0	0	3335	0	1538
Flt Permitted										0.950		
Satd. Flow (perm)	0	4940	1538	0	4940	0	0	0	0	3335	0	1538
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		55			55			45			45	
Link Distance (ft)		1299			336			452			1767	
Travel Time (s)		16.1			4.2			6.8			26.8	
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
Heavy Vehicles (%)	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
Adj. Flow (vph)	0	2826	60	0	1907	0	0	0	0	822	0	501
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	2826	60	0	1907	0	0	0	0	822	0	501
Turn Type		NA	Free		NA					Prot		Free
Protected Phases		6			2					8		
Permitted Phases			Free									Free
Detector Phase		6			2					8		
Switch Phase												
Minimum Initial (s)		14.0			14.0					7.0		
Minimum Split (s)		21.0			21.0					14.0		
Total Split (s)		54.0			54.0					26.0		
Total Split (%)		67.5%			67.5%					32.5%		
Maximum Green (s)		47.0			47.0					19.0		
Yellow Time (s)		5.0			5.0					5.0		
All-Red Time (s)		2.0			2.0					2.0		
Lost Time Adjust (s)		-2.0			-2.0					-2.0		
Total Lost Time (s)		5.0			5.0					5.0		
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)		3.0			3.0					3.0		
Recall Mode		C-Max			C-Max					None		
Act Effct Green (s)		49.0	80.0		49.0					21.0		80.0
Actuated g/C Ratio		0.61	1.00		0.61					0.26		1.00
v/c Ratio		0.93	0.04		0.63					0.94		0.33
Control Delay		21.7	0.1		8.4					49.2		0.6
Queue Delay		0.0	0.0		0.0					0.0		0.0
Total Delay		21.7	0.1		8.4					49.2		0.6
LOS		C	A		A					D		A
Approach Delay		21.2			8.4						30.8	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		C			A						C	
Queue Length 50th (ft)		420	0		138					207		0
Queue Length 95th (ft)		#538	0		152					#319		0
Internal Link Dist (ft)		1219			256			372			1687	
Turn Bay Length (ft)			325							400		400
Base Capacity (vph)		3025	1538		3025					875		1538
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		0.93	0.04		0.63					0.94		0.33

Intersection Summary

Area Type: Other
Cycle Length: 80
Actuated Cycle Length: 80
Offset: 78 (98%), Referenced to phase 2:WBT and 6:EBT, Start of Green
Natural Cycle: 80
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.94
Intersection Signal Delay: 19.3 Intersection LOS: B
Intersection Capacity Utilization 115.1% ICU Level of Service H
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 26: SE Wake SB On-Ramp/SE Wake SB Off-Ramp & US 70 Bus



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	2970	0	0	1822	377	83	0	393	0	0	0
Future Volume (vph)	0	2970	0	0	1822	377	83	0	393	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		325	250		450	0		0
Storage Lanes	0		0	0		1	1		1	0		0
Taper Length (ft)	100			100			200			100		
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91	1.00	1.00	1.00	0.88	1.00	1.00	1.00
Frt						0.850			0.850			
Flt Protected							0.950					
Satd. Flow (prot)	0	4940	0	0	4940	1538	1719	0	2707	0	0	0
Flt Permitted							0.950					
Satd. Flow (perm)	0	4940	0	0	4940	1538	1719	0	2707	0	0	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		55			55			45			45	
Link Distance (ft)		343			1050			1551			462	
Travel Time (s)		4.3			13.0			23.5			7.0	
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 (%)	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
Adj. Flow (vph)	0	3300	0	0	2024	419	92	0	437	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	3300	0	0	2024	419	92	0	437	0	0	0
Turn Type		NA			NA	Free	Prot		Prot			
Protected Phases		6			2		4		4			
Permitted Phases						Free						
Detector Phase		6			2		4		4			
Switch Phase												
Minimum Initial (s)		14.0			14.0		7.0		7.0			
Minimum Split (s)		21.0			21.0		14.0		14.0			
Total Split (s)		63.0			63.0		17.0		17.0			
Total Split (%)		78.8%			78.8%		21.3%		21.3%			
Maximum Green (s)		56.0			56.0		10.0		10.0			
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		C-Max			C-Max		None		None			
Act Effct Green (s)		58.0			58.0	80.0	12.0		12.0			
Actuated g/C Ratio		0.72			0.72	1.00	0.15		0.15			
v/c Ratio		0.92			0.57	0.27	0.36		1.08			
Control Delay		7.0			5.9	0.4	35.0		101.7			
Queue Delay		0.0			0.0	0.0	0.0		0.0			
Total Delay		7.0			5.9	0.4	35.0		101.7			
LOS		A			A	A	D		F			
Approach Delay		7.0			4.9			90.1				

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		A			A			F				
Queue Length 50th (ft)		179			139	0	42		~140			
Queue Length 95th (ft)		m211			171	0	86		#238			
Internal Link Dist (ft)		263			970			1471			382	
Turn Bay Length (ft)						325	250		450			
Base Capacity (vph)		3581			3581	1538	257		406			
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		0.92			0.57	0.27	0.36		1.08			

Intersection Summary

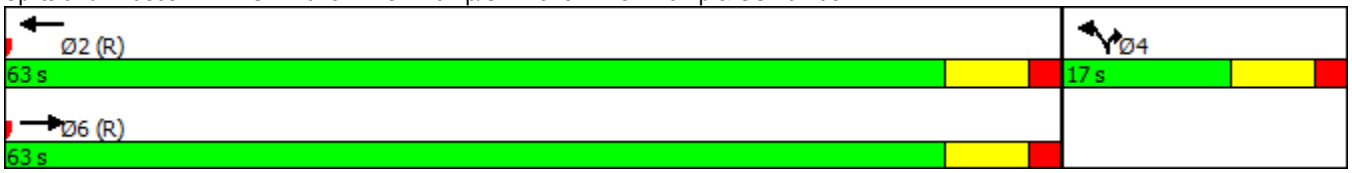
Area Type: Other
Cycle Length: 80
Actuated Cycle Length: 80
Offset: 0 (0%), Referenced to phase 2:WBT and 6:EBT, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.08
Intersection Signal Delay: 13.2 Intersection LOS: B
Intersection Capacity Utilization 79.5% ICU 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: 27: SE Wake NB Off-Ramp/SE Wake NB On-Ramp & US 70 Bus



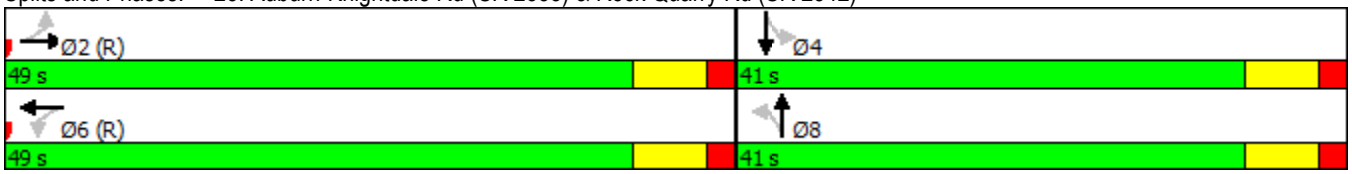
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	73	665	110	78	326	60	91	55	131	72	39	43
Future Volume (vph)	73	665	110	78	326	60	91	55	131	72	39	43
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		-3%			1%			-2%			1%	
Storage Length (ft)	200		0	150		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (ft)	100			300			100			100		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor								1.00				
Frt		0.979			0.977			0.936			0.962	
Flt Protected	0.950			0.950				0.984			0.977	
Satd. Flow (prot)	1796	3517	0	1761	3441	0	0	1716	0	0	1725	0
Flt Permitted	0.502			0.291				0.817			0.646	
Satd. Flow (perm)	949	3517	0	539	3441	0	0	1424	0	0	1141	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		55			55			45			45	
Link Distance (ft)		1019			1254			1019			1037	
Travel Time (s)		12.6			15.5			15.4			15.7	
Confl. Peds. (#/hr)							3					
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%	3%	3%	3%	3%	3%	3%
Adj. Flow (vph)	81	739	122	87	362	67	101	61	146	80	43	48
Shared Lane Traffic (%)												
Lane Group Flow (vph)	81	861	0	87	429	0	0	308	0	0	171	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Detector Phase	2	2		6	6		8	8		4	4	
Switch Phase												
Minimum Initial (s)	14.0	14.0		14.0	14.0		7.0	7.0		7.0	7.0	
Minimum Split (s)	21.0	21.0		21.0	21.0		14.0	14.0		14.0	14.0	
Total Split (s)	49.0	49.0		49.0	49.0		41.0	41.0		41.0	41.0	
Total Split (%)	54.4%	54.4%		54.4%	54.4%		45.6%	45.6%		45.6%	45.6%	
Maximum Green (s)	42.0	42.0		42.0	42.0		34.0	34.0		34.0	34.0	
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)	6.0	6.0		6.0	6.0		1.0	1.0		1.0	1.0	
Minimum Gap (s)	6.0	6.0		6.0	6.0		1.0	1.0		1.0	1.0	
Time Before Reduce (s)	20.0	20.0		20.0	20.0		0.0	0.0		0.0	0.0	
Time To Reduce (s)	40.0	40.0		40.0	40.0		0.0	0.0		0.0	0.0	
Recall Mode	C-Max	C-Max		C-Max	C-Max		None	None		None	None	
Act Effct Green (s)	56.0	56.0		56.0	56.0			24.0			24.0	
Actuated g/C Ratio	0.62	0.62		0.62	0.62			0.27			0.27	

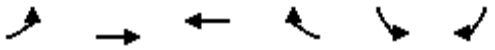
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.14	0.39		0.26	0.20			0.81			0.56	
Control Delay	9.6	10.1		5.4	3.1			47.1			34.6	
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	
Total Delay	9.6	10.1		5.4	3.1			47.1			34.6	
LOS	A	B		A	A			D			C	
Approach Delay		10.1			3.5			47.1			34.6	
Approach LOS		B			A			D			C	
Queue Length 50th (ft)	17	117		7	17			164			84	
Queue Length 95th (ft)	48	198		18	31			230			131	
Internal Link Dist (ft)		939			1174			939			957	
Turn Bay Length (ft)	200			150								
Base Capacity (vph)	590	2189		335	2141			569			456	
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	0.14	0.39		0.26	0.20			0.54			0.38	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 14 (16%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green
Natural Cycle: 40
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.81
Intersection Signal Delay: 16.4 Intersection LOS: B
Intersection Capacity Utilization 64.2% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 28: Auburn-Knightdale Rd (SR 2555) & Rock Quarry Rd (SR 2542)





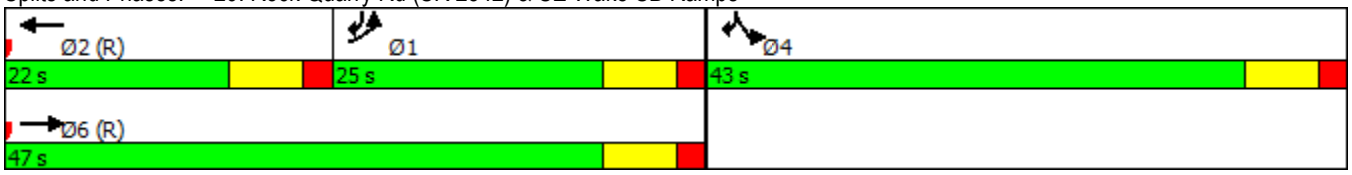
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	245	618	288	65	516	179
Future Volume (vph)	245	618	288	65	516	179
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	400			200	550	0
Storage Lanes	1			0	1	1
Taper Length (ft)	300				200	
Lane Util. Factor	1.00	0.95	0.95	0.95	1.00	1.00
Frt			0.972			0.850
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1770	3539	3440	0	1770	1583
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	1770	3539	3440	0	1770	1583
Right Turn on Red				No		No
Satd. Flow (RTOR)						
Link Speed (mph)		55	55		45	
Link Distance (ft)		1254	1133		576	
Travel Time (s)		15.5	14.0		8.7	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	272	687	320	72	573	199
Shared Lane Traffic (%)						
Lane Group Flow (vph)	272	687	392	0	573	199
Turn Type	Prot	NA	NA		Prot	pt+ov
Protected Phases	1	6	2		4	4 1
Permitted Phases						
Detector Phase	1	6	2		4	4 1
Switch Phase						
Minimum Initial (s)	7.0	14.0	14.0		7.0	
Minimum Split (s)	14.0	21.0	21.0		14.0	
Total Split (s)	25.0	47.0	22.0		43.0	
Total Split (%)	27.8%	52.2%	24.4%		47.8%	
Maximum Green (s)	18.0	40.0	15.0		36.0	
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	Lag		Lead			
Lead-Lag Optimize?	Yes		Yes			
Vehicle Extension (s)	3.0	3.0	3.0		3.0	
Recall Mode	None	C-Max	C-Max		None	
Act Effct Green (s)	20.0	45.4	20.4		34.6	59.6
Actuated g/C Ratio	0.22	0.50	0.23		0.38	0.66
v/c Ratio	0.69	0.38	0.50		0.84	0.19
Control Delay	35.0	10.8	24.9		37.4	5.9
Queue Delay	0.0	0.0	0.0		0.0	0.0
Total Delay	35.0	10.8	24.9		37.4	5.9
LOS	C	B	C		D	A
Approach Delay		17.7	24.9		29.2	
Approach LOS		B	C		C	

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Queue Length 50th (ft)	150	98	97		277	35
Queue Length 95th (ft)	#185	114	137		406	57
Internal Link Dist (ft)		1174	1053		496	
Turn Bay Length (ft)	400				550	
Base Capacity (vph)	393	1785	779		747	1108
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	0.69	0.38	0.50		0.77	0.18

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 4 (4%), Referenced to phase 2:WBT and 6:EBT, Start of Green
Natural Cycle: 65
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.84
Intersection Signal Delay: 23.2 Intersection LOS: C
Intersection Capacity Utilization 66.3% 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: 29: Rock Quarry Rd (SR 2542) & SE Wake SB Ramps



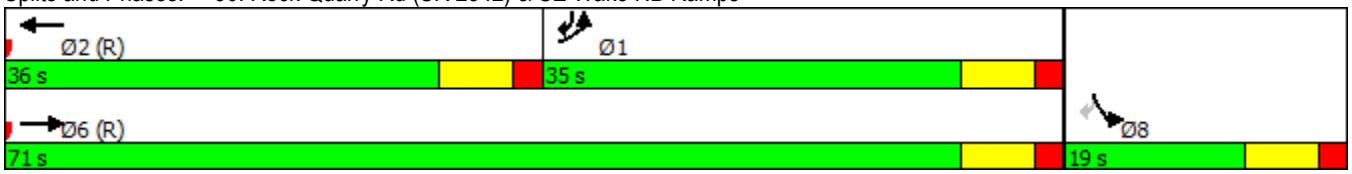
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	258	876	213	305	91	140
Future Volume (vph)	258	876	213	305	91	140
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	400			375	250	0
Storage Lanes	1			0	1	1
Taper Length (ft)	150				150	
Lane Util. Factor	1.00	0.95	0.95	0.95	1.00	1.00
Frt			0.912			0.850
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1770	3539	3228	0	1770	1583
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	1770	3539	3228	0	1770	1583
Right Turn on Red				No		No
Satd. Flow (RTOR)						
Link Speed (mph)		55	55		25	
Link Distance (ft)		1133	954		511	
Travel Time (s)		14.0	11.8		13.9	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	287	973	237	339	101	156
Shared Lane Traffic (%)						
Lane Group Flow (vph)	287	973	576	0	101	156
Turn Type	Prot	NA	NA		Prot	pm+ov
Protected Phases	1	6	2		8	1
Permitted Phases						8
Detector Phase	1	6	2		8	1
Switch Phase						
Minimum Initial (s)	7.0	14.0	14.0		7.0	7.0
Minimum Split (s)	14.0	21.0	21.0		14.0	14.0
Total Split (s)	35.0	71.0	36.0		19.0	35.0
Total Split (%)	38.9%	78.9%	40.0%		21.1%	38.9%
Maximum Green (s)	28.0	64.0	29.0		12.0	28.0
Yellow Time (s)	5.0	5.0	5.0		5.0	5.0
All-Red Time (s)	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			Lag
Lead-Lag Optimize?	Yes		Yes			Yes
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0
Recall Mode	None	C-Max	C-Max		None	None
Act Effct Green (s)	30.0	71.8	35.8		12.0	44.2
Actuated g/C Ratio	0.33	0.80	0.40		0.13	0.49
v/c Ratio	0.49	0.34	0.45		0.43	0.20
Control Delay	22.6	3.2	22.8		41.1	12.4
Queue Delay	0.0	0.0	0.0		0.0	0.0
Total Delay	22.6	3.2	22.8		41.1	12.4
LOS	C	A	C		D	B
Approach Delay		7.6	22.8		23.6	
Approach LOS		A	C		C	

