



Preliminary – Do Not Use for Construction

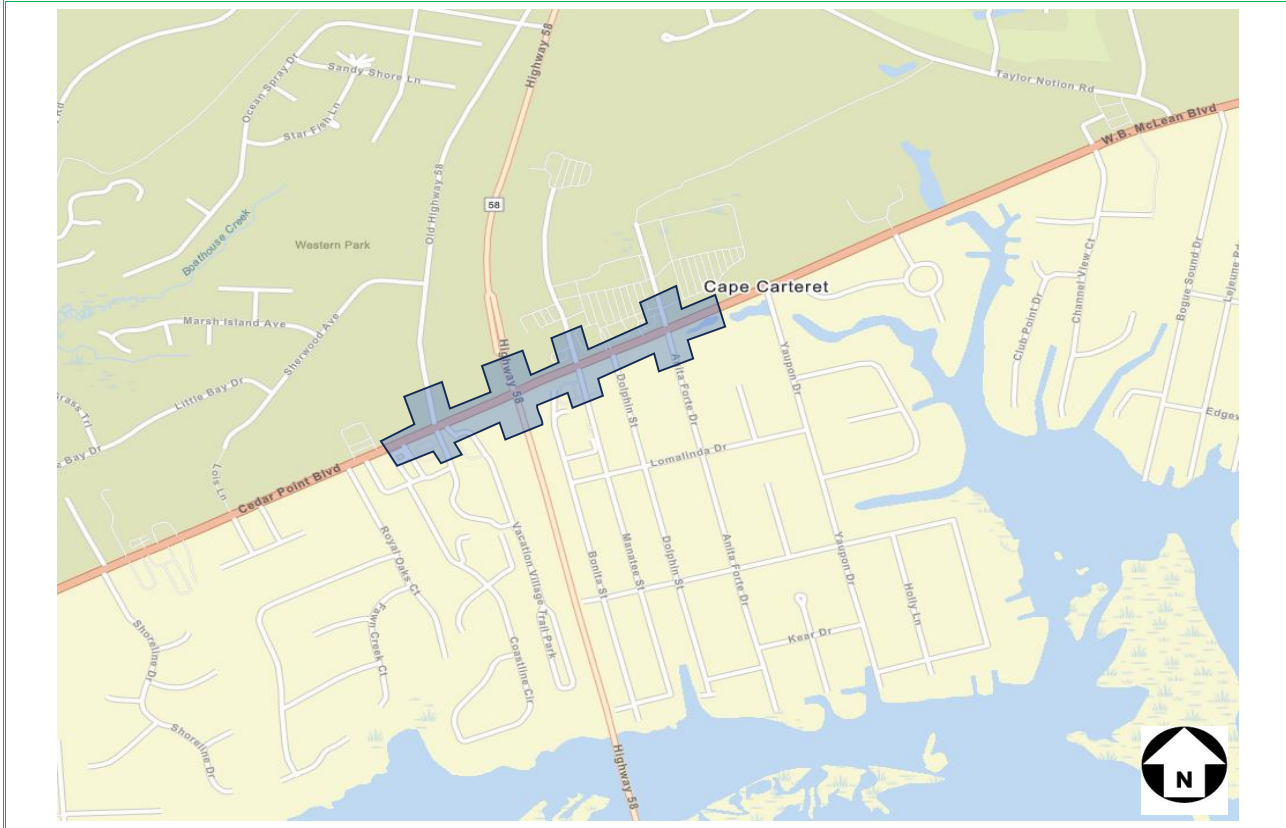


SPOT Travel Time Savings Report

NC 24 (Cedar Point Blvd) at NC 58

7 - Upgrade At-grade Intersection to Interchange or Grade Separation

STIP No. -- SPOT ID: H250721 WBS No. 34263.1.1 Carteret DIVISION: 2
 1/15/2026 Kimley-Horn



ID	Road Name	External	2025 AADT	2035 AADT	ID	Road Name	External	2025 AADT	2035 AADT
01N	SR 1113 (Old Highway 58)	Yes	2,100	2,300					
01E	NC 24 (W. B. Mclean Drive)	No	32,200	33,400					
01S	Driveway	Yes	1,600	1,800					
01W	NC 24 (Cedar Point Boulevard)	Yes	29,500	30,600					
02N	NC 58	Yes	11,000	11,900					
02E	NC 24 (W. B. Mclean Drive)	No	32,700	34,100					
02S	NC 58 (Emerald Drive)	Yes	17,500	17,900					
02W	NC 24 (W. B. Mclean Drive)	No	32,200	33,400					
03N	Golphin Dolphin Drive	Yes	4,600	5,100					
03E	NC 24 (W. B. Mclean Drive)	No	27,300	28,400					
03S	Manatee Street	Yes	2,900	3,200					
03W	NC 24 (W. B. Mclean Drive)	No	32,700	34,100					
04N	Enterprise Avenue	Yes	5,200	5,700					
04E	NC 24 (W. B. Mclean Drive)	Yes	24,000	25,000					
04S	Anita Forte Drive	Yes	1,400	1,500					
04W	NC 24 (W. B. Mclean Drive)	No	27,300	28,400					

2025 AM Peak Travel Time Saving	9
2025 PM Peak Travel Time Saving	6
2025 Total Daily Vehicles	49,900
2025 Daily Travel Time Savings	32.3
2035 AM Peak Travel Time Saving	14
2035 PM Peak Travel Time Saving	15
2035 Total Daily Vehicles	52,500
2035 Daily Travel Time Savings	66.3
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			
128,000 hours			
Travel Time Savings Per Vehicle			
2025	2 sec/veh	2035	5 sec/veh

