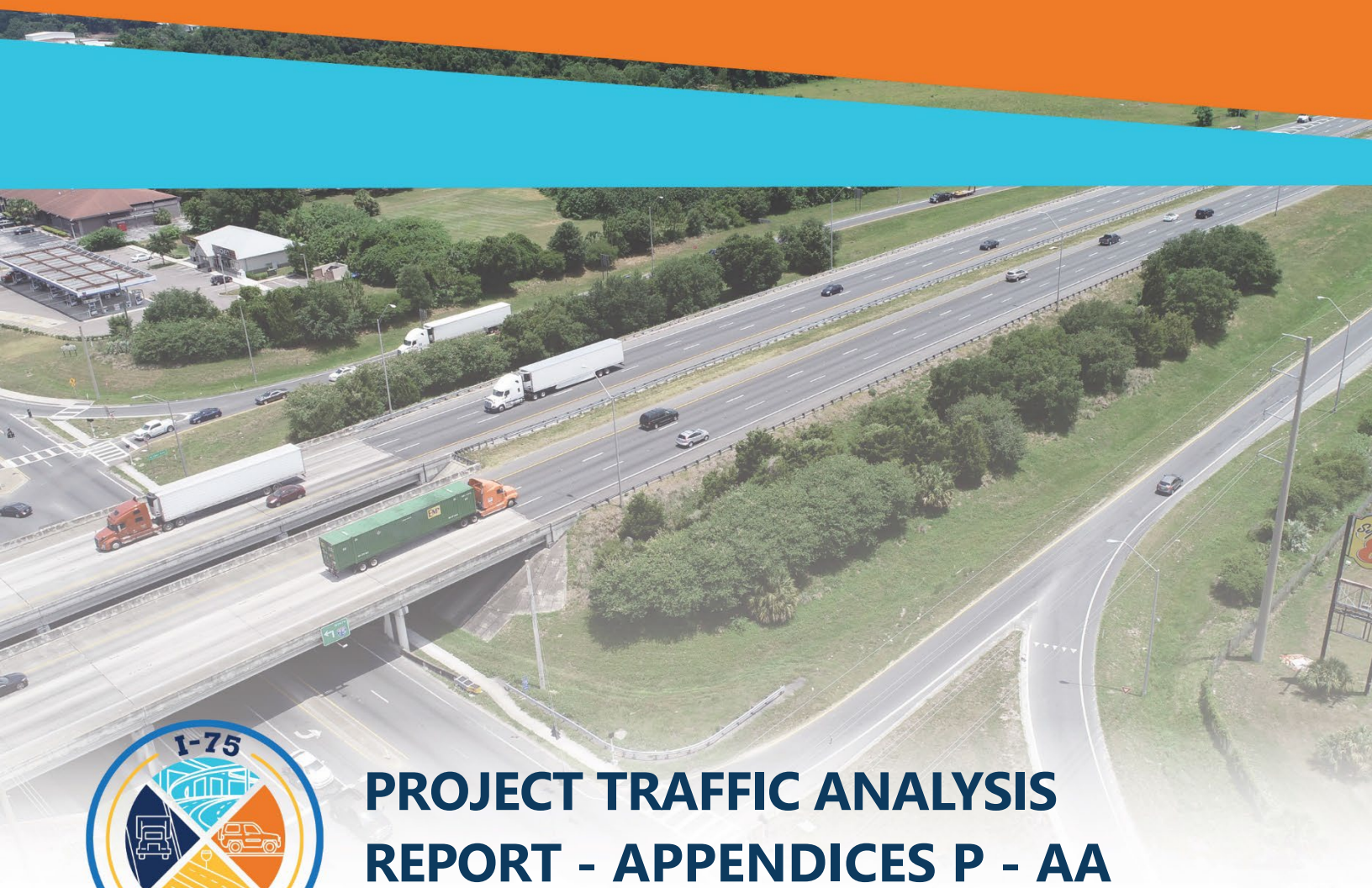




Financial Project Identification (FPID) 452074-2

March 2024



PROJECT TRAFFIC ANALYSIS REPORT - APPENDICES P - AA

I-75 (SR 93) from South of SR 44 to SR 200
Sumter and Marion County, Florida

The environmental review, consultation, and other actions required by applicable federal environmental laws for this project are being, or have been, carried out by FDOT pursuant to 23 U.S.C. § 327 and a Memorandum of Understanding dated December 14, 2016 and executed by FHWA and FDOT.

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**APPENDIX P – FTE COORDINATION AND MASTER
PLAN 2050 VOLUMES**

Updated based on comments/feedback from FTE Review on August 6, 2020

Balanced I-75 PD&E						Balanced I-75 PD&E					
Mile Post - Description	NB		SB		Total	NB		SB		Total	
	2019	2019	2019	2019		2019	2019	2019	2019		
	AADT	AADT	AADT	AADT	AAWET	AADT	AADT	AADT	AADT	AAWET	
TTMS - 269904	34,900	35,500	70,400	38,700	39,000	77,700					
374 - CR 324	1,400	1,500	2,900	1,200	1,300	2,500					
Alachua County	2,700	3,000	5,700	2,000	2,100	4,100					
Marion County	36,200	37,000	73,200	39,500	39,800	79,300					
368 - CR 318	1,900	2,100	4,000	1,600	1,900	3,500					
358 - SR 326	2,000	1,800	3,800	1,500	1,600	3,100					
New ILC Interchange (49th St.)	36,300	36,700	73,000	39,400	39,500	78,900					
354 - US 27	3,300	4,200	7,500	3,100	4,800	7,900					
352 - SR 40	9,300	9,900	19,200	10,500	11,200	21,700					
350 - SR 200	42,300	42,400	84,700	46,800	45,900	92,700					
TTMS - 360317	42,300	42,400	84,700	46,800	45,900	92,700					
New ILC Interchange (SW 95th St.)	49,000	47,900	96,900	50,500	51,000	101,500					
341 - CR 484	8,700	7,500	16,200	8,100	6,800	14,900					
Marion County	6,800	6,200	13,000	8,500	6,900	15,400					
Sumter County	47,100	46,600	93,700	50,900	51,100	102,000					
329 - SR 44	5,000	5,800	10,800	4,200	5,400	9,600					
328 - Florida's Turnpike	7,800	8,000	15,800	7,200	7,900	15,100					
TTMS - 189920	49,900	48,800	98,700	53,900	53,600	107,500					
22,350	22,350	44,700	23,500	24,500	48,000						
	27,550	26,450	54,000	30,400	29,100	59,500					

Updated based on feedback from FTE Review File dated on October 16, 2020

Anchored at 360317 in both directions.

Mile Post - Description	NB 2050			SB 2050			Total 2050
	AAWET	Anchor	Difference	AAWET	Anchor	Difference	
TTMS - 269904	53,700	59,000	-5,300	55,600	59,000	-3,400	109,300 118,000 -8,700
374 - CR 324	1,900	2,100	4,000	2,100	7,300	14,000	
Alachua County	6,700	7,300	14,000	7,300	14,000		
Marion County	58,500	60,800	119,300	60,800	119,300		
368 - CR 318	3,000	3,700	6,700	3,700	10,900	12,500	
358 - SR 326	4,800	6,100	11,000	6,100	12,500	13,500	
New ILC Interchange (49th St.)	60,300	63,200	123,500	63,200	123,500		
354 - US 27	8,500	11,000	19,500	11,000	38,600	45,500	
352 - SR 40	19,500	19,100	38,600	19,100	38,600		
350 - SR 200	71,200	71,300	142,500	71,300	142,500		
TTMS - 360317	82,000	82,000	0	82,000	82,000	0	164,000 164,000 0
New ILC Interchange (SW 95th St.)	82,000	82,000	0	82,000	82,000	0	164,000 164,000 0
341 - CR 484	12,500	11,500	24,000	11,500	23,000	46,500	
Marion County	8,700	8,400	17,100	8,400	17,100		
Sumter County	78,200	78,900	157,100	78,900	157,100		
329 - SR 44	8,700	8,600	17,300	8,600	17,300		
328 - Florida's Turnpike	7,500	10,000	17,500	10,000	17,500		
TTMS - 189920	69,500	70,300	139,800	70,300	80,000	80,000	
40,500	39,500	80,000	40,500	39,500	80,000		
	36,500	45,500	-9,000	40,800	45,500	-4,700	77,300 91,000 -13,700

1.8% Effective Annual Linear Rate

Tumpike NB Off-Ramp to I-75	40,500
Tumpike NB Off-Ramp to SR 44	4,000
Total Off-Ramp to SR 44	44,500
Tumpike SB On-Ramp from I-75	39,500
Tumpike SB On-Ramp from SR 44	5,000
Total On-Ramp from SR 44	15,000

1.4% Effective Annual Linear Rate

Updated based on feedback from FTE Review File dated on October 16, 2020

Anchored at 360317 in both directions.

Mile Post - Description	NB 2050			SB 2050			Total 2050
	AAWET	Anchor	Difference	AAWET	Anchor	Difference	
TTMS - 269904	58,700	63,000	-4,300	58,800	63,000	-4,200	117,500 126,000 -8,500
374 - CR 324	1,700	1,900	3,600	1,900	6,400	12,400	
Alachua County	6,000	6,300	12,300	6,300	12,600		
Marion County	63,000	63,300	126,300	63,300	126,300		
368 - CR 318	2,700	3,500	6,200	3,500	10,200	11,500	
358 - SR 326	4,300	5,900	10,200	5,900	13,000	15,000	
New ILC Interchange (49th St.)	64,600	65,700	130,300	65,700	130,300		
354 - US 27	8,400	12,000	20,400	12,000	40,700	49,100	
352 - SR 40	20,500	20,200	40,700	20,200	38,600	79,300	
350 - SR 200	76,700	73,900	150,600	73,900	146,800		
TTMS - 360317	84,500	84,500	0	84,500	84,500	0	169,000 169,000 0
New ILC Interchange (SW 95th St.)	84,500	84,500	0	84,500	84,500	0	169,000 169,000 0
341 - CR 484	12,000	11,000	23,000	11,000	23,000	46,000	
Marion County	10,500	9,100	19,600	9,100	19,600		
Sumter County	83,000	82,600	165,600	82,600	165,600		
329 - SR 44	7,900	8,200	16,100	8,200	16,100		
328 - Florida's Turnpike	7,200	9,700	16,900	9,700	16,900		
TTMS - 189920	75,100	74,400	149,500	74,400	81,900	81,900	
41,200	40,700	81,900	41,200	40,700	81,900		
	41,100	48,250	-7,150	43,400	48,250	-4,850	84,500 96,500 -12,000

1.7% Effective Annual Linear Rate

Tumpike NB Off-Ramp to I-75	41,200
Tumpike NB Off-Ramp to SR 44	3,800
Total Off-Ramp to SR 44	45,000
Tumpike SB On-Ramp from I-75	40,700
Tumpike SB On-Ramp from SR 44	4,800
Total On-Ramp from SR 44	14,500

1.4% Effective Annual Linear Rate

Michael Eagle

From: Velasquez, Andrew <Andrew.Velasquez@dot.state.fl.us>
Sent: Friday, October 16, 2020 11:54 AM
To: Karl Passetti
Cc: McGehee, Mary; Pamulapati, Suraj; Bove, Ralph; Schnell, Steven; Michael Eagle; Scott, Carol
Subject: RE: I-75 PD&E (FM# 443623-1 & 443624-1) - Revised Draft 2050 Balanced AADTs
Attachments: I-75 PDE FTE Review.xlsx

Karl,

We reviewed the forecasts and offer some minor revisions as shown in the attached traffic profile. We noticed that growth rate for the to/from south ramps at SR 44 and CR 484 seemed low compared historical traffic or model projections. By increasing these ramps, then the I-75 mainline south of the Turnpike will be a little closer to the target value. Feel free to incorporate if you agree and thank you for allow us the opportunity to review.

I don't think we need a follow-up on these comments, but we would like to meet again once you have reached the next significant milestone.

Andrew Velasquez, PE, PTOE

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Pompano Operations Center
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From: Karl Passetti <kpassetti@kittelson.com>
Sent: Thursday, October 8, 2020 11:24 AM
To: Velasquez, Andrew <Andrew.Velasquez@dot.state.fl.us>
Cc: McGehee, Mary <Mary.McGehee@dot.state.fl.us>; Pamulapati, Suraj <Suraj.Pamulapati@dot.state.fl.us>; Bove, Ralph <ralph.bove@volkert.com>; Schnell, Steven <steve.schnell@hdrinc.com>; Michael Eagle <meagle@kittelson.com>; Scott, Carol <Carol.Scott@dot.state.fl.us>
Subject: RE: I-75 PD&E (FM# 443623-1 & 443624-1) - Revised Draft 2050 Balanced AADTs

Andrew,

Thanks for the quick response.

The attached spreadsheet includes the raw model volumes (base year and horizon year), the model growth rates, and the historical growth rates for the study segments in the PD&E. Let us know if you'd like us to provide the model plots too.

Karl Passetti, P.E., PMP
Principal Engineer

Kittelson & Associates, Inc.

407.540.0555
407-373-1102 (direct)
407-758-9960 (mobile)

From: Velasquez, Andrew <Andrew.Velasquez@dot.state.fl.us>
Sent: Thursday, October 8, 2020 10:42 AM
To: Karl Passetti <kpassetti@kittelson.com>
Cc: McGehee, Mary <Mary.McGehee@dot.state.fl.us>; Pamulapati, Suraj <Suraj.Pamulapati@dot.state.fl.us>; Bove, Ralph <ralph.bove@volkert.com>; Schnell, Steven <steve.schnell@hdrinc.com>; Michael Eagle <meagle@kittelson.com>; Scott, Carol <Carol.Scott@dot.state.fl.us>
Subject: RE: I-75 PD&E (FM# 443623-1 & 443624-1) - Revised Draft 2050 Balanced AADTs

Karl,

Can you provide the raw model forecasts for the interchange ramps and mainline that you used as a starting point?

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P.O. Box 9828
Ft. Lauderdale, FL 33310

From: Karl Passetti <kpassetti@kittelson.com>
Sent: Thursday, October 8, 2020 9:50 AM
To: Velasquez, Andrew <Andrew.Velasquez@dot.state.fl.us>; Mulandi, Jimmy <Jimmy.Mulandi@dot.state.fl.us>; Scott, Carol <Carol.Scott@dot.state.fl.us>
Cc: McGehee, Mary <Mary.McGehee@dot.state.fl.us>; Pamulapati, Suraj <Suraj.Pamulapati@dot.state.fl.us>; Bove, Ralph <ralph.bove@volkert.com>; Schnell, Steven <steve.schnell@hdrinc.com>; Michael Eagle <meagle@kittelson.com>
Subject: I-75 PD&E (FM# 443623-1 & 443624-1) - Revised Draft 2050 Balanced AADTs

EXTERNAL SENDER: Use caution with links and attachments.

Good morning Andrew,

Thanks for meeting with us on Tuesday. Your continued support and guidance is appreciated. Please see the attached PDF and spreadsheet including the updated 2050 I-75 mainline balancing efforts. The volumes in light blue in the PDF represent the locations where the AADTs were adjusted. The previous volumes presented at the September 25th meeting are also included for reference on the 2nd page of the PDF.

The following summarizes the key updates/findings:

- Site 360317 was anchored in both directions as discussed in our previous meeting.
- The Turnpike ramp volumes were adjusted so that there would be a minimum 1% linear growth rate long I-75 at Site 189920. This is consistent with the historical linear trends at this location.
 - The previous ramp volume provided by FTE was 96,900.
 - The adjusted volume we are proposing is 89,000. This represents approximately an 8% reduction for the 2050 projection.
 - We looked at the resulting 2050 projection using the TSM model growth rates and found that would be 82,000. This new projection of 89,000 is about halfway between the trends growth rate that you all applied and the TSM growth rate. This seems reasonable to us, but please let us know if you have any concerns.
- As you suggested, each of the ramps were revisited for reasonableness in the applied growth rates. The following ramps were adjusted based on this review. The adjustments to these ramps have helped close the gap at the northernmost telemetered station (Site 269904)
 - CR 484 ramps to the south of I-75
 - CR 484 ramps to the north of I-75
 - US 27 ramps to the north of I-75
 - SR 326 ramps to the north of I-75

Please take a look and let us know if you have any questions or comments. If needed we can schedule another 30 min meeting to discuss comments and any suggested revisions. At this point it feels like we are in general agreement on the overall profile and are in the fine-tuning stage of the process. We'd like to gain agreement on the profiles so that we can start development of the peak hour volumes next week. This will help us keep moving forward with our overall project schedule.

Thanks again for your time and support.

Karl Passetti, P.E., PMP
Principal Engineer

[Kittelson & Associates, Inc.](#)

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I-75 Master Plan | Florida's Turnpike
 Florida's Turnpike (SR 91) to SR 200

2050 Annual Average Daily Traffic Volumes

Figure 51 (1 of 4)



I-75 Master Plan | SR 44 Interchange
 Florida's Turnpike (SR 91) to SR 200

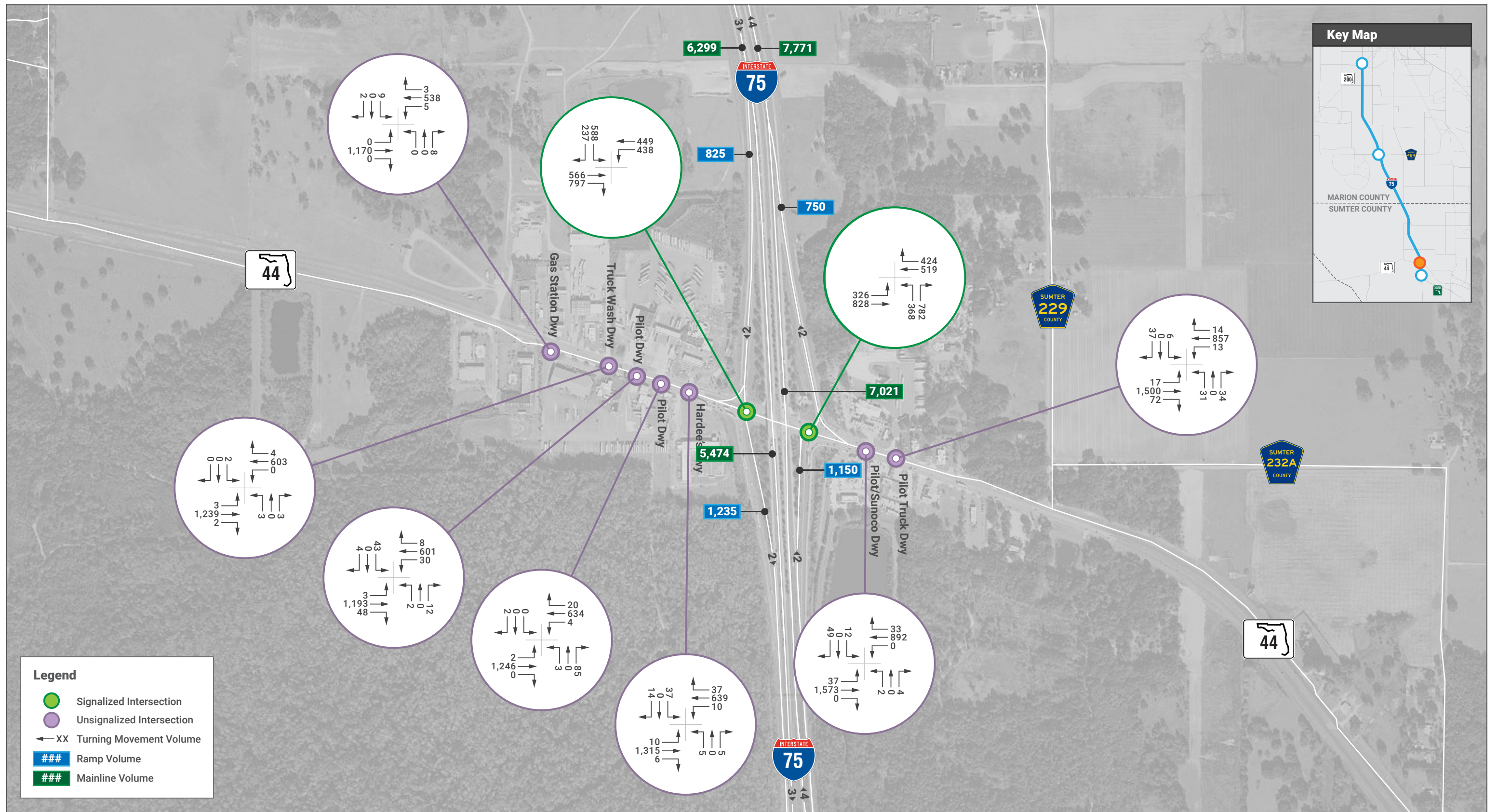
2050 Annual Average Daily Traffic Volumes

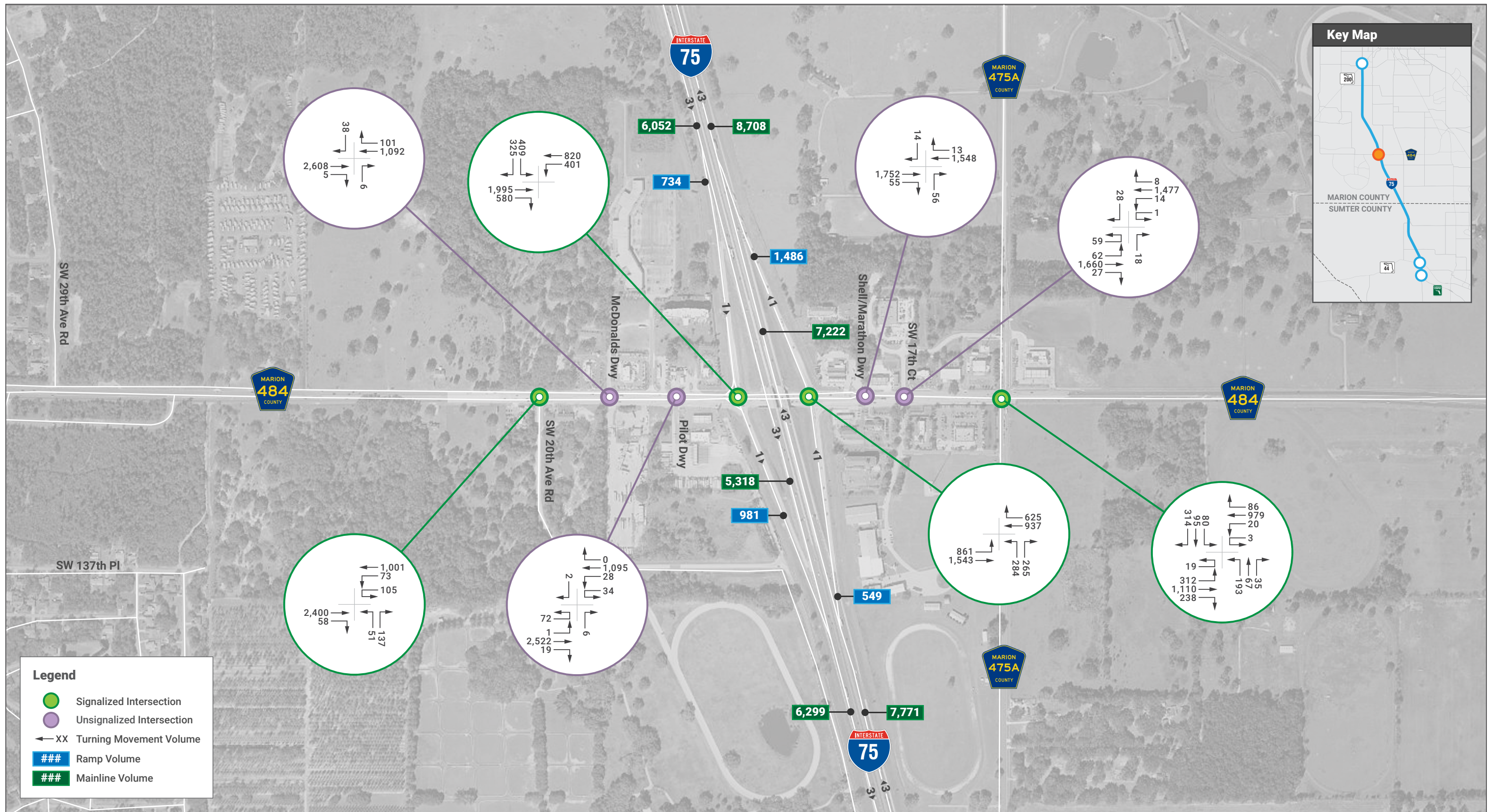
Figure 51 (2 of 4)

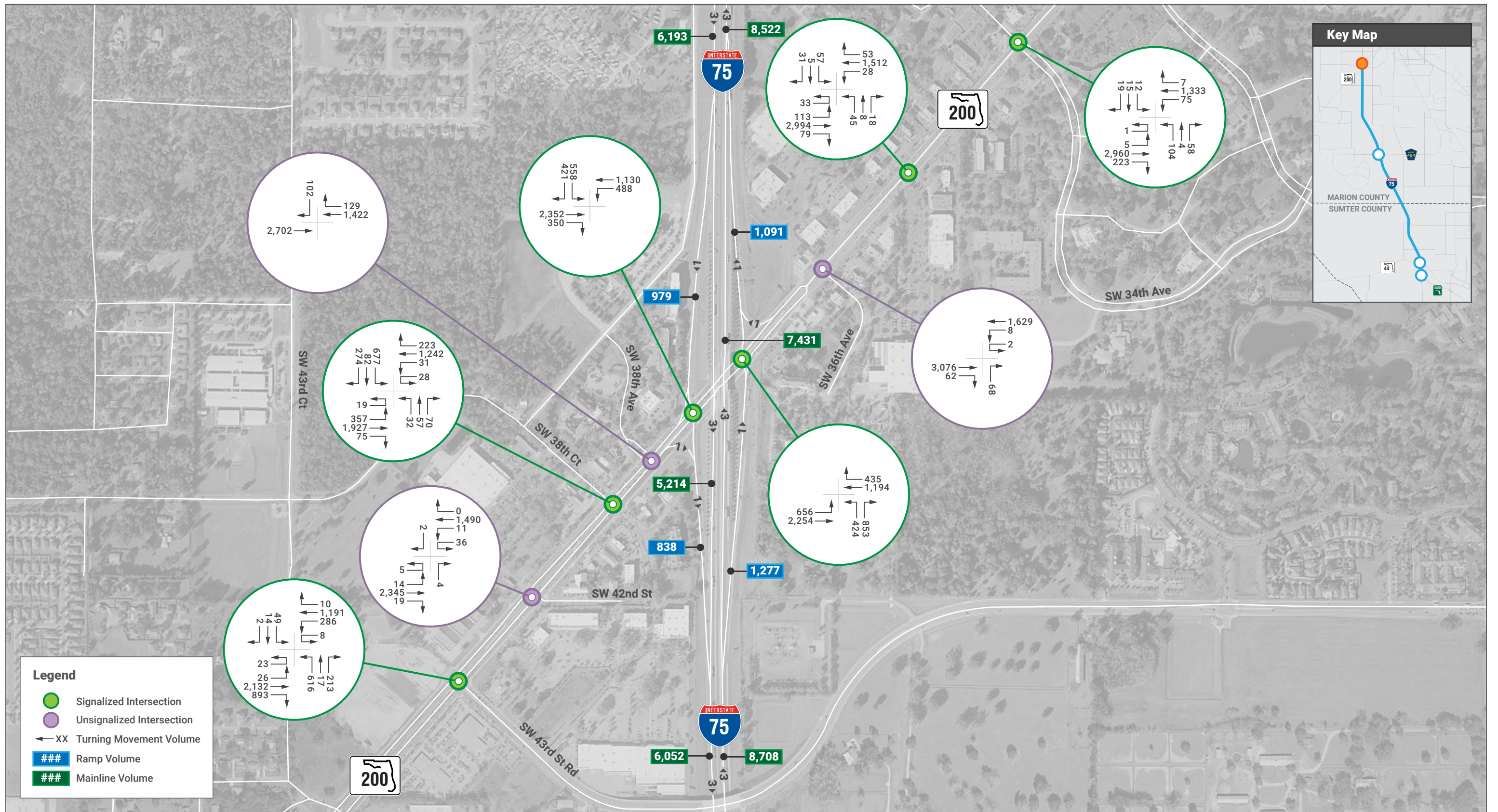








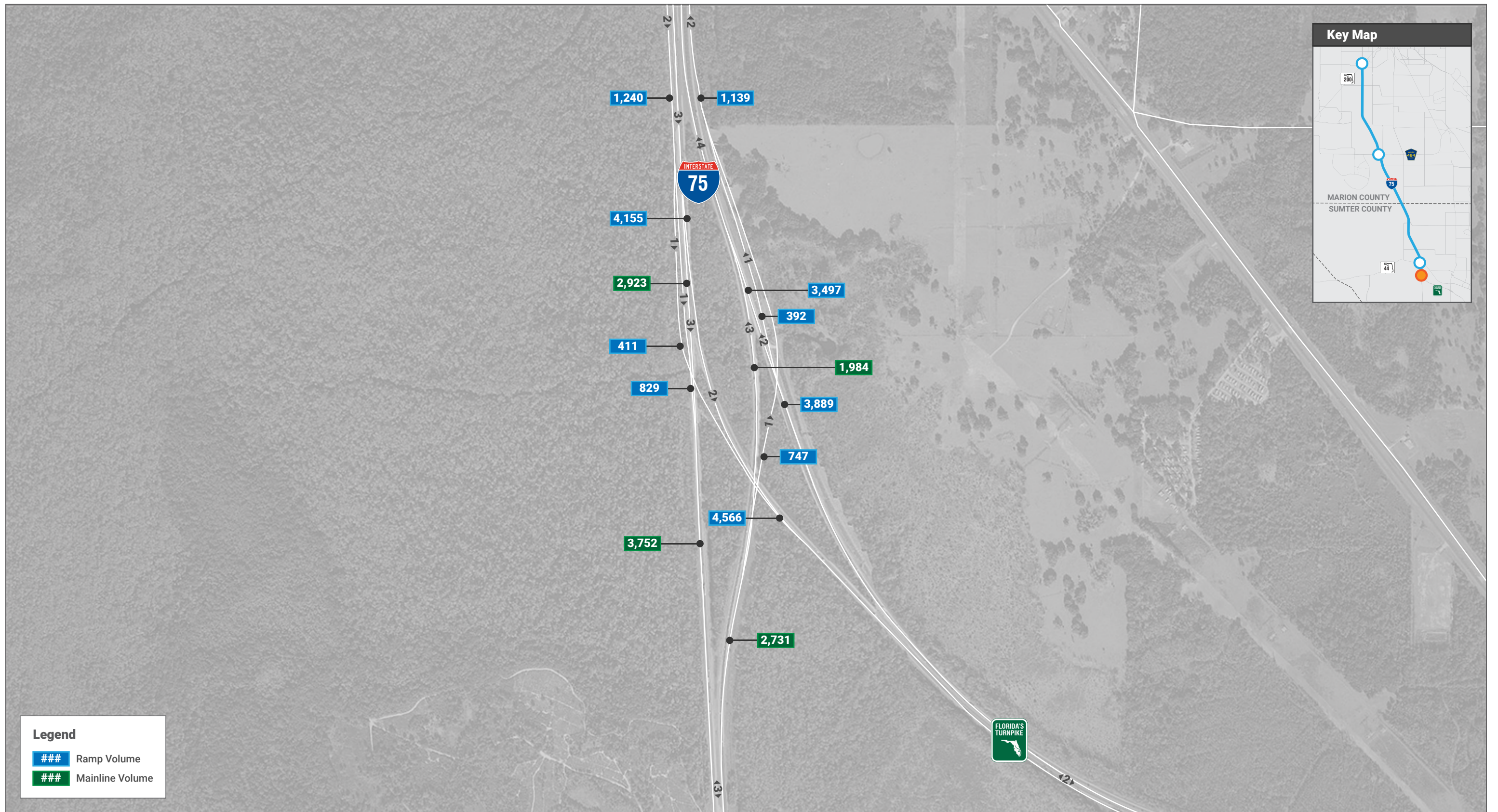


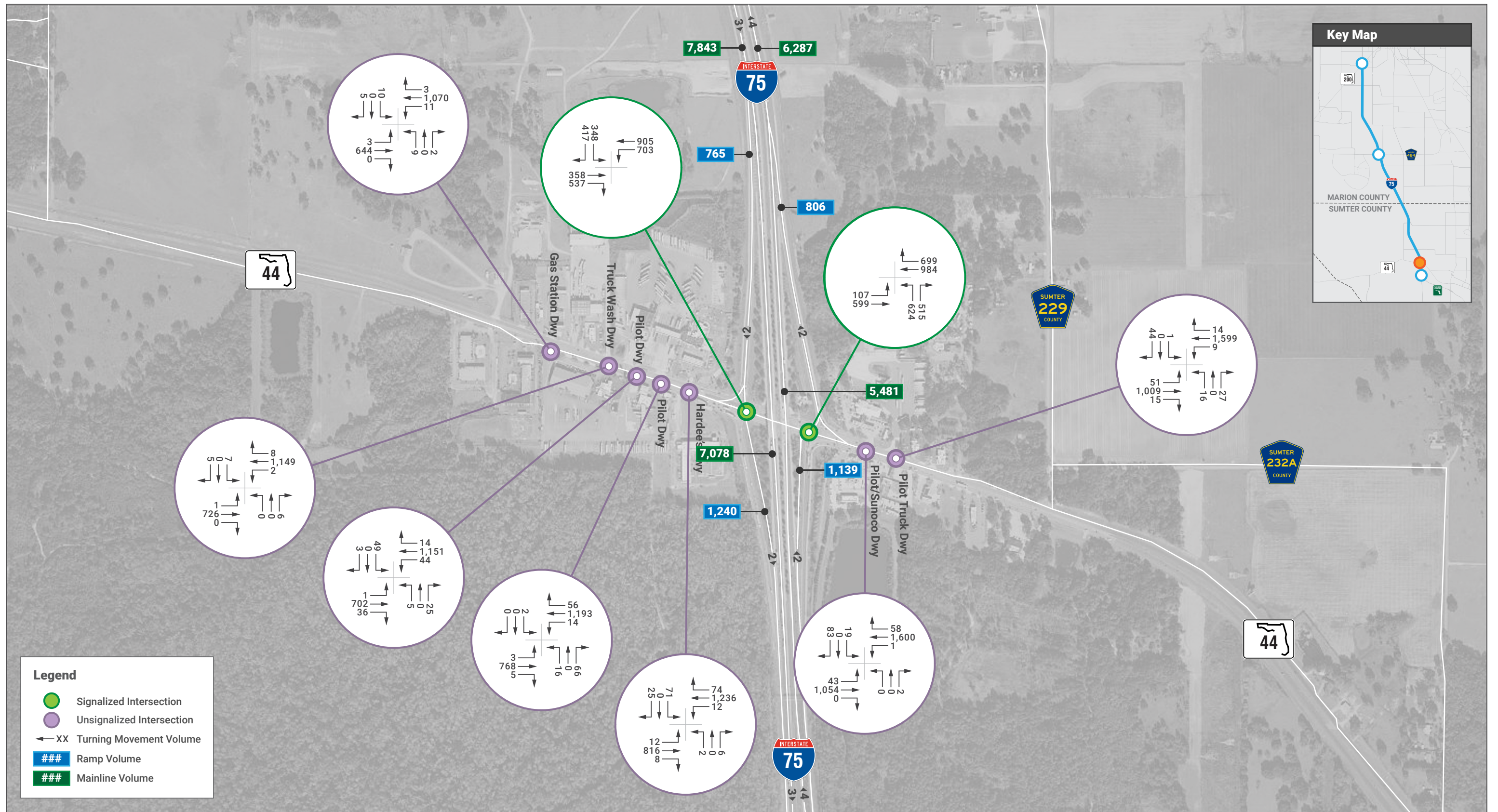


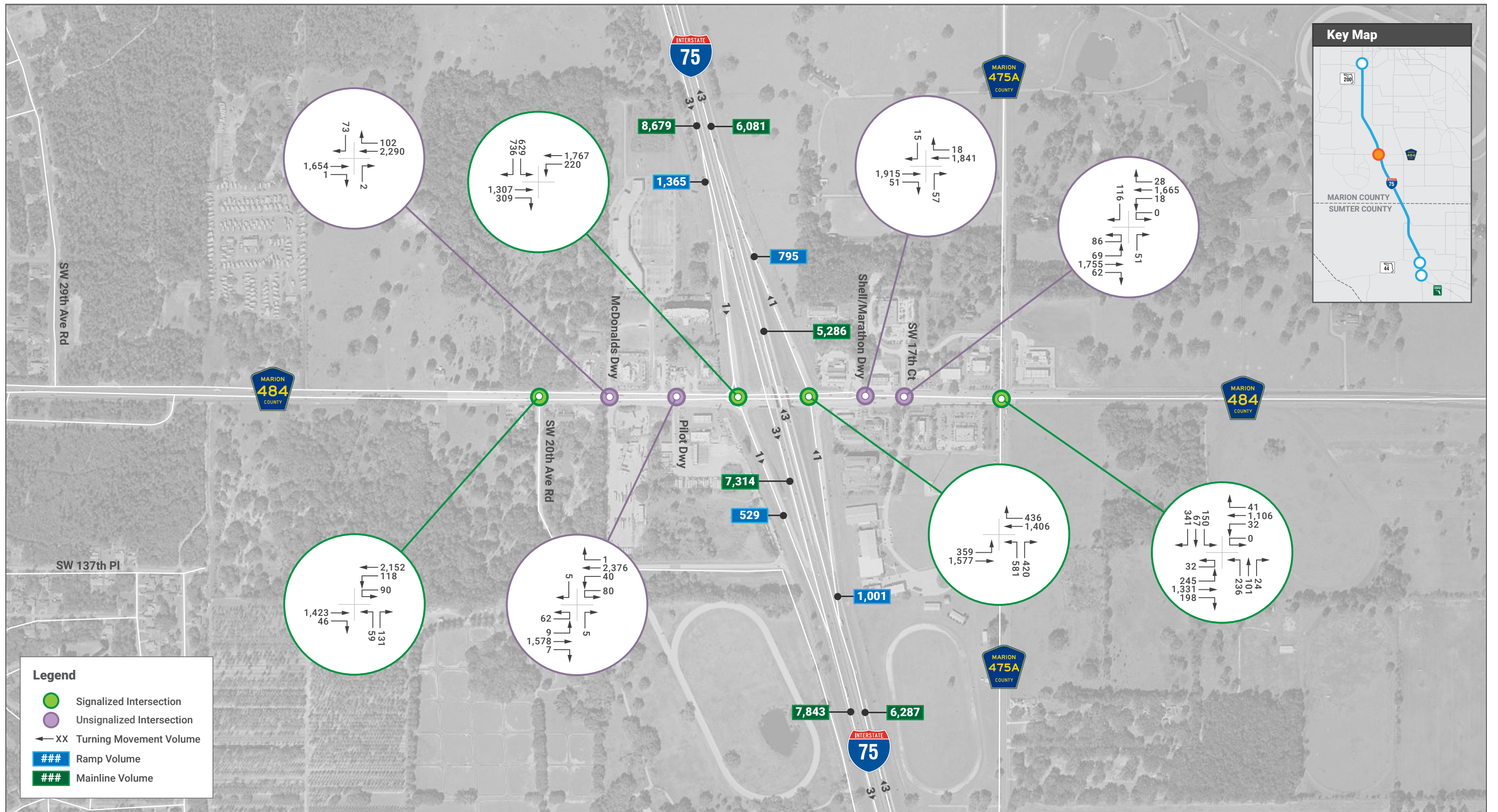
I-75 Master Plan | SR 200 Interchange
Florida's Turnpike (SR 91) to SR 200

2050 No-Build AM Peak Hour Volumes

Figure 52 (4 of 4)



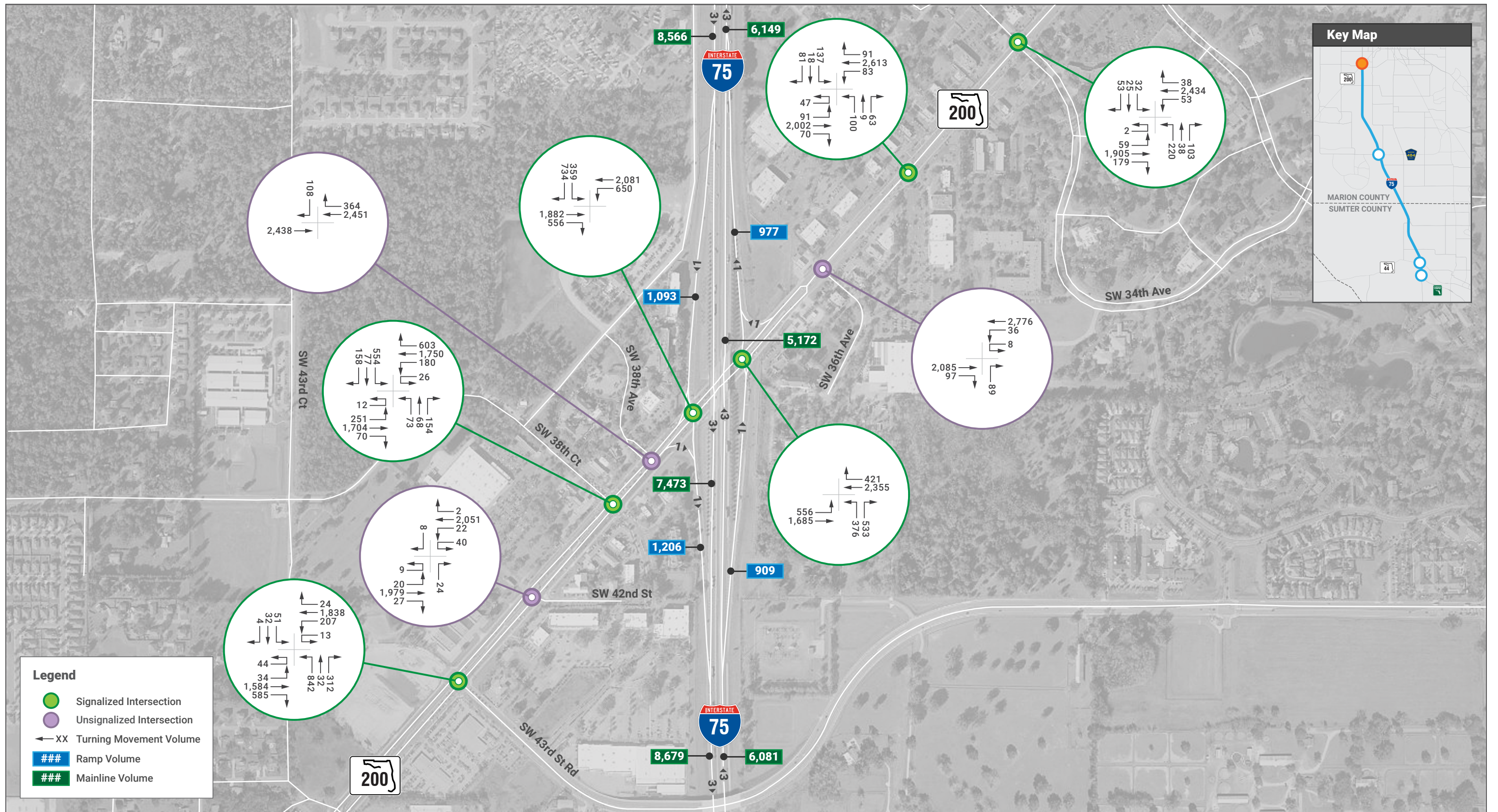




I-75 Master Plan | CR 484 Interchange
Florida's Turnpike (SR 91) to SR 200

2050 No-Build PM Peak Hour Volumes

Figure 53 (3 of 4)

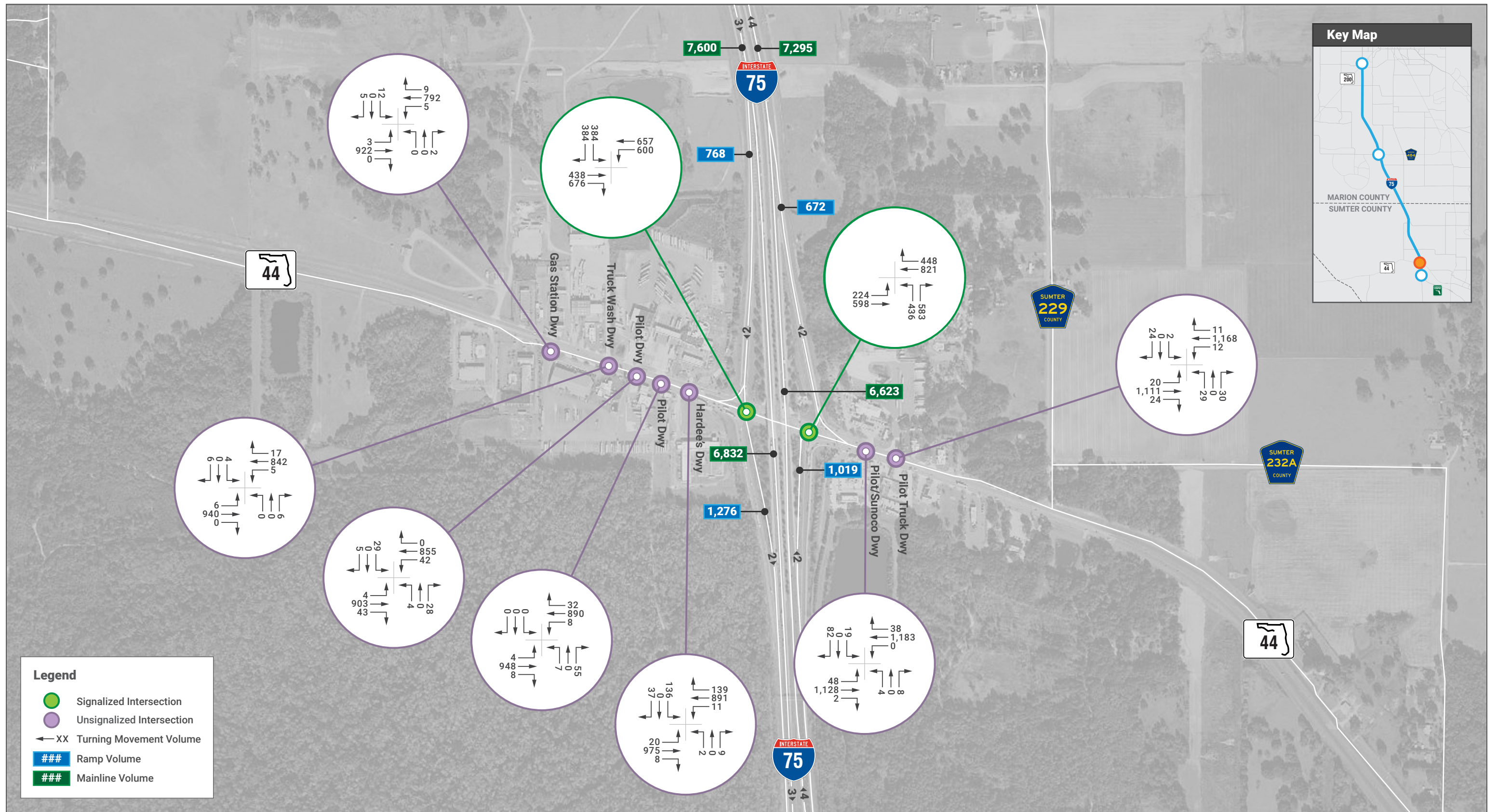


I-75 Master Plan | SR 200 Interchange
Florida's Turnpike (SR 91) to SR 200

2050 No-Build PM Peak Hour Volumes

Figure 53 (4 of 4)

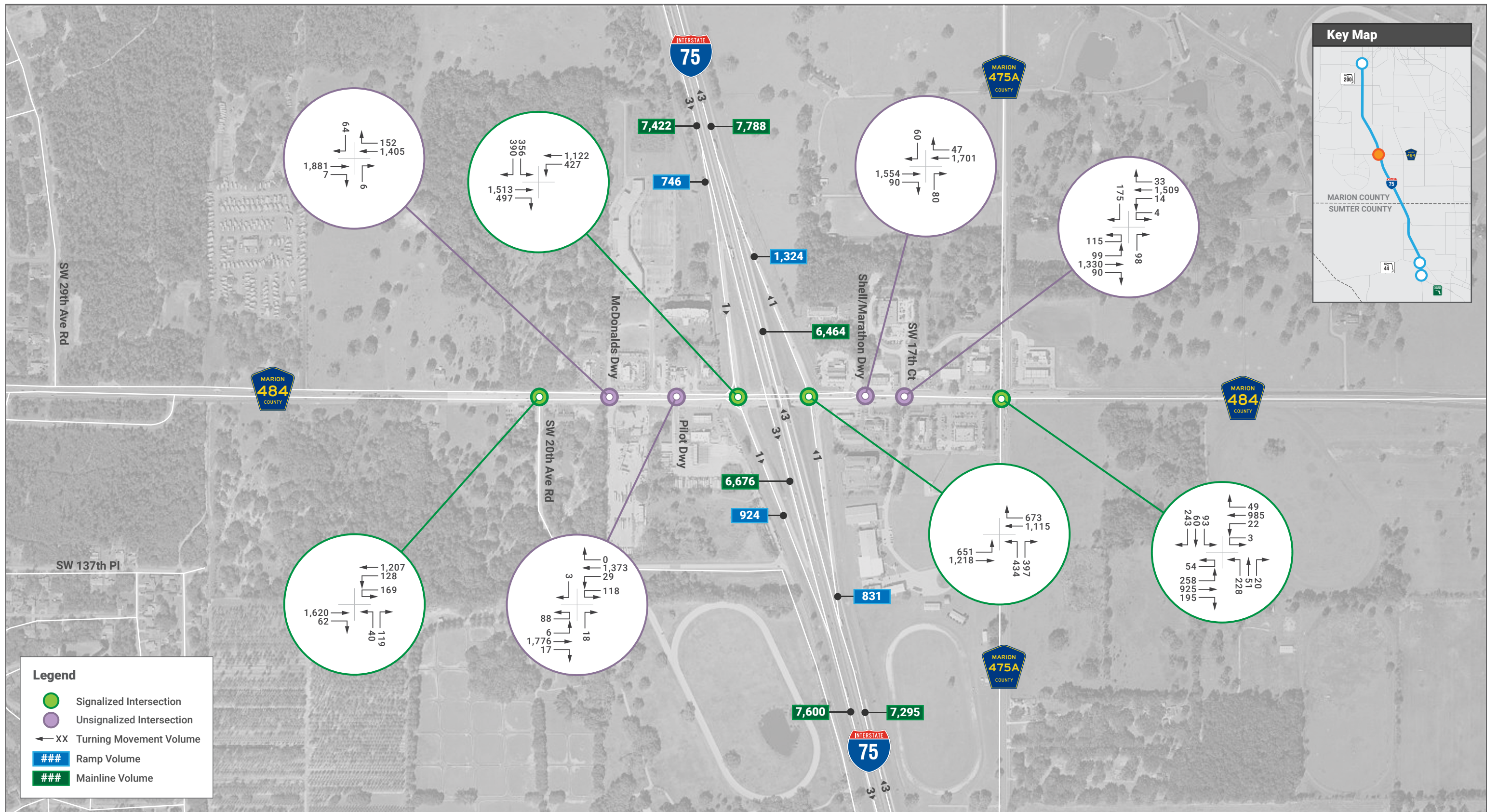




I-75 Master Plan | SR 44 Interchange
Florida's Turnpike (SR 91) to SR 200

2050 No-Build Weekend Midday Peak Hour Volumes

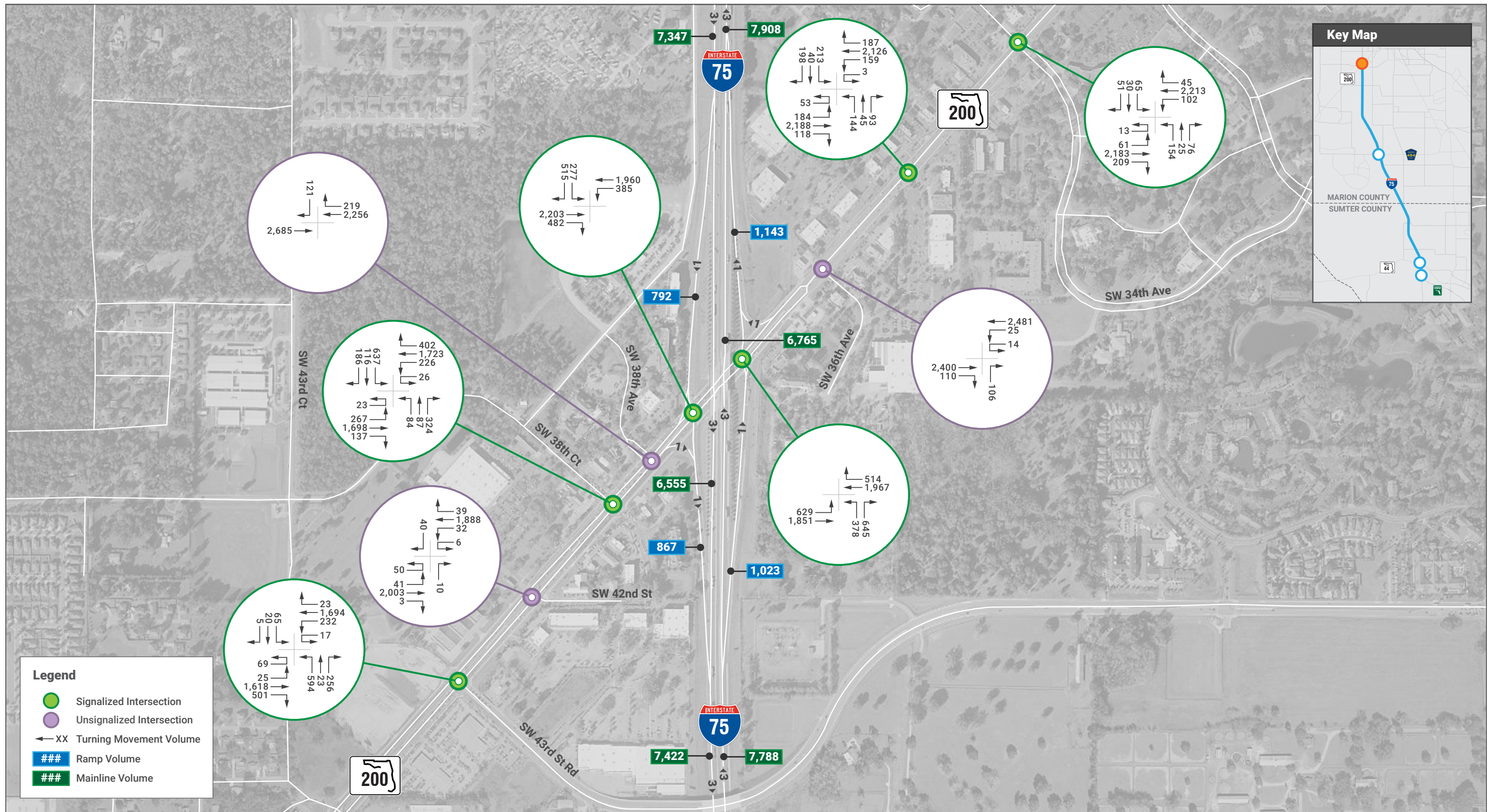
Figure 54 (2 of 4)