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Queue Length 50th (ft)	125	78	131		53	44
Queue Length 95th (ft)	m167	75	186		100	75
Internal Link Dist (ft)		1053	874		431	
Turn Bay Length (ft)	400				250	
Base Capacity (vph)	590	2822	1282		275	777
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	0.49	0.34	0.45		0.37	0.20

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 52 (58%), Referenced to phase 2:WBT and 6:EBT, Start of Green
Natural Cycle: 50
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.49
Intersection Signal Delay: 13.7 Intersection LOS: B
Intersection Capacity Utilization 48.3% ICU Level of Service A
Analysis Period (min) 15
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 30: Rock Quarry Rd (SR 2542) & SE Wake NB Ramps



Intersection						
Int Delay, s/veh	5					

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	49	118	391	54	244	742
Future Vol, veh/h	49	118	391	54	244	742
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	150	-	-	150	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	5	5	2	2	2	2
Mvmt Flow	54	131	434	60	271	824

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1418	247	0	0	494	0
Stage 1	464	-	-	-	-	-
Stage 2	954	-	-	-	-	-
Critical Hdwy	6.9	7	-	-	4.14	-
Critical Hdwy Stg 1	5.9	-	-	-	-	-
Critical Hdwy Stg 2	5.9	-	-	-	-	-
Follow-up Hdwy	3.55	3.35	-	-	2.22	-
Pot Cap-1 Maneuver	124	744	-	-	1066	-
Stage 1	591	-	-	-	-	-
Stage 2	328	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	92	744	-	-	1066	-
Mov Cap-2 Maneuver	92	-	-	-	-	-
Stage 1	591	-	-	-	-	-
Stage 2	245	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	34	0	2.4
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	92	744	1066	-
HCM Lane V/C Ratio	-	-	0.592	0.176	0.254	-
HCM Control Delay (s)	-	-	89.6	10.9	9.5	-
HCM Lane LOS	-	-	F	B	A	-
HCM 95th %tile Q(veh)	-	-	2.7	0.6	1	-

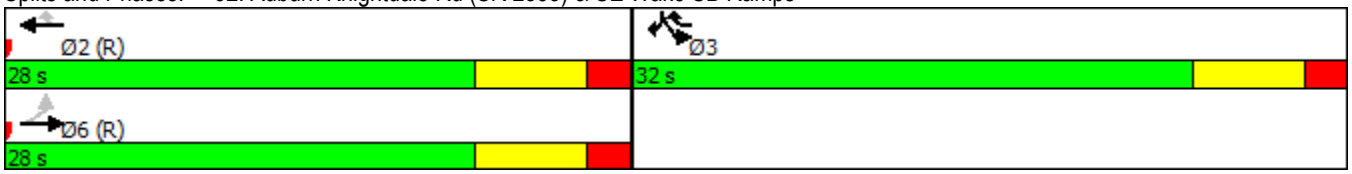
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	101	239	74	152	128	206
Future Volume (vph)	101	239	74	152	128	206
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0			0	0	200
Storage Lanes	1			1	1	1
Taper Length (ft)	150				175	
Lane Util. Factor	1.00	0.95	1.00	1.00	1.00	1.00
Frt				0.850		0.850
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1703	3505	1845	1524	1752	1568
Flt Permitted	0.704				0.950	
Satd. Flow (perm)	1262	3505	1845	1524	1752	1568
Right Turn on Red				No		No
Satd. Flow (RTOR)						
Link Speed (mph)		45	45		45	
Link Distance (ft)		186	1320		348	
Travel Time (s)		2.8	20.0		5.3	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	6%	3%	3%	6%	3%	3%
Adj. Flow (vph)	112	266	82	169	142	229
Shared Lane Traffic (%)						
Lane Group Flow (vph)	112	266	82	169	142	229
Turn Type	Perm	NA	NA	pm+ov	Prot	Prot
Protected Phases		6	2	3	3	3
Permitted Phases	6			2		
Detector Phase	6	6	2	3	3	3
Switch Phase						
Minimum Initial (s)	12.0	12.0	12.0	7.0	7.0	7.0
Minimum Split (s)	19.0	19.0	19.0	14.0	14.0	14.0
Total Split (s)	28.0	28.0	28.0	32.0	32.0	32.0
Total Split (%)	46.7%	46.7%	46.7%	53.3%	53.3%	53.3%
Maximum Green (s)	21.0	21.0	21.0	25.0	25.0	25.0
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	0.0	-2.0	-2.0
Total Lost Time (s)	5.0	5.0	5.0	7.0	5.0	5.0
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	C-Max	C-Max	C-Max	None	None	None
Act Effct Green (s)	33.8	33.8	33.8	60.0	16.2	16.2
Actuated g/C Ratio	0.56	0.56	0.56	1.00	0.27	0.27
v/c Ratio	0.16	0.13	0.08	0.11	0.30	0.54
Control Delay	8.6	7.5	5.1	0.1	17.6	22.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	8.6	7.5	5.1	0.1	17.6	22.6
LOS	A	A	A	A	B	C
Approach Delay		7.8	1.8		20.7	

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Approach LOS		A	A		C	
Queue Length 50th (ft)	17	21	8	0	41	71
Queue Length 95th (ft)	50	47	20	0	68	110
Internal Link Dist (ft)		106	1240		268	
Turn Bay Length (ft)						200
Base Capacity (vph)	710	1972	1038	1511	788	705
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	0.16	0.13	0.08	0.11	0.18	0.32

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 60
Offset: 3 (5%), Referenced to phase 2:WBT and 6:EBTL, Start of Green
Natural Cycle: 40
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.54
Intersection Signal Delay: 11.1 Intersection LOS: B
Intersection Capacity Utilization 31.1% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 32: Auburn Knightdale Rd (SR 2555) & SE Wake SB Ramps



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	235	132	155	92	171	71
Future Volume (vph)	235	132	155	92	171	71
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	250			150	0	0
Storage Lanes	1			1	1	0
Taper Length (ft)	150				100	
Lane Util. Factor	1.00	0.95	1.00	1.00	1.00	1.00
Frt				0.850	0.960	
Flt Protected	0.950				0.966	
Satd. Flow (prot)	1703	3505	1845	1524	1711	0
Flt Permitted	0.649				0.966	
Satd. Flow (perm)	1163	3505	1845	1524	1711	0
Right Turn on Red				No		No
Satd. Flow (RTOR)						
Link Speed (mph)		45	45		45	
Link Distance (ft)		1320	681		221	
Travel Time (s)		20.0	10.3		3.3	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	6%	3%	3%	6%	3%	3%
Adj. Flow (vph)	261	147	172	102	190	79
Shared Lane Traffic (%)						
Lane Group Flow (vph)	261	147	172	102	269	0
Turn Type	Perm	NA	NA	pm+ov	Prot	
Protected Phases		6	2	8	8	
Permitted Phases	6			2		
Detector Phase	6	6	2	8	8	
Switch Phase						
Minimum Initial (s)	12.0	12.0	12.0	7.0	7.0	
Minimum Split (s)	19.0	19.0	19.0	14.0	14.0	
Total Split (s)	34.0	34.0	34.0	26.0	26.0	
Total Split (%)	56.7%	56.7%	56.7%	43.3%	43.3%	
Maximum Green (s)	27.0	27.0	27.0	19.0	19.0	
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	
Lost Time Adjust (s)	-2.0	-2.0	-2.0	0.0	-2.0	
Total Lost Time (s)	5.0	5.0	5.0	7.0	5.0	
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	
Recall Mode	C-Max	C-Max	C-Max	None	None	
Act Effct Green (s)	33.7	33.7	33.7	60.0	16.3	
Actuated g/C Ratio	0.56	0.56	0.56	1.00	0.27	
v/c Ratio	0.40	0.07	0.17	0.07	0.58	
Control Delay	8.8	5.2	8.0	0.1	23.3	
Queue Delay	0.0	0.0	0.0	0.0	0.0	
Total Delay	8.8	5.2	8.0	0.1	23.3	
LOS	A	A	A	A	C	
Approach Delay		7.5	5.0		23.3	

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Approach LOS		A	A		C	
Queue Length 50th (ft)	51	6	27	0	83	
Queue Length 95th (ft)	84	22	63	0	132	
Internal Link Dist (ft)		1240	601		141	
Turn Bay Length (ft)	250			150		
Base Capacity (vph)	652	1966	1035	1485	598	
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	0.40	0.07	0.17	0.07	0.45	

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 60
Offset: 0 (0%), Referenced to phase 2:WBT and 6:EBTL, Start of Green
Natural Cycle: 40
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.58
Intersection Signal Delay: 11.3 Intersection LOS: B
Intersection Capacity Utilization 49.3% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 33: Auburn Knightdale Rd (SR 2555) & SE Wake NB Ramps



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	265	756	32	26	529	279	17	17	19	480	40	319
Future Volume (vph)	265	756	32	26	529	279	17	17	19	480	40	319
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		2%			1%			-1%			-1%	
Storage Length (ft)	450		0	150		300	100		0	300		300
Storage Lanes	1		0	1		1	1		0	2		1
Taper Length (ft)	125			150			50			100		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	1.00	1.00	1.00	1.00	0.97	1.00	1.00
Frt		0.994				0.850		0.921				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1752	3483	0	1761	3522	1575	1744	1691	0	3450	1872	1591
Flt Permitted	0.950			0.224			0.728			0.950		
Satd. Flow (perm)	1752	3483	0	415	3522	1575	1337	1691	0	3450	1872	1591
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		45			45			35			45	
Link Distance (ft)		845			1458			1027			1086	
Travel Time (s)		12.8			22.1			20.0			16.5	
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%	4%	4%	4%	2%	2%	2%
Adj. Flow (vph)	294	840	36	29	588	310	19	19	21	533	44	354
Shared Lane Traffic (%)												
Lane Group Flow (vph)	294	876	0	29	588	310	19	40	0	533	44	354
Turn Type	Prot	NA		Perm	NA	pm+ov	Perm	NA		Prot	NA	pm+ov
Protected Phases	5	2			6	3		4		3	8	5
Permitted Phases				6		6	4					8
Detector Phase	5	2		6	6	3	4	4		3	8	5
Switch Phase												
Minimum Initial (s)	7.0	12.0		12.0	12.0	7.0	7.0	7.0		7.0	7.0	7.0
Minimum Split (s)	14.0	19.0		19.0	19.0	14.0	19.0	19.0		14.0	19.0	14.0
Total Split (s)	35.0	71.0		36.0	36.0	30.0	19.0	19.0		30.0	49.0	35.0
Total Split (%)	29.2%	59.2%		30.0%	30.0%	25.0%	15.8%	15.8%		25.0%	40.8%	29.2%
Maximum Green (s)	28.0	64.0		29.0	29.0	23.0	12.0	12.0		23.0	42.0	28.0
Yellow Time (s)	5.0	5.0		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	2.0	2.0
Lost Time Adjust (s)	-2.0	-2.0		-2.0	-2.0	1.0	-2.0	-2.0		-2.0	-2.0	-2.0
Total Lost Time (s)	5.0	5.0		5.0	5.0	8.0	5.0	5.0		5.0	5.0	5.0
Lead/Lag	Lag			Lead	Lead	Lead	Lag	Lag		Lead		Lag
Lead-Lag Optimize?	Yes			Yes	Yes							Yes
Vehicle Extension (s)	1.0	8.0		8.0	8.0	3.0	3.0	3.0		3.0	3.0	1.0
Minimum Gap (s)	1.0	8.0		8.0	8.0	3.0	3.0	3.0		3.0	3.0	1.0
Time Before Reduce (s)	0.0	15.0		15.0	15.0	0.0	0.0	0.0		0.0	0.0	0.0
Time To Reduce (s)	0.0	40.0		40.0	40.0	0.0	0.0	0.0		0.0	0.0	0.0
Recall Mode	None	C-Max		C-Max	C-Max	None	None	None		None	None	None
Act Effct Green (s)	30.0	73.5		38.5	38.5	57.8	10.6	10.6		23.7	36.5	71.5
Actuated g/C Ratio	0.25	0.61		0.32	0.32	0.48	0.09	0.09		0.20	0.30	0.60
v/c Ratio	0.67	0.41		0.22	0.52	0.41	0.16	0.27		0.78	0.08	0.37
Control Delay	49.3	13.9		24.0	21.2	7.0	52.9	55.1		54.6	26.9	13.1

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	49.3	13.9		24.0	21.2	7.0	52.9	55.1		54.6	26.9	13.1
LOS	D	B		C	C	A	D	E		D	C	B
Approach Delay		22.8			16.5			54.4			37.5	
Approach LOS		C			B			D			D	
Queue Length 50th (ft)	206	188		13	150	40	14	30		201	23	123
Queue Length 95th (ft)	305	252		m28	204	100	38	64		263	49	166
Internal Link Dist (ft)		765			1378			947			1006	
Turn Bay Length (ft)	450			150		300	100			300		300
Base Capacity (vph)	438	2133		133	1130	755	155	197		718	686	947
Starvation Cap Reductn	0	0		0	0	0	0	0		0	0	0
Spillback Cap Reductn	0	0		0	0	0	0	0		0	0	0
Storage Cap Reductn	0	0		0	0	0	0	0		0	0	0
Reduced v/c Ratio	0.67	0.41		0.22	0.52	0.41	0.12	0.20		0.74	0.06	0.37

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 19 (16%), Referenced to phase 2:EBT and 6:WBTL, Start of Green
Natural Cycle: 75
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.78
Intersection Signal Delay: 25.9 Intersection LOS: C
Intersection Capacity Utilization 64.8% ICU Level of Service C
Analysis Period (min) 15
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 34: Hodge Rd (SR 2516) & Poole Rd (SR 1007)