Description of Proposed Design

Construct a diverging diamond interchange

BASE YEAR	2025	FUTURE YEAR	2035	REPORT STATUS	Final	CORRIDOR PROJECT	Yes
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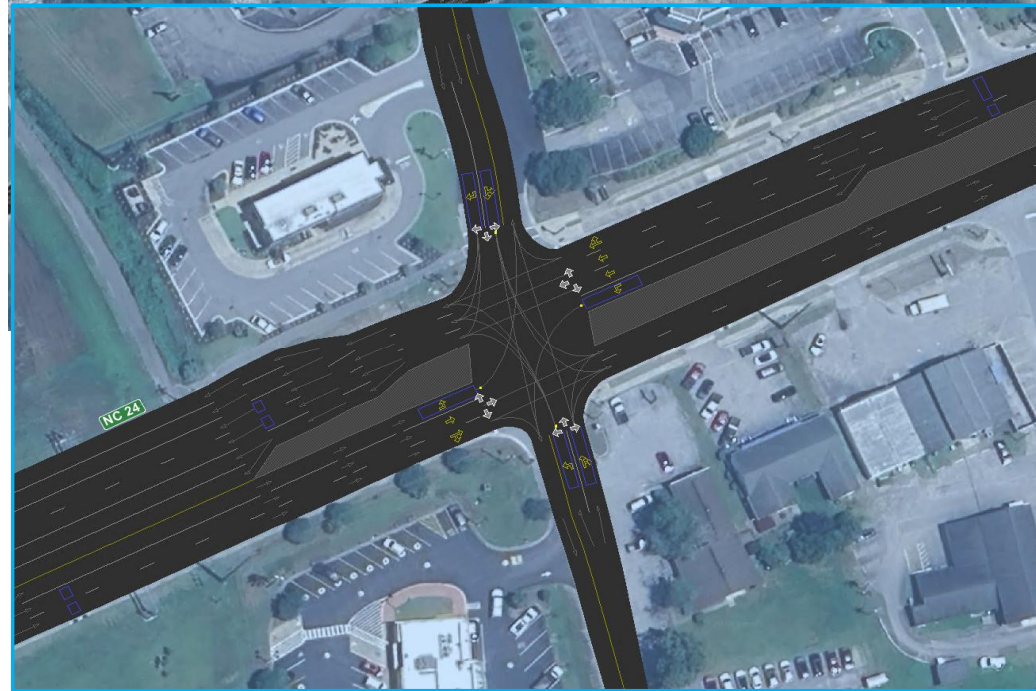
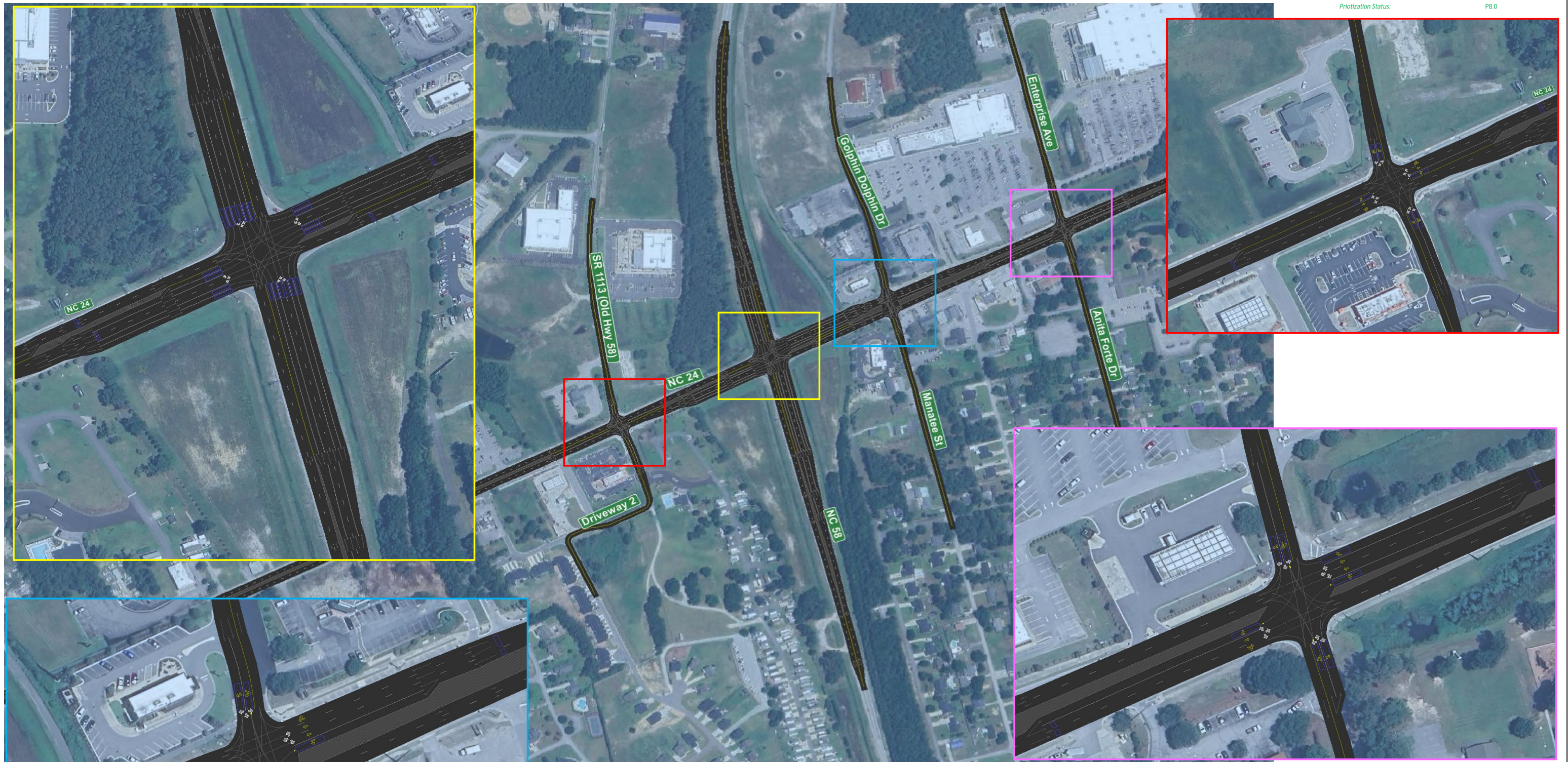


