



Preliminary – Do Not Use for Construction

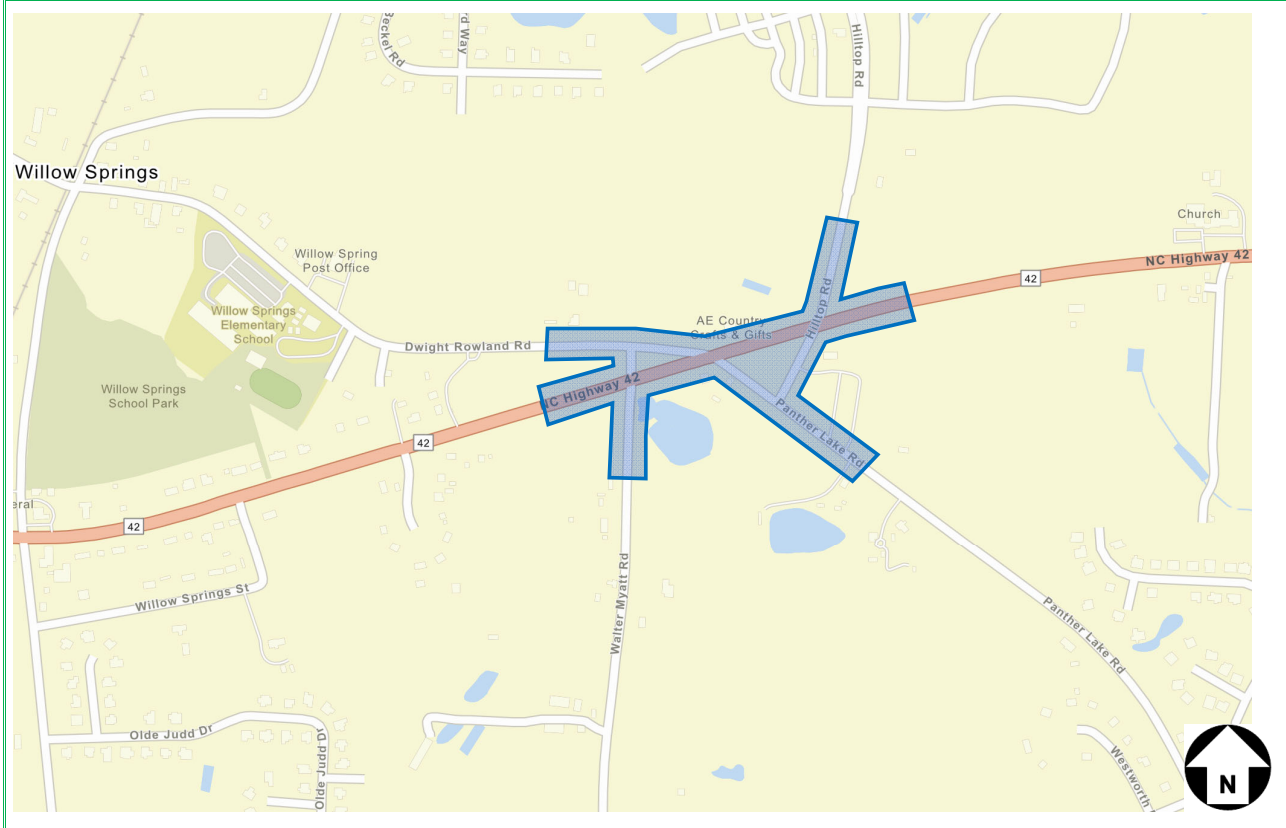


SPOT Travel Time Savings Report

NC 42 at Hilltop Rd

21 - Realign Multiple Intersections

STIP No. -- SPOT ID: H250709 WBS No. 34263.1.1 Wake DIVISION: 5
 3/13/2026 Patriot Transportation Engineering, PLLC



ID	Road Name	External	2025 AADT	2035 AADT	ID	Road Name	External	2025 AADT	2035 AADT
01N	Walter Myatt Rd (SR 2756)	No	600	800					
01E	NC 42	No	14,500	18,900					
01S	Walter Myatt Rd (SR 2756)	Yes	1,700	2,100					
01W	NC 42	Yes	9,900	11,300					
02N	Dwight Rowland Rd (SR 2753)	No	1,100	1,400					
02E	NC 42	No	15,000	19,600					
02S	Panther Lake Rd (SR 2748)	No	2,100	2,600					
02W	NC 42	No	14,500	18,900					
03N	Hilltop Rd (SR 2751)	Yes	5,500	6,900					
03E	NC 42	Yes	14,000	18,300					
03S	Hilltop Rd (SR 2751)	No	2,900	3,600					
03W	NC 42	No	15,000	19,600					
04E	Dwight Roland Rd (SR 2753)	No	1,100	1,400					
04S	Walter Myatt Rd (SR 2756)	No	600	800					
04W	Dwight Roland Rd (SR 2753)	Yes	1,800	2,300					
05N	Hilltop Rd (SR 2751)	No	2,900	3,600					
05E	Panther Lake Rd (SR 2748)	Yes	4,700	5,900					
05W	Panther Lake Rd (SR 2748)	No	2,100	2,600					

2025 AM Peak Travel Time Saving	-3
2025 PM Peak Travel Time Saving	-2
2025 Total Daily Vehicles	18,800
2025 Daily Travel Time Savings	-9.9
2035 AM Peak Travel Time Saving	6
2035 PM Peak Travel Time Saving	15
2035 Total Daily Vehicles	23,400
2035 Daily Travel Time Savings	48.7
Days per Year	260
Travel Time Savings Duration	10 Years

Existing Congestion Level		Non-Congested	
Daily Savings Conversion Factor		2.25	
10-year Travel Time Savings			
50,000 hours			
Travel Time Savings Per Vehicle			
2025	-2 sec/veh	2035	7 sec/veh

Description of Proposed Design

Extend Hilltop Rd to Walter Myatt Rd and close Panther Lake Rd/Dwight Rowland Rd and Walter Myatt Rd intersections on NC 42.



Figure 1

Existing Conditions

SHEET 2 OF 3

LEGEND

TIP:	--	WBS:	34263.1.1
COUNTY:	Wake	DIVISION:	5
DATE:	March 13, 2026		
PREPARED BY:	Patriot Transportation Engineering, PLLC		
LOCATION:	NC 42 at Hilltop Rd		
PROJECT:	21 - Realign Multiple Intersections		



Extend Hilltop Rd to Walter Myatt Rd, close Panther Lake Rd/Dwight Rowland Rd and Walter Myatt Rd intersections on NC 42

Figure 2

Proposed Design

SHEET 3 OF 3

LEGEND



TIP:	--	WBS:	34263.1.1
COUNTY:	Wake	DIVISION:	5
DATE:	March 13, 2026		
PREPARED BY:	Patriot Transportation Engineering, PLLC		
LOCATION:	NC 42 at Hilltop Rd		
PROJECT:	21 - Realign Multiple Intersections		