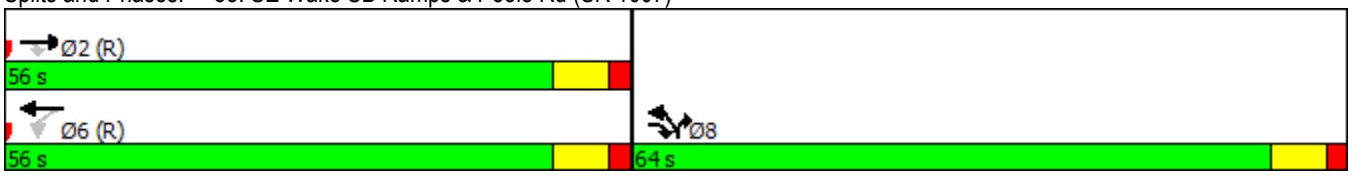
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	1112	130	36	335	507	1084
Future Volume (vph)	1112	130	36	335	507	1084
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		150	250		0	0
Storage Lanes		1	1		1	2
Taper Length (ft)			200		150	
Lane Util. Factor	0.95	1.00	1.00	0.95	1.00	0.88
Frt		0.850				0.850
Flt Protected			0.950		0.950	
Satd. Flow (prot)	3539	1583	1770	3539	1770	2787
Flt Permitted			0.081		0.950	
Satd. Flow (perm)	3539	1583	151	3539	1770	2787
Right Turn on Red		No				No
Satd. Flow (RTOR)						
Link Speed (mph)	45			45	25	
Link Distance (ft)	1458			761	576	
Travel Time (s)	22.1			11.5	15.7	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	1236	144	40	372	563	1204
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1236	144	40	372	563	1204
Turn Type	NA	pm+ov	Perm	NA	Prot	Prot
Protected Phases	2	8		6	8	8
Permitted Phases		2	6			
Detector Phase	2	8	6	6	8	8
Switch Phase						
Minimum Initial (s)	12.0	7.0	12.0	12.0	7.0	7.0
Minimum Split (s)	19.0	14.0	19.0	19.0	14.0	14.0
Total Split (s)	56.0	64.0	56.0	56.0	64.0	64.0
Total Split (%)	46.7%	53.3%	46.7%	46.7%	53.3%	53.3%
Maximum Green (s)	49.0	57.0	49.0	49.0	57.0	57.0
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	0.0	-2.0	-2.0	-2.0	0.0
Total Lost Time (s)	5.0	7.0	5.0	5.0	5.0	7.0
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	C-Max	None	C-Max	C-Max	None	None
Act Effct Green (s)	52.1	120.0	52.1	52.1	57.9	55.9
Actuated g/C Ratio	0.43	1.00	0.43	0.43	0.48	0.47
v/c Ratio	0.80	0.09	0.62	0.24	0.66	0.93
Control Delay	26.8	0.1	78.8	29.1	27.9	43.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	26.8	0.1	78.8	29.1	27.9	43.2
LOS	C	A	E	C	C	D
Approach Delay	24.0			34.0	38.3	
Approach LOS	C			C	D	

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Queue Length 50th (ft)	341	0	33	123	315	477
Queue Length 95th (ft)	409	m0	m#83	167	442	#643
Internal Link Dist (ft)	1378			681	496	
Turn Bay Length (ft)		150	250			
Base Capacity (vph)	1536	1560	65	1536	870	1323
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	0.09	0.62	0.24	0.65	0.91

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 10 (8%), Referenced to phase 2:EBT and 6:WBTL, Start of Green
Natural Cycle: 80
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.93
Intersection Signal Delay: 32.3 Intersection LOS: C
Intersection Capacity Utilization 78.7% 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: 35: SE Wake SB Ramps & Poole Rd (SR 1007)



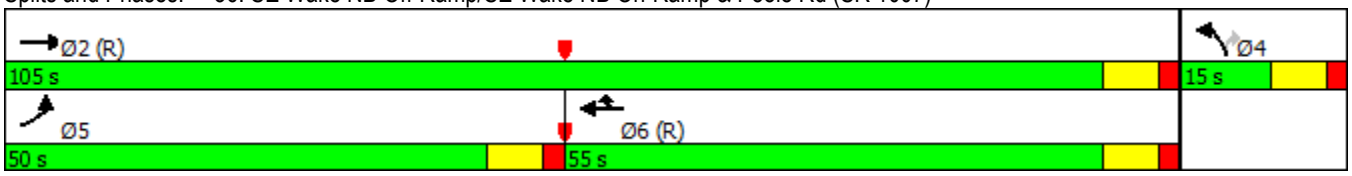
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	647	1549	0	0	289	753	82	0	42	0	0	0
Future Volume (vph)	647	1549	0	0	289	753	82	0	42	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	300		0	0		550	250		0	0		0
Storage Lanes	1		0	0		2	1		1	0		0
Taper Length (ft)	200			100			150			100		
Lane Util. Factor	*0.74	0.95	1.00	1.00	0.95	0.88	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)	2619	3539	0	0	3539	2787	1770	0	1583	0	0	0
Flt Permitted	0.950						0.950					
Satd. Flow (perm)	2619	3539	0	0	3539	2787	1770	0	1583	0	0	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		761			759			1432			799	
Travel Time (s)		11.5			11.5			21.7			12.1	
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%	6%	2%	2%	2%	2%
Adj. Flow (vph)	719	1721	0	0	321	837	91	0	47	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	719	1721	0	0	321	837	91	0	47	0	0	0
Turn Type	Prot	NA			NA	Prot	Prot		Perm			
Protected Phases	5	2			6	6	4					
Permitted Phases									4			
Detector Phase	5	2			6	6	4		4			
Switch Phase												
Minimum Initial (s)	7.0	12.0			12.0	12.0	7.0		7.0			
Minimum Split (s)	14.0	19.0			19.0	19.0	14.0		14.0			
Total Split (s)	50.0	105.0			55.0	55.0	15.0		15.0			
Total Split (%)	41.7%	87.5%			45.8%	45.8%	12.5%		12.5%			
Maximum Green (s)	43.0	98.0			48.0	48.0	8.0		8.0			
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	0.0	-2.0		-2.0			
Total Lost Time (s)	5.0	5.0			5.0	7.0	5.0		5.0			
Lead/Lag	Lead				Lag	Lag						
Lead-Lag Optimize?	Yes				Yes	Yes						
Vehicle Extension (s)	3.0	3.0			3.0	3.0	3.0		3.0			
Recall Mode	None	C-Max			C-Max	C-Max	None		None			
Act Effct Green (s)	39.7	100.2			55.5	53.5	9.8		9.8			
Actuated g/C Ratio	0.33	0.84			0.46	0.45	0.08		0.08			
v/c Ratio	0.83	0.58			0.20	0.67	0.63		0.36			
Control Delay	10.5	2.2			20.4	30.8	72.9		60.5			
Queue Delay	0.0	0.1			0.0	0.0	0.0		0.0			
Total Delay	10.5	2.3			20.4	30.8	72.9		60.5			
LOS	B	A			C	C	E		E			
Approach Delay		4.7			27.9			68.7				

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		A			C			E				
Queue Length 50th (ft)	12	50			76	290	69		35			
Queue Length 95th (ft)	11	128			115	398	#137		75			
Internal Link Dist (ft)		681			679			1352			719	
Turn Bay Length (ft)	300					550	250					
Base Capacity (vph)	982	2954			1635	1241	147		131			
Starvation Cap Reductn	0	292			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	0.73	0.65			0.20	0.67	0.62		0.36			

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 76 (63%), Referenced to phase 2:EBT and 6:WBT, Start of Green
Natural Cycle: 70
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.83
Intersection Signal Delay: 14.3 Intersection LOS: B
Intersection Capacity Utilization 57.0% ICU Level of Service B
Analysis Period (min) 15
* User Entered Value
\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 36: SE Wake NB Off-Ramp/SE Wake NB On-Ramp & Poole Rd (SR 1007)



2040 Build
SimTraffic Results

Total Network Performance By Run

Run Number	1	10	2	3	4	5	6
Denied Delay (hr)	1825.0	1911.6	1846.8	1850.5	1831.8	1865.9	1931.8
Denied Del/Veh (s)	122.7	127.6	124.7	124.6	123.0	125.5	131.1
Total Delay (hr)	1319.1	1343.7	1313.5	1315.8	1318.8	1383.1	1356.6
Total Del/Veh (s)	92.3	93.5	92.7	92.5	91.9	96.3	96.1
Stop Delay (hr)	941.6	949.8	955.3	944.8	938.3	991.7	987.8
Stop Del/Veh (s)	65.9	66.1	67.4	66.4	65.4	69.0	69.9
Travel Dist (mi)	37118.8	37309.8	36723.8	36906.4	37344.1	37333.8	36627.4
Travel Time (hr)	4056.8	4171.2	4064.0	4074.7	4070.1	4167.9	4191.1
Avg Speed (mph)	17	17	17	17	17	16	16
Vehicles Entered	49674	49923	49141	49259	49846	49888	49005
Vehicles Exited	49043	49318	48563	48830	49359	49289	48423
Hourly Exit Rate	49043	49318	48563	48830	49359	49289	48423
Input Volume	295458	295458	295458	295458	295458	295458	295458
% of Volume	17	17	16	17	17	17	16
Denied Entry Before	256	329	242	241	233	297	185
Denied Entry After	3882	4001	4168	4185	3765	3636	4060

Total Network Performance By Run

Run Number	7	8	9	Avg
Denied Delay (hr)	2011.2	1974.0	1998.7	1904.7
Denied Del/Veh (s)	134.9	132.9	134.0	128.1
Total Delay (hr)	1291.5	1385.9	1345.4	1337.3
Total Del/Veh (s)	90.6	97.7	94.6	93.8
Stop Delay (hr)	924.4	1012.1	968.1	961.4
Stop Del/Veh (s)	64.9	71.3	68.1	67.5
Travel Dist (mi)	36997.6	36804.8	36927.1	37009.4
Travel Time (hr)	4214.4	4267.4	4254.0	4153.2
Avg Speed (mph)	17	16	16	16
Vehicles Entered	49527	49248	49331	49486
Vehicles Exited	48880	48703	48822	48920
Hourly Exit Rate	48880	48703	48822	48920
Input Volume	295458	295458	295458	295458
% of Volume	17	16	17	17
Denied Entry Before	381	271	296	268
Denied Entry After	4158	4212	4368	4037

Intersection: 1: NC 55 & Mid Block U-Turn

Movement	NB	NB	NB	SB	SB	SB	SB	SB
Directions Served	T	T	T	U	T	T	T	T
Maximum Queue (ft)	947	1028	1039	700	803	748	763	774
Average Queue (ft)	449	975	1009	697	756	141	125	101
95th Queue (ft)	871	1106	1032	731	887	568	493	447
Link Distance (ft)	981	981	981		730	730	730	730
Upstream Blk Time (%)	0	13	49		84	1	1	1
Queuing Penalty (veh)	0	0	0		608	6	4	9
Storage Bay Dist (ft)				650				
Storage Blk Time (%)				96	2			
Queuing Penalty (veh)				611	7			

Intersection: 2: NC 55 & Old Smithfield Rd

Movement	EB	WB	NB	NB	NB	SB	SB	SB	SB
Directions Served	R	R	L	T	T	T	T	T	TR
Maximum Queue (ft)	125	1379	90	73	213	709	739	750	821
Average Queue (ft)	7	1341	21	3	16	652	662	652	537
95th Queue (ft)	63	1367	63	55	157	869	881	931	1006
Link Distance (ft)	1025	1330		730	730	662	662	662	662
Upstream Blk Time (%)		100			0	76	70	62	18
Queuing Penalty (veh)		0			0	544	501	446	132
Storage Bay Dist (ft)			550						
Storage Blk Time (%)									
Queuing Penalty (veh)									

Intersection: 3: NC 55 & SE Wake EB Off-Ramp/SE Wake Ramps

Movement	EB	WB	WB	NB	NB	NB	NB	SB	SB	SB	SB	SB
Directions Served	R	R	R	T	T	T	R	L	L	T	T	T
Maximum Queue (ft)	1186	254	251	181	321	477	180	387	767	818	819	818
Average Queue (ft)	921	220	217	35	83	231	22	262	411	638	636	627
95th Queue (ft)	1660	265	243	115	227	567	184	449	868	1120	1118	1113
Link Distance (ft)	1128	164	164	662	662	662			705	705	705	705
Upstream Blk Time (%)	59	84	87		0	12			12	72	70	67
Queuing Penalty (veh)	0	167	174		0	203			66	401	390	374
Storage Bay Dist (ft)							300	240				
Storage Blk Time (%)						2		44	25			
Queuing Penalty (veh)						11		88	50			

Intersection: 3: NC 55 & SE Wake EB Off-Ramp/SE Wake Ramps

Movement	B402	B402	B402	B402	B401	B401	B401
Directions Served	T	T	T	T	T	T	T
Maximum Queue (ft)	303	308	297	281	232	213	196
Average Queue (ft)	194	208	198	162	126	124	117
95th Queue (ft)	386	407	393	337	267	257	245
Link Distance (ft)	199	199	199	199	126	126	126
Upstream Blk Time (%)	47	63	44	23	45	48	33
Queuing Penalty (veh)	261	351	244	127	330	352	245
Storage Bay Dist (ft)							
Storage Blk Time (%)							
Queuing Penalty (veh)							

Intersection: 4: NC 55 & SE Wake WB On-Ramp/SE Wake WB Ramps

Movement	WB	WB	WB	WB	NB	NB	NB	NB	B401	B401	B401	B401
Directions Served	L	L	R	R	T	T	T	R	T	T	T	T
Maximum Queue (ft)	321	340	323	335	224	206	186	19	131	80	56	164
Average Queue (ft)	219	274	226	237	177	140	120	1	21	7	4	17
95th Queue (ft)	364	375	409	405	228	205	175	19	90	63	51	83
Link Distance (ft)	247	247	247	247	126	126	126	126	199	199	199	199
Upstream Blk Time (%)	34	59	18	21	11	5	4		1	1	0	0
Queuing Penalty (veh)	97	168	52	58	139	68	45		11	10	6	2
Storage Bay Dist (ft)												
Storage Blk Time (%)												
Queuing Penalty (veh)												

Intersection: 4: NC 55 & SE Wake WB On-Ramp/SE Wake WB Ramps

Movement	B402	B402	B402	SB	SB	SB	SB
Directions Served	T	T	T	T	T	T	R
Maximum Queue (ft)	129	144	175	1304	1303	1306	650
Average Queue (ft)	7	9	13	848	876	845	349
95th Queue (ft)	114	133	162	1671	1658	1679	883
Link Distance (ft)	705	705	705	1256	1256	1256	
Upstream Blk Time (%)		0	1	31	39	43	
Queuing Penalty (veh)		3	9	0	0	0	
Storage Bay Dist (ft)							500
Storage Blk Time (%)						55	
Queuing Penalty (veh)						255	

Intersection: 5: Holly Springs SB & SE Wake EB Off-Ramp

Movement	EB	EB	SB	SB
Directions Served	R	R	T	T
Maximum Queue (ft)	150	141	36	51
Average Queue (ft)	81	51	1	2
95th Queue (ft)	136	120	26	31
Link Distance (ft)	186	186	188	188
Upstream Blk Time (%)	0	0	0	0
Queuing Penalty (veh)	0	0	0	0
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 6: Holly Springs NB/Holly Springs Rd (SR 1152) & Holly Springs SB

Movement	WB	WB	WB	NB	NB	NB
Directions Served	T	T	T	T	T	T
Maximum Queue (ft)	186	199	185	256	244	220
Average Queue (ft)	155	179	141	226	191	142
95th Queue (ft)	189	188	190	261	259	200
Link Distance (ft)	76	76	76	133	133	133
Upstream Blk Time (%)	38	56	23	27	19	9
Queuing Penalty (veh)	144	210	89	165	112	53
Storage Bay Dist (ft)						
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 7: Holly Springs Rd (SR 1152)/Holly Springs SB & SE Wake EB Off-Ramp