I-75 Master Plan | CR 484 Interchange
 Florida's Turnpike (SR 91) to SR 200

2050 No-Build Weekend Midday Peak Hour Volumes

Figure 54 (3 of 4)



I-75 Master Plan | SR 200 Interchange
Florida's Turnpike (SR 91) to SR 200

2050 No-Build Weekend Midday Peak Hour Volumes

Figure 54 (4 of 4)

APPENDIX Q – NCHRP 765 INPUTS/OUTPUTS

AM Peak Hour – 7:15 PM to 8:15 PM

NCHRP 765 Inputs

Existing (2019) AM Turning Movement Volumes

SR 44 at I-75
CR 484 at I-75
SR 200 at I-75

Node	EBL	EBT	EBR	SBL	SBT	SBR	WBL	WBT	WBR	NBL	NBT	NBR
101	107	399	235	291	0	83	209	165	227	102	0	309
102	509	1016	307	238	0	158	123	551	403	109	0	108
103	439	1449	224	228	0	313	136	596	126	164	0	327

Existing (2019) AM Approach/Departure Volumes

SR 44 at I-75
CR 484 at I-75
SR 200 at I-75

Node	Eastbound		Southbound		Westbound		Northbound	
	West Leg		North Leg		East Leg		South Leg	
	App	Dep	App	Dep	App	Dep	App	Dep
101	741	350	374	334	601	999	411	444
102	1832	818	396	912	1077	1362	217	430
103	2112	1073	541	565	858	2004	491	360

2050 AM Approach/Departure Volumes

SR 44 at I-75
CR 484 at I-75
SR 200 at I-75

Node	Eastbound		Southbound		Westbound		Northbound	
	West Leg		North Leg		East Leg		South Leg	
	App	Dep	App	Dep	App	Dep	App	Dep
101	1262	538	825	750	925	1460	1150	1235
102	2460	1095	674	1486	1370	1830	549	981
103	2449	1451	979	1091	1613	3202	1277	838

NCHRP 765 Outputs

2050 AM Raw Turning Movement Volumes

SR 44 at I-75
CR 484 at I-75
SR 200 at I-75

Node	EBL	EBT	EBR	SBL	SBT	SBR	WBL	WBT	WBR	NBL	NBT	NBR
101	326	90	797	588	0	198	438	28	424	313	0	782
102	836	1084	705	444	0	275	276	536	650	284	0	302
103	656	1546	350	599	0	421	488	756	435	274	0	1057

PM Peak Hour – 4:30 PM to 5:30 PM

NCHRP 765 Inputs

Existing (2019) PM Turning Movement Volumes

SR 44 at I-75
CR 484 at I-75
SR 200 at I-75

Node	EBL	EBT	EBR	SBL	SBT	SBR	WBL	WBT	WBR	NBL	NBT	NBR
101	63	210	243	223	0	178	280	417	359	205	0	257
102	235	744	177	379	0	477	105	1092	268	324	0	223
103	347	1261	295	244	0	463	362	1589	277	210	0	326

Existing (2019) PM Approach/Departure Volumes

SR 44 at I-75
CR 484 at I-75
SR 200 at I-75

Node	Eastbound		Southbound		Westbound		Northbound	
	West Leg		North Leg		East Leg		South Leg	
	App	Dep	App	Dep	App	Dep	App	Dep
101	516	799	401	422	1056	691	462	523
102	1156	1893	856	503	1465	1346	547	282
103	1903	2262	707	624	2228	1831	536	657

2050 PM Approach/Departure Volumes

SR 44 at I-75
CR 484 at I-75
SR 200 at I-75

Node	Eastbound		Southbound		Westbound		Northbound	
	West Leg		North Leg		East Leg		South Leg	
	App	Dep	App	Dep	App	Dep	App	Dep
101	679	1121	769	806	1491	894	1145	1240
102	1202	2353	1365	795	1510	2190	1001	529
103	2285	2815	1093	977	2605	2210	909	1206

NCHRP 765 Outputs

2050 PM Raw Turning Movement Volumes

SR 44 at I-75
CR 484 at I-75
SR 200 at I-75

Node	EBL	EBT	EBR	SBL	SBT	SBR	WBL	WBT	WBR	NBL	NBT	NBR
101	107	31	537	348	0	417	703	81	699	624	0	515
102	319	773	297	841	0	736	232	1036	476	581	0	576
103	556	1276	556	374	0	769	650	1655	421	391	0	559

Weekend Midday Peak Hour – 1:00 PM to 2:00 PM

NCHRP 765 Inputs

Existing (2019) Weekend Midday Turning Movement Volumes

SR 44 at I-75
CR 484 at I-75
SR 200 at I-75

Node	EBL	EBT	EBR	SBL	SBT	SBR	WBL	WBT	WBR	NBL	NBT	NBR
101	100	257	307	184	0	176	311	231	225	210	0	294
102	305	783	315	181	0	194	277	768	323	298	0	278
103	268	1628	270	166	0	241	245	1598	317	198	0	414

Existing (2019) Weekend Midday Approach/Departure Volumes

SR 44 at I-75
CR 484 at I-75
SR 200 at I-75

Node	Eastbound		Southbound		Westbound		Northbound	
	West Leg		North Leg		East Leg		South Leg	
	App	Dep	App	Dep	App	Dep	App	Dep
101	664	617	360	325	767	735	504	618
102	1403	1260	375	628	1368	1242	576	592
103	2166	2037	407	585	2160	2208	612	515

2050 Weekend Midday Approach/Departure Volumes

SR 44 at I-75
CR 484 at I-75
SR 200 at I-75

Node	Eastbound		Southbound		Westbound		Northbound	
	West Leg		North Leg		East Leg		South Leg	
	App	Dep	App	Dep	App	Dep	App	Dep
101	868	842	768	672	1005	1065	1019	1276
102	1706	1804	746	1324	1646	1754	831	924
103	2704	2496	792	1143	2289	2571	1023	867

NCHRP 765 Outputs

2050 Weekend Midday Raw Turning Movement Volumes

SR 44 at I-75
CR 484 at I-75
SR 200 at I-75

Node	EBL	EBT	EBR	SBL	SBT	SBR	WBL	WBT	WBR	NBL	NBT	NBR
101	224	24	676	416	0	384	600	23	448	436	0	625
102	651	862	497	422	0	457	427	838	673	509	0	470
103	629	1649	532	277	0	546	335	1532	514	418	0	645

APPENDIX R – 2030 NO-BUILD HCS OUTPUT REPORTS

I-75 South Section - Northbound

HCS Freeway Facilities Report

Project Information

Analyst	Kittelson & Associate	Date	11/6/2023
Agency	Florida Department of Transportation	Analysis Year	2030 No-Build Conditions
Jurisdiction	District Five	Time Analyzed	AM Weekday Peak Period
Facility Name	I-75 (Northbound)	Units	U.S. Customary
Project Description	I-75 PD&E South Auxiliary Lanes		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	24
Total Analysis Periods	12	Analysis Period Duration, min	15
Facility Length, mi	22.97		

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	I-75 NB	1500	3
2	Diverge	Diverge	I-75 NB SR 44 Off Ramp	1500	3
3	Basic	Basic	I-75 NB	2625	3
4	Merge	Merge	I-75 NB Turnpike On Ramp	1500	4
5	Basic	Basic	I-75 NB	1945	4
6	Basic	Basic	I-75 NB	1940	4
7	Merge	Merge	I-75 NB SR 44 On Ramp	1500	4
8	Basic	Basic	I-75 NB	1500	4
9	Basic	Basic	I-75 NB	1500	4
10	Basic	Basic	I-75 NB	47899	3
11	Basic	Basic	I-75 NB	1500	3
12	Basic	Basic	I-75 NB	1500	3
13	Diverge	Diverge	I-75 NB CR 484 Off Ramp	1500	3
14	Basic	Basic	I-75 NB	2888	3
15	Merge	Merge	I-75 NB CR 484 On Ramp	1500	3
16	Basic	Basic	I-75 NB	1500	3
17	Basic	Basic	I-75 NB	1500	3
18	Basic	Basic	I-75 NB	35197	3
19	Basic	Basic	I-75 B	1500	3
20	Basic	Basic	I-75 NB	1500	3
21	Diverge	Diverge	I-75 NB SR 200 Off Ramp	1500	3
22	Basic	Basic	I-75 NB	3296	3
23	Merge	Merge	I-75 NB SR 200 On Ramp	1500	3
24	Basic	Basic	I-75 NB	1500	3

Facility Segment Data															
Segment 1: Basic															
AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	1.00		0.907		1475		6761		0.22		71.2		6.9		A
2	1.00		0.907		1658		6761		0.25		71.2		7.8		A
3	1.00		0.907		1960		6761		0.29		71.2		9.2		A
4	1.00		0.907		2239		6761		0.33		71.2		10.5		A
5	1.00		0.907		2110		6761		0.31		71.2		9.9		A
6	1.00		0.907		2137		6761		0.32		71.2		10.0		A
7	1.00		0.907		2436		6761		0.36		71.2		11.4		B
8	1.00		0.907		2359		6761		0.35		71.2		11.0		A
9	1.00		0.907		2333		6761		0.35		71.2		10.9		A
10	1.00		0.907		2302		6761		0.34		71.2		10.8		A
11	1.00		0.907		2246		6761		0.33		71.2		10.5		A
12	1.00		0.907		2140		6761		0.32		71.2		10.0		A
Segment 2: Diverge															
AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.907	0.912	1475	316	5918	1972	0.25	0.16	64.0	60.8	7.7	7.7	A
2	1.00	1.00	0.907	0.912	1658	354	5918	1972	0.28	0.18	64.0	60.7	8.6	8.9	A
3	1.00	1.00	0.907	0.912	1960	419	5918	1972	0.33	0.21	64.1	60.6	10.2	10.7	B
4	1.00	1.00	0.907	0.912	2239	479	5918	1972	0.38	0.24	64.0	60.4	11.7	12.4	B
5	1.00	1.00	0.907	0.912	2110	452	5918	1972	0.36	0.23	64.1	60.5	11.0	11.6	B
6	1.00	1.00	0.907	0.912	2137	457	5918	1972	0.36	0.23	64.1	60.5	11.1	11.8	B
7	1.00	1.00	0.907	0.912	2436	521	5918	1972	0.41	0.26	64.0	60.3	12.7	13.6	B
8	1.00	1.00	0.907	0.912	2359	504	5918	1972	0.40	0.26	64.0	60.3	12.3	13.1	B
9	1.00	1.00	0.907	0.912	2333	499	5918	1972	0.39	0.25	64.0	60.3	12.2	13.0	B
10	1.00	1.00	0.907	0.912	2302	492	5918	1972	0.39	0.25	64.1	60.4	12.0	12.8	B
11	1.00	1.00	0.907	0.912	2246	480	5918	1972	0.38	0.24	64.0	60.4	11.7	12.4	B
12	1.00	1.00	0.907	0.912	2140	457	5918	1972	0.36	0.23	64.1	60.5	11.1	11.8	B
Segment 3: Basic															
AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	1.00		0.905		1160		6761		0.17		70.9		5.4		A
2	1.00		0.905		1305		6761		0.19		70.9		6.1		A
3	1.00		0.905		1543		6761		0.23		70.9		7.2		A
4	1.00		0.905		1761		6761		0.26		70.9		8.2		A
5	1.00		0.905		1660		6761		0.25		70.9		7.8		A
6	1.00		0.905		1681		6761		0.25		70.9		7.9		A
7	1.00		0.905		1916		6761		0.28		70.9		9.0		A

8	1.00	0.905	1856	6761	0.27	70.9	8.7	A
9	1.00	0.905	1835	6761	0.27	70.9	8.6	A
10	1.00	0.905	1811	6761	0.27	70.9	8.5	A
11	1.00	0.905	1767	6761	0.26	70.9	8.3	A
12	1.00	0.905	1684	6761	0.25	70.9	7.9	A

Segment 4: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.912	0.918	2580	1429	7507	3944	0.34	0.36	66.4	64.8	9.7	10.2	B
2	1.00	1.00	0.912	0.918	2901	1606	7507	3944	0.39	0.41	66.2	64.6	11.0	12.0	B
3	1.00	1.00	0.912	0.918	3430	1899	7507	3944	0.46	0.48	65.9	64.2	13.0	14.9	B
4	1.00	1.00	0.912	0.918	3918	2170	7507	3944	0.52	0.55	65.4	63.6	15.0	17.5	B
5	1.00	1.00	0.912	0.918	3691	2044	7507	3944	0.49	0.52	65.7	63.9	14.0	16.3	B
6	1.00	1.00	0.912	0.918	3738	2070	7507	3944	0.50	0.52	65.6	63.8	14.2	16.5	B
7	1.00	1.00	0.912	0.918	4260	2359	7507	3944	0.57	0.60	64.9	63.0	16.4	19.4	B
8	1.00	1.00	0.912	0.918	4127	2285	7507	3944	0.55	0.58	65.1	63.2	15.8	18.7	B
9	1.00	1.00	0.912	0.918	4080	2259	7507	3944	0.54	0.57	65.2	63.3	15.6	18.4	B
10	1.00	1.00	0.912	0.918	4028	2231	7507	3944	0.54	0.57	65.3	63.4	15.4	18.1	B
11	1.00	1.00	0.912	0.918	3928	2175	7507	3944	0.52	0.55	65.4	63.5	15.0	17.6	B
12	1.00	1.00	0.912	0.918	3744	2073	7507	3944	0.50	0.53	65.6	63.8	14.3	16.6	B

Segment 5: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.912	2590	9014	0.29	70.9	9.1	A
2	1.00	0.912	2911	9014	0.32	70.9	10.2	A
3	1.00	0.912	3442	9014	0.38	70.9	12.1	B
4	1.00	0.912	3932	9014	0.44	70.8	13.8	B
5	1.00	0.912	3704	9014	0.41	70.9	13.0	B
6	1.00	0.912	3751	9014	0.42	70.9	13.2	B
7	1.00	0.912	4276	9014	0.47	70.8	15.0	B
8	1.00	0.912	4143	9014	0.46	70.8	14.6	B
9	1.00	0.912	4095	9014	0.45	70.8	14.4	B
10	1.00	0.912	4043	9014	0.45	70.8	14.2	B
11	1.00	0.912	3943	9014	0.44	70.8	13.8	B
12	1.00	0.912	3758	9014	0.42	70.9	13.2	B

Segment 6: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.912	2590	9014	0.29	71.2	9.1	A
2	1.00	0.912	2911	9014	0.32	71.2	10.2	A
3	1.00	0.912	3442	9014	0.38	71.2	12.1	B

4	1.00	0.912	3932	9014	0.44	71.2	13.8	B
5	1.00	0.912	3704	9014	0.41	71.2	13.0	B
6	1.00	0.912	3751	9014	0.42	71.2	13.2	B
7	1.00	0.912	4276	9014	0.47	71.2	15.0	B
8	1.00	0.912	4143	9014	0.46	71.2	14.6	B
9	1.00	0.912	4095	9014	0.45	71.2	14.4	B
10	1.00	0.912	4043	9014	0.45	71.2	14.2	B
11	1.00	0.912	3943	9014	0.44	71.2	13.8	B
12	1.00	0.912	3758	9014	0.42	71.2	13.2	B

Segment 7: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.909	0.884	2954	356	7507	3944	0.39	0.09	67.7	65.1	10.9	6.9	A
2	1.00	1.00	0.909	0.884	3321	400	7507	3944	0.44	0.10	67.4	65.0	12.3	8.2	A
3	1.00	1.00	0.909	0.884	3926	473	7507	3944	0.52	0.12	67.1	64.8	14.6	10.4	B
4	1.00	1.00	0.909	0.884	4486	541	7507	3944	0.60	0.14	66.7	64.6	16.8	12.4	B
5	1.00	1.00	0.909	0.884	4225	509	7507	3944	0.56	0.13	66.9	64.7	15.8	11.5	B
6	1.00	1.00	0.909	0.884	4279	516	7507	3944	0.57	0.13	66.9	64.7	16.0	11.7	B
7	1.00	1.00	0.909	0.884	4877	587	7507	3944	0.65	0.15	66.5	64.4	18.3	13.8	B
8	1.00	1.00	0.909	0.884	4725	569	7507	3944	0.63	0.14	66.6	64.5	17.7	13.3	B
9	1.00	1.00	0.909	0.884	4671	562	7507	3944	0.62	0.14	66.6	64.5	17.5	13.1	B
10	1.00	1.00	0.909	0.884	4611	555	7507	3944	0.61	0.14	66.7	64.6	17.3	12.9	B
11	1.00	1.00	0.909	0.884	4498	542	7507	3944	0.60	0.14	66.7	64.6	16.9	12.5	B
12	1.00	1.00	0.909	0.884	4286	516	7507	3944	0.57	0.13	66.9	64.7	16.0	11.7	B

Segment 8: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.909	2945	9014	0.33	70.9	10.3	A
2	1.00	0.909	3310	9014	0.37	70.9	11.6	B
3	1.00	0.909	3913	9014	0.43	70.8	13.7	B
4	1.00	0.909	4471	9014	0.50	70.8	15.7	B
5	1.00	0.909	4211	9014	0.47	70.8	14.8	B
6	1.00	0.909	4265	9014	0.47	70.8	15.0	B
7	1.00	0.909	4861	9014	0.54	70.7	17.2	B
8	1.00	0.909	4710	9014	0.52	70.8	16.6	B
9	1.00	0.909	4656	9014	0.52	70.8	16.4	B
10	1.00	0.909	4596	9014	0.51	70.8	16.2	B
11	1.00	0.909	4483	9014	0.50	70.8	15.8	B
12	1.00	0.909	4272	9014	0.47	70.8	15.0	B

Segment 9: Basic

AP	PHF	fHV	Flow Rate	Capacity	d/c	Speed	Density	LOS
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			(pc/h)	(pc/h)	Ratio	(mi/h)	(pc/mi/ln)	
1	1.00	0.909	2945	9014	0.33	71.2	10.3	A
2	1.00	0.909	3310	9014	0.37	71.2	11.6	B
3	1.00	0.909	3913	9014	0.43	71.2	13.7	B
4	1.00	0.909	4471	9014	0.50	71.1	15.7	B
5	1.00	0.909	4211	9014	0.47	71.2	14.8	B
6	1.00	0.909	4265	9014	0.47	71.2	15.0	B
7	1.00	0.909	4861	9014	0.54	70.7	17.2	B
8	1.00	0.909	4710	9014	0.52	70.8	16.6	B
9	1.00	0.909	4656	9014	0.52	70.9	16.4	B
10	1.00	0.909	4596	9014	0.51	71.0	16.2	B
11	1.00	0.909	4483	9014	0.50	71.0	15.8	B
12	1.00	0.909	4272	9014	0.47	71.2	15.0	B

Segment 10: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.909	2945	6761	0.44	71.2	13.8	B
2	1.00	0.909	3310	6761	0.49	71.1	15.5	B
3	1.00	0.909	3913	6761	0.58	70.1	18.6	C
4	1.00	0.909	4471	6761	0.66	68.1	21.9	C
5	1.00	0.909	4211	6761	0.62	69.1	20.3	C
6	1.00	0.909	4265	6761	0.63	68.9	20.6	C
7	1.00	0.909	4861	6761	0.72	66.2	24.5	C
8	1.00	0.909	4710	6761	0.70	67.0	23.4	C
9	1.00	0.909	4656	6761	0.69	67.2	23.1	C
10	1.00	0.909	4596	6761	0.68	67.5	22.7	C
11	1.00	0.909	4483	6761	0.66	68.0	22.0	C
12	1.00	0.909	4272	6761	0.63	68.9	20.7	C

Segment 11: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.909	2945	6761	0.44	71.2	13.8	B
2	1.00	0.909	3310	6761	0.49	71.1	15.5	B
3	1.00	0.909	3913	6761	0.58	70.1	18.6	C
4	1.00	0.909	4471	6761	0.66	68.1	21.9	C
5	1.00	0.909	4211	6761	0.62	69.1	20.3	C
6	1.00	0.909	4265	6761	0.63	68.9	20.6	C
7	1.00	0.909	4861	6761	0.72	66.2	24.5	C
8	1.00	0.909	4710	6761	0.70	67.0	23.4	C
9	1.00	0.909	4656	6761	0.69	67.2	23.1	C
10	1.00	0.909	4596	6761	0.68	67.5	22.7	C
11	1.00	0.909	4483	6761	0.66	68.0	22.0	C

12	1.00	0.909	4272	6761	0.63	68.9	20.7	C							
Segment 12: Basic															
AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	1.00	0.909	2945	6761	0.44	71.2	13.8	B							
2	1.00	0.909	3310	6761	0.49	71.1	15.5	B							
3	1.00	0.909	3913	6761	0.58	70.1	18.6	C							
4	1.00	0.909	4471	6761	0.66	68.1	21.9	C							
5	1.00	0.909	4211	6761	0.62	69.1	20.3	C							
6	1.00	0.909	4265	6761	0.63	68.9	20.6	C							
7	1.00	0.909	4861	6761	0.72	66.2	24.5	C							
8	1.00	0.909	4710	6761	0.70	67.0	23.4	C							
9	1.00	0.909	4656	6761	0.69	67.2	23.1	C							
10	1.00	0.909	4596	6761	0.68	67.5	22.7	C							
11	1.00	0.909	4483	6761	0.66	68.0	22.0	C							
12	1.00	0.909	4272	6761	0.63	68.9	20.7	C							
Segment 13: Diverge															
AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.909	0.932	2945	235	5918	1972	0.50	0.12	65.3	61.0	15.0	16.3	B
2	1.00	1.00	0.909	0.932	3310	264	5918	1972	0.56	0.13	65.4	61.0	16.9	18.2	B
3	1.00	1.00	0.909	0.932	3913	312	5918	1972	0.66	0.16	65.3	60.8	20.0	21.2	C
4	1.00	1.00	0.909	0.932	4471	356	5918	1972	0.76	0.18	65.2	60.7	22.9	23.9	C
5	1.00	1.00	0.909	0.932	4211	336	5918	1972	0.71	0.17	65.3	60.8	21.5	22.7	C
6	1.00	1.00	0.909	0.932	4265	340	5918	1972	0.72	0.17	65.3	60.8	21.8	23.0	C
7	1.00	1.00	0.909	0.932	4861	387	5918	1972	0.82	0.20	65.1	60.7	24.9	25.7	C
8	1.00	1.00	0.909	0.932	4710	376	5918	1972	0.80	0.19	65.2	60.7	24.1	25.0	C
9	1.00	1.00	0.909	0.932	4656	371	5918	1972	0.79	0.19	65.2	60.7	23.8	24.8	C
10	1.00	1.00	0.909	0.932	4596	366	5918	1972	0.78	0.19	65.2	60.7	23.5	24.5	C
11	1.00	1.00	0.909	0.932	4483	357	5918	1972	0.76	0.18	65.2	60.7	22.9	24.0	C
12	1.00	1.00	0.909	0.932	4272	340	5918	1972	0.72	0.17	65.3	60.8	21.8	23.0	C
Segment 14: Basic															
AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	1.00	0.907	2710	6761	0.40	71.0	12.7	B							
2	1.00	0.907	3046	6761	0.45	71.0	14.3	B							
3	1.00	0.907	3601	6761	0.53	70.7	17.0	B							
4	1.00	0.907	4115	6761	0.61	69.5	19.7	C							
5	1.00	0.907	3875	6761	0.57	70.1	18.4	C							
6	1.00	0.907	3925	6761	0.58	70.0	18.7	C							
7	1.00	0.907	4474	6761	0.66	68.1	21.9	C							

8	1.00	0.907	4334	6761	0.64	68.7	21.0	C
9	1.00	0.907	4284	6761	0.63	68.9	20.7	C
10	1.00	0.907	4230	6761	0.63	69.1	20.4	C
11	1.00	0.907	4126	6761	0.61	69.4	19.8	C
12	1.00	0.907	3932	6761	0.58	70.0	18.7	C

Segment 15: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.914	0.940	3463	774	5918	1972	0.59	0.39	64.5	62.6	17.9	18.7	B
2	1.00	1.00	0.914	0.940	3894	871	5918	1972	0.66	0.44	64.1	62.2	20.2	20.9	C
3	1.00	1.00	0.914	0.940	4603	1030	5918	1972	0.78	0.52	63.1	61.2	24.3	24.7	C
4	1.00	1.00	0.914	0.940	5260	1177	5918	1972	0.89	0.60	61.7	59.6	28.4	28.2	D
5	1.00	1.00	0.914	0.940	4955	1109	5918	1972	0.84	0.56	62.4	60.4	26.5	26.5	C
6	1.00	1.00	0.914	0.940	5017	1122	5918	1972	0.85	0.57	62.3	60.2	26.8	26.9	C
7	1.00	1.00	0.914	0.940	5720	1280	5918	1972	0.97	0.65	60.4	58.0	31.6	30.6	D
8	1.00	1.00	0.914	0.940	5540	1239	5918	1972	0.94	0.63	61.0	58.7	30.3	29.6	D
9	1.00	1.00	0.914	0.940	5478	1226	5918	1972	0.93	0.62	61.2	58.9	29.8	29.3	D
10	1.00	1.00	0.914	0.940	5408	1210	5918	1972	0.91	0.61	61.3	59.1	29.4	28.9	D
11	1.00	1.00	0.914	0.940	5274	1180	5918	1972	0.89	0.60	61.7	59.5	28.5	28.2	D
12	1.00	1.00	0.914	0.940	5026	1124	5918	1972	0.85	0.57	62.3	60.2	26.9	26.9	C

Segment 16: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.914	3486	6761	0.52	70.6	16.4	B
2	1.00	0.914	3919	6761	0.58	70.0	18.7	C
3	1.00	0.914	4632	6761	0.69	67.4	22.9	C
4	1.00	0.914	5293	6761	0.78	63.5	27.8	D
5	1.00	0.914	4986	6761	0.74	65.4	25.4	C
6	1.00	0.914	5049	6761	0.75	65.1	25.9	C
7	1.00	0.914	5756	6761	0.85	60.0	32.0	D
8	1.00	0.914	5575	6761	0.82	61.4	30.3	D
9	1.00	0.914	5512	6761	0.82	61.9	29.7	D
10	1.00	0.914	5442	6761	0.80	62.4	29.1	D
11	1.00	0.914	5307	6761	0.78	63.4	27.9	D
12	1.00	0.914	5058	6761	0.75	65.0	25.9	C

Segment 17: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.914	3486	6761	0.52	70.9	16.4	B
2	1.00	0.914	3919	6761	0.58	70.0	18.7	C
3	1.00	0.914	4632	6761	0.69	67.4	22.9	C

4	1.00	0.914	5293	6761	0.78	63.5	27.8	D
5	1.00	0.914	4986	6761	0.74	65.4	25.4	C
6	1.00	0.914	5049	6761	0.75	65.1	25.9	C
7	1.00	0.914	5756	6761	0.85	60.0	32.0	D
8	1.00	0.914	5575	6761	0.82	61.4	30.3	D
9	1.00	0.914	5512	6761	0.82	61.9	29.7	D
10	1.00	0.914	5442	6761	0.80	62.4	29.1	D
11	1.00	0.914	5307	6761	0.78	63.4	27.9	D
12	1.00	0.914	5058	6761	0.75	65.0	25.9	C

Segment 18: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.914	3486	6761	0.52	70.9	16.4	B
2	1.00	0.914	3919	6761	0.58	70.0	18.7	C
3	1.00	0.914	4632	6761	0.69	67.4	22.9	C
4	1.00	0.914	5293	6761	0.78	63.5	27.8	D
5	1.00	0.914	4986	6761	0.74	65.4	25.4	C
6	1.00	0.914	5049	6761	0.75	65.1	25.9	C
7	1.00	0.914	5756	6761	0.85	60.0	32.0	D
8	1.00	0.914	5575	6761	0.82	61.4	30.3	D
9	1.00	0.914	5512	6761	0.82	61.9	29.7	D
10	1.00	0.914	5442	6761	0.80	62.4	29.1	D
11	1.00	0.914	5307	6761	0.78	63.4	27.9	D
12	1.00	0.914	5058	6761	0.75	65.0	25.9	C

Segment 19: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.914	3486	6761	0.52	70.9	16.4	B
2	1.00	0.914	3919	6761	0.58	70.0	18.7	C
3	1.00	0.914	4632	6761	0.69	67.4	22.9	C
4	1.00	0.914	5293	6761	0.78	63.5	27.8	D
5	1.00	0.914	4986	6761	0.74	65.4	25.4	C
6	1.00	0.914	5049	6761	0.75	65.1	25.9	C
7	1.00	0.914	5756	6761	0.85	60.0	32.0	D
8	1.00	0.914	5575	6761	0.82	61.4	30.3	D
9	1.00	0.914	5512	6761	0.82	61.9	29.7	D
10	1.00	0.914	5442	6761	0.80	62.4	29.1	D
11	1.00	0.914	5307	6761	0.78	63.4	27.9	D
12	1.00	0.914	5058	6761	0.75	65.0	25.9	C

Segment 20: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
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1	1.00	0.914	3486	6761	0.52	70.9	16.4	B
2	1.00	0.914	3919	6761	0.58	70.0	18.7	C
3	1.00	0.914	4632	6761	0.69	67.4	22.9	C
4	1.00	0.914	5293	6761	0.78	63.5	27.8	D
5	1.00	0.914	4986	6761	0.74	65.4	25.4	C
6	1.00	0.914	5049	6761	0.75	65.1	25.9	C
7	1.00	0.914	5756	6761	0.85	60.0	32.0	D
8	1.00	0.914	5575	6761	0.82	61.4	30.3	D
9	1.00	0.914	5512	6761	0.82	61.9	29.7	D
10	1.00	0.914	5442	6761	0.80	62.4	29.1	D
11	1.00	0.914	5307	6761	0.78	63.4	27.9	D
12	1.00	0.914	5058	6761	0.75	65.0	25.9	C

Segment 21: Diverge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.914	0.951	3486	529	5918	1972	0.59	0.27	64.7	60.3	18.0	23.5	C
2	1.00	1.00	0.914	0.951	3919	594	5918	1972	0.66	0.30	64.5	60.1	20.3	25.7	C
3	1.00	1.00	0.914	0.951	4632	702	5918	1972	0.78	0.36	64.3	59.8	24.0	29.2	D
4	1.00	1.00	0.914	0.951	5293	802	5918	1972	0.89	0.41	64.0	59.5	27.6	32.2	D
5	1.00	1.00	0.914	0.951	4986	756	5918	1972	0.84	0.38	64.2	59.7	25.9	30.8	D
6	1.00	1.00	0.914	0.951	5049	766	5918	1972	0.85	0.39	64.1	59.6	26.3	31.1	D
7	1.00	1.00	0.914	0.951	5756	873	5918	1972	0.97	0.44	63.9	59.4	30.0	34.2	D
8	1.00	1.00	0.914	0.951	5575	845	5918	1972	0.94	0.43	63.9	59.4	29.1	33.4	D
9	1.00	1.00	0.914	0.951	5512	836	5918	1972	0.93	0.42	64.0	59.5	28.7	33.1	D
10	1.00	1.00	0.914	0.951	5442	824	5918	1972	0.92	0.42	64.0	59.5	28.3	32.8	D
11	1.00	1.00	0.914	0.951	5307	804	5918	1972	0.90	0.41	64.1	59.5	27.6	32.2	D
12	1.00	1.00	0.914	0.951	5058	767	5918	1972	0.85	0.39	64.2	59.6	26.3	31.1	D

Segment 22: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.908	2955	6761	0.44	71.1	13.8	B
2	1.00	0.908	3323	6761	0.49	71.1	15.6	B
3	1.00	0.908	3927	6761	0.58	70.0	18.7	C
4	1.00	0.908	4488	6761	0.66	68.0	22.0	C
5	1.00	0.908	4227	6761	0.63	69.1	20.4	C
6	1.00	0.908	4281	6761	0.63	68.9	20.7	C
7	1.00	0.908	4880	6761	0.72	66.1	24.6	C
8	1.00	0.908	4727	6761	0.70	66.9	23.6	C
9	1.00	0.908	4673	6761	0.69	67.1	23.2	C
10	1.00	0.908	4615	6761	0.68	67.4	22.8	C
11	1.00	0.908	4500	6761	0.67	68.0	22.1	C

12	1.00	0.908	4289	6761	0.63	68.8	20.8	C
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Segment 23: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.917	0.967	3434	508	5918	1972	0.58	0.26	65.1	63.4	17.6	16.4	B
2	1.00	1.00	0.917	0.967	3861	571	5918	1972	0.65	0.29	64.7	63.0	19.9	18.6	B
3	1.00	1.00	0.917	0.967	4563	674	5918	1972	0.77	0.34	63.8	62.1	23.8	22.2	C
4	1.00	1.00	0.917	0.967	5214	770	5918	1972	0.88	0.39	62.7	60.9	27.7	25.5	C
5	1.00	1.00	0.917	0.967	4911	726	5918	1972	0.83	0.37	63.3	61.5	25.9	24.0	C
6	1.00	1.00	0.917	0.967	4974	735	5918	1972	0.84	0.37	63.2	61.4	26.2	24.3	C
7	1.00	1.00	0.917	0.967	5670	838	5918	1972	0.96	0.42	61.6	59.5	30.7	27.9	C
8	1.00	1.00	0.917	0.967	5492	812	5918	1972	0.93	0.41	62.1	60.1	29.5	27.0	C
9	1.00	1.00	0.917	0.967	5429	802	5918	1972	0.92	0.41	62.2	60.3	29.1	26.6	C
10	1.00	1.00	0.917	0.967	5361	792	5918	1972	0.91	0.40	62.4	60.5	28.6	26.3	C
11	1.00	1.00	0.917	0.967	5228	772	5918	1972	0.88	0.39	62.7	60.8	27.8	25.6	C
12	1.00	1.00	0.917	0.967	4982	736	5918	1972	0.84	0.37	63.2	61.4	26.3	24.3	C

Segment 24: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.917	3461	6761	0.51	70.7	16.3	B
2	1.00	0.917	3892	6761	0.58	70.1	18.5	C
3	1.00	0.917	4600	6761	0.68	67.5	22.7	C
4	1.00	0.917	5256	6761	0.78	63.7	27.5	D
5	1.00	0.917	4951	6761	0.73	65.7	25.1	C
6	1.00	0.917	5014	6761	0.74	65.3	25.6	C
7	1.00	0.917	5715	6761	0.85	60.3	31.6	D
8	1.00	0.917	5537	6761	0.82	61.7	29.9	D
9	1.00	0.917	5473	6761	0.81	62.2	29.3	D
10	1.00	0.917	5405	6761	0.80	62.7	28.7	D
11	1.00	0.917	5270	6761	0.78	63.6	27.6	D
12	1.00	0.917	5023	6761	0.74	65.2	25.7	C

Facility Analysis Results

AP	VMT veh-mi/AP	VMT-Demand veh-mi/AP	VHD veh-h/AP	Total Delay Cost \$/AP	Speed mi/h	Density pc/mi/ln	Density veh/mi/ln	TT min	LOS
1	16004	15806	2.10	52.56	70.5	14.1	12.8	19.50	B
2	17992	17768	3.87	96.71	70.1	15.9	14.5	19.70	B
3	21268	21003	11.35	283.68	68.6	19.2	17.5	20.10	C
4	24300	23998	26.68	666.95	66.0	22.8	20.8	20.90	C
5	22889	22604	18.58	464.52	67.3	21.1	19.2	20.50	C
6	23181	22893	19.94	498.52	67.1	21.4	19.5	20.50	C
7	26424	26096	44.04	1101.07	63.7	25.8	23.5	21.70	C

8	25597	25279	36.55	913.86	64.6	24.6	22.4	21.30	C
9	25305	24990	34.24	856.09	64.9	24.2	22.0	21.20	C
10	24983	24672	31.73	793.13	65.3	23.7	21.6	21.10	C
11	24366	24063	27.21	680.33	66.0	22.9	20.9	20.90	C
12	23219	22931	20.20	504.99	67.1	21.5	19.6	20.60	C

Facility Overall Results

Space Mean Speed, mi/h	66.5	Average Density, veh/mi/ln	19.5
Average Travel Time, min	20.70	Average Density, pc/mi/ln	21.4
Total VMT, veh-mi	275527	Total VHD, veh-h	276.50
Vehicle Value of Time (VOT), \$/h	25.00	Total Delay Cost, \$	6912.40

HCS Freeway Facilities Report

Project Information

Analyst	Kittelson & Associate	Date	11/6/2023
Agency	Florida Department of Transportation	Analysis Year	2030 No-Build Conditions
Jurisdiction	District Five	Time Analyzed	PM Weekday Peak Period
Facility Name	I-75 (Northbound)	Units	U.S. Customary
Project Description	I-75 PD&E South Auxiliary Lanes		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	24
Total Analysis Periods	12	Analysis Period Duration, min	15
Facility Length, mi	22.97		

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	I-75 NB	1500	3
2	Diverge	Diverge	I-75 NB SR 44 Off Ramp	1500	3
3	Basic	Basic	I-75 NB	2625	3
4	Merge	Merge	I-75 NB Turnpike On Ramp	1500	4
5	Basic	Basic	I-75 NB	1945	4
6	Basic	Basic	I-75 NB	1940	4
7	Merge	Merge	I-75 NB SR 44 On Ramp	1500	4
8	Basic	Basic	I-75 NB	1500	4
9	Basic	Basic	I-75 NB	1500	4
10	Basic	Basic	I-75 NB	47899	3
11	Basic	Basic	I-75 NB	1500	3
12	Basic	Basic	I-75 NB	1500	3
13	Diverge	Diverge	I-75 NB CR 484 Off Ramp	1500	3
14	Basic	Basic	I-75 NB	2888	3
15	Merge	Merge	I-75 NB CR 484 On Ramp	1500	3
16	Basic	Basic	I-75 NB	1500	3
17	Basic	Basic	I-75 NB	1500	3
18	Basic	Basic	I-75 NB	35197	3
19	Basic	Basic	I-75 B	1500	3
20	Basic	Basic	I-75 NB	1500	3
21	Diverge	Diverge	I-75 NB SR 200 Off Ramp	1500	3
22	Basic	Basic	I-75 NB	3296	3
23	Merge	Merge	I-75 NB SR 200 On Ramp	1500	3
24	Basic	Basic	I-75 NB	1500	3

Facility Segment Data															
Segment 1: Basic															
AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	1.00		0.907		2307		6761		0.34		71.2		10.8		A
2	1.00		0.907		2176		6761		0.32		71.2		10.2		A
3	1.00		0.907		2240		6761		0.33		71.2		10.5		A
4	1.00		0.907		2110		6761		0.31		71.2		9.9		A
5	1.00		0.907		1809		6761		0.27		71.2		8.5		A
6	1.00		0.907		2019		6761		0.30		71.2		9.5		A
7	1.00		0.907		2078		6761		0.31		71.2		9.7		A
8	1.00		0.907		2142		6761		0.32		71.2		10.0		A
9	1.00		0.907		2066		6761		0.31		71.2		9.7		A
10	1.00		0.907		1955		6761		0.29		71.2		9.2		A
11	1.00		0.907		1901		6761		0.28		71.2		8.9		A
12	1.00		0.907		1787		6761		0.26		71.2		8.4		A
Segment 2: Diverge															
AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.907	0.912	2307	578	5918	1972	0.39	0.29	63.7	60.1	12.1	13.0	B
2	1.00	1.00	0.907	0.912	2176	546	5918	1972	0.37	0.28	63.7	60.2	11.4	12.2	B
3	1.00	1.00	0.907	0.912	2240	561	5918	1972	0.38	0.28	63.7	60.2	11.7	12.6	B
4	1.00	1.00	0.907	0.912	2110	529	5918	1972	0.36	0.27	63.7	60.3	11.0	11.8	B
5	1.00	1.00	0.907	0.912	1809	454	5918	1972	0.31	0.23	63.8	60.5	9.5	9.9	A
6	1.00	1.00	0.907	0.912	2019	505	5918	1972	0.34	0.26	63.7	60.3	10.6	11.2	B
7	1.00	1.00	0.907	0.912	2078	521	5918	1972	0.35	0.26	63.7	60.3	10.9	11.6	B
8	1.00	1.00	0.907	0.912	2142	537	5918	1972	0.36	0.27	63.7	60.2	11.2	12.0	B
9	1.00	1.00	0.907	0.912	2066	518	5918	1972	0.35	0.26	63.7	60.3	10.8	11.5	B
10	1.00	1.00	0.907	0.912	1955	490	5918	1972	0.33	0.25	63.8	60.4	10.2	10.8	B
11	1.00	1.00	0.907	0.912	1901	477	5918	1972	0.32	0.24	63.7	60.4	9.9	10.5	B
12	1.00	1.00	0.907	0.912	1787	448	5918	1972	0.30	0.23	63.8	60.5	9.3	9.8	A
Segment 3: Basic															
AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	1.00		0.905		1729		6761		0.26		70.9		8.1		A
2	1.00		0.905		1631		6761		0.24		70.9		7.6		A
3	1.00		0.905		1680		6761		0.25		70.9		7.9		A
4	1.00		0.905		1582		6761		0.23		70.9		7.4		A
5	1.00		0.905		1356		6761		0.20		70.9		6.3		A
6	1.00		0.905		1514		6761		0.22		70.9		7.1		A
7	1.00		0.905		1558		6761		0.23		70.9		7.3		A

8	1.00	0.905	1606	6761	0.24	70.9	7.5	A
9	1.00	0.905	1549	6761	0.23	70.9	7.2	A
10	1.00	0.905	1465	6761	0.22	70.9	6.9	A
11	1.00	0.905	1424	6761	0.21	70.9	6.7	A
12	1.00	0.905	1339	6761	0.20	70.9	6.3	A

Segment 4: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.913	0.918	4078	2364	7507	3944	0.54	0.60	65.0	63.2	15.7	18.8	B
2	1.00	1.00	0.913	0.918	3848	2231	7507	3944	0.51	0.57	65.3	63.5	14.7	17.6	B
3	1.00	1.00	0.913	0.918	3961	2296	7507	3944	0.53	0.58	65.2	63.4	15.2	18.2	B
4	1.00	1.00	0.913	0.918	3730	2162	7507	3944	0.50	0.55	65.4	63.7	14.3	16.9	B
5	1.00	1.00	0.913	0.918	3198	1854	7507	3944	0.43	0.47	65.9	64.3	12.1	13.9	B
6	1.00	1.00	0.913	0.918	3570	2069	7507	3944	0.48	0.52	65.6	63.9	13.6	16.0	B
7	1.00	1.00	0.913	0.918	3675	2131	7507	3944	0.49	0.54	65.5	63.8	14.0	16.6	B
8	1.00	1.00	0.913	0.918	3786	2195	7507	3944	0.50	0.56	65.4	63.6	14.5	17.2	B
9	1.00	1.00	0.913	0.918	3654	2118	7507	3944	0.49	0.54	65.5	63.8	13.9	16.5	B
10	1.00	1.00	0.913	0.918	3455	2003	7507	3944	0.46	0.51	65.8	64.1	13.1	15.4	B
11	1.00	1.00	0.913	0.918	3361	1949	7507	3944	0.45	0.49	65.8	64.2	12.8	14.9	B
12	1.00	1.00	0.913	0.918	3158	1831	7507	3944	0.42	0.46	66.0	64.4	12.0	13.7	B

Segment 5: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.913	4091	9014	0.45	70.8	14.4	B
2	1.00	0.913	3860	9014	0.43	70.8	13.6	B
3	1.00	0.913	3974	9014	0.44	70.8	14.0	B
4	1.00	0.913	3743	9014	0.42	70.8	13.1	B
5	1.00	0.913	3208	9014	0.36	70.9	11.3	B
6	1.00	0.913	3581	9014	0.40	70.9	12.6	B
7	1.00	0.913	3687	9014	0.41	70.9	12.9	B
8	1.00	0.913	3798	9014	0.42	70.8	13.3	B
9	1.00	0.913	3665	9014	0.41	70.9	12.9	B
10	1.00	0.913	3467	9014	0.38	70.9	12.2	B
11	1.00	0.913	3371	9014	0.37	70.9	11.8	B
12	1.00	0.913	3169	9014	0.35	70.9	11.1	B

Segment 6: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.913	4091	9014	0.45	71.2	14.4	B
2	1.00	0.913	3860	9014	0.43	71.2	13.6	B
3	1.00	0.913	3974	9014	0.44	71.2	14.0	B

4	1.00	0.913	3743	9014	0.42	71.2	13.1	B
5	1.00	0.913	3208	9014	0.36	71.2	11.3	B
6	1.00	0.913	3581	9014	0.40	71.2	12.6	B
7	1.00	0.913	3687	9014	0.41	71.2	12.9	B
8	1.00	0.913	3798	9014	0.42	71.2	13.3	B
9	1.00	0.913	3665	9014	0.41	71.2	12.9	B
10	1.00	0.913	3467	9014	0.38	71.2	12.2	B
11	1.00	0.913	3371	9014	0.37	71.2	11.8	B
12	1.00	0.913	3169	9014	0.35	71.2	11.1	B

Segment 7: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.908	0.884	4838	725	7507	3944	0.64	0.18	66.5	64.4	18.2	14.3	B
2	1.00	1.00	0.908	0.884	4565	684	7507	3944	0.61	0.17	66.6	64.5	17.1	13.3	B
3	1.00	1.00	0.908	0.884	4700	704	7507	3944	0.63	0.18	66.5	64.4	17.7	13.8	B
4	1.00	1.00	0.908	0.884	4426	663	7507	3944	0.59	0.17	66.7	64.6	16.6	12.7	B
5	1.00	1.00	0.908	0.884	3795	569	7507	3944	0.51	0.14	67.1	64.8	14.1	10.4	B
6	1.00	1.00	0.908	0.884	4235	635	7507	3944	0.56	0.16	66.9	64.7	15.8	12.0	B
7	1.00	1.00	0.908	0.884	4360	653	7507	3944	0.58	0.17	66.8	64.6	16.3	12.5	B
8	1.00	1.00	0.908	0.884	4492	673	7507	3944	0.60	0.17	66.7	64.5	16.8	13.0	B
9	1.00	1.00	0.908	0.884	4334	649	7507	3944	0.58	0.16	66.8	64.6	16.2	12.4	B
10	1.00	1.00	0.908	0.884	4100	614	7507	3944	0.55	0.16	66.9	64.7	15.3	11.5	B
11	1.00	1.00	0.908	0.884	3987	597	7507	3944	0.53	0.15	67.0	64.8	14.9	11.1	B
12	1.00	1.00	0.908	0.884	3747	561	7507	3944	0.50	0.14	67.2	64.9	13.9	10.2	B

Segment 8: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.908	4819	9014	0.53	70.7	17.0	B
2	1.00	0.908	4547	9014	0.50	70.8	16.0	B
3	1.00	0.908	4681	9014	0.52	70.8	16.5	B
4	1.00	0.908	4409	9014	0.49	70.8	15.5	B
5	1.00	0.908	3780	9014	0.42	70.8	13.3	B
6	1.00	0.908	4218	9014	0.47	70.8	14.8	B
7	1.00	0.908	4343	9014	0.48	70.8	15.3	B
8	1.00	0.908	4475	9014	0.50	70.8	15.7	B
9	1.00	0.908	4317	9014	0.48	70.8	15.2	B
10	1.00	0.908	4084	9014	0.45	70.8	14.3	B
11	1.00	0.908	3971	9014	0.44	70.8	13.9	B
12	1.00	0.908	3732	9014	0.41	70.8	13.1	B

Segment 9: Basic

AP	PHF	fHV	Flow Rate	Capacity	d/c	Speed	Density	LOS
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			(pc/h)	(pc/h)	Ratio	(mi/h)	(pc/mi/ln)	
1	1.00	0.908	4819	9014	0.53	70.7	17.0	B
2	1.00	0.908	4547	9014	0.50	71.0	16.0	B
3	1.00	0.908	4681	9014	0.52	70.9	16.5	B
4	1.00	0.908	4409	9014	0.49	71.1	15.5	B
5	1.00	0.908	3780	9014	0.42	71.2	13.3	B
6	1.00	0.908	4218	9014	0.47	71.2	14.8	B
7	1.00	0.908	4343	9014	0.48	71.1	15.3	B
8	1.00	0.908	4475	9014	0.50	71.1	15.7	B
9	1.00	0.908	4317	9014	0.48	71.1	15.2	B
10	1.00	0.908	4084	9014	0.45	71.2	14.3	B
11	1.00	0.908	3971	9014	0.44	71.2	13.9	B
12	1.00	0.908	3732	9014	0.41	71.2	13.1	B

Segment 10: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.908	4819	6761	0.71	66.4	24.2	C
2	1.00	0.908	4547	6761	0.67	67.8	22.4	C
3	1.00	0.908	4681	6761	0.69	67.1	23.2	C
4	1.00	0.908	4409	6761	0.65	68.4	21.5	C
5	1.00	0.908	3780	6761	0.56	70.4	17.9	B
6	1.00	0.908	4218	6761	0.62	69.1	20.3	C
7	1.00	0.908	4343	6761	0.64	68.6	21.1	C
8	1.00	0.908	4475	6761	0.66	68.1	21.9	C
9	1.00	0.908	4317	6761	0.64	68.7	20.9	C
10	1.00	0.908	4084	6761	0.60	69.6	19.6	C
11	1.00	0.908	3971	6761	0.59	69.9	18.9	C
12	1.00	0.908	3732	6761	0.55	70.5	17.6	B

Segment 11: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.908	4819	6761	0.71	66.4	24.2	C
2	1.00	0.908	4547	6761	0.67	67.8	22.4	C
3	1.00	0.908	4681	6761	0.69	67.1	23.2	C
4	1.00	0.908	4409	6761	0.65	68.4	21.5	C
5	1.00	0.908	3780	6761	0.56	70.4	17.9	B
6	1.00	0.908	4218	6761	0.62	69.1	20.3	C
7	1.00	0.908	4343	6761	0.64	68.6	21.1	C
8	1.00	0.908	4475	6761	0.66	68.1	21.9	C
9	1.00	0.908	4317	6761	0.64	68.7	20.9	C
10	1.00	0.908	4084	6761	0.60	69.6	19.6	C
11	1.00	0.908	3971	6761	0.59	69.9	18.9	C

12	1.00	0.908	3732		6761		0.55	70.5		17.6		B			
Segment 12: Basic															
AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.908	0.932	4819	871	5918	1972	0.81	0.44	63.9	59.4	25.1	26.3	C
2	1.00	1.00	0.908	0.932	4547	822	5918	1972	0.77	0.42	64.0	59.5	23.7	25.1	C
3	1.00	1.00	0.908	0.932	4681	845	5918	1972	0.79	0.43	64.0	59.4	24.4	25.7	C
4	1.00	1.00	0.908	0.932	4409	797	5918	1972	0.74	0.40	64.1	59.6	22.9	24.4	C
5	1.00	1.00	0.908	0.932	3780	683	5918	1972	0.64	0.35	64.3	59.9	19.6	21.2	C
6	1.00	1.00	0.908	0.932	4218	762	5918	1972	0.71	0.39	64.2	59.7	21.9	23.4	C
7	1.00	1.00	0.908	0.932	4343	784	5918	1972	0.73	0.40	64.1	59.6	22.6	24.1	C
8	1.00	1.00	0.908	0.932	4475	809	5918	1972	0.76	0.41	64.0	59.5	23.3	24.7	C
9	1.00	1.00	0.908	0.932	4317	780	5918	1972	0.73	0.40	64.1	59.6	22.4	23.9	C
10	1.00	1.00	0.908	0.932	4084	738	5918	1972	0.69	0.37	64.2	59.7	21.2	22.8	C
11	1.00	1.00	0.908	0.932	3971	718	5918	1972	0.67	0.36	64.2	59.8	20.6	22.2	C
12	1.00	1.00	0.908	0.932	3732	675	5918	1972	0.63	0.34	64.3	59.9	19.3	21.0	C
Segment 13: Diverge															
AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.908	0.932	4819	871	5918	1972	0.81	0.44	63.9	59.4	25.1	26.3	C
2	1.00	1.00	0.908	0.932	4547	822	5918	1972	0.77	0.42	64.0	59.5	23.7	25.1	C
3	1.00	1.00	0.908	0.932	4681	845	5918	1972	0.79	0.43	64.0	59.4	24.4	25.7	C
4	1.00	1.00	0.908	0.932	4409	797	5918	1972	0.74	0.40	64.1	59.6	22.9	24.4	C
5	1.00	1.00	0.908	0.932	3780	683	5918	1972	0.64	0.35	64.3	59.9	19.6	21.2	C
6	1.00	1.00	0.908	0.932	4218	762	5918	1972	0.71	0.39	64.2	59.7	21.9	23.4	C
7	1.00	1.00	0.908	0.932	4343	784	5918	1972	0.73	0.40	64.1	59.6	22.6	24.1	C
8	1.00	1.00	0.908	0.932	4475	809	5918	1972	0.76	0.41	64.0	59.5	23.3	24.7	C
9	1.00	1.00	0.908	0.932	4317	780	5918	1972	0.73	0.40	64.1	59.6	22.4	23.9	C
10	1.00	1.00	0.908	0.932	4084	738	5918	1972	0.69	0.37	64.2	59.7	21.2	22.8	C
11	1.00	1.00	0.908	0.932	3971	718	5918	1972	0.67	0.36	64.2	59.8	20.6	22.2	C
12	1.00	1.00	0.908	0.932	3732	675	5918	1972	0.63	0.34	64.3	59.9	19.3	21.0	C
Segment 14: Basic															
AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.903	0.932	3947	675	6761	1972	0.58	0.34	70.0	60.0	18.8	21.0	C
2	1.00	1.00	0.903	0.932	3724	675	6761	1972	0.55	0.33	70.5	60.0	17.6	20.0	B
3	1.00	1.00	0.903	0.932	3834	675	6761	1972	0.57	0.34	70.3	60.0	18.2	20.0	C
4	1.00	1.00	0.903	0.932	3610	675	6761	1972	0.53	0.33	70.7	60.0	17.0	20.0	B
5	1.00	1.00	0.903	0.932	3095	675	6761	1972	0.46	0.32	71.0	60.0	14.5	20.0	B
6	1.00	1.00	0.903	0.932	3455	675	6761	1972	0.51	0.33	70.9	60.0	16.2	20.0	B
7	1.00	1.00	0.903	0.932	3557	675	6761	1972	0.53	0.33	70.8	60.0	16.8	20.0	B