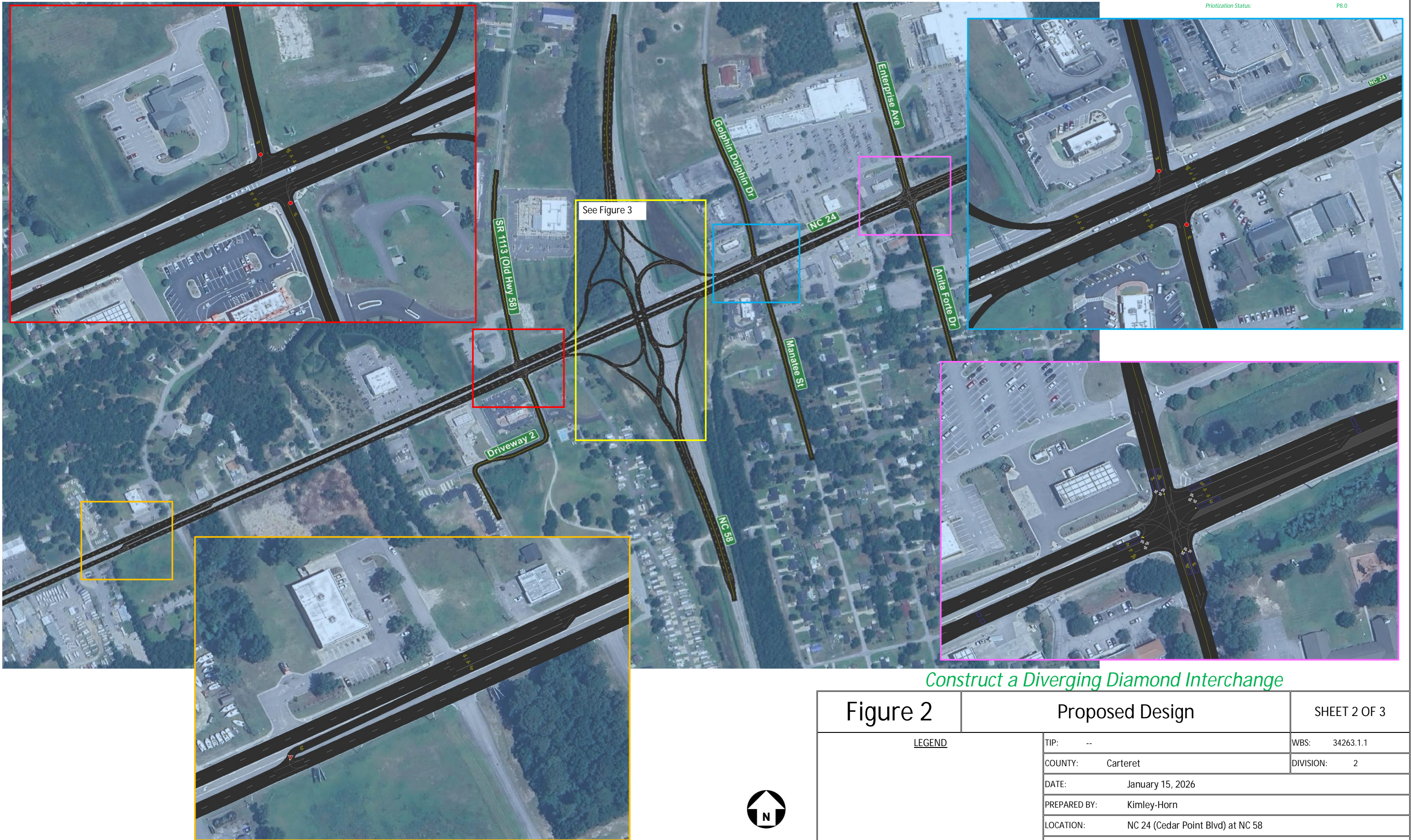
Figure 1

Existing Conditions

SHEET 1 OF 3

LEGEND

TIP:	--	WBS:	34263.1.1
COUNTY:	Carteret	DIVISION:	2
DATE:	January 15, 2026		
PREPARED BY:	Kimley-Horn		
LOCATION:	NC 24 (Cedar Point Blvd) at NC 58		
PROJECT:	7 - Upgrade At-grade Intersection to Interchange or Grade Separation		



Construct a Diverging Diamond Interchange

Figure 2

Proposed Design

SHEET 2 OF 3

LEGEND

TIP:	--	WBS:	34263.1.1
COUNTY:	Carteret	DIVISION:	2
DATE:	January 15, 2026		
PREPARED BY:	Kimley-Horn		
LOCATION:	NC 24 (Cedar Point Blvd) at NC 58		
PROJECT:	7 - Upgrade At-grade Intersection to Interchange or Grade Separation		