Movement	EB	EB	NB	NB	NB
Directions Served	L	L	T	T	T
Maximum Queue (ft)	106	129	11	26	8
Average Queue (ft)	48	64	0	1	0
95th Queue (ft)	90	107	7	11	6
Link Distance (ft)	224	224	91	91	91
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 8: Holly Springs SB & SE Wake WB Off-Ramp

Movement	WB	WB	SB
Directions Served	L	L	T
Maximum Queue (ft)	266	193	3
Average Queue (ft)	219	118	0
95th Queue (ft)	279	170	3
Link Distance (ft)	112	112	25
Upstream Blk Time (%)	45	11	
Queuing Penalty (veh)	132	32	
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 9: Holly Springs SB & Holly Springs NB

Movement	EB	EB	EB	SB	SB	SB
Directions Served	T	T	T	T	T	T
Maximum Queue (ft)	159	192	176	145	147	103
Average Queue (ft)	65	83	65	118	126	52
95th Queue (ft)	131	155	132	150	156	94
Link Distance (ft)	126	126	126	26	26	26
Upstream Blk Time (%)	1	3	2	41	38	18
Queuing Penalty (veh)	7	15	7	127	116	56
Storage Bay Dist (ft)						
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 10: Holly Springs NB/Holly Springs Rd (SR 1152) & SE Wake WB Off-Ramp

Movement	WB	WB
Directions Served	R	R
Maximum Queue (ft)	324	254
Average Queue (ft)	226	165
95th Queue (ft)	315	237
Link Distance (ft)	193	193
Upstream Blk Time (%)	11	2
Queuing Penalty (veh)	41	8
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 11: Holly Springs Rd (SR 1152) & Kildaire Farm Rd (SR 1300)/Sancroft Drive

Movement	EB	EB	EB	EB	WB	WB	NB	NB	NB	NB	SB	SB
Directions Served	L	LT	R	R	LT	R	L	L	T	TR	L	T
Maximum Queue (ft)	430	457	223	198	55	40	486	490	168	130	24	220
Average Queue (ft)	264	298	115	61	18	5	367	377	59	67	2	122
95th Queue (ft)	444	482	199	151	48	25	494	506	123	114	13	188
Link Distance (ft)		1300	1300		450		422	422	422	422		539
Upstream Blk Time (%)							6	9				
Queuing Penalty (veh)							34	46				
Storage Bay Dist (ft)	400			650		75					150	
Storage Blk Time (%)	5	9			0	0						2
Queuing Penalty (veh)	11	19			0	0						0

Intersection: 11: Holly Springs Rd (SR 1152) & Kildaire Farm Rd (SR 1300)/Sancroft Drive

Movement	SB	SB
Directions Served	T	R
Maximum Queue (ft)	269	362
Average Queue (ft)	112	223
95th Queue (ft)	247	349
Link Distance (ft)	539	
Upstream Blk Time (%)	0	0
Queuing Penalty (veh)	0	0
Storage Bay Dist (ft)		450
Storage Blk Time (%)	0	1
Queuing Penalty (veh)	1	1

Intersection: 12: Bells Lake Rd (SR 1386) & SE Wake EB Ramps

Movement	EB	EB	NB	NB	SB	SB
Directions Served	L	R	L	T	T	R
Maximum Queue (ft)	192	146	191	244	201	50
Average Queue (ft)	95	39	85	110	97	2
95th Queue (ft)	163	109	154	203	179	34
Link Distance (ft)		715		1068	982	
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)	500		325			675
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 13: Bells Lake Rd (SR 1386) & SE Wake WB Ramps

Movement	WB	WB	NB	NB	SB	SB
Directions Served	L	R	T	R	L	T
Maximum Queue (ft)	176	274	171	243	192	158
Average Queue (ft)	94	49	78	38	97	58
95th Queue (ft)	164	196	146	162	162	123
Link Distance (ft)		652	982			1402
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)	350			700	375	
Storage Blk Time (%)		0				
Queuing Penalty (veh)		0				

Intersection: 14: US 401 & Donnybrook Rd (SR 1503)/Wake Tech Driveway

Movement	EB	EB	WB	WB	NB	NB	NB	NB	NB	SB	SB	SB
Directions Served	LT	R	LT	R	L	T	T	T	R	L	L	T
Maximum Queue (ft)	450	249	425	1042	609	1104	1151	1166	400	600	700	1036
Average Queue (ft)	265	70	301	928	146	700	1069	1093	202	533	603	678
95th Queue (ft)	453	234	604	1280	451	1126	1315	1284	505	718	840	1332
Link Distance (ft)		2442		998		1111	1111	1111				1027
Upstream Blk Time (%)				73		0	17	50				23
Queuing Penalty (veh)				0		0	0	0				184
Storage Bay Dist (ft)	550		350		475				350	500	500	
Storage Blk Time (%)	2	0		90	0	10		44	0	66	70	2
Queuing Penalty (veh)	2	0		67	0	10		40	0	402	426	8

Intersection: 14: US 401 & Donnybrook Rd (SR 1503)/Wake Tech Driveway

Movement	SB	SB	SB
Directions Served	T	T	R
Maximum Queue (ft)	1078	957	148
Average Queue (ft)	539	260	43
95th Queue (ft)	1247	693	106
Link Distance (ft)	1027	1027	
Upstream Blk Time (%)	13	1	
Queuing Penalty (veh)	102	9	
Storage Bay Dist (ft)			175
Storage Blk Time (%)		6	
Queuing Penalty (veh)		10	

Intersection: 16: US 401 & SE Wake EB Off-Ramp/SE Wake EB Ramp

Movement	EB	EB	EB	EB	NB	NB	NB	SB	SB	SB
Directions Served	L	L	R	R	T	T	T	T	T	T
Maximum Queue (ft)	293	332	322	288	213	321	360	246	204	178
Average Queue (ft)	162	206	220	177	100	142	188	170	106	76
95th Queue (ft)	261	297	306	295	186	260	305	268	192	156
Link Distance (ft)			1553		1027	1027	1027	138	138	138
Upstream Blk Time (%)						0		35	3	1
Queuing Penalty (veh)						0		215	18	7
Storage Bay Dist (ft)	400	400		500						
Storage Blk Time (%)		0								
Queuing Penalty (veh)		0								

Intersection: 17: US 401 & SE Wake WB Ramp/SE Wake WB Off-Ramp

Movement	WB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	L	R	T	T	T	T	T	T
Maximum Queue (ft)	428	626	363	194	197	196	322	293	229
Average Queue (ft)	232	285	182	111	120	115	192	155	104
95th Queue (ft)	368	548	339	168	177	177	284	249	187
Link Distance (ft)		1491		134	134	134	773	773	773
Upstream Blk Time (%)		1		4	5	4			
Queuing Penalty (veh)		0		31	40	31			
Storage Bay Dist (ft)	400		400						
Storage Blk Time (%)	2	3							
Queuing Penalty (veh)	14	18							

Intersection: 18: Old Stage Rd (SR 1006) & SE Wake EB Off-Ramp/SE Wake EB On-Ramp

Movement	EB	EB	EB	EB	NB	NB	SB	SB	SB
Directions Served	L	L	R	R	T	T	L	T	T
Maximum Queue (ft)	308	285	343	318	388	330	129	8	27
Average Queue (ft)	180	170	187	92	221	150	47	0	7
95th Queue (ft)	284	271	381	304	329	269	105	5	27
Link Distance (ft)		1744			649	649		1001	1001
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)	400		450	450			300		
Storage Blk Time (%)	0	0	0	0		0			
Queuing Penalty (veh)	2	3	0	0		0			

Intersection: 19: Old Stage Rd (SR 1006) & SE Wake WB On-Ramp/SE Wake WB Off-Ramp

Movement	WB	WB	NB	NB	NB	NB	SB	SB	SB
Directions Served	L	R	L	L	T	T	T	T	R
Maximum Queue (ft)	156	55	448	482	342	264	163	152	317
Average Queue (ft)	63	8	337	283	83	62	98	74	127
95th Queue (ft)	132	77	460	469	278	174	151	135	303
Link Distance (ft)	1819				1001	1001	714	714	
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)		200	400	400					350
Storage Blk Time (%)	0	1	7	3					0
Queuing Penalty (veh)	0	1	47	16					0

Intersection: 20: NC 50 & Stevens OaksRd (SR 5324)/Cleveland School Rd (SR 1010)

Movement	EB	WB	WB	NB	NB	SB	SB	SB
Directions Served	LTR	LT	R	L	TR	L	T	R
Maximum Queue (ft)	115	104	133	102	578	986	1154	460
Average Queue (ft)	42	38	21	11	549	698	397	34
95th Queue (ft)	92	87	84	61	566	1143	1261	360
Link Distance (ft)	1010	984			530		1578	1578
Upstream Blk Time (%)					60		3	
Queuing Penalty (veh)					0		16	
Storage Bay Dist (ft)			150	100		1000		
Storage Blk Time (%)		0	0		49	10	3	
Queuing Penalty (veh)		1	0		6	52	16	

Intersection: 21: NC 50 & SE Wake EB Ramp

Movement	EB	EB	EB	NB	NB	NB	SB	SB	SB	SB
Directions Served	L	R	R	T	T	R	L	L	T	T
Maximum Queue (ft)	354	695	618	1484	515	246	292	264	116	67
Average Queue (ft)	83	450	377	340	159	59	191	151	33	14
95th Queue (ft)	326	725	690	878	367	209	274	238	87	47
Link Distance (ft)		1675		1578	1578			1056	1056	1056
Upstream Blk Time (%)				0	0					
Queuing Penalty (veh)				2	0					
Storage Bay Dist (ft)	600		600			400	400			
Storage Blk Time (%)		8	2							
Queuing Penalty (veh)		20	4							

Intersection: 22: NC 50 & SE Wake WB Ramps

Movement	EB	EB	EB	NB	NB	NB	NB	SB	SB
Directions Served	L	L	R	L	L	T	T	T	T
Maximum Queue (ft)	344	397	217	257	219	5	29	318	329
Average Queue (ft)	230	266	21	172	117	0	4	198	219
95th Queue (ft)	343	380	118	250	196	4	19	284	312
Link Distance (ft)	345	345	345		1056	1056	1056	592	592
Upstream Blk Time (%)	0	2							
Queuing Penalty (veh)	0	7							
Storage Bay Dist (ft)				450					
Storage Blk Time (%)									0
Queuing Penalty (veh)									0

Intersection: 23: Tiffany Creek Dr/Raynor Rd (SR 2555) & White Oak Rd (SR 2700)

Movement	EB	EB	EB	WB	WB	WB	WB	NB	SB	SB
Directions Served	L	T	TR	L	T	T	R	LTR	L	TR
Maximum Queue (ft)	90	122	155	28	156	179	123	70	170	118
Average Queue (ft)	33	37	60	3	75	79	26	28	83	37
95th Queue (ft)	74	88	129	15	138	150	78	61	147	83
Link Distance (ft)		1003	1003		1243	1243		940		1337
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)	150			150			100		300	
Storage Blk Time (%)		0			0	4	0			
Queuing Penalty (veh)		0			0	10	1			

Intersection: 24: SE Wake SB Ramps & White Oak Rd (SR 2700)

Movement	EB	EB	WB	WB	WB	NB
Directions Served	T	T	L	T	T	L
Maximum Queue (ft)	117	128	121	135	162	324
Average Queue (ft)	51	54	51	64	83	190
95th Queue (ft)	95	102	99	118	144	282
Link Distance (ft)	1243	1243		1373	1373	
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)			250			450
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 25: White Oak Rd (SR 2700) & SE Wake NB Ramps

Movement	EB	EB	NB	NB	NB	SB	SB	SB
Directions Served	L	L	L	T	T	T	T	R
Maximum Queue (ft)	185	205	330	121	127	162	180	15
Average Queue (ft)	106	135	198	61	55	74	90	0
95th Queue (ft)	166	189	303	101	104	138	151	14
Link Distance (ft)		346		769	769	1373	1373	
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)	300		500					300
Storage Blk Time (%)		4						
Queuing Penalty (veh)		10						

Intersection: 26: SE Wake SB On-Ramp/SE Wake SB Off-Ramp & US 70 Bus

Movement	EB	EB	EB	WB	WB	WB	SB	SB
Directions Served	T	T	T	T	T	T	L	L
Maximum Queue (ft)	169	141	164	152	154	140	198	229
Average Queue (ft)	86	56	51	83	77	61	93	144
95th Queue (ft)	145	117	115	133	130	119	180	207
Link Distance (ft)	1234	1234	1234	190	190	190		1700
Upstream Blk Time (%)				0	0	0		
Queuing Penalty (veh)				0	0	0		
Storage Bay Dist (ft)							400	
Storage Blk Time (%)								
Queuing Penalty (veh)								

Intersection: 27: SE Wake NB Off-Ramp/SE Wake NB On-Ramp & US 70 Bus

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB
Directions Served	T	T	T	T	T	T	L	R	R
Maximum Queue (ft)	198	144	149	174	430	438	109	168	24
Average Queue (ft)	116	76	50	113	102	104	38	14	1
95th Queue (ft)	173	135	113	163	268	295	84	97	24
Link Distance (ft)	143	143	143	1034	1034	1034		1484	
Upstream Blk Time (%)	1	0	0		0	0			
Queuing Penalty (veh)	9	1	1		0	0			
Storage Bay Dist (ft)							250		450
Storage Blk Time (%)								0	
Queuing Penalty (veh)								0	

Intersection: 28: Auburn-Knightdale Rd (SR 2555) & Rock Quarry Rd (SR 2542)

Movement	EB	EB	EB	WB	WB	WB	NB	SB
Directions Served	L	T	TR	L	T	TR	LTR	LTR
Maximum Queue (ft)	66	127	88	119	96	102	238	221
Average Queue (ft)	23	52	28	36	24	38	135	110
95th Queue (ft)	54	104	68	81	67	80	222	185
Link Distance (ft)		982	982		1197	1197	962	982
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)	200			150				
Storage Blk Time (%)				0				
Queuing Penalty (veh)				0				

Intersection: 29: Rock Quarry Rd (SR 2542) & SE Wake SB Ramps

Movement	EB	EB	EB	WB	WB	SB	SB
Directions Served	L	T	T	T	TR	L	R
Maximum Queue (ft)	192	116	70	212	216	287	108
Average Queue (ft)	85	40	17	117	115	168	23
95th Queue (ft)	159	86	53	186	191	260	79
Link Distance (ft)		1197	1197	1052	1052		521
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)	400					550	
Storage Blk Time (%)							
Queuing Penalty (veh)							

Intersection: 30: Rock Quarry Rd (SR 2542) & SE Wake NB Ramps

Movement	EB	EB	EB	WB	WB	SB	SB
Directions Served	L	T	T	T	TR	L	R
Maximum Queue (ft)	261	62	64	157	263	120	62
Average Queue (ft)	109	12	13	73	90	54	3
95th Queue (ft)	205	43	43	136	209	103	35
Link Distance (ft)		1052	1052	886	886		432
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)	400					250	
Storage Blk Time (%)							
Queuing Penalty (veh)							

Intersection: 31: Rock Quarry Rd (SR 2542) & Old Baucom Rd (SR 5204)

Movement	WB	WB	NB	SB
Directions Served	L	R	TR	L
Maximum Queue (ft)	88	154	23	92
Average Queue (ft)	34	62	2	36
95th Queue (ft)	71	118	14	70
Link Distance (ft)	1404		995	
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)		150		150
Storage Blk Time (%)	0	1		0
Queuing Penalty (veh)	0	0		0