SPOT Volume Report



NC 42 at Hilltop Rd 21 - Realign Multiple Intersections

STIP No. -- SPOT ID: H250709 WBS No. 34263.1.1
Wake DIVISION: 5



PROJECT STUDY AREA

PREPARED BY: Patriot Transportation Engineering, PLLC
3/12/2026

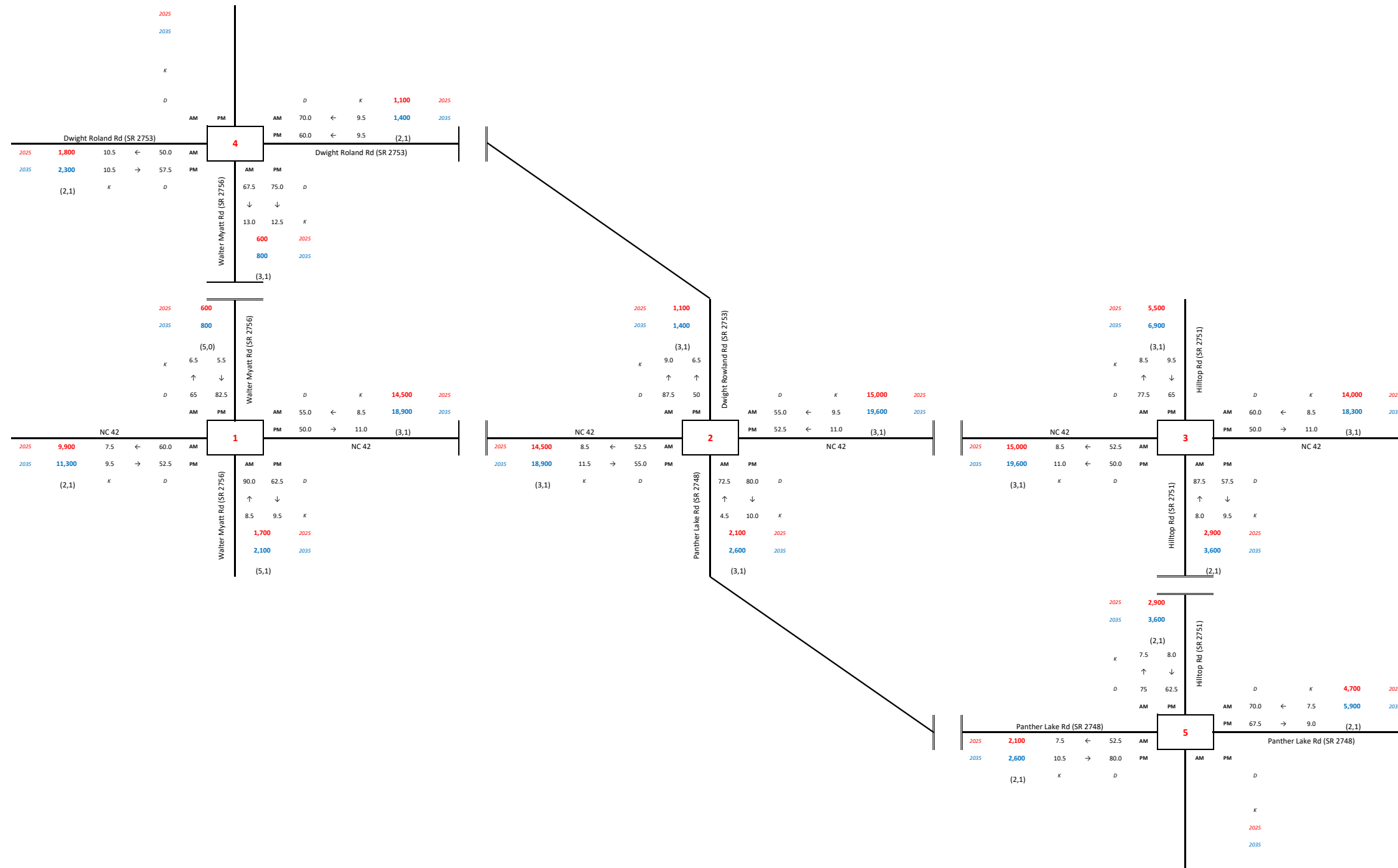


Committed Projects in Study Area

STIP Project and Description: NCDOT STIP 2026-2035	N/A
---	-----

Int. ID	Count ID	Count Date	Intersection	AADT Source	2023 NCDOT AADT Web Map	Version
1	19154	10/14/2025	NC 42 @ Walter Myatt Rd (SR 2756)			
2	19155	10/21/2025	I2 @ Dwight Rowland Rd (SR 2753)/Panther Lake Rd (SR 2751)		<u>Model</u>	
3	19156	10/14/2025	NC 42 @ Hilltop Rd (SR 2751)		North Carolina Statewide Model (NCSTM)	Gen 4.5
4	19157	10/14/2025	Dwight Roland Rd (SR 2753) @ Walter Myatt Rd (SR 2756)	Travel Demand Model Utilized		
5	19158	10/14/2025	Panther Lake Rd (SR 2748) @ Hilltop Rd (SR 2751)			

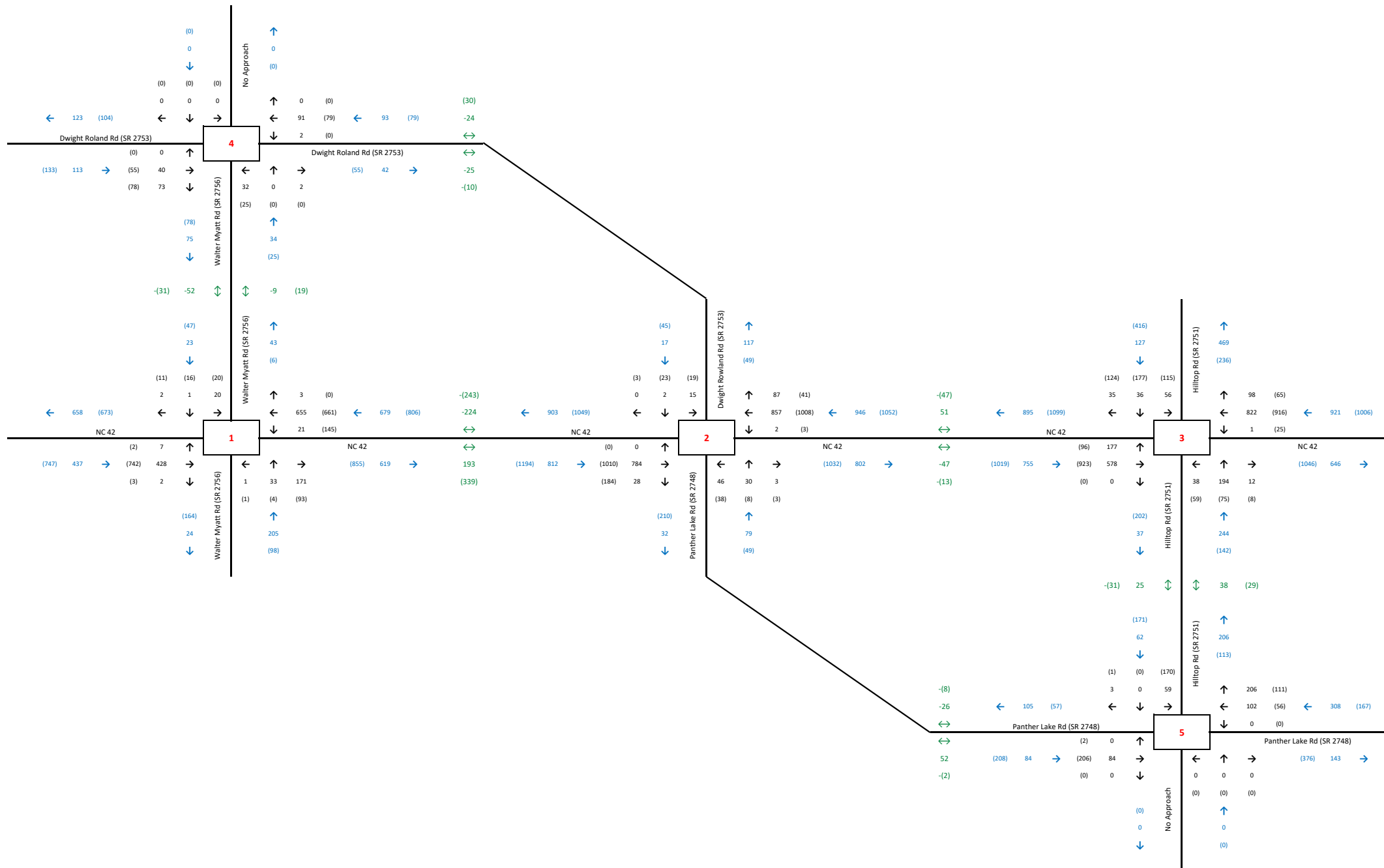
BASE YEAR	2025
FUTURE YEAR	2035
REPORT STATUS	Final
CORRIDOR PROJECT	No



2025/2035	SPOT Traffic Volumes	SHEET 1 OF 1
	<p>LEGEND</p> <ul style="list-style-type: none"> ## Intersection Number K Design Hour Factor D Directional Distribution (Dual, TTST) Heavy Vehicle Percentage (Dual, TTST) 2025 Base Year AADT Volume 2035 Future Year AADT Volume 	
<p>TIP: --</p> <p>COUNTY: Wake</p> <p>DATE: March 12, 2026</p> <p>PREPARED BY: Patriot Transportation Engineering, PLLC</p> <p>LOCATION: NC 42 at Hilltop Rd</p> <p>PROJECT: 21 - Realign Multiple Intersections</p>		<p>WBS: 34263.1.1</p> <p>DIVISION: 5</p>