Construct a Diverging Diamond Interchange



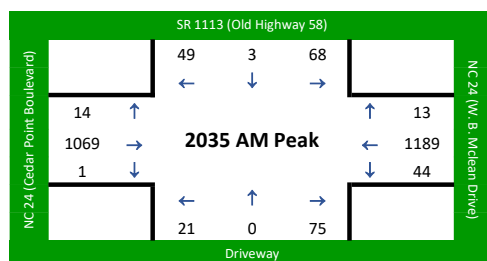
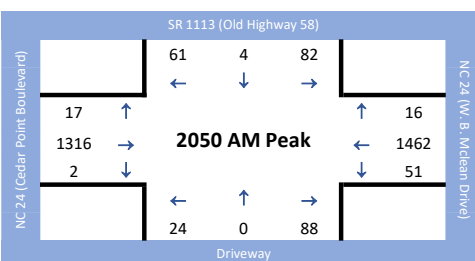
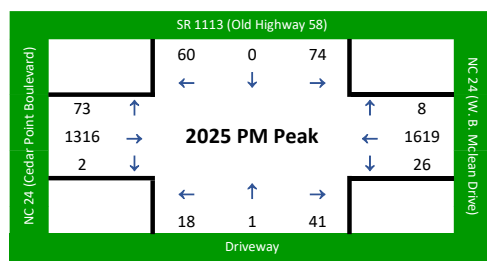
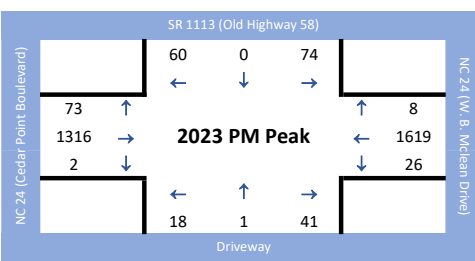
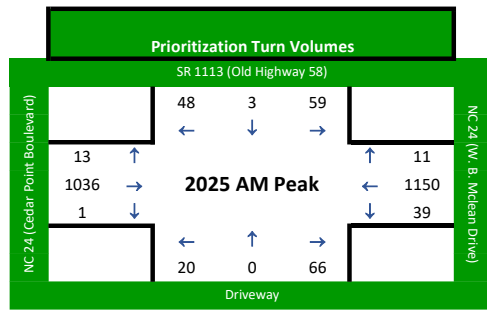
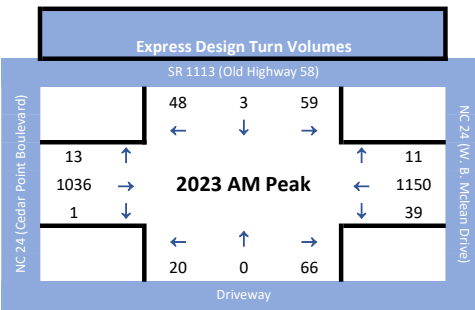
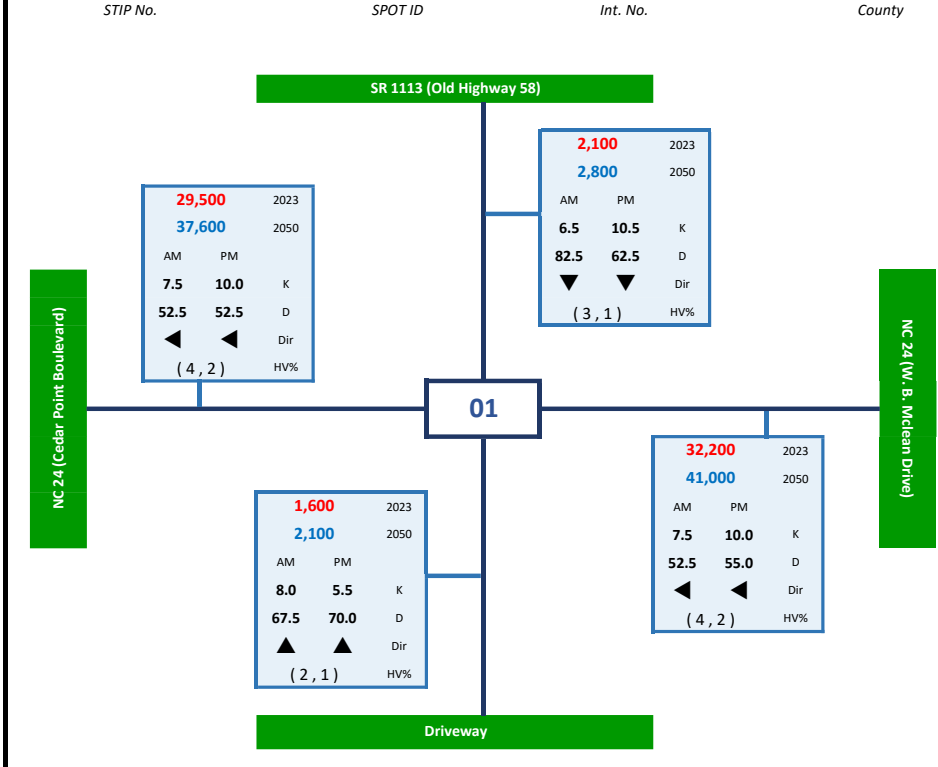
Figure 3

Proposed Design

LEGEND

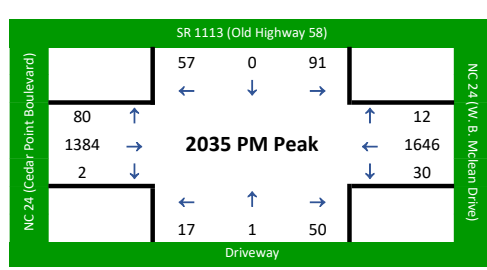
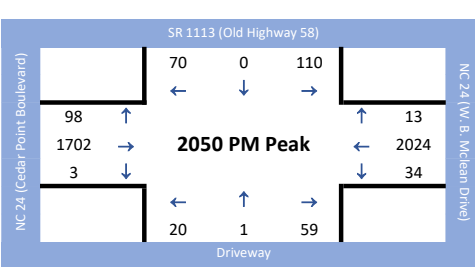
TIP:	--	WBS:	34263.1.1
COUNTY:	Carteret	DIVISION:	2
DATE:	January 15, 2026		
PREPARED BY:	Kimley-Horn		
LOCATION:	NC 24 (Cedar Point Blvd) at NC 58		
PROJECT:	7 - Upgrade At-grade Intersection to Interchange or Grade Separation		

--	H250721	01	Carteret	NC 24 (W. B. Mclean Drive/ Cedar Point Boulevard) @ SR 1113 (Old Highway 58)
STIP No.	SPOT ID	Int. No.	County	Intersection Location