Intersection: 32: Auburn Knightdale Rd (SR 2555) & SE Wake SB Ramps

Movement	EB	EB	EB	WB	WB	SB	SB
Directions Served	L	T	T	T	T	L	R
Maximum Queue (ft)	83	101	52	53	46	137	173
Average Queue (ft)	30	45	7	18	8	46	88
95th Queue (ft)	69	87	32	45	32	99	150
Link Distance (ft)	119	119	119	1247	1247	272	
Upstream Blk Time (%)	0	0	0				
Queuing Penalty (veh)	0	0	0				
Storage Bay Dist (ft)							200
Storage Blk Time (%)						0	0
Queuing Penalty (veh)						0	0

Intersection: 33: Auburn Knightdale Rd (SR 2555) & SE Wake NB Ramps

Movement	EB	EB	EB	WB	WB	SB
Directions Served	L	T	T	T	R	LR
Maximum Queue (ft)	157	71	29	92	41	201
Average Queue (ft)	69	17	2	36	1	114
95th Queue (ft)	126	50	16	77	24	187
Link Distance (ft)		1247	1247	602		145
Upstream Blk Time (%)						4
Queuing Penalty (veh)						10
Storage Bay Dist (ft)	250				150	
Storage Blk Time (%)				0	0	
Queuing Penalty (veh)				0	0	

Intersection: 34: Hodge Rd (SR 2516) & Poole Rd (SR 1007)

Movement	EB	EB	EB	WB	WB	WB	WB	NB	NB	SB	SB	SB
Directions Served	L	T	TR	L	T	T	R	L	TR	L	L	T
Maximum Queue (ft)	425	233	155	80	280	316	302	88	147	170	180	51
Average Queue (ft)	222	91	75	16	165	180	136	34	64	79	95	9
95th Queue (ft)	376	174	135	56	244	273	241	75	120	143	157	35
Link Distance (ft)		758	758		1368	1368			976			1027
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	450			150			300	100		300	300	
Storage Blk Time (%)	1				11	0	0	0	4			
Queuing Penalty (veh)	2				2	1	2	0	1			

Intersection: 34: Hodge Rd (SR 2516) & Poole Rd (SR 1007)

Movement	SB
Directions Served	R
Maximum Queue (ft)	197
Average Queue (ft)	87
95th Queue (ft)	162
Link Distance (ft)	
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	300
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 35: SE Wake SB Ramps & Poole Rd (SR 1007)

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB
Directions Served	T	T	R	L	T	T	L	R	R
Maximum Queue (ft)	382	384	178	104	249	298	523	363	340
Average Queue (ft)	221	172	8	40	154	186	307	194	171
95th Queue (ft)	341	306	87	86	226	262	468	299	273
Link Distance (ft)	1368	1368			689	689	481	481	481
Upstream Blk Time (%)							1	0	0
Queuing Penalty (veh)							7	0	0
Storage Bay Dist (ft)			150	250					
Storage Blk Time (%)		7			0				
Queuing Penalty (veh)		6			0				

Intersection: 36: SE Wake NB Off-Ramp/SE Wake NB On-Ramp & Poole Rd (SR 1007)

Movement	EB	EB	EB	EB	WB	WB	WB	WB	B193	B193	B164	B164
Directions Served	L	L	T	T	T	T	R	R	T	T	T	T
Maximum Queue (ft)	322	234	92	115	283	451	610	573	134	169	41	111
Average Queue (ft)	140	79	42	48	93	210	442	407	32	68	5	9
95th Queue (ft)	258	181	78	96	207	628	702	676	244	384	72	101
Link Distance (ft)		689	689	689	684	684			716	716	343	343
Upstream Blk Time (%)						3	3		0	1	0	1
Queuing Penalty (veh)						0	0		0	0	0	0
Storage Bay Dist (ft)	300						550	550				
Storage Blk Time (%)	0	0				0	14	5				
Queuing Penalty (veh)	1	0				4	36	13				

Intersection: 36: SE Wake NB Off-Ramp/SE Wake NB On-Ramp & Poole Rd (SR 1007)

Movement	NB	NB
Directions Served	L	R
Maximum Queue (ft)	209	141
Average Queue (ft)	116	36
95th Queue (ft)	193	88
Link Distance (ft)		1374
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)	250	
Storage Blk Time (%)	0	0
Queuing Penalty (veh)	0	0

Intersection: 41: SE Wake EB Ramps/SE Wake EB Off-Ramp & SE Wake EB On-Ramp

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 43: Bend

Movement	EB
Directions Served	T
Maximum Queue (ft)	55
Average Queue (ft)	2
95th Queue (ft)	55
Link Distance (ft)	501
Upstream Blk Time (%)	0
Queuing Penalty (veh)	0
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 51: SE Wake WB On-Ramp & SE Wake WB Off-Ramp & SE Wake WB Ramps

Movement	WB	WB	NB	NB
Directions Served	L	L	R	R
Maximum Queue (ft)	66	15	58	30
Average Queue (ft)	5	1	4	1
95th Queue (ft)	35	11	38	20
Link Distance (ft)	345	345	510	
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				1
Storage Blk Time (%)			0	
Queuing Penalty (veh)			3	

Intersection: 53: Bend

Movement	SW	SW
Directions Served	T	
Maximum Queue (ft)	542	70
Average Queue (ft)	33	2
95th Queue (ft)	283	69
Link Distance (ft)	721	721
Upstream Blk Time (%)	0	
Queuing Penalty (veh)	1	
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 55: US 401 & SE Wake EB On-Ramp

Movement	NB	SB	SB	SB	SB
Directions Served	T	T	T	T	R
Maximum Queue (ft)	6	563	526	314	119
Average Queue (ft)	0	153	135	36	4
95th Queue (ft)	5	550	503	267	84
Link Distance (ft)	138	594	594	594	
Upstream Blk Time (%)		7	2	0	0
Queuing Penalty (veh)		48	15	2	0
Storage Bay Dist (ft)					550
Storage Blk Time (%)				0	
Queuing Penalty (veh)				0	

Intersection: 56: SE Wake SB On-Ramp/SE Wake SB Ramps & SE Wake SB Off-Ramp

Movement	NW	NW
Directions Served	R	R
Maximum Queue (ft)	46	23
Average Queue (ft)	2	1
95th Queue (ft)	25	15
Link Distance (ft)		599
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)	25	
Storage Blk Time (%)	1	0
Queuing Penalty (veh)	6	0

Intersection: 77: Holly Springs SB/Holly Springs NB & SE Wake WB On-Ramp

Movement	NB	NB	NB
Directions Served	LT	T	T
Maximum Queue (ft)	35	46	9
Average Queue (ft)	1	2	0
95th Queue (ft)	24	28	7
Link Distance (ft)	268	268	268
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 78: Holly Springs SB & Holly Springs Rd (SR 1152)

Movement	NB	NB	B781	B781
Directions Served	T	T	T	T
Maximum Queue (ft)	135	159	12	13
Average Queue (ft)	12	16	1	1
95th Queue (ft)	72	88	12	12
Link Distance (ft)	139	139	167	167
Upstream Blk Time (%)	0	1		
Queuing Penalty (veh)	2	4		
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 83: SE Wake WB On-Ramp

Movement	WB	SW
Directions Served	T	R
Maximum Queue (ft)	52	31
Average Queue (ft)	2	2
95th Queue (ft)	37	43
Link Distance (ft)	168	206
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 85: Holly Springs NB & SE Wake EB On-Ramp

Movement	NB	NB	NB
Directions Served	T	T	TR
Maximum Queue (ft)	204	169	87
Average Queue (ft)	71	33	6
95th Queue (ft)	169	117	49
Link Distance (ft)	235	235	235
Upstream Blk Time (%)	0	0	
Queuing Penalty (veh)	1	0	
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 88: SE Wake EB On-Ramp

Movement	EB	NE
Directions Served	T	R
Maximum Queue (ft)	204	32
Average Queue (ft)	49	2
95th Queue (ft)	188	45
Link Distance (ft)	94	217
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 89: Holly Springs SB & SE Wake EB On-Ramp

Movement	SB	SB	SB
Directions Served	LT	T	T
Maximum Queue (ft)	270	239	171
Average Queue (ft)	124	110	28
95th Queue (ft)	238	199	113
Link Distance (ft)	381	381	381
Upstream Blk Time (%)	0		
Queuing Penalty (veh)	0		
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 93: Bend

Movement	EB	EB
Directions Served	T	
Maximum Queue (ft)	282	73
Average Queue (ft)	9	2
95th Queue (ft)	143	72
Link Distance (ft)	645	645
Upstream Blk Time (%)	0	0
Queuing Penalty (veh)	0	0
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 94: Holly Springs Rd (SR 1152)/Holly Springs SB & Holly Springs NB

Movement	NB	SB	SB
Directions Served	R	T	T
Maximum Queue (ft)	6	9	29
Average Queue (ft)	0	0	1
95th Queue (ft)	6	6	16
Link Distance (ft)	555	135	135
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 95: SE Wake WB On-Ramp & Holly Springs SB

Movement	SB	SB	SB
Directions Served	T	T	TR
Maximum Queue (ft)	103	91	22
Average Queue (ft)	23	24	1
95th Queue (ft)	73	68	16
Link Distance (ft)	366	366	366
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 103: SE Wake NB Off-Ramp & SE Wake NB On-Ramp/SE Wake NB Ramps

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 111: Bend

Movement	NB	NB
Directions Served	T	
Maximum Queue (ft)	722	596
Average Queue (ft)	72	42
95th Queue (ft)	452	324
Link Distance (ft)	716	716
Upstream Blk Time (%)	2	1
Queuing Penalty (veh)	16	6
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 114: Bend

Movement	WB
Directions Served	T
Maximum Queue (ft)	277
Average Queue (ft)	14
95th Queue (ft)	191
Link Distance (ft)	1312
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 134: SE Wake WB Off-Ramp

Movement	WB	WB
Directions Served	L	LR
Maximum Queue (ft)	183	112
Average Queue (ft)	34	8
95th Queue (ft)	116	54
Link Distance (ft)		
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)	150	150
Storage Blk Time (%)	1	0
Queuing Penalty (veh)	3	0

Intersection: 144: SE Wake EB Off-Ramp

Movement	
Directions Served	
Maximum Queue (ft)	
Average Queue (ft)	
95th Queue (ft)	
Link Distance (ft)	
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 149: SE Wake SB Ramps

Movement	
Directions Served	
Maximum Queue (ft)	
Average Queue (ft)	
95th Queue (ft)	
Link Distance (ft)	
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 157: SE Wake NB Ramps & SE Wake NB Off-Ramp & SE Wake NB On-Ramp

Movement	EB
Directions Served	R
Maximum Queue (ft)	47
Average Queue (ft)	2
95th Queue (ft)	22
Link Distance (ft)	546
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 170: SE Wake WB On-Ramp & SE Wake WB Off-Ramp/SE Wake WB Ramps

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 184: SE Wake SB On-Ramp/SE Wake SB Ramps & SE Wake SB Off-Ramp

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 195: SE Wake Ramps/SE Wake EB On-Ramp & SE Wake EB Off-Ramp

Movement	EB	EB	SW	SW
Directions Served	T	T	R	R
Maximum Queue (ft)	189	77	695	501
Average Queue (ft)	12	3	441	361
95th Queue (ft)	86	41	913	666
Link Distance (ft)	164	164	723	
Upstream Blk Time (%)	0	0	27	
Queuing Penalty (veh)	1	0	0	
Storage Bay Dist (ft)				425
Storage Blk Time (%)			33	44
Queuing Penalty (veh)			65	88

Intersection: 197: SE Wake WB On-Ramp & SE Wake WB Ramps/SE Wake WB Off-Ramp

Movement	WB	WB	WB	WB	B47
Directions Served	T	T	T	T	T
Maximum Queue (ft)	406	462	375	241	688
Average Queue (ft)	170	221	53	42	247
95th Queue (ft)	462	548	220	163	770
Link Distance (ft)	386	386	386	386	641
Upstream Blk Time (%)	10	28	0	0	24
Queuing Penalty (veh)	0	0	0	0	0
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 199: SE Wake NB Ramps/SE Wake NB On-Ramp & SE Wake NB Off-Ramp

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 411: US 401 & SE Wake WB Off-Ramp

Movement	NB	SB	SB	SB
Directions Served	T	T	T	T
Maximum Queue (ft)	5	117	106	77
Average Queue (ft)	0	14	10	6
95th Queue (ft)	5	98	73	49
Link Distance (ft)	594	134	134	134
Upstream Blk Time (%)		3	1	0
Queuing Penalty (veh)		22	5	1
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 901: SE Wake NB On-Ramp & US 70 Bus

Movement	EB	WB	WB
Directions Served	T	T	T
Maximum Queue (ft)	5	4	10
Average Queue (ft)	0	0	0
95th Queue (ft)	4	4	8
Link Distance (ft)	467	143	143
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 911: US 70 Bus & SE Wake SB On-Ramp

Movement	EB	WB
Directions Served	T	T
Maximum Queue (ft)	4	3
Average Queue (ft)	0	0
95th Queue (ft)	4	3
Link Distance (ft)	190	467
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 2106: SE Wake SB Ramps/SE Wake SB Off-Ramp & SE Wake SB On-Ramp

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Network Summary

Network wide Queuing Penalty: 11287

Total Network Performance By Run

Run Number	1	10	2	3	4	5	6
Denied Delay (hr)	1331.2	1213.2	1188.1	941.1	1299.3	1078.7	1195.7
Denied Del/Veh (s)	90.1	81.9	79.8	64.1	87.7	72.5	80.8
Total Delay (hr)	1166.4	1163.4	1140.2	1065.4	1273.8	1194.2	1145.4
Total Del/Veh (s)	80.1	79.4	77.2	72.6	86.8	80.8	78.1
Stop Delay (hr)	750.0	736.7	710.8	645.6	828.4	750.7	716.4
Stop Del/Veh (s)	51.5	50.3	48.1	44.0	56.5	50.8	48.8
Travel Dist (mi)	38271.3	38561.0	38769.0	38709.5	38508.5	38794.8	38556.8
Travel Time (hr)	3442.0	3325.6	3282.9	2959.3	3521.2	3228.1	3290.2
Avg Speed (mph)	18	18	19	19	17	18	18
Vehicles Entered	50479	50832	51284	50908	50718	51197	50833
Vehicles Exited	50239	50455	50814	50806	50438	50916	50643
Hourly Exit Rate	50239	50455	50814	50806	50438	50916	50643
Input Volume	289924	289924	289924	289924	289924	289924	289924
% of Volume	17	17	18	18	17	18	17
Denied Entry Before	191	216	198	185	160	126	198
Denied Entry After	2735	2468	2339	1965	2624	2382	2442

Total Network Performance By Run

Run Number	7	8	9	Avg
Denied Delay (hr)	1236.3	1283.1	1169.1	1193.6
Denied Del/Veh (s)	82.7	86.9	78.6	80.5
Total Delay (hr)	1192.4	1127.3	1110.7	1157.9
Total Del/Veh (s)	80.4	77.3	75.1	78.8
Stop Delay (hr)	748.7	700.0	673.5	726.1
Stop Del/Veh (s)	50.5	48.0	45.5	49.4
Travel Dist (mi)	39046.1	38453.0	39001.9	38667.2
Travel Time (hr)	3389.4	3356.9	3238.4	3303.4
Avg Speed (mph)	18	19	19	18
Vehicles Entered	51353	50665	51300	50949
Vehicles Exited	51133	50337	51140	50694
Hourly Exit Rate	51133	50337	51140	50694
Input Volume	289924	289924	289924	289924
% of Volume	18	17	18	17
Denied Entry Before	151	226	195	176
Denied Entry After	2468	2494	2240	2411