Prioritization Status: P8.0

TURNING MOVEMENT VOLUMES (SPOT)



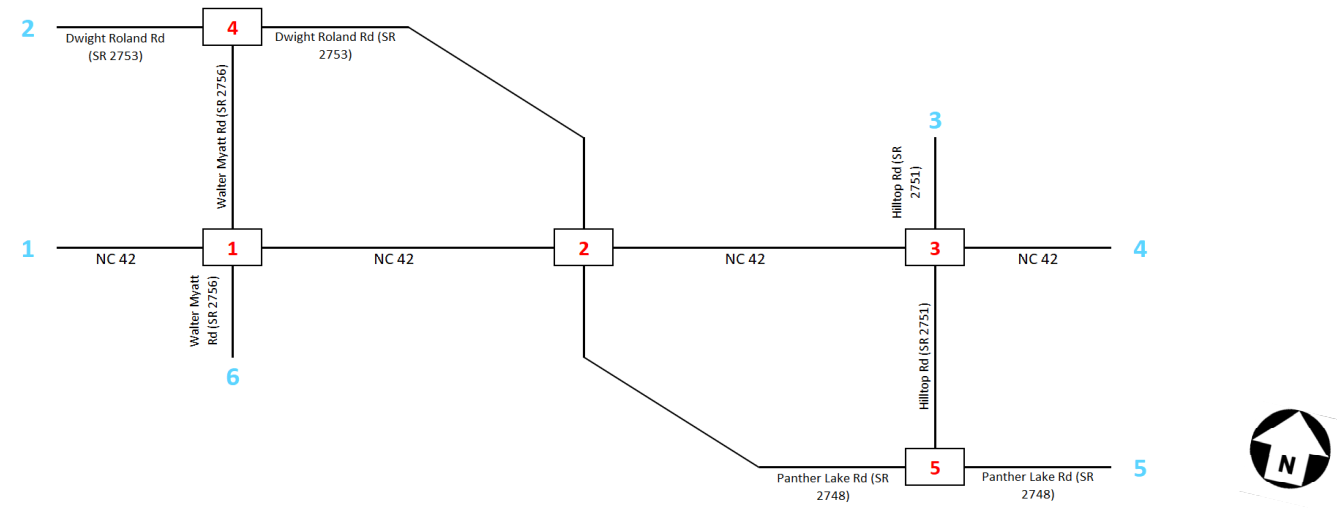
Prioritization Status: P8.0

UNBALANCED

2035	Future Year Build	SHEET 1 OF 1
LEGEND		TIP: --
<div style="border: 1px solid black; padding: 2px; display: inline-block;">##</div> Intersection Number AM (PM) Peak Hour Intersection Volume AM (PM) Peak Hour Approach Volume AM (PM) Peak Hour Volume Balancing		WBS: 34263.1.1
		COUNTY: Wake
		DIVISION: 5
		DATE: March 12, 2026
		PREPARED BY: Patriot Transportation Engineering, PLLC
		LOCATION: NC 42 at Hilltop Rd
		PROJECT: 21 - Realign Multiple Intersections



ORIGIN-DESTINATION MATRICES (SPOT)

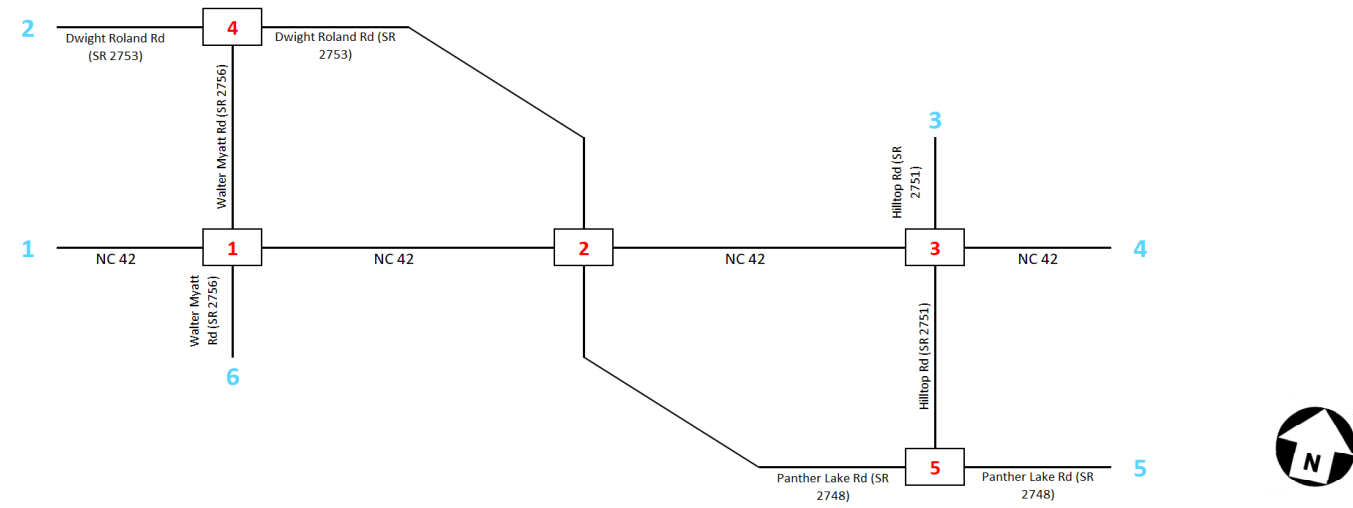


AM	1	2	3	4	5	6	TOTAL
1	0	0	3	254	31	0	288
2	2	0	0	63	22	4	91
3	2	0	0	67	32	1	102
4	412	53	197	0	22	9	693
5	41	30	134	34	0	0	239
6	2	14	38	72	1	0	127
Total	459	97	372	490	108	14	1540

PM	1	2	3	4	5	6	TOTAL
1	0	1	2	419	64	3	489
2	1	0	0	63	33	10	107
3	2	1	0	210	114	10	337
4	419	63	123	0	78	78	761
5	30	14	51	40	0	1	136
6	1	3	9	47	1	0	61
Total	453	82	185	779	290	102	1891

<i>Prioritization Status:</i>		P8.0
2025	Base Year (Existing)	
TIP:	--	34263.1.1
COUNTY:	Wake	DIVISION: 5
DATE:	March 12, 2026	
PREPARED BY:	Patriot Transportation Engineering, PLLC	
LOCATION:	NC 42 at Hilltop Rd	
PROJECT:	21 - Realign Multiple Intersections	

ORIGIN-DESTINATION MATRICES (SPOT)