8	1.00	0.903	3664	6761	0.54	70.6	17.3	B
9	1.00	0.903	3536	6761	0.52	70.8	16.7	B
10	1.00	0.903	3344	6761	0.49	71.0	15.7	B
11	1.00	0.903	3252	6761	0.48	71.0	15.2	B
12	1.00	0.903	3056	6761	0.45	71.0	14.3	B

Segment 15: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.909	0.940	4661	740	5918	1972	0.79	0.38	63.3	61.4	24.5	24.2	C
2	1.00	1.00	0.909	0.940	4399	699	5918	1972	0.74	0.35	63.7	61.8	23.0	22.9	C
3	1.00	1.00	0.909	0.940	4528	719	5918	1972	0.77	0.36	63.5	61.6	23.8	23.5	C
4	1.00	1.00	0.909	0.940	4264	678	5918	1972	0.72	0.34	63.8	61.9	22.3	22.2	C
5	1.00	1.00	0.909	0.940	3656	581	5918	1972	0.62	0.29	64.5	62.6	18.9	19.1	B
6	1.00	1.00	0.909	0.940	4080	648	5918	1972	0.69	0.33	64.1	62.2	21.2	21.2	C
7	1.00	1.00	0.909	0.940	4201	667	5918	1972	0.71	0.34	63.9	62.0	21.9	21.8	C
8	1.00	1.00	0.909	0.940	4327	687	5918	1972	0.73	0.35	63.8	61.9	22.6	22.5	C
9	1.00	1.00	0.909	0.940	4176	663	5918	1972	0.71	0.34	63.9	62.1	21.8	21.7	C
10	1.00	1.00	0.909	0.940	3950	628	5918	1972	0.67	0.32	64.2	62.3	20.5	20.6	C
11	1.00	1.00	0.909	0.940	3842	611	5918	1972	0.65	0.31	64.3	62.4	19.9	20.0	B
12	1.00	1.00	0.909	0.940	3609	573	5918	1972	0.61	0.29	64.5	62.6	18.7	18.8	B

Segment 16: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.909	4686	6761	0.69	67.1	23.3	C
2	1.00	0.909	4422	6761	0.65	68.3	21.6	C
3	1.00	0.909	4552	6761	0.67	67.7	22.4	C
4	1.00	0.909	4287	6761	0.63	68.8	20.8	C
5	1.00	0.909	3675	6761	0.54	70.6	17.4	B
6	1.00	0.909	4102	6761	0.61	69.5	19.7	C
7	1.00	0.909	4223	6761	0.62	69.1	20.4	C
8	1.00	0.909	4351	6761	0.64	68.6	21.1	C
9	1.00	0.909	4198	6761	0.62	69.2	20.2	C
10	1.00	0.909	3971	6761	0.59	69.9	18.9	C
11	1.00	0.909	3862	6761	0.57	70.2	18.3	C
12	1.00	0.909	3629	6761	0.54	70.6	17.1	B

Segment 17: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.909	4686	6761	0.69	67.1	23.3	C
2	1.00	0.909	4422	6761	0.65	68.3	21.6	C
3	1.00	0.909	4552	6761	0.67	67.7	22.4	C

4	1.00	0.909	4287	6761	0.63	68.8	20.8	C
5	1.00	0.909	3675	6761	0.54	70.6	17.4	B
6	1.00	0.909	4102	6761	0.61	69.5	19.7	C
7	1.00	0.909	4223	6761	0.62	69.1	20.4	C
8	1.00	0.909	4351	6761	0.64	68.6	21.1	C
9	1.00	0.909	4198	6761	0.62	69.2	20.2	C
10	1.00	0.909	3971	6761	0.59	69.9	18.9	C
11	1.00	0.909	3862	6761	0.57	70.2	18.3	C
12	1.00	0.909	3629	6761	0.54	70.7	17.1	B

Segment 18: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.909	4686	6761	0.69	67.1	23.3	C
2	1.00	0.909	4422	6761	0.65	68.3	21.6	C
3	1.00	0.909	4552	6761	0.67	67.7	22.4	C
4	1.00	0.909	4287	6761	0.63	68.8	20.8	C
5	1.00	0.909	3675	6761	0.54	70.6	17.4	B
6	1.00	0.909	4102	6761	0.61	69.5	19.7	C
7	1.00	0.909	4223	6761	0.62	69.1	20.4	C
8	1.00	0.909	4351	6761	0.64	68.6	21.1	C
9	1.00	0.909	4198	6761	0.62	69.2	20.2	C
10	1.00	0.909	3971	6761	0.59	69.9	18.9	C
11	1.00	0.909	3862	6761	0.57	70.2	18.3	C
12	1.00	0.909	3629	6761	0.54	70.7	17.1	B

Segment 19: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.909	4686	6761	0.69	67.1	23.3	C
2	1.00	0.909	4422	6761	0.65	68.3	21.6	C
3	1.00	0.909	4552	6761	0.67	67.7	22.4	C
4	1.00	0.909	4287	6761	0.63	68.8	20.8	C
5	1.00	0.909	3675	6761	0.54	70.6	17.4	B
6	1.00	0.909	4102	6761	0.61	69.5	19.7	C
7	1.00	0.909	4223	6761	0.62	69.1	20.4	C
8	1.00	0.909	4351	6761	0.64	68.6	21.1	C
9	1.00	0.909	4198	6761	0.62	69.2	20.2	C
10	1.00	0.909	3971	6761	0.59	69.9	18.9	C
11	1.00	0.909	3862	6761	0.57	70.2	18.3	C
12	1.00	0.909	3629	6761	0.54	70.7	17.1	B

Segment 20: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
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1	1.00	0.909	4686	6761	0.69	67.1	23.3	C
2	1.00	0.909	4422	6761	0.65	68.3	21.6	C
3	1.00	0.909	4552	6761	0.67	67.7	22.4	C
4	1.00	0.909	4287	6761	0.63	68.8	20.8	C
5	1.00	0.909	3675	6761	0.54	70.6	17.4	B
6	1.00	0.909	4102	6761	0.61	69.5	19.7	C
7	1.00	0.909	4223	6761	0.62	69.1	20.4	C
8	1.00	0.909	4351	6761	0.64	68.6	21.1	C
9	1.00	0.909	4198	6761	0.62	69.2	20.2	C
10	1.00	0.909	3971	6761	0.59	69.9	18.9	C
11	1.00	0.909	3862	6761	0.57	70.2	18.3	C
12	1.00	0.909	3629	6761	0.54	70.7	17.1	B

Segment 21: Diverge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.909	0.951	4686	805	5918	1972	0.79	0.41	64.0	59.5	24.4	29.6	D
2	1.00	1.00	0.909	0.951	4422	760	5918	1972	0.75	0.39	64.2	59.7	23.0	28.3	D
3	1.00	1.00	0.909	0.951	4552	782	5918	1972	0.77	0.40	64.1	59.6	23.7	29.0	D
4	1.00	1.00	0.909	0.951	4287	737	5918	1972	0.72	0.37	64.2	59.7	22.3	27.7	C
5	1.00	1.00	0.909	0.951	3675	632	5918	1972	0.62	0.32	64.4	60.0	19.0	24.6	C
6	1.00	1.00	0.909	0.951	4102	705	5918	1972	0.69	0.36	64.3	59.8	21.3	26.8	C
7	1.00	1.00	0.909	0.951	4223	726	5918	1972	0.71	0.37	64.3	59.8	21.9	27.4	C
8	1.00	1.00	0.909	0.951	4351	748	5918	1972	0.74	0.38	64.2	59.7	22.6	28.0	C
9	1.00	1.00	0.909	0.951	4198	721	5918	1972	0.71	0.37	64.3	59.8	21.8	27.3	C
10	1.00	1.00	0.909	0.951	3971	682	5918	1972	0.67	0.35	64.3	59.9	20.6	26.1	C
11	1.00	1.00	0.909	0.951	3862	664	5918	1972	0.65	0.34	64.3	59.9	20.0	25.6	C
12	1.00	1.00	0.909	0.951	3629	624	5918	1972	0.61	0.32	64.4	60.0	18.8	24.4	C

Segment 22: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.900	3882	6761	0.57	70.1	18.5	C
2	1.00	0.900	3663	6761	0.54	70.6	17.3	B
3	1.00	0.900	3771	6761	0.56	70.4	17.9	B
4	1.00	0.900	3551	6761	0.53	70.8	16.7	B
5	1.00	0.900	3044	6761	0.45	71.1	14.3	B
6	1.00	0.900	3399	6761	0.50	71.0	16.0	B
7	1.00	0.900	3499	6761	0.52	70.9	16.4	B
8	1.00	0.900	3604	6761	0.53	70.7	17.0	B
9	1.00	0.900	3478	6761	0.51	70.9	16.3	B
10	1.00	0.900	3290	6761	0.49	71.1	15.4	B
11	1.00	0.900	3200	6761	0.47	71.1	15.0	B

12	1.00	0.900	3007	6761	0.44	71.1	14.1	B							
Segment 23: Merge															
AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.913	0.967	4715	888	5918	1972	0.80	0.45	63.5	61.7	24.8	23.5	C
2	1.00	1.00	0.913	0.967	4449	838	5918	1972	0.75	0.42	63.8	62.1	23.2	22.1	C
3	1.00	1.00	0.913	0.967	4579	862	5918	1972	0.77	0.44	63.6	61.9	24.0	22.8	C
4	1.00	1.00	0.913	0.967	4314	813	5918	1972	0.73	0.41	64.1	62.4	22.4	21.4	C
5	1.00	1.00	0.913	0.967	3698	697	5918	1972	0.62	0.35	64.8	63.1	19.0	18.2	B
6	1.00	1.00	0.913	0.967	4127	777	5918	1972	0.70	0.39	64.3	62.6	21.4	20.4	C
7	1.00	1.00	0.913	0.967	4249	800	5918	1972	0.72	0.41	64.1	62.4	22.1	21.0	C
8	1.00	1.00	0.913	0.967	4377	824	5918	1972	0.74	0.42	64.0	62.3	22.8	21.7	C
9	1.00	1.00	0.913	0.967	4223	795	5918	1972	0.71	0.40	64.2	62.5	21.9	20.9	C
10	1.00	1.00	0.913	0.967	3996	753	5918	1972	0.68	0.38	64.5	62.8	20.7	19.7	B
11	1.00	1.00	0.913	0.967	3886	732	5918	1972	0.66	0.37	64.6	62.9	20.1	19.1	B
12	1.00	1.00	0.913	0.967	3652	688	5918	1972	0.62	0.35	64.8	63.1	18.8	17.9	B

Segment 24: Basic															
AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.913	0.967	4768	888	6761	1972	0.71	0.45	66.7	61.7	23.8	23.5	C
2	1.00	1.00	0.913	0.967	4498	838	6761	1972	0.67	0.42	68.0	62.1	22.0	22.1	C
3	1.00	1.00	0.913	0.967	4631	862	6761	1972	0.68	0.44	67.4	61.9	22.9	22.8	C
4	1.00	1.00	0.913	0.967	4361	813	6761	1972	0.65	0.41	68.6	62.4	21.2	21.4	C
5	1.00	1.00	0.913	0.967	3739	697	6761	1972	0.55	0.35	70.5	63.1	17.7	18.2	B
6	1.00	1.00	0.913	0.967	4173	777	6761	1972	0.62	0.39	69.3	62.6	20.1	20.4	C
7	1.00	1.00	0.913	0.967	4297	800	6761	1972	0.64	0.41	68.8	62.4	20.8	21.0	C
8	1.00	1.00	0.913	0.967	4426	824	6761	1972	0.65	0.42	68.3	62.3	21.6	21.7	C
9	1.00	1.00	0.913	0.967	4271	795	6761	1972	0.63	0.40	68.9	62.5	20.7	20.9	C
10	1.00	1.00	0.913	0.967	4041	753	6761	1972	0.60	0.38	69.7	62.8	19.3	19.7	C
11	1.00	1.00	0.913	0.967	3930	732	6761	1972	0.58	0.37	70.0	62.9	18.7	19.1	C
12	1.00	1.00	0.913	0.967	3692	688	6761	1972	0.55	0.35	70.6	63.1	17.4	17.9	B

Facility Analysis Results									
AP	VMT veh-mi/AP	VMT-Demand veh-mi/AP	VHD veh-h/AP	Total Delay Cost \$/AP	Speed mi/h	Density pc/mi/ln	Density veh/mi/ln	TT min	LOS
1	23794	23489	21.40	535.07	66.9	22.1	20.1	20.60	C
2	22452	22164	14.75	368.66	68.0	20.6	18.6	20.30	C
3	23111	22814	17.94	448.45	67.5	21.3	19.4	20.40	C
4	21767	21487	12.11	302.80	68.5	19.8	18.0	20.10	C
5	18661	18422	4.23	105.85	70.1	16.6	15.1	19.70	B
6	20827	20560	9.01	225.19	69.1	18.7	17.0	20.00	C
7	21441	21166	11.00	274.93	68.7	19.4	17.7	20.10	C

8	22092	21808	13.30	332.55	68.3	20.1	18.3	20.20	C
9	21315	21041	10.56	264.09	68.8	19.3	17.5	20.00	C
10	20163	19904	7.14	178.59	69.5	18.1	16.4	19.80	C
11	19609	19357	5.96	149.05	69.7	17.5	15.9	19.80	B
12	18427	18191	3.88	96.90	70.2	16.3	14.8	19.60	B

Facility Overall Results

Space Mean Speed, mi/h	68.7	Average Density, veh/mi/ln	17.4
Average Travel Time, min	20.10	Average Density, pc/mi/ln	19.1
Total VMT, veh-mi	253659	Total VHD, veh-h	131.28
Vehicle Value of Time (VOT), \$/h	25.00	Total Delay Cost, \$	3282.11

HCS Freeway Facilities Report

Project Information

Analyst	Kittelson & Associate	Date	11/6/2023
Agency	Florida Department of Transportation	Analysis Year	2030 No-Build Conditions
Jurisdiction	District Five	Time Analyzed	WM Weekend Peak Period
Facility Name	I-75 (Northbound)	Units	U.S. Customary
Project Description	I-75 PD&E South Auxiliary Lanes		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	24
Total Analysis Periods	12	Analysis Period Duration, min	15
Facility Length, mi	22.97		

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	I-75 NB	1500	3
2	Diverge	Diverge	I-75 NB SR 44 Off Ramp	1500	3
3	Basic	Basic	I-75 NB	2625	3
4	Merge	Merge	I-75 NB Turnpike On Ramp	1500	4
5	Basic	Basic	I-75 NB	1945	4
6	Basic	Basic	I-75 NB	1940	4
7	Merge	Merge	I-75 NB SR 44 On Ramp	1500	4
8	Basic	Basic	I-75 NB	1500	4
9	Basic	Basic	I-75 NB	1500	4
10	Basic	Basic	I-75 NB	47899	3
11	Basic	Basic	I-75 NB	1500	3
12	Basic	Basic	I-75 NB	1500	3
13	Diverge	Diverge	I-75 NB CR 484 Off Ramp	1500	3
14	Basic	Basic	I-75 NB	2888	3
15	Merge	Merge	I-75 NB CR 484 On Ramp	1500	3
16	Basic	Basic	I-75 NB	1500	3
17	Basic	Basic	I-75 NB	1500	3
18	Basic	Basic	I-75 NB	35197	3
19	Basic	Basic	I-75 B	1500	3
20	Basic	Basic	I-75 NB	1500	3
21	Diverge	Diverge	I-75 NB SR 200 Off Ramp	1500	3
22	Basic	Basic	I-75 NB	3296	3
23	Merge	Merge	I-75 NB SR 200 On Ramp	1500	3
24	Basic	Basic	I-75 NB	1500	3

Facility Segment Data															
Segment 1: Basic															
AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	1.00		0.907		3405		6761		0.50		71.0		16.0		B
2	1.00		0.907		3405		6761		0.50		71.0		16.0		B
3	1.00		0.907		3405		6761		0.50		71.0		16.0		B
4	1.00		0.907		3405		6761		0.50		71.0		16.0		B
5	1.00		0.907		3114		6761		0.46		71.2		14.6		B
6	1.00		0.907		3114		6761		0.46		71.2		14.6		B
7	1.00		0.907		3114		6761		0.46		71.2		14.6		B
8	1.00		0.907		3114		6761		0.46		71.2		14.6		B
9	1.00		0.907		2783		6761		0.41		71.2		13.0		B
10	1.00		0.907		2783		6761		0.41		71.2		13.0		B
11	1.00		0.907		2783		6761		0.41		71.2		13.0		B
12	1.00		0.907		2783		6761		0.41		71.2		13.0		B
Segment 2: Diverge															
AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.907	0.947	3405	520	5918	1972	0.58	0.26	64.7	60.3	17.5	18.6	B
2	1.00	1.00	0.907	0.947	3405	520	5918	1972	0.58	0.26	64.7	60.3	17.5	18.6	B
3	1.00	1.00	0.907	0.947	3405	520	5918	1972	0.58	0.26	64.7	60.3	17.5	18.6	B
4	1.00	1.00	0.907	0.947	3405	520	5918	1972	0.58	0.26	64.7	60.3	17.5	18.6	B
5	1.00	1.00	0.907	0.947	3114	475	5918	1972	0.53	0.24	64.6	60.4	16.1	17.0	B
6	1.00	1.00	0.907	0.947	3114	475	5918	1972	0.53	0.24	64.6	60.4	16.1	17.0	B
7	1.00	1.00	0.907	0.947	3114	475	5918	1972	0.53	0.24	64.6	60.4	16.1	17.0	B
8	1.00	1.00	0.907	0.947	3114	475	5918	1972	0.53	0.24	64.6	60.4	16.1	17.0	B
9	1.00	1.00	0.907	0.947	2783	424	5918	1972	0.47	0.22	64.6	60.5	14.4	15.2	B
10	1.00	1.00	0.907	0.947	2783	424	5918	1972	0.47	0.22	64.6	60.5	14.4	15.2	B
11	1.00	1.00	0.907	0.947	2783	424	5918	1972	0.47	0.22	64.6	60.5	14.4	15.2	B
12	1.00	1.00	0.907	0.947	2783	424	5918	1972	0.47	0.22	64.6	60.5	14.4	15.2	B
Segment 3: Basic															
AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	1.00		0.899		2888		6761		0.43		71.0		13.5		B
2	1.00		0.899		2888		6761		0.43		71.0		13.5		B
3	1.00		0.899		2888		6761		0.43		71.0		13.5		B
4	1.00		0.899		2888		6761		0.43		71.0		13.5		B
5	1.00		0.899		2641		6761		0.39		71.0		12.4		B
6	1.00		0.899		2641		6761		0.39		71.0		12.4		B
7	1.00		0.899		2641		6761		0.39		71.0		12.4		B

8	1.00	0.899	2641	6761	0.39	71.0	12.4	B
9	1.00	0.899	2360	6761	0.35	71.0	11.1	B
10	1.00	0.899	2360	6761	0.35	71.0	11.1	B
11	1.00	0.899	2360	6761	0.35	71.0	11.1	B
12	1.00	0.899	2360	6761	0.35	71.0	11.1	B

Segment 4: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.908	0.918	5190	2331	7507	3944	0.69	0.59	64.3	61.9	20.2	22.2	C
2	1.00	1.00	0.908	0.918	5190	2331	7507	3944	0.69	0.59	64.3	61.9	20.2	22.2	C
3	1.00	1.00	0.908	0.918	5190	2331	7507	3944	0.69	0.59	64.3	61.9	20.2	22.2	C
4	1.00	1.00	0.908	0.918	5190	2331	7507	3944	0.69	0.59	64.3	61.9	20.2	22.2	C
5	1.00	1.00	0.908	0.918	4747	2132	7507	3944	0.63	0.54	65.1	62.8	18.2	20.0	B
6	1.00	1.00	0.908	0.918	4747	2132	7507	3944	0.63	0.54	65.1	62.8	18.2	20.0	B
7	1.00	1.00	0.908	0.918	4747	2132	7507	3944	0.63	0.54	65.1	62.8	18.2	20.0	B
8	1.00	1.00	0.908	0.918	4747	2132	7507	3944	0.63	0.54	65.1	62.8	18.2	20.0	B
9	1.00	1.00	0.908	0.918	4242	1905	7507	3944	0.57	0.48	65.7	63.6	16.1	17.4	B
10	1.00	1.00	0.908	0.918	4242	1905	7507	3944	0.57	0.48	65.7	63.6	16.1	17.4	B
11	1.00	1.00	0.908	0.918	4242	1905	7507	3944	0.57	0.48	65.7	63.6	16.1	17.4	B
12	1.00	1.00	0.908	0.918	4242	1905	7507	3944	0.57	0.48	65.7	63.6	16.1	17.4	B

Segment 5: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.908	5216	9014	0.58	70.1	18.6	C
2	1.00	0.908	5216	9014	0.58	70.1	18.6	C
3	1.00	0.908	5216	9014	0.58	70.1	18.6	C
4	1.00	0.908	5216	9014	0.58	70.1	18.6	C
5	1.00	0.908	4770	9014	0.53	70.8	16.8	B
6	1.00	0.908	4770	9014	0.53	70.8	16.8	B
7	1.00	0.908	4770	9014	0.53	70.8	16.8	B
8	1.00	0.908	4770	9014	0.53	70.8	16.8	B
9	1.00	0.908	4263	9014	0.47	70.9	15.0	B
10	1.00	0.908	4263	9014	0.47	70.9	15.0	B
11	1.00	0.908	4263	9014	0.47	70.9	15.0	B
12	1.00	0.908	4263	9014	0.47	70.9	15.0	B

Segment 6: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.908	5216	9014	0.58	70.1	18.6	C
2	1.00	0.908	5216	9014	0.58	70.1	18.6	C
3	1.00	0.908	5216	9014	0.58	70.1	18.6	C

4	1.00	0.908	5216	9014	0.58	70.1	18.6	C
5	1.00	0.908	4770	9014	0.53	70.8	16.8	B
6	1.00	0.908	4770	9014	0.53	70.8	16.8	B
7	1.00	0.908	4770	9014	0.53	70.8	16.8	B
8	1.00	0.908	4770	9014	0.53	70.8	16.8	B
9	1.00	0.908	4263	9014	0.47	71.2	15.0	B
10	1.00	0.908	4263	9014	0.47	71.2	15.0	B
11	1.00	0.908	4263	9014	0.47	71.2	15.0	B
12	1.00	0.908	4263	9014	0.47	71.2	15.0	B

Segment 7: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.909	0.921	5742	532	7507	3944	0.76	0.13	65.8	64.0	21.8	16.3	B
2	1.00	1.00	0.909	0.921	5742	532	7507	3944	0.76	0.13	65.8	64.0	21.8	16.3	B
3	1.00	1.00	0.909	0.921	5742	532	7507	3944	0.76	0.13	65.8	64.0	21.8	16.3	B
4	1.00	1.00	0.909	0.921	5742	532	7507	3944	0.76	0.13	65.8	64.0	21.8	16.3	B
5	1.00	1.00	0.909	0.921	5251	486	7507	3944	0.70	0.12	66.2	64.3	19.8	14.6	B
6	1.00	1.00	0.909	0.921	5251	486	7507	3944	0.70	0.12	66.2	64.3	19.8	14.6	B
7	1.00	1.00	0.909	0.921	5251	486	7507	3944	0.70	0.12	66.2	64.3	19.8	14.6	B
8	1.00	1.00	0.909	0.921	5251	486	7507	3944	0.70	0.12	66.2	64.3	19.8	14.6	B
9	1.00	1.00	0.909	0.921	4693	434	7507	3944	0.63	0.11	66.6	64.6	17.6	12.6	B
10	1.00	1.00	0.909	0.921	4693	434	7507	3944	0.63	0.11	66.6	64.6	17.6	12.6	B
11	1.00	1.00	0.909	0.921	4693	434	7507	3944	0.63	0.11	66.6	64.6	17.6	12.6	B
12	1.00	1.00	0.909	0.921	4693	434	7507	3944	0.63	0.11	66.6	64.6	17.6	12.6	B

Segment 8: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.909	5749	9014	0.64	68.8	20.9	C
2	1.00	0.909	5749	9014	0.64	68.8	20.9	C
3	1.00	0.909	5749	9014	0.64	68.8	20.9	C
4	1.00	0.909	5749	9014	0.64	68.8	20.9	C
5	1.00	0.909	5257	9014	0.58	70.0	18.8	C
6	1.00	0.909	5257	9014	0.58	70.0	18.8	C
7	1.00	0.909	5257	9014	0.58	70.0	18.8	C
8	1.00	0.909	5257	9014	0.58	70.0	18.8	C
9	1.00	0.909	4699	9014	0.52	70.8	16.6	B
10	1.00	0.909	4699	9014	0.52	70.8	16.6	B
11	1.00	0.909	4699	9014	0.52	70.8	16.6	B
12	1.00	0.909	4699	9014	0.52	70.8	16.6	B

Segment 9: Basic

AP	PHF	fHV	Flow Rate	Capacity	d/c	Speed	Density	LOS
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			(pc/h)	(pc/h)	Ratio	(mi/h)	(pc/mi/ln)	
1	1.00	0.909	5749	9014	0.64	68.8	20.9	C
2	1.00	0.909	5749	9014	0.64	68.8	20.9	C
3	1.00	0.909	5749	9014	0.64	68.8	20.9	C
4	1.00	0.909	5749	9014	0.64	68.8	20.9	C
5	1.00	0.909	5257	9014	0.58	70.0	18.8	C
6	1.00	0.909	5257	9014	0.58	70.0	18.8	C
7	1.00	0.909	5257	9014	0.58	70.0	18.8	C
8	1.00	0.909	5257	9014	0.58	70.0	18.8	C
9	1.00	0.909	4699	9014	0.52	70.9	16.6	B
10	1.00	0.909	4699	9014	0.52	70.9	16.6	B
11	1.00	0.909	4699	9014	0.52	70.9	16.6	B
12	1.00	0.909	4699	9014	0.52	70.9	16.6	B

Segment 10: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.909	5749	6761	0.85	60.0	31.9	D
2	1.00	0.909	5749	6761	0.85	60.0	31.9	D
3	1.00	0.909	5749	6761	0.85	60.0	31.9	D
4	1.00	0.909	5749	6761	0.85	60.0	31.9	D
5	1.00	0.909	5257	6761	0.78	63.7	27.5	D
6	1.00	0.909	5257	6761	0.78	63.7	27.5	D
7	1.00	0.909	5257	6761	0.78	63.7	27.5	D
8	1.00	0.909	5257	6761	0.78	63.7	27.5	D
9	1.00	0.909	4699	6761	0.70	67.0	23.4	C
10	1.00	0.909	4699	6761	0.70	67.0	23.4	C
11	1.00	0.909	4699	6761	0.70	67.0	23.4	C
12	1.00	0.909	4699	6761	0.70	67.0	23.4	C

Segment 11: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.909	5749	6761	0.85	60.0	31.9	D
2	1.00	0.909	5749	6761	0.85	60.0	31.9	D
3	1.00	0.909	5749	6761	0.85	60.0	31.9	D
4	1.00	0.909	5749	6761	0.85	60.0	31.9	D
5	1.00	0.909	5257	6761	0.78	63.7	27.5	D
6	1.00	0.909	5257	6761	0.78	63.7	27.5	D
7	1.00	0.909	5257	6761	0.78	63.7	27.5	D
8	1.00	0.909	5257	6761	0.78	63.7	27.5	D
9	1.00	0.909	4699	6761	0.70	67.0	23.4	C
10	1.00	0.909	4699	6761	0.70	67.0	23.4	C
11	1.00	0.909	4699	6761	0.70	67.0	23.4	C

12	1.00	0.909	4699	6761	0.70	67.0	23.4	C							
Segment 12: Basic															
AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	1.00	0.909	5749	6761	0.85	60.0	31.9	D							
2	1.00	0.909	5749	6761	0.85	60.0	31.9	D							
3	1.00	0.909	5749	6761	0.85	60.0	31.9	D							
4	1.00	0.909	5749	6761	0.85	60.0	31.9	D							
5	1.00	0.909	5257	6761	0.78	63.7	27.5	D							
6	1.00	0.909	5257	6761	0.78	63.7	27.5	D							
7	1.00	0.909	5257	6761	0.78	63.7	27.5	D							
8	1.00	0.909	5257	6761	0.78	63.7	27.5	D							
9	1.00	0.909	4699	6761	0.70	67.0	23.4	C							
10	1.00	0.909	4699	6761	0.70	67.0	23.4	C							
11	1.00	0.909	4699	6761	0.70	67.0	23.4	C							
12	1.00	0.909	4699	6761	0.70	67.0	23.4	C							
Segment 13: Diverge															
AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.909	0.872	5749	835	5918	1972	0.97	0.42	64.0	59.5	29.9	30.1	D
2	1.00	1.00	0.909	0.872	5749	835	5918	1972	0.97	0.42	64.0	59.5	29.9	30.1	D
3	1.00	1.00	0.909	0.872	5749	835	5918	1972	0.97	0.42	64.0	59.5	29.9	30.1	D
4	1.00	1.00	0.909	0.872	5749	835	5918	1972	0.97	0.42	64.0	59.5	29.9	30.1	D
5	1.00	1.00	0.909	0.872	5257	764	5918	1972	0.89	0.39	64.2	59.7	27.3	28.0	C
6	1.00	1.00	0.909	0.872	5257	764	5918	1972	0.89	0.39	64.2	59.7	27.3	28.0	C
7	1.00	1.00	0.909	0.872	5257	764	5918	1972	0.89	0.39	64.2	59.7	27.3	28.0	C
8	1.00	1.00	0.909	0.872	5257	764	5918	1972	0.89	0.39	64.2	59.7	27.3	28.0	C
9	1.00	1.00	0.909	0.872	4699	682	5918	1972	0.79	0.35	64.4	59.9	24.3	25.5	C
10	1.00	1.00	0.909	0.872	4699	682	5918	1972	0.79	0.35	64.4	59.9	24.3	25.5	C
11	1.00	1.00	0.909	0.872	4699	682	5918	1972	0.79	0.35	64.4	59.9	24.3	25.5	C
12	1.00	1.00	0.909	0.872	4699	682	5918	1972	0.79	0.35	64.4	59.9	24.3	25.5	C
Segment 14: Basic															
AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	1.00	0.915	4916	6761	0.73	65.8	24.9	C							
2	1.00	0.915	4916	6761	0.73	65.8	24.9	C							
3	1.00	0.915	4916	6761	0.73	65.8	24.9	C							
4	1.00	0.915	4916	6761	0.73	65.8	24.9	C							
5	1.00	0.915	4495	6761	0.66	68.0	22.0	C							
6	1.00	0.915	4495	6761	0.66	68.0	22.0	C							
7	1.00	0.915	4495	6761	0.66	68.0	22.0	C							

8	1.00	0.915	4495	6761	0.66	68.0	22.0	C
9	1.00	0.915	4017	6761	0.59	69.8	19.2	C
10	1.00	0.915	4017	6761	0.59	69.8	19.2	C
11	1.00	0.915	4017	6761	0.59	69.8	19.2	C
12	1.00	0.915	4017	6761	0.59	69.8	19.2	C

Segment 15: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.923	0.959	5871	998	5918	1972	0.99	0.51	60.5	58.1	32.3	30.5	D
2	1.00	1.00	0.923	0.959	5871	998	5918	1972	0.99	0.51	60.5	58.1	32.3	30.5	D
3	1.00	1.00	0.923	0.959	5871	998	5918	1972	0.99	0.51	60.5	58.1	32.3	30.5	D
4	1.00	1.00	0.923	0.959	5871	998	5918	1972	0.99	0.51	60.5	58.1	32.3	30.5	D
5	1.00	1.00	0.923	0.959	5368	912	5918	1972	0.91	0.46	61.9	59.8	28.9	28.0	C
6	1.00	1.00	0.923	0.959	5368	912	5918	1972	0.91	0.46	61.9	59.8	28.9	28.0	C
7	1.00	1.00	0.923	0.959	5368	912	5918	1972	0.91	0.46	61.9	59.8	28.9	28.0	C
8	1.00	1.00	0.923	0.959	5368	912	5918	1972	0.91	0.46	61.9	59.8	28.9	28.0	C
9	1.00	1.00	0.923	0.959	4798	815	5918	1972	0.81	0.41	63.0	61.1	25.4	25.0	C
10	1.00	1.00	0.923	0.959	4798	815	5918	1972	0.81	0.41	63.0	61.1	25.4	25.0	C
11	1.00	1.00	0.923	0.959	4798	815	5918	1972	0.81	0.41	63.0	61.1	25.4	25.0	C
12	1.00	1.00	0.923	0.959	4798	815	5918	1972	0.81	0.41	63.0	61.1	25.4	25.0	C

Segment 16: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.923	5910	6761	0.87	58.7	33.6	D
2	1.00	0.923	5910	6761	0.87	58.7	33.6	D
3	1.00	0.923	5910	6761	0.87	58.7	33.6	D
4	1.00	0.923	5910	6761	0.87	58.7	33.6	D
5	1.00	0.923	5404	6761	0.80	62.7	28.7	D
6	1.00	0.923	5404	6761	0.80	62.7	28.7	D
7	1.00	0.923	5404	6761	0.80	62.7	28.7	D
8	1.00	0.923	5404	6761	0.80	62.7	28.7	D
9	1.00	0.923	4830	6761	0.71	66.3	24.3	C
10	1.00	0.923	4830	6761	0.71	66.3	24.3	C
11	1.00	0.923	4830	6761	0.71	66.3	24.3	C
12	1.00	0.923	4830	6761	0.71	66.3	24.3	C

Segment 17: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.923	5910	6761	0.87	58.7	33.6	D
2	1.00	0.923	5910	6761	0.87	58.7	33.6	D
3	1.00	0.923	5910	6761	0.87	58.7	33.6	D

4	1.00	0.923	5910	6761	0.87	58.7	33.6	D
5	1.00	0.923	5404	6761	0.80	62.7	28.7	D
6	1.00	0.923	5404	6761	0.80	62.7	28.7	D
7	1.00	0.923	5404	6761	0.80	62.7	28.7	D
8	1.00	0.923	5404	6761	0.80	62.7	28.7	D
9	1.00	0.923	4830	6761	0.71	66.3	24.3	C
10	1.00	0.923	4830	6761	0.71	66.3	24.3	C
11	1.00	0.923	4830	6761	0.71	66.3	24.3	C
12	1.00	0.923	4830	6761	0.71	66.3	24.3	C

Segment 18: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.923	5910	6761	0.87	58.7	33.6	D
2	1.00	0.923	5910	6761	0.87	58.7	33.6	D
3	1.00	0.923	5910	6761	0.87	58.7	33.6	D
4	1.00	0.923	5910	6761	0.87	58.7	33.6	D
5	1.00	0.923	5404	6761	0.80	62.7	28.7	D
6	1.00	0.923	5404	6761	0.80	62.7	28.7	D
7	1.00	0.923	5404	6761	0.80	62.7	28.7	D
8	1.00	0.923	5404	6761	0.80	62.7	28.7	D
9	1.00	0.923	4830	6761	0.71	66.3	24.3	C
10	1.00	0.923	4830	6761	0.71	66.3	24.3	C
11	1.00	0.923	4830	6761	0.71	66.3	24.3	C
12	1.00	0.923	4830	6761	0.71	66.3	24.3	C

Segment 19: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.923	5910	6761	0.87	58.7	33.6	D
2	1.00	0.923	5910	6761	0.87	58.7	33.6	D
3	1.00	0.923	5910	6761	0.87	58.7	33.6	D
4	1.00	0.923	5910	6761	0.87	58.7	33.6	D
5	1.00	0.923	5404	6761	0.80	62.7	28.7	D
6	1.00	0.923	5404	6761	0.80	62.7	28.7	D
7	1.00	0.923	5404	6761	0.80	62.7	28.7	D
8	1.00	0.923	5404	6761	0.80	62.7	28.7	D
9	1.00	0.923	4830	6761	0.71	66.3	24.3	C
10	1.00	0.923	4830	6761	0.71	66.3	24.3	C
11	1.00	0.923	4830	6761	0.71	66.3	24.3	C
12	1.00	0.923	4830	6761	0.71	66.3	24.3	C

Segment 20: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
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1	1.00	0.923	5910	6761	0.87	58.7	33.6	D
2	1.00	0.923	5910	6761	0.87	58.7	33.6	D
3	1.00	0.923	5910	6761	0.87	58.7	33.6	D
4	1.00	0.923	5910	6761	0.87	58.7	33.6	D
5	1.00	0.923	5404	6761	0.80	62.7	28.7	D
6	1.00	0.923	5404	6761	0.80	62.7	28.7	D
7	1.00	0.923	5404	6761	0.80	62.7	28.7	D
8	1.00	0.923	5404	6761	0.80	62.7	28.7	D
9	1.00	0.923	4830	6761	0.71	66.3	24.3	C
10	1.00	0.923	4830	6761	0.71	66.3	24.3	C
11	1.00	0.923	4830	6761	0.71	66.3	24.3	C
12	1.00	0.923	4830	6761	0.71	66.3	24.3	C

Segment 21: Diverge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.923	0.971	5910	854	5918	1972	1.00	0.43	63.9	59.4	30.8	34.7	D
2	1.00	1.00	0.923	0.971	5910	854	5918	1972	1.00	0.43	63.9	59.4	30.8	34.7	D
3	1.00	1.00	0.923	0.971	5910	854	5918	1972	1.00	0.43	63.9	59.4	30.8	34.7	D
4	1.00	1.00	0.923	0.971	5910	854	5918	1972	1.00	0.43	63.9	59.4	30.8	34.7	D
5	1.00	1.00	0.923	0.971	5404	781	5918	1972	0.91	0.40	64.1	59.6	28.1	32.6	D
6	1.00	1.00	0.923	0.971	5404	781	5918	1972	0.91	0.40	64.1	59.6	28.1	32.6	D
7	1.00	1.00	0.923	0.971	5404	781	5918	1972	0.91	0.40	64.1	59.6	28.1	32.6	D
8	1.00	1.00	0.923	0.971	5404	781	5918	1972	0.91	0.40	64.1	59.6	28.1	32.6	D
9	1.00	1.00	0.923	0.971	4830	697	5918	1972	0.82	0.35	64.3	59.8	25.0	30.0	D
10	1.00	1.00	0.923	0.971	4830	697	5918	1972	0.82	0.35	64.3	59.8	25.0	30.0	D
11	1.00	1.00	0.923	0.971	4830	697	5918	1972	0.82	0.35	64.3	59.8	25.0	30.0	D
12	1.00	1.00	0.923	0.971	4830	697	5918	1972	0.82	0.35	64.3	59.8	25.0	30.0	D

Segment 22: Basic

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	1.00		0.914		5061		6761		0.75		65.0		26.0		C
2	1.00		0.914		5061		6761		0.75		65.0		26.0		C
3	1.00		0.914		5061		6761		0.75		65.0		26.0		C
4	1.00		0.914		5061		6761		0.75		65.0		26.0		C
5	1.00		0.914		4628		6761		0.68		67.4		22.9		C
6	1.00		0.914		4628		6761		0.68		67.4		22.9		C
7	1.00		0.914		4628		6761		0.68		67.4		22.9		C
8	1.00		0.914		4628		6761		0.68		67.4		22.9		C
9	1.00		0.914		4137		6761		0.61		69.4		19.9		C
10	1.00		0.914		4137		6761		0.61		69.4		19.9		C
11	1.00		0.914		4137		6761		0.61		69.4		19.9		C

12	1.00	0.914	4137	6761	0.61	69.4	19.9	C							
Segment 23: Merge															
AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.924	0.977	5882	876	5918	1972	0.99	0.44	61.0	58.8	32.1	29.0	D
2	1.00	1.00	0.924	0.977	5882	876	5918	1972	0.99	0.44	61.0	58.8	32.1	29.0	D
3	1.00	1.00	0.924	0.977	5882	876	5918	1972	0.99	0.44	61.0	58.8	32.1	29.0	D
4	1.00	1.00	0.924	0.977	5882	876	5918	1972	0.99	0.44	61.0	58.8	32.1	29.0	D
5	1.00	1.00	0.924	0.977	5379	801	5918	1972	0.91	0.41	62.3	60.4	28.8	26.4	C
6	1.00	1.00	0.924	0.977	5379	801	5918	1972	0.91	0.41	62.3	60.4	28.8	26.4	C
7	1.00	1.00	0.924	0.977	5379	801	5918	1972	0.91	0.41	62.3	60.4	28.8	26.4	C
8	1.00	1.00	0.924	0.977	5379	801	5918	1972	0.91	0.41	62.3	60.4	28.8	26.4	C
9	1.00	1.00	0.924	0.977	4808	716	5918	1972	0.81	0.36	63.4	61.7	25.3	23.5	C
10	1.00	1.00	0.924	0.977	4808	716	5918	1972	0.81	0.36	63.4	61.7	25.3	23.5	C
11	1.00	1.00	0.924	0.977	4808	716	5918	1972	0.81	0.36	63.4	61.7	25.3	23.5	C
12	1.00	1.00	0.924	0.977	4808	716	5918	1972	0.81	0.36	63.4	61.7	25.3	23.5	C

Segment 24: Basic															
AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00		0.924		5933		6761		0.88		58.4		33.9		D
2	1.00		0.924		5933		6761		0.88		58.4		33.9		D
3	1.00		0.924		5933		6761		0.88		58.4		33.9		D
4	1.00		0.924		5933		6761		0.88		58.4		33.9		D
5	1.00		0.924		5425		6761		0.80		62.6		28.9		D
6	1.00		0.924		5425		6761		0.80		62.6		28.9		D
7	1.00		0.924		5425		6761		0.80		62.6		28.9		D
8	1.00		0.924		5425		6761		0.80		62.6		28.9		D
9	1.00		0.924		4850		6761		0.72		66.2		24.4		C
10	1.00		0.924		4850		6761		0.72		66.2		24.4		C
11	1.00		0.924		4850		6761		0.72		66.2		24.4		C
12	1.00		0.924		4850		6761		0.72		66.2		24.4		C

Facility Analysis Results									
AP	VMT veh-mi/AP	VMT-Demand veh-mi/AP	VHD veh-h/AP	Total Delay Cost \$/AP	Speed mi/h	Density pc/mi/ln	Density veh/mi/ln	TT min	LOS
1	29571	29264	72.61	1815.23	60.6	30.1	27.6	22.70	D
2	29571	29264	72.61	1815.23	60.6	30.1	27.6	22.70	D
3	29571	29264	72.61	1815.23	60.6	30.1	27.6	22.70	D
4	29571	29264	72.61	1815.23	60.6	30.1	27.6	22.70	D
5	27041	26760	42.96	1074.12	64.0	26.1	23.9	21.50	D
6	27041	26760	42.96	1074.12	64.0	26.1	23.9	21.50	D
7	27041	26760	42.96	1074.12	64.0	26.1	23.9	21.50	D

8	27041	26760	42.96	1074.12	64.0	26.1	23.9	21.50	D
9	24168	23916	21.78	544.56	66.9	22.3	20.4	20.60	C
10	24168	23916	21.78	544.56	66.9	22.3	20.4	20.60	C
11	24168	23916	21.78	544.56	66.9	22.3	20.4	20.60	C
12	24168	23916	21.78	544.56	66.9	22.3	20.4	20.60	C

Facility Overall Results

Space Mean Speed, mi/h	63.5	Average Density, veh/mi/ln	24.0
Average Travel Time, min	21.70	Average Density, pc/mi/ln	26.2
Total VMT, veh-mi	323119	Total VHD, veh-h	549.43
Vehicle Value of Time (VOT), \$/h	25.00	Total Delay Cost, \$	13735.66

I-75 South Section - Southbound

HCS Freeway Facilities Report

Project Information

Analyst	Kittelson & Associates	Date	11/7/2023
Agency	Florida Department of Transportation	Analysis Year	2030 No-Build Conditions
Jurisdiction	District Five	Time Analyzed	AM Weekday Peak Period
Facility Name	I-75 (Southbound)	Units	U.S. Customary
Project Description	I-75 PD&E South Auxiliary Lanes		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	23
Total Analysis Periods	12	Analysis Period Duration, min	15
Facility Length, mi	22.79		

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	I-75 SB	1500	3
2	Diverge	Diverge	I-75 SB SR 200 Off Ramp	1500	3
3	Basic	Basic	I-75 SB	3275	3
4	Merge	Merge	I-75 SB SR 200 On Ramp	1500	3
5	Basic	Basic	I-75 SB	1500	3
6	Basic	Basic	I-75 SB	1500	3
7	Basic	Basic	I-75 SB	36965	3
8	Basic	Basic	I-75 SB	1500	3
9	Diverge	Diverge	I-75 SB CR 484 Off Ramp	1500	3
10	Basic	Basic	I-75 SB	2822	3
11	Merge	Merge	I-75 SB CR 484 On Ramp	1500	3
12	Basic	Basic	I-75 SB	1500	3
13	Basic	Basic	I-75 SB	1500	3
14	Basic	Basic	I-75 SB	47319	3
15	Basic	Basic	I-75 SB	1500	3
16	Basic	Basic	I-75 SB	1500	3
17	Diverge	Diverge	I-75 SB SR 44 Off Ramp	1500	3
18	Basic	Basic	I-75 SB	3547	3
19	Basic	Basic	I-75 SB	1642	3
20	Diverge	Diverge	I-75 SB Turnpike Off Ramp	1500	3
21	Basic	Basic	I-75 SB	775	3
22	Merge	Merge	I-75 SB SR 44 On Ramp	1500	3
23	Basic	Basic	I-75 SB	1500	3

Facility Segment Data

Segment 1: Basic															
AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	1.00		0.907		2642		6761		0.39		71.2		12.4		B
2	1.00		0.907		2834		6761		0.42		71.2		13.3		B
3	1.00		0.907		3142		6761		0.46		71.2		14.7		B
4	1.00		0.907		3444		6761		0.51		71.0		16.2		B
5	1.00		0.907		3621		6761		0.54		70.7		17.1		B
6	1.00		0.907		3945		6761		0.58		70.0		18.8		C
7	1.00		0.907		4203		6761		0.62		69.2		20.2		C
8	1.00		0.907		3923		6761		0.58		70.0		18.7		C
9	1.00		0.907		3768		6761		0.56		70.4		17.8		B
10	1.00		0.907		3923		6761		0.58		70.0		18.7		C
11	1.00		0.907		4305		6761		0.64		68.8		20.9		C
12	1.00		0.907		4099		6761		0.61		69.5		19.7		C

Segment 2: Diverge															
AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.907	0.951	2642	493	5918	1972	0.45	0.25	64.3	60.4	13.7	18.9	B
2	1.00	1.00	0.907	0.951	2834	529	5918	1972	0.48	0.27	64.3	60.3	14.7	20.0	B
3	1.00	1.00	0.907	0.951	3142	587	5918	1972	0.53	0.30	64.3	60.1	16.3	21.7	C
4	1.00	1.00	0.907	0.951	3444	642	5918	1972	0.58	0.33	64.3	60.0	17.9	23.3	C
5	1.00	1.00	0.907	0.951	3621	675	5918	1972	0.61	0.34	64.3	59.9	18.8	24.2	C
6	1.00	1.00	0.907	0.951	3945	736	5918	1972	0.67	0.37	64.1	59.7	20.5	25.9	C
7	1.00	1.00	0.907	0.951	4203	784	5918	1972	0.71	0.40	64.1	59.6	21.9	27.2	C
8	1.00	1.00	0.907	0.951	3923	732	5918	1972	0.66	0.37	64.2	59.8	20.4	25.8	C
9	1.00	1.00	0.907	0.951	3768	703	5918	1972	0.64	0.36	64.2	59.8	19.6	25.0	C
10	1.00	1.00	0.907	0.951	3923	732	5918	1972	0.66	0.37	64.2	59.8	20.4	25.8	C
11	1.00	1.00	0.907	0.951	4305	803	5918	1972	0.73	0.41	64.0	59.5	22.4	27.7	C
12	1.00	1.00	0.907	0.951	4099	764	5918	1972	0.69	0.39	64.2	59.7	21.3	26.7	C

Segment 3: Basic															
AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	1.00		0.896		2151		6761		0.32		71.1		10.1		A
2	1.00		0.896		2307		6761		0.34		71.1		10.8		A
3	1.00		0.896		2558		6761		0.38		71.1		12.0		B
4	1.00		0.896		2805		6761		0.41		71.1		13.1		B
5	1.00		0.896		2949		6761		0.44		71.1		13.8		B
6	1.00		0.896		3212		6761		0.48		71.1		15.0		B
7	1.00		0.896		3422		6761		0.51		71.0		16.1		B
8	1.00		0.896		3194		6761		0.47		71.1		15.0		B

9	1.00	0.896	3068	6761	0.45	71.1	14.4	B
10	1.00	0.896	3194	6761	0.47	71.1	15.0	B
11	1.00	0.896	3506	6761	0.52	70.9	16.5	B
12	1.00	0.896	3338	6761	0.49	71.1	15.7	B

Segment 4: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.903	0.942	2513	379	5918	1972	0.42	0.19	65.9	64.0	12.7	11.5	B
2	1.00	1.00	0.903	0.942	2696	407	5918	1972	0.46	0.21	65.7	63.9	13.7	12.5	B
3	1.00	1.00	0.903	0.942	2989	451	5918	1972	0.51	0.23	65.6	63.8	15.2	14.0	B
4	1.00	1.00	0.903	0.942	3277	494	5918	1972	0.55	0.25	65.3	63.5	16.7	15.5	B
5	1.00	1.00	0.903	0.942	3445	519	5918	1972	0.58	0.26	65.1	63.4	17.6	16.3	B
6	1.00	1.00	0.903	0.942	3753	566	5918	1972	0.63	0.29	64.9	63.2	19.3	17.9	B
7	1.00	1.00	0.903	0.942	3998	603	5918	1972	0.68	0.31	64.6	62.9	20.6	19.2	B
8	1.00	1.00	0.903	0.942	3732	563	5918	1972	0.63	0.29	64.9	63.2	19.2	17.8	B
9	1.00	1.00	0.903	0.942	3584	540	5918	1972	0.61	0.27	65.0	63.3	18.4	17.1	B
10	1.00	1.00	0.903	0.942	3732	563	5918	1972	0.63	0.29	64.9	63.2	19.2	17.8	B
11	1.00	1.00	0.903	0.942	4096	618	5918	1972	0.69	0.31	64.5	62.8	21.2	19.7	B
12	1.00	1.00	0.903	0.942	3900	588	5918	1972	0.66	0.30	64.7	63.1	20.1	18.7	B

Segment 5: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.903	2529	6761	0.37	70.7	11.8	B
2	1.00	0.903	2713	6761	0.40	70.7	12.7	B
3	1.00	0.903	3009	6761	0.45	70.7	14.1	B
4	1.00	0.903	3298	6761	0.49	70.7	15.5	B
5	1.00	0.903	3467	6761	0.51	70.7	16.3	B
6	1.00	0.903	3777	6761	0.56	70.4	17.9	B
7	1.00	0.903	4024	6761	0.60	69.7	19.2	C
8	1.00	0.903	3756	6761	0.56	70.4	17.8	B
9	1.00	0.903	3608	6761	0.53	70.7	17.0	B
10	1.00	0.903	3756	6761	0.56	70.4	17.8	B
11	1.00	0.903	4123	6761	0.61	69.4	19.8	C
12	1.00	0.903	3926	6761	0.58	70.0	18.7	C

Segment 6: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.903	2529	6761	0.37	71.2	11.8	B
2	1.00	0.903	2713	6761	0.40	71.2	12.7	B
3	1.00	0.903	3009	6761	0.45	71.2	14.1	B
4	1.00	0.903	3298	6761	0.49	71.1	15.5	B

1	1.00	1.00	0.903	0.923	2529	377	5918	1972	0.43	0.19	64.6	60.7	13.0	14.2	B
2	1.00	1.00	0.903	0.923	2713	404	5918	1972	0.46	0.20	64.6	60.6	14.0	15.3	B
3	1.00	1.00	0.903	0.923	3009	447	5918	1972	0.51	0.23	64.7	60.5	15.5	16.9	B
4	1.00	1.00	0.903	0.923	3298	491	5918	1972	0.56	0.25	64.7	60.4	17.0	18.4	B
5	1.00	1.00	0.903	0.923	3467	516	5918	1972	0.59	0.26	64.7	60.3	17.9	19.3	B
6	1.00	1.00	0.903	0.923	3777	562	5918	1972	0.64	0.29	64.6	60.2	19.5	20.9	C
7	1.00	1.00	0.903	0.923	4024	599	5918	1972	0.68	0.30	64.6	60.1	20.8	22.2	C
8	1.00	1.00	0.903	0.923	3756	559	5918	1972	0.63	0.28	64.6	60.2	19.4	20.8	C
9	1.00	1.00	0.903	0.923	3608	537	5918	1972	0.61	0.27	64.6	60.2	18.6	20.1	C
10	1.00	1.00	0.903	0.923	3756	559	5918	1972	0.63	0.28	64.6	60.2	19.4	20.8	C
11	1.00	1.00	0.903	0.923	4123	613	5918	1972	0.70	0.31	64.5	60.0	21.3	22.7	C
12	1.00	1.00	0.903	0.923	3926	584	5918	1972	0.66	0.30	64.5	60.1	20.3	21.7	C

Segment 10: Basic

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	1.00		0.900		2151		6761		0.32		71.0		10.1		A
2	1.00		0.900		2308		6761		0.34		71.0		10.8		A
3	1.00		0.900		2560		6761		0.38		71.0		12.0		B
4	1.00		0.900		2806		6761		0.42		71.0		13.1		B
5	1.00		0.900		2950		6761		0.44		71.0		13.8		B
6	1.00		0.900		3213		6761		0.48		71.0		15.0		B
7	1.00		0.900		3423		6761		0.51		71.0		16.1		B
8	1.00		0.900		3196		6761		0.47		71.0		15.0		B
9	1.00		0.900		3069		6761		0.45		71.0		14.4		B
10	1.00		0.900		3196		6761		0.47		71.0		15.0		B
11	1.00		0.900		3508		6761		0.52		70.9		16.5		B
12	1.00		0.900		3340		6761		0.49		71.0		15.7		B