Intersection: 1: NC 55 & Mid Block U-Turn

Movement	NB	NB	NB	SB	SB	SB	SB	SB
Directions Served	T	T	T	U	T	T	T	T
Maximum Queue (ft)	982	1023	1039	700	806	718	538	574
Average Queue (ft)	572	984	1009	678	701	199	183	174
95th Queue (ft)	988	1055	1032	802	1055	526	369	360
Link Distance (ft)	981	981	981		730	730	730	730
Upstream Blk Time (%)	1	27	72		48	0	0	0
Queuing Penalty (veh)	0	0	0		626	2	1	3
Storage Bay Dist (ft)				650				
Storage Blk Time (%)				69	0			
Queuing Penalty (veh)				785	2			

Intersection: 2: NC 55 & Old Smithfield Rd

Movement	EB	WB	NB	SB	SB	SB	SB
Directions Served	R	R	L	T	T	T	TR
Maximum Queue (ft)	93	1388	133	707	745	743	818
Average Queue (ft)	6	1262	51	553	570	569	479
95th Queue (ft)	53	1621	116	916	947	955	979
Link Distance (ft)	1025	1334		661	661	661	661
Upstream Blk Time (%)		73		31	32	30	8
Queuing Penalty (veh)		0		383	404	373	98
Storage Bay Dist (ft)			550				
Storage Blk Time (%)							
Queuing Penalty (veh)							

Intersection: 3: NC 55 & SE Wake EB Off-Ramp/SE Wake Ramps

Movement	EB	WB	WB	NB	NB	NB	NB	SB	SB	SB	SB	SB
Directions Served	R	R	R	T	T	T	R	L	L	T	T	T
Maximum Queue (ft)	1182	227	212	189	256	316	203	389	770	812	801	800
Average Queue (ft)	535	130	113	89	135	202	15	313	441	428	428	417
95th Queue (ft)	1480	261	247	170	220	297	104	432	825	1041	1033	1015
Link Distance (ft)	1124	160	160	661	661	661			706	706	706	706
Upstream Blk Time (%)	27	10	8						4	33	33	30
Queuing Penalty (veh)	0	22	18						37	291	289	265
Storage Bay Dist (ft)							300	240				
Storage Blk Time (%)						1		34	9			
Queuing Penalty (veh)						3		118	31			

Intersection: 3: NC 55 & SE Wake EB Off-Ramp/SE Wake Ramps

Movement	B402	B402	B402	B402	B401	B401	B401
Directions Served	T	T	T	T	T	T	T
Maximum Queue (ft)	260	261	252	214	199	172	163
Average Queue (ft)	103	118	107	82	53	63	50
95th Queue (ft)	306	336	311	253	189	193	173
Link Distance (ft)	199	199	199	199	126	126	126
Upstream Blk Time (%)	10	19	11	4	6	9	5
Queuing Penalty (veh)	91	168	93	36	71	109	62
Storage Bay Dist (ft)							
Storage Blk Time (%)							
Queuing Penalty (veh)							

Intersection: 4: NC 55 & SE Wake WB On-Ramp/SE Wake WB Ramps

Movement	WB	WB	WB	WB	NB	NB	NB	B401	B401	B401	B401	B402
Directions Served	L	L	R	R	T	T	T	T	T	T	T	T
Maximum Queue (ft)	314	330	286	282	160	135	167	29	27	25	4	9
Average Queue (ft)	213	270	148	122	89	50	81	1	1	1	0	0
95th Queue (ft)	338	351	313	296	141	112	137	27	26	25	4	9
Link Distance (ft)	242	242	242	242	126	126	126	199	199	199	199	706
Upstream Blk Time (%)	18	42	3	3	2	0	1	0	0	0		
Queuing Penalty (veh)	39	88	7	6	13	3	9	2	0	2		
Storage Bay Dist (ft)												
Storage Blk Time (%)												
Queuing Penalty (veh)												

Intersection: 4: NC 55 & SE Wake WB On-Ramp/SE Wake WB Ramps

Movement	B402	B402	SB	SB	SB	SB
Directions Served	T	T	T	T	T	R
Maximum Queue (ft)	19	22	1294	1294	1156	520
Average Queue (ft)	1	1	692	756	639	180
95th Queue (ft)	18	22	1387	1436	1335	659
Link Distance (ft)	706	706	1255	1255	1255	
Upstream Blk Time (%)			8	13	7	
Queuing Penalty (veh)			0	0	0	
Storage Bay Dist (ft)						500
Storage Blk Time (%)					16	
Queuing Penalty (veh)					62	

Intersection: 5: Holly Springs SB & SE Wake EB Off-Ramp

Movement	EB	EB	SB	SB	SB
Directions Served	R	R	T	T	T
Maximum Queue (ft)	293	231	32	81	13
Average Queue (ft)	211	171	2	4	0
95th Queue (ft)	293	222	31	45	7
Link Distance (ft)	186	186	188	188	188
Upstream Blk Time (%)	15	4	0	0	
Queuing Penalty (veh)	46	11	0	0	
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 6: Holly Springs NB/Holly Springs Rd (SR 1152) & Holly Springs SB

Movement	WB	WB	WB	NB	NB	NB
Directions Served	T	T	T	T	T	T
Maximum Queue (ft)	184	209	205	242	208	164
Average Queue (ft)	149	180	160	189	137	101
95th Queue (ft)	188	192	210	256	191	156
Link Distance (ft)	76	76	76	133	133	133
Upstream Blk Time (%)	33	45	32	22	8	2
Queuing Penalty (veh)	203	278	199	59	23	4
Storage Bay Dist (ft)						
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 7: Holly Springs Rd (SR 1152)/Holly Springs SB & SE Wake EB Off-Ramp

Movement	EB	EB	NB
Directions Served	L	L	T
Maximum Queue (ft)	90	147	3
Average Queue (ft)	34	53	0
95th Queue (ft)	79	112	3
Link Distance (ft)	224	224	91
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 8: Holly Springs SB & SE Wake WB Off-Ramp

Movement	WB	WB	SB	SB	SB
Directions Served	L	L	T	T	T
Maximum Queue (ft)	270	233	26	14	5
Average Queue (ft)	240	144	1	1	0
95th Queue (ft)	273	210	13	8	5
Link Distance (ft)	112	112	25	25	25
Upstream Blk Time (%)	58	21	0	0	0
Queuing Penalty (veh)	188	68	0	0	0
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 9: Holly Springs SB & Holly Springs NB

Movement	EB	EB	EB	SB	SB	SB
Directions Served	T	T	T	T	T	T
Maximum Queue (ft)	90	115	91	162	157	147
Average Queue (ft)	27	50	33	134	137	116
95th Queue (ft)	68	96	73	147	149	168
Link Distance (ft)	126	126	126	26	26	26
Upstream Blk Time (%)	0	0	0	49	49	34
Queuing Penalty (veh)	0	1	0	321	320	220
Storage Bay Dist (ft)						
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 10: Holly Springs NB/Holly Springs Rd (SR 1152) & SE Wake WB Off-Ramp

Movement	WB	WB
Directions Served	R	R
Maximum Queue (ft)	285	164
Average Queue (ft)	121	57
95th Queue (ft)	234	117
Link Distance (ft)	193	193
Upstream Blk Time (%)	0	0
Queuing Penalty (veh)	1	0
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 11: Holly Springs Rd (SR 1152) & Kildaire Farm Rd (SR 1300)/Sancroft Drive

Movement	EB	EB	EB	EB	WB	WB	NB	NB	NB	NB	SB	SB
Directions Served	L	LT	R	R	LT	R	L	L	T	TR	L	T
Maximum Queue (ft)	172	544	934	368	43	33	397	404	91	93	140	445
Average Queue (ft)	82	166	290	234	10	4	274	290	38	38	13	292
95th Queue (ft)	169	504	581	338	34	19	367	386	78	79	97	434
Link Distance (ft)		1300	1300		450		422	422	422	422		539
Upstream Blk Time (%)		0	0				0	0				0
Queuing Penalty (veh)		0	0				0	1				0
Storage Bay Dist (ft)	400			650		75					150	
Storage Blk Time (%)												55
Queuing Penalty (veh)												3

Intersection: 11: Holly Springs Rd (SR 1152) & Kildaire Farm Rd (SR 1300)/Sancroft Drive

Movement	SB	SB
Directions Served	T	R
Maximum Queue (ft)	431	320
Average Queue (ft)	262	171
95th Queue (ft)	412	282
Link Distance (ft)	539	
Upstream Blk Time (%)	0	
Queuing Penalty (veh)	0	
Storage Bay Dist (ft)		450
Storage Blk Time (%)	0	
Queuing Penalty (veh)	1	

Intersection: 12: Bells Lake Rd (SR 1386) & SE Wake EB Ramps

Movement	EB	EB	NB	NB	SB	SB
Directions Served	L	R	L	T	T	R
Maximum Queue (ft)	212	324	196	180	157	149
Average Queue (ft)	99	134	95	72	75	8
95th Queue (ft)	169	265	163	143	141	75
Link Distance (ft)		711		1068	982	
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)	500		325			675
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 13: Bells Lake Rd (SR 1386) & SE Wake WB Ramps

Movement	WB	WB	NB	NB	SB	SB
Directions Served	L	R	T	R	L	T
Maximum Queue (ft)	170	41	136	38	175	215
Average Queue (ft)	82	1	60	1	88	90
95th Queue (ft)	142	30	115	27	148	182
Link Distance (ft)		647	982			1402
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)	350			700	375	
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 14: US 401 & Donnybrook Rd (SR 1503)/Wake Tech Driveway

Movement	EB	EB	WB	WB	NB	NB	NB	NB	NB	SB	SB	SB
Directions Served	LT	R	LT	R	L	T	T	T	R	L	L	T
Maximum Queue (ft)	302	154	413	914	173	307	580	660	364	203	211	520
Average Queue (ft)	157	61	251	616	85	191	224	356	49	113	134	227
95th Queue (ft)	263	126	534	1129	158	286	440	584	219	178	195	391
Link Distance (ft)		2442		998		1111	1111	1111				1027
Upstream Blk Time (%)				18								
Queuing Penalty (veh)				0								
Storage Bay Dist (ft)	550		350		475				350	500	500	
Storage Blk Time (%)				52				9				
Queuing Penalty (veh)				63				5				

Intersection: 14: US 401 & Donnybrook Rd (SR 1503)/Wake Tech Driveway

Movement	SB	SB	SB
Directions Served	T	T	R
Maximum Queue (ft)	663	529	293
Average Queue (ft)	264	268	88
95th Queue (ft)	480	423	205
Link Distance (ft)	1027	1027	
Upstream Blk Time (%)	0	0	
Queuing Penalty (veh)	3	2	
Storage Bay Dist (ft)			175
Storage Blk Time (%)		18	0
Queuing Penalty (veh)		43	2

Intersection: 16: US 401 & SE Wake EB Off-Ramp/SE Wake EB Ramp

Movement	EB	EB	EB	EB	NB	NB	NB	SB	SB	SB
Directions Served	L	L	R	R	T	T	T	T	T	T
Maximum Queue (ft)	247	407	508	448	121	148	193	263	261	258
Average Queue (ft)	131	188	318	290	61	91	117	237	236	227
95th Queue (ft)	225	299	449	410	111	139	171	249	250	268
Link Distance (ft)			1553		1027	1027	1027	138	138	138
Upstream Blk Time (%)								40	35	32
Queuing Penalty (veh)								348	308	284
Storage Bay Dist (ft)	400	400		500						
Storage Blk Time (%)		0	2	0						
Queuing Penalty (veh)		0	20	0						

Intersection: 17: US 401 & SE Wake WB Ramp/SE Wake WB Off-Ramp

Movement	WB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	L	R	T	T	T	T	T	T
Maximum Queue (ft)	320	361	184	114	119	145	350	310	299
Average Queue (ft)	199	237	34	43	64	69	234	201	171
95th Queue (ft)	285	328	137	92	107	127	333	297	272
Link Distance (ft)		1491		134	134	134	773	773	773
Upstream Blk Time (%)				0	0	0			
Queuing Penalty (veh)				1	1	2			
Storage Bay Dist (ft)	400		400						
Storage Blk Time (%)	0	0							
Queuing Penalty (veh)	0	0							

Intersection: 18: Old Stage Rd (SR 1006) & SE Wake EB Off-Ramp/SE Wake EB On-Ramp

Movement	EB	EB	EB	EB	NB	NB	SB	SB	SB
Directions Served	L	L	R	R	T	T	L	T	T
Maximum Queue (ft)	188	195	332	319	294	239	159	141	170
Average Queue (ft)	110	117	210	105	178	120	64	51	85
95th Queue (ft)	171	173	378	320	259	200	129	107	138
Link Distance (ft)		1744			649	649		1001	1001
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)	400		450	450			300		
Storage Blk Time (%)						0			
Queuing Penalty (veh)						0			

Intersection: 19: Old Stage Rd (SR 1006) & SE Wake WB On-Ramp/SE Wake WB Off-Ramp

Movement	WB	NB	NB	NB	NB	SB	SB	SB
Directions Served	L	L	L	T	T	T	T	R
Maximum Queue (ft)	118	271	246	118	127	215	202	142
Average Queue (ft)	55	180	126	53	54	132	111	11
95th Queue (ft)	105	249	207	99	108	194	179	84
Link Distance (ft)	1819			1001	1001	714	714	
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)		400	400					350
Storage Blk Time (%)								
Queuing Penalty (veh)								

Intersection: 20: NC 50 & Stevens OaksRd (SR 5324)/Cleveland School Rd (SR 1010)

Movement	EB	WB	WB	NB	NB	SB	SB	SB
Directions Served	LTR	LT	R	L	TR	L	T	R
Maximum Queue (ft)	80	124	31	148	582	951	1167	600
Average Queue (ft)	26	45	1	23	539	661	385	54
95th Queue (ft)	66	97	16	99	623	1102	1233	475
Link Distance (ft)	1016	993			531		1578	1578
Upstream Blk Time (%)					69		4	0
Queuing Penalty (veh)					0		32	0
Storage Bay Dist (ft)			150	100		1000		
Storage Blk Time (%)		0			68	6	2	
Queuing Penalty (veh)		1			8	58	21	

Intersection: 21: NC 50 & SE Wake EB Ramp

Movement	EB	EB	EB	NB	NB	NB	SB	SB	SB	SB
Directions Served	L	R	R	T	T	R	L	L	T	T
Maximum Queue (ft)	700	1728	900	426	267	326	472	423	361	281
Average Queue (ft)	521	1521	877	175	119	131	322	238	227	127
95th Queue (ft)	1010	2074	1025	342	239	330	449	397	343	245
Link Distance (ft)		1675		1578	1578			1056	1056	1056
Upstream Blk Time (%)		58		0						
Queuing Penalty (veh)		0		0						
Storage Bay Dist (ft)	600		600			400	400			
Storage Blk Time (%)		90	32		0	0	3	0		
Queuing Penalty (veh)		456	162		0	1	10	0		