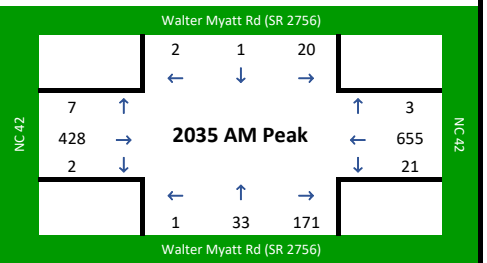
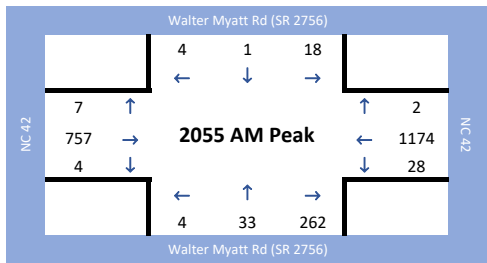
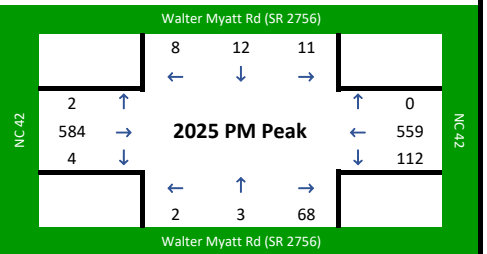
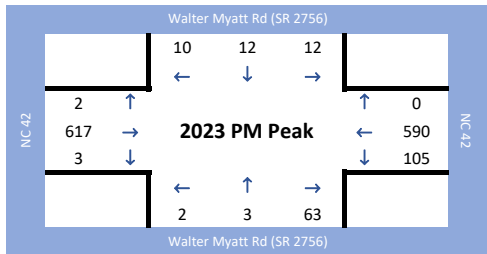
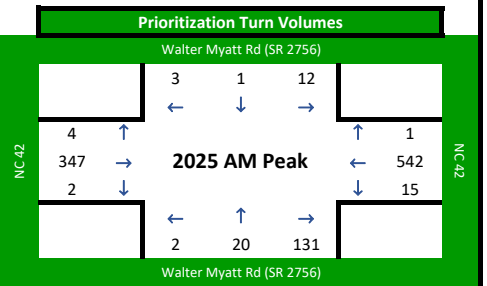
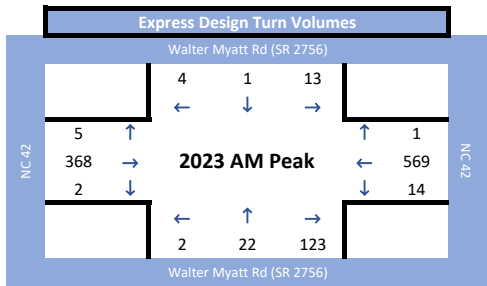
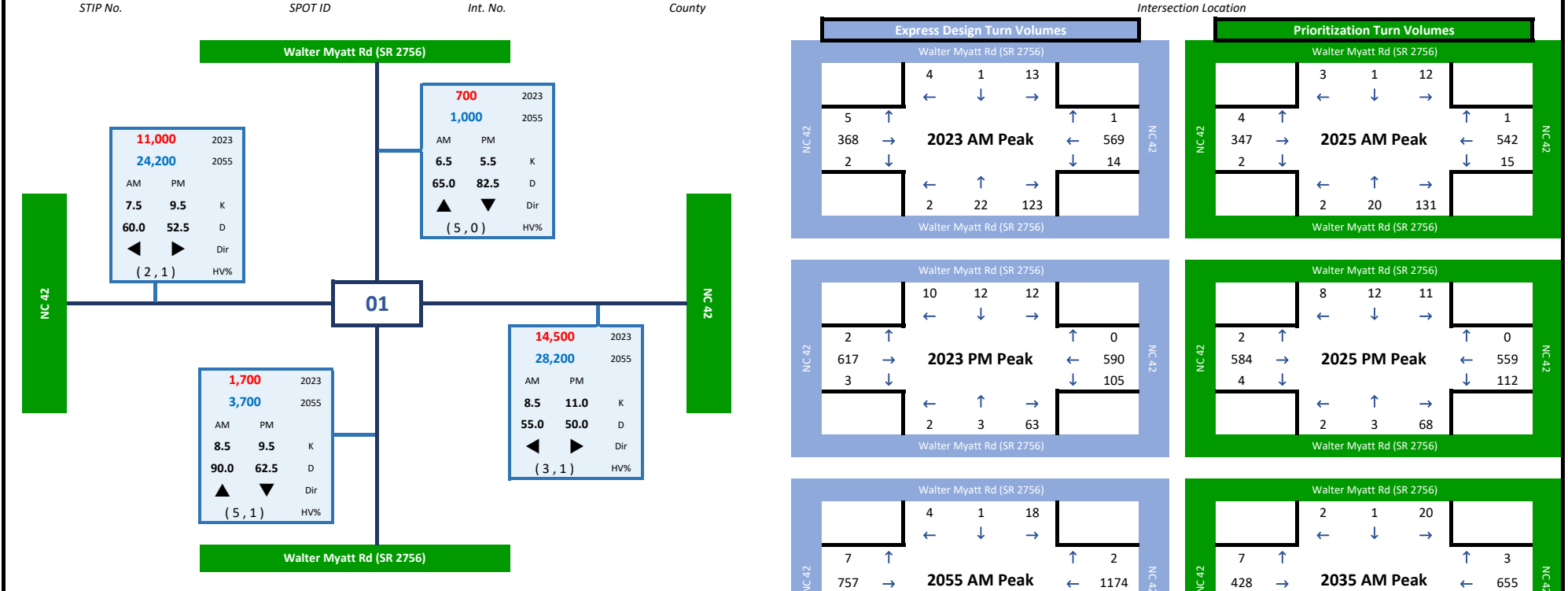


AM	1	2	3	4	5	6	TOTAL
1	0	0	2	295	30	0	327
2	1	0	0	86	25	4	116
3	1	0	0	89	36	1	127
4	484	77	280	0	45	14	900
5	40	36	156	67	0	0	299
6	1	13	33	107	1	0	155
Total	527	126	471	644	137	19	1924

PM	1	2	3	4	5	6	TOTAL
1	0	1	1	496	58	2	558
2	1	0	0	92	37	8	138
3	1	1	0	291	120	8	421
4	487	86	170	0	146	107	996
5	27	15	54	75	0	1	172
6	1	2	7	63	1	0	74
Total	517	105	232	1017	362	126	2359

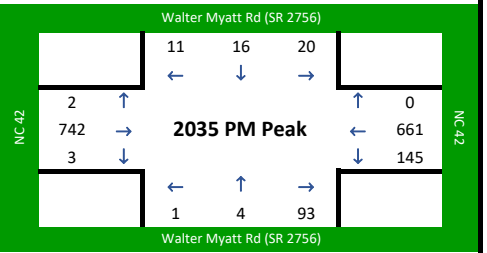
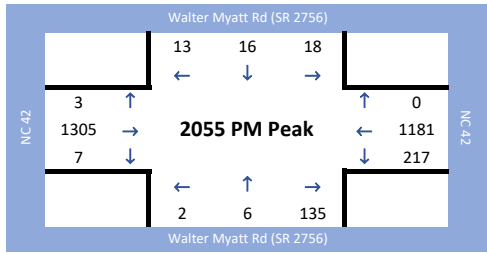
<i>Prioritization Status:</i> 2035		<i>P8.0</i> Future Year Build	
TIP:	--	34263.1.1	
COUNTY:	Wake	DIVISION: 5	
DATE:	March 12, 2026		
PREPARED BY:	Patriot Transportation Engineering, PLLC		
LOCATION:	NC 42 at Hilltop Rd		
PROJECT:	21 - Realign Multiple Intersections		