Segment 11: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.902	0.916	2607	461	5918	1972	0.44	0.23	65.5	63.6	13.3	13.0	B
2	1.00	1.00	0.902	0.916	2796	493	5918	1972	0.47	0.25	65.4	63.5	14.3	13.9	B
3	1.00	1.00	0.902	0.916	3102	548	5918	1972	0.52	0.28	65.2	63.3	15.9	15.5	B
4	1.00	1.00	0.902	0.916	3399	600	5918	1972	0.57	0.30	64.9	63.1	17.5	17.1	B
5	1.00	1.00	0.902	0.916	3574	631	5918	1972	0.60	0.32	64.8	63.0	18.4	18.0	B
6	1.00	1.00	0.902	0.916	3894	688	5918	1972	0.66	0.35	64.4	62.7	20.2	19.6	B
7	1.00	1.00	0.902	0.916	4149	733	5918	1972	0.70	0.37	64.1	62.4	21.6	21.0	C
8	1.00	1.00	0.902	0.916	3871	683	5918	1972	0.65	0.35	64.5	62.7	20.0	19.5	B
9	1.00	1.00	0.902	0.916	3718	656	5918	1972	0.63	0.33	64.6	62.8	19.2	18.7	B
10	1.00	1.00	0.902	0.916	3871	683	5918	1972	0.65	0.35	64.5	62.7	20.0	19.5	B
11	1.00	1.00	0.902	0.916	4250	750	5918	1972	0.72	0.38	64.0	62.2	22.1	21.5	C

12	1.00	1.00	0.902	0.916	4047	714	5918	1972	0.68	0.36	64.3	62.5	21.0	20.4	C
Segment 12: Basic															
AP	PHF	fHV	Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio	Speed (mi/h)		Density (pc/mi/ln)		LOS			
1	1.00	0.902	2614		6761		0.39	70.7		12.2		B			
2	1.00	0.902	2804		6761		0.41	70.7		13.1		B			
3	1.00	0.902	3111		6761		0.46	70.7		14.6		B			
4	1.00	0.902	3409		6761		0.50	70.6		16.0		B			
5	1.00	0.902	3584		6761		0.53	70.6		16.9		B			
6	1.00	0.902	3905		6761		0.58	70.1		18.6		C			
7	1.00	0.902	4160		6761		0.62	69.3		20.0		C			
8	1.00	0.902	3882		6761		0.57	70.1		18.5		C			
9	1.00	0.902	3728		6761		0.55	70.5		17.6		B			
10	1.00	0.902	3882		6761		0.57	70.1		18.5		C			
11	1.00	0.902	4262		6761		0.63	68.9		20.6		C			
12	1.00	0.902	4058		6761		0.60	69.6		19.4		C			
Segment 13: Basic															
AP	PHF	fHV	Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio	Speed (mi/h)		Density (pc/mi/ln)		LOS			
1	1.00	0.902	2614		6761		0.39	71.2		12.2		B			
2	1.00	0.902	2804		6761		0.41	71.2		13.1		B			
3	1.00	0.902	3111		6761		0.46	71.2		14.6		B			
4	1.00	0.902	3409		6761		0.50	71.0		16.0		B			
5	1.00	0.902	3584		6761		0.53	70.8		16.9		B			
6	1.00	0.902	3905		6761		0.58	70.1		18.6		C			
7	1.00	0.902	4160		6761		0.62	69.3		20.0		C			
8	1.00	0.902	3882		6761		0.57	70.1		18.5		C			
9	1.00	0.902	3728		6761		0.55	70.5		17.6		B			
10	1.00	0.902	3882		6761		0.57	70.1		18.5		C			
11	1.00	0.902	4262		6761		0.63	68.9		20.6		C			
12	1.00	0.902	4058		6761		0.60	69.6		19.4		C			
Segment 14: Basic															
AP	PHF	fHV	Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio	Speed (mi/h)		Density (pc/mi/ln)		LOS			
1	1.00	0.902	2614		6761		0.39	71.2		12.2		B			
2	1.00	0.902	2804		6761		0.41	71.2		13.1		B			
3	1.00	0.902	3111		6761		0.46	71.2		14.6		B			
4	1.00	0.902	3409		6761		0.50	71.0		16.0		B			
5	1.00	0.902	3584		6761		0.53	70.8		16.9		B			
6	1.00	0.902	3905		6761		0.58	70.1		18.6		C			
7	1.00	0.902	4160		6761		0.62	69.3		20.0		C			
8	1.00	0.902	3882		6761		0.57	70.1		18.5		C			

9	1.00	0.902	3728	6761	0.55	70.5	17.6	B
10	1.00	0.902	3882	6761	0.57	70.1	18.5	C
11	1.00	0.902	4262	6761	0.63	68.9	20.6	C
12	1.00	0.902	4058	6761	0.60	69.6	19.4	C

Segment 15: Basic

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	0.902	2614	6761	0.39	71.2	12.2	B							
2	1.00	0.902	2804	6761	0.41	71.2	13.1	B							
3	1.00	0.902	3111	6761	0.46	71.2	14.6	B							
4	1.00	0.902	3409	6761	0.50	71.0	16.0	B							
5	1.00	0.902	3584	6761	0.53	70.8	16.9	B							
6	1.00	0.902	3905	6761	0.58	70.1	18.6	C							
7	1.00	0.902	4160	6761	0.62	69.3	20.0	C							
8	1.00	0.902	3882	6761	0.57	70.1	18.5	C							
9	1.00	0.902	3728	6761	0.55	70.5	17.6	B							
10	1.00	0.902	3882	6761	0.57	70.1	18.5	C							
11	1.00	0.902	4262	6761	0.63	68.9	20.6	C							
12	1.00	0.902	4058	6761	0.60	69.6	19.4	C							

Segment 16: Basic

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	0.902	2614	6761	0.39	71.2	12.2	B							
2	1.00	0.902	2804	6761	0.41	71.2	13.1	B							
3	1.00	0.902	3111	6761	0.46	71.2	14.6	B							
4	1.00	0.902	3409	6761	0.50	71.0	16.0	B							
5	1.00	0.902	3584	6761	0.53	70.8	16.9	B							
6	1.00	0.902	3905	6761	0.58	70.1	18.6	C							
7	1.00	0.902	4160	6761	0.62	69.3	20.0	C							
8	1.00	0.902	3882	6761	0.57	70.1	18.5	C							
9	1.00	0.902	3728	6761	0.55	70.5	17.6	B							
10	1.00	0.902	3882	6761	0.57	70.1	18.5	C							
11	1.00	0.902	4262	6761	0.63	68.9	20.6	C							
12	1.00	0.902	4058	6761	0.60	69.6	19.4	C							

Segment 17: Diverge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.902	0.899	2614	400	5918	3944	0.44	0.10	66.9	60.6	13.0	3.6	A
2	1.00	1.00	0.902	0.899	2804	429	5918	3944	0.47	0.11	66.7	60.5	14.0	4.5	A
3	1.00	1.00	0.902	0.899	3111	476	5918	3944	0.53	0.12	66.5	60.4	15.6	6.0	A
4	1.00	1.00	0.902	0.899	3409	522	5918	3944	0.58	0.13	66.3	60.3	17.1	7.5	A

5	1.00	1.00	0.902	0.899	3584	548	5918	3944	0.61	0.14	66.1	60.2	18.1	8.4	A
6	1.00	1.00	0.902	0.899	3905	597	5918	3944	0.66	0.15	65.9	60.1	19.8	9.9	A
7	1.00	1.00	0.902	0.899	4160	636	5918	3944	0.70	0.16	65.7	60.0	21.1	11.2	B
8	1.00	1.00	0.902	0.899	3882	594	5918	3944	0.66	0.15	65.9	60.1	19.6	9.8	A
9	1.00	1.00	0.902	0.899	3728	571	5918	3944	0.63	0.14	66.0	60.2	18.8	9.1	A
10	1.00	1.00	0.902	0.899	3882	594	5918	3944	0.66	0.15	65.9	60.1	19.6	9.8	A
11	1.00	1.00	0.902	0.899	4262	652	5918	3944	0.72	0.17	65.6	60.0	21.7	11.7	B
12	1.00	1.00	0.902	0.899	4058	621	5918	3944	0.69	0.16	65.7	60.0	20.6	10.7	B

Segment 18: Basic

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	1.00		0.903		2213		6761		0.33		71.1		10.4		A
2	1.00		0.903		2373		6761		0.35		71.1		11.1		B
3	1.00		0.903		2633		6761		0.39		71.1		12.3		B
4	1.00		0.903		2886		6761		0.43		71.1		13.5		B
5	1.00		0.903		3034		6761		0.45		71.1		14.2		B
6	1.00		0.903		3306		6761		0.49		71.1		15.5		B
7	1.00		0.903		3522		6761		0.52		70.9		16.6		B
8	1.00		0.903		3287		6761		0.49		71.1		15.4		B
9	1.00		0.903		3156		6761		0.47		71.1		14.8		B
10	1.00		0.903		3287		6761		0.49		71.1		15.4		B
11	1.00		0.903		3608		6761		0.53		70.7		17.0		B
12	1.00		0.903		3435		6761		0.51		71.0		16.1		B

Segment 19: Basic

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	1.00		0.903		2213		6761		0.33		71.2		10.4		A
2	1.00		0.903		2373		6761		0.35		71.2		11.1		B
3	1.00		0.903		2633		6761		0.39		71.2		12.3		B
4	1.00		0.903		2886		6761		0.43		71.2		13.5		B
5	1.00		0.903		3034		6761		0.45		71.2		14.2		B
6	1.00		0.903		3306		6761		0.49		71.1		15.5		B
7	1.00		0.903		3522		6761		0.52		70.9		16.6		B
8	1.00		0.903		3287		6761		0.49		71.1		15.4		B
9	1.00		0.903		3156		6761		0.47		71.2		14.8		B
10	1.00		0.903		3287		6761		0.49		71.1		15.4		B
11	1.00		0.903		3608		6761		0.53		70.7		17.0		B
12	1.00		0.903		3435		6761		0.51		71.0		16.1		B

Segment 20: Diverge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	

1	1.00	1.00	0.903	0.918	2213	1233	5918	3944	0.37	0.31	61.6	58.4	12.0	5.9	A
2	1.00	1.00	0.903	0.918	2373	1322	5918	3944	0.40	0.34	61.4	58.2	12.9	7.0	A
3	1.00	1.00	0.903	0.918	2633	1466	5918	3944	0.44	0.37	61.1	57.8	14.4	8.7	A
4	1.00	1.00	0.903	0.918	2886	1607	5918	3944	0.49	0.41	60.7	57.4	15.8	10.5	B
5	1.00	1.00	0.903	0.918	3034	1690	5918	3944	0.51	0.43	60.5	57.2	16.7	11.5	B
6	1.00	1.00	0.903	0.918	3306	1840	5918	3944	0.56	0.47	60.2	56.8	18.3	13.3	B
7	1.00	1.00	0.903	0.918	3522	1961	5918	3944	0.60	0.50	59.9	56.5	19.6	14.8	B
8	1.00	1.00	0.903	0.918	3287	1830	5918	3944	0.56	0.46	60.3	56.9	18.2	13.2	B
9	1.00	1.00	0.903	0.918	3156	1758	5918	3944	0.53	0.45	60.4	57.0	17.4	12.3	B
10	1.00	1.00	0.903	0.918	3287	1830	5918	3944	0.56	0.46	60.3	56.9	18.2	13.2	B
11	1.00	1.00	0.903	0.918	3608	2009	5918	3944	0.61	0.51	59.8	56.4	20.1	15.4	B
12	1.00	1.00	0.903	0.918	3435	1913	5918	3944	0.58	0.49	60.0	56.6	19.1	14.2	B

Segment 21: Basic

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	1.00		0.884		980		6761		0.14		69.7		4.6		A
2	1.00		0.884		1051		6761		0.16		69.6		4.9		A
3	1.00		0.884		1167		6761		0.17		69.6		5.5		A
4	1.00		0.884		1279		6761		0.19		69.5		6.0		A
5	1.00		0.884		1345		6761		0.20		69.5		6.3		A
6	1.00		0.884		1466		6761		0.22		69.5		6.9		A
7	1.00		0.884		1561		6761		0.23		69.4		7.3		A
8	1.00		0.884		1457		6761		0.22		69.5		6.8		A
9	1.00		0.884		1398		6761		0.21		69.5		6.5		A
10	1.00		0.884		1457		6761		0.22		69.5		6.8		A
11	1.00		0.884		1600		6761		0.24		69.4		7.5		A
12	1.00		0.884		1523		6761		0.23		69.4		7.1		A

Segment 22: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.880	0.870	1359	375	5918	1972	0.23	0.19	65.1	62.9	7.0	9.4	A
2	1.00	1.00	0.880	0.870	1458	402	5918	1972	0.25	0.20	65.1	62.9	7.5	9.9	A
3	1.00	1.00	0.880	0.870	1619	446	5918	1972	0.27	0.23	65.1	62.8	8.3	10.8	B
4	1.00	1.00	0.880	0.870	1774	489	5918	1972	0.30	0.25	65.0	62.8	9.1	11.6	B
5	1.00	1.00	0.880	0.870	1865	514	5918	1972	0.32	0.26	65.0	62.8	9.6	12.1	B
6	1.00	1.00	0.880	0.870	2033	560	5918	1972	0.34	0.28	64.9	62.7	10.4	13.0	B
7	1.00	1.00	0.880	0.870	2165	597	5918	1972	0.37	0.30	64.9	62.7	11.1	13.7	B
8	1.00	1.00	0.880	0.870	2020	556	5918	1972	0.34	0.28	64.9	62.7	10.4	13.0	B
9	1.00	1.00	0.880	0.870	1939	534	5918	1972	0.33	0.27	65.0	62.8	9.9	12.5	B
10	1.00	1.00	0.880	0.870	2020	556	5918	1972	0.34	0.28	64.9	62.7	10.4	13.0	B
11	1.00	1.00	0.880	0.870	2217	610	5918	1972	0.37	0.31	64.8	62.6	11.4	14.0	B

12	1.00	1.00	0.880	0.870	2112	582	5918	1972	0.36	0.29	64.9	62.7	10.8	13.4	B
Segment 23: Basic															
AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS							
1	1.00	0.880	1355	6761	0.20	70.7	6.3	A							
2	1.00	0.880	1453	6761	0.21	70.7	6.8	A							
3	1.00	0.880	1614	6761	0.24	70.7	7.6	A							
4	1.00	0.880	1768	6761	0.26	70.7	8.3	A							
5	1.00	0.880	1859	6761	0.27	70.7	8.7	A							
6	1.00	0.880	2026	6761	0.30	70.6	9.5	A							
7	1.00	0.880	2158	6761	0.32	70.6	10.1	A							
8	1.00	0.880	2014	6761	0.30	70.6	9.4	A							
9	1.00	0.880	1933	6761	0.29	70.7	9.0	A							
10	1.00	0.880	2014	6761	0.30	70.6	9.4	A							
11	1.00	0.880	2210	6761	0.33	70.6	10.4	A							
12	1.00	0.880	2105	6761	0.31	70.6	9.9	A							

Facility Analysis Results									
AP	VMT veh-mi/AP	VMT-Demand veh-mi/AP	VHD veh-h/AP	Total Delay Cost \$/AP	Speed mi/h	Density pc/mi/ln	Density veh/mi/ln	TT min	LOS
1	12827	12750	1.53	38.15	70.6	11.8	10.6	19.40	B
2	13758	13675	1.67	41.66	70.6	12.6	11.4	19.40	B
3	15262	15170	1.88	47.04	70.6	14.0	12.7	19.40	B
4	16727	16626	2.54	63.58	70.4	15.4	13.9	19.40	B
5	17586	17480	3.28	81.93	70.3	16.2	14.6	19.50	B
6	19158	19043	5.60	140.10	69.8	17.8	16.1	19.60	B
7	20410	20287	8.70	217.44	69.1	19.1	17.2	19.80	C
8	19050	18936	5.55	138.85	69.8	17.7	16.0	19.60	B
9	18296	18186	4.21	105.32	70.1	16.9	15.3	19.50	B
10	19050	18936	5.55	138.85	69.8	17.7	16.0	19.60	B
11	20910	20784	10.29	257.32	68.8	19.7	17.8	19.90	C
12	19910	19790	7.42	185.51	69.4	18.6	16.8	19.70	C

Facility Overall Results			
Space Mean Speed, mi/h	69.8	Average Density, veh/mi/ln	14.9
Average Travel Time, min	19.60	Average Density, pc/mi/ln	16.5
Total VMT, veh-mi	212946	Total VHD, veh-h	58.23
Vehicle Value of Time (VOT), \$/h	25.00	Total Delay Cost, \$	1455.74

HCS Freeway Facilities Report

Project Information

Analyst	Kittelson & Associates	Date	11/7/2023
Agency	Florida Department of Transportation	Analysis Year	2030 No-Build Conditions
Jurisdiction	District Five	Time Analyzed	PM Weekday Peak Period
Facility Name	I-75 (Southbound)	Units	U.S. Customary
Project Description	I-75 PD&E South Auxiliary Lanes		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	23
Total Analysis Periods	12	Analysis Period Duration, min	15
Facility Length, mi	22.79		

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	I-75 SB	1500	3
2	Diverge	Diverge	I-75 SB SR 200 Off Ramp	1500	3
3	Basic	Basic	I-75 SB	3275	3
4	Merge	Merge	I-75 SB SR 200 On Ramp	1500	3
5	Basic	Basic	I-75 SB	1500	3
6	Basic	Basic	I-75 SB	1500	3
7	Basic	Basic	I-75 SB	36965	3
8	Basic	Basic	I-75 SB	1500	3
9	Diverge	Diverge	I-75 SB CR 484 Off Ramp	1500	3
10	Basic	Basic	I-75 SB	2822	3
11	Merge	Merge	I-75 SB CR 484 On Ramp	1500	3
12	Basic	Basic	I-75 SB	1500	3
13	Basic	Basic	I-75 SB	1500	3
14	Basic	Basic	I-75 SB	47319	3
15	Basic	Basic	I-75 SB	1500	3
16	Basic	Basic	I-75 SB	1500	3
17	Diverge	Diverge	I-75 SB SR 44 Off Ramp	1500	3
18	Basic	Basic	I-75 SB	3547	3
19	Basic	Basic	I-75 SB	1642	3
20	Diverge	Diverge	I-75 SB Turnpike Off Ramp	1500	3
21	Basic	Basic	I-75 SB	775	3
22	Merge	Merge	I-75 SB SR 44 On Ramp	1500	3
23	Basic	Basic	I-75 SB	1500	3

Facility Segment Data

Segment 1: Basic															
AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	1.00		0.907		5511		6761		0.88		25.6		71.8		F
2	1.00		0.907		5504		6761		0.85		25.5		72.0		F
3	1.00		0.907		5504		6761		0.92		25.5		72.0		F
4	1.00		0.907		5504		6761		0.88		25.5		72.0		F
5	1.00		0.907		5504		6761		0.92		25.5		72.0		F
6	1.00		0.907		5504		6761		0.85		25.5		72.0		F
7	1.00		0.907		5582		6761		0.87		26.5		70.3		F
8	1.00		0.907		5403		6761		0.88		24.3		74.1		F
9	1.00		0.907		5487		6761		0.82		25.3		72.3		F
10	1.00		0.907		5519		6761		0.79		25.7		71.6		F
11	1.00		0.907		5480		6761		0.81		25.2		72.5		F
12	1.00		0.907		5568		6761		0.75		26.3		70.6		F

Segment 2: Diverge															
AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.907	0.951	5511	885	5918	1972	1.00	0.45	63.9	59.3	28.7	33.0	D
2	1.00	1.00	0.907	0.951	5504	854	5918	1972	0.97	0.43	63.9	59.4	28.7	32.9	D
3	1.00	1.00	0.907	0.951	5504	925	5918	1972	1.05	0.47	63.8	59.2	28.8	33.1	F
4	1.00	1.00	0.907	0.951	5504	884	5918	1972	1.00	0.45	63.9	59.3	28.7	33.0	D
5	1.00	1.00	0.907	0.951	5504	931	5918	1972	1.05	0.47	63.8	59.2	28.8	33.1	F
6	1.00	1.00	0.907	0.951	5504	855	5918	1972	0.97	0.43	63.9	59.4	28.7	32.9	D
7	1.00	1.00	0.907	0.951	5493	877	5918	1972	0.99	0.44	63.9	59.3	28.7	32.9	F
8	1.00	1.00	0.907	0.951	5403	889	5918	1972	1.01	0.45	31.5	59.3	57.2	34.7	F
9	1.00	1.00	0.907	0.951	5486	831	5918	1972	0.94	0.42	34.1	59.5	53.7	33.1	F
10	1.00	1.00	0.907	0.951	5518	799	5918	1972	0.90	0.41	33.9	59.5	54.2	32.2	F
11	1.00	1.00	0.907	0.951	5481	821	5918	1972	0.93	0.42	33.0	59.5	55.4	32.9	F
12	1.00	1.00	0.907	0.951	5567	760	5918	1972	0.86	0.39	35.9	59.7	51.7	31.1	F

Segment 3: Basic															
AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	1.00		0.899		4609		6761		0.75		67.5		22.8		F
2	1.00		0.899		4635		6761		0.72		67.3		23.0		F
3	1.00		0.899		4587		6761		0.78		67.6		22.6		F
4	1.00		0.899		4587		6761		0.75		28.4		53.9		F
5	1.00		0.899		4587		6761		0.78		22.2		68.9		F
6	1.00		0.899		4594		6761		0.72		19.6		78.3		F
7	1.00		0.899		4610		6761		0.74		17.3		89.0		F
8	1.00		0.899		4598		6761		0.75		16.8		91.4		F

9	1.00	0.899	4658	6761	0.70	17.2	90.1	F
10	1.00	0.899	4690	6761	0.67	17.5	89.4	F
11	1.00	0.899	4666	6761	0.69	17.3	89.9	F
12	1.00	0.899	4729	6761	0.64	17.8	88.5	F

Segment 4: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.905	0.942	5511	902	5918	1972	1.00	0.46	62.0	60.0	29.6	27.1	C
2	1.00	1.00	0.905	0.942	5504	869	5918	1972	0.96	0.44	62.0	60.0	29.6	27.0	C
3	1.00	1.00	0.905	0.942	5504	943	5918	1972	1.04	0.48	61.8	59.8	29.8	27.3	F
4	1.00	1.00	0.905	0.942	5504	901	5918	1972	1.00	0.46	62.0	60.0	29.5	27.0	C
5	1.00	1.00	0.905	0.942	5504	948	5918	1972	1.05	0.48	61.8	59.8	29.9	27.4	F
6	1.00	1.00	0.905	0.942	5504	870	5918	1972	0.96	0.44	62.1	60.1	29.3	26.8	C
7	1.00	1.00	0.905	0.942	5504	894	5918	1972	0.99	0.45	62.0	60.0	29.6	27.1	C
8	1.00	1.00	0.905	0.942	5504	906	5918	1972	1.00	0.46	62.0	60.0	29.6	27.1	C
9	1.00	1.00	0.905	0.942	5504	846	5918	1972	0.94	0.43	62.1	60.1	29.5	26.9	C
10	1.00	1.00	0.905	0.942	5504	814	5918	1972	0.90	0.41	62.1	60.1	29.5	26.9	C
11	1.00	1.00	0.905	0.942	5504	838	5918	1972	0.93	0.42	62.1	60.1	29.5	26.9	C
12	1.00	1.00	0.905	0.942	5504	775	5918	1972	0.86	0.39	62.1	60.2	29.5	26.8	C

Segment 5: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.905	5511	6761	0.88	61.9	29.7	D
2	1.00	0.905	5504	6761	0.85	62.0	29.6	D
3	1.00	0.905	5504	6761	0.92	62.0	29.6	D
4	1.00	0.905	5504	6761	0.88	62.0	29.6	D
5	1.00	0.905	5504	6761	0.93	62.0	29.6	D
6	1.00	0.905	5504	6761	0.85	62.0	29.6	D
7	1.00	0.905	5504	6761	0.87	62.0	29.6	D
8	1.00	0.905	5504	6761	0.88	62.0	29.6	D
9	1.00	0.905	5504	6761	0.83	62.0	29.6	D
10	1.00	0.905	5504	6761	0.79	62.0	29.6	D
11	1.00	0.905	5504	6761	0.82	62.0	29.6	D
12	1.00	0.905	5504	6761	0.76	62.0	29.6	D

Segment 6: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.905	5511	6761	0.88	61.9	29.7	D
2	1.00	0.905	5504	6761	0.85	62.0	29.6	D
3	1.00	0.905	5504	6761	0.92	62.0	29.6	D
4	1.00	0.905	5504	6761	0.88	62.0	29.6	D

1	1.00	1.00	0.905	0.923	5511	1121	5918	1972	1.01	0.57	63.3	58.7	29.0	29.6	F
2	1.00	1.00	0.905	0.923	5504	1080	5918	1972	0.97	0.55	63.4	58.8	28.9	29.5	D
3	1.00	1.00	0.905	0.923	5504	1171	5918	1972	1.05	0.59	63.2	58.6	29.0	29.7	F
4	1.00	1.00	0.905	0.923	5504	1119	5918	1972	1.00	0.57	63.3	58.7	29.0	29.6	D
5	1.00	1.00	0.905	0.923	5504	1178	5918	1972	1.06	0.60	63.2	58.6	29.0	29.7	F
6	1.00	1.00	0.905	0.923	5504	1081	5918	1972	0.97	0.55	63.4	58.8	28.9	29.5	D
7	1.00	1.00	0.905	0.923	5504	1109	5918	1972	1.00	0.56	63.4	58.8	28.9	29.5	D
8	1.00	1.00	0.905	0.923	5504	1125	5918	1972	1.01	0.57	63.3	58.7	29.0	29.6	F
9	1.00	1.00	0.905	0.923	5504	1051	5918	1972	0.94	0.53	63.5	58.9	28.9	29.4	D
10	1.00	1.00	0.905	0.923	5504	1012	5918	1972	0.91	0.51	63.6	59.0	28.8	29.4	D
11	1.00	1.00	0.905	0.923	5504	1040	5918	1972	0.93	0.53	63.5	58.9	28.9	29.4	D
12	1.00	1.00	0.905	0.923	5504	963	5918	1972	0.86	0.49	63.7	59.1	28.8	29.3	D

Segment 10: Basic

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	1.00		0.901		4390		6761		0.71		68.4		21.4		C
2	1.00		0.901		4468		6761		0.69		68.1		21.9		C
3	1.00		0.901		4468		6761		0.75		68.1		21.9		C
4	1.00		0.901		4468		6761		0.71		68.1		21.9		C
5	1.00		0.901		4468		6761		0.75		68.1		21.9		C
6	1.00		0.901		4468		6761		0.69		68.1		21.9		C
7	1.00		0.901		4468		6761		0.71		68.1		21.9		C
8	1.00		0.901		4469		6761		0.72		68.1		21.9		C
9	1.00		0.901		4467		6761		0.67		68.1		21.9		C
10	1.00		0.901		4468		6761		0.65		68.1		21.9		C
11	1.00		0.901		4467		6761		0.66		68.1		21.9		C
12	1.00		0.901		4468		6761		0.61		68.1		21.9		C

Segment 11: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.902	0.916	4793	403	5918	1972	0.88	0.20	63.5	61.8	25.2	23.1	C
2	1.00	1.00	0.902	0.916	4857	389	5918	1972	0.85	0.20	63.4	61.7	25.5	23.4	C
3	1.00	1.00	0.902	0.916	4889	421	5918	1972	0.92	0.21	63.4	61.7	25.7	23.6	C
4	1.00	1.00	0.902	0.916	4871	403	5918	1972	0.88	0.20	63.4	61.7	25.6	23.5	C
5	1.00	1.00	0.902	0.916	4892	424	5918	1972	0.93	0.21	63.4	61.7	25.7	23.7	C
6	1.00	1.00	0.902	0.916	4857	389	5918	1972	0.85	0.20	63.4	61.7	25.5	23.4	C
7	1.00	1.00	0.902	0.916	4868	400	5918	1972	0.88	0.20	63.4	61.7	25.6	23.5	C
8	1.00	1.00	0.902	0.916	4873	404	5918	1972	0.89	0.20	63.4	61.7	25.6	23.5	C
9	1.00	1.00	0.902	0.916	4845	378	5918	1972	0.83	0.19	63.5	61.8	25.4	23.3	C
10	1.00	1.00	0.902	0.916	4832	364	5918	1972	0.80	0.18	63.5	61.8	25.4	23.2	C
11	1.00	1.00	0.902	0.916	4840	373	5918	1972	0.82	0.19	63.5	61.8	25.4	23.3	C

12	1.00	1.00	0.902	0.916	4814	346	5918	1972	0.76	0.18	63.5	61.9	25.3	23.1	C
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Segment 12: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.902	4793	6761	0.77	66.5	24.0	C
2	1.00	0.902	4857	6761	0.75	66.2	24.5	C
3	1.00	0.902	4889	6761	0.81	66.0	24.7	C
4	1.00	0.902	4871	6761	0.77	66.1	24.6	C
5	1.00	0.902	4892	6761	0.81	66.0	24.7	C
6	1.00	0.902	4857	6761	0.75	66.2	24.5	C
7	1.00	0.902	4868	6761	0.77	66.1	24.5	C
8	1.00	0.902	4873	6761	0.78	66.1	24.6	C
9	1.00	0.902	4845	6761	0.73	66.3	24.4	C
10	1.00	0.902	4832	6761	0.70	66.3	24.3	C
11	1.00	0.902	4840	6761	0.72	66.3	24.3	C
12	1.00	0.902	4814	6761	0.67	66.4	24.2	C

Segment 13: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.902	4793	6761	0.77	66.5	24.0	C
2	1.00	0.902	4857	6761	0.75	66.2	24.5	C
3	1.00	0.902	4889	6761	0.81	66.0	24.7	C
4	1.00	0.902	4871	6761	0.77	66.1	24.6	C
5	1.00	0.902	4892	6761	0.81	66.0	24.7	C
6	1.00	0.902	4857	6761	0.75	66.2	24.5	C
7	1.00	0.902	4868	6761	0.77	66.1	24.5	C
8	1.00	0.902	4873	6761	0.78	66.1	24.6	C
9	1.00	0.902	4845	6761	0.73	66.3	24.4	C
10	1.00	0.902	4832	6761	0.70	66.3	24.3	C
11	1.00	0.902	4840	6761	0.72	66.3	24.3	C
12	1.00	0.902	4814	6761	0.67	66.4	24.2	C

Segment 14: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.902	4793	6761	0.77	66.5	24.0	C
2	1.00	0.902	4857	6761	0.75	66.2	24.5	C
3	1.00	0.902	4889	6761	0.81	66.0	24.7	C
4	1.00	0.902	4871	6761	0.77	66.1	24.6	C
5	1.00	0.902	4892	6761	0.81	66.0	24.7	C
6	1.00	0.902	4857	6761	0.75	66.2	24.5	C
7	1.00	0.902	4868	6761	0.77	66.1	24.5	C
8	1.00	0.902	4873	6761	0.78	66.1	24.6	C

9	1.00	0.902	4845	6761	0.73	66.3	24.4	C
10	1.00	0.902	4832	6761	0.70	66.3	24.3	C
11	1.00	0.902	4840	6761	0.72	66.3	24.3	C
12	1.00	0.902	4814	6761	0.67	66.4	24.2	C

Segment 15: Basic

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.902	0.899	4793	587	6761	6761	0.77	0.15	66.5	60.1	24.0	14.3	C
2	1.00	1.00	0.902	0.899	4857	566	6761	6761	0.75	0.14	66.2	60.2	24.5	14.6	C
3	1.00	1.00	0.902	0.899	4889	613	6761	6761	0.81	0.16	66.0	60.0	24.7	14.8	C
4	1.00	1.00	0.902	0.899	4871	586	6761	6761	0.77	0.15	66.1	60.1	24.6	14.7	C
5	1.00	1.00	0.902	0.899	4892	587	6761	6761	0.81	0.15	66.0	60.1	24.7	14.7	C
6	1.00	1.00	0.902	0.899	4857	587	6761	6761	0.75	0.15	66.2	60.1	24.5	14.7	C
7	1.00	1.00	0.902	0.899	4868	587	6761	6761	0.77	0.15	66.1	60.1	24.5	14.7	C
8	1.00	1.00	0.902	0.899	4873	587	6761	6761	0.78	0.15	66.1	60.1	24.6	14.7	C
9	1.00	1.00	0.902	0.899	4845	587	6761	6761	0.73	0.15	66.3	60.1	24.4	14.7	C
10	1.00	1.00	0.902	0.899	4832	587	6761	6761	0.70	0.15	66.3	60.1	24.3	14.7	C
11	1.00	1.00	0.902	0.899	4840	587	6761	6761	0.72	0.15	66.3	60.1	24.3	14.7	C
12	1.00	1.00	0.902	0.899	4814	587	6761	6761	0.67	0.15	66.4	60.1	24.2	14.7	C

Segment 16: Basic

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.902	0.899	4793	587	6761	6761	0.77	0.15	66.5	60.1	24.0	14.3	C
2	1.00	1.00	0.902	0.899	4857	566	6761	6761	0.75	0.14	66.2	60.2	24.5	14.6	C
3	1.00	1.00	0.902	0.899	4889	613	6761	6761	0.81	0.16	66.0	60.0	24.7	14.8	C
4	1.00	1.00	0.902	0.899	4871	586	6761	6761	0.77	0.15	66.1	60.1	24.6	14.7	C
5	1.00	1.00	0.902	0.899	4892	587	6761	6761	0.81	0.15	66.0	60.1	24.7	14.7	C
6	1.00	1.00	0.902	0.899	4857	587	6761	6761	0.75	0.15	66.2	60.1	24.5	14.7	C
7	1.00	1.00	0.902	0.899	4868	587	6761	6761	0.77	0.15	66.1	60.1	24.5	14.7	C
8	1.00	1.00	0.902	0.899	4873	587	6761	6761	0.78	0.15	66.1	60.1	24.6	14.7	C
9	1.00	1.00	0.902	0.899	4845	587	6761	6761	0.73	0.15	66.3	60.1	24.4	14.7	C
10	1.00	1.00	0.902	0.899	4832	587	6761	6761	0.70	0.15	66.3	60.1	24.3	14.7	C
11	1.00	1.00	0.902	0.899	4840	587	6761	6761	0.72	0.15	66.3	60.1	24.3	14.7	C
12	1.00	1.00	0.902	0.899	4814	587	6761	6761	0.67	0.15	66.4	60.1	24.2	14.7	C

Segment 17: Diverge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.902	0.899	4793	587	5918	3944	0.88	0.15	65.4	60.1	24.4	14.3	B
2	1.00	1.00	0.902	0.899	4857	566	5918	3944	0.85	0.14	65.4	60.2	24.8	14.6	B
3	1.00	1.00	0.902	0.899	4889	613	5918	3944	0.92	0.16	65.2	60.0	25.0	14.8	B
4	1.00	1.00	0.902	0.899	4871	586	5918	3944	0.88	0.15	65.3	60.1	24.9	14.7	B

5	1.00	1.00	0.902	0.899	4892	617	5918	3944	0.93	0.16	65.2	60.0	25.0	14.8	B
6	1.00	1.00	0.902	0.899	4857	566	5918	3944	0.85	0.14	65.4	60.2	24.8	14.6	B
7	1.00	1.00	0.902	0.899	4868	582	5918	3944	0.88	0.15	65.3	60.1	24.8	14.7	B
8	1.00	1.00	0.902	0.899	4873	590	5918	3944	0.89	0.15	65.3	60.1	24.9	14.7	B
9	1.00	1.00	0.902	0.899	4845	551	5918	3944	0.83	0.14	65.4	60.2	24.7	14.6	B
10	1.00	1.00	0.902	0.899	4832	529	5918	3944	0.80	0.13	65.5	60.3	24.6	14.5	B
11	1.00	1.00	0.902	0.899	4840	545	5918	3944	0.82	0.14	65.4	60.2	24.7	14.5	B
12	1.00	1.00	0.902	0.899	4814	504	5918	3944	0.76	0.13	65.5	60.3	24.5	14.4	B

Segment 18: Basic

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	1.00		0.903		4206		6761		0.69		69.1		20.3		C
2	1.00		0.903		4313		6761		0.66		68.7		20.9		C
3	1.00		0.903		4341		6761		0.72		68.6		21.1		C
4	1.00		0.903		4325		6761		0.69		68.7		21.0		C
5	1.00		0.903		4343		6761		0.72		68.6		21.1		C
6	1.00		0.903		4312		6761		0.66		68.8		20.9		C
7	1.00		0.903		4323		6761		0.68		68.7		21.0		C
8	1.00		0.903		4326		6761		0.69		68.7		21.0		C
9	1.00		0.903		4301		6761		0.64		68.8		20.8		C
10	1.00		0.903		4290		6761		0.62		68.8		20.8		C
11	1.00		0.903		4298		6761		0.64		68.8		20.8		C
12	1.00		0.903		4274		6761		0.59		68.9		20.7		C

Segment 19: Basic

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	1.00		0.903		4206		6761		0.69		69.1		20.3		C
2	1.00		0.903		4313		6761		0.66		68.7		20.9		C
3	1.00		0.903		4341		6761		0.72		68.6		21.1		C
4	1.00		0.903		4325		6761		0.69		68.7		21.0		C
5	1.00		0.903		4343		6761		0.72		68.6		21.1		C
6	1.00		0.903		4312		6761		0.66		68.8		20.9		C
7	1.00		0.903		4323		6761		0.68		68.7		21.0		C
8	1.00		0.903		4326		6761		0.69		68.7		21.0		C
9	1.00		0.903		4301		6761		0.64		68.8		20.8		C
10	1.00		0.903		4290		6761		0.62		68.8		20.8		C
11	1.00		0.903		4298		6761		0.64		68.8		20.8		C
12	1.00		0.903		4274		6761		0.59		68.9		20.7		C

Segment 20: Diverge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	

1	1.00	1.00	0.903	0.918	4206	2524	5918	3944	0.79	0.64	58.1	55.0	24.1	20.4	C
2	1.00	1.00	0.903	0.918	4313	2432	5918	3944	0.76	0.62	58.8	55.3	24.5	20.4	C
3	1.00	1.00	0.903	0.918	4341	2636	5918	3944	0.82	0.67	57.8	54.7	25.0	21.5	C
4	1.00	1.00	0.903	0.918	4325	2520	5918	3944	0.78	0.64	58.4	55.1	24.7	20.8	C
5	1.00	1.00	0.903	0.918	4343	2651	5918	3944	0.82	0.67	57.7	54.7	25.1	21.6	C
6	1.00	1.00	0.903	0.918	4312	2436	5918	3944	0.76	0.62	58.8	55.3	24.4	20.4	C
7	1.00	1.00	0.903	0.918	4323	2499	5918	3944	0.78	0.63	58.4	55.1	24.7	20.7	C
8	1.00	1.00	0.903	0.918	4326	2532	5918	3944	0.79	0.64	58.3	55.0	24.7	20.9	C
9	1.00	1.00	0.903	0.918	4301	2366	5918	3944	0.74	0.60	59.0	55.4	24.3	20.0	B
10	1.00	1.00	0.903	0.918	4290	2278	5918	3944	0.71	0.58	59.5	55.7	24.0	19.5	B
11	1.00	1.00	0.903	0.918	4298	2341	5918	3944	0.73	0.59	59.1	55.5	24.2	19.8	B
12	1.00	1.00	0.903	0.918	4274	2168	5918	3944	0.67	0.55	60.0	56.0	23.7	18.9	B

Segment 21: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.884	1682	6761	0.31	69.1	7.9	A
2	1.00	0.884	1970	6761	0.30	69.2	9.2	A
3	1.00	0.884	1983	6761	0.33	69.1	9.3	A
4	1.00	0.884	1976	6761	0.31	69.2	9.3	A
5	1.00	0.884	1984	6761	0.33	69.1	9.3	A
6	1.00	0.884	1969	6761	0.30	69.2	9.2	A
7	1.00	0.884	1974	6761	0.31	69.2	9.2	A
8	1.00	0.884	1976	6761	0.32	69.2	9.3	A
9	1.00	0.884	1964	6761	0.29	69.3	9.2	A
10	1.00	0.884	1960	6761	0.28	69.3	9.2	A
11	1.00	0.884	1963	6761	0.29	69.3	9.2	A
12	1.00	0.884	1953	6761	0.27	69.4	9.1	A

Segment 22: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.881	0.870	2279	597	5918	1972	0.46	0.30	64.8	62.6	11.7	14.3	B
2	1.00	1.00	0.881	0.870	2545	575	5918	1972	0.44	0.29	64.8	62.6	13.1	15.4	B
3	1.00	1.00	0.881	0.870	2606	623	5918	1972	0.48	0.32	64.7	62.5	13.4	15.8	B
4	1.00	1.00	0.881	0.870	2571	595	5918	1972	0.46	0.30	64.7	62.5	13.2	15.6	B
5	1.00	1.00	0.881	0.870	2610	626	5918	1972	0.48	0.32	64.7	62.5	13.4	15.9	B
6	1.00	1.00	0.881	0.870	2545	576	5918	1972	0.44	0.29	64.8	62.6	13.1	15.4	B
7	1.00	1.00	0.881	0.870	2565	591	5918	1972	0.46	0.30	64.7	62.5	13.2	15.6	B
8	1.00	1.00	0.881	0.870	2575	599	5918	1972	0.46	0.30	64.7	62.5	13.3	15.6	B
9	1.00	1.00	0.881	0.870	2524	560	5918	1972	0.43	0.28	64.8	62.6	13.0	15.3	B
10	1.00	1.00	0.881	0.870	2498	538	5918	1972	0.42	0.27	64.8	62.6	12.8	15.1	B
11	1.00	1.00	0.881	0.870	2516	553	5918	1972	0.43	0.28	64.8	62.6	12.9	15.2	B

12	1.00	1.00	0.881	0.870	2466	513	5918	1972	0.40	0.26	64.8	62.6	12.7	14.9	B
Segment 23: Basic															
AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS							
1	1.00	0.881	2279	6761	0.40	70.6	10.7	A							
2	1.00	0.881	2545	6761	0.39	70.6	11.9	B							
3	1.00	0.881	2606	6761	0.42	70.6	12.2	B							
4	1.00	0.881	2571	6761	0.40	70.6	12.0	B							
5	1.00	0.881	2610	6761	0.42	70.6	12.2	B							
6	1.00	0.881	2545	6761	0.39	70.6	11.9	B							
7	1.00	0.881	2565	6761	0.40	70.6	12.0	B							
8	1.00	0.881	2575	6761	0.40	70.6	12.1	B							
9	1.00	0.881	2524	6761	0.38	70.6	11.8	B							
10	1.00	0.881	2498	6761	0.36	70.6	11.7	B							
11	1.00	0.881	2516	6761	0.37	70.6	11.8	B							
12	1.00	0.881	2466	6761	0.35	70.6	11.5	B							

Facility Analysis Results									
AP	VMT veh-mi/AP	VMT-Demand veh-mi/AP	VHD veh-h/AP	Total Delay Cost \$/AP	Speed mi/h	Density pc/mi/ln	Density veh/mi/ln	TT min	LOS
1	25452	27610	45.51	1137.73	63.2	26.1	23.6	21.70	F
2	25678	26609	46.32	1158.12	63.1	26.4	23.8	21.70	D
3	25764	28836	47.05	1176.32	63.0	26.5	23.9	21.70	F
4	25712	27556	59.71	1492.85	61.1	27.3	24.6	22.40	D
5	25773	29000	66.42	1660.40	60.2	27.8	25.1	22.70	F
6	25672	26633	69.53	1738.18	59.7	27.9	25.2	22.90	D
7	25711	27338	73.92	1847.97	59.1	28.2	25.5	23.10	D
8	25706	27692	81.49	2037.30	58.1	28.7	25.9	23.50	F
9	25644	25885	78.92	1972.88	58.4	28.4	25.7	23.40	D
10	25615	24911	78.40	1959.99	58.5	28.4	25.6	23.40	D
11	25630	25612	79.19	1979.73	58.4	28.5	25.7	23.40	D
12	25574	23718	76.82	1920.53	58.7	28.3	25.5	23.30	D

Facility Overall Results			
Space Mean Speed, mi/h	60.1	Average Density, veh/mi/ln	25.0
Average Travel Time, min	22.80	Average Density, pc/mi/ln	27.7
Total VMT, veh-mi	307932	Total VHD, veh-h	803.28
Vehicle Value of Time (VOT), \$/h	25.00	Total Delay Cost, \$	20082.02

HCS Freeway Facilities Report

Project Information

Analyst	Kittelson & Associates	Date	11/7/2023
Agency	Florida Department of Transportation	Analysis Year	2030 No-Build Conditions
Jurisdiction	District Five	Time Analyzed	WM Weekend Peak Period
Facility Name	I-75 (Southbound)	Units	U.S. Customary
Project Description	I-75 PD&E South Auxiliary Lanes		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	23
Total Analysis Periods	12	Analysis Period Duration, min	15
Facility Length, mi	22.79		

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	I-75 SB	1500	3
2	Diverge	Diverge	I-75 SB SR 200 Off Ramp	1500	3
3	Basic	Basic	I-75 SB	3275	3
4	Merge	Merge	I-75 SB SR 200 On Ramp	1500	3
5	Basic	Basic	I-75 SB	1500	3
6	Basic	Basic	I-75 SB	1500	3
7	Basic	Basic	I-75 SB	36965	3
8	Basic	Basic	I-75 SB	1500	3
9	Diverge	Diverge	I-75 SB CR 484 Off Ramp	1500	3
10	Basic	Basic	I-75 SB	2822	3
11	Merge	Merge	I-75 SB CR 484 On Ramp	1500	3
12	Basic	Basic	I-75 SB	1500	3
13	Basic	Basic	I-75 SB	1500	3
14	Basic	Basic	I-75 SB	47319	3
15	Basic	Basic	I-75 SB	1500	3
16	Basic	Basic	I-75 SB	1500	3
17	Diverge	Diverge	I-75 SB SR 44 Off Ramp	1500	3
18	Basic	Basic	I-75 SB	3547	3
19	Basic	Basic	I-75 SB	1642	3
20	Diverge	Diverge	I-75 SB Turnpike Off Ramp	1500	3
21	Basic	Basic	I-75 SB	775	3
22	Merge	Merge	I-75 SB SR 44 On Ramp	1500	3
23	Basic	Basic	I-75 SB	1500	3

Facility Segment Data

Segment 1: Basic															
AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	1.00		0.907		4965		6761		0.73		65.6		25.2		C
2	1.00		0.907		4965		6761		0.73		65.6		25.2		C
3	1.00		0.907		4965		6761		0.73		65.6		25.2		C
4	1.00		0.907		4965		6761		0.73		65.6		25.2		C
5	1.00		0.907		5234		6761		0.77		63.9		27.3		D
6	1.00		0.907		5234		6761		0.77		63.9		27.3		D
7	1.00		0.907		5234		6761		0.77		63.9		27.3		D
8	1.00		0.907		5234		6761		0.77		63.9		27.3		D
9	1.00		0.907		5338		6761		0.79		63.2		28.1		D
10	1.00		0.907		5338		6761		0.79		63.2		28.1		D
11	1.00		0.907		5338		6761		0.79		63.2		28.1		D
12	1.00		0.907		5338		6761		0.79		63.2		28.1		D

Segment 2: Diverge															
AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.907	0.962	4965	536	5918	1972	0.84	0.27	64.7	60.2	25.6	30.2	D
2	1.00	1.00	0.907	0.962	4965	536	5918	1972	0.84	0.27	64.7	60.2	25.6	30.2	D
3	1.00	1.00	0.907	0.962	4965	536	5918	1972	0.84	0.27	64.7	60.2	25.6	30.2	D
4	1.00	1.00	0.907	0.962	4965	536	5918	1972	0.84	0.27	64.7	60.2	25.6	30.2	D
5	1.00	1.00	0.907	0.962	5234	565	5918	1972	0.88	0.29	64.7	60.2	27.0	31.3	D
6	1.00	1.00	0.907	0.962	5234	565	5918	1972	0.88	0.29	64.7	60.2	27.0	31.3	D
7	1.00	1.00	0.907	0.962	5234	565	5918	1972	0.88	0.29	64.7	60.2	27.0	31.3	D
8	1.00	1.00	0.907	0.962	5234	565	5918	1972	0.88	0.29	64.7	60.2	27.0	31.3	D
9	1.00	1.00	0.907	0.962	5338	577	5918	1972	0.90	0.29	64.6	60.1	27.5	31.8	D
10	1.00	1.00	0.907	0.962	5338	577	5918	1972	0.90	0.29	64.6	60.1	27.5	31.8	D
11	1.00	1.00	0.907	0.962	5338	577	5918	1972	0.90	0.29	64.6	60.1	27.5	31.8	D
12	1.00	1.00	0.907	0.962	5338	577	5918	1972	0.90	0.29	64.6	60.1	27.5	31.8	D

Segment 3: Basic															
AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	1.00		0.900		4430		6761		0.66		68.3		21.6		C
2	1.00		0.900		4430		6761		0.66		68.3		21.6		C
3	1.00		0.900		4430		6761		0.66		68.3		21.6		C
4	1.00		0.900		4430		6761		0.66		68.3		21.6		C
5	1.00		0.900		4670		6761		0.69		67.2		23.2		C
6	1.00		0.900		4670		6761		0.69		67.2		23.2		C
7	1.00		0.900		4670		6761		0.69		67.2		23.2		C
8	1.00		0.900		4670		6761		0.69		67.2		23.2		C

9	1.00	0.900	4763	6761	0.70	66.7	23.8	C
10	1.00	0.900	4763	6761	0.70	66.7	23.8	C
11	1.00	0.900	4763	6761	0.70	66.7	23.8	C
12	1.00	0.900	4763	6761	0.70	66.7	23.8	C

Segment 4: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.907	0.959	5029	633	5918	1972	0.85	0.32	63.2	61.5	26.5	24.1	C
2	1.00	1.00	0.907	0.959	5029	633	5918	1972	0.85	0.32	63.2	61.5	26.5	24.1	C
3	1.00	1.00	0.907	0.959	5029	633	5918	1972	0.85	0.32	63.2	61.5	26.5	24.1	C
4	1.00	1.00	0.907	0.959	5029	633	5918	1972	0.85	0.32	63.2	61.5	26.5	24.1	C
5	1.00	1.00	0.907	0.959	5301	667	5918	1972	0.90	0.34	62.7	60.9	28.2	25.5	C
6	1.00	1.00	0.907	0.959	5301	667	5918	1972	0.90	0.34	62.7	60.9	28.2	25.5	C
7	1.00	1.00	0.907	0.959	5301	667	5918	1972	0.90	0.34	62.7	60.9	28.2	25.5	C
8	1.00	1.00	0.907	0.959	5301	667	5918	1972	0.90	0.34	62.7	60.9	28.2	25.5	C
9	1.00	1.00	0.907	0.959	5408	681	5918	1972	0.91	0.35	62.4	60.6	28.9	26.1	C
10	1.00	1.00	0.907	0.959	5408	681	5918	1972	0.91	0.35	62.4	60.6	28.9	26.1	C
11	1.00	1.00	0.907	0.959	5408	681	5918	1972	0.91	0.35	62.4	60.6	28.9	26.1	C
12	1.00	1.00	0.907	0.959	5408	681	5918	1972	0.91	0.35	62.4	60.6	28.9	26.1	C

Segment 5: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.907	5065	6761	0.75	65.0	26.0	C
2	1.00	0.907	5065	6761	0.75	65.0	26.0	C
3	1.00	0.907	5065	6761	0.75	65.0	26.0	C
4	1.00	0.907	5065	6761	0.75	65.0	26.0	C
5	1.00	0.907	5340	6761	0.79	63.2	28.2	D
6	1.00	0.907	5340	6761	0.79	63.2	28.2	D
7	1.00	0.907	5340	6761	0.79	63.2	28.2	D
8	1.00	0.907	5340	6761	0.79	63.2	28.2	D
9	1.00	0.907	5447	6761	0.81	62.4	29.1	D
10	1.00	0.907	5447	6761	0.81	62.4	29.1	D
11	1.00	0.907	5447	6761	0.81	62.4	29.1	D
12	1.00	0.907	5447	6761	0.81	62.4	29.1	D

Segment 6: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.907	5065	6761	0.75	65.0	26.0	C
2	1.00	0.907	5065	6761	0.75	65.0	26.0	C
3	1.00	0.907	5065	6761	0.75	65.0	26.0	C
4	1.00	0.907	5065	6761	0.75	65.0	26.0	C

1	1.00	1.00	0.907	0.931	5065	516	5918	1972	0.86	0.26	64.8	60.3	26.1	26.7	C
2	1.00	1.00	0.907	0.931	5065	516	5918	1972	0.86	0.26	64.8	60.3	26.1	26.7	C
3	1.00	1.00	0.907	0.931	5065	516	5918	1972	0.86	0.26	64.8	60.3	26.1	26.7	C
4	1.00	1.00	0.907	0.931	5065	516	5918	1972	0.86	0.26	64.8	60.3	26.1	26.7	C
5	1.00	1.00	0.907	0.931	5340	544	5918	1972	0.90	0.28	64.6	60.2	27.6	27.9	C
6	1.00	1.00	0.907	0.931	5340	544	5918	1972	0.90	0.28	64.6	60.2	27.6	27.9	C
7	1.00	1.00	0.907	0.931	5340	544	5918	1972	0.90	0.28	64.6	60.2	27.6	27.9	C
8	1.00	1.00	0.907	0.931	5340	544	5918	1972	0.90	0.28	64.6	60.2	27.6	27.9	C
9	1.00	1.00	0.907	0.931	5447	554	5918	1972	0.92	0.28	64.6	60.2	28.1	28.3	D
10	1.00	1.00	0.907	0.931	5447	554	5918	1972	0.92	0.28	64.6	60.2	28.1	28.3	D
11	1.00	1.00	0.907	0.931	5447	554	5918	1972	0.92	0.28	64.6	60.2	28.1	28.3	D
12	1.00	1.00	0.907	0.931	5447	554	5918	1972	0.92	0.28	64.6	60.2	28.1	28.3	D

Segment 10: Basic

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	1.00		0.904		4551		6761		0.67		67.7		22.4		C
2	1.00		0.904		4551		6761		0.67		67.7		22.4		C
3	1.00		0.904		4551		6761		0.67		67.7		22.4		C
4	1.00		0.904		4551		6761		0.67		67.7		22.4		C
5	1.00		0.904		4798		6761		0.71		66.5		24.0		C
6	1.00		0.904		4798		6761		0.71		66.5		24.0		C
7	1.00		0.904		4798		6761		0.71		66.5		24.0		C
8	1.00		0.904		4798		6761		0.71		66.5		24.0		C
9	1.00		0.904		4894		6761		0.72		66.0		24.7		C
10	1.00		0.904		4894		6761		0.72		66.0		24.7		C
11	1.00		0.904		4894		6761		0.72		66.0		24.7		C
12	1.00		0.904		4894		6761		0.72		66.0		24.7		C