Intersection: 22: NC 50 & SE Wake WB Ramps

Movement	EB	EB	EB	NB	NB	NB	NB	SB	SB
Directions Served	L	L	R	L	L	T	T	T	T
Maximum Queue (ft)	230	267	367	275	212	48	55	359	408
Average Queue (ft)	130	160	165	195	129	12	18	257	283
95th Queue (ft)	208	237	357	265	195	39	45	343	374
Link Distance (ft)	352	352	352		1056	1056	1056	592	592
Upstream Blk Time (%)			2						
Queuing Penalty (veh)			4						
Storage Bay Dist (ft)				450					
Storage Blk Time (%)									1
Queuing Penalty (veh)									1

Intersection: 23: Tiffany Creek Dr/Raynor Rd (SR 2555) & White Oak Rd (SR 2700)

Movement	EB	EB	EB	WB	WB	WB	WB	NB	SB	SB
Directions Served	L	T	TR	L	T	T	R	LTR	L	TR
Maximum Queue (ft)	72	245	290	50	101	98	40	61	288	116
Average Queue (ft)	22	108	136	11	37	37	5	20	155	39
95th Queue (ft)	53	208	248	34	78	81	21	51	245	86
Link Distance (ft)		1003	1003		1243	1243		940		1337
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)	150			150			100		300	
Storage Blk Time (%)		2			0	1	0		0	0
Queuing Penalty (veh)		1			0	1	0		0	0

Intersection: 24: SE Wake SB Ramps & White Oak Rd (SR 2700)

Movement	EB	EB	WB	WB	WB	NB	NB
Directions Served	T	T	L	T	T	L	R
Maximum Queue (ft)	149	156	84	69	86	225	41
Average Queue (ft)	65	75	32	20	30	114	1
95th Queue (ft)	126	141	72	54	70	190	29
Link Distance (ft)	1243	1243		1373	1373		618
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)			250			450	
Storage Blk Time (%)							
Queuing Penalty (veh)							

Intersection: 25: White Oak Rd (SR 2700) & SE Wake NB Ramps

Movement	EB	EB	NB	NB	NB	SB	SB	SB
Directions Served	L	L	L	T	T	T	T	R
Maximum Queue (ft)	177	198	298	70	57	217	233	15
Average Queue (ft)	94	122	172	27	19	123	136	1
95th Queue (ft)	159	183	266	60	50	196	207	15
Link Distance (ft)		346		769	769	1373	1373	
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)	300		500					300
Storage Blk Time (%)		4					0	
Queuing Penalty (veh)		8					0	

Intersection: 26: SE Wake SB On-Ramp/SE Wake SB Off-Ramp & US 70 Bus

Movement	EB	EB	EB	WB	WB	WB	SB	SB
Directions Served	T	T	T	T	T	T	L	L
Maximum Queue (ft)	320	312	285	230	200	171	336	363
Average Queue (ft)	192	177	138	131	121	87	208	246
95th Queue (ft)	283	268	235	191	183	151	310	341
Link Distance (ft)	1234	1234	1234	190	190	190		1700
Upstream Blk Time (%)				0	0	0		
Queuing Penalty (veh)				3	1	0		
Storage Bay Dist (ft)							400	
Storage Blk Time (%)			0					0
Queuing Penalty (veh)			0					1

Intersection: 27: SE Wake NB Off-Ramp/SE Wake NB On-Ramp & US 70 Bus

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB
Directions Served	T	T	T	T	T	T	L	R	R
Maximum Queue (ft)	202	179	180	152	138	122	193	398	376
Average Queue (ft)	134	96	87	89	65	50	59	294	233
95th Queue (ft)	188	162	161	133	114	99	126	386	421
Link Distance (ft)	143	143	143	1034	1034	1034		1484	
Upstream Blk Time (%)	5	1	1						
Queuing Penalty (veh)	48	9	11						
Storage Bay Dist (ft)							250		450
Storage Blk Time (%)							0	34	0
Queuing Penalty (veh)							0	94	0

Intersection: 28: Auburn-Knightdale Rd (SR 2555) & Rock Quarry Rd (SR 2542)

Movement	EB	EB	EB	WB	WB	WB	NB	SB
Directions Served	L	T	TR	L	T	TR	LTR	LTR
Maximum Queue (ft)	82	216	151	111	60	74	300	186
Average Queue (ft)	31	105	61	39	8	26	161	91
95th Queue (ft)	69	181	125	88	35	61	257	157
Link Distance (ft)		982	982		1197	1197	962	982
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)	200			150				
Storage Blk Time (%)		0		0				
Queuing Penalty (veh)		0		0				

Intersection: 29: Rock Quarry Rd (SR 2542) & SE Wake SB Ramps

Movement	EB	EB	EB	WB	WB	SB	SB
Directions Served	L	T	T	T	TR	L	R
Maximum Queue (ft)	243	186	134	153	159	408	147
Average Queue (ft)	132	87	59	76	75	258	8
95th Queue (ft)	217	152	116	131	133	376	77
Link Distance (ft)		1197	1197	1052	1052		521
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)	400					550	
Storage Blk Time (%)							
Queuing Penalty (veh)							

Intersection: 30: Rock Quarry Rd (SR 2542) & SE Wake NB Ramps

Movement	EB	EB	EB	WB	WB	SB
Directions Served	L	T	T	T	TR	L
Maximum Queue (ft)	262	135	123	101	178	130
Average Queue (ft)	130	46	45	47	54	65
95th Queue (ft)	219	107	100	91	132	110
Link Distance (ft)		1052	1052	886	886	
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)	400					250
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 31: Rock Quarry Rd (SR 2542) & Old Baucom Rd (SR 5204)

Movement	WB	WB	NB	SB
Directions Served	L	R	TR	L
Maximum Queue (ft)	74	69	27	95
Average Queue (ft)	27	33	2	45
95th Queue (ft)	56	55	14	80
Link Distance (ft)	1404		995	
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)		150		150
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 32: Auburn Knightdale Rd (SR 2555) & SE Wake SB Ramps

Movement	EB	EB	EB	WB	SB	SB
Directions Served	L	T	T	T	L	R
Maximum Queue (ft)	98	102	39	65	165	163
Average Queue (ft)	36	47	5	17	66	91
95th Queue (ft)	77	90	25	48	121	148
Link Distance (ft)	119	119	119	1247	284	
Upstream Blk Time (%)	0	0				
Queuing Penalty (veh)	0	0				
Storage Bay Dist (ft)						200
Storage Blk Time (%)					0	0
Queuing Penalty (veh)					0	0

Intersection: 33: Auburn Knightdale Rd (SR 2555) & SE Wake NB Ramps

Movement	EB	EB	EB	WB	WB	SB
Directions Served	L	T	T	T	R	LR
Maximum Queue (ft)	164	72	26	92	11	200
Average Queue (ft)	75	22	2	37	0	113
95th Queue (ft)	133	58	15	76	11	184
Link Distance (ft)		1247	1247	606		145
Upstream Blk Time (%)						4
Queuing Penalty (veh)						10
Storage Bay Dist (ft)	250				150	
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 34: Hodge Rd (SR 2516) & Poole Rd (SR 1007)

Movement	EB	EB	EB	WB	WB	WB	WB	NB	NB	SB	SB	SB
Directions Served	L	T	TR	L	T	T	R	L	TR	L	L	T
Maximum Queue (ft)	270	189	196	78	181	203	150	61	95	274	291	97
Average Queue (ft)	151	106	112	26	105	117	67	17	37	159	175	25
95th Queue (ft)	242	171	177	64	160	177	127	49	80	250	265	70
Link Distance (ft)		758	758		1368	1368			976			1027
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	450			150			300	100		300	300	
Storage Blk Time (%)					1			0	0	0	0	
Queuing Penalty (veh)					0			0	0	0	1	

Intersection: 34: Hodge Rd (SR 2516) & Poole Rd (SR 1007)

Movement	SB
Directions Served	R
Maximum Queue (ft)	231
Average Queue (ft)	107
95th Queue (ft)	195
Link Distance (ft)	
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	300
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 35: SE Wake SB Ramps & Poole Rd (SR 1007)

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB
Directions Served	T	T	R	L	T	T	L	R	R
Maximum Queue (ft)	517	520	269	110	186	196	410	429	414
Average Queue (ft)	288	263	28	47	96	119	247	290	262
95th Queue (ft)	467	463	170	102	155	177	371	389	368
Link Distance (ft)	1368	1368			689	689	481	481	481
Upstream Blk Time (%)								0	0
Queuing Penalty (veh)								0	0
Storage Bay Dist (ft)			150	250					
Storage Blk Time (%)		15			0				
Queuing Penalty (veh)		20			0				

Intersection: 36: SE Wake NB Off-Ramp/SE Wake NB On-Ramp & Poole Rd (SR 1007)

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB
Directions Served	L	L	T	T	T	T	R	R	L	R
Maximum Queue (ft)	346	300	159	162	122	147	441	407	164	112
Average Queue (ft)	148	93	71	84	63	58	227	167	78	41
95th Queue (ft)	281	232	131	149	113	116	388	375	145	86
Link Distance (ft)		689	689	689	684	684				1374
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)	300						550	550	250	
Storage Blk Time (%)	2	0					0	0	0	0
Queuing Penalty (veh)	7	1					0	0	0	0

Intersection: 41: SE Wake EB Ramps/SE Wake EB Off-Ramp & SE Wake EB On-Ramp

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 43: Bend

Movement	EB	EB
Directions Served	T	
Maximum Queue (ft)	563	273
Average Queue (ft)	66	11
95th Queue (ft)	363	137
Link Distance (ft)	503	503
Upstream Blk Time (%)	1	0
Queuing Penalty (veh)	5	0
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 51: SE Wake WB On-Ramp & SE Wake WB Off-Ramp & SE Wake WB Ramps

Movement	WB	WB	NB	NB
Directions Served	L	L	R	R
Maximum Queue (ft)	10	4	57	20
Average Queue (ft)	0	0	2	2
95th Queue (ft)	6	4	48	23
Link Distance (ft)	352	352	564	
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				1
Storage Blk Time (%)				0
Queuing Penalty (veh)				0

Intersection: 55: US 401 & SE Wake EB On-Ramp

Movement	SB	SB	SB
Directions Served	T	T	T
Maximum Queue (ft)	362	355	347
Average Queue (ft)	194	171	133
95th Queue (ft)	320	320	304
Link Distance (ft)	594	594	594
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 56: SE Wake SB On-Ramp/SE Wake SB Ramps & SE Wake SB Off-Ramp

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 77: Holly Springs SB/Holly Springs NB & SE Wake WB On-Ramp

Movement	NB
Directions Served	T
Maximum Queue (ft)	10
Average Queue (ft)	0
95th Queue (ft)	7
Link Distance (ft)	268
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 78: Holly Springs SB & Holly Springs Rd (SR 1152)

Movement	NB	SB	SB
Directions Served	T	R	R
Maximum Queue (ft)	3	11	9
Average Queue (ft)	0	0	0
95th Queue (ft)	3	11	8
Link Distance (ft)	139	422	422
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 83: SE Wake WB On-Ramp

Movement	SW
Directions Served	R
Maximum Queue (ft)	253
Average Queue (ft)	14
95th Queue (ft)	118
Link Distance (ft)	206
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 85: Holly Springs NB & SE Wake EB On-Ramp

Movement	NB	NB	NB
Directions Served	T	T	TR
Maximum Queue (ft)	92	35	4
Average Queue (ft)	13	1	0
95th Queue (ft)	55	15	4
Link Distance (ft)	235	235	235
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 86: Bend

Movement	SB	SB
Directions Served	T	T
Maximum Queue (ft)	58	132
Average Queue (ft)	4	6
95th Queue (ft)	76	96
Link Distance (ft)	555	555
Upstream Blk Time (%)	0	0
Queuing Penalty (veh)	0	0
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 88: SE Wake EB On-Ramp

Movement	EB	NE
Directions Served	T	R
Maximum Queue (ft)	208	34
Average Queue (ft)	55	1
95th Queue (ft)	193	31
Link Distance (ft)	94	217
Upstream Blk Time (%)	2	
Queuing Penalty (veh)	12	
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 89: Holly Springs SB & SE Wake EB On-Ramp

Movement	SB	SB	SB
Directions Served	LT	T	T
Maximum Queue (ft)	369	370	312
Average Queue (ft)	201	194	106
95th Queue (ft)	348	320	263
Link Distance (ft)	381	381	381
Upstream Blk Time (%)	0	0	0
Queuing Penalty (veh)	1	1	0
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 93: Bend

Movement	EB	EB
Directions Served	T	
Maximum Queue (ft)	754	618
Average Queue (ft)	197	56
95th Queue (ft)	729	365
Link Distance (ft)	645	645
Upstream Blk Time (%)	4	0
Queuing Penalty (veh)	26	1
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 94: Holly Springs Rd (SR 1152)/Holly Springs SB & Holly Springs NB

Movement	SB	SB	SB
Directions Served	T	T	T
Maximum Queue (ft)	41	65	3
Average Queue (ft)	2	4	0
95th Queue (ft)	24	30	3
Link Distance (ft)	135	135	135
Upstream Blk Time (%)	0	0	
Queuing Penalty (veh)	0	0	
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 95: SE Wake WB On-Ramp & Holly Springs SB

Movement	SB	SB	SB
Directions Served	T	T	TR
Maximum Queue (ft)	357	368	261
Average Queue (ft)	186	179	101
95th Queue (ft)	311	308	239
Link Distance (ft)	366	366	366
Upstream Blk Time (%)	0	0	
Queuing Penalty (veh)	2	1	
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 103: SE Wake NB Off-Ramp & SE Wake NB On-Ramp/SE Wake NB Ramps

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 110: Bend

Movement	SB	B86	B86
Directions Served	T	T	T
Maximum Queue (ft)	47	58	132
Average Queue (ft)	2	4	6
95th Queue (ft)	46	76	96
Link Distance (ft)	488	555	555
Upstream Blk Time (%)		0	0
Queuing Penalty (veh)		0	0
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 111: Bend

Movement	NB	NB
Directions Served	T	
Maximum Queue (ft)	822	597
Average Queue (ft)	86	32
95th Queue (ft)	490	280
Link Distance (ft)	716	716
Upstream Blk Time (%)	2	0
Queuing Penalty (veh)	12	3
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 134: SE Wake WB Off-Ramp

Movement	WB	WB
Directions Served	L	LR
Maximum Queue (ft)	247	208
Average Queue (ft)	99	27
95th Queue (ft)	221	127
Link Distance (ft)		
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)	150	150
Storage Blk Time (%)	6	0
Queuing Penalty (veh)	12	0

Intersection: 144: SE Wake EB Off-Ramp

Movement	EB	EB	EB
Directions Served	L	LR	R
Maximum Queue (ft)	11	112	31
Average Queue (ft)	0	12	2
95th Queue (ft)	11	63	28
Link Distance (ft)		1700	
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)	200		200
Storage Blk Time (%)		0	
Queuing Penalty (veh)		0	

Intersection: 149: SE Wake SB Ramps

Movement	
Directions Served	
Maximum Queue (ft)	
Average Queue (ft)	
95th Queue (ft)	
Link Distance (ft)	
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 157: SE Wake NB Ramps & SE Wake NB Off-Ramp & SE Wake NB On-Ramp

Movement	EB
Directions Served	R
Maximum Queue (ft)	27
Average Queue (ft)	2
95th Queue (ft)	15
Link Distance (ft)	546
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 170: SE Wake WB On-Ramp & SE Wake WB Off-Ramp/SE Wake WB Ramps

Movement	
Directions Served	
Maximum Queue (ft)	
Average Queue (ft)	
95th Queue (ft)	
Link Distance (ft)	
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 184: SE Wake SB On-Ramp/SE Wake SB Ramps & SE Wake SB Off-Ramp