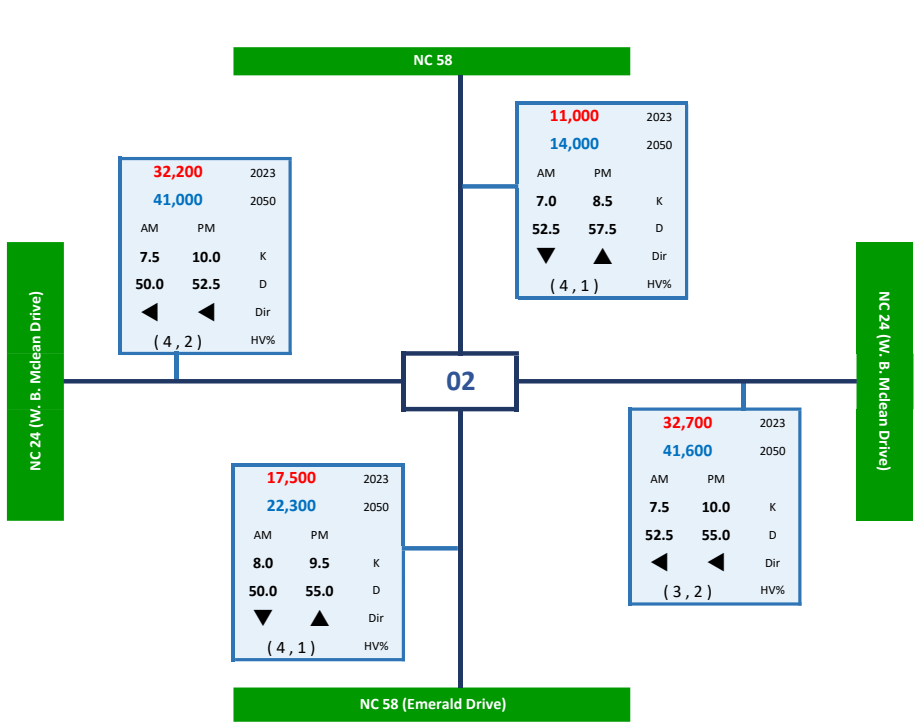
Approach	Road Name	Route Type	No. of Lanes	Facility Type	Functional Class	Capacity	2023 V/C Ratio
North	SR 1113 (Old Highway 58)	SR	2	Arterial	Local	15,843	0.13
East	NC 24 (W. B. Mclean Drive)	NC	4	Arterial	Arterial	31,719	1.02
South	Driveway	Local	2	Arterial	Local	15,843	0.10
West	NC 24 (Cedar Point Boulevard)	NC	4	Arterial	Arterial	31,719	0.93

Approach	Road Name	Express Design Traffic Volumes			Prioritization Traffic Volumes		
		2023 AADT	2023-2050 CAGR	2050 AADT	2025 AADT	2025-2035 CAGR	2035 AADT
North	SR 1113 (Old Highway 58)	2,100	1.1%	2,800	2,100	1.0%	2,300
East	NC 24 (W. B. Mclean Drive)	32,200	0.9%	41,000	32,200	0.4%	33,400
South	Driveway	1,600	1.1%	2,100	1,600	1.0%	1,800
West	NC 24 (Cedar Point Boulevard)	29,500	0.9%	37,600	29,500	0.4%	30,600



--	H250721	02	Carteret	NC 24 (W. B. Mclean Drive) @ NC 58/ NC 58 (Emerald Drive)
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STIP No. SPOT ID Int. No. County Intersection Location



Express Design Turn Volumes	
NC 58	
NC 24 (W. B. Mclean Drive)	127 133 135
124 ↑	← ↓ →
805 →	2023 AM Peak ← 789
252 ↓	↓ 331
	← ↑ →
	320 112 252
	NC 58 (Emerald Drive)

Prioritization Turn Volumes	
NC 58	
NC 24 (W. B. Mclean Drive)	127 133 135
124 ↑	← ↓ →
805 →	2025 AM Peak ← 789
252 ↓	↓ 331
	← ↑ →
	320 112 252
	NC 58 (Emerald Drive)

Express Design Turn Volumes	
NC 58	
NC 24 (W. B. Mclean Drive)	132 136 121
169 ↑	← ↓ →
1064 →	2023 PM Peak ← 1197
267 ↓	↓ 361
	← ↑ →
	406 179 310
	NC 58 (Emerald Drive)

Prioritization Turn Volumes	
NC 58	
NC 24 (W. B. Mclean Drive)	132 136 121
169 ↑	← ↓ →
1064 →	2025 PM Peak ← 1197
267 ↓	↓ 361
	← ↑ →
	406 179 310
	NC 58 (Emerald Drive)

Express Design Turn Volumes	
NC 58	
NC 24 (W. B. Mclean Drive)	162 169 172
158 ↑	← ↓ →
1024 →	2050 AM Peak ← 1004
321 ↓	↓ 422
	← ↑ →
	408 144 321
	NC 58 (Emerald Drive)

Prioritization Turn Volumes	
NC 58	
NC 24 (W. B. Mclean Drive)	137 142 149
134 ↑	← ↓ →
837 →	2035 AM Peak ← 823
253 ↓	↓ 338
	← ↑ →
	322 120 258
	NC 58 (Emerald Drive)