Segment 11: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.908	0.932	5254	723	5918	1972	0.89	0.37	62.5	60.6	28.0	26.2	C
2	1.00	1.00	0.908	0.932	5254	723	5918	1972	0.89	0.37	62.5	60.6	28.0	26.2	C
3	1.00	1.00	0.908	0.932	5254	723	5918	1972	0.89	0.37	62.5	60.6	28.0	26.2	C
4	1.00	1.00	0.908	0.932	5254	723	5918	1972	0.89	0.37	62.5	60.6	28.0	26.2	C
5	1.00	1.00	0.908	0.932	5539	763	5918	1972	0.94	0.39	61.9	59.9	29.8	27.6	C
6	1.00	1.00	0.908	0.932	5539	763	5918	1972	0.94	0.39	61.9	59.9	29.8	27.6	C
7	1.00	1.00	0.908	0.932	5539	763	5918	1972	0.94	0.39	61.9	59.9	29.8	27.6	C
8	1.00	1.00	0.908	0.932	5539	763	5918	1972	0.94	0.39	61.9	59.9	29.8	27.6	C
9	1.00	1.00	0.908	0.932	5650	778	5918	1972	0.95	0.39	61.6	59.5	30.6	28.2	D
10	1.00	1.00	0.908	0.932	5650	778	5918	1972	0.95	0.39	61.6	59.5	30.6	28.2	D
11	1.00	1.00	0.908	0.932	5650	778	5918	1972	0.95	0.39	61.6	59.5	30.6	28.2	D

12	1.00	1.00	0.908	0.932	5650	778	5918	1972	0.95	0.39	61.6	59.5	30.6	28.2	D
Segment 12: Basic															
AP	PHF	fHV	Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio	Speed (mi/h)		Density (pc/mi/ln)		LOS			
1	1.00	0.908	5273		6761		0.78	63.6		27.6		D			
2	1.00	0.908	5273		6761		0.78	63.6		27.6		D			
3	1.00	0.908	5273		6761		0.78	63.6		27.6		D			
4	1.00	0.908	5273		6761		0.78	63.6		27.6		D			
5	1.00	0.908	5559		6761		0.82	61.5		30.1		D			
6	1.00	0.908	5559		6761		0.82	61.5		30.1		D			
7	1.00	0.908	5559		6761		0.82	61.5		30.1		D			
8	1.00	0.908	5559		6761		0.82	61.5		30.1		D			
9	1.00	0.908	5671		6761		0.84	60.7		31.1		D			
10	1.00	0.908	5671		6761		0.84	60.7		31.1		D			
11	1.00	0.908	5671		6761		0.84	60.7		31.1		D			
12	1.00	0.908	5671		6761		0.84	60.7		31.1		D			
Segment 13: Basic															
AP	PHF	fHV	Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio	Speed (mi/h)		Density (pc/mi/ln)		LOS			
1	1.00	0.908	5273		6761		0.78	63.6		27.6		D			
2	1.00	0.908	5273		6761		0.78	63.6		27.6		D			
3	1.00	0.908	5273		6761		0.78	63.6		27.6		D			
4	1.00	0.908	5273		6761		0.78	63.6		27.6		D			
5	1.00	0.908	5559		6761		0.82	61.5		30.1		D			
6	1.00	0.908	5559		6761		0.82	61.5		30.1		D			
7	1.00	0.908	5559		6761		0.82	61.5		30.1		D			
8	1.00	0.908	5559		6761		0.82	61.5		30.1		D			
9	1.00	0.908	5671		6761		0.84	60.7		31.1		D			
10	1.00	0.908	5671		6761		0.84	60.7		31.1		D			
11	1.00	0.908	5671		6761		0.84	60.7		31.1		D			
12	1.00	0.908	5671		6761		0.84	60.7		31.1		D			
Segment 14: Basic															
AP	PHF	fHV	Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio	Speed (mi/h)		Density (pc/mi/ln)		LOS			
1	1.00	0.908	5273		6761		0.78	63.6		27.6		D			
2	1.00	0.908	5273		6761		0.78	63.6		27.6		D			
3	1.00	0.908	5273		6761		0.78	63.6		27.6		D			
4	1.00	0.908	5273		6761		0.78	63.6		27.6		D			
5	1.00	0.908	5559		6761		0.82	61.5		30.1		D			
6	1.00	0.908	5559		6761		0.82	61.5		30.1		D			
7	1.00	0.908	5559		6761		0.82	61.5		30.1		D			
8	1.00	0.908	5559		6761		0.82	61.5		30.1		D			

9	1.00	0.908	5671	6761	0.84	60.7	31.1	D
10	1.00	0.908	5671	6761	0.84	60.7	31.1	D
11	1.00	0.908	5671	6761	0.84	60.7	31.1	D
12	1.00	0.908	5671	6761	0.84	60.7	31.1	D

Segment 15: Basic

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	0.908	5273	6761	0.78	63.6	27.6	D							
2	1.00	0.908	5273	6761	0.78	63.6	27.6	D							
3	1.00	0.908	5273	6761	0.78	63.6	27.6	D							
4	1.00	0.908	5273	6761	0.78	63.6	27.6	D							
5	1.00	0.908	5559	6761	0.82	61.5	30.1	D							
6	1.00	0.908	5559	6761	0.82	61.5	30.1	D							
7	1.00	0.908	5559	6761	0.82	61.5	30.1	D							
8	1.00	0.908	5559	6761	0.82	61.5	30.1	D							
9	1.00	0.908	5671	6761	0.84	60.7	31.1	D							
10	1.00	0.908	5671	6761	0.84	60.7	31.1	D							
11	1.00	0.908	5671	6761	0.84	60.7	31.1	D							
12	1.00	0.908	5671	6761	0.84	60.7	31.1	D							

Segment 16: Basic

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	0.908	5273	6761	0.78	63.6	27.6	D							
2	1.00	0.908	5273	6761	0.78	63.6	27.6	D							
3	1.00	0.908	5273	6761	0.78	63.6	27.6	D							
4	1.00	0.908	5273	6761	0.78	63.6	27.6	D							
5	1.00	0.908	5559	6761	0.82	61.5	30.1	D							
6	1.00	0.908	5559	6761	0.82	61.5	30.1	D							
7	1.00	0.908	5559	6761	0.82	61.5	30.1	D							
8	1.00	0.908	5559	6761	0.82	61.5	30.1	D							
9	1.00	0.908	5671	6761	0.84	60.7	31.1	D							
10	1.00	0.908	5671	6761	0.84	60.7	31.1	D							
11	1.00	0.908	5671	6761	0.84	60.7	31.1	D							
12	1.00	0.908	5671	6761	0.84	60.7	31.1	D							

Segment 17: Diverge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.908	0.923	5273	519	5918	3944	0.89	0.13	65.2	60.3	27.0	16.7	B
2	1.00	1.00	0.908	0.923	5273	519	5918	3944	0.89	0.13	65.2	60.3	27.0	16.7	B
3	1.00	1.00	0.908	0.923	5273	519	5918	3944	0.89	0.13	65.2	60.3	27.0	16.7	B
4	1.00	1.00	0.908	0.923	5273	519	5918	3944	0.89	0.13	65.2	60.3	27.0	16.7	B

5	1.00	1.00	0.908	0.923	5559	547	5918	3944	0.94	0.14	65.0	60.2	28.5	18.1	B
6	1.00	1.00	0.908	0.923	5559	547	5918	3944	0.94	0.14	65.0	60.2	28.5	18.1	B
7	1.00	1.00	0.908	0.923	5559	547	5918	3944	0.94	0.14	65.0	60.2	28.5	18.1	B
8	1.00	1.00	0.908	0.923	5559	547	5918	3944	0.94	0.14	65.0	60.2	28.5	18.1	B
9	1.00	1.00	0.908	0.923	5671	558	5918	3944	0.96	0.14	64.9	60.2	29.1	18.6	B
10	1.00	1.00	0.908	0.923	5671	558	5918	3944	0.96	0.14	64.9	60.2	29.1	18.6	B
11	1.00	1.00	0.908	0.923	5671	558	5918	3944	0.96	0.14	64.9	60.2	29.1	18.6	B
12	1.00	1.00	0.908	0.923	5671	558	5918	3944	0.96	0.14	64.9	60.2	29.1	18.6	B

Segment 18: Basic

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	1.00		0.907		4751		6761		0.70		66.8		23.7		C
2	1.00		0.907		4751		6761		0.70		66.8		23.7		C
3	1.00		0.907		4751		6761		0.70		66.8		23.7		C
4	1.00		0.907		4751		6761		0.70		66.8		23.7		C
5	1.00		0.907		5009		6761		0.74		65.3		25.6		C
6	1.00		0.907		5009		6761		0.74		65.3		25.6		C
7	1.00		0.907		5009		6761		0.74		65.3		25.6		C
8	1.00		0.907		5009		6761		0.74		65.3		25.6		C
9	1.00		0.907		5109		6761		0.76		64.7		26.3		D
10	1.00		0.907		5109		6761		0.76		64.7		26.3		D
11	1.00		0.907		5109		6761		0.76		64.7		26.3		D
12	1.00		0.907		5109		6761		0.76		64.7		26.3		D

Segment 19: Basic

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	1.00		0.907		4751		6761		0.70		66.8		23.7		C
2	1.00		0.907		4751		6761		0.70		66.8		23.7		C
3	1.00		0.907		4751		6761		0.70		66.8		23.7		C
4	1.00		0.907		4751		6761		0.70		66.8		23.7		C
5	1.00		0.907		5009		6761		0.74		65.3		25.6		C
6	1.00		0.907		5009		6761		0.74		65.3		25.6		C
7	1.00		0.907		5009		6761		0.74		65.3		25.6		C
8	1.00		0.907		5009		6761		0.74		65.3		25.6		C
9	1.00		0.907		5109		6761		0.76		64.7		26.3		D
10	1.00		0.907		5109		6761		0.76		64.7		26.3		D
11	1.00		0.907		5109		6761		0.76		64.7		26.3		D
12	1.00		0.907		5109		6761		0.76		64.7		26.3		D

Segment 20: Diverge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	

1	1.00	1.00	0.907	0.918	4751	2528	5918	3944	0.80	0.64	58.8	55.0	26.9	22.6	C
2	1.00	1.00	0.907	0.918	4751	2528	5918	3944	0.80	0.64	58.8	55.0	26.9	22.6	C
3	1.00	1.00	0.907	0.918	4751	2528	5918	3944	0.80	0.64	58.8	55.0	26.9	22.6	C
4	1.00	1.00	0.907	0.918	4751	2528	5918	3944	0.80	0.64	58.8	55.0	26.9	22.6	C
5	1.00	1.00	0.907	0.918	5009	2666	5918	3944	0.85	0.68	58.4	54.6	28.6	24.3	C
6	1.00	1.00	0.907	0.918	5009	2666	5918	3944	0.85	0.68	58.4	54.6	28.6	24.3	C
7	1.00	1.00	0.907	0.918	5009	2666	5918	3944	0.85	0.68	58.4	54.6	28.6	24.3	C
8	1.00	1.00	0.907	0.918	5009	2666	5918	3944	0.85	0.68	58.4	54.6	28.6	24.3	C
9	1.00	1.00	0.907	0.918	5109	2719	5918	3944	0.86	0.69	58.3	54.5	29.2	25.0	C
10	1.00	1.00	0.907	0.918	5109	2719	5918	3944	0.86	0.69	58.3	54.5	29.2	25.0	C
11	1.00	1.00	0.907	0.918	5109	2719	5918	3944	0.86	0.69	58.3	54.5	29.2	25.0	C
12	1.00	1.00	0.907	0.918	5109	2719	5918	3944	0.86	0.69	58.3	54.5	29.2	25.0	C

Segment 21: Basic

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	1.00		0.894		2224		6761		0.33		69.2		10.4		A
2	1.00		0.894		2224		6761		0.33		69.2		10.4		A
3	1.00		0.894		2224		6761		0.33		69.2		10.4		A
4	1.00		0.894		2224		6761		0.33		69.2		10.4		A
5	1.00		0.894		2345		6761		0.35		69.2		11.0		A
6	1.00		0.894		2345		6761		0.35		69.2		11.0		A
7	1.00		0.894		2345		6761		0.35		69.2		11.0		A
8	1.00		0.894		2345		6761		0.35		69.2		11.0		A
9	1.00		0.894		2391		6761		0.35		69.2		11.2		B
10	1.00		0.894		2391		6761		0.35		69.2		11.2		B
11	1.00		0.894		2391		6761		0.35		69.2		11.2		B
12	1.00		0.894		2391		6761		0.35		69.2		11.2		B

Segment 22: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.899	0.917	2801	590	5918	1972	0.47	0.30	64.6	62.4	14.5	16.7	B
2	1.00	1.00	0.899	0.917	2801	590	5918	1972	0.47	0.30	64.6	62.4	14.5	16.7	B
3	1.00	1.00	0.899	0.917	2801	590	5918	1972	0.47	0.30	64.6	62.4	14.5	16.7	B
4	1.00	1.00	0.899	0.917	2801	590	5918	1972	0.47	0.30	64.6	62.4	14.5	16.7	B
5	1.00	1.00	0.899	0.917	2953	622	5918	1972	0.50	0.32	64.5	62.4	15.3	17.4	B
6	1.00	1.00	0.899	0.917	2953	622	5918	1972	0.50	0.32	64.5	62.4	15.3	17.4	B
7	1.00	1.00	0.899	0.917	2953	622	5918	1972	0.50	0.32	64.5	62.4	15.3	17.4	B
8	1.00	1.00	0.899	0.917	2953	622	5918	1972	0.50	0.32	64.5	62.4	15.3	17.4	B
9	1.00	1.00	0.899	0.917	3012	634	5918	1972	0.51	0.32	64.4	62.3	15.6	17.8	B
10	1.00	1.00	0.899	0.917	3012	634	5918	1972	0.51	0.32	64.4	62.3	15.6	17.8	B
11	1.00	1.00	0.899	0.917	3012	634	5918	1972	0.51	0.32	64.4	62.3	15.6	17.8	B

12	1.00	1.00	0.899	0.917	3012	634	5918	1972	0.51	0.32	64.4	62.3	15.6	17.8	B
Segment 23: Basic															
AP	PHF	fHV	Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio	Speed (mi/h)		Density (pc/mi/ln)		LOS			
1	1.00	0.899	2813		6761		0.42	70.6		13.2		B			
2	1.00	0.899	2813		6761		0.42	70.6		13.2		B			
3	1.00	0.899	2813		6761		0.42	70.6		13.2		B			
4	1.00	0.899	2813		6761		0.42	70.6		13.2		B			
5	1.00	0.899	2966		6761		0.44	70.6		13.9		B			
6	1.00	0.899	2966		6761		0.44	70.6		13.9		B			
7	1.00	0.899	2966		6761		0.44	70.6		13.9		B			
8	1.00	0.899	2966		6761		0.44	70.6		13.9		B			
9	1.00	0.899	3024		6761		0.45	70.6		14.2		B			
10	1.00	0.899	3024		6761		0.45	70.6		14.2		B			
11	1.00	0.899	3024		6761		0.45	70.6		14.2		B			
12	1.00	0.899	3024		6761		0.45	70.6		14.2		B			

Facility Analysis Results									
AP	VMT veh-mi/AP	VMT-Demand veh-mi/AP	VHD veh-h/AP	Total Delay Cost \$/AP	Speed mi/h	Density pc/mi/ln	Density veh/mi/ln	TT min	LOS
1	26040	25915	38.30	957.39	64.5	26.0	23.7	21.20	D
2	26040	25915	38.30	957.39	64.5	26.0	23.7	21.20	D
3	26040	25915	38.30	957.39	64.5	26.0	23.7	21.20	D
4	26040	25915	38.30	957.39	64.5	26.0	23.7	21.20	D
5	27453	27321	52.39	1309.71	62.7	28.2	25.6	21.80	D
6	27453	27321	52.39	1309.71	62.7	28.2	25.6	21.80	D
7	27453	27321	52.39	1309.71	62.7	28.2	25.6	21.80	D
8	27453	27321	52.39	1309.71	62.7	28.2	25.6	21.80	D
9	28002	27868	58.64	1466.00	62.0	29.1	26.4	22.10	D
10	28002	27868	58.64	1466.00	62.0	29.1	26.4	22.10	D
11	28002	27868	58.64	1466.00	62.0	29.1	26.4	22.10	D
12	28002	27868	58.64	1466.00	62.0	29.1	26.4	22.10	D

Facility Overall Results				
Space Mean Speed, mi/h	63.0		Average Density, veh/mi/ln	25.2
Average Travel Time, min	21.70		Average Density, pc/mi/ln	27.8
Total VMT, veh-mi	325979		Total VHD, veh-h	597.30
Vehicle Value of Time (VOT), \$/h	25.00		Total Delay Cost, \$	14932.38

APPENDIX S – 2040 NO-BUILD HCS OUTPUT REPORTS

I-75 South Section - Northbound

HCS Freeway Facilities Report

Project Information

Analyst	Kittelson & Associate	Date	11/6/2023
Agency	Florida Department of Transportation	Analysis Year	2040 No-Build Conditions
Jurisdiction	District Five	Time Analyzed	AM Weekday Peak Period
Facility Name	I-75 (Northbound)	Units	U.S. Customary
Project Description	I-75 PD&E South Auxiliary Lanes		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	24
Total Analysis Periods	12	Analysis Period Duration, min	15
Facility Length, mi	22.97		

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	I-75 NB	1500	3
2	Diverge	Diverge	I-75 NB SR 44 Off Ramp	1500	3
3	Basic	Basic	I-75 NB	2625	3
4	Merge	Merge	I-75 NB Turnpike On Ramp	1500	4
5	Basic	Basic	I-75 NB	1945	4
6	Basic	Basic	I-75 NB	1940	4
7	Merge	Merge	I-75 NB SR 44 On Ramp	1500	4
8	Basic	Basic	I-75 NB	1500	4
9	Basic	Basic	I-75 NB	1500	4
10	Basic	Basic	I-75 NB	47899	3
11	Basic	Basic	I-75 NB	1500	3
12	Basic	Basic	I-75 NB	1500	3
13	Diverge	Diverge	I-75 NB CR 484 Off Ramp	1500	3
14	Basic	Basic	I-75 NB	2888	3
15	Merge	Merge	I-75 NB CR 484 On Ramp	1500	3
16	Basic	Basic	I-75 NB	1500	3
17	Basic	Basic	I-75 NB	1500	3
18	Basic	Basic	I-75 NB	35197	3
19	Basic	Basic	I-75 B	1500	3
20	Basic	Basic	I-75 NB	1500	3
21	Diverge	Diverge	I-75 NB SR 200 Off Ramp	1500	3
22	Basic	Basic	I-75 NB	3296	3
23	Merge	Merge	I-75 NB SR 200 On Ramp	1500	3
24	Basic	Basic	I-75 NB	1500	3

Facility Segment Data															
Segment 1: Basic															
AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	1.00		0.907		2036		6761		0.30		71.2		9.5		A
2	1.00		0.907		2289		6761		0.34		71.2		10.7		A
3	1.00		0.907		2707		6761		0.40		71.2		12.7		B
4	1.00		0.907		3092		6761		0.46		71.2		14.5		B
5	1.00		0.907		2913		6761		0.43		71.2		13.6		B
6	1.00		0.907		2949		6761		0.44		71.2		13.8		B
7	1.00		0.907		3362		6761		0.50		71.0		15.8		B
8	1.00		0.907		3257		6761		0.48		71.1		15.3		B
9	1.00		0.907		3219		6761		0.48		71.2		15.1		B
10	1.00		0.907		3179		6761		0.47		71.2		14.9		B
11	1.00		0.907		3100		6761		0.46		71.2		14.5		B
12	1.00		0.907		2954		6761		0.44		71.2		13.8		B
Segment 2: Diverge															
AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.907	0.912	2036	428	5918	1972	0.34	0.22	64.0	60.5	10.6	11.2	B
2	1.00	1.00	0.907	0.912	2289	481	5918	1972	0.39	0.24	64.1	60.4	11.9	12.7	B
3	1.00	1.00	0.907	0.912	2707	569	5918	1972	0.46	0.29	64.1	60.2	14.1	15.1	B
4	1.00	1.00	0.907	0.912	3092	650	5918	1972	0.52	0.33	64.1	60.0	16.1	17.3	B
5	1.00	1.00	0.907	0.912	2913	612	5918	1972	0.49	0.31	64.0	60.0	15.2	16.3	B
6	1.00	1.00	0.907	0.912	2949	620	5918	1972	0.50	0.31	64.0	60.0	15.4	16.5	B
7	1.00	1.00	0.907	0.912	3362	706	5918	1972	0.57	0.36	64.0	59.8	17.5	18.7	B
8	1.00	1.00	0.907	0.912	3257	684	5918	1972	0.55	0.35	64.1	59.9	16.9	18.2	B
9	1.00	1.00	0.907	0.912	3219	677	5918	1972	0.54	0.34	64.0	59.9	16.8	17.9	B
10	1.00	1.00	0.907	0.912	3179	668	5918	1972	0.54	0.34	64.0	59.9	16.6	17.7	B
11	1.00	1.00	0.907	0.912	3100	651	5918	1972	0.52	0.33	64.1	60.0	16.1	17.3	B
12	1.00	1.00	0.907	0.912	2954	621	5918	1972	0.50	0.31	64.0	60.0	15.4	16.5	B
Segment 3: Basic															
AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	1.00		0.905		1610		6761		0.24		70.9		7.5		A
2	1.00		0.905		1809		6761		0.27		70.9		8.5		A
3	1.00		0.905		2138		6761		0.32		70.9		10.0		A
4	1.00		0.905		2442		6761		0.36		70.9		11.4		B
5	1.00		0.905		2301		6761		0.34		70.9		10.8		A
6	1.00		0.905		2329		6761		0.34		70.9		10.9		A
7	1.00		0.905		2655		6761		0.39		70.9		12.4		B

8	1.00	0.905	2402	6761	0.38	70.9	11.2	F
9	1.00	0.905	2715	6761	0.38	70.9	12.7	B
10	1.00	0.905	2469	6761	0.37	70.9	11.6	F
11	1.00	0.905	2490	6761	0.36	70.9	11.7	B
12	1.00	0.905	2217	6761	0.35	70.9	10.4	F

Segment 4: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.913	0.918	3793	2197	7507	3944	0.51	0.56	65.4	63.6	14.5	17.2	B
2	1.00	1.00	0.913	0.918	4262	2469	7507	3944	0.57	0.63	64.7	62.8	16.5	19.9	B
3	1.00	1.00	0.913	0.918	5057	2919	7507	3944	0.67	0.74	62.9	60.6	20.1	24.2	C
4	1.00	1.00	0.913	0.918	5778	3336	7507	3944	0.77	0.85	60.0	57.1	24.1	28.2	D
5	1.00	1.00	0.913	0.918	5443	3142	7507	3944	0.72	0.80	61.5	59.0	22.1	26.4	C
6	1.00	1.00	0.913	0.918	5511	3182	7507	3944	0.73	0.81	61.2	58.6	22.5	26.8	C
7	1.00	1.00	0.913	0.918	5687	3627	7507	3944	0.83	0.92	57.4	54.2	26.8	30.7	F
8	1.00	1.00	0.913	0.918	4149	3513	7507	3944	0.81	0.89	13.1	55.0	79.3	29.9	F
9	1.00	1.00	0.913	0.918	5062	3474	7507	3944	0.80	0.88	21.7	55.5	58.3	29.5	F
10	1.00	1.00	0.913	0.918	4522	3429	7507	3944	0.79	0.87	15.4	56.1	73.5	29.1	F
11	1.00	1.00	0.913	0.918	4186	3345	7507	3944	0.77	0.85	14.8	57.0	70.9	28.3	F
12	1.00	1.00	0.913	0.918	4138	3186	7507	3944	0.73	0.81	12.2	58.6	84.6	26.8	F

Segment 5: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.913	3805	9014	0.42	70.8	13.4	B
2	1.00	0.913	4276	9014	0.47	70.8	15.0	B
3	1.00	0.913	5057	9014	0.56	70.4	18.0	B
4	1.00	0.913	5778	9014	0.64	68.7	21.0	C
5	1.00	0.913	5443	9014	0.60	69.6	19.6	C
6	1.00	0.913	5511	9014	0.61	69.4	19.9	C
7	1.00	0.913	5257	9014	0.70	21.0	62.5	F
8	1.00	0.913	4143	9014	0.67	10.2	101.5	F
9	1.00	0.913	4971	9014	0.67	13.1	95.1	F
10	1.00	0.913	4430	9014	0.66	10.6	104.9	F
11	1.00	0.913	4362	9014	0.64	10.4	104.4	F
12	1.00	0.913	4201	9014	0.61	9.8	106.8	F

Segment 6: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.913	3805	9014	0.42	71.2	13.4	B
2	1.00	0.913	4276	9014	0.47	71.2	15.0	B
3	1.00	0.913	5057	9014	0.56	70.4	18.0	B

4	1.00	0.913	5778	9014	0.64	68.7	21.0	C
5	1.00	0.913	5443	9014	0.60	69.6	19.6	C
6	1.00	0.913	5511	9014	0.61	69.4	19.9	C
7	1.00	0.913	4828	9014	0.70	13.5	89.2	F
8	1.00	0.913	4208	9014	0.67	8.9	117.6	F
9	1.00	0.913	4917	9014	0.67	11.4	108.0	F
10	1.00	0.913	4480	9014	0.66	10.3	109.0	F
11	1.00	0.913	4287	9014	0.64	8.9	119.8	F
12	1.00	0.913	4265	9014	0.61	9.3	114.1	F

Segment 7: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.910	0.884	4272	454	7507	3944	0.57	0.12	66.9	64.7	16.0	11.4	B
2	1.00	1.00	0.910	0.884	4800	510	7507	3944	0.64	0.13	66.5	64.5	18.0	13.3	B
3	1.00	1.00	0.910	0.884	5660	603	7507	3944	0.76	0.15	65.8	64.0	21.5	16.3	B
4	1.00	1.00	0.910	0.884	6467	689	7507	3944	0.86	0.17	65.1	63.3	24.8	19.2	B
5	1.00	1.00	0.910	0.884	6092	649	7507	3944	0.81	0.16	65.5	63.7	23.3	17.9	B
6	1.00	1.00	0.910	0.884	6168	657	7507	3944	0.82	0.17	65.4	63.6	23.6	18.2	B
7	1.00	1.00	0.910	0.884	5401	750	7507	3944	0.94	0.19	18.9	62.6	71.3	21.3	F
8	1.00	1.00	0.910	0.884	4970	726	7507	3944	0.91	0.18	15.0	62.9	82.6	20.5	F
9	1.00	1.00	0.910	0.884	5483	718	7507	3944	0.90	0.18	18.6	63.0	73.7	20.2	F
10	1.00	1.00	0.910	0.884	5329	709	7507	3944	0.89	0.18	15.5	63.1	86.1	19.9	F
11	1.00	1.00	0.910	0.884	4868	691	7507	3944	0.87	0.18	13.1	63.3	93.0	19.3	F
12	1.00	1.00	0.910	0.884	5000	658	7507	3944	0.83	0.17	15.1	63.5	82.6	18.2	F

Segment 8: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.910	4258	9014	0.47	70.8	14.9	B
2	1.00	0.910	4786	9014	0.53	70.8	16.9	B
3	1.00	0.910	5660	9014	0.63	69.0	20.5	C
4	1.00	0.910	6467	9014	0.72	66.2	24.4	C
5	1.00	0.910	6092	9014	0.68	67.7	22.5	C
6	1.00	0.910	5938	9014	0.68	21.9	67.8	F
7	1.00	0.910	5387	9014	0.78	14.2	95.1	F
8	1.00	0.910	4964	9014	0.76	12.0	103.6	F
9	1.00	0.910	5570	9014	0.75	15.6	89.0	F
10	1.00	0.910	5108	9014	0.74	13.3	96.0	F
11	1.00	0.910	4994	9014	0.72	11.9	104.8	F
12	1.00	0.910	4993	9014	0.69	13.2	94.8	F

Segment 9: Basic

AP	PHF	fHV	Flow Rate	Capacity	d/c	Speed	Density	LOS
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			(pc/h)	(pc/h)	Ratio	(mi/h)	(pc/mi/ln)	
1	1.00	0.910	4258	9014	0.47	71.2	14.9	B
2	1.00	0.910	4786	9014	0.53	70.8	16.9	B
3	1.00	0.910	5660	9014	0.63	69.0	20.5	C
4	1.00	0.910	6467	9014	0.72	66.2	24.4	F
5	1.00	0.910	5905	9014	0.68	20.1	73.4	F
6	1.00	0.910	5860	9014	0.68	16.7	87.9	F
7	1.00	0.910	5409	9014	0.78	13.1	102.9	F
8	1.00	0.910	4958	9014	0.76	11.3	109.5	F
9	1.00	0.910	5435	9014	0.75	13.5	100.7	F
10	1.00	0.910	5106	9014	0.74	12.5	102.4	F
11	1.00	0.910	5123	9014	0.72	12.5	102.5	F
12	1.00	0.910	4985	9014	0.69	11.8	105.9	F

Segment 10: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.910	4258	6761	0.63	69.0	20.6	C
2	1.00	0.910	4786	6761	0.71	66.6	23.9	C
3	1.00	0.910	5660	6761	0.84	60.7	31.1	D
4	1.00	0.910	5066	6761	0.96	36.4	46.5	F
5	1.00	0.910	5011	6761	0.90	32.6	51.2	F
6	1.00	0.910	4935	6761	0.91	27.5	59.8	F
7	1.00	0.910	4802	6761	1.04	21.4	75.0	F
8	1.00	0.910	4972	6761	1.01	21.6	76.8	F
9	1.00	0.910	4958	6761	1.00	20.7	80.0	F
10	1.00	0.910	4963	6761	0.98	20.3	81.3	F
11	1.00	0.910	4979	6761	0.96	21.1	78.6	F
12	1.00	0.910	5002	6761	0.91	22.2	75.1	F

Segment 11: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.910	4258	6761	0.63	69.0	20.6	C
2	1.00	0.910	4786	6761	0.71	66.6	23.9	C
3	1.00	0.910	5660	6761	0.84	60.7	31.1	D
4	1.00	0.910	4917	6761	0.96	21.6	76.0	F
5	1.00	0.910	4995	6761	0.90	22.1	75.4	F
6	1.00	0.910	4938	6761	0.91	20.0	82.4	F
7	1.00	0.910	4831	6761	1.04	19.0	84.9	F
8	1.00	0.910	4972	6761	1.01	20.4	81.3	F
9	1.00	0.910	4956	6761	1.00	20.9	78.9	F
10	1.00	0.910	4959	6761	0.98	21.1	78.5	F
11	1.00	0.910	4971	6761	0.96	21.7	76.3	F

12	1.00	0.910	4988	6761	0.91	21.3	78.1	F							
Segment 12: Basic															
AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	1.00	0.910	4258	6761	0.63	69.0	20.6	C							
2	1.00	0.910	4786	6761	0.71	66.6	23.9	C							
3	1.00	0.910	5549	6761	0.84	61.6	30.0	F							
4	1.00	0.910	4880	6761	0.96	20.1	81.0	F							
5	1.00	0.910	4979	6761	0.90	21.0	79.0	F							
6	1.00	0.910	4941	6761	0.91	20.1	82.0	F							
7	1.00	0.910	4860	6761	1.04	19.8	81.7	F							
8	1.00	0.910	4972	6761	1.01	20.6	80.3	F							
9	1.00	0.910	4954	6761	1.00	19.9	83.0	F							
10	1.00	0.910	4955	6761	0.98	20.0	82.7	F							
11	1.00	0.910	4962	6761	0.96	20.5	80.7	F							
12	1.00	0.910	4974	6761	0.91	20.7	80.2	F							
Segment 13: Diverge															
AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.910	0.932	4258	309	5918	1972	0.72	0.16	65.3	60.9	21.7	22.8	C
2	1.00	1.00	0.910	0.932	4786	348	5918	1972	0.81	0.18	65.2	60.7	24.5	25.3	C
3	1.00	1.00	0.910	0.932	5414	411	5918	1972	0.96	0.21	65.0	60.6	27.8	28.1	F
4	1.00	1.00	0.910	0.932	4895	470	5918	1972	1.09	0.24	24.8	60.4	65.7	32.3	F
5	1.00	1.00	0.910	0.932	4972	443	5918	1972	1.03	0.22	25.9	60.5	64.0	30.8	F
6	1.00	1.00	0.910	0.932	4942	448	5918	1972	1.04	0.23	24.0	60.5	68.6	31.1	F
7	1.00	1.00	0.910	0.932	4876	511	5918	1972	1.19	0.26	23.8	60.3	68.2	35.7	F
8	1.00	1.00	0.910	0.932	4967	495	5918	1972	1.15	0.25	25.7	60.4	64.5	33.8	F
9	1.00	1.00	0.910	0.932	4953	489	5918	1972	1.14	0.25	24.2	60.4	68.3	33.3	F
10	1.00	1.00	0.910	0.932	4953	483	5918	1972	1.12	0.24	24.2	60.4	68.2	33.0	F
11	1.00	1.00	0.910	0.932	4959	471	5918	1972	1.10	0.24	24.6	60.4	67.2	32.3	F
12	1.00	1.00	0.910	0.932	4968	448	5918	1972	1.04	0.23	25.5	60.5	64.8	31.2	F
Segment 14: Basic															
AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	1.00	0.908	3950	6761	0.58	70.0	18.8	C							
2	1.00	0.908	4439	6761	0.66	68.2	21.7	C							
3	1.00	0.908	4589	6761	0.78	21.4	71.5	F							
4	1.00	0.908	4587	6761	0.89	16.7	91.3	F							
5	1.00	0.908	4587	6761	0.84	16.7	91.4	F							
6	1.00	0.908	4587	6761	0.85	16.7	91.6	F							
7	1.00	0.908	4587	6761	0.96	16.7	91.3	F							

8	1.00	0.908	4587	6761	0.93	16.7	91.5	F
9	1.00	0.908	4587	6761	0.92	16.7	91.6	F
10	1.00	0.908	4587	6761	0.91	16.7	91.6	F
11	1.00	0.908	4587	6761	0.89	16.7	91.6	F
12	1.00	0.908	4587	6761	0.85	16.7	91.5	F

Segment 15: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.914	0.940	4828	903	5918	1972	0.82	0.46	62.8	60.9	25.6	25.4	C
2	1.00	1.00	0.914	0.940	5425	1015	5918	1972	0.92	0.51	61.6	59.4	29.4	28.5	D
3	1.00	1.00	0.914	0.940	5511	1200	5918	1972	1.08	0.61	60.4	57.9	31.9	30.7	F
4	1.00	1.00	0.914	0.940	5504	1370	5918	1972	1.24	0.69	59.5	56.9	33.4	31.9	F
5	1.00	1.00	0.914	0.940	5504	1291	5918	1972	1.17	0.65	59.9	57.4	32.7	31.3	F
6	1.00	1.00	0.914	0.940	5504	1307	5918	1972	1.18	0.66	59.9	57.3	32.8	31.5	F
7	1.00	1.00	0.914	0.940	5504	1490	5918	1972	1.35	0.76	58.8	56.0	34.5	32.8	F
8	1.00	1.00	0.914	0.940	5504	1444	5918	1972	1.30	0.73	59.0	56.3	34.1	32.5	F
9	1.00	1.00	0.914	0.940	5504	1428	5918	1972	1.29	0.72	59.1	56.4	33.9	32.4	F
10	1.00	1.00	0.914	0.940	5504	1409	5918	1972	1.27	0.71	59.3	56.6	33.7	32.2	F
11	1.00	1.00	0.914	0.940	5504	1374	5918	1972	1.24	0.70	59.4	56.8	33.5	32.0	F
12	1.00	1.00	0.914	0.940	5504	1310	5918	1972	1.18	0.66	59.9	57.3	32.8	31.5	F

Segment 16: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.914	4853	6761	0.72	66.2	24.4	C
2	1.00	0.914	5454	6761	0.81	62.3	29.2	D
3	1.00	0.914	5511	6761	0.95	61.9	29.7	D
4	1.00	0.914	5504	6761	1.09	62.0	29.6	F
5	1.00	0.914	5504	6761	1.03	62.0	29.6	F
6	1.00	0.914	5504	6761	1.04	62.0	29.6	F
7	1.00	0.914	5504	6761	1.19	62.0	29.6	F
8	1.00	0.914	5504	6761	1.15	62.0	29.6	F
9	1.00	0.914	5504	6761	1.13	62.0	29.6	F
10	1.00	0.914	5504	6761	1.12	62.0	29.6	F
11	1.00	0.914	5504	6761	1.09	62.0	29.6	F
12	1.00	0.914	5504	6761	1.04	62.0	29.6	F

Segment 17: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.914	4853	6761	0.72	66.2	24.4	C
2	1.00	0.914	5454	6761	0.81	62.3	29.2	D
3	1.00	0.914	5511	6761	0.95	61.9	29.7	D

4	1.00	0.914	5504	6761	1.09	62.0	29.6	F
5	1.00	0.914	5504	6761	1.03	62.0	29.6	F
6	1.00	0.914	5504	6761	1.04	62.0	29.6	F
7	1.00	0.914	5504	6761	1.19	62.0	29.6	F
8	1.00	0.914	5504	6761	1.15	62.0	29.6	F
9	1.00	0.914	5504	6761	1.13	62.0	29.6	F
10	1.00	0.914	5504	6761	1.12	62.0	29.6	F
11	1.00	0.914	5504	6761	1.09	62.0	29.6	F
12	1.00	0.914	5504	6761	1.04	62.0	29.6	F

Segment 18: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.914	4853	6761	0.72	66.2	24.4	C
2	1.00	0.914	5454	6761	0.81	62.3	29.2	D
3	1.00	0.914	5511	6761	0.95	61.9	29.7	D
4	1.00	0.914	5504	6761	1.09	62.0	29.6	F
5	1.00	0.914	5504	6761	1.03	62.0	29.6	F
6	1.00	0.914	5504	6761	1.04	62.0	29.6	F
7	1.00	0.914	5504	6761	1.19	62.0	29.6	F
8	1.00	0.914	5504	6761	1.15	62.0	29.6	F
9	1.00	0.914	5504	6761	1.13	62.0	29.6	F
10	1.00	0.914	5504	6761	1.12	62.0	29.6	F
11	1.00	0.914	5504	6761	1.09	62.0	29.6	F
12	1.00	0.914	5504	6761	1.04	62.0	29.6	F

Segment 19: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.914	4853	6761	0.72	66.2	24.4	C
2	1.00	0.914	5454	6761	0.81	62.3	29.2	D
3	1.00	0.914	5511	6761	0.95	61.9	29.7	D
4	1.00	0.914	5504	6761	1.09	62.0	29.6	F
5	1.00	0.914	5504	6761	1.03	62.0	29.6	F
6	1.00	0.914	5504	6761	1.04	62.0	29.6	F
7	1.00	0.914	5504	6761	1.19	62.0	29.6	F
8	1.00	0.914	5504	6761	1.15	62.0	29.6	F
9	1.00	0.914	5504	6761	1.13	62.0	29.6	F
10	1.00	0.914	5504	6761	1.12	62.0	29.6	F
11	1.00	0.914	5504	6761	1.09	62.0	29.6	F
12	1.00	0.914	5504	6761	1.04	62.0	29.6	F

Segment 20: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
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1	1.00	0.914	4853	6761	0.72	66.2	24.4	C
2	1.00	0.914	5454	6761	0.81	62.3	29.2	D
3	1.00	0.914	5511	6761	0.95	61.9	29.7	D
4	1.00	0.914	5504	6761	1.09	62.0	29.6	F
5	1.00	0.914	5504	6761	1.03	62.0	29.6	F
6	1.00	0.914	5504	6761	1.04	62.0	29.6	F
7	1.00	0.914	5504	6761	1.19	62.0	29.6	F
8	1.00	0.914	5504	6761	1.15	62.0	29.6	F
9	1.00	0.914	5504	6761	1.13	62.0	29.6	F
10	1.00	0.914	5504	6761	1.12	62.0	29.6	F
11	1.00	0.914	5504	6761	1.09	62.0	29.6	F
12	1.00	0.914	5504	6761	1.04	62.0	29.6	F

Segment 21: Diverge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.914	0.951	4853	702	5918	1972	0.82	0.36	64.3	59.8	25.2	30.1	D
2	1.00	1.00	0.914	0.951	5454	789	5918	1972	0.92	0.40	64.1	59.6	28.4	32.8	D
3	1.00	1.00	0.914	0.951	5511	933	5918	1972	1.09	0.47	63.8	59.2	28.8	33.3	F
4	1.00	1.00	0.914	0.951	5504	1066	5918	1972	1.24	0.54	63.4	58.8	28.9	33.5	F
5	1.00	1.00	0.914	0.951	5504	1004	5918	1972	1.17	0.51	63.6	59.0	28.8	33.4	F
6	1.00	1.00	0.914	0.951	5504	1017	5918	1972	1.19	0.52	63.6	59.0	28.8	33.4	F
7	1.00	1.00	0.914	0.951	5504	1159	5918	1972	1.35	0.59	63.2	58.6	29.0	33.7	F
8	1.00	1.00	0.914	0.951	5504	1123	5918	1972	1.31	0.57	63.3	58.7	29.0	33.6	F
9	1.00	1.00	0.914	0.951	5504	1110	5918	1972	1.30	0.56	63.3	58.7	29.0	33.6	F
10	1.00	1.00	0.914	0.951	5504	1096	5918	1972	1.28	0.56	63.4	58.8	28.9	33.6	F
11	1.00	1.00	0.914	0.951	5504	1069	5918	1972	1.25	0.54	63.4	58.8	28.9	33.5	F
12	1.00	1.00	0.914	0.951	5504	1018	5918	1972	1.19	0.52	63.6	59.0	28.8	33.4	F

Segment 22: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.908	4150	6761	0.61	69.3	20.0	C
2	1.00	0.908	4664	6761	0.69	67.2	23.1	C
3	1.00	0.908	4714	6761	0.82	66.9	23.5	C
4	1.00	0.908	4708	6761	0.93	67.0	23.4	C
5	1.00	0.908	4707	6761	0.88	67.0	23.4	C
6	1.00	0.908	4708	6761	0.89	67.0	23.4	C
7	1.00	0.908	4708	6761	1.01	67.0	23.4	F
8	1.00	0.908	4708	6761	0.98	67.0	23.4	C
9	1.00	0.908	4708	6761	0.97	67.0	23.4	C
10	1.00	0.908	4708	6761	0.96	67.0	23.4	C
11	1.00	0.908	4708	6761	0.93	67.0	23.4	C

12	1.00	0.908	4708	6761	0.89	67.0	23.4	C
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Segment 23: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.915	0.967	4740	622	5918	1972	0.80	0.32	63.6	61.9	24.8	22.9	C
2	1.00	1.00	0.915	0.967	5327	699	5918	1972	0.90	0.35	62.6	60.7	28.4	25.9	C
3	1.00	1.00	0.915	0.967	5540	826	5918	1972	1.06	0.42	62.0	60.0	29.8	27.2	F
4	1.00	1.00	0.915	0.967	5652	944	5918	1972	1.22	0.48	61.5	59.4	30.6	28.1	F
5	1.00	1.00	0.915	0.967	5596	889	5918	1972	1.15	0.45	61.7	59.7	30.2	27.6	F
6	1.00	1.00	0.915	0.967	5609	901	5918	1972	1.16	0.46	61.7	59.6	30.3	27.7	F
7	1.00	1.00	0.915	0.967	5734	1026	5918	1972	1.32	0.52	61.2	59.0	31.2	28.7	F
8	1.00	1.00	0.915	0.967	5702	994	5918	1972	1.28	0.50	61.3	59.1	31.0	28.4	F
9	1.00	1.00	0.915	0.967	5690	982	5918	1972	1.27	0.50	61.3	59.2	30.9	28.3	F
10	1.00	1.00	0.915	0.967	5678	970	5918	1972	1.25	0.49	61.4	59.3	30.8	28.3	F
11	1.00	1.00	0.915	0.967	5654	946	5918	1972	1.22	0.48	61.5	59.4	30.6	28.1	F
12	1.00	1.00	0.915	0.967	5610	902	5918	1972	1.16	0.46	61.7	59.6	30.3	27.8	F

Segment 24: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.915	4775	6761	0.71	66.6	23.9	C
2	1.00	0.915	5367	6761	0.79	63.0	28.4	D
3	1.00	0.915	5540	6761	0.94	61.7	29.9	D
4	1.00	0.915	5652	6761	1.07	60.8	31.0	F
5	1.00	0.915	5596	6761	1.01	61.3	30.4	F
6	1.00	0.915	5609	6761	1.02	61.2	30.6	F
7	1.00	0.915	5734	6761	1.17	60.1	31.8	F
8	1.00	0.915	5702	6761	1.13	60.4	31.5	F
9	1.00	0.915	5690	6761	1.12	60.5	31.3	F
10	1.00	0.915	5678	6761	1.10	60.6	31.2	F
11	1.00	0.915	5654	6761	1.08	60.8	31.0	F
12	1.00	0.915	5610	6761	1.02	61.1	30.6	F

Facility Analysis Results

AP	VMT veh-mi/AP	VMT-Demand veh-mi/AP	VHD veh-h/AP	Total Delay Cost \$/AP	Speed mi/h	Density pc/mi/ln	Density veh/mi/ln	TT min	LOS
1	22747	22476	16.75	418.86	67.7	20.8	19.0	20.40	C
2	25564	25259	34.63	865.71	64.9	24.4	22.2	21.20	C
3	28120	29865	75.28	1881.98	59.8	29.2	26.6	23.00	F
4	27177	34114	224.25	5606.33	44.9	37.6	34.3	30.70	F
5	26871	32142	266.35	6658.77	41.7	40.0	36.4	33.00	F
6	26724	32548	341.11	8527.63	37.3	44.5	40.5	37.00	F
7	26357	37107	503.34	12583.46	30.2	54.3	49.4	45.70	F

8	26354	35942	556.33	13908.24	28.5	57.5	52.4	48.40	F
9	26643	35536	553.91	13847.69	28.7	57.6	52.5	48.00	F
10	26441	35082	577.07	14426.67	27.9	58.9	53.6	49.40	F
11	26385	34219	567.04	14175.88	28.1	58.2	53.0	49.00	F
12	26360	32596	542.21	13555.36	28.9	56.6	51.6	47.70	F

Facility Overall Results

Space Mean Speed, mi/h	36.3	Average Density, veh/mi/ln	41.0
Average Travel Time, min	37.90	Average Density, pc/mi/ln	45.0
Total VMT, veh-mi	315742	Total VHD, veh-h	4258.26
Vehicle Value of Time (VOT), \$/h	25.00	Total Delay Cost, \$	106456.56

HCS Freeway Facilities Report

Project Information

Analyst	Kittelson & Associate	Date	11/6/2023
Agency	Florida Department of Transportation	Analysis Year	2040 No-Build Conditions
Jurisdiction	District Five	Time Analyzed	PM Weekday Peak Period
Facility Name	I-75 (Northbound)	Units	U.S. Customary
Project Description	I-75 PD&E South Auxiliary Lanes		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	24
Total Analysis Periods	12	Analysis Period Duration, min	15
Facility Length, mi	22.97		

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	I-75 NB	1500	3
2	Diverge	Diverge	I-75 NB SR 44 Off Ramp	1500	3
3	Basic	Basic	I-75 NB	2625	3
4	Merge	Merge	I-75 NB Turnpike On Ramp	1500	4
5	Basic	Basic	I-75 NB	1945	4
6	Basic	Basic	I-75 NB	1940	4
7	Merge	Merge	I-75 NB SR 44 On Ramp	1500	4
8	Basic	Basic	I-75 NB	1500	4
9	Basic	Basic	I-75 NB	1500	4
10	Basic	Basic	I-75 NB	47899	3
11	Basic	Basic	I-75 NB	1500	3
12	Basic	Basic	I-75 NB	1500	3
13	Diverge	Diverge	I-75 NB CR 484 Off Ramp	1500	3
14	Basic	Basic	I-75 NB	2888	3
15	Merge	Merge	I-75 NB CR 484 On Ramp	1500	3
16	Basic	Basic	I-75 NB	1500	3
17	Basic	Basic	I-75 NB	1500	3
18	Basic	Basic	I-75 NB	35197	3
19	Basic	Basic	I-75 B	1500	3
20	Basic	Basic	I-75 NB	1500	3
21	Diverge	Diverge	I-75 NB SR 200 Off Ramp	1500	3
22	Basic	Basic	I-75 NB	3296	3
23	Merge	Merge	I-75 NB SR 200 On Ramp	1500	3
24	Basic	Basic	I-75 NB	1500	3

Facility Segment Data															
Segment 1: Basic															
AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	1.00		0.907		2881		6761		0.43		71.2		13.5		B
2	1.00		0.907		2719		6761		0.40		71.2		12.7		B
3	1.00		0.907		2797		6761		0.41		71.2		13.1		B
4	1.00		0.907		2635		6761		0.39		71.2		12.3		B
5	1.00		0.907		2259		6761		0.33		71.2		10.6		A
6	1.00		0.907		2520		6761		0.37		71.2		11.8		B
7	1.00		0.907		2595		6761		0.38		71.2		12.1		B
8	1.00		0.907		2675		6761		0.40		71.2		12.5		B
9	1.00		0.907		2580		6761		0.38		71.2		12.1		B
10	1.00		0.907		2441		6761		0.36		71.2		11.4		B
11	1.00		0.907		2374		6761		0.35		71.2		11.1		B
12	1.00		0.907		2232		6761		0.33		71.2		10.4		A
Segment 2: Diverge															
AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.907	0.912	2881	759	5918	1972	0.49	0.38	63.5	59.7	15.1	16.4	B
2	1.00	1.00	0.907	0.912	2719	716	5918	1972	0.46	0.36	63.5	59.8	14.3	15.5	B
3	1.00	1.00	0.907	0.912	2797	737	5918	1972	0.47	0.37	63.5	59.7	14.7	15.9	B
4	1.00	1.00	0.907	0.912	2635	694	5918	1972	0.45	0.35	63.5	59.8	13.8	15.0	B
5	1.00	1.00	0.907	0.912	2259	595	5918	1972	0.38	0.30	63.6	60.1	11.8	12.7	B
6	1.00	1.00	0.907	0.912	2520	664	5918	1972	0.43	0.34	63.5	59.9	13.2	14.3	B
7	1.00	1.00	0.907	0.912	2595	684	5918	1972	0.44	0.35	63.6	59.9	13.6	14.7	B
8	1.00	1.00	0.907	0.912	2675	705	5918	1972	0.45	0.36	63.5	59.8	14.0	15.2	B
9	1.00	1.00	0.907	0.912	2580	680	5918	1972	0.44	0.34	63.6	59.9	13.5	14.7	B
10	1.00	1.00	0.907	0.912	2441	644	5918	1972	0.41	0.33	63.6	60.0	12.8	13.8	B
11	1.00	1.00	0.907	0.912	2374	626	5918	1972	0.40	0.32	63.6	60.0	12.4	13.4	B
12	1.00	1.00	0.907	0.912	2232	588	5918	1972	0.38	0.30	63.6	60.1	11.7	12.6	B
Segment 3: Basic															
AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	1.00		0.905		2122		6761		0.31		70.9		9.9		A
2	1.00		0.905		2003		6761		0.30		70.9		9.4		A
3	1.00		0.905		2060		6761		0.30		70.9		9.6		A
4	1.00		0.905		1941		6761		0.29		70.9		9.1		A
5	1.00		0.905		1664		6761		0.25		70.9		7.8		A
6	1.00		0.905		1856		6761		0.27		70.9		8.7		A
7	1.00		0.905		1911		6761		0.28		70.9		8.9		A

8	1.00	0.905	1970	6761	0.29	70.9	9.2	A
9	1.00	0.905	1900	6761	0.28	70.9	8.9	A
10	1.00	0.905	1798	6761	0.27	70.9	8.4	A
11	1.00	0.905	1748	6761	0.26	70.9	8.2	A
12	1.00	0.905	1643	6761	0.24	70.9	7.7	A

Segment 4: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.913	0.918	5488	3366	7507	3944	0.73	0.85	60.4	57.9	22.7	27.5	C
2	1.00	1.00	0.913	0.918	5179	3176	7507	3944	0.69	0.81	61.8	59.5	21.0	25.7	C
3	1.00	1.00	0.913	0.918	5329	3269	7507	3944	0.71	0.83	61.2	58.8	21.8	26.6	C
4	1.00	1.00	0.913	0.918	5021	3080	7507	3944	0.67	0.78	62.4	60.2	20.1	24.8	C
5	1.00	1.00	0.913	0.918	4303	2639	7507	3944	0.57	0.67	64.3	62.5	16.7	20.7	C
6	1.00	1.00	0.913	0.918	4800	2944	7507	3944	0.64	0.75	63.1	61.0	19.0	23.5	C
7	1.00	1.00	0.913	0.918	4944	3033	7507	3944	0.66	0.77	62.6	60.5	19.7	24.4	C
8	1.00	1.00	0.913	0.918	5095	3125	7507	3944	0.68	0.79	62.1	59.9	20.5	25.2	C
9	1.00	1.00	0.913	0.918	4914	3014	7507	3944	0.65	0.76	62.7	60.6	19.6	24.2	C
10	1.00	1.00	0.913	0.918	4651	2853	7507	3944	0.62	0.72	63.5	61.5	18.3	22.7	C
11	1.00	1.00	0.913	0.918	4521	2773	7507	3944	0.60	0.70	63.8	61.9	17.7	21.9	C
12	1.00	1.00	0.913	0.918	4251	2608	7507	3944	0.56	0.66	64.4	62.6	16.5	20.4	C

Segment 5: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.913	5488	9014	0.61	69.5	19.7	C
2	1.00	0.913	5179	9014	0.57	70.1	18.5	C
3	1.00	0.913	5329	9014	0.59	69.8	19.1	C
4	1.00	0.913	5021	9014	0.56	70.4	17.8	B
5	1.00	0.913	4303	9014	0.48	70.8	15.1	B
6	1.00	0.913	4800	9014	0.53	70.7	17.0	B
7	1.00	0.913	4944	9014	0.55	70.5	17.5	B
8	1.00	0.913	5095	9014	0.57	70.3	18.1	C
9	1.00	0.913	4914	9014	0.55	70.6	17.4	B
10	1.00	0.913	4651	9014	0.52	70.7	16.4	B
11	1.00	0.913	4521	9014	0.50	70.7	15.9	B
12	1.00	0.913	4251	9014	0.47	70.8	14.9	B