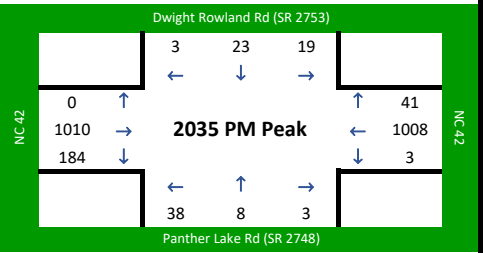
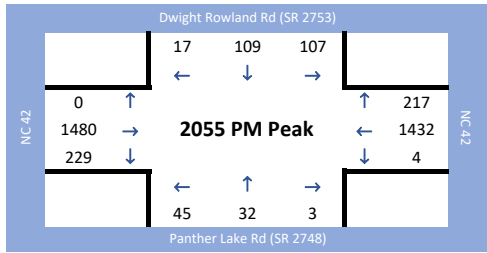
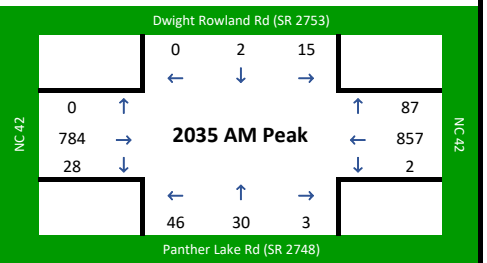
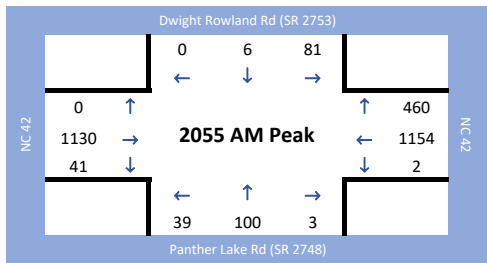
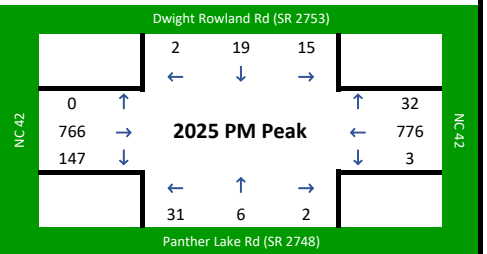
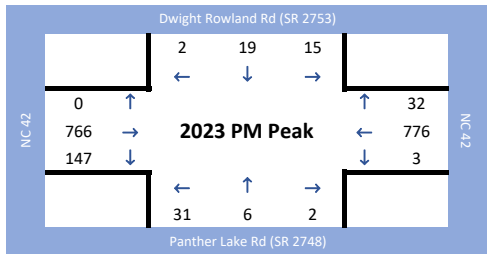
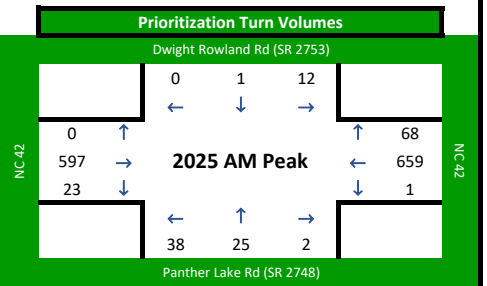
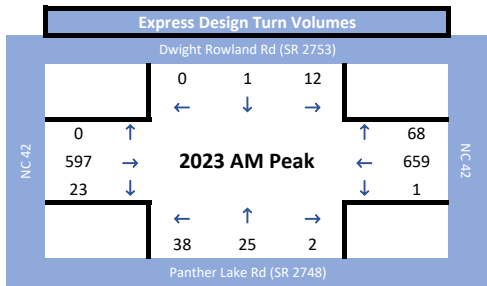
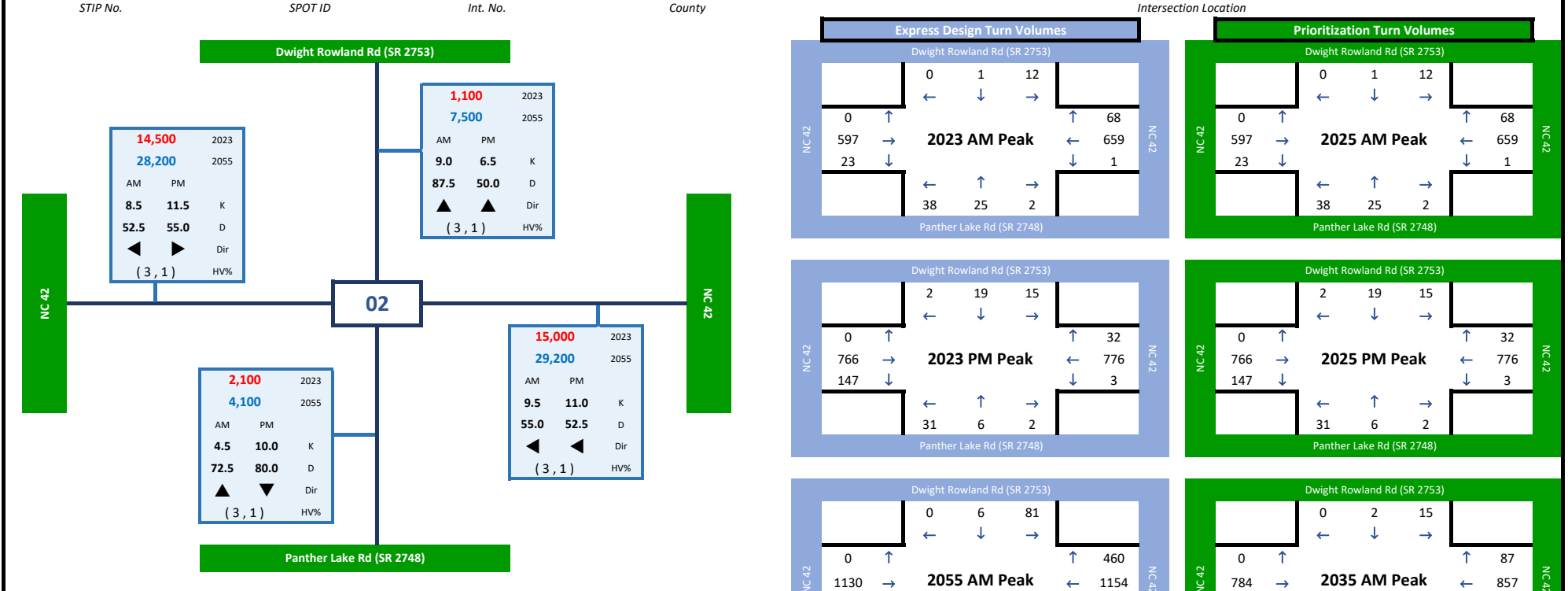
--	H250709	01	Wake	NC 42 @ Walter Myatt Rd (SR 2756)
----	----------------	-----------	-------------	--



Approach	Road Name	Route Type	No. of Lanes	Facility Type	Functional Class	Capacity	2023 V/C Ratio
North	Walter Myatt Rd (SR 2756)	SR	2	Arterial	Local	15,051	0.05
East	NC 42	NC	2	Arterial	Arterial	15,051	0.96
South	Walter Myatt Rd (SR 2756)	SR	2	Arterial	Local	15,051	0.11
West	NC 42	NC	2	Arterial	Arterial	15,051	0.73

Approach	Road Name	Express Design Traffic Volumes			Prioritization Traffic Volumes		
		2023 AADT	2023-2055 CAGR	2055 AADT	2025 AADT	2025-2035 CAGR	2035 AADT
North	Walter Myatt Rd (SR 2756)	700	1.0%	1,000	600	2.3%	800
East	NC 42	14,500	2.1%	28,200	14,500	2.7%	18,900
South	Walter Myatt Rd (SR 2756)	1,700	2.5%	3,700	1,700	2.3%	2,100
West	NC 42	11,000	2.5%	24,200	9,900	1.4%	11,300