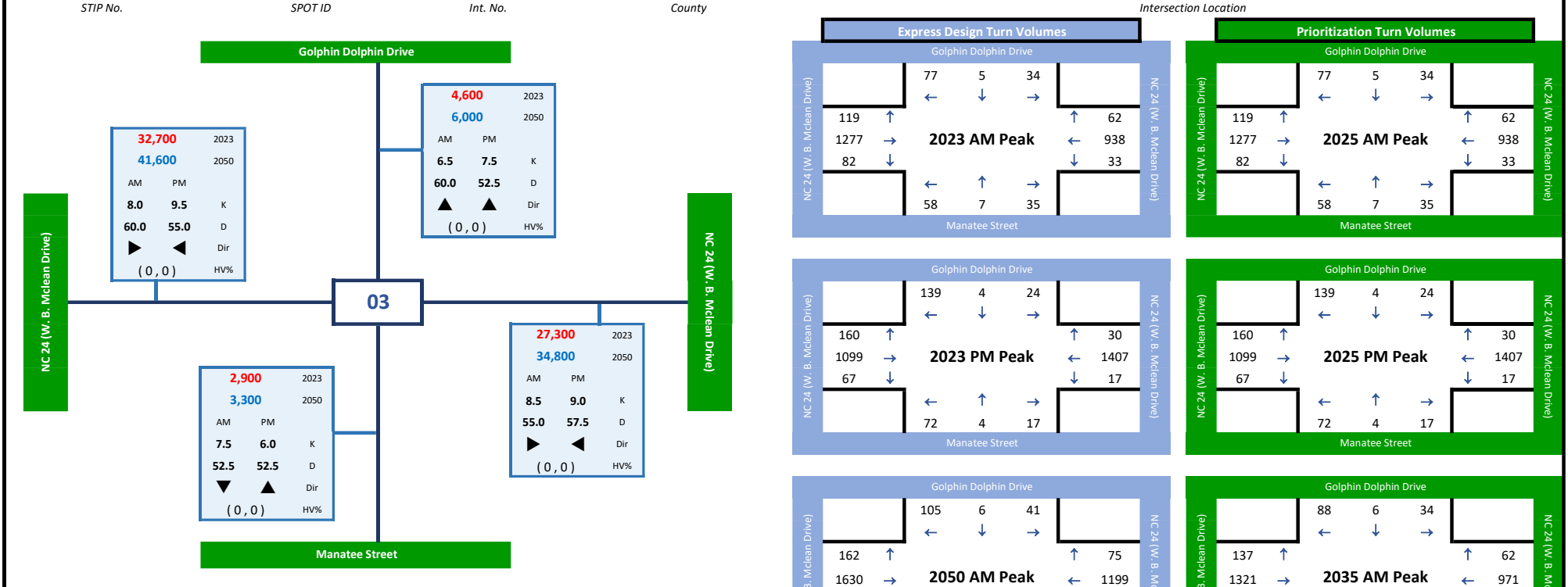
Approach	Road Name	Route Type	No. of Lanes	Facility Type	Functional Class	Capacity	2023 V/C Ratio
North	NC 58	NC	2	Arterial	Arterial	15,843	0.69
East	NC 24 (W. B. Mclean Drive)	NC	4	Arterial	Arterial	31,719	1.03
South	NC 58 (Emerald Drive)	NC	2	Arterial	Arterial	15,843	1.10
West	NC 24 (W. B. Mclean Drive)	NC	4	Arterial	Arterial	31,719	1.02

Approach	Road Name	Express Design Traffic Volumes			Prioritization Traffic Volumes		
		2023 AADT	2023-2050 CAGR	2050 AADT	2025 AADT	2025-2035 CAGR	2035 AADT
North	NC 58	11,000	0.9%	14,000	11,000	0.8%	11,900
East	NC 24 (W. B. Mclean Drive)	32,700	0.9%	41,600	32,700	0.4%	34,100
South	NC 58 (Emerald Drive)	17,500	0.9%	22,300	17,500	0.2%	17,900
West	NC 24 (W. B. Mclean Drive)	32,200	0.9%	41,000	32,200	0.4%	33,400

Express Design Turn Volumes	
NC 58	
NC 24 (W. B. Mclean Drive)	167 173 156
213 ↑	← ↓ →
1357 →	2050 PM Peak ← 1519
339 ↓	↓ 462
	← ↑ →
	513 228 400
	NC 58 (Emerald Drive)

Prioritization Turn Volumes	
NC 58	
NC 24 (W. B. Mclean Drive)	142 145 135
180 ↑	← ↓ →
1110 →	2035 PM Peak ← 1243
266 ↓	↓ 371
	← ↑ →
	405 190 321
	NC 58 (Emerald Drive)

--	H250721	03	Carteret	NC 24 (W. B. Mclean Drive) @ Golphin Dolphin Drive/ Manatee Street
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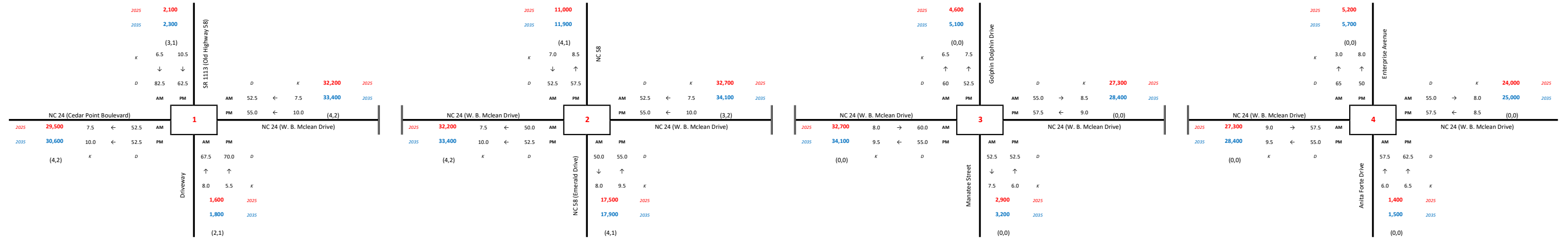


Approach	Road Name	Route Type	No. of Lanes	Facility Type	Functional Class	Capacity	2023 V/C Ratio
North	Golphin Dolphin Drive	Local	2	Arterial	Local	15,843	0.29
East	NC 24 (W. B. Mclean Drive)	NC	4	Arterial	Arterial	31,719	0.86
South	Manatee Street	Local	2	Arterial	Local	15,843	0.18
West	NC 24 (W. B. Mclean Drive)	NC	4	Arterial	Arterial	31,719	1.03

Approach	Road Name	Express Design Traffic Volumes			Prioritization Traffic Volumes		
		2023 AADT	2023-2050 CAGR	2050 AADT	2025 AADT	2025-2035 CAGR	2035 AADT
North	Golphin Dolphin Drive	4,600	1.0%	6,000	4,600	1.0%	5,100
East	NC 24 (W. B. Mclean Drive)	27,300	0.9%	34,800	27,300	0.4%	28,400
South	Manatee Street	2,900	0.5%	3,300	2,900	1.0%	3,200
West	NC 24 (W. B. Mclean Drive)	32,700	0.9%	41,600	32,700	0.4%	34,100