Segment 6: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.913	5488	9014	0.61	69.5	19.7	C
2	1.00	0.913	5179	9014	0.57	70.1	18.5	C
3	1.00	0.913	5329	9014	0.59	69.8	19.1	C

4	1.00	0.913	5021	9014	0.56	70.4	17.8	B
5	1.00	0.913	4303	9014	0.48	71.2	15.1	B
6	1.00	0.913	4800	9014	0.53	70.7	17.0	B
7	1.00	0.913	4944	9014	0.55	70.5	17.5	B
8	1.00	0.913	5095	9014	0.57	70.3	18.1	C
9	1.00	0.913	4914	9014	0.55	70.6	17.4	B
10	1.00	0.913	4651	9014	0.52	70.9	16.4	B
11	1.00	0.913	4521	9014	0.50	71.0	15.9	B
12	1.00	0.913	4251	9014	0.47	71.2	14.9	B

Segment 7: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.909	0.884	6373	885	7507	3944	0.85	0.22	65.1	63.1	24.5	19.8	B
2	1.00	1.00	0.909	0.884	6014	835	7507	3944	0.80	0.21	65.5	63.5	23.0	18.4	B
3	1.00	1.00	0.909	0.884	6188	859	7507	3944	0.83	0.22	65.3	63.3	23.7	19.1	B
4	1.00	1.00	0.909	0.884	5830	809	7507	3944	0.78	0.21	65.7	63.7	22.2	17.7	B
5	1.00	1.00	0.909	0.884	4996	693	7507	3944	0.67	0.18	66.4	64.3	18.8	14.7	B
6	1.00	1.00	0.909	0.884	5574	774	7507	3944	0.75	0.20	65.9	63.9	21.1	16.8	B
7	1.00	1.00	0.909	0.884	5742	798	7507	3944	0.77	0.20	65.8	63.8	21.8	17.4	B
8	1.00	1.00	0.909	0.884	5916	821	7507	3944	0.79	0.21	65.6	63.6	22.5	18.1	B
9	1.00	1.00	0.909	0.884	5706	792	7507	3944	0.76	0.20	65.8	63.8	21.7	17.3	B
10	1.00	1.00	0.909	0.884	5401	750	7507	3944	0.72	0.19	66.0	64.0	20.5	16.2	B
11	1.00	1.00	0.909	0.884	5250	729	7507	3944	0.70	0.18	66.1	64.1	19.9	15.6	B
12	1.00	1.00	0.909	0.884	4937	686	7507	3944	0.66	0.17	66.4	64.3	18.6	14.4	B

Segment 8: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.909	6373	9014	0.71	66.6	23.9	C
2	1.00	0.909	6014	9014	0.67	67.9	22.1	C
3	1.00	0.909	6188	9014	0.69	67.3	23.0	C
4	1.00	0.909	5830	9014	0.65	68.5	21.3	C
5	1.00	0.909	4996	9014	0.55	70.5	17.7	B
6	1.00	0.909	5574	9014	0.62	69.2	20.1	C
7	1.00	0.909	5742	9014	0.64	68.8	20.9	C
8	1.00	0.909	5916	9014	0.66	68.2	21.7	C
9	1.00	0.909	5706	9014	0.63	68.9	20.7	C
10	1.00	0.909	5401	9014	0.60	69.7	19.4	C
11	1.00	0.909	5250	9014	0.58	70.0	18.8	C
12	1.00	0.909	4937	9014	0.55	70.5	17.5	B

Segment 9: Basic

AP	PHF	fHV	Flow Rate	Capacity	d/c	Speed	Density	LOS
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			(pc/h)	(pc/h)	Ratio	(mi/h)	(pc/mi/ln)	
1	1.00	0.909	6373	9014	0.71	66.6	23.9	C
2	1.00	0.909	6014	9014	0.67	67.9	22.1	C
3	1.00	0.909	6188	9014	0.69	67.3	23.0	C
4	1.00	0.909	5830	9014	0.65	68.5	21.3	C
5	1.00	0.909	4996	9014	0.55	70.5	17.7	B
6	1.00	0.909	5574	9014	0.62	69.2	20.1	C
7	1.00	0.909	5742	9014	0.64	68.8	20.9	C
8	1.00	0.909	5916	9014	0.66	68.2	21.7	C
9	1.00	0.909	5706	9014	0.63	68.9	20.7	C
10	1.00	0.909	5401	9014	0.60	69.7	19.4	C
11	1.00	0.909	5250	9014	0.58	70.0	18.8	C
12	1.00	0.909	4937	9014	0.55	70.5	17.5	B

Segment 10: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.909	5735	6761	0.94	60.1	31.8	F
2	1.00	0.909	5534	6761	0.89	61.7	29.9	F
3	1.00	0.909	5490	6761	0.92	36.6	50.0	F
4	1.00	0.909	5532	6761	0.86	36.7	50.2	F
5	1.00	0.909	5553	6761	0.74	61.6	30.0	F
6	1.00	0.909	5471	6761	0.82	40.3	45.2	F
7	1.00	0.909	5494	6761	0.85	38.0	48.2	F
8	1.00	0.909	5491	6761	0.88	34.5	53.0	F
9	1.00	0.909	5519	6761	0.84	34.3	53.6	F
10	1.00	0.909	5523	6761	0.80	36.0	51.1	F
11	1.00	0.909	5513	6761	0.78	38.2	48.2	F
12	1.00	0.909	5520	6761	0.73	61.8	29.8	F

Segment 11: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.909	5623	6761	0.94	28.6	65.6	F
2	1.00	0.909	5519	6761	0.89	26.1	70.4	F
3	1.00	0.909	5497	6761	0.92	25.6	71.6	F
4	1.00	0.909	5518	6761	0.86	26.1	70.6	F
5	1.00	0.909	5529	6761	0.74	26.6	69.2	F
6	1.00	0.909	5488	6761	0.82	25.9	70.7	F
7	1.00	0.909	5499	6761	0.85	25.5	71.7	F
8	1.00	0.909	5498	6761	0.88	25.6	71.7	F
9	1.00	0.909	5512	6761	0.84	25.7	71.4	F
10	1.00	0.909	5514	6761	0.80	25.8	71.2	F
11	1.00	0.909	5509	6761	0.78	25.6	71.6	F

12	1.00	0.909	5512	6761	0.73	25.7	71.4	F							
Segment 12: Basic															
AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	1.00	0.909	5511	6761	0.94	26.3	69.9	F							
2	1.00	0.909	5504	6761	0.89	25.5	71.8	F							
3	1.00	0.909	5504	6761	0.92	25.5	71.9	F							
4	1.00	0.909	5504	6761	0.86	25.5	71.8	F							
5	1.00	0.909	5504	6761	0.74	25.6	71.7	F							
6	1.00	0.909	5504	6761	0.82	25.5	71.9	F							
7	1.00	0.909	5504	6761	0.85	25.5	71.9	F							
8	1.00	0.909	5504	6761	0.88	25.5	71.9	F							
9	1.00	0.909	5504	6761	0.84	25.5	71.9	F							
10	1.00	0.909	5504	6761	0.80	25.5	71.9	F							
11	1.00	0.909	5504	6761	0.78	25.5	71.9	F							
12	1.00	0.909	5504	6761	0.73	25.5	71.9	F							
Segment 13: Diverge															
AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.909	0.932	5511	1050	5918	1972	1.08	0.53	63.5	58.9	28.9	29.5	F
2	1.00	1.00	0.909	0.932	5504	991	5918	1972	1.02	0.50	63.7	59.1	28.8	29.4	F
3	1.00	1.00	0.909	0.932	5504	1020	5918	1972	1.05	0.52	63.6	59.0	28.8	29.4	F
4	1.00	1.00	0.909	0.932	5504	961	5918	1972	0.98	0.49	63.7	59.1	28.8	29.3	D
5	1.00	1.00	0.909	0.932	5504	824	5918	1972	0.84	0.42	64.0	59.5	28.7	29.1	D
6	1.00	1.00	0.909	0.932	5504	920	5918	1972	0.94	0.47	63.9	59.3	28.7	29.3	D
7	1.00	1.00	0.909	0.932	5504	946	5918	1972	0.97	0.48	63.8	59.2	28.8	29.3	D
8	1.00	1.00	0.909	0.932	5504	975	5918	1972	1.00	0.49	63.7	59.1	28.8	29.4	D
9	1.00	1.00	0.909	0.932	5504	941	5918	1972	0.96	0.48	63.8	59.2	28.8	29.3	D
10	1.00	1.00	0.909	0.932	5504	891	5918	1972	0.91	0.45	63.9	59.3	28.7	29.2	D
11	1.00	1.00	0.909	0.932	5504	866	5918	1972	0.89	0.44	64.0	59.4	28.7	29.2	D
12	1.00	1.00	0.909	0.932	5504	814	5918	1972	0.83	0.41	64.0	59.5	28.7	29.1	D
Segment 14: Basic															
AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	1.00	0.905	4461	6761	0.79	68.1	21.8	C							
2	1.00	0.905	4597	6761	0.74	67.5	22.7	C							
3	1.00	0.905	4597	6761	0.76	67.5	22.7	C							
4	1.00	0.905	4597	6761	0.72	67.5	22.7	C							
5	1.00	0.905	4597	6761	0.62	67.5	22.7	C							
6	1.00	0.905	4596	6761	0.69	67.5	22.7	C							
7	1.00	0.905	4596	6761	0.71	67.5	22.7	C							

8	1.00	0.905	4597	6761	0.73	67.5	22.7	C
9	1.00	0.905	4597	6761	0.70	67.5	22.7	C
10	1.00	0.905	4596	6761	0.67	67.5	22.7	C
11	1.00	0.905	4596	6761	0.65	67.5	22.7	C
12	1.00	0.905	4596	6761	0.61	67.5	22.7	C

Segment 15: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.909	0.940	5316	855	5918	1972	1.04	0.43	62.1	60.0	28.5	27.6	F
2	1.00	1.00	0.909	0.940	5403	806	5918	1972	0.98	0.41	62.0	59.9	29.0	27.8	C
3	1.00	1.00	0.909	0.940	5427	830	5918	1972	1.01	0.42	61.9	59.8	29.2	28.0	F
4	1.00	1.00	0.909	0.940	5379	782	5918	1972	0.95	0.40	62.0	60.0	28.9	27.7	C
5	1.00	1.00	0.909	0.940	5267	670	5918	1972	0.81	0.34	62.4	60.4	28.1	26.8	C
6	1.00	1.00	0.909	0.940	5344	748	5918	1972	0.91	0.38	62.1	60.1	28.7	27.4	C
7	1.00	1.00	0.909	0.940	5366	770	5918	1972	0.94	0.39	62.0	60.0	28.8	27.6	C
8	1.00	1.00	0.909	0.940	5391	794	5918	1972	0.96	0.40	62.0	59.9	29.0	27.7	C
9	1.00	1.00	0.909	0.940	5363	766	5918	1972	0.93	0.39	62.1	60.0	28.8	27.5	C
10	1.00	1.00	0.909	0.940	5320	724	5918	1972	0.88	0.37	62.2	60.2	28.5	27.2	C
11	1.00	1.00	0.909	0.940	5300	704	5918	1972	0.86	0.36	62.2	60.2	28.4	27.1	C
12	1.00	1.00	0.909	0.940	5259	663	5918	1972	0.81	0.34	62.4	60.4	28.1	26.8	C

Segment 16: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.909	5316	6761	0.91	63.3	28.0	D
2	1.00	0.909	5403	6761	0.86	62.7	28.7	D
3	1.00	0.909	5427	6761	0.89	62.5	28.9	D
4	1.00	0.909	5379	6761	0.84	62.9	28.5	D
5	1.00	0.909	5267	6761	0.72	63.7	27.6	D
6	1.00	0.909	5344	6761	0.80	63.1	28.2	D
7	1.00	0.909	5366	6761	0.82	63.0	28.4	D
8	1.00	0.909	5391	6761	0.85	62.8	28.6	D
9	1.00	0.909	5363	6761	0.82	63.0	28.4	D
10	1.00	0.909	5320	6761	0.77	63.3	28.0	D
11	1.00	0.909	5300	6761	0.75	63.4	27.9	D
12	1.00	0.909	5259	6761	0.71	63.7	27.5	D

Segment 17: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.909	5316	6761	0.91	63.3	28.0	D
2	1.00	0.909	5403	6761	0.86	62.7	28.7	D
3	1.00	0.909	5427	6761	0.89	62.5	28.9	D

4	1.00	0.909	5379	6761	0.84	62.9	28.5	D
5	1.00	0.909	5267	6761	0.72	63.7	27.6	D
6	1.00	0.909	5344	6761	0.80	63.1	28.2	D
7	1.00	0.909	5366	6761	0.82	63.0	28.4	D
8	1.00	0.909	5391	6761	0.85	62.8	28.6	D
9	1.00	0.909	5363	6761	0.82	63.0	28.4	D
10	1.00	0.909	5320	6761	0.77	63.3	28.0	D
11	1.00	0.909	5300	6761	0.75	63.4	27.9	D
12	1.00	0.909	5259	6761	0.71	63.7	27.5	D

Segment 18: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.909	5316	6761	0.91	63.3	28.0	D
2	1.00	0.909	5403	6761	0.86	62.7	28.7	D
3	1.00	0.909	5427	6761	0.89	62.5	28.9	D
4	1.00	0.909	5379	6761	0.84	62.9	28.5	D
5	1.00	0.909	5267	6761	0.72	63.7	27.6	D
6	1.00	0.909	5344	6761	0.80	63.1	28.2	D
7	1.00	0.909	5366	6761	0.82	63.0	28.4	D
8	1.00	0.909	5391	6761	0.85	62.8	28.6	D
9	1.00	0.909	5363	6761	0.82	63.0	28.4	D
10	1.00	0.909	5320	6761	0.77	63.3	28.0	D
11	1.00	0.909	5300	6761	0.75	63.4	27.9	D
12	1.00	0.909	5259	6761	0.71	63.7	27.5	D

Segment 19: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.909	5316	6761	0.91	63.3	28.0	D
2	1.00	0.909	5403	6761	0.86	62.7	28.7	D
3	1.00	0.909	5427	6761	0.89	62.5	28.9	D
4	1.00	0.909	5379	6761	0.84	62.9	28.5	D
5	1.00	0.909	5267	6761	0.72	63.7	27.6	D
6	1.00	0.909	5344	6761	0.80	63.1	28.2	D
7	1.00	0.909	5366	6761	0.82	63.0	28.4	D
8	1.00	0.909	5391	6761	0.85	62.8	28.6	D
9	1.00	0.909	5363	6761	0.82	63.0	28.4	D
10	1.00	0.909	5320	6761	0.77	63.3	28.0	D
11	1.00	0.909	5300	6761	0.75	63.4	27.9	D
12	1.00	0.909	5259	6761	0.71	63.7	27.5	D

Segment 20: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
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1	1.00	0.909	5316	6761	0.91	63.3	28.0	D
2	1.00	0.909	5403	6761	0.86	62.7	28.7	D
3	1.00	0.909	5427	6761	0.89	62.5	28.9	D
4	1.00	0.909	5379	6761	0.84	62.9	28.5	D
5	1.00	0.909	5267	6761	0.72	63.7	27.6	D
6	1.00	0.909	5344	6761	0.80	63.1	28.2	D
7	1.00	0.909	5366	6761	0.82	63.0	28.4	D
8	1.00	0.909	5391	6761	0.85	62.8	28.6	D
9	1.00	0.909	5363	6761	0.82	63.0	28.4	D
10	1.00	0.909	5320	6761	0.77	63.3	28.0	D
11	1.00	0.909	5300	6761	0.75	63.4	27.9	D
12	1.00	0.909	5259	6761	0.71	63.7	27.5	D

Segment 21: Diverge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.909	0.951	5316	950	5918	1972	1.04	0.48	63.8	59.2	27.8	32.5	F
2	1.00	1.00	0.909	0.951	5403	897	5918	1972	0.99	0.45	63.9	59.3	28.2	32.8	D
3	1.00	1.00	0.909	0.951	5427	922	5918	1972	1.01	0.47	63.8	59.2	28.4	32.9	F
4	1.00	1.00	0.909	0.951	5379	869	5918	1972	0.96	0.44	63.9	59.4	28.1	32.7	D
5	1.00	1.00	0.909	0.951	5267	746	5918	1972	0.82	0.38	64.2	59.7	27.3	32.0	D
6	1.00	1.00	0.909	0.951	5344	831	5918	1972	0.91	0.42	64.1	59.5	27.8	32.4	D
7	1.00	1.00	0.909	0.951	5366	856	5918	1972	0.94	0.43	64.0	59.4	27.9	32.5	D
8	1.00	1.00	0.909	0.951	5391	882	5918	1972	0.97	0.45	63.9	59.3	28.1	32.7	D
9	1.00	1.00	0.909	0.951	5363	851	5918	1972	0.93	0.43	64.0	59.4	27.9	32.6	D
10	1.00	1.00	0.909	0.951	5320	805	5918	1972	0.88	0.41	64.1	59.5	27.7	32.3	D
11	1.00	1.00	0.909	0.951	5300	783	5918	1972	0.86	0.40	64.1	59.6	27.6	32.1	D
12	1.00	1.00	0.909	0.951	5259	736	5918	1972	0.81	0.37	64.2	59.7	27.3	31.9	D

Segment 22: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.902	4366	6761	0.77	68.5	21.2	C
2	1.00	0.902	4573	6761	0.73	67.6	22.5	C
3	1.00	0.902	4592	6761	0.75	67.5	22.7	C
4	1.00	0.902	4552	6761	0.71	67.7	22.4	C
5	1.00	0.902	4457	6761	0.61	68.2	21.8	C
6	1.00	0.902	4522	6761	0.68	67.9	22.2	C
7	1.00	0.902	4541	6761	0.70	67.8	22.3	C
8	1.00	0.902	4562	6761	0.72	67.7	22.5	C
9	1.00	0.902	4538	6761	0.69	67.8	22.3	C
10	1.00	0.902	4502	6761	0.65	68.0	22.1	C
11	1.00	0.902	4485	6761	0.64	68.0	22.0	C

12	1.00	0.902	4450	6761	0.60	68.2	21.7	C							
Segment 23: Merge															
AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.913	0.967	5391	1025	5918	1972	1.05	0.52	62.0	60.0	29.0	27.0	F
2	1.00	1.00	0.913	0.967	5540	967	5918	1972	0.99	0.49	61.7	59.7	29.9	27.6	C
3	1.00	1.00	0.913	0.967	5587	995	5918	1972	1.02	0.50	61.6	59.5	30.2	27.9	F
4	1.00	1.00	0.913	0.967	5489	937	5918	1972	0.96	0.48	61.9	59.9	29.6	27.3	C
5	1.00	1.00	0.913	0.967	5261	804	5918	1972	0.82	0.41	62.6	60.7	28.0	25.8	C
6	1.00	1.00	0.913	0.967	5419	897	5918	1972	0.91	0.45	62.2	60.2	29.0	26.8	C
7	1.00	1.00	0.913	0.967	5464	923	5918	1972	0.94	0.47	62.0	60.0	29.4	27.1	C
8	1.00	1.00	0.913	0.967	5513	951	5918	1972	0.97	0.48	61.8	59.8	29.7	27.4	C
9	1.00	1.00	0.913	0.967	5455	917	5918	1972	0.94	0.47	62.0	60.0	29.3	27.1	C
10	1.00	1.00	0.913	0.967	5371	869	5918	1972	0.89	0.44	62.2	60.3	28.8	26.5	C
11	1.00	1.00	0.913	0.967	5329	844	5918	1972	0.86	0.43	62.4	60.5	28.5	26.3	C
12	1.00	1.00	0.913	0.967	5243	793	5918	1972	0.81	0.40	62.6	60.7	27.9	25.7	C

Segment 24: Basic															
AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00		0.913		5391		6761		0.92		62.8		28.6		D
2	1.00		0.913		5540		6761		0.87		61.7		29.9		D
3	1.00		0.913		5587		6761		0.90		61.3		30.4		D
4	1.00		0.913		5489		6761		0.85		62.1		29.5		D
5	1.00		0.913		5261		6761		0.72		63.7		27.5		D
6	1.00		0.913		5419		6761		0.81		62.6		28.9		D
7	1.00		0.913		5464		6761		0.83		62.3		29.2		D
8	1.00		0.913		5513		6761		0.86		61.9		29.7		D
9	1.00		0.913		5455		6761		0.83		62.3		29.2		D
10	1.00		0.913		5371		6761		0.78		62.9		28.5		D
11	1.00		0.913		5329		6761		0.76		63.2		28.1		D
12	1.00		0.913		5243		6761		0.72		63.8		27.4		D

Facility Analysis Results									
AP	VMT veh-mi/AP	VMT-Demand veh-mi/AP	VHD veh-h/AP	Total Delay Cost \$/AP	Speed mi/h	Density pc/mi/ln	Density veh/mi/ln	TT min	LOS
1	27998	31053	70.17	1754.13	60.4	28.8	26.2	22.80	F
2	27631	29303	67.03	1675.83	60.7	28.3	25.7	22.70	F
3	27679	30150	194.09	4852.31	47.5	36.2	32.9	29.00	F
4	27482	28403	191.81	4795.26	47.6	35.9	32.7	29.00	E
5	26862	24345	62.72	1567.98	61.1	27.4	24.9	22.60	D
6	27149	27159	161.65	4041.27	50.0	33.8	30.7	27.60	D
7	27329	27975	180.33	4508.31	48.4	35.1	31.9	28.50	E

8	27466	28827	211.19	5279.64	46.0	37.1	33.7	30.00	E
9	27357	27804	212.58	5314.47	45.8	37.1	33.7	30.10	E
10	27118	26312	195.69	4892.19	47.0	35.8	32.6	29.30	E
11	26977	25578	177.56	4439.02	48.5	34.6	31.4	28.40	D
12	26744	24056	62.38	1559.43	61.1	27.2	24.8	22.60	D

Facility Overall Results

Space Mean Speed, mi/h	51.3	Average Density, veh/mi/ln	30.1
Average Travel Time, min	26.90	Average Density, pc/mi/ln	33.1
Total VMT, veh-mi	327792	Total VHD, veh-h	1787.19
Vehicle Value of Time (VOT), \$/h	25.00	Total Delay Cost, \$	44679.83

HCS Freeway Facilities Report

Project Information

Analyst	Kittelson & Associate	Date	11/6/2023
Agency	Florida Department of Transportation	Analysis Year	2040 No-Build Conditions
Jurisdiction	District Five	Time Analyzed	WM Weekend Peak Period
Facility Name	I-75 (Northbound)	Units	U.S. Customary
Project Description	I-75 PD&E South Auxiliary Lanes		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	24
Total Analysis Periods	12	Analysis Period Duration, min	15
Facility Length, mi	22.97		

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	I-75 NB	1500	3
2	Diverge	Diverge	I-75 NB SR 44 Off Ramp	1500	3
3	Basic	Basic	I-75 NB	2625	3
4	Merge	Merge	I-75 NB Turnpike On Ramp	1500	4
5	Basic	Basic	I-75 NB	1945	4
6	Basic	Basic	I-75 NB	1940	4
7	Merge	Merge	I-75 NB SR 44 On Ramp	1500	4
8	Basic	Basic	I-75 NB	1500	4
9	Basic	Basic	I-75 NB	1500	4
10	Basic	Basic	I-75 NB	47899	3
11	Basic	Basic	I-75 NB	1500	3
12	Basic	Basic	I-75 NB	1500	3
13	Diverge	Diverge	I-75 NB CR 484 Off Ramp	1500	3
14	Basic	Basic	I-75 NB	2888	3
15	Merge	Merge	I-75 NB CR 484 On Ramp	1500	3
16	Basic	Basic	I-75 NB	1500	3
17	Basic	Basic	I-75 NB	1500	3
18	Basic	Basic	I-75 NB	35197	3
19	Basic	Basic	I-75 B	1500	3
20	Basic	Basic	I-75 NB	1500	3
21	Diverge	Diverge	I-75 NB SR 200 Off Ramp	1500	3
22	Basic	Basic	I-75 NB	3296	3
23	Merge	Merge	I-75 NB SR 200 On Ramp	1500	3
24	Basic	Basic	I-75 NB	1500	3

Facility Segment Data															
Segment 1: Basic															
AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	1.00		0.907		3927		6761		0.58		70.0		18.7		C
2	1.00		0.907		3927		6761		0.58		70.0		18.7		C
3	1.00		0.907		3927		6761		0.58		70.0		18.7		C
4	1.00		0.907		3927		6761		0.58		70.0		18.7		C
5	1.00		0.907		3591		6761		0.53		70.7		16.9		B
6	1.00		0.907		3591		6761		0.53		70.7		16.9		B
7	1.00		0.907		3591		6761		0.53		70.7		16.9		B
8	1.00		0.907		3591		6761		0.53		70.7		16.9		B
9	1.00		0.907		3208		6761		0.47		71.2		15.0		B
10	1.00		0.907		3208		6761		0.47		71.2		15.0		B
11	1.00		0.907		3208		6761		0.47		71.2		15.0		B
12	1.00		0.907		3208		6761		0.47		71.2		15.0		B
Segment 2: Diverge															
AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.907	0.947	3927	645	5918	1972	0.66	0.33	64.4	60.0	20.3	21.3	C
2	1.00	1.00	0.907	0.947	3927	645	5918	1972	0.66	0.33	64.4	60.0	20.3	21.3	C
3	1.00	1.00	0.907	0.947	3927	645	5918	1972	0.66	0.33	64.4	60.0	20.3	21.3	C
4	1.00	1.00	0.907	0.947	3927	645	5918	1972	0.66	0.33	64.4	60.0	20.3	21.3	C
5	1.00	1.00	0.907	0.947	3591	590	5918	1972	0.61	0.30	64.5	60.1	18.6	19.6	B
6	1.00	1.00	0.907	0.947	3541	590	5918	1972	0.61	0.30	64.5	60.1	18.3	19.4	F
7	1.00	1.00	0.907	0.947	3641	590	5918	1972	0.61	0.30	64.5	60.1	18.8	19.9	B
8	1.00	1.00	0.907	0.947	3591	590	5918	1972	0.61	0.30	64.5	60.1	18.6	19.6	B
9	1.00	1.00	0.907	0.947	3208	528	5918	1972	0.54	0.27	64.5	60.3	16.6	17.6	B
10	1.00	1.00	0.907	0.947	3208	528	5918	1972	0.54	0.27	64.5	60.3	16.6	17.6	B
11	1.00	1.00	0.907	0.947	3208	528	5918	1972	0.54	0.27	64.5	60.3	16.6	17.6	B
12	1.00	1.00	0.907	0.947	3208	528	5918	1972	0.54	0.27	64.5	60.3	16.6	17.6	B
Segment 3: Basic															
AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	1.00		0.899		3282		6761		0.49		71.0		15.4		B
2	1.00		0.899		3282		6761		0.49		71.0		15.4		B
3	1.00		0.899		3282		6761		0.49		71.0		15.4		B
4	1.00		0.899		3259		6761		0.49		71.0		15.3		F
5	1.00		0.899		2984		6761		0.44		71.0		14.0		F
6	1.00		0.899		2771		6761		0.44		71.0		13.0		F
7	1.00		0.899		3272		6761		0.44		71.0		15.3		B

8	1.00	0.899	3001	6761	0.44	71.0	14.0	B
9	1.00	0.899	2551	6761	0.40	71.0	11.9	F
10	1.00	0.899	2766	6761	0.40	13.1	70.4	F
11	1.00	0.899	2716	6761	0.40	71.0	12.7	F
12	1.00	0.899	2689	6761	0.40	71.0	12.6	B

Segment 4: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.909	0.918	6594	3312	7507	3944	0.87	0.84	58.0	54.2	28.4	30.7	D
2	1.00	1.00	0.909	0.918	6594	3312	7507	3944	0.87	0.84	58.0	54.2	28.4	30.7	D
3	1.00	1.00	0.909	0.918	5971	3312	7507	3944	0.87	0.84	58.1	54.4	27.9	30.4	F
4	1.00	1.00	0.909	0.918	5262	3312	7507	3944	0.87	0.84	16.3	54.2	80.6	30.6	F
5	1.00	1.00	0.909	0.918	4713	3028	7507	3944	0.80	0.77	12.3	57.9	95.8	27.6	F
6	1.00	1.00	0.909	0.918	3398	3028	7507	3944	0.80	0.77	8.2	57.9	103.4	27.6	F
7	1.00	1.00	0.909	0.918	5010	3028	7507	3944	0.80	0.77	13.4	57.9	93.2	27.6	F
8	1.00	1.00	0.909	0.918	5888	3028	7507	3944	0.80	0.77	23.6	57.9	62.4	27.6	F
9	1.00	1.00	0.909	0.918	3661	2706	7507	3944	0.71	0.69	8.8	60.7	103.7	24.3	F
10	1.00	1.00	0.909	0.918	3559	2706	7507	3944	0.71	0.69	7.8	60.7	114.8	24.3	F
11	1.00	1.00	0.909	0.918	6314	2706	7507	3944	0.71	0.69	29.0	60.7	54.4	24.3	F
12	1.00	1.00	0.909	0.918	6033	2706	7507	3944	0.71	0.69	21.8	60.7	69.2	24.3	F

Segment 5: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.909	6594	9014	0.73	65.7	25.1	C
2	1.00	0.909	6506	9014	0.73	66.1	24.6	F
3	1.00	0.909	5967	9014	0.73	20.1	74.0	F
4	1.00	0.909	4840	9014	0.73	11.3	107.1	F
5	1.00	0.909	4658	9014	0.67	13.7	85.2	F
6	1.00	0.909	2977	9014	0.67	5.6	133.9	F
7	1.00	0.909	5594	9014	0.67	14.0	100.0	F
8	1.00	0.909	5747	9014	0.67	16.2	88.8	F
9	1.00	0.909	3202	9014	0.60	6.2	128.2	F
10	1.00	0.909	4244	9014	0.60	8.8	120.5	F
11	1.00	0.909	6218	9014	0.60	17.4	89.5	F
12	1.00	0.909	6072	9014	0.60	17.7	85.9	F

Segment 6: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.909	6594	9014	0.73	65.7	25.1	C
2	1.00	0.909	6113	9014	0.73	23.9	63.9	F
3	1.00	0.909	5848	9014	0.73	15.8	92.6	F

4	1.00	0.909	4840	9014	0.73	10.8	112.1	F
5	1.00	0.909	4834	9014	0.67	12.1	100.2	F
6	1.00	0.909	2485	9014	0.67	4.1	150.0	F
7	1.00	0.909	6017	9014	0.67	16.1	93.2	F
8	1.00	0.909	5606	9014	0.67	14.6	96.3	F
9	1.00	0.909	2817	9014	0.60	4.9	144.7	F
10	1.00	0.909	4759	9014	0.60	10.5	113.4	F
11	1.00	0.909	6218	9014	0.60	17.3	90.0	F
12	1.00	0.909	5953	9014	0.60	16.4	90.8	F

Segment 7: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.910	0.921	7132	664	7507	3944	0.97	0.17	64.4	62.6	27.7	21.2	F
2	1.00	1.00	0.910	0.921	6761	664	7507	3944	0.97	0.17	28.5	62.5	59.4	21.6	F
3	1.00	1.00	0.910	0.921	6402	664	7507	3944	0.97	0.17	26.9	62.5	59.4	21.6	F
4	1.00	1.00	0.910	0.921	5504	664	7507	3944	0.97	0.17	16.4	62.5	83.7	21.6	F
5	1.00	1.00	0.910	0.921	5229	608	7507	3944	0.88	0.15	18.0	63.3	72.6	19.4	F
6	1.00	1.00	0.910	0.921	3268	608	7507	3944	0.88	0.15	6.4	63.3	126.9	19.4	F
7	1.00	1.00	0.910	0.921	6761	608	7507	3944	0.88	0.15	28.7	63.3	58.8	19.4	F
8	1.00	1.00	0.910	0.921	6083	608	7507	3944	0.88	0.15	23.1	63.3	65.8	19.4	F
9	1.00	1.00	0.910	0.921	3417	543	7507	3944	0.79	0.14	6.9	63.9	124.0	16.9	F
10	1.00	1.00	0.910	0.921	5362	543	7507	3944	0.79	0.14	15.9	63.9	84.1	16.9	F
11	1.00	1.00	0.910	0.921	6761	543	7507	3944	0.79	0.14	28.4	63.9	59.4	16.9	F
12	1.00	1.00	0.910	0.921	6386	543	7507	3944	0.79	0.14	24.9	63.9	64.1	16.9	F

Segment 8: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.910	6895	9014	0.80	31.3	55.1	F
2	1.00	0.910	6761	9014	0.80	20.8	81.2	F
3	1.00	0.910	6310	9014	0.80	18.7	84.4	F
4	1.00	0.910	5504	9014	0.80	13.6	101.5	F
5	1.00	0.910	5010	9014	0.74	14.0	89.7	F
6	1.00	0.910	3562	9014	0.74	6.8	131.7	F
7	1.00	0.910	6761	9014	0.74	20.8	81.2	F
8	1.00	0.910	5974	9014	0.74	16.5	90.3	F
9	1.00	0.910	3169	9014	0.66	6.1	130.0	F
10	1.00	0.910	5703	9014	0.66	14.5	98.2	F
11	1.00	0.910	6761	9014	0.66	20.8	81.2	F
12	1.00	0.910	6294	9014	0.66	18.6	84.6	F

Segment 9: Basic

AP	PHF	fHV	Flow Rate	Capacity	d/c	Speed	Density	LOS
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			(pc/h)	(pc/h)	Ratio	(mi/h)	(pc/mi/ln)	
1	1.00	0.910	6658	9014	0.80	22.2	74.9	F
2	1.00	0.910	6761	9014	0.80	20.8	81.2	F
3	1.00	0.910	6218	9014	0.80	17.4	89.5	F
4	1.00	0.910	5504	9014	0.80	13.6	101.5	F
5	1.00	0.910	4703	9014	0.74	10.8	108.6	F
6	1.00	0.910	3944	9014	0.74	7.8	126.6	F
7	1.00	0.910	6761	9014	0.74	20.8	81.2	F
8	1.00	0.910	5865	9014	0.74	15.4	95.1	F
9	1.00	0.910	2880	9014	0.66	5.1	142.5	F
10	1.00	0.910	6085	9014	0.66	16.5	92.0	F
11	1.00	0.910	6761	9014	0.66	20.8	81.2	F
12	1.00	0.910	6202	9014	0.66	17.3	89.8	F

Segment 10: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.910	5695	6761	1.07	39.2	48.5	F
2	1.00	0.910	5504	6761	1.07	30.7	59.7	F
3	1.00	0.910	5504	6761	1.07	26.2	70.1	F
4	1.00	0.910	5504	6761	1.07	25.5	72.0	F
5	1.00	0.910	5170	6761	0.98	24.6	70.1	F
6	1.00	0.910	4797	6761	0.98	26.1	61.3	F
7	1.00	0.910	5269	6761	0.98	27.1	64.8	F
8	1.00	0.910	5269	6761	0.98	23.1	76.0	F
9	1.00	0.910	4982	6761	0.88	28.5	58.2	F
10	1.00	0.910	5485	6761	0.88	36.9	49.6	F
11	1.00	0.910	5504	6761	0.88	30.6	59.9	F
12	1.00	0.910	5504	6761	0.88	26.1	70.2	F

Segment 11: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.910	5603	6761	1.07	27.7	67.5	F
2	1.00	0.910	5504	6761	1.07	25.5	72.0	F
3	1.00	0.910	5504	6761	1.07	25.5	72.0	F
4	1.00	0.910	5504	6761	1.07	25.5	72.0	F
5	1.00	0.910	4872	6761	0.98	21.3	76.4	F
6	1.00	0.910	5071	6761	0.98	23.7	71.5	F
7	1.00	0.910	5269	6761	0.98	22.8	77.0	F
8	1.00	0.910	5269	6761	0.98	22.8	77.0	F
9	1.00	0.910	5012	6761	0.88	26.4	63.2	F
10	1.00	0.910	5441	6761	0.88	27.0	67.1	F
11	1.00	0.910	5504	6761	0.88	25.5	72.0	F

12	1.00	0.910	5504	6761	0.88	25.5	72.0	F							
Segment 12: Basic															
AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)		LOS			
1	1.00	0.910	5511	6761	1.07	26.0	70.6	F							
2	1.00	0.910	5504	6761	1.07	25.5	72.0	F							
3	1.00	0.910	5504	6761	1.07	25.5	72.0	F							
4	1.00	0.910	5504	6761	1.07	25.5	72.0	F							
5	1.00	0.910	4937	6761	0.98	22.1	74.6	F							
6	1.00	0.910	4982	6761	0.98	22.1	75.0	F							
7	1.00	0.910	5269	6761	0.98	22.8	77.0	F							
8	1.00	0.910	5269	6761	0.98	22.8	77.0	F							
9	1.00	0.910	4935	6761	0.88	23.2	71.0	F							
10	1.00	0.910	5504	6761	0.88	25.9	70.7	F							
11	1.00	0.910	5504	6761	0.88	25.5	72.0	F							
12	1.00	0.910	5504	6761	0.88	25.5	72.0	F							
Segment 13: Diverge															
AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.910	0.872	5511	939	5918	1972	1.23	0.48	63.8	59.2	28.8	29.3	F
2	1.00	1.00	0.910	0.872	5504	939	5918	1972	1.23	0.48	63.8	59.2	28.8	29.3	F
3	1.00	1.00	0.910	0.872	5504	939	5918	1972	1.23	0.48	63.8	59.2	28.8	29.3	F
4	1.00	1.00	0.910	0.872	5504	939	5918	1972	1.23	0.48	63.8	59.2	28.8	29.3	F
5	1.00	1.00	0.910	0.872	4915	859	5918	1972	1.12	0.44	63.9	59.4	25.6	26.7	F
6	1.00	1.00	0.910	0.872	4915	859	5918	1972	1.12	0.44	27.4	59.4	59.8	33.5	F
7	1.00	1.00	0.910	0.872	5269	859	5918	1972	1.12	0.44	28.8	59.4	60.9	33.5	F
8	1.00	1.00	0.910	0.872	5269	859	5918	1972	1.12	0.44	28.8	59.4	60.9	33.5	F
9	1.00	1.00	0.910	0.872	5024	767	5918	1972	1.00	0.39	64.1	59.6	26.1	27.0	C
10	1.00	1.00	0.910	0.872	5504	767	5918	1972	1.00	0.39	64.1	59.6	28.6	29.0	D
11	1.00	1.00	0.910	0.872	5504	767	5918	1972	1.00	0.39	64.1	59.6	28.6	29.0	D
12	1.00	1.00	0.910	0.872	5504	767	5918	1972	1.00	0.39	64.1	59.6	28.6	29.0	D
Segment 14: Basic															
AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)		LOS			
1	1.00	0.915	4572	6761	0.93	67.6	22.5	C							
2	1.00	0.915	4792	6761	0.93	66.5	24.0	C							
3	1.00	0.915	4792	6761	0.93	66.5	24.0	C							
4	1.00	0.915	4792	6761	0.93	66.5	24.0	C							
5	1.00	0.915	3886	6761	0.85	19.9	65.1	F							
6	1.00	0.915	4270	6761	0.85	15.5	91.6	F							
7	1.00	0.915	4587	6761	0.85	16.7	91.6	F							

8	1.00	0.915	4587	6761	0.85	16.7	91.6	F
9	1.00	0.915	4453	6761	0.76	18.1	82.1	F
10	1.00	0.915	4932	6761	0.76	25.3	65.0	F
11	1.00	0.915	4932	6761	0.76	65.8	25.0	F
12	1.00	0.915	4834	6761	0.76	66.3	24.3	C

Segment 15: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.923	0.959	5815	1253	5918	1972	1.27	0.64	60.2	57.7	32.3	31.0	F
2	1.00	1.00	0.923	0.959	5918	1253	5918	1972	1.27	0.64	59.5	56.8	33.9	32.0	F
3	1.00	1.00	0.923	0.959	5918	1253	5918	1972	1.27	0.64	59.5	56.8	33.9	32.0	F
4	1.00	1.00	0.923	0.959	5918	1253	5918	1972	1.27	0.64	59.5	56.8	33.9	32.0	F
5	1.00	1.00	0.923	0.959	4746	1146	5918	1972	1.16	0.58	62.3	60.2	26.9	27.0	F
6	1.00	1.00	0.923	0.959	5140	1146	5918	1972	1.16	0.58	61.4	59.2	29.4	28.8	F
7	1.00	1.00	0.923	0.959	5504	1146	5918	1972	1.16	0.58	60.7	58.3	31.5	30.3	F
8	1.00	1.00	0.923	0.959	5504	1146	5918	1972	1.16	0.58	60.7	58.3	31.5	30.3	F
9	1.00	1.00	0.923	0.959	5350	1024	5918	1972	1.04	0.52	61.5	59.3	29.6	28.7	F
10	1.00	1.00	0.923	0.959	5918	1024	5918	1972	1.04	0.52	60.3	57.8	32.9	31.0	F
11	1.00	1.00	0.923	0.959	5918	1024	5918	1972	1.04	0.52	60.3	57.8	32.9	31.0	F
12	1.00	1.00	0.923	0.959	5918	1024	5918	1972	1.04	0.52	60.5	58.1	32.3	30.5	F

Segment 16: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.923	5815	6761	1.12	59.5	32.6	F
2	1.00	0.923	5918	6761	1.12	58.6	33.7	F
3	1.00	0.923	5918	6761	1.12	58.6	33.7	F
4	1.00	0.923	5918	6761	1.12	58.6	33.7	F
5	1.00	0.923	4562	6761	1.02	24.4	62.4	F
6	1.00	0.923	5323	6761	1.02	63.3	28.0	F
7	1.00	0.923	5504	6761	1.02	62.0	29.6	F
8	1.00	0.923	5504	6761	1.02	62.0	29.6	F
9	1.00	0.923	5328	6761	0.91	35.0	50.7	F
10	1.00	0.923	5940	6761	0.91	58.4	33.9	D
11	1.00	0.923	5918	6761	0.91	58.6	33.7	D
12	1.00	0.923	5918	6761	0.91	58.6	33.7	D

Segment 17: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.923	5815	6761	1.12	59.5	32.6	F
2	1.00	0.923	5918	6761	1.12	58.6	33.7	F
3	1.00	0.923	5918	6761	1.12	58.6	33.7	F

4	1.00	0.923	5918	6761	1.12	58.6	33.7	F
5	1.00	0.923	4418	6761	1.02	21.2	69.6	F
6	1.00	0.923	5468	6761	1.02	62.2	29.3	F
7	1.00	0.923	5504	6761	1.02	62.0	29.6	F
8	1.00	0.923	5504	6761	1.02	62.0	29.6	F
9	1.00	0.923	5328	6761	0.91	63.2	28.1	D
10	1.00	0.923	5940	6761	0.91	58.4	33.9	D
11	1.00	0.923	5918	6761	0.91	58.6	33.7	D
12	1.00	0.923	5918	6761	0.91	58.6	33.7	D

Segment 18: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.923	5815	6761	1.12	59.5	32.6	F
2	1.00	0.923	5918	6761	1.12	58.6	33.7	F
3	1.00	0.923	5387	6761	1.12	37.5	47.9	F
4	1.00	0.923	5287	6761	1.12	31.7	55.7	F
5	1.00	0.923	5336	6761	1.02	31.8	56.0	F
6	1.00	0.923	5317	6761	1.02	36.5	48.6	F
7	1.00	0.923	5288	6761	1.02	34.4	51.3	F
8	1.00	0.923	5288	6761	1.02	32.6	54.0	F
9	1.00	0.923	5413	6761	0.91	39.4	45.8	F
10	1.00	0.923	5290	6761	0.91	35.1	50.2	F
11	1.00	0.923	5288	6761	0.91	30.3	58.1	F
12	1.00	0.923	5288	6761	0.91	26.7	66.0	F

Segment 19: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.923	5815	6761	1.12	59.5	32.6	F
2	1.00	0.923	5910	6761	1.12	43.7	45.0	F
3	1.00	0.923	5287	6761	1.12	23.6	74.5	F
4	1.00	0.923	5287	6761	1.12	23.0	76.6	F
5	1.00	0.923	5365	6761	1.02	26.8	66.6	F
6	1.00	0.923	5288	6761	1.02	23.1	76.4	F
7	1.00	0.923	5288	6761	1.02	23.0	76.6	F
8	1.00	0.923	5288	6761	1.02	23.0	76.6	F
9	1.00	0.923	5386	6761	0.91	28.7	62.5	F
10	1.00	0.923	5288	6761	0.91	23.0	76.5	F
11	1.00	0.923	5288	6761	0.91	23.0	76.6	F
12	1.00	0.923	5288	6761	0.91	23.0	76.6	F

Segment 20: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
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1	1.00	0.923	5815	6761	1.12	59.5	32.6	F
2	1.00	0.923	5803	6761	1.12	39.9	48.4	F
3	1.00	0.923	5288	6761	1.12	23.0	76.6	F
4	1.00	0.923	5287	6761	1.12	23.0	76.6	F
5	1.00	0.923	5365	6761	1.02	25.5	70.1	F
6	1.00	0.923	5288	6761	1.02	23.0	76.5	F
7	1.00	0.923	5288	6761	1.02	23.0	76.6	F
8	1.00	0.923	5288	6761	1.02	23.0	76.6	F
9	1.00	0.923	5358	6761	0.91	25.1	71.1	F
10	1.00	0.923	5288	6761	0.91	23.0	76.6	F
11	1.00	0.923	5288	6761	0.91	23.0	76.6	F
12	1.00	0.923	5288	6761	0.91	23.0	76.6	F

Segment 21: Diverge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.923	0.971	5815	1003	5918	1972	1.28	0.51	63.6	59.0	30.5	34.6	F
2	1.00	1.00	0.923	0.971	5733	1003	5918	1972	1.28	0.51	42.2	59.0	45.2	44.3	F
3	1.00	1.00	0.923	0.971	5287	1003	5918	1972	1.28	0.51	29.1	59.0	60.5	44.3	F
4	1.00	1.00	0.923	0.971	5287	1003	5918	1972	1.28	0.51	29.1	59.0	60.5	44.3	F
5	1.00	1.00	0.923	0.971	5352	918	5918	1972	1.17	0.47	39.5	59.3	45.2	38.8	F
6	1.00	1.00	0.923	0.971	5288	918	5918	1972	1.17	0.47	29.2	59.3	60.4	38.8	F
7	1.00	1.00	0.923	0.971	5288	918	5918	1972	1.17	0.47	29.2	59.3	60.4	38.8	F
8	1.00	1.00	0.923	0.971	5288	918	5918	1972	1.17	0.47	29.2	59.3	60.4	38.8	F
9	1.00	1.00	0.923	0.971	5345	820	5918	1972	1.04	0.42	38.9	59.5	45.7	35.7	F
10	1.00	1.00	0.923	0.971	5288	820	5918	1972	1.04	0.42	29.2	59.5	60.4	35.7	F
11	1.00	1.00	0.923	0.971	5288	820	5918	1972	1.04	0.42	29.2	59.5	60.4	35.7	F
12	1.00	1.00	0.923	0.971	5288	820	5918	1972	1.04	0.42	29.2	59.5	60.4	35.7	F

Segment 22: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.915	4812	6761	0.97	66.4	24.2	C
2	1.00	0.915	4593	6761	0.97	20.5	74.7	F
3	1.00	0.915	4587	6761	0.97	16.7	91.6	F
4	1.00	0.915	4587	6761	0.97	16.7	91.6	F
5	1.00	0.915	4587	6761	0.89	17.4	87.9	F
6	1.00	0.915	4587	6761	0.89	16.7	91.6	F
7	1.00	0.915	4587	6761	0.89	16.7	91.6	F
8	1.00	0.915	4587	6761	0.89	16.7	91.6	F
9	1.00	0.915	4587	6761	0.79	17.1	89.3	F
10	1.00	0.915	4587	6761	0.79	16.7	91.6	F
11	1.00	0.915	4587	6761	0.79	16.7	91.6	F

12	1.00	0.915	4587	6761	0.79	16.7	91.6	F							
Segment 23: Merge															
AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.924	0.977	5835	1079	5918	1972	1.28	0.55	60.6	58.3	32.4	29.5	F
2	1.00	1.00	0.924	0.977	5511	1079	5918	1972	1.28	0.55	61.3	59.1	30.8	28.5	F
3	1.00	1.00	0.924	0.977	5504	1079	5918	1972	1.28	0.55	61.3	59.1	30.8	28.5	F
4	1.00	1.00	0.924	0.977	5504	1079	5918	1972	1.28	0.55	61.3	59.1	30.8	28.5	F
5	1.00	1.00	0.924	0.977	5504	987	5918	1972	1.17	0.50	61.6	59.5	30.2	27.8	F
6	1.00	1.00	0.924	0.977	5504	987	5918	1972	1.17	0.50	61.6	59.5	30.2	27.8	F
7	1.00	1.00	0.924	0.977	5504	987	5918	1972	1.17	0.50	61.6	59.5	30.2	27.8	F
8	1.00	1.00	0.924	0.977	5504	987	5918	1972	1.17	0.50	61.6	59.5	30.2	27.8	F
9	1.00	1.00	0.924	0.977	5504	881	5918	1972	1.05	0.45	62.0	60.0	29.4	27.0	F
10	1.00	1.00	0.924	0.977	5504	881	5918	1972	1.05	0.45	62.0	60.0	29.4	27.0	F
11	1.00	1.00	0.924	0.977	5504	881	5918	1972	1.05	0.45	62.0	60.0	29.4	27.0	F
12	1.00	1.00	0.924	0.977	5504	881	5918	1972	1.05	0.45	62.0	60.0	29.4	27.0	F

Segment 24: Basic															
AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00		0.924		5835		6761		1.13		59.3		32.8		F
2	1.00		0.924		5511		6761		1.13		61.9		29.7		F
3	1.00		0.924		5504		6761		1.13		62.0		29.6		F
4	1.00		0.924		5504		6761		1.13		62.0		29.6		F
5	1.00		0.924		5504		6761		1.03		62.0		29.6		F
6	1.00		0.924		5504		6761		1.03		62.0		29.6		F
7	1.00		0.924		5504		6761		1.03		62.0		29.6		F
8	1.00		0.924		5504		6761		1.03		62.0		29.6		F
9	1.00		0.924		5504		6761		0.92		62.0		29.6		D
10	1.00		0.924		5504		6761		0.92		62.0		29.6		D
11	1.00		0.924		5504		6761		0.92		62.0		29.6		D
12	1.00		0.924		5504		6761		0.92		62.0		29.6		D

Facility Analysis Results									
AP	VMT veh-mi/AP	VMT-Demand veh-mi/AP	VHD veh-h/AP	Total Delay Cost \$/AP	Speed mi/h	Density pc/mi/ln	Density veh/mi/ln	TT min	LOS
1	29823	37122	211.06	5276.53	47.3	38.9	35.6	29.10	F
2	29481	37122	351.32	8782.96	38.5	47.4	43.3	35.80	F
3	28363	37122	547.01	13675.28	30.0	58.5	53.5	45.90	F
4	27826	37122	647.65	16191.37	26.8	64.2	58.7	51.40	F
5	26507	33945	662.93	16573.36	25.6	64.0	58.5	53.80	F
6	25184	33945	666.61	16665.36	24.7	63.1	57.7	55.80	F
7	27541	33945	595.66	14891.61	28.0	60.7	55.5	49.20	F

8	27390	33945	675.97	16899.19	25.8	65.6	60.0	53.40	F
9	25664	30325	610.09	15252.27	26.4	60.0	54.9	52.10	F
10	27535	30325	529.99	13249.68	30.0	56.7	51.8	45.90	F
11	28234	30325	539.47	13486.84	30.2	57.8	52.9	45.70	F
12	28076	30325	649.07	16226.83	26.9	64.5	59.0	51.20	F

Facility Overall Results

Space Mean Speed, mi/h	29.2	Average Density, veh/mi/ln	53.4
Average Travel Time, min	47.20	Average Density, pc/mi/ln	58.5
Total VMT, veh-mi	331624	Total VHD, veh-h	6686.85
Vehicle Value of Time (VOT), \$/h	25.00	Total Delay Cost, \$	167171.28

I-75 South Section - Southbound

HCS Freeway Facilities Report

Project Information

Analyst	Kittelsohn & Associates	Date	11/7/2023
Agency	Florida Department of Transportation	Analysis Year	2040 No-Build Conditions
Jurisdiction	District Five	Time Analyzed	AM Weekday Peak Period
Facility Name	I-75 (Southbound)	Units	U.S. Customary
Project Description	I-75 PD&E South Auxiliary Lanes		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	23
Total Analysis Periods	12	Analysis Period Duration, min	15
Facility Length, mi	22.79		

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	I-75 SB	1500	3
2	Diverge	Diverge	I-75 SB SR 200 Off Ramp	1500	3
3	Basic	Basic	I-75 SB	3275	3
4	Merge	Merge	I-75 SB SR 200 On Ramp	1500	3
5	Basic	Basic	I-75 SB	1500	3
6	Basic	Basic	I-75 SB	1500	3
7	Basic	Basic	I-75 SB	36965	3
8	Basic	Basic	I-75 SB	1500	3
9	Diverge	Diverge	I-75 SB CR 484 Off Ramp	1500	3
10	Basic	Basic	I-75 SB	2822	3
11	Merge	Merge	I-75 SB CR 484 On Ramp	1500	3
12	Basic	Basic	I-75 SB	1500	3
13	Basic	Basic	I-75 SB	1500	3
14	Basic	Basic	I-75 SB	47319	3
15	Basic	Basic	I-75 SB	1500	3
16	Basic	Basic	I-75 SB	1500	3
17	Diverge	Diverge	I-75 SB SR 44 Off Ramp	1500	3
18	Basic	Basic	I-75 SB	3547	3
19	Basic	Basic	I-75 SB	1642	3
20	Diverge	Diverge	I-75 SB Turnpike Off Ramp	1500	3
21	Basic	Basic	I-75 SB	775	3
22	Merge	Merge	I-75 SB SR 44 On Ramp	1500	3
23	Basic	Basic	I-75 SB	1500	3