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 195: SE Wake Ramps/SE Wake EB On-Ramp & SE Wake EB Off-Ramp

Movement	EB	EB	SW	SW
Directions Served	T	T	R	R
Maximum Queue (ft)	286	212	77	64
Average Queue (ft)	53	13	6	4
95th Queue (ft)	211	91	37	29
Link Distance (ft)	160	160	723	
Upstream Blk Time (%)	1	1		
Queuing Penalty (veh)	8	3		
Storage Bay Dist (ft)				425
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 197: SE Wake WB On-Ramp & SE Wake WB Ramps/SE Wake WB Off-Ramp

Movement	WB	WB	WB	WB	B47
Directions Served	T	T	T	T	T
Maximum Queue (ft)	280	318	29	15	141
Average Queue (ft)	72	102	2	1	42
95th Queue (ft)	275	335	16	10	303
Link Distance (ft)	386	386	386	386	641
Upstream Blk Time (%)	1	5			4
Queuing Penalty (veh)	0	0			0
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 199: SE Wake NB Ramps/SE Wake NB On-Ramp & SE Wake NB Off-Ramp

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 411: US 401 & SE Wake WB Off-Ramp

Movement	NB	SB	SB
Directions Served	T	T	T
Maximum Queue (ft)	2	26	5
Average Queue (ft)	0	1	0
95th Queue (ft)	2	16	5
Link Distance (ft)	594	134	134
Upstream Blk Time (%)		0	
Queuing Penalty (veh)		0	
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 901: SE Wake NB On-Ramp & US 70 Bus

Movement	EB	WB
Directions Served	T	T
Maximum Queue (ft)	16	4
Average Queue (ft)	1	0
95th Queue (ft)	9	4
Link Distance (ft)	467	143
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 911: US 70 Bus & SE Wake SB On-Ramp

Movement	EB	EB	EB
Directions Served	T	T	T
Maximum Queue (ft)	14	24	9
Average Queue (ft)	0	1	0
95th Queue (ft)	14	16	6
Link Distance (ft)	190	190	190
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 2106: SE Wake SB On-Ramp & SE Wake SB Ramps/SE Wake SB Off-Ramp

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Network Summary

Network wide Queuing Penalty: 8705

Appendix F – Signal Warrants Analysis

1) NC 55 Bypass at SR 1172 (Old Smithfield Road)
    a. 2016 Build
    b. 2040 Build
2) SR 2700 (White Oak Road) at SR 2555 (Raynor Road)
    a. 2016 Build
    b. 2040 Build

NC 55 Bypass at SR 1172 (Old Smithfield Road)

2016 Build

Warrants Summary

Information			
Analyst	SS	Intersection	2-NC 55 Byp at Old Smithfield
Agency/Co	HNTB North Carolina, PC	Jurisdiction	Apex, NC
Date Performed	03/10/2017	Units	U.S. Customary
Project ID	Complete 540 PA Analysis	Time Period Analyzed	2016 Build PA
East/West Street	(SR 1172) Old Smithfield Road	North/South Street	NC 55 Bypass
File Name	23_2016PA_Warrant	Major Street	North-South

Project Description *Complete 540 PA Analysis*

General				Roadway Network	
Major Street Speed (mph)	55	☐	Population < 10,000	Two Major Routes	☐
Nearest Signal (ft)	0	☐	Coordinated Signal System	Weekend Count	☐
Crashes (per year)	0	☐	Adequate Trials of Alternatives	5-yr Growth Factor	0

Geometry and Traffic	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of lanes, N	0	0	1	0	0	1	1	2	1	0	3	0
Lane usage			R			R	L	T	R		TR	
Vehicle Volume Averages (vph)	0	0	13	0	0	45	5	314	45	0	352	7
Peds (ped/h) / Gaps (gaps/h)	--	0 / 0	--	--	0 / 0	--	--	0 / 0	--	--	0 / 0	--
Delay (s/veh) / (veh-hr)	--	0 / 0	--	--	0 / 0	--	--	0 / 0	--	--	0 / 0	--

Warrant 1: Eight-Hour Vehicular Volume	☐
1 A. Minimum Vehicular Volumes (Both major approaches --and-- higher minor approach) --or--	☐
1 B. Interruption of Continuous Traffic (Both major approaches --and-- higher minor approach) --or--	☐
1 80% Vehicular --and-- Interruption Volumes (Both major approaches --and-- higher minor approach)	☐
Warrant 2: Four-Hour Vehicular Volume	☐
2 A. Four-Hour Vehicular Volumes (Both major approaches --and-- higher minor approach)	☐
Warrant 3: Peak Hour	☑
3 A. Peak-Hour Conditions (Minor delay --and-- minor volume --and-- total volume) --or--	☐
3 B. Peak- Hour Vehicular Volumes (Both major approaches --and-- higher minor approach)	☑
Warrant 4: Pedestrian Volume	☐
4 A. Four Hour Volumes --or--	☐
4 B. One-Hour Volumes	☐
Warrant 5: School Crossing	☐
5. Student Volumes --and--	☐
5. Gaps Same Period	☐
Warrant 6: Coordinated Signal System	☐
6. Degree of Platooning (Predominant direction or both directions)	☐
Warrant 7: Crash Experience	☐
7 A. Adequate trials of alternatives, observance and enforcement failed --and--	☐
7 B. Reported crashes susceptible to correction by signal (12-month period) --and--	☐

7 C. 80% Volumes for Warrants 1A, 1B --or-- 4 are satisfied	☐
Warrant 8: Roadway Network	☐
8 A. Weekday Volume (Peak hour total --and-- projected warrants 1, 2 or 3) --or--	☐
8 B. Weekend Volume (Five hours total)	☐
Warrant 9: Grade Crossing	☐
9 A. Grade Crossing within 140 ft --and--	☐
9 B. Peak-Hour Vehicular Volumes	☐

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2040 Build

Warrants Summary

Information			
Analyst	SS	Intersection	2-NC 55 Byp at Old Smithfield
Agency/Co	HNTB North Carolina, PC	Jurisdiction	Apex, NC
Date Performed	03/10/2017	Units	U.S. Customary
Project ID	Complete 540 PA Analysis	Time Period Analyzed	2040 Build PA
East/West Street	(SR 1172) Old Smithfield Road	North/South Street	NC 55 Bypass
File Name	23_2040PA_Warrant	Major Street	North-South

Project Description *Complete 540 PA Analysis*

General				Roadway Network	
Major Street Speed (mph)	55	☐	Population < 10,000	Two Major Routes	☐
Nearest Signal (ft)	0	☐	Coordinated Signal System	Weekend Count	☐
Crashes (per year)	0	☐	Adequate Trials of Alternatives	5-yr Growth Factor	0

Geometry and Traffic	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of lanes, N	0	0	1	0	0	1	1	3	1	0	4	0
Lane usage			R			R	L	T	R		TR	
Vehicle Volume Averages (vph)	0	0	23	0	0	86	10	576	86	0	651	12
Peds (ped/h) / Gaps (gaps/h)	--	0 / 0	--	--	0 / 0	--	--	0 / 0	--	--	0 / 0	--
Delay (s/veh) / (veh-hr)	--	0 / 0	--	--	0 / 0	--	--	0 / 0	--	--	0 / 0	--

Warrant 1: Eight-Hour Vehicular Volume	☐
1 A. Minimum Vehicular Volumes (Both major approaches --and-- higher minor approach) --or--	☐
1 B. Interruption of Continuous Traffic (Both major approaches --and-- higher minor approach) --or--	☐
1 80% Vehicular --and-- Interruption Volumes (Both major approaches --and-- higher minor approach)	☐
Warrant 2: Four-Hour Vehicular Volume	☐
2 A. Four-Hour Vehicular Volumes (Both major approaches --and-- higher minor approach)	☐
Warrant 3: Peak Hour	☑
3 A. Peak-Hour Conditions (Minor delay --and-- minor volume --and-- total volume) --or--	☐
3 B. Peak- Hour Vehicular Volumes (Both major approaches --and-- higher minor approach)	☑
Warrant 4: Pedestrian Volume	☐
4 A. Four Hour Volumes --or--	☐
4 B. One-Hour Volumes	☐
Warrant 5: School Crossing	☐
5. Student Volumes --and--	☐
5. Gaps Same Period	☐
Warrant 6: Coordinated Signal System	☐
6. Degree of Platooning (Predominant direction or both directions)	☐
Warrant 7: Crash Experience	☐
7 A. Adequate trials of alternatives, observance and enforcement failed --and--	☐
7 B. Reported crashes susceptible to correction by signal (12-month period) --and--	☐

7 C. 80% Volumes for Warrants 1A, 1B --or-- 4 are satisfied	☐
Warrant 8: Roadway Network	☐
8 A. Weekday Volume (Peak hour total --and-- projected warrants 1, 2 or 3) --or--	☐
8 B. Weekend Volume (Five hours total)	☐
Warrant 9: Grade Crossing	☐
9 A. Grade Crossing within 140 ft --and--	☐
9 B. Peak-Hour Vehicular Volumes	☐

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SR 2700 (White Oak Road) at SR 2555 (Raynor Road)

2016 Build

Warrants Summary

Information			
Analyst	SS	Intersection	23-White Oak Rd & Raynor Rd
Agency/Co	HNTB North Carolina, PC	Jurisdiction	Garner, NC
Date Performed	02/22/16	Units	U.S. Customary
Project ID	Complete 540 PA Analysis	Time Period Analyzed	2016 Build PA
East/West Street	(SR 2700) White Oak Road	North/South Street	(SR 2555) Raynor Road
File Name	82_2016PA_Warrant	Major Street	East-West

Project Description *Complete 540 PA Analysis*

General				Roadway Network	
Major Street Speed (mph)	45	☐	Population < 10,000	Two Major Routes	☐
Nearest Signal (ft)	0	☐	Coordinated Signal System	Weekend Count	☐
Crashes (per year)	0	☐	Adequate Trials of Alternatives	5-yr Growth Factor	0

Geometry and Traffic	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of lanes, N	1	2	0	1	2	0	0	1	0	0	1	0
Lane usage	L	TR		L	TR			LTR			LTR	
Vehicle Volume Averages (vph)	6	104	1	2	104	14	1	1	2	14	1	6
Peds (ped/h) / Gaps (gaps/h)	--	0 / 0	--	--	0 / 0	--	--	0 / 0	--	--	0 / 0	--
Delay (s/veh) / (veh-hr)	--	0 / 0	--	--	0 / 0	--	--	0 / 0	--	--	0 / 0	--

Warrant 1: Eight-Hour Vehicular Volume	☐
1 A. Minimum Vehicular Volumes (Both major approaches --and-- higher minor approach) --or--	☐
1 B. Interruption of Continuous Traffic (Both major approaches --and-- higher minor approach) --or--	☐
1 80% Vehicular --and-- Interruption Volumes (Both major approaches --and-- higher minor approach)	☐
Warrant 2: Four-Hour Vehicular Volume	☐
2 A. Four-Hour Vehicular Volumes (Both major approaches --and-- higher minor approach)	☐
Warrant 3: Peak Hour	☑
3 A. Peak-Hour Conditions (Minor delay --and-- minor volume --and-- total volume) --or--	☐
3 B. Peak- Hour Vehicular Volumes (Both major approaches --and-- higher minor approach)	☑
Warrant 4: Pedestrian Volume	☐
4 A. Four Hour Volumes --or--	☐
4 B. One-Hour Volumes	☐
Warrant 5: School Crossing	☐
5. Student Volumes --and--	☐
5. Gaps Same Period	☐
Warrant 6: Coordinated Signal System	☐
6. Degree of Platooning (Predominant direction or both directions)	☐
Warrant 7: Crash Experience	☐
7 A. Adequate trials of alternatives, observance and enforcement failed --and--	☐
7 B. Reported crashes susceptible to correction by signal (12-month period) --and--	☐

7 C. 80% Volumes for Warrants 1A, 1B --or-- 4 are satisfied	☐
Warrant 8: Roadway Network	☐
8 A. Weekday Volume (Peak hour total --and-- projected warrants 1, 2 or 3) --or--	☐
8 B. Weekend Volume (Five hours total)	☐
Warrant 9: Grade Crossing	☐
9 A. Grade Crossing within 140 ft --and--	☐
9 B. Peak-Hour Vehicular Volumes	☐

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2040 Build

Warrants Summary

Information

Analyst	SS	Intersection	23-White Oak Rd & Raynor Rd
Agency/Co	HNTB North Carolina, PC	Jurisdiction	Garner, NC
Date Performed	02/22/16	Units	U.S. Customary
Project ID	Complete 540 PA Analysis	Time Period Analyzed	2040 Build PA
East/West Street	(SR 2700) White Oak Road	North/South Street	(SR 2555) Raynor Road
File Name	82_2040PA_Warrant	Major Street	East-West

Project Description *Complete 540 PA Analysis*

General				Roadway Network	
Major Street Speed (mph)	45	☐	Population < 10,000	Two Major Routes	☐
Nearest Signal (ft)	0	☐	Coordinated Signal System	Weekend Count	☐
Crashes (per year)	0	☐	Adequate Trials of Alternatives	5-yr Growth Factor	0

Geometry and Traffic	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of lanes, N	1	2	0	1	2	0	0	1	0	0	1	0
Lane usage	L	TR		L	TR			LTR			LTR	
Vehicle Volume Averages (vph)	9	144	1	2	144	32	1	1	2	32	1	9
Peds (ped/h) / Gaps (gaps/h)	--	0 / 0	--	--	0 / 0	--	--	0 / 0	--	--	0 / 0	--
Delay (s/veh) / (veh-hr)	--	0 / 0	--	--	0 / 0	--	--	0 / 0	--	--	0 / 0	--

Warrant 1: Eight-Hour Vehicular Volume	☐
1 A. Minimum Vehicular Volumes (Both major approaches --and-- higher minor approach) --or--	☐
1 B. Interruption of Continuous Traffic (Both major approaches --and-- higher minor approach) --or--	☐
1 80% Vehicular --and-- Interruption Volumes (Both major approaches --and-- higher minor approach)	☐
Warrant 2: Four-Hour Vehicular Volume	☐
2 A. Four-Hour Vehicular Volumes (Both major approaches --and-- higher minor approach)	☐
Warrant 3: Peak Hour	☑
3 A. Peak-Hour Conditions (Minor delay --and-- minor volume --and-- total volume) --or--	☐
3 B. Peak- Hour Vehicular Volumes (Both major approaches --and-- higher minor approach)	☑
Warrant 4: Pedestrian Volume	☐
4 A. Four Hour Volumes --or--	☐
4 B. One-Hour Volumes	☐
Warrant 5: School Crossing	☐
5. Student Volumes --and--	☐
5. Gaps Same Period	☐
Warrant 6: Coordinated Signal System	☐
6. Degree of Platooning (Predominant direction or both directions)	☐
Warrant 7: Crash Experience	☐
7 A. Adequate trials of alternatives, observance and enforcement failed --and--	☐
7 B. Reported crashes susceptible to correction by signal (12-month period) --and--	☐

7 C. 80% Volumes for Warrants 1A, 1B --or-- 4 are satisfied	☐
Warrant 8: Roadway Network	☐
8 A. Weekday Volume (Peak hour total --and-- projected warrants 1, 2 or 3) --or--	☐
8 B. Weekend Volume (Five hours total)	☐
Warrant 9: Grade Crossing	☐
9 A. Grade Crossing within 140 ft --and--	☐
9 B. Peak-Hour Vehicular Volumes	☐

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