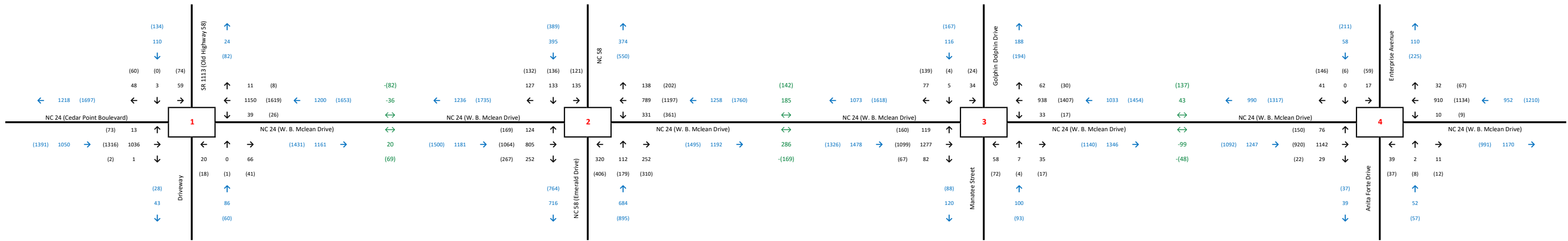
Express Design Turn Volumes		Prioritization Turn Volumes	
2023 AM Peak			
2025 AM Peak			
2023 PM Peak			
2025 PM Peak			
2050 AM Peak			
2050 PM Peak			

AADT DATA (SPOT)



<i>Prioritization Status:</i> PB.0		2025/2035		SPOT Traffic Volumes		SHEET 1 OF 1	
LEGEND				TIP: --		WBS: 34263.1.1	
## Intersection Number K Design Hour Factor D Directional Distribution (Dual, TTST) Heavy Vehicle Percentage (Dual, TTST)				COUNTY: Carteret		DIVISION: 2	
2025 Base Year AADT Volume 2035 Future Year AADT Volume				DATE: January 7, 2026			
				PREPARED BY: Kimley Horn			
				LOCATION: NC 24 (Cedar Point Blvd) at NC 58			
				PROJECT: 7 - Upgrade At-grade Intersection to Interchange or Grade Separation			

TURNING MOVEMENT VOLUMES (SPOT)



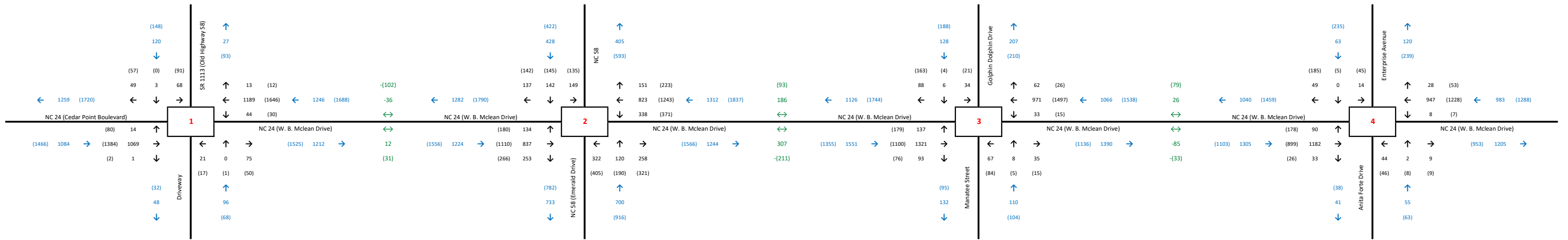
Prioritization Status: P8.0

UNBALANCED

2025	Base Year (Existing)	SHEET 1 OF 1
<p>LEGEND</p> <p>## Intersection Number</p> <p>AM (PM) Peak Hour Intersection Volume</p> <p>AM (PM) Peak Hour Approach Volume</p> <p>AM (PM) Peak Hour Volume Balancing</p>		<p>TIP: --</p> <p>WBS: 34263.1.1</p> <p>COUNTY: Carteret</p> <p>DIVISION: 2</p> <p>DATE: January 7, 2026</p> <p>PREPARED BY: Kimley Horn</p> <p>LOCATION: NC 24 (Cedar Point Blvd) at NC 58</p> <p>PROJECT: 7 - Upgrade At-grade Intersection to Interchange or Grade Separation</p>



TURNING MOVEMENT VOLUMES (SPOT)



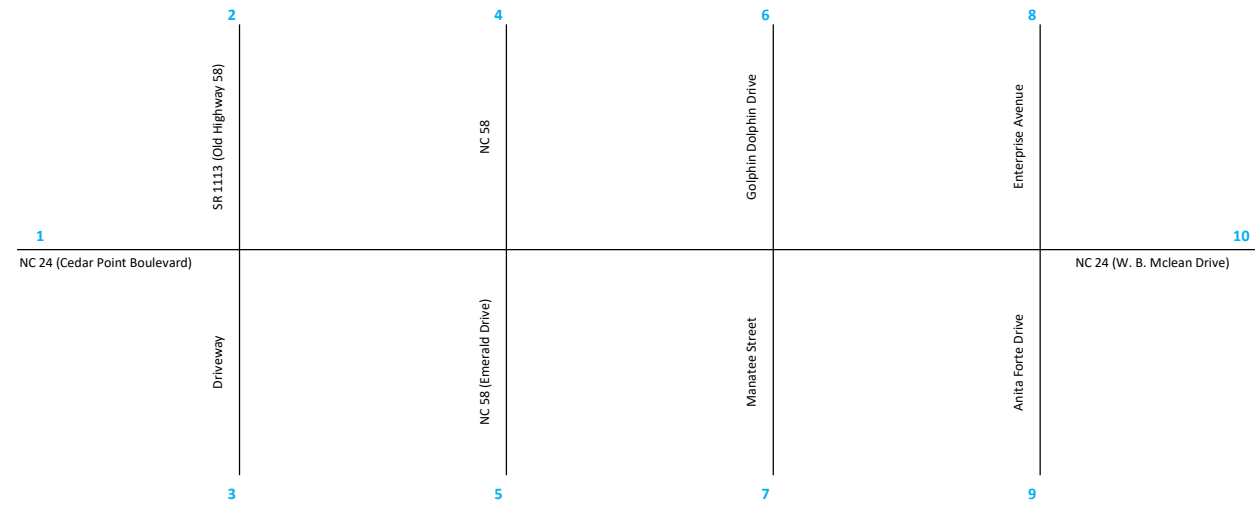
Prioritization Status: P8.0

UNBALANCED

2035	Future Year Build	SHEET 1 OF 1
<p>LEGEND</p> <p>## Intersection Number</p> <p>AM (PM) Peak Hour Intersection Volume</p> <p>AM (PM) Peak Hour Approach Volume</p> <p>AM (PM) Peak Hour Volume Balancing</p>		<p>TIP: --</p> <p>WBS: 34263.1.1</p> <p>COUNTY: Carteret</p> <p>DIVISION: 2</p> <p>DATE: January 7, 2026</p> <p>PREPARED BY: Kimley Horn</p> <p>LOCATION: NC 24 (Cedar Point Blvd) at NC 58</p> <p>PROJECT: 7 - Upgrade At-grade Intersection to Interchange or Grade Separation</p>