Facility Segment Data

Segment 1: Basic															
AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	1.00		0.907		3622		6761		0.54		70.7		17.1		B
2	1.00		0.907		3884		6761		0.57		70.1		18.5		C
3	1.00		0.907		4308		6761		0.64		68.8		20.9		C
4	1.00		0.907		4721		6761		0.70		66.9		23.5		C
5	1.00		0.907		4964		6761		0.73		65.6		25.2		C
6	1.00		0.907		5407		6761		0.80		62.7		28.7		D
7	1.00		0.907		5761		6761		0.85		59.9		32.1		D
8	1.00		0.907		5377		6761		0.80		62.9		28.5		D
9	1.00		0.907		5165		6761		0.76		64.3		26.8		D
10	1.00		0.907		5377		6761		0.80		62.9		28.5		D
11	1.00		0.907		5902		6761		0.87		58.7		33.5		D
12	1.00		0.907		5620		6761		0.83		61.1		30.7		D

Segment 2: Diverge															
AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.907	0.951	3622	593	5918	1972	0.61	0.30	64.5	60.1	18.7	24.1	C
2	1.00	1.00	0.907	0.951	3884	636	5918	1972	0.66	0.32	64.4	60.0	20.1	25.4	C
3	1.00	1.00	0.907	0.951	4308	706	5918	1972	0.73	0.36	64.3	59.8	22.3	27.5	C
4	1.00	1.00	0.907	0.951	4721	774	5918	1972	0.80	0.39	64.1	59.6	24.6	29.5	D
5	1.00	1.00	0.907	0.951	4964	814	5918	1972	0.84	0.41	64.1	59.5	25.8	30.6	D
6	1.00	1.00	0.907	0.951	5407	886	5918	1972	0.91	0.45	63.9	59.3	28.2	32.6	D
7	1.00	1.00	0.907	0.951	5761	944	5918	1972	0.97	0.48	63.8	59.2	30.1	34.1	D
8	1.00	1.00	0.907	0.951	5377	881	5918	1972	0.91	0.45	63.9	59.3	28.0	32.5	D
9	1.00	1.00	0.907	0.951	5165	846	5918	1972	0.87	0.43	64.0	59.4	26.9	31.5	D
10	1.00	1.00	0.907	0.951	5377	881	5918	1972	0.91	0.45	63.9	59.3	28.0	32.5	D
11	1.00	1.00	0.907	0.951	5902	967	5918	1972	1.00	0.49	63.7	59.1	30.9	34.7	D
12	1.00	1.00	0.907	0.951	5620	921	5918	1972	0.95	0.47	63.9	59.3	29.3	33.5	D

Segment 3: Basic															
AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	1.00		0.898		3030		6761		0.45		71.1		14.2		B
2	1.00		0.898		3249		6761		0.48		71.1		15.2		B
3	1.00		0.898		3604		6761		0.53		70.7		17.0		B
4	1.00		0.898		3949		6761		0.58		70.0		18.8		C
5	1.00		0.898		4151		6761		0.61		69.3		20.0		C
6	1.00		0.898		4522		6761		0.67		67.9		22.2		C
7	1.00		0.898		4818		6761		0.71		66.4		24.2		C
8	1.00		0.898		4498		6761		0.67		68.0		22.0		C

9	1.00	0.898	4321	6761	0.64	68.7	21.0	C
10	1.00	0.898	4498	6761	0.67	68.0	22.0	C
11	1.00	0.898	4935	6761	0.73	65.7	25.0	C
12	1.00	0.898	4699	6761	0.70	67.0	23.4	C

Segment 4: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.904	0.942	3498	488	5918	1972	0.59	0.25	65.1	63.4	17.9	16.5	B
2	1.00	1.00	0.904	0.942	3751	523	5918	1972	0.63	0.27	64.9	63.2	19.3	17.8	B
3	1.00	1.00	0.904	0.942	4161	581	5918	1972	0.70	0.29	64.4	62.8	21.5	19.9	B
4	1.00	1.00	0.904	0.942	4560	637	5918	1972	0.77	0.32	63.9	62.2	23.8	21.9	C
5	1.00	1.00	0.904	0.942	4793	669	5918	1972	0.81	0.34	63.6	61.9	25.1	23.1	C
6	1.00	1.00	0.904	0.942	5221	729	5918	1972	0.88	0.37	62.8	61.0	27.7	25.3	C
7	1.00	1.00	0.904	0.942	5564	777	5918	1972	0.94	0.39	62.0	60.0	29.9	27.1	C
8	1.00	1.00	0.904	0.942	5193	725	5918	1972	0.88	0.37	62.8	61.0	27.6	25.2	C
9	1.00	1.00	0.904	0.942	4988	696	5918	1972	0.84	0.35	63.2	61.5	26.3	24.1	C
10	1.00	1.00	0.904	0.942	5193	725	5918	1972	0.88	0.37	62.8	61.0	27.6	25.2	C
11	1.00	1.00	0.904	0.942	5731	796	5918	1972	0.96	0.40	61.5	59.5	31.1	27.9	C
12	1.00	1.00	0.904	0.942	5457	758	5918	1972	0.92	0.38	62.2	60.3	29.2	26.5	C

Segment 5: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.904	3519	6761	0.52	70.7	16.5	B
2	1.00	0.904	3773	6761	0.56	70.4	17.9	B
3	1.00	0.904	4185	6761	0.62	69.2	20.2	C
4	1.00	0.904	4586	6761	0.68	67.6	22.6	C
5	1.00	0.904	4821	6761	0.71	66.4	24.2	C
6	1.00	0.904	5252	6761	0.78	63.8	27.4	D
7	1.00	0.904	5596	6761	0.83	61.3	30.4	D
8	1.00	0.904	5223	6761	0.77	64.0	27.2	D
9	1.00	0.904	5018	6761	0.74	65.2	25.7	C
10	1.00	0.904	5223	6761	0.77	64.0	27.2	D
11	1.00	0.904	5731	6761	0.85	60.2	31.7	D
12	1.00	0.904	5457	6761	0.81	62.3	29.2	D

Segment 6: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.904	3519	6761	0.52	70.9	16.5	B
2	1.00	0.904	3773	6761	0.56	70.4	17.9	B
3	1.00	0.904	4185	6761	0.62	69.2	20.2	C
4	1.00	0.904	4586	6761	0.68	67.6	22.6	C

1	1.00	1.00	0.904	0.923	3519	456	5918	1972	0.59	0.23	64.9	60.5	18.1	19.5	B
2	1.00	1.00	0.904	0.923	3773	489	5918	1972	0.64	0.25	64.8	60.4	19.4	20.8	C
3	1.00	1.00	0.904	0.923	4185	543	5918	1972	0.71	0.28	64.7	60.2	21.6	22.8	C
4	1.00	1.00	0.904	0.923	4586	595	5918	1972	0.77	0.30	64.6	60.1	23.7	24.7	C
5	1.00	1.00	0.904	0.923	4821	625	5918	1972	0.81	0.32	64.5	60.0	24.9	25.8	C
6	1.00	1.00	0.904	0.923	5252	681	5918	1972	0.89	0.35	64.4	59.9	27.2	27.7	C
7	1.00	1.00	0.904	0.923	5596	726	5918	1972	0.95	0.37	64.3	59.8	29.0	29.2	D
8	1.00	1.00	0.904	0.923	5223	677	5918	1972	0.88	0.34	64.4	59.9	27.0	27.6	C
9	1.00	1.00	0.904	0.923	5018	650	5918	1972	0.85	0.33	64.5	60.0	25.9	26.7	C
10	1.00	1.00	0.904	0.923	5223	677	5918	1972	0.88	0.34	64.4	59.9	27.0	27.6	C
11	1.00	1.00	0.904	0.923	5731	743	5918	1972	0.97	0.38	64.2	59.7	29.8	29.8	D
12	1.00	1.00	0.904	0.923	5333	707	5918	1972	0.92	0.36	64.3	59.8	27.6	28.1	F

Segment 10: Basic

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	1.00		0.901		3063		6761		0.45		71.0		14.3		B
2	1.00		0.901		3285		6761		0.49		71.0		15.4		B
3	1.00		0.901		3643		6761		0.54		70.7		17.2		B
4	1.00		0.901		3992		6761		0.59		69.8		19.1		C
5	1.00		0.901		4196		6761		0.62		69.2		20.2		C
6	1.00		0.901		4572		6761		0.68		67.6		22.5		C
7	1.00		0.901		4871		6761		0.72		66.1		24.6		C
8	1.00		0.901		4547		6761		0.67		67.8		22.4		C
9	1.00		0.901		4368		6761		0.65		68.5		21.3		C
10	1.00		0.901		4547		6761		0.67		67.8		22.4		C
11	1.00		0.901		4593		6761		0.74		27.2		56.3		F
12	1.00		0.901		4587		6761		0.70		16.8		90.9		F

Segment 11: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.903	0.916	3647	591	5918	1972	0.62	0.30	64.7	62.9	18.8	18.2	B
2	1.00	1.00	0.903	0.916	3911	633	5918	1972	0.66	0.32	64.4	62.7	20.2	19.6	B
3	1.00	1.00	0.903	0.916	4337	702	5918	1972	0.73	0.36	63.9	62.2	22.6	21.8	C
4	1.00	1.00	0.903	0.916	4753	770	5918	1972	0.80	0.39	63.3	61.5	25.0	23.9	C
5	1.00	1.00	0.903	0.916	4996	809	5918	1972	0.84	0.41	62.9	61.0	26.5	25.2	C
6	1.00	1.00	0.903	0.916	5443	882	5918	1972	0.92	0.45	61.9	59.9	29.3	27.5	C
7	1.00	1.00	0.903	0.916	5799	939	5918	1972	0.98	0.48	61.0	58.7	31.7	29.3	D
8	1.00	1.00	0.903	0.916	5414	877	5918	1972	0.91	0.44	62.0	60.0	29.1	27.3	C
9	1.00	1.00	0.903	0.916	5201	842	5918	1972	0.88	0.43	62.5	60.6	27.7	26.2	C
10	1.00	1.00	0.903	0.916	5414	877	5918	1972	0.91	0.44	62.0	60.0	29.1	27.3	C
11	1.00	1.00	0.903	0.916	5511	962	5918	1972	1.00	0.49	61.6	59.5	30.1	28.2	D

12	1.00	1.00	0.903	0.916	5504	916	5918	1972	0.96	0.46	61.8	59.7	29.7	27.8	C
Segment 12: Basic															
AP	PHF	fHV	Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio	Speed (mi/h)		Density (pc/mi/ln)		LOS			
1	1.00	0.903	3656		6761		0.54	70.6		17.3		B			
2	1.00	0.903	3920		6761		0.58	70.0		18.7		C			
3	1.00	0.903	4347		6761		0.64	68.6		21.1		C			
4	1.00	0.903	4764		6761		0.70	66.7		23.8		C			
5	1.00	0.903	5008		6761		0.74	65.3		25.6		C			
6	1.00	0.903	5456		6761		0.81	62.3		29.2		D			
7	1.00	0.903	5813		6761		0.86	59.5		32.6		D			
8	1.00	0.903	5426		6761		0.80	62.5		28.9		D			
9	1.00	0.903	5213		6761		0.77	64.0		27.2		D			
10	1.00	0.903	5426		6761		0.80	62.5		28.9		D			
11	1.00	0.903	5511		6761		0.88	61.9		29.7		D			
12	1.00	0.903	5504		6761		0.84	62.0		29.6		D			
Segment 13: Basic															
AP	PHF	fHV	Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio	Speed (mi/h)		Density (pc/mi/ln)		LOS			
1	1.00	0.903	3656		6761		0.54	70.6		17.3		B			
2	1.00	0.903	3920		6761		0.58	70.0		18.7		C			
3	1.00	0.903	4347		6761		0.64	68.6		21.1		C			
4	1.00	0.903	4764		6761		0.70	66.7		23.8		C			
5	1.00	0.903	5008		6761		0.74	65.3		25.6		C			
6	1.00	0.903	5456		6761		0.81	62.3		29.2		D			
7	1.00	0.903	5813		6761		0.86	59.5		32.6		D			
8	1.00	0.903	5426		6761		0.80	62.5		28.9		D			
9	1.00	0.903	5213		6761		0.77	64.0		27.2		D			
10	1.00	0.903	5426		6761		0.80	62.5		28.9		D			
11	1.00	0.903	5511		6761		0.88	61.9		29.7		D			
12	1.00	0.903	5504		6761		0.84	62.0		29.6		D			
Segment 14: Basic															
AP	PHF	fHV	Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio	Speed (mi/h)		Density (pc/mi/ln)		LOS			
1	1.00	0.903	3656		6761		0.54	70.6		17.3		B			
2	1.00	0.903	3920		6761		0.58	70.0		18.7		C			
3	1.00	0.903	4347		6761		0.64	68.6		21.1		C			
4	1.00	0.903	4764		6761		0.70	66.7		23.8		C			
5	1.00	0.903	5008		6761		0.74	65.3		25.6		C			
6	1.00	0.903	5456		6761		0.81	62.3		29.2		D			
7	1.00	0.903	5813		6761		0.86	59.5		32.6		D			
8	1.00	0.903	5426		6761		0.80	62.5		28.9		D			

9	1.00	0.903	5213	6761	0.77	64.0	27.2	D
10	1.00	0.903	5426	6761	0.80	62.5	28.9	D
11	1.00	0.903	5511	6761	0.88	61.9	29.7	D
12	1.00	0.903	5504	6761	0.84	62.0	29.6	D

Segment 15: Basic

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.903	0.899	3656	508	6761	3944	0.54	0.13	70.6	60.3	17.3	8.7	B
2	1.00	1.00	0.903	0.899	3920	545	6761	3944	0.58	0.14	70.0	60.2	18.7	10.0	C
3	1.00	1.00	0.903	0.899	4347	605	6761	3944	0.64	0.15	68.6	60.1	21.1	12.1	C
4	1.00	1.00	0.903	0.899	4764	663	6761	3944	0.70	0.17	66.7	59.9	23.8	14.2	C
5	1.00	1.00	0.903	0.899	5008	663	6761	3944	0.74	0.17	65.3	59.9	25.6	14.2	C
6	1.00	1.00	0.903	0.899	5456	663	6761	3944	0.81	0.17	62.3	59.9	29.2	14.2	D
7	1.00	1.00	0.903	0.899	5813	663	6761	3944	0.86	0.17	59.5	59.9	32.6	14.2	D
8	1.00	1.00	0.903	0.899	5426	663	6761	3944	0.80	0.17	62.5	59.9	28.9	14.2	D
9	1.00	1.00	0.903	0.899	5213	663	6761	3944	0.77	0.17	64.0	59.9	27.2	14.2	D
10	1.00	1.00	0.903	0.899	5426	663	6761	3944	0.80	0.17	62.5	59.9	28.9	14.2	D
11	1.00	1.00	0.903	0.899	5511	663	6761	3944	0.88	0.17	61.9	59.9	29.7	14.2	D
12	1.00	1.00	0.903	0.899	5504	663	6761	3944	0.84	0.17	62.0	59.9	29.6	14.2	D

Segment 16: Basic

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.903	0.899	3656	508	6761	3944	0.54	0.13	70.6	60.3	17.3	8.7	B
2	1.00	1.00	0.903	0.899	3920	545	6761	3944	0.58	0.14	70.0	60.2	18.7	10.0	C
3	1.00	1.00	0.903	0.899	4347	605	6761	3944	0.64	0.15	68.6	60.1	21.1	12.1	C
4	1.00	1.00	0.903	0.899	4764	663	6761	3944	0.70	0.17	66.7	59.9	23.8	14.2	C
5	1.00	1.00	0.903	0.899	5008	663	6761	3944	0.74	0.17	65.3	59.9	25.6	14.2	C
6	1.00	1.00	0.903	0.899	5456	663	6761	3944	0.81	0.17	62.3	59.9	29.2	14.2	D
7	1.00	1.00	0.903	0.899	5813	663	6761	3944	0.86	0.17	59.5	59.9	32.6	14.2	D
8	1.00	1.00	0.903	0.899	5426	663	6761	3944	0.80	0.17	62.5	59.9	28.9	14.2	D
9	1.00	1.00	0.903	0.899	5213	663	6761	3944	0.77	0.17	64.0	59.9	27.2	14.2	D
10	1.00	1.00	0.903	0.899	5426	663	6761	3944	0.80	0.17	62.5	59.9	28.9	14.2	D
11	1.00	1.00	0.903	0.899	5511	663	6761	3944	0.88	0.17	61.9	59.9	29.7	14.2	D
12	1.00	1.00	0.903	0.899	5504	663	6761	3944	0.84	0.17	62.0	59.9	29.6	14.2	D

Segment 17: Diverge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.903	0.899	3656	508	5918	3944	0.62	0.13	66.1	60.3	18.4	8.7	A
2	1.00	1.00	0.903	0.899	3920	545	5918	3944	0.66	0.14	65.9	60.2	19.8	10.0	A
3	1.00	1.00	0.903	0.899	4347	605	5918	3944	0.73	0.15	65.6	60.1	22.1	12.1	B
4	1.00	1.00	0.903	0.899	4764	663	5918	3944	0.80	0.17	65.2	59.9	24.4	14.2	B

5	1.00	1.00	0.903	0.899	5008	697	5918	3944	0.85	0.18	65.0	59.8	25.7	15.4	B
6	1.00	1.00	0.903	0.899	5456	760	5918	3944	0.92	0.19	64.7	59.7	28.1	17.6	B
7	1.00	1.00	0.903	0.899	5813	809	5918	3944	0.98	0.21	64.4	59.5	30.1	19.3	B
8	1.00	1.00	0.903	0.899	5426	755	5918	3944	0.92	0.19	64.7	59.7	28.0	17.4	B
9	1.00	1.00	0.903	0.899	5213	725	5918	3944	0.88	0.18	64.9	59.8	26.8	16.4	B
10	1.00	1.00	0.903	0.899	5426	755	5918	3944	0.92	0.19	64.7	59.7	28.0	17.4	B
11	1.00	1.00	0.903	0.899	5511	829	5918	3944	1.01	0.21	64.6	59.5	28.4	17.8	F
12	1.00	1.00	0.903	0.899	5504	790	5918	3944	0.96	0.20	64.6	59.6	28.4	17.8	B

Segment 18: Basic

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	1.00		0.904		3146		6761		0.47		71.1		14.7		B
2	1.00		0.904		3374		6761		0.50		71.0		15.8		B
3	1.00		0.904		3740		6761		0.55		70.5		17.7		B
4	1.00		0.904		4100		6761		0.61		69.5		19.7		C
5	1.00		0.904		4309		6761		0.64		68.8		20.9		C
6	1.00		0.904		4695		6761		0.69		67.0		23.4		C
7	1.00		0.904		5002		6761		0.74		65.4		25.5		C
8	1.00		0.904		4669		6761		0.69		67.2		23.2		C
9	1.00		0.904		4486		6761		0.66		68.0		22.0		C
10	1.00		0.904		4669		6761		0.69		67.2		23.2		C
11	1.00		0.904		4744		6761		0.76		66.8		23.7		C
12	1.00		0.904		4738		6761		0.72		66.8		23.6		C

Segment 19: Basic

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	1.00		0.904		3146		6761		0.47		71.2		14.7		B
2	1.00		0.904		3374		6761		0.50		71.0		15.8		B
3	1.00		0.904		3740		6761		0.55		70.5		17.7		B
4	1.00		0.904		4100		6761		0.61		69.5		19.7		C
5	1.00		0.904		4309		6761		0.64		68.8		20.9		C
6	1.00		0.904		4695		6761		0.69		67.0		23.4		C
7	1.00		0.904		5002		6761		0.74		65.4		25.5		C
8	1.00		0.904		4669		6761		0.69		67.2		23.2		C
9	1.00		0.904		4486		6761		0.66		68.0		22.0		C
10	1.00		0.904		4669		6761		0.69		67.2		23.2		C
11	1.00		0.904		4744		6761		0.76		66.8		23.7		C
12	1.00		0.904		4738		6761		0.72		66.8		23.6		C

Segment 20: Diverge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	

1	1.00	1.00	0.904	0.918	3146	1892	5918	3944	0.53	0.48	59.6	56.7	17.6	12.9	B
2	1.00	1.00	0.904	0.918	3374	2029	5918	3944	0.57	0.51	59.3	56.3	19.0	14.5	B
3	1.00	1.00	0.904	0.918	3740	2251	5918	3944	0.63	0.57	58.8	55.8	21.2	17.1	B
4	1.00	1.00	0.904	0.918	4100	2466	5918	3944	0.69	0.63	58.3	55.2	23.4	19.7	B
5	1.00	1.00	0.904	0.918	4309	2594	5918	3944	0.73	0.66	57.9	54.8	24.8	21.1	C
6	1.00	1.00	0.904	0.918	4695	2826	5918	3944	0.79	0.72	57.4	54.2	27.3	23.9	C
7	1.00	1.00	0.904	0.918	5002	3010	5918	3944	0.85	0.76	56.9	53.7	29.3	26.0	C
8	1.00	1.00	0.904	0.918	4669	2809	5918	3944	0.79	0.71	57.5	54.3	27.1	23.7	C
9	1.00	1.00	0.904	0.918	4486	2698	5918	3944	0.76	0.68	57.7	54.6	25.9	22.4	C
10	1.00	1.00	0.904	0.918	4669	2809	5918	3944	0.79	0.71	57.5	54.3	27.1	23.7	C
11	1.00	1.00	0.904	0.918	4744	3084	5918	3944	0.87	0.78	56.3	53.6	28.1	25.3	C
12	1.00	1.00	0.904	0.918	4738	2936	5918	3944	0.82	0.74	56.9	53.9	27.8	24.6	C

Segment 21: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.883	1254	6761	0.19	69.4	5.9	A
2	1.00	0.883	1344	6761	0.20	69.3	6.3	A
3	1.00	0.883	1489	6761	0.22	69.2	7.0	A
4	1.00	0.883	1633	6761	0.24	69.2	7.6	A
5	1.00	0.883	1715	6761	0.25	69.1	8.0	A
6	1.00	0.883	1869	6761	0.28	69.0	8.8	A
7	1.00	0.883	1992	6761	0.29	68.9	9.3	A
8	1.00	0.883	1860	6761	0.28	69.0	8.7	A
9	1.00	0.883	1787	6761	0.26	69.1	8.4	A
10	1.00	0.883	1860	6761	0.28	69.0	8.7	A
11	1.00	0.883	1889	6761	0.30	68.8	8.8	A
12	1.00	0.883	1887	6761	0.29	68.9	8.8	A

Segment 22: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.879	0.870	1766	507	5918	1972	0.30	0.26	65.0	62.8	9.1	11.6	B
2	1.00	1.00	0.879	0.870	1894	544	5918	1972	0.32	0.28	65.0	62.8	9.7	12.3	B
3	1.00	1.00	0.879	0.870	2099	603	5918	1972	0.35	0.31	64.9	62.7	10.8	13.4	B
4	1.00	1.00	0.879	0.870	2302	661	5918	1972	0.39	0.34	64.7	62.6	11.9	14.5	B
5	1.00	1.00	0.879	0.870	2417	695	5918	1972	0.41	0.35	64.7	62.6	12.5	15.2	B
6	1.00	1.00	0.879	0.870	2634	757	5918	1972	0.45	0.38	64.6	62.5	13.6	16.3	B
7	1.00	1.00	0.879	0.870	2808	807	5918	1972	0.47	0.41	64.5	62.4	14.5	17.3	B
8	1.00	1.00	0.879	0.870	2621	753	5918	1972	0.44	0.38	64.6	62.5	13.5	16.3	B
9	1.00	1.00	0.879	0.870	2518	723	5918	1972	0.43	0.37	64.6	62.5	13.0	15.7	B
10	1.00	1.00	0.879	0.870	2621	753	5918	1972	0.44	0.38	64.6	62.5	13.5	16.3	B
11	1.00	1.00	0.879	0.870	2715	826	5918	1972	0.49	0.42	64.4	62.4	14.1	16.9	B

12	1.00	1.00	0.879	0.870	2673	786	5918	1972	0.46	0.40	64.5	62.4	13.8	16.6	B
Segment 23: Basic															
AP	PHF	fHV	Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio	Speed (mi/h)		Density (pc/mi/ln)		LOS			
1	1.00	0.879	1761		6761		0.26	70.7		8.2		A			
2	1.00	0.879	1889		6761		0.28	70.7		8.8		A			
3	1.00	0.879	2093		6761		0.31	70.6		9.8		A			
4	1.00	0.879	2295		6761		0.34	70.6		10.7		A			
5	1.00	0.879	2411		6761		0.36	70.6		11.3		B			
6	1.00	0.879	2627		6761		0.39	70.6		12.3		B			
7	1.00	0.879	2800		6761		0.41	70.6		13.1		B			
8	1.00	0.879	2613		6761		0.39	70.6		12.2		B			
9	1.00	0.879	2511		6761		0.37	70.6		11.8		B			
10	1.00	0.879	2613		6761		0.39	70.6		12.2		B			
11	1.00	0.879	2715		6761		0.42	70.6		12.7		B			
12	1.00	0.879	2673		6761		0.40	70.6		12.5		B			

Facility Analysis Results									
AP	VMT veh-mi/AP	VMT-Demand veh-mi/AP	VHD veh-h/AP	Total Delay Cost \$/AP	Speed mi/h	Density pc/mi/ln	Density veh/mi/ln	TT min	LOS
1	17917	17816	3.69	92.21	70.2	16.5	14.9	19.50	B
2	19213	19105	5.82	145.58	69.7	17.9	16.2	19.60	B
3	21305	21185	11.53	288.31	68.6	20.1	18.2	19.90	C
4	23350	23219	20.59	514.70	67.0	22.6	20.4	20.40	C
5	24544	24406	28.09	702.24	65.8	24.2	21.8	20.80	C
6	26742	26591	46.78	1169.60	63.3	27.4	24.7	21.60	D
7	28491	28331	67.57	1689.18	60.9	30.3	27.4	22.50	D
8	26596	26446	45.32	1132.98	63.5	27.1	24.5	21.50	D
9	25548	25404	35.93	898.33	64.7	25.6	23.1	21.10	C
10	26596	26446	45.32	1132.98	63.5	27.1	24.5	21.50	D
11	27936	29026	72.81	1820.22	60.1	30.1	27.2	22.80	F
12	27312	27638	77.47	1936.82	59.2	29.9	27.0	23.10	D

Facility Overall Results				
Space Mean Speed, mi/h	64.1		Average Density, veh/mi/ln	22.5
Average Travel Time, min	21.30		Average Density, pc/mi/ln	24.9
Total VMT, veh-mi	295550		Total VHD, veh-h	460.93
Vehicle Value of Time (VOT), \$/h	25.00		Total Delay Cost, \$	11523.15

HCS Freeway Facilities Report

Project Information

Analyst	Kittelson & Associates	Date	11/7/2023
Agency	Florida Department of Transportation	Analysis Year	2040 No-Build Conditions
Jurisdiction	District Five	Time Analyzed	PM Weekday Peak Period
Facility Name	I-75 (Southbound)	Units	U.S. Customary
Project Description	I-75 PD&E South Auxiliary Lanes		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	23
Total Analysis Periods	12	Analysis Period Duration, min	15
Facility Length, mi	22.79		

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	I-75 SB	1500	3
2	Diverge	Diverge	I-75 SB SR 200 Off Ramp	1500	3
3	Basic	Basic	I-75 SB	3275	3
4	Merge	Merge	I-75 SB SR 200 On Ramp	1500	3
5	Basic	Basic	I-75 SB	1500	3
6	Basic	Basic	I-75 SB	1500	3
7	Basic	Basic	I-75 SB	36965	3
8	Basic	Basic	I-75 SB	1500	3
9	Diverge	Diverge	I-75 SB CR 484 Off Ramp	1500	3
10	Basic	Basic	I-75 SB	2822	3
11	Merge	Merge	I-75 SB CR 484 On Ramp	1500	3
12	Basic	Basic	I-75 SB	1500	3
13	Basic	Basic	I-75 SB	1500	3
14	Basic	Basic	I-75 SB	47319	3
15	Basic	Basic	I-75 SB	1500	3
16	Basic	Basic	I-75 SB	1500	3
17	Diverge	Diverge	I-75 SB SR 44 Off Ramp	1500	3
18	Basic	Basic	I-75 SB	3547	3
19	Basic	Basic	I-75 SB	1642	3
20	Diverge	Diverge	I-75 SB Turnpike Off Ramp	1500	3
21	Basic	Basic	I-75 SB	775	3
22	Merge	Merge	I-75 SB SR 44 On Ramp	1500	3
23	Basic	Basic	I-75 SB	1500	3

Facility Segment Data

Segment 1: Basic															
AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	1.00		0.907		5511		6761		1.14		25.6		71.8		F
2	1.00		0.907		5504		6761		1.09		25.5		72.0		F
3	1.00		0.907		5504		6761		1.19		25.5		72.0		F
4	1.00		0.907		5504		6761		1.13		25.5		72.0		F
5	1.00		0.907		5504		6761		1.19		25.5		72.0		F
6	1.00		0.907		5504		6761		1.10		25.5		72.0		F
7	1.00		0.907		5504		6761		1.12		25.5		72.0		F
8	1.00		0.907		5504		6761		1.14		25.5		72.0		F
9	1.00		0.907		5504		6761		1.07		25.5		72.0		F
10	1.00		0.907		5504		6761		1.02		25.5		72.0		F
11	1.00		0.907		5504		6761		1.05		25.5		72.0		F
12	1.00		0.907		5504		6761		0.98		25.5		72.0		F

Segment 2: Diverge															
AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.907	0.951	5511	1017	5918	1972	1.30	0.52	63.6	59.0	28.9	33.2	F
2	1.00	1.00	0.907	0.951	5504	980	5918	1972	1.25	0.50	63.7	59.1	28.8	33.1	F
3	1.00	1.00	0.907	0.951	5504	1062	5918	1972	1.36	0.54	63.5	58.9	28.9	33.3	F
4	1.00	1.00	0.907	0.951	5504	1015	5918	1972	1.30	0.51	63.6	59.0	28.8	33.2	F
5	1.00	1.00	0.907	0.951	5504	1068	5918	1972	1.36	0.54	63.4	58.8	28.9	33.3	F
6	1.00	1.00	0.907	0.951	5504	981	5918	1972	1.25	0.50	63.7	59.1	28.8	33.2	F
7	1.00	1.00	0.907	0.951	5504	1006	5918	1972	1.28	0.51	63.6	59.0	28.8	33.2	F
8	1.00	1.00	0.907	0.951	5504	1020	5918	1972	1.30	0.52	63.6	59.0	28.8	33.2	F
9	1.00	1.00	0.907	0.951	5504	954	5918	1972	1.22	0.48	63.8	59.2	28.8	33.1	F
10	1.00	1.00	0.907	0.951	5504	917	5918	1972	1.17	0.46	63.9	59.3	28.7	33.0	F
11	1.00	1.00	0.907	0.951	5504	943	5918	1972	1.20	0.48	63.8	59.2	28.8	33.1	F
12	1.00	1.00	0.907	0.951	5504	874	5918	1972	1.11	0.44	64.0	59.4	28.7	33.0	F

Segment 3: Basic															
AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	1.00		0.900		4494		6761		0.99		68.0		22.0		C
2	1.00		0.900		4775		6761		0.95		66.6		23.9		C
3	1.00		0.900		4775		6761		1.03		66.6		23.9		F
4	1.00		0.900		4775		6761		0.98		66.6		23.9		C
5	1.00		0.900		4775		6761		1.04		66.6		23.9		F
6	1.00		0.900		4775		6761		0.95		66.6		23.9		C
7	1.00		0.900		4775		6761		0.98		66.6		23.9		C
8	1.00		0.900		4776		6761		0.99		66.6		23.9		C

9	1.00	0.900	4775	6761	0.92	66.6	23.9	C
10	1.00	0.900	4775	6761	0.89	66.6	23.9	C
11	1.00	0.900	4776	6761	0.91	66.6	23.9	C
12	1.00	0.900	4775	6761	0.85	66.6	23.9	C

Segment 4: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.906	0.942	5584	1090	5918	1972	1.30	0.55	61.5	59.4	30.3	28.0	F
2	1.00	1.00	0.906	0.942	5826	1051	5918	1972	1.26	0.53	60.9	58.6	31.9	29.0	F
3	1.00	1.00	0.906	0.942	5913	1138	5918	1972	1.36	0.58	60.5	58.1	32.6	29.6	F
4	1.00	1.00	0.906	0.942	5863	1088	5918	1972	1.30	0.55	60.7	58.4	32.2	29.3	F
5	1.00	1.00	0.906	0.942	5918	1145	5918	1972	1.37	0.58	60.5	58.1	32.6	29.7	F
6	1.00	1.00	0.906	0.942	5829	1052	5918	1972	1.26	0.53	60.9	58.6	31.9	29.0	F
7	1.00	1.00	0.906	0.942	5855	1080	5918	1972	1.29	0.55	60.8	58.5	32.1	29.2	F
8	1.00	1.00	0.906	0.942	5869	1093	5918	1972	1.31	0.55	60.7	58.4	32.2	29.3	F
9	1.00	1.00	0.906	0.942	5797	1022	5918	1972	1.22	0.52	61.0	58.8	31.7	28.8	F
10	1.00	1.00	0.906	0.942	5759	984	5918	1972	1.18	0.50	61.2	59.0	31.4	28.5	F
11	1.00	1.00	0.906	0.942	5787	1011	5918	1972	1.21	0.51	61.1	58.9	31.6	28.7	F
12	1.00	1.00	0.906	0.942	5711	936	5918	1972	1.12	0.47	61.4	59.3	31.0	28.2	F

Segment 5: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.906	5584	6761	1.15	61.3	30.4	F
2	1.00	0.906	5826	6761	1.11	59.4	32.7	F
3	1.00	0.906	5913	6761	1.20	58.6	33.6	F
4	1.00	0.906	5863	6761	1.14	59.1	33.1	F
5	1.00	0.906	5918	6761	1.20	58.6	33.7	F
6	1.00	0.906	5829	6761	1.11	59.4	32.7	F
7	1.00	0.906	5855	6761	1.14	59.1	33.0	F
8	1.00	0.906	5869	6761	1.15	59.0	33.2	F
9	1.00	0.906	5797	6761	1.08	59.6	32.4	F
10	1.00	0.906	5759	6761	1.04	59.9	32.0	F
11	1.00	0.906	5787	6761	1.06	59.7	32.3	F
12	1.00	0.906	5711	6761	0.99	60.3	31.6	D

Segment 6: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.906	5584	6761	1.15	61.3	30.4	F
2	1.00	0.906	5826	6761	1.11	59.4	32.7	F
3	1.00	0.906	5913	6761	1.20	58.6	33.6	F
4	1.00	0.906	5863	6761	1.14	59.1	33.1	F

5	1.00	0.906	5918	6761	1.20	58.6	33.7	F
6	1.00	0.906	5829	6761	1.11	59.4	32.7	F
7	1.00	0.906	5855	6761	1.14	59.1	33.0	F
8	1.00	0.906	5869	6761	1.15	59.0	33.2	F
9	1.00	0.906	5797	6761	1.08	59.6	32.4	F
10	1.00	0.906	5759	6761	1.04	59.9	32.0	F
11	1.00	0.906	5787	6761	1.06	59.7	32.3	F
12	1.00	0.906	5711	6761	0.99	60.3	31.6	D

Segment 7: Basic

AP	PHF		fHV	Flow Rate (pc/h)		Capacity (pc/h)	d/c Ratio		Speed (mi/h)	Density (pc/mi/ln)		LOS
	F	R		Freeway	Ramp		F	R		F	R Infl.	
1	1.00		0.906	5584		6761	1.15		61.3	30.4		F
2	1.00		0.906	5826		6761	1.11		59.4	32.7		F
3	1.00		0.906	5913		6761	1.20		58.6	33.6		F
4	1.00		0.906	5863		6761	1.14		59.1	33.1		F
5	1.00		0.906	5918		6761	1.20		58.6	33.7		F
6	1.00		0.906	5829		6761	1.11		59.4	32.7		F
7	1.00		0.906	5855		6761	1.14		59.1	33.0		F
8	1.00		0.906	5869		6761	1.15		59.0	33.2		F
9	1.00		0.906	5797		6761	1.08		59.6	32.4		F
10	1.00		0.906	5759		6761	1.04		59.9	32.0		F
11	1.00		0.906	5787		6761	1.06		59.7	32.3		F
12	1.00		0.906	5711		6761	0.99		60.3	31.6		D

Segment 8: Basic

AP	PHF		fHV	Flow Rate (pc/h)		Capacity (pc/h)	d/c Ratio		Speed (mi/h)	Density (pc/mi/ln)		LOS
	F	R		Freeway	Ramp		F	R		F	R Infl.	
1	1.00		0.906	5584		6761	1.15		61.3	30.4		F
2	1.00		0.906	5826		6761	1.11		59.4	32.7		F
3	1.00		0.906	5913		6761	1.20		58.6	33.6		F
4	1.00		0.906	5863		6761	1.14		59.1	33.1		F
5	1.00		0.906	5918		6761	1.20		58.6	33.7		F
6	1.00		0.906	5829		6761	1.11		59.4	32.7		F
7	1.00		0.906	5855		6761	1.14		59.1	33.0		F
8	1.00		0.906	5869		6761	1.15		59.0	33.2		F
9	1.00		0.906	5797		6761	1.08		59.6	32.4		F
10	1.00		0.906	5759		6761	1.04		59.9	32.0		F
11	1.00		0.906	5787		6761	1.06		59.7	32.3		F
12	1.00		0.906	5711		6761	0.99		60.3	31.6		D

Segment 9: Diverge

AP	PHF		fHV	Flow Rate (pc/h)		Capacity (pc/h)	d/c Ratio		Speed (mi/h)	Density (pc/mi/ln)		LOS	
	F	R		Freeway	Ramp		F	R		F	R Infl.		
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	

1	1.00	1.00	0.906	0.923	5584	1298	5918	1972	1.31	0.66	63.0	58.3	29.5	30.2	F
2	1.00	1.00	0.906	0.923	5826	1250	5918	1972	1.26	0.63	63.0	58.4	30.8	31.1	F
3	1.00	1.00	0.906	0.923	5913	1355	5918	1972	1.37	0.69	62.8	58.1	31.4	31.6	F
4	1.00	1.00	0.906	0.923	5863	1295	5918	1972	1.31	0.66	63.0	58.3	31.0	31.3	F
5	1.00	1.00	0.906	0.923	5918	1363	5918	1972	1.38	0.69	62.8	58.1	31.4	31.6	F
6	1.00	1.00	0.906	0.923	5829	1251	5918	1972	1.26	0.63	63.0	58.4	30.8	31.1	F
7	1.00	1.00	0.906	0.923	5855	1285	5918	1972	1.30	0.65	63.0	58.3	31.0	31.3	F
8	1.00	1.00	0.906	0.923	5869	1301	5918	1972	1.31	0.66	62.9	58.2	31.1	31.3	F
9	1.00	1.00	0.906	0.923	5797	1217	5918	1972	1.23	0.62	63.1	58.5	30.6	30.9	F
10	1.00	1.00	0.906	0.923	5759	1170	5918	1972	1.18	0.59	63.2	58.6	30.4	30.6	F
11	1.00	1.00	0.906	0.923	5787	1204	5918	1972	1.22	0.61	63.1	58.5	30.6	30.8	F
12	1.00	1.00	0.906	0.923	5711	1115	5918	1972	1.13	0.57	63.3	58.7	30.1	30.4	F

Segment 10: Basic

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	1.00		0.902		4286		6761		0.96		68.9		20.7		C
2	1.00		0.902		4851		6761		0.92		66.2		24.4		C
3	1.00		0.902		4924		6761		1.00		65.8		24.9		C
4	1.00		0.902		4882		6761		0.95		66.0		24.7		C
5	1.00		0.902		4928		6761		1.00		65.8		25.0		F
6	1.00		0.902		4854		6761		0.92		66.2		24.4		C
7	1.00		0.902		4876		6761		0.95		66.1		24.6		C
8	1.00		0.902		4887		6761		0.96		66.0		24.7		C
9	1.00		0.902		4828		6761		0.90		66.3		24.3		C
10	1.00		0.902		4795		6761		0.86		66.5		24.0		C
11	1.00		0.902		4819		6761		0.89		66.4		24.2		C
12	1.00		0.902		4755		6761		0.82		66.7		23.8		C

Segment 11: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.903	0.916	4775	489	5918	1972	1.17	0.25	63.5	61.8	25.1	23.3	F
2	1.00	1.00	0.903	0.916	5323	472	5918	1972	1.13	0.24	62.6	60.8	28.3	25.8	F
3	1.00	1.00	0.903	0.916	5435	511	5918	1972	1.23	0.26	62.4	60.5	29.0	26.5	F
4	1.00	1.00	0.903	0.916	5370	488	5918	1972	1.17	0.25	62.5	60.7	28.6	26.1	F
5	1.00	1.00	0.903	0.916	5442	514	5918	1972	1.23	0.26	62.4	60.5	29.1	26.5	F
6	1.00	1.00	0.903	0.916	5326	472	5918	1972	1.13	0.24	62.6	60.8	28.4	25.8	F
7	1.00	1.00	0.903	0.916	5361	485	5918	1972	1.16	0.25	62.5	60.7	28.6	26.0	F
8	1.00	1.00	0.903	0.916	5377	490	5918	1972	1.18	0.25	62.5	60.7	28.7	26.1	F
9	1.00	1.00	0.903	0.916	5287	459	5918	1972	1.10	0.23	62.7	60.9	28.1	25.6	F
10	1.00	1.00	0.903	0.916	5236	441	5918	1972	1.06	0.22	62.8	61.0	27.8	25.3	F
11	1.00	1.00	0.903	0.916	5273	454	5918	1972	1.09	0.23	62.7	61.0	28.0	25.5	F

12	1.00	1.00	0.903	0.916	5175	420	5918	1972	1.01	0.21	62.9	61.2	27.4	25.0	F
Segment 12: Basic															
AP	PHF	fHV	Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio	Speed (mi/h)		Density (pc/mi/ln)		LOS			
1	1.00	0.903	4775		6761		1.03	66.6		23.9		F			
2	1.00	0.903	5323		6761		0.99	63.3		28.0		D			
3	1.00	0.903	5435		6761		1.07	62.5		29.0		F			
4	1.00	0.903	5370		6761		1.03	62.9		28.5		F			
5	1.00	0.903	5442		6761		1.08	62.4		29.1		F			
6	1.00	0.903	5326		6761		0.99	63.2		28.1		D			
7	1.00	0.903	5361		6761		1.02	63.0		28.4		F			
8	1.00	0.903	5377		6761		1.03	62.9		28.5		F			
9	1.00	0.903	5287		6761		0.96	63.5		27.8		D			
10	1.00	0.903	5236		6761		0.93	63.9		27.3		D			
11	1.00	0.903	5273		6761		0.95	63.6		27.6		D			
12	1.00	0.903	5175		6761		0.88	64.3		26.8		D			
Segment 13: Basic															
AP	PHF	fHV	Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio	Speed (mi/h)		Density (pc/mi/ln)		LOS			
1	1.00	0.903	4775		6761		1.03	66.6		23.9		F			
2	1.00	0.903	5323		6761		0.99	63.3		28.0		D			
3	1.00	0.903	5435		6761		1.07	62.5		29.0		F			
4	1.00	0.903	5370		6761		1.03	62.9		28.5		F			
5	1.00	0.903	5442		6761		1.08	62.4		29.1		F			
6	1.00	0.903	5326		6761		0.99	63.2		28.1		D			
7	1.00	0.903	5361		6761		1.02	63.0		28.4		F			
8	1.00	0.903	5377		6761		1.03	62.9		28.5		F			
9	1.00	0.903	5287		6761		0.96	63.5		27.8		D			
10	1.00	0.903	5236		6761		0.93	63.9		27.3		D			
11	1.00	0.903	5273		6761		0.95	63.6		27.6		D			
12	1.00	0.903	5175		6761		0.88	64.3		26.8		D			
Segment 14: Basic															
AP	PHF	fHV	Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio	Speed (mi/h)		Density (pc/mi/ln)		LOS			
1	1.00	0.903	4775		6761		1.03	66.6		23.9		F			
2	1.00	0.903	5323		6761		0.99	63.3		28.0		D			
3	1.00	0.903	5435		6761		1.07	62.5		29.0		F			
4	1.00	0.903	5370		6761		1.03	62.9		28.5		F			
5	1.00	0.903	5442		6761		1.08	62.4		29.1		F			
6	1.00	0.903	5326		6761		0.99	63.2		28.1		D			
7	1.00	0.903	5361		6761		1.02	63.0		28.4		F			
8	1.00	0.903	5377		6761		1.03	62.9		28.5		F			

9	1.00	0.903	5287	6761	0.96	63.5	27.8	D
10	1.00	0.903	5236	6761	0.93	63.9	27.3	D
11	1.00	0.903	5273	6761	0.95	63.6	27.6	D
12	1.00	0.903	5175	6761	0.88	64.3	26.8	D

Segment 15: Basic

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00		0.903		4775		6761		1.03		66.6		23.9		F
2	1.00		0.903		5323		6761		0.99		63.3		28.0		D
3	1.00		0.903		5435		6761		1.07		62.5		29.0		F
4	1.00		0.903		5370		6761		1.03		62.9		28.5		F
5	1.00		0.903		5442		6761		1.08		62.4		29.1		F
6	1.00		0.903		5326		6761		0.99		63.2		28.1		D
7	1.00		0.903		5361		6761		1.02		63.0		28.4		F
8	1.00		0.903		5377		6761		1.03		62.9		28.5		F
9	1.00		0.903		5287		6761		0.96		63.5		27.8		D
10	1.00		0.903		5236		6761		0.93		63.9		27.3		D
11	1.00		0.903		5273		6761		0.95		63.6		27.6		D
12	1.00		0.903		5175		6761		0.88		64.3		26.8		D

Segment 16: Basic

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00		0.903		4775		6761		1.03		66.6		23.9		F
2	1.00		0.903		5323		6761		0.99		63.3		28.0		D
3	1.00		0.903		5435		6761		1.07		62.5		29.0		F
4	1.00		0.903		5370		6761		1.03		62.9		28.5		F
5	1.00		0.903		5442		6761		1.08		62.4		29.1		F
6	1.00		0.903		5326		6761		0.99		63.2		28.1		D
7	1.00		0.903		5361		6761		1.02		63.0		28.4		F
8	1.00		0.903		5377		6761		1.03		62.9		28.5		F
9	1.00		0.903		5287		6761		0.96		63.5		27.8		D
10	1.00		0.903		5236		6761		0.93		63.9		27.3		D
11	1.00		0.903		5273		6761		0.95		63.6		27.6		D
12	1.00		0.903		5175		6761		0.88		64.3		26.8		D

Segment 17: Diverge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.903	0.899	4775	720	5918	3944	1.17	0.18	65.2	59.8	24.4	14.2	F
2	1.00	1.00	0.903	0.899	5323	693	5918	3944	1.13	0.18	64.9	59.8	27.3	16.9	F
3	1.00	1.00	0.903	0.899	5435	751	5918	3944	1.23	0.19	64.7	59.7	28.0	17.5	F
4	1.00	1.00	0.903	0.899	5370	717	5918	3944	1.17	0.18	64.8	59.8	27.6	17.1	F

5	1.00	1.00	0.903	0.899	5442	755	5918	3944	1.23	0.19	64.7	59.7	28.0	17.5	F
6	1.00	1.00	0.903	0.899	5326	694	5918	3944	1.13	0.18	64.9	59.8	27.4	16.9	F
7	1.00	1.00	0.903	0.899	5361	712	5918	3944	1.16	0.18	64.8	59.8	27.6	17.1	F
8	1.00	1.00	0.903	0.899	5377	722	5918	3944	1.18	0.18	64.8	59.8	27.7	17.2	F
9	1.00	1.00	0.903	0.899	5287	674	5918	3944	1.10	0.17	65.0	59.9	27.1	16.7	F
10	1.00	1.00	0.903	0.899	5236	648	5918	3944	1.06	0.16	65.1	60.0	26.8	16.5	F
11	1.00	1.00	0.903	0.899	5273	667	5918	3944	1.09	0.17	65.0	59.9	27.0	16.7	F
12	1.00	1.00	0.903	0.899	5175	617	5918	3944	1.01	0.16	65.1	60.0	26.5	16.2	F

Segment 18: Basic

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	1.00		0.904		4055		6761		0.92		69.6		19.4		C
2	1.00		0.904		4772		6761		0.89		66.6		23.9		C
3	1.00		0.904		4873		6761		0.96		66.1		24.6		C
4	1.00		0.904		4815		6761		0.92		66.4		24.2		C
5	1.00		0.904		4880		6761		0.97		66.1		24.6		C
6	1.00		0.904		4775		6761		0.89		66.6		23.9		C
7	1.00		0.904		4806		6761		0.91		66.5		24.1		C
8	1.00		0.904		4820		6761		0.92		66.4		24.2		C
9	1.00		0.904		4739		6761		0.86		66.8		23.6		C
10	1.00		0.904		4694		6761		0.83		67.0		23.4		C
11	1.00		0.904		4728		6761		0.85		66.9		23.6		C
12	1.00		0.904		4640		6761		0.79		67.3		23.0		C

Segment 19: Basic

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	1.00		0.904		4055		6761		0.92		69.6		19.4		C
2	1.00		0.904		4772		6761		0.89		66.6		23.9		C
3	1.00		0.904		4873		6761		0.96		66.1		24.6		C
4	1.00		0.904		4815		6761		0.92		66.4		24.2		C
5	1.00		0.904		4880		6761		0.97		66.1		24.6		C
6	1.00		0.904		4775		6761		0.89		66.6		23.9		C
7	1.00		0.904		4806		6761		0.91		66.5		24.1		C
8	1.00		0.904		4820		6761		0.92		66.4		24.2		C
9	1.00		0.904		4739		6761		0.86		66.8		23.6		C
10	1.00		0.904		4694		6761		0.83		67.0		23.4		C
11	1.00		0.904		4728		6761		0.85		66.9		23.6		C
12	1.00		0.904		4640		6761		0.79		67.3		23.0		C

Segment 20: Diverge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	

1	1.00	1.00	0.904	0.918	4055	3520	5918	3944	1.05	0.89	52.9	52.4	25.6	24.7	F
2	1.00	1.00	0.904	0.918	4772	3392	5918	3944	1.01	0.86	54.8	52.7	29.0	27.0	F
3	1.00	1.00	0.904	0.918	4873	3676	5918	3944	1.10	0.93	53.6	52.0	30.3	28.8	F
4	1.00	1.00	0.904	0.918	4815	3513	5918	3944	1.05	0.89	54.3	52.4	29.6	27.8	F
5	1.00	1.00	0.904	0.918	4880	3697	5918	3944	1.11	0.94	53.6	52.0	30.3	28.9	F
6	1.00	1.00	0.904	0.918	4775	3395	5918	3944	1.02	0.86	54.8	52.7	29.0	27.0	F
7	1.00	1.00	0.904	0.918	4806	3485	5918	3944	1.04	0.88	54.4	52.5	29.4	27.6	F
8	1.00	1.00	0.904	0.918	4820	3531	5918	3944	1.06	0.90	54.3	52.4	29.6	27.9	F
9	1.00	1.00	0.904	0.918	4739	3301	5918	3944	0.99	0.84	55.2	53.0	28.6	26.4	C
10	1.00	1.00	0.904	0.918	4694	3176	5918	3944	0.95	0.81	55.7	53.3	28.1	25.6	C
11	1.00	1.00	0.904	0.918	4728	3265	5918	3944	0.98	0.83	55.4	53.1	28.4	26.2	C
12	1.00	1.00	0.904	0.918	4640	3023	5918	3944	0.90	0.77	56.4	53.7	27.4	24.6	C

Segment 21: Basic

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	1.00		0.884		535		6761		0.40		68.3		2.5		A
2	1.00		0.884		2074		6761		0.39		68.6		9.7		A
3	1.00		0.884		2119		6761		0.42		68.4		9.9		A
4	1.00		0.884		2093		6761		0.40		68.5		9.8		A
5	1.00		0.884		2122		6761		0.42		68.4		9.9		A
6	1.00		0.884		2077		6761		0.39		68.6		9.7		A
7	1.00		0.884		2090		6761		0.40		68.5		9.8		A
8	1.00		0.884		2096		6761		0.40		68.5		9.8		A
9	1.00		0.884		2060		6761		0.38		68.7		9.6		A
10	1.00		0.884		2040		6761		0.36		68.7		9.6		A
11	1.00		0.884		2057		6761		0.37		68.7		9.6		A
12	1.00		0.884		2016		6761		0.34		68.9		9.4		A

Segment 22: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.881	0.870	1310	775	5918	1972	0.59	0.39	64.1	62.8	6.8	10.3	B
2	1.00	1.00	0.881	0.870	2820	746	5918	1972	0.57	0.38	64.5	62.4	14.6	17.2	B
3	1.00	1.00	0.881	0.870	2928	809	5918	1972	0.62	0.41	64.4	62.3	15.2	17.8	B
4	1.00	1.00	0.881	0.870	2865	772	5918	1972	0.59	0.39	64.5	62.4	14.8	17.4	B
5	1.00	1.00	0.881	0.870	2936	814	5918	1972	0.62	0.41	64.4	62.3	15.2	17.9	B
6	1.00	1.00	0.881	0.870	2824	747	5918	1972	0.57	0.38	64.5	62.4	14.6	17.2	B
7	1.00	1.00	0.881	0.870	2857	767	5918	1972	0.59	0.39	64.5	62.4	14.8	17.4	B
8	1.00	1.00	0.881	0.870	2873	777	5918	1972	0.59	0.39	64.5	62.4	14.8	17.5	B
9	1.00	1.00	0.881	0.870	2786	726	5918	1972	0.55	0.37	64.5	62.4	14.4	17.0	B
10	1.00	1.00	0.881	0.870	2739	699	5918	1972	0.53	0.35	64.5	62.4	14.2	16.7	B
11	1.00	1.00	0.881	0.870	2775	718	5918	1972	0.55	0.36	64.5	62.4	14.3	16.9	B

12	1.00	1.00	0.881	0.870	2682	666	5918	1972	0.51	0.34	64.6	62.5	13.8	16.3	B
Segment 23: Basic															
AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS							
1	1.00	0.881	1310	6761	0.52	70.6	6.1	A							
2	1.00	0.881	2820	6761	0.50	70.6	13.2	B							
3	1.00	0.881	2928	6761	0.54	70.6	13.7	B							
4	1.00	0.881	2865	6761	0.51	70.6	13.4	B							
5	1.00	0.881	2936	6761	0.54	70.6	13.7	B							
6	1.00	0.881	2824	6761	0.50	70.6	13.2	B							
7	1.00	0.881	2857	6761	0.51	70.6	13.4	B							
8	1.00	0.881	2873	6761	0.52	70.6	13.5	B							
9	1.00	0.881	2786	6761	0.48	70.6	13.0	B							
10	1.00	0.881	2739	6761	0.47	70.6	12.8	B							
11	1.00	0.881	2775	6761	0.48	70.6	13.0	B							
12	1.00	0.881	2682	6761	0.44	70.6	12.6	B							