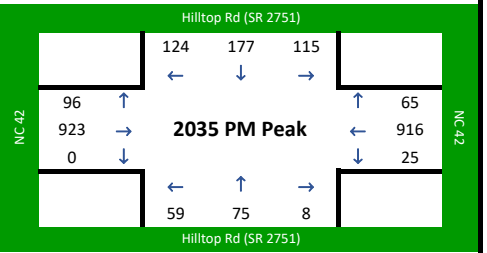
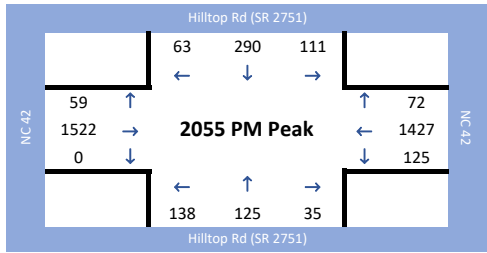
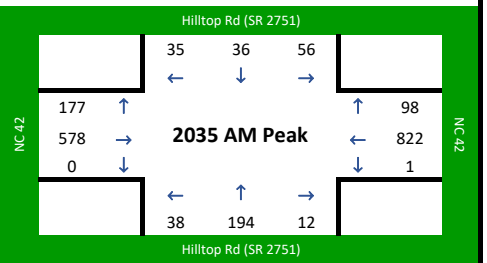
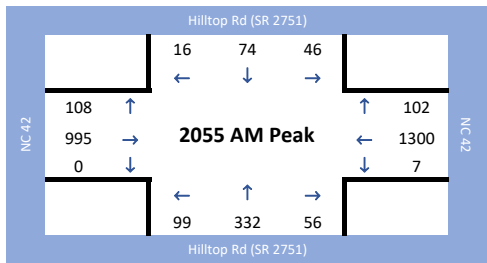
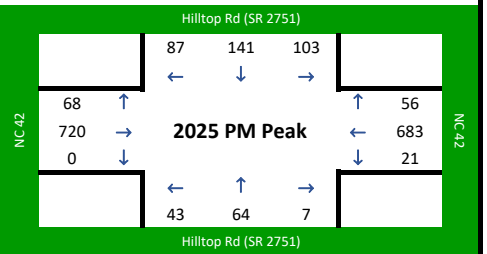
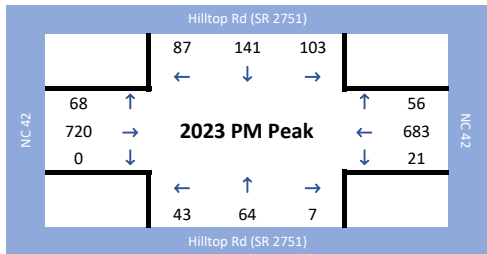
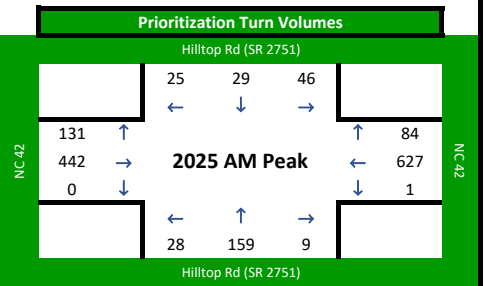
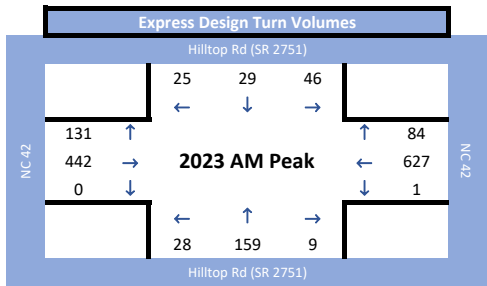
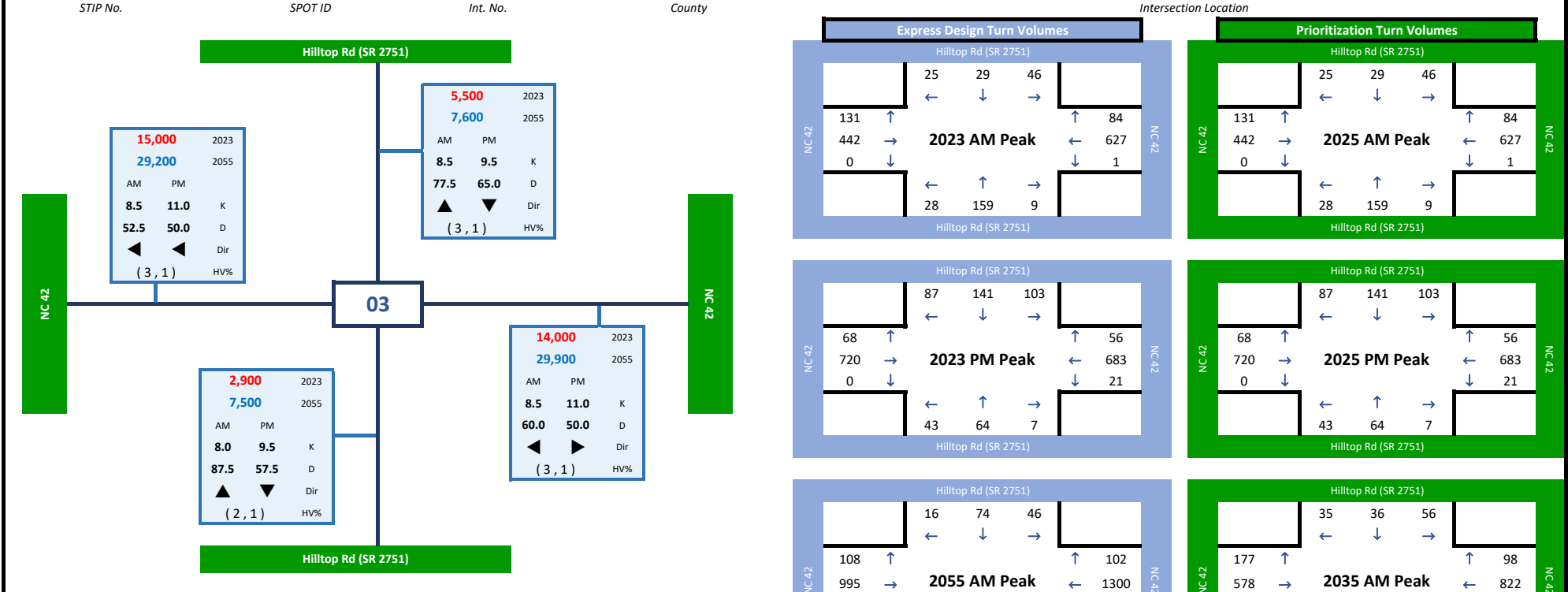




Approach	Road Name	Route Type	No. of Lanes	Facility Type	Functional Class	Capacity	2023 V/C Ratio
North	Dwight Rowland Rd (SR 2753)	SR	2	Arterial	Local	15,051	0.07
East	NC 42	NC	2	Arterial	Arterial	15,051	1.00
South	Panther Lake Rd (SR 2748)	SR	2	Arterial	Local	15,051	0.14
West	NC 42	NC	2	Arterial	Arterial	15,051	0.96

Approach	Road Name	Express Design Traffic Volumes			Prioritization Traffic Volumes		
		2023 AADT	2023-2055 CAGR	2055 AADT	2025 AADT	2025-2035 CAGR	2035 AADT
North	Dwight Rowland Rd (SR 2753)	1,100	6.2%	7,500	1,100	2.3%	1,400
East	NC 42	15,000	2.1%	29,200	15,000	2.7%	19,600
South	Panther Lake Rd (SR 2748)	2,100	2.1%	4,100	2,100	2.3%	2,600
West	NC 42	14,500	2.1%	28,200	14,500	2.7%	18,900

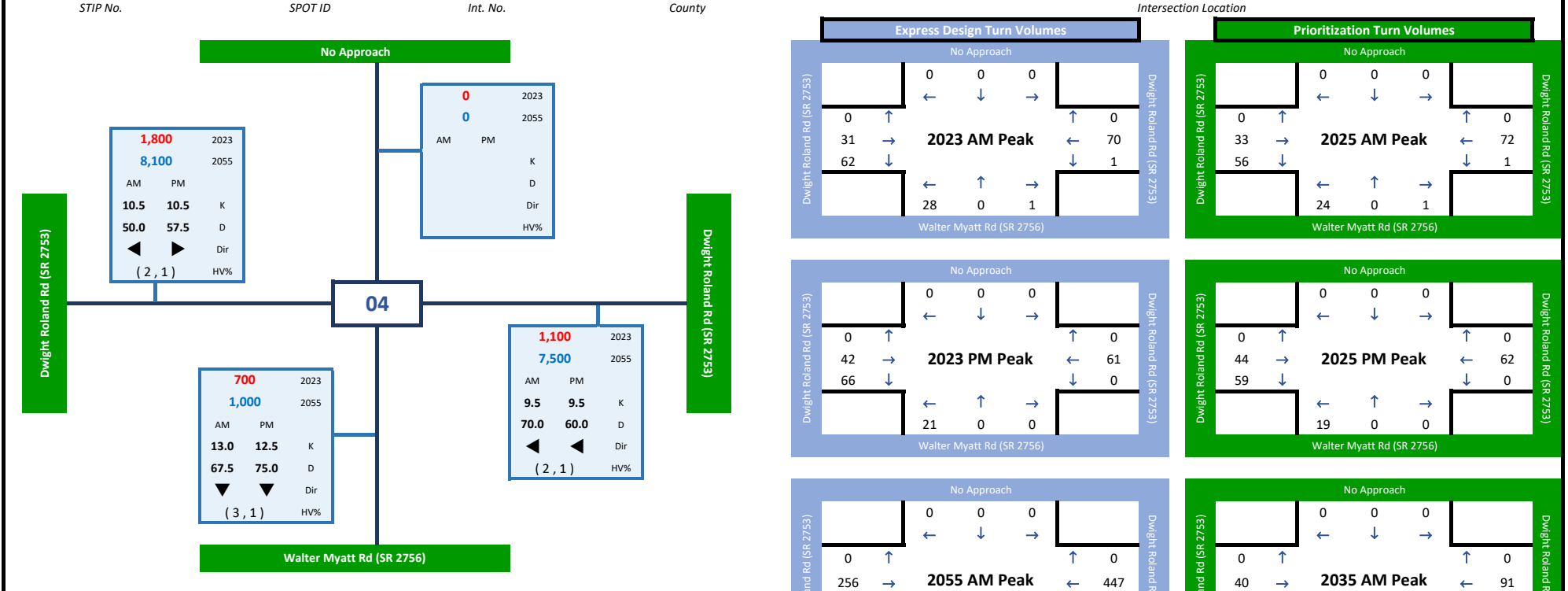
--	H250709	03	Wake	NC 42 @ Hilltop Rd (SR 2751)
----	----------------	-----------	-------------	-------------------------------------