ORIGIN-DESTINATION MATRICES (SPOT)

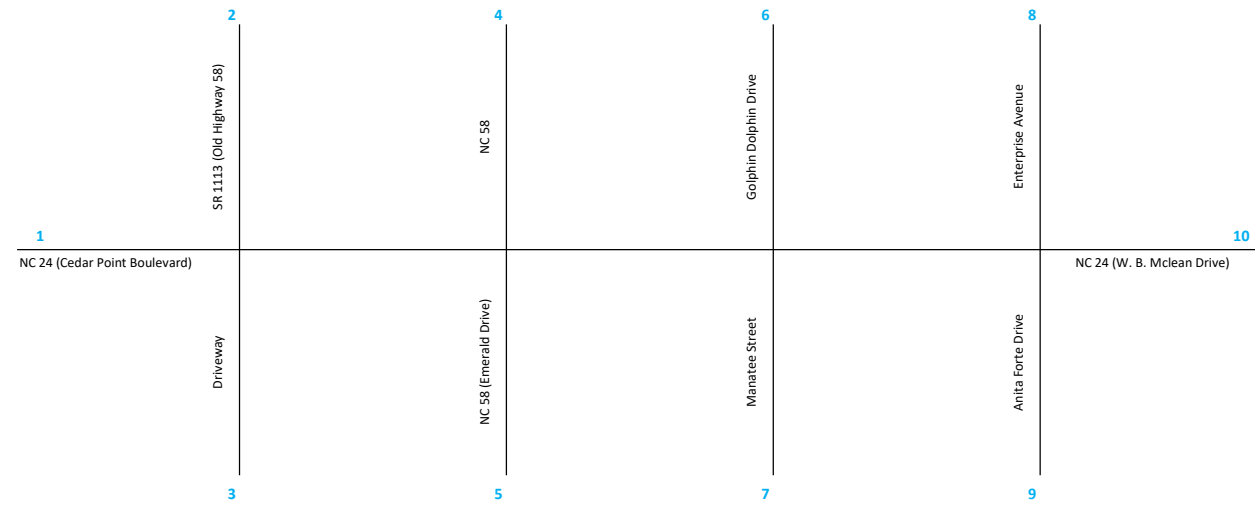


AM	1	2	3	4	5	6	7	8	9	10	TOTAL
1	0	13	1	102	209	72	52	42	16	602	1109
2	48	0	3	6	12	4	3	2	1	36	115
3	20	0	0	7	14	5	3	3	1	39	92
4	130	1	4	0	134	11	7	8	3	118	416
5	324	3	11	112	0	21	13	15	6	218	723
6	47	0	2	10	23	0	5	1	0	34	122
7	35	0	1	7	17	7	0	1	0	36	104
8	23	0	1	5	11	2	1	0	0	18	61
9	22	0	1	4	11	2	1	2	0	12	55
10	508	5	17	103	249	54	29	30	10	0	1005
Total	1157	22	41	356	680	178	114	104	37	1113	3802

PM	1	2	3	4	5	6	7	8	9	10	TOTAL
1	0	74	2	176	279	108	51	102	15	584	1391
2	65	0	0	9	15	6	3	5	1	31	135
3	20	1	0	5	8	3	2	3	0	18	60
4	145	1	2	0	136	13	4	13	2	75	391
5	441	2	7	177	0	34	10	34	5	190	900
6	96	0	2	17	30	0	4	1	0	18	168
7	50	0	1	9	16	4	0	1	0	13	94
8	100	0	2	18	32	3	2	0	6	50	213
9	25	0	0	5	8	1	0	8	0	10	57
10	742	3	12	131	236	21	12	56	8	0	1221
Total	1684	81	28	547	760	193	88	223	37	989	4630

Priotization Status: P8.0	
2025	Base Year (Existing)
TIP: --	34263.1.1
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ORIGIN-DESTINATION MATRICES (SPOT)



AM	1	2	3	4	5	6	7	8	9	10	TOTAL
1	0	14	1	108	204	80	57	48	18	614	1144
2	49	0	3	7	14	5	4	3	1	41	127
3	21	0	0	8	15	6	4	3	1	44	102
4	137	1	5	0	143	14	8	10	4	129	451
5	320	3	12	120	0	24	14	17	6	222	738
6	53	1	2	11	25	0	6	1	0	35	134
7	40	0	1	9	19	8	0	1	0	36	114
8	27	0	1	6	13	3	1	0	0	15	66
9	24	0	1	5	12	3	1	2	0	10	58
10	526	6	19	112	253	55	29	27	8	0	1035
Total	1197	25	45	386	698	198	124	112	38	1146	3969

PM	1	2	3	4	5	6	7	8	9	10	TOTAL
1	0	83	2	187	277	120	58	120	18	575	1440
2	61	0	0	12	17	8	4	8	1	36	147
3	18	1	0	7	10	4	2	4	1	20	67
4	148	1	3	0	145	16	5	17	2	79	416
5	421	3	8	189	0	39	12	39	6	187	904
6	108	1	2	20	34	0	4	1	0	16	186
7	56	0	1	11	18	5	0	1	0	11	103
8	121	1	2	23	38	3	2	0	5	38	233
9	30	0	1	6	9	1	0	8	0	8	63
10	779	5	14	148	246	18	11	46	6	0	1273
Total	1742	95	33	603	794	214	98	244	39	970	4832

Prioritization Status: PB.0	
2035	Future Year Build
TIP: --	34263.1.1
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