Approach	Road Name	Route Type	No. of Lanes	Facility Type	Functional Class	Capacity	2023 V/C Ratio
North	Hilltop Rd (SR 2751)	SR	2	Arterial	Collector	15,051	0.37
East	NC 42	NC	2	Arterial	Arterial	15,051	0.93
South	Hilltop Rd (SR 2751)	SR	2	Arterial	Local	15,051	0.19
West	NC 42	NC	2	Arterial	Arterial	15,051	1.00

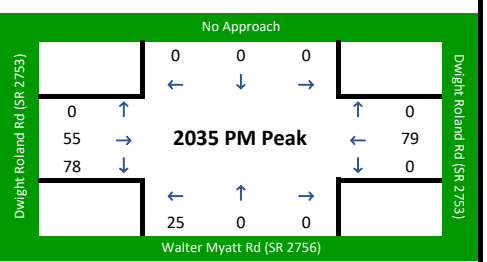
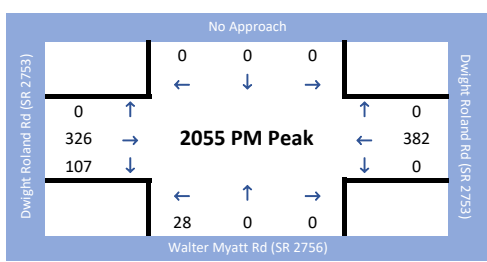
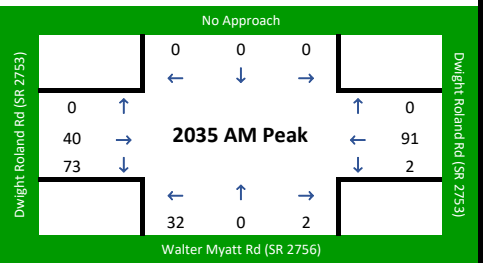
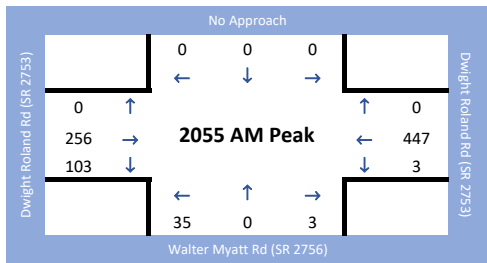
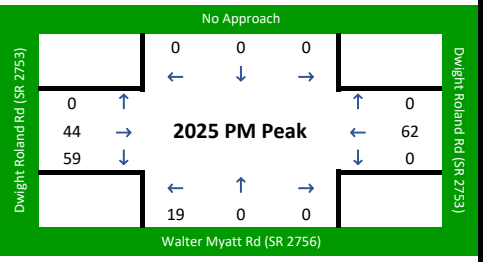
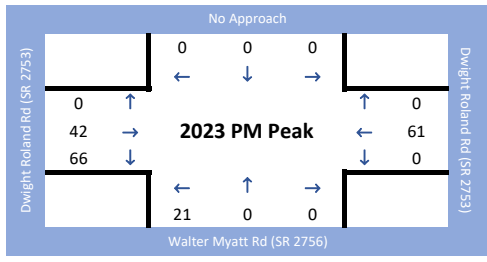
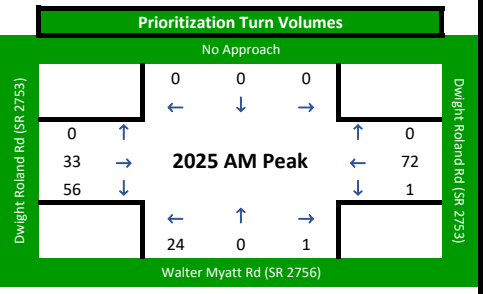
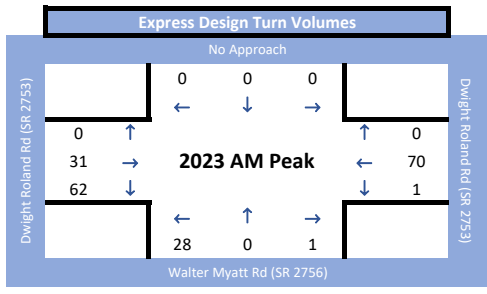
Approach	Road Name	Express Design Traffic Volumes			Prioritization Traffic Volumes		
		2023 AADT	2023-2055 CAGR	2055 AADT	2025 AADT	2025-2035 CAGR	2035 AADT
North	Hilltop Rd (SR 2751)	5,500	1.0%	7,600	5,500	2.3%	6,900
East	NC 42	14,000	2.4%	29,900	14,000	2.7%	18,300
South	Hilltop Rd (SR 2751)	2,900	3.0%	7,500	2,900	2.3%	3,600
West	NC 42	15,000	2.1%	29,200	15,000	2.7%	19,600

--	H250709	04	Wake	Dwight Roland Rd (SR 2753) @ Walter Myatt Rd (SR 2756)
----	---------	----	------	--



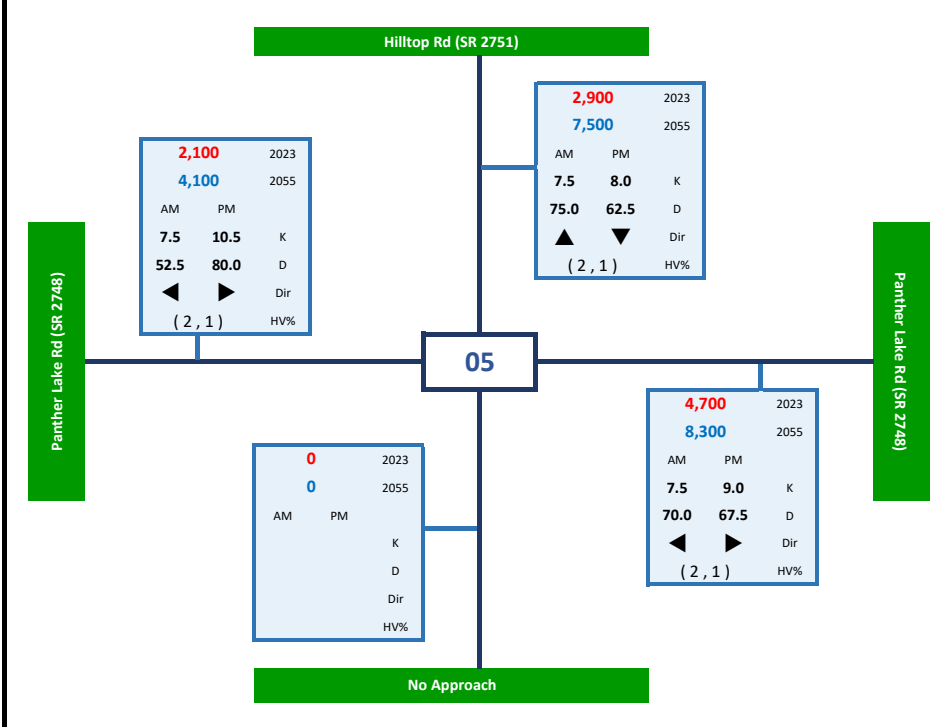
Approach	Road Name	Route Type	No. of Lanes	Facility Type	Functional Class	Capacity	2023 V/C Ratio
North	No Approach		0	0	0	#N/A	#N/A
East	Dwight Roland Rd (SR 2753)	SR	2	Arterial	Local	15,051	0.07
South	Walter Myatt Rd (SR 2756)	SR	2	Arterial	Local	15,051	0.05
West	Dwight Roland Rd (SR 2753)	SR	2	Arterial	Local	15,051	0.12

Approach	Road Name	Express Design Traffic Volumes			Prioritization Traffic Volumes		
		2023 AADT	2023-2055 CAGR	2055 AADT	2025 AADT	2025-2035 CAGR	2035 AADT
North	No Approach	0	0.0%	0	0	0.0%	0
East	Dwight Roland Rd (SR 2753)	1,100	6.2%	7,500	1,100	2.3%	1,400
South	Walter Myatt Rd (SR 2756)	700	1.0%	1,000	600	2.3%	800
West	Dwight Roland Rd (SR 2753)	1,800	4.8%	8,100	1,800	2.3%	2,300



--	H250709	05	Wake	Panther Lake Rd (SR 2748) @ Hilltop Rd (SR 2751)
----	----------------	-----------	-------------	---

STIP No. SPOT ID Int. No. County Intersection Location



Express Design Turn Volumes																						
Hilltop Rd (SR 2751)																						
Panther Lake Rd (SR 2748)	<table border="1"> <tr><td>1</td><td>0</td><td>48</td></tr> <tr><td>←</td><td>↓</td><td>→</td></tr> <tr><td>0</td><td>↑</td><td>164</td></tr> <tr><td>68</td><td>→</td><td>← 82</td></tr> <tr><td>0</td><td>↓</td><td>↓ 0</td></tr> <tr><td>←</td><td>↑</td><td>→</td></tr> <tr><td>0</td><td>0</td><td>0</td></tr> </table>	1	0	48	←	↓	→	0	↑	164	68	→	← 82	0	↓	↓ 0	←	↑	→	0	0	0
1	0	48																				
←	↓	→																				
0	↑	164																				
68	→	← 82																				
0	↓	↓ 0																				
←	↑	→																				
0	0	0																				
No Approach																						

Prioritization Turn Volumes																						
Hilltop Rd (SR 2751)																						
Panther Lake Rd (SR 2748)	<table border="1"> <tr><td>1</td><td>0</td><td>48</td></tr> <tr><td>←</td><td>↓</td><td>→</td></tr> <tr><td>0</td><td>↑</td><td>164</td></tr> <tr><td>68</td><td>→</td><td>← 82</td></tr> <tr><td>0</td><td>↓</td><td>↓ 0</td></tr> <tr><td>←</td><td>↑</td><td>→</td></tr> <tr><td>0</td><td>0</td><td>0</td></tr> </table>	1	0	48	←	↓	→	0	↑	164	68	→	← 82	0	↓	↓ 0	←	↑	→	0	0	0
1	0	48																				
←	↓	→																				
0	↑	164																				
68	→	← 82																				
0	↓	↓ 0																				
←	↑	→																				
0	0	0																				
No Approach																						

Express Design Turn Volumes																						
Hilltop Rd (SR 2751)																						
Panther Lake Rd (SR 2748)	<table border="1"> <tr><td>1</td><td>0</td><td>136</td></tr> <tr><td>←</td><td>↓</td><td>→</td></tr> <tr><td>1</td><td>↑</td><td>89</td></tr> <tr><td>166</td><td>→</td><td>← 44</td></tr> <tr><td>0</td><td>↓</td><td>↓ 0</td></tr> <tr><td>←</td><td>↑</td><td>→</td></tr> <tr><td>0</td><td>0</td><td>0</td></tr> </table>	1	0	136	←	↓	→	1	↑	89	166	→	← 44	0	↓	↓ 0	←	↑	→	0	0	0
1	0	136																				
←	↓	→																				
1	↑	89																				
166	→	← 44																				
0	↓	↓ 0																				
←	↑	→																				
0	0	0																				
No Approach																						

Prioritization Turn Volumes																						
Hilltop Rd (SR 2751)																						
Panther Lake Rd (SR 2748)	<table border="1"> <tr><td>1</td><td>0</td><td>136</td></tr> <tr><td>←</td><td>↓</td><td>→</td></tr> <tr><td>1</td><td>↑</td><td>89</td></tr> <tr><td>166</td><td>→</td><td>← 44</td></tr> <tr><td>0</td><td>↓</td><td>↓ 0</td></tr> <tr><td>←</td><td>↑</td><td>→</td></tr> <tr><td>0</td><td>0</td><td>0</td></tr> </table>	1	0	136	←	↓	→	1	↑	89	166	→	← 44	0	↓	↓ 0	←	↑	→	0	0	0
1	0	136																				
←	↓	→																				
1	↑	89																				
166	→	← 44																				
0	↓	↓ 0																				
←	↑	→																				
0	0	0																				
No Approach																						

Express Design Turn Volumes																						
Hilltop Rd (SR 2751)																						
Panther Lake Rd (SR 2748)	<table border="1"> <tr><td>22</td><td>0</td><td>95</td></tr> <tr><td>←</td><td>↓</td><td>→</td></tr> <tr><td>0</td><td>↑</td><td>387</td></tr> <tr><td>110</td><td>→</td><td>← 133</td></tr> <tr><td>0</td><td>↓</td><td>↓ 0</td></tr> <tr><td>←</td><td>↑</td><td>→</td></tr> <tr><td>0</td><td>0</td><td>0</td></tr> </table>	22	0	95	←	↓	→	0	↑	387	110	→	← 133	0	↓	↓ 0	←	↑	→	0	0	0
22	0	95																				
←	↓	→																				
0	↑	387																				
110	→	← 133																				
0	↓	↓ 0																				
←	↑	→																				
0	0	0																				
No Approach																						

Prioritization Turn Volumes																						
Hilltop Rd (SR 2751)																						
Panther Lake Rd (SR 2748)	<table border="1"> <tr><td>3</td><td>0</td><td>59</td></tr> <tr><td>←</td><td>↓</td><td>→</td></tr> <tr><td>0</td><td>↑</td><td>206</td></tr> <tr><td>84</td><td>→</td><td>← 102</td></tr> <tr><td>0</td><td>↓</td><td>↓ 0</td></tr> <tr><td>←</td><td>↑</td><td>→</td></tr> <tr><td>0</td><td>0</td><td>0</td></tr> </table>	3	0	59	←	↓	→	0	↑	206	84	→	← 102	0	↓	↓ 0	←	↑	→	0	0	0
3	0	59																				
←	↓	→																				
0	↑	206																				
84	→	← 102																				
0	↓	↓ 0																				
←	↑	→																				
0	0	0																				
No Approach																						

Express Design Turn Volumes																						
Hilltop Rd (SR 2751)																						
Panther Lake Rd (SR 2748)	<table border="1"> <tr><td>24</td><td>0</td><td>296</td></tr> <tr><td>←</td><td>↓</td><td>→</td></tr> <tr><td>29</td><td>↑</td><td>204</td></tr> <tr><td>269</td><td>→</td><td>← 67</td></tr> <tr><td>0</td><td>↓</td><td>↓ 0</td></tr> <tr><td>←</td><td>↑</td><td>→</td></tr> <tr><td>0</td><td>0</td><td>0</td></tr> </table>	24	0	296	←	↓	→	29	↑	204	269	→	← 67	0	↓	↓ 0	←	↑	→	0	0	0
24	0	296																				
←	↓	→																				
29	↑	204																				
269	→	← 67																				
0	↓	↓ 0																				
←	↑	→																				
0	0	0																				
No Approach																						

Prioritization Turn Volumes																						
Hilltop Rd (SR 2751)																						
Panther Lake Rd (SR 2748)	<table border="1"> <tr><td>1</td><td>0</td><td>170</td></tr> <tr><td>←</td><td>↓</td><td>→</td></tr> <tr><td>2</td><td>↑</td><td>111</td></tr> <tr><td>206</td><td>→</td><td>← 56</td></tr> <tr><td>0</td><td>↓</td><td>↓ 0</td></tr> <tr><td>←</td><td>↑</td><td>→</td></tr> <tr><td>0</td><td>0</td><td>0</td></tr> </table>	1	0	170	←	↓	→	2	↑	111	206	→	← 56	0	↓	↓ 0	←	↑	→	0	0	0
1	0	170																				
←	↓	→																				
2	↑	111																				
206	→	← 56																				
0	↓	↓ 0																				
←	↑	→																				
0	0	0																				
No Approach																						

Approach	Road Name	Route Type	No. of Lanes	Facility Type	Functional Class	Capacity	2023 V/C Ratio
North	Hilltop Rd (SR 2751)	SR	2	Arterial	Local	15,051	0.19
East	Panther Lake Rd (SR 2748)	SR	2	Arterial	Local	15,051	0.31
South	No Approach		0	0	0	#N/A	#N/A
West	Panther Lake Rd (SR 2748)	SR	2	Arterial	Local	15,051	0.14

Approach	Road Name	Express Design Traffic Volumes			Prioritization Traffic Volumes		
		2023 AADT	2023-2055 CAGR	2055 AADT	2025 AADT	2025-2035 CAGR	2035 AADT
North	Hilltop Rd (SR 2751)	2,900	3.0%	7,500	2,900	2.3%	3,600
East	Panther Lake Rd (SR 2748)	4,700	1.8%	8,300	4,700	2.3%	5,900
South	No Approach	0	0.0%	0	0	0.0%	0
West	Panther Lake Rd (SR 2748)	2,100	2.1%	4,100	2,100	2.3%	2,600