Facility Analysis Results									
AP	VMT veh-mi/AP	VMT-Demand veh-mi/AP	VHD veh-h/AP	Total Delay Cost \$/AP	Speed mi/h	Density pc/mi/ln	Density veh/mi/ln	TT min	LOS
1	25344	36381	47.30	1182.61	62.9	26.1	23.6	21.80	F
2	27676	35063	66.29	1657.25	60.8	29.4	26.6	22.50	F
3	28164	37992	72.63	1815.85	60.2	30.3	27.4	22.70	F
4	27882	36310	69.01	1725.16	60.5	29.8	26.9	22.60	F
5	28194	38217	73.03	1825.67	60.1	30.3	27.4	22.80	F
6	27690	35098	66.62	1665.60	60.8	29.5	26.6	22.50	F
7	27840	36020	68.55	1713.75	60.6	29.7	26.9	22.60	F
8	27913	36490	69.38	1734.57	60.5	29.9	27.0	22.60	F
9	27517	34108	64.64	1615.89	61.0	29.2	26.4	22.40	F
10	27298	32831	61.99	1549.68	61.3	28.8	26.1	22.30	F
11	27458	33736	63.87	1596.64	61.1	29.1	26.3	22.40	F
12	27031	31245	58.99	1474.80	61.6	28.4	25.7	22.20	F

Facility Overall Results			
Space Mean Speed, mi/h	60.9	Average Density, veh/mi/ln	26.4
Average Travel Time, min	22.40	Average Density, pc/mi/ln	29.2
Total VMT, veh-mi	330008	Total VHD, veh-h	782.30
Vehicle Value of Time (VOT), \$/h	25.00	Total Delay Cost, \$	19557.47

HCS Freeway Facilities Report

Project Information

Analyst	Kittelson & Associates	Date	11/7/2023
Agency	Florida Department of Transportation	Analysis Year	2040 No-Build Conditions
Jurisdiction	District Five	Time Analyzed	WM Weekend Peak Period
Facility Name	I-75 (Southbound)	Units	U.S. Customary
Project Description	I-75 PD&E South Auxiliary Lanes		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	23
Total Analysis Periods	12	Analysis Period Duration, min	15
Facility Length, mi	22.79		

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	I-75 SB	1500	3
2	Diverge	Diverge	I-75 SB SR 200 Off Ramp	1500	3
3	Basic	Basic	I-75 SB	3275	3
4	Merge	Merge	I-75 SB SR 200 On Ramp	1500	3
5	Basic	Basic	I-75 SB	1500	3
6	Basic	Basic	I-75 SB	1500	3
7	Basic	Basic	I-75 SB	36965	3
8	Basic	Basic	I-75 SB	1500	3
9	Diverge	Diverge	I-75 SB CR 484 Off Ramp	1500	3
10	Basic	Basic	I-75 SB	2822	3
11	Merge	Merge	I-75 SB CR 484 On Ramp	1500	3
12	Basic	Basic	I-75 SB	1500	3
13	Basic	Basic	I-75 SB	1500	3
14	Basic	Basic	I-75 SB	47319	3
15	Basic	Basic	I-75 SB	1500	3
16	Basic	Basic	I-75 SB	1500	3
17	Diverge	Diverge	I-75 SB SR 44 Off Ramp	1500	3
18	Basic	Basic	I-75 SB	3547	3
19	Basic	Basic	I-75 SB	1642	3
20	Diverge	Diverge	I-75 SB Turnpike Off Ramp	1500	3
21	Basic	Basic	I-75 SB	775	3
22	Merge	Merge	I-75 SB SR 44 On Ramp	1500	3
23	Basic	Basic	I-75 SB	1500	3

Facility Segment Data

Segment 1: Basic															
AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	1.00		0.907		5511		6761		0.94		25.6		71.8		F
2	1.00		0.907		5504		6761		0.94		25.5		72.0		F
3	1.00		0.907		5518		6761		0.94		25.7		71.7		F
4	1.00		0.907		5391		6761		0.94		24.2		74.4		F
5	1.00		0.907		4783		6761		0.99		18.2		87.4		F
6	1.00		0.907		5267		6761		0.99		22.8		77.0		F
7	1.00		0.907		5266		6761		0.99		22.8		77.1		F
8	1.00		0.907		5266		6761		0.99		22.8		77.1		F
9	1.00		0.907		4615		6761		1.01		16.9		91.0		F
10	1.00		0.907		5286		6761		1.01		23.0		76.6		F
11	1.00		0.907		5249		6761		1.01		22.6		77.4		F
12	1.00		0.907		5249		6761		1.01		22.6		77.4		F

Segment 2: Diverge															
AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.907	0.962	5511	659	5918	1972	1.07	0.33	64.4	59.9	28.5	32.6	F
2	1.00	1.00	0.907	0.962	5504	659	5918	1972	1.07	0.33	64.4	59.9	28.5	32.6	F
3	1.00	1.00	0.907	0.962	5497	659	5918	1972	1.07	0.33	64.4	59.9	28.5	32.6	F
4	1.00	1.00	0.907	0.962	5320	659	5918	1972	1.07	0.33	30.3	59.9	58.6	35.8	F
5	1.00	1.00	0.907	0.962	4786	694	5918	1972	1.13	0.35	25.6	59.8	62.3	37.1	F
6	1.00	1.00	0.907	0.962	5266	694	5918	1972	1.13	0.35	28.8	59.8	61.0	37.1	F
7	1.00	1.00	0.907	0.962	5266	694	5918	1972	1.13	0.35	28.8	59.8	61.0	37.1	F
8	1.00	1.00	0.907	0.962	5266	694	5918	1972	1.13	0.35	28.8	59.8	61.0	37.1	F
9	1.00	1.00	0.907	0.962	4649	708	5918	1972	1.15	0.36	24.1	59.8	64.2	37.5	F
10	1.00	1.00	0.907	0.962	5253	708	5918	1972	1.15	0.36	29.0	59.8	60.4	37.5	F
11	1.00	1.00	0.907	0.962	5249	708	5918	1972	1.15	0.36	28.5	59.8	61.4	37.5	F
12	1.00	1.00	0.907	0.962	5249	708	5918	1972	1.15	0.36	28.5	59.8	61.4	37.5	F

Segment 3: Basic															
AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	1.00		0.900		4765		6761		0.84		66.7		23.8		F
2	1.00		0.900		4758		6761		0.84		29.1		54.6		F
3	1.00		0.900		4758		6761		0.84		20.4		77.7		F
4	1.00		0.900		4758		6761		0.84		18.0		88.0		F
5	1.00		0.900		4305		6761		0.88		16.3		88.0		F
6	1.00		0.900		4718		6761		0.88		17.7		88.8		F
7	1.00		0.900		4718		6761		0.88		17.7		88.8		F
8	1.00		0.900		4718		6761		0.88		17.7		88.8		F

9	1.00	0.900	4176	6761	0.90	15.2	91.4	F
10	1.00	0.900	4702	6761	0.90	17.6	89.2	F
11	1.00	0.900	4702	6761	0.90	17.6	89.2	F
12	1.00	0.900	4702	6761	0.90	17.6	89.2	F

Segment 4: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.907	0.959	5511	746	5918	1972	1.08	0.38	62.1	60.2	29.6	26.7	F
2	1.00	1.00	0.907	0.959	5504	746	5918	1972	1.08	0.38	62.1	60.2	29.5	26.7	F
3	1.00	1.00	0.907	0.959	5504	746	5918	1972	1.08	0.38	62.1	60.2	29.5	26.7	F
4	1.00	1.00	0.907	0.959	5504	746	5918	1972	1.08	0.38	62.1	60.2	29.5	26.7	F
5	1.00	1.00	0.907	0.959	5091	786	5918	1972	1.13	0.40	63.0	61.2	26.9	24.8	F
6	1.00	1.00	0.907	0.959	5504	786	5918	1972	1.13	0.40	62.1	60.2	29.5	26.8	F
7	1.00	1.00	0.907	0.959	5504	786	5918	1972	1.13	0.40	62.1	60.2	29.5	26.8	F
8	1.00	1.00	0.907	0.959	5504	786	5918	1972	1.13	0.40	62.1	60.2	29.5	26.8	F
9	1.00	1.00	0.907	0.959	4978	802	5918	1972	1.16	0.41	63.2	61.4	26.3	24.3	F
10	1.00	1.00	0.907	0.959	5504	802	5918	1972	1.16	0.41	62.1	60.1	29.5	26.8	F
11	1.00	1.00	0.907	0.959	5504	802	5918	1972	1.16	0.41	62.1	60.1	29.5	26.8	F
12	1.00	1.00	0.907	0.959	5504	802	5918	1972	1.16	0.41	62.1	60.1	29.5	26.8	F

Segment 5: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.907	5511	6761	0.95	61.9	29.7	D
2	1.00	0.907	5504	6761	0.95	62.0	29.6	D
3	1.00	0.907	5504	6761	0.95	62.0	29.6	D
4	1.00	0.907	5504	6761	0.95	62.0	29.6	D
5	1.00	0.907	5091	6761	1.00	64.8	26.2	D
6	1.00	0.907	5504	6761	1.00	62.0	29.6	D
7	1.00	0.907	5504	6761	1.00	62.0	29.6	D
8	1.00	0.907	5504	6761	1.00	62.0	29.6	D
9	1.00	0.907	4978	6761	1.02	65.5	25.3	F
10	1.00	0.907	5504	6761	1.02	62.0	29.6	F
11	1.00	0.907	5504	6761	1.02	62.0	29.6	F
12	1.00	0.907	5504	6761	1.02	62.0	29.6	F

Segment 6: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.907	5511	6761	0.95	61.9	29.7	D
2	1.00	0.907	5504	6761	0.95	62.0	29.6	D
3	1.00	0.907	5504	6761	0.95	62.0	29.6	D
4	1.00	0.907	5504	6761	0.95	62.0	29.6	D

5	1.00	0.907	5091	6761	1.00	64.8	26.2	D
6	1.00	0.907	5504	6761	1.00	62.0	29.6	D
7	1.00	0.907	5504	6761	1.00	62.0	29.6	D
8	1.00	0.907	5504	6761	1.00	62.0	29.6	D
9	1.00	0.907	4978	6761	1.02	65.5	25.3	F
10	1.00	0.907	5504	6761	1.02	62.0	29.6	F
11	1.00	0.907	5504	6761	1.02	62.0	29.6	F
12	1.00	0.907	5504	6761	1.02	62.0	29.6	F

Segment 7: Basic

AP	PHF		fHV	Flow Rate (pc/h)		Capacity (pc/h)	d/c Ratio		Speed (mi/h)	Density (pc/mi/ln)		LOS
	F	R		Freeway	Ramp		F	R		F	R Infl.	
1	1.00		0.907	5511		6761	0.95		61.9	29.7		D
2	1.00		0.907	5504		6761	0.95		62.0	29.6		D
3	1.00		0.907	5316		6761	0.95		63.3	28.0		F
4	1.00		0.907	5189		6761	0.95		64.2	26.9		F
5	1.00		0.907	5105		6761	1.00		34.2	49.8		F
6	1.00		0.907	5139		6761	1.00		32.3	53.0		F
7	1.00		0.907	5139		6761	1.00		29.8	57.4		F
8	1.00		0.907	5139		6761	1.00		27.7	61.7		F
9	1.00		0.907	5113		6761	1.02		27.8	61.3		F
10	1.00		0.907	5120		6761	1.02		26.4	64.6		F
11	1.00		0.907	5120		6761	1.02		24.7	69.2		F
12	1.00		0.907	5120		6761	1.02		23.1	73.7		F

Segment 8: Basic

AP	PHF		fHV	Flow Rate (pc/h)		Capacity (pc/h)	d/c Ratio		Speed (mi/h)	Density (pc/mi/ln)		LOS
	F	R		Freeway	Ramp		F	R		F	R Infl.	
1	1.00		0.907	5511		6761	0.95		61.9	29.7		D
2	1.00		0.907	5496		6761	0.95		62.0	29.5		F
3	1.00		0.907	5191		6761	0.95		24.2	71.6		F
4	1.00		0.907	5189		6761	0.95		22.0	78.7		F
5	1.00		0.907	5119		6761	1.00		21.8	78.2		F
6	1.00		0.907	5139		6761	1.00		21.5	79.8		F
7	1.00		0.907	5139		6761	1.00		21.5	79.8		F
8	1.00		0.907	5139		6761	1.00		21.5	79.8		F
9	1.00		0.907	5111		6761	1.02		22.0	77.5		F
10	1.00		0.907	5120		6761	1.02		21.3	80.2		F
11	1.00		0.907	5120		6761	1.02		21.3	80.2		F
12	1.00		0.907	5120		6761	1.02		21.3	80.2		F

Segment 9: Diverge

AP	PHF		fHV	Flow Rate (pc/h)		Capacity (pc/h)	d/c Ratio		Speed (mi/h)	Density (pc/mi/ln)		LOS	
	F	R		Freeway	Ramp		F	R		F	R Infl.		
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	

1	1.00	1.00	0.907	0.931	5511	639	5918	1972	1.08	0.32	64.5	60.0	28.5	28.7	F
2	1.00	1.00	0.907	0.931	5396	639	5918	1972	1.08	0.32	64.5	60.0	27.9	28.3	F
3	1.00	1.00	0.907	0.931	5189	639	5918	1972	1.08	0.32	27.5	60.0	62.9	32.2	F
4	1.00	1.00	0.907	0.931	5189	639	5918	1972	1.08	0.32	27.5	60.0	62.9	32.2	F
5	1.00	1.00	0.907	0.931	5122	673	5918	1972	1.14	0.34	27.4	59.9	62.4	33.5	F
6	1.00	1.00	0.907	0.931	5139	673	5918	1972	1.14	0.34	26.7	59.9	64.1	33.5	F
7	1.00	1.00	0.907	0.931	5139	673	5918	1972	1.14	0.34	26.7	59.9	64.1	33.5	F
8	1.00	1.00	0.907	0.931	5139	673	5918	1972	1.14	0.34	26.7	59.9	64.1	33.5	F
9	1.00	1.00	0.907	0.931	5112	687	5918	1972	1.17	0.35	26.6	59.9	64.0	34.5	F
10	1.00	1.00	0.907	0.931	5120	687	5918	1972	1.17	0.35	26.4	59.9	64.6	34.5	F
11	1.00	1.00	0.907	0.931	5120	687	5918	1972	1.17	0.35	26.4	59.9	64.6	34.5	F
12	1.00	1.00	0.907	0.931	5120	687	5918	1972	1.17	0.35	26.4	59.9	64.6	34.5	F

Segment 10: Basic

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	1.00		0.904		4679		6761		0.85		32.8		47.5		F
2	1.00		0.904		4672		6761		0.85		19.1		81.5		F
3	1.00		0.904		4672		6761		0.85		17.3		89.8		F
4	1.00		0.904		4672		6761		0.85		17.3		89.8		F
5	1.00		0.904		4627		6761		0.90		17.0		90.7		F
6	1.00		0.904		4627		6761		0.90		17.0		90.8		F
7	1.00		0.904		4627		6761		0.90		17.0		90.8		F
8	1.00		0.904		4627		6761		0.90		17.0		90.8		F
9	1.00		0.904		4610		6761		0.92		16.9		91.1		F
10	1.00		0.904		4610		6761		0.92		16.9		91.1		F
11	1.00		0.904		4610		6761		0.92		16.9		91.1		F
12	1.00		0.904		4610		6761		0.92		16.9		91.1		F

Segment 11: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.908	0.932	5511	832	5918	1972	1.11	0.42	61.8	59.8	29.7	27.7	F
2	1.00	1.00	0.908	0.932	5504	832	5918	1972	1.11	0.42	61.9	59.8	29.6	27.6	F
3	1.00	1.00	0.908	0.932	5504	832	5918	1972	1.11	0.42	61.9	59.8	29.6	27.6	F
4	1.00	1.00	0.908	0.932	5504	832	5918	1972	1.11	0.42	61.9	59.8	29.6	27.6	F
5	1.00	1.00	0.908	0.932	5504	877	5918	1972	1.17	0.44	61.8	59.8	29.7	27.7	F
6	1.00	1.00	0.908	0.932	5504	877	5918	1972	1.17	0.44	61.8	59.8	29.7	27.7	F
7	1.00	1.00	0.908	0.932	5504	877	5918	1972	1.17	0.44	61.8	59.8	29.7	27.7	F
8	1.00	1.00	0.908	0.932	5504	877	5918	1972	1.17	0.44	61.8	59.8	29.7	27.7	F
9	1.00	1.00	0.908	0.932	5504	894	5918	1972	1.20	0.45	61.8	59.7	29.7	27.8	F
10	1.00	1.00	0.908	0.932	5504	894	5918	1972	1.20	0.45	61.8	59.7	29.7	27.8	F
11	1.00	1.00	0.908	0.932	5504	894	5918	1972	1.20	0.45	61.8	59.7	29.7	27.8	F

12	1.00	1.00	0.908	0.932	5504	894	5918	1972	1.20	0.45	61.8	59.7	29.7	27.8	F
Segment 12: Basic															
AP	PHF	fHV	Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio	Speed (mi/h)		Density (pc/mi/ln)		LOS			
1	1.00	0.908	5511		6761		0.98	61.9		29.7		D			
2	1.00	0.908	5504		6761		0.98	62.0		29.6		D			
3	1.00	0.908	5504		6761		0.98	62.0		29.6		D			
4	1.00	0.908	5504		6761		0.98	62.0		29.6		D			
5	1.00	0.908	5504		6761		1.03	62.0		29.6		F			
6	1.00	0.908	5504		6761		1.03	62.0		29.6		F			
7	1.00	0.908	5504		6761		1.03	62.0		29.6		F			
8	1.00	0.908	5504		6761		1.03	62.0		29.6		F			
9	1.00	0.908	5504		6761		1.05	62.0		29.6		F			
10	1.00	0.908	5504		6761		1.05	62.0		29.6		F			
11	1.00	0.908	5504		6761		1.05	62.0		29.6		F			
12	1.00	0.908	5504		6761		1.05	62.0		29.6		F			
Segment 13: Basic															
AP	PHF	fHV	Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio	Speed (mi/h)		Density (pc/mi/ln)		LOS			
1	1.00	0.908	5511		6761		0.98	61.9		29.7		D			
2	1.00	0.908	5504		6761		0.98	62.0		29.6		D			
3	1.00	0.908	5504		6761		0.98	62.0		29.6		D			
4	1.00	0.908	5504		6761		0.98	62.0		29.6		D			
5	1.00	0.908	5504		6761		1.03	62.0		29.6		F			
6	1.00	0.908	5504		6761		1.03	62.0		29.6		F			
7	1.00	0.908	5504		6761		1.03	62.0		29.6		F			
8	1.00	0.908	5504		6761		1.03	62.0		29.6		F			
9	1.00	0.908	5504		6761		1.05	62.0		29.6		F			
10	1.00	0.908	5504		6761		1.05	62.0		29.6		F			
11	1.00	0.908	5504		6761		1.05	62.0		29.6		F			
12	1.00	0.908	5504		6761		1.05	62.0		29.6		F			
Segment 14: Basic															
AP	PHF	fHV	Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio	Speed (mi/h)		Density (pc/mi/ln)		LOS			
1	1.00	0.908	5511		6761		0.98	61.9		29.7		D			
2	1.00	0.908	5504		6761		0.98	62.0		29.6		D			
3	1.00	0.908	5504		6761		0.98	62.0		29.6		D			
4	1.00	0.908	5504		6761		0.98	62.0		29.6		D			
5	1.00	0.908	5504		6761		1.03	62.0		29.6		F			
6	1.00	0.908	5504		6761		1.03	62.0		29.6		F			
7	1.00	0.908	5504		6761		1.03	62.0		29.6		F			
8	1.00	0.908	5504		6761		1.03	62.0		29.6		F			

9	1.00	0.908	5504	6761	1.05	62.0	29.6	F
10	1.00	0.908	5504	6761	1.05	62.0	29.6	F
11	1.00	0.908	5504	6761	1.05	62.0	29.6	F
12	1.00	0.908	5504	6761	1.05	62.0	29.6	F

Segment 15: Basic

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00		0.908		5511		6761		0.98		61.9		29.7		D
2	1.00		0.908		5504		6761		0.98		62.0		29.6		D
3	1.00		0.908		5504		6761		0.98		62.0		29.6		D
4	1.00		0.908		5504		6761		0.98		62.0		29.6		D
5	1.00		0.908		5504		6761		1.03		62.0		29.6		F
6	1.00		0.908		5504		6761		1.03		62.0		29.6		F
7	1.00		0.908		5504		6761		1.03		62.0		29.6		F
8	1.00		0.908		5504		6761		1.03		62.0		29.6		F
9	1.00		0.908		5504		6761		1.05		62.0		29.6		F
10	1.00		0.908		5504		6761		1.05		62.0		29.6		F
11	1.00		0.908		5504		6761		1.05		62.0		29.6		F
12	1.00		0.908		5504		6761		1.05		62.0		29.6		F

Segment 16: Basic

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00		0.908		5511		6761		0.98		61.9		29.7		D
2	1.00		0.908		5504		6761		0.98		62.0		29.6		D
3	1.00		0.908		5504		6761		0.98		62.0		29.6		D
4	1.00		0.908		5504		6761		0.98		62.0		29.6		D
5	1.00		0.908		5504		6761		1.03		62.0		29.6		F
6	1.00		0.908		5504		6761		1.03		62.0		29.6		F
7	1.00		0.908		5504		6761		1.03		62.0		29.6		F
8	1.00		0.908		5504		6761		1.03		62.0		29.6		F
9	1.00		0.908		5504		6761		1.05		62.0		29.6		F
10	1.00		0.908		5504		6761		1.05		62.0		29.6		F
11	1.00		0.908		5504		6761		1.05		62.0		29.6		F
12	1.00		0.908		5504		6761		1.05		62.0		29.6		F

Segment 17: Diverge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.908	0.923	5511	653	5918	3944	1.12	0.17	64.9	60.0	28.3	17.8	F
2	1.00	1.00	0.908	0.923	5504	653	5918	3944	1.12	0.17	64.9	60.0	28.3	17.8	F
3	1.00	1.00	0.908	0.923	5504	653	5918	3944	1.12	0.17	64.9	60.0	28.3	17.8	F
4	1.00	1.00	0.908	0.923	5504	653	5918	3944	1.12	0.17	64.9	60.0	28.3	17.8	F

5	1.00	1.00	0.908	0.923	5504	689	5918	3944	1.18	0.17	64.8	59.8	28.3	17.8	F
6	1.00	1.00	0.908	0.923	5504	689	5918	3944	1.18	0.17	64.8	59.8	28.3	17.8	F
7	1.00	1.00	0.908	0.923	5504	689	5918	3944	1.18	0.17	64.8	59.8	28.3	17.8	F
8	1.00	1.00	0.908	0.923	5504	689	5918	3944	1.18	0.17	64.8	59.8	28.3	17.8	F
9	1.00	1.00	0.908	0.923	5504	703	5918	3944	1.20	0.18	64.8	59.8	28.3	17.8	F
10	1.00	1.00	0.908	0.923	5504	703	5918	3944	1.20	0.18	64.8	59.8	28.3	17.8	F
11	1.00	1.00	0.908	0.923	5504	703	5918	3944	1.20	0.18	64.8	59.8	28.3	17.8	F
12	1.00	1.00	0.908	0.923	5504	703	5918	3944	1.20	0.18	64.8	59.8	28.3	17.8	F

Segment 18: Basic

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	1.00		0.906		4858		6761		0.88		66.2		24.5		C
2	1.00		0.906		4960		6761		0.88		65.6		25.2		C
3	1.00		0.906		4960		6761		0.88		65.6		25.2		C
4	1.00		0.906		4960		6761		0.88		65.6		25.2		C
5	1.00		0.906		4960		6761		0.93		65.6		25.2		C
6	1.00		0.906		4959		6761		0.93		65.6		25.2		C
7	1.00		0.906		4959		6761		0.93		65.6		25.2		C
8	1.00		0.906		4959		6761		0.93		65.6		25.2		C
9	1.00		0.906		4959		6761		0.95		65.6		25.2		C
10	1.00		0.906		4959		6761		0.95		65.6		25.2		C
11	1.00		0.906		4959		6761		0.95		65.6		25.2		C
12	1.00		0.906		4959		6761		0.95		65.6		25.2		C

Segment 19: Basic

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	1.00		0.906		4858		6761		0.88		66.2		24.5		C
2	1.00		0.906		4960		6761		0.88		65.6		25.2		C
3	1.00		0.906		4960		6761		0.88		65.6		25.2		C
4	1.00		0.906		4960		6761		0.88		65.6		25.2		C
5	1.00		0.906		4960		6761		0.93		65.6		25.2		C
6	1.00		0.906		4959		6761		0.93		65.6		25.2		C
7	1.00		0.906		4959		6761		0.93		65.6		25.2		C
8	1.00		0.906		4959		6761		0.93		65.6		25.2		C
9	1.00		0.906		4959		6761		0.95		65.6		25.2		C
10	1.00		0.906		4959		6761		0.95		65.6		25.2		C
11	1.00		0.906		4959		6761		0.95		65.6		25.2		C
12	1.00		0.906		4959		6761		0.95		65.6		25.2		C

Segment 20: Diverge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	

1	1.00	1.00	0.906	0.918	4858	3443	5918	3944	1.01	0.87	54.7	52.6	29.6	27.6	F
2	1.00	1.00	0.906	0.918	4960	3443	5918	3944	1.01	0.87	54.9	52.6	30.1	28.0	F
3	1.00	1.00	0.906	0.918	4960	3443	5918	3944	1.01	0.87	54.9	52.6	30.1	28.0	F
4	1.00	1.00	0.906	0.918	4960	3443	5918	3944	1.01	0.87	54.9	52.6	30.1	28.0	F
5	1.00	1.00	0.906	0.918	4960	3631	5918	3944	1.06	0.92	54.0	52.1	30.6	28.9	F
6	1.00	1.00	0.906	0.918	4959	3631	5918	3944	1.06	0.92	54.0	52.1	30.6	28.9	F
7	1.00	1.00	0.906	0.918	4959	3631	5918	3944	1.06	0.92	54.0	52.1	30.6	28.9	F
8	1.00	1.00	0.906	0.918	4959	3631	5918	3944	1.06	0.92	54.0	52.1	30.6	28.9	F
9	1.00	1.00	0.906	0.918	4959	3704	5918	3944	1.08	0.94	53.6	51.9	30.8	29.3	F
10	1.00	1.00	0.906	0.918	4959	3704	5918	3944	1.08	0.94	53.6	51.9	30.8	29.3	F
11	1.00	1.00	0.906	0.918	4959	3704	5918	3944	1.08	0.94	53.6	51.9	30.8	29.3	F
12	1.00	1.00	0.906	0.918	4959	3704	5918	3944	1.08	0.94	53.6	51.9	30.8	29.3	F

Segment 21: Basic

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	1.00		0.890		1415		6761		0.37		68.6		6.6		A
2	1.00		0.890		2091		6761		0.37		68.6		9.8		A
3	1.00		0.890		2091		6761		0.37		68.6		9.8		A
4	1.00		0.890		2091		6761		0.37		68.6		9.8		A
5	1.00		0.890		2091		6761		0.39		68.5		9.8		A
6	1.00		0.890		2090		6761		0.39		68.5		9.8		A
7	1.00		0.890		2090		6761		0.39		68.5		9.8		A
8	1.00		0.890		2090		6761		0.39		68.5		9.8		A
9	1.00		0.890		2090		6761		0.40		68.4		9.8		A
10	1.00		0.890		2090		6761		0.40		68.4		9.8		A
11	1.00		0.890		2090		6761		0.40		68.4		9.8		A
12	1.00		0.890		2090		6761		0.40		68.4		9.8		A

Segment 22: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.896	0.917	2150	735	5918	1972	0.55	0.37	64.6	62.6	11.1	14.0	B
2	1.00	1.00	0.896	0.917	2826	735	5918	1972	0.55	0.37	64.5	62.4	14.6	17.2	B
3	1.00	1.00	0.896	0.917	2826	735	5918	1972	0.55	0.37	64.5	62.4	14.6	17.2	B
4	1.00	1.00	0.896	0.917	2826	735	5918	1972	0.55	0.37	64.5	62.4	14.6	17.2	B
5	1.00	1.00	0.896	0.917	2866	775	5918	1972	0.57	0.39	64.5	62.4	14.8	17.5	B
6	1.00	1.00	0.896	0.917	2865	775	5918	1972	0.57	0.39	64.5	62.4	14.8	17.5	B
7	1.00	1.00	0.896	0.917	2865	775	5918	1972	0.57	0.39	64.5	62.4	14.8	17.5	B
8	1.00	1.00	0.896	0.917	2865	775	5918	1972	0.57	0.39	64.5	62.4	14.8	17.5	B
9	1.00	1.00	0.896	0.917	2881	791	5918	1972	0.59	0.40	64.4	62.3	14.9	17.6	B
10	1.00	1.00	0.896	0.917	2881	791	5918	1972	0.59	0.40	64.4	62.3	14.9	17.6	B
11	1.00	1.00	0.896	0.917	2881	791	5918	1972	0.59	0.40	64.4	62.3	14.9	17.6	B

12	1.00	1.00	0.896	0.917	2881	791	5918	1972	0.59	0.40	64.4	62.3	14.9	17.6	B
Segment 23: Basic															
AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS							
1	1.00	0.896	2150	6761	0.48	70.6	10.1	A							
2	1.00	0.896	2826	6761	0.48	70.6	13.2	B							
3	1.00	0.896	2826	6761	0.48	70.6	13.2	B							
4	1.00	0.896	2826	6761	0.48	70.6	13.2	B							
5	1.00	0.896	2866	6761	0.51	70.6	13.4	B							
6	1.00	0.896	2865	6761	0.51	70.6	13.4	B							
7	1.00	0.896	2865	6761	0.51	70.6	13.4	B							
8	1.00	0.896	2865	6761	0.51	70.6	13.4	B							
9	1.00	0.896	2881	6761	0.52	70.6	13.5	B							
10	1.00	0.896	2881	6761	0.52	70.6	13.5	B							
11	1.00	0.896	2881	6761	0.52	70.6	13.5	B							
12	1.00	0.896	2881	6761	0.52	70.6	13.5	B							

Facility Analysis Results									
AP	VMT veh-mi/AP	VMT-Demand veh-mi/AP	VHD veh-h/AP	Total Delay Cost \$/AP	Speed mi/h	Density pc/mi/ln	Density veh/mi/ln	TT min	LOS
1	27521	32586	71.89	1797.16	60.0	29.6	26.8	22.80	F
2	27618	32586	96.73	2418.19	57.0	31.3	28.4	24.00	F
3	27287	32586	121.28	3032.05	54.1	32.6	29.5	25.30	F
4	27065	32586	131.42	3285.44	52.9	33.0	29.9	25.80	F
5	26706	34357	247.16	6178.97	42.9	40.2	36.4	31.90	F
6	26962	34357	259.47	6486.85	42.3	41.2	37.3	32.40	F
7	26962	34357	280.20	7004.91	40.9	42.5	38.5	33.40	F
8	26962	34357	300.91	7522.87	39.7	43.9	39.8	34.50	F
9	26658	35043	305.18	7629.58	39.2	43.9	39.8	34.90	F
10	26927	35043	315.35	7883.65	38.8	44.7	40.6	35.20	F
11	26925	35043	337.48	8437.07	37.6	46.2	41.9	36.40	F
12	26925	35043	359.24	8981.12	36.5	47.6	43.1	37.50	F

Facility Overall Results			
Space Mean Speed, mi/h	44.0	Average Density, veh/mi/ln	36.0
Average Travel Time, min	31.10	Average Density, pc/mi/ln	39.7
Total VMT, veh-mi	324517	Total VHD, veh-h	2826.31
Vehicle Value of Time (VOT), \$/h	25.00	Total Delay Cost, \$	70657.83

**APPENDIX T – 2030 NO-BUILD SYNCHRO OUTPUT
REPORTS**

SR 44 Summary Tables

10: I-75 SB On-ramp/I-75 SB Off-ramp & SR 44

Approach	Movement	AM Peak Hour			PM Peak Hour			WKND Peak Hour		
		V/C	Delay (s) [LOS]	95% Queue (ft)	V/C	Delay (s) [LOS]	95% Queue (ft)	V/C	Delay (s) [LOS]	95% Queue (ft)
Westbound	Left	0.71	62.9 (E)	225	0.69	48.1 (D)	200	0.67	45.8 (D)	200
	Through	0.14	5.2 (A)	100	0.32	6.4 (A)	125	0.23	5.3 (A)	100
	Approach	0.41	32.2 (C)	-	0.46	22.0 (C)	-	0.43	23.3 (C)	-
Eastbound	Through	0.17	19.0 (B)	125	0.13	20.2 (C)	75	0.16	19.1 (B)	75
	Right	0.47	3.7 (A)	75	0.46	5.1 (A)	75	0.52	4.7 (A)	75
	Approach	0.31	12.1 (B)	-	0.31	12.1 (B)	-	0.35	11.4 (B)	-
Southbound	Left	0.75	66.8 (E)	250	0.49	38.4 (D)	125	0.48	38.6 (D)	125
	Right	0.38	10.1 (B)	75	0.61	14.1 (B)	100	0.55	9.4 (A)	75
	Approach	0.65	52.2 (D)	-	0.55	26.3 (C)	-	0.51	24.1 (C)	-
Overall Intersection		0.42	28.1 (C)	-	0.44	20.2 (C)	-	0.42	19.1 (B)	-

11: I-75 NB Off-ramp/I-75 NB On-ramp & SR 44

Approach	Movement	AM Peak Hour			PM Peak Hour			WKND Peak Hour		
		V/C	Delay (s) [LOS]	95% Queue (ft)	V/C	Delay (s) [LOS]	95% Queue (ft)	V/C	Delay (s) [LOS]	95% Queue (ft)
Westbound	Through	0.17	28.2 (C)	125	0.28	15.4 (B)	150	0.24	17.9 (B)	125
	Right	0.39	5.1 (A)	75	0.52	3.9 (A)	75	0.38	4.2 (A)	75
	Approach	0.26	18.7 (B)	-	0.37	11.1 (B)	-	0.28	13.5 (B)	-
Northbound	Left	0.21	36.2 (D)	100	0.59	37.9 (D)	150	0.43	33.5 (C)	125
	Right	0.89	51.6 (D)	450	0.66	12.0 (B)	125	0.76	19.9 (B)	175
	Approach	0.69	47.1 (D)	-	0.62	25.1 (C)	-	0.62	25.7 (C)	-
Eastbound	Left	0.60	61.5 (E)	150	0.25	43.0 (D)	75	0.40	51.9 (D)	100
	Through	0.40	25.0 (C)	425	0.24	11.0 (B)	125	0.24	10.8 (B)	125
	Approach	0.44	32.3 (C)	-	0.24	15.4 (B)	-	0.28	20.0 (B)	-
Overall Intersection		0.46	32.4 (C)	-	0.41	15.9 (B)	-	0.38	19.0 (B)	-

SR 44 Synchro Reports

Timings
10: I-75 SB On-ramp/I-75 SB Off-ramp & SR 44

2030 No-Build Conditions
Timing Plan: AM



Lane Group	EBT	EBR	WBL	WBT	SBL	SBR
Lane Configurations	↑↑↑↑	↗	↖↗	↑↑	↖↗	↗
Traffic Volume (vph)	528	434	290	331	396	138
Future Volume (vph)	528	434	290	331	396	138
Lane Group Flow (vph)	556	457	305	348	417	145
Turn Type	NA	Perm	Prot	NA	Prot	Perm
Protected Phases	2		1	6	4	
Permitted Phases		2				4
Detector Phase	2	2	1	6	4	4
Switch Phase						
Minimum Initial (s)	20.0	20.0	10.0	20.0	15.0	15.0
Minimum Split (s)	28.1	28.1	17.2	28.1	21.5	21.5
Total Split (s)	75.1	75.1	34.2	109.3	40.7	40.7
Total Split (%)	50.1%	50.1%	22.8%	72.9%	27.1%	27.1%
Yellow Time (s)	4.4	4.4	4.4	4.4	4.0	4.0
All-Red Time (s)	3.7	3.7	2.8	3.7	2.5	2.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	8.1	8.1	7.2	8.1	6.5	6.5
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	C-Min	C-Min	None	Min	None	None
Act Effct Green (s)	80.5	80.5	21.2	108.8	26.6	26.6
Actuated g/C Ratio	0.54	0.54	0.14	0.73	0.18	0.18
v/c Ratio	0.17	0.47	0.71	0.14	0.75	0.38
Control Delay (s/veh)	19.0	3.7	62.9	5.2	66.8	10.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	19.0	3.7	62.9	5.2	66.8	10.1
LOS	B	A	E	A	E	B
Approach Delay (s/veh)	12.1			32.2		
Approach LOS	B			C		
Queue Length 50th (ft)	78	0	159	28	201	0
Queue Length 95th (ft)	115	64	209	83	248	59
Internal Link Dist (ft)	1477			382		
Turn Bay Length (ft)		275				500
Base Capacity (vph)	3246	964	548	2425	719	443
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	157	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.18	0.47	0.56	0.14	0.58	0.33

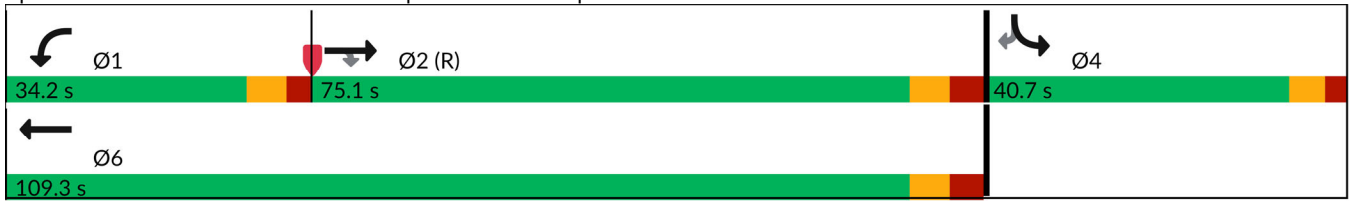
Intersection Summary

Cycle Length: 150
 Actuated Cycle Length: 150
 Offset: 141 (94%), Referenced to phase 2:EBT, Start of Green
 Natural Cycle: 70
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.75
 Intersection Signal Delay (s/veh): 28.1
 Intersection Capacity Utilization 65.9%
 Analysis Period (min) 15
 Intersection LOS: C
 ICU Level of Service C

Timings
10: I-75 SB On-ramp/I-75 SB Off-ramp & SR 44

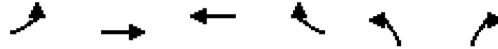
2030 No-Build Conditions
Timing Plan: AM

Splits and Phases: 10: I-75 SB On-ramp/I-75 SB Off-ramp & SR 44



Timings
 11: I-75 NB Off-ramp/I-75 NB On-ramp & SR 44

2030 No-Build Conditions
 Timing Plan: AM



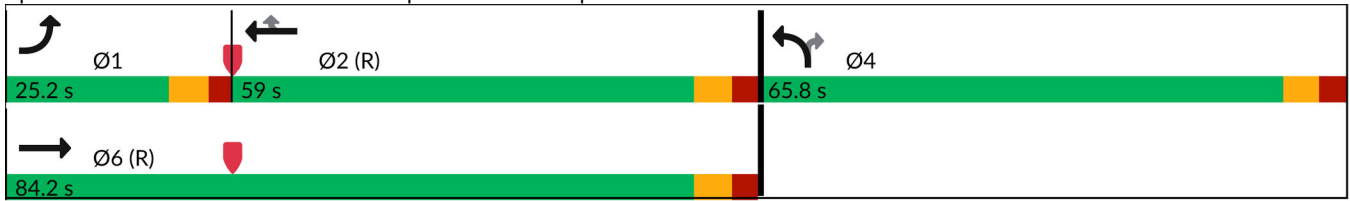
Lane Group	EBL	EBT	WBT	WBR	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	185	739	425	297	196	477
Future Volume (vph)	185	739	425	297	196	477
Lane Group Flow (vph)	195	778	447	313	206	502
Turn Type	Prot	NA	NA	Perm	Prot	Perm
Protected Phases	1	6	2		4	
Permitted Phases				2		4
Detector Phase	1	6	2	2	4	4
Switch Phase						
Minimum Initial (s)	10.0	20.0	20.0	20.0	15.0	15.0
Minimum Split (s)	24.5	27.3	27.3	27.3	22.1	22.1
Total Split (s)	25.2	84.2	59.0	59.0	65.8	65.8
Total Split (%)	16.8%	56.1%	39.3%	39.3%	43.9%	43.9%
Yellow Time (s)	4.4	4.4	4.4	4.4	4.0	4.0
All-Red Time (s)	2.5	2.9	2.9	2.9	3.1	3.1
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.9	7.3	7.3	7.3	7.1	7.1
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	C-Min	C-Min	C-Min	None	None
Act Effct Green (s)	15.6	88.3	65.7	65.7	47.3	47.3
Actuated g/C Ratio	0.10	0.59	0.44	0.44	0.32	0.32
v/c Ratio	0.60	0.40	0.17	0.39	0.21	0.89
Control Delay (s/veh)	61.5	24.7	28.2	5.1	36.2	51.6
Queue Delay	0.0	0.3	0.0	0.0	0.0	0.0
Total Delay (s/veh)	61.5	25.0	28.2	5.1	36.2	51.6
LOS	E	C	C	A	D	D
Approach Delay (s/veh)		32.3	18.7			
Approach LOS		C	B			
Queue Length 50th (ft)	100	253	77	0	75	349
Queue Length 95th (ft)	141	409	119	73	94	450
Internal Link Dist (ft)		382	1690			
Turn Bay Length (ft)				350		450
Base Capacity (vph)	384	1961	2662	808	1257	669
Starvation Cap Reductn	0	591	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	0.57	0.17	0.39	0.16	0.75

Intersection Summary	
Cycle Length: 150	
Actuated Cycle Length: 150	
Offset: 16 (11%), Referenced to phase 2:WBT and 6:EBT, Start of Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.89	
Intersection Signal Delay (s/veh): 32.4	Intersection LOS: C
Intersection Capacity Utilization 65.9%	ICU Level of Service C
Analysis Period (min) 15	

Timings
11: I-75 NB Off-ramp/I-75 NB On-ramp & SR 44

2030 No-Build Conditions
Timing Plan: AM

Splits and Phases: 11: I-75 NB Off-ramp/I-75 NB On-ramp & SR 44



Timings
10: I-75 SB On-ramp/I-75 SB Off-ramp & SR 44

2030 No-Build Conditions
Timing Plan: PM

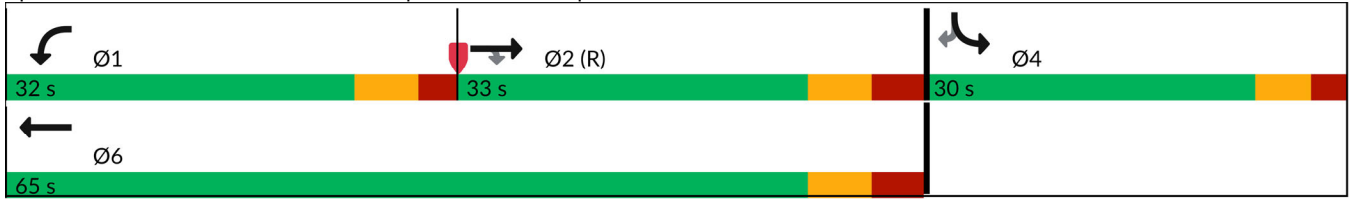


Lane Group	EBT	EBR	WBL	WBT	SBL	SBR
Lane Configurations	↑↑↑↑	↗	↖↖	↑↑	↖↖	↗
Traffic Volume (vph)	304	347	430	722	267	262
Future Volume (vph)	304	347	430	722	267	262
Lane Group Flow (vph)	307	351	434	729	270	265
Turn Type	NA	Perm	Prot	NA	Prot	Perm
Protected Phases	2		1	6	4	
Permitted Phases		2				4
Detector Phase	2	2	1	6	4	4
Switch Phase						
Minimum Initial (s)	20.0	20.0	10.0	20.0	15.0	15.0
Minimum Split (s)	28.1	28.1	17.2	28.1	21.5	21.5
Total Split (s)	33.0	33.0	32.0	65.0	30.0	30.0
Total Split (%)	34.7%	34.7%	33.7%	68.4%	31.6%	31.6%
Yellow Time (s)	4.4	4.4	4.4	4.4	4.0	4.0
All-Red Time (s)	3.7	3.7	2.8	3.7	2.5	2.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	8.1	8.1	7.2	8.1	6.5	6.5
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	C-Min	C-Min	None	Min	None	None
Act Effct Green (s)	37.0	37.0	19.7	63.9	16.5	16.5
Actuated g/C Ratio	0.39	0.39	0.21	0.67	0.17	0.17
v/c Ratio	0.13	0.46	0.69	0.32	0.49	0.61
Control Delay (s/veh)	20.2	5.1	48.1	6.4	38.4	14.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	20.2	5.1	48.1	6.4	38.4	14.1
LOS	C	A	D	A	D	B
Approach Delay (s/veh)	12.1			22.0		
Approach LOS	B			C		
Queue Length 50th (ft)	32	0	147	95	78	22
Queue Length 95th (ft)	58	67	197	118	109	93
Internal Link Dist (ft)	1477			382		
Turn Bay Length (ft)		275				500
Base Capacity (vph)	2355	760	796	2248	780	527
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	0.46	0.55	0.32	0.35	0.50

Intersection Summary

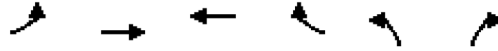
Cycle Length: 95	
Actuated Cycle Length: 95	
Offset: 13 (14%), Referenced to phase 2:EBT, Start of Green	
Natural Cycle: 70	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.69	
Intersection Signal Delay (s/veh): 20.2	Intersection LOS: C
Intersection Capacity Utilization 68.3%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 10: I-75 SB On-ramp/I-75 SB Off-ramp & SR 44



Timings
 11: I-75 NB Off-ramp/I-75 NB On-ramp & SR 44

2030 No-Build Conditions
 Timing Plan: PM



Lane Group	EBL	EBT	WBT	WBR	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	79	492	799	480	353	349
Future Volume (vph)	79	492	799	480	353	349
Lane Group Flow (vph)	83	518	841	505	372	367
Turn Type	Prot	NA	NA	Perm	Prot	Perm
Protected Phases	1	6	2		4	
Permitted Phases				2		4
Detector Phase	1	6	2	2	4	4
Switch Phase						
Minimum Initial (s)	10.0	20.0	20.0	20.0	15.0	15.0
Minimum Split (s)	24.5	27.3	27.3	27.3	22.1	22.1
Total Split (s)	25.0	60.0	35.0	35.0	35.0	35.0
Total Split (%)	26.3%	63.2%	36.8%	36.8%	36.8%	36.8%
Yellow Time (s)	4.4	4.4	4.4	4.4	4.0	4.0
All-Red Time (s)	2.5	2.9	2.9	2.9	3.1	3.1
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.9	7.3	7.3	7.3	7.1	7.1
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	C-Min	C-Min	C-Min	None	None
Act Effct Green (s)	10.2	61.6	47.9	47.9	19.0	19.0
Actuated g/C Ratio	0.11	0.65	0.50	0.50	0.20	0.20
v/c Ratio	0.25	0.24	0.28	0.52	0.59	0.66
Control Delay (s/veh)	43.0	11.0	15.4	3.9	37.9	12.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	43.0	11.0	15.4	3.9	37.9	12.0
LOS	D	B	B	A	D	B
Approach Delay (s/veh)		15.4	11.1			
Approach LOS		B	B			
Queue Length 50th (ft)	28	86	85	0	106	21
Queue Length 95th (ft)	53	114	126	63	140	102
Internal Link Dist (ft)		382	1690			
Turn Bay Length (ft)				350		450
Base Capacity (vph)	590	2148	3024	971	934	660
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	0.24	0.28	0.52	0.40	0.56

Intersection Summary	
Cycle Length:	95
Actuated Cycle Length:	95
Offset:	12 (13%), Referenced to phase 2:WBT and 6:EBT, Start of Green
Natural Cycle:	75
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.66
Intersection Signal Delay (s/veh):	15.9
Intersection Capacity Utilization:	68.3%
Analysis Period (min):	15
Intersection LOS:	B
ICU Level of Service:	C

Splits and Phases: 11: I-75 NB Off-ramp/I-75 NB On-ramp & SR 44



Timings
10: I-75 SB On-ramp/I-75 SB Off-ramp & SR 44

2030 No-Build Conditions
Timing Plan: Weekend



Lane Group	EBT	EBR	WBL	WBT	SBL	SBR
Lane Configurations	↑↑↑↑	↗	↖↗	↑↑	↖↗	↗
Traffic Volume (vph)	386	438	414	518	255	250
Future Volume (vph)	386	438	414	518	255	250
Lane Group Flow (vph)	394	447	422	529	260	255
Turn Type	NA	Perm	Prot	NA	Prot	Perm
Protected Phases	2		1	6	4	
Permitted Phases		2				4
Detector Phase	2	2	1	6	4	4
Switch Phase						
Minimum Initial (s)	20.0	20.0	10.0	20.0	15.0	15.0
Minimum Split (s)	28.1	28.1	17.2	28.1	21.5	21.5
Total Split (s)	44.0	44.0	26.0	70.0	25.0	25.0
Total Split (%)	46.3%	46.3%	27.4%	73.7%	26.3%	26.3%
Yellow Time (s)	4.4	4.4	4.4	4.4	4.0	4.0
All-Red Time (s)	3.7	3.7	2.8	3.7	2.5	2.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	8.1	8.1	7.2	8.1	6.5	6.5
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	C-Min	C-Min	None	Min	None	None
Act Effct Green (s)	38.6	38.6	18.5	64.4	16.0	16.0
Actuated g/C Ratio	0.41	0.41	0.19	0.68	0.17	0.17
v/c Ratio	0.16	0.52	0.67	0.23	0.48	0.55
Control Delay (s/veh)	19.1	4.7	45.8	5.3	38.6	9.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	19.1	4.7	45.8	5.3	38.6	9.4
LOS	B	A	D	A	D	A
Approach Delay (s/veh)	11.4			23.3		
Approach LOS	B			C		
Queue Length 50th (ft)	41	0	142	62	74	0
Queue Length 95th (ft)	69	69	190	81	108	64
Internal Link Dist (ft)	1477			382		
Turn Bay Length (ft)		275				500
Base Capacity (vph)	2601	879	677	2333	635	498
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	0.15	0.51	0.62	0.23	0.41	0.51

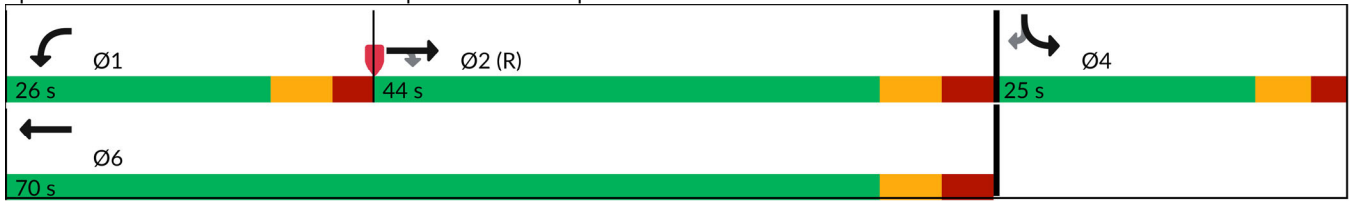
Intersection Summary

Cycle Length: 95	
Actuated Cycle Length: 95	
Offset: 93 (98%), Referenced to phase 2:EBT, Start of Green	
Natural Cycle: 70	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.67	
Intersection Signal Delay (s/veh): 19.1	Intersection LOS: B
Intersection Capacity Utilization 69.6%	ICU Level of Service C
Analysis Period (min) 15	

Timings
 10: I-75 SB On-ramp/I-75 SB Off-ramp & SR 44

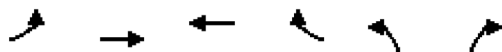
2030 No-Build Conditions
 Timing Plan: Weekend

Splits and Phases: 10: I-75 SB On-ramp/I-75 SB Off-ramp & SR 44



Timings
11: I-75 NB Off-ramp/I-75 NB On-ramp & SR 44

2030 No-Build Conditions
Timing Plan: Weekend



Lane Group	EBL	EBT	WBT	WBR	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	144	497	642	304	290	397
Future Volume (vph)	144	497	642	304	290	397
Lane Group Flow (vph)	150	518	669	317	302	414
Turn Type	Prot	NA	NA	Perm	Prot	Perm
Protected Phases	1	6	2		4	
Permitted Phases				2		4
Detector Phase	1	6	2	2	4	4
Switch Phase						
Minimum Initial (s)	10.0	20.0	20.0	20.0	15.0	15.0
Minimum Split (s)	24.5	27.3	27.3	27.3	22.1	22.1
Total Split (s)	25.0	55.0	30.0	30.0	40.0	40.0
Total Split (%)	26.3%	57.9%	31.6%	31.6%	42.1%	42.1%
Yellow Time (s)	4.4	4.4	4.4	4.4	4.0	4.0
All-Red Time (s)	2.5	2.9	2.9	2.9	3.1	3.1
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.9	7.3	7.3	7.3	7.1	7.1
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	C-Min	C-Min	C-Min	None	None
Act Effct Green (s)	11.2	60.6	42.5	42.5	20.0	20.0
Actuated g/C Ratio	0.12	0.64	0.45	0.45	0.21	0.21
v/c Ratio	0.40	0.24	0.24	0.38	0.43	0.76
Control Delay (s/veh)	51.9	10.8	17.9	4.2	33.5	19.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	51.9	10.8	17.9	4.2	33.5	19.9
LOS	D	B	B	A	C	B
Approach Delay (s/veh)		20.0	13.5			
Approach LOS		B	B			
Queue Length 50th (ft)	51	72	65	0	85	72
Queue Length 95th (ft)	84	102	115	58	103	157
Internal Link Dist (ft)		382	1690			
Turn Bay Length (ft)				350		450
Base Capacity (vph)	612	2192	2782	837	1143	714
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	0.25	0.24	0.24	0.38	0.26	0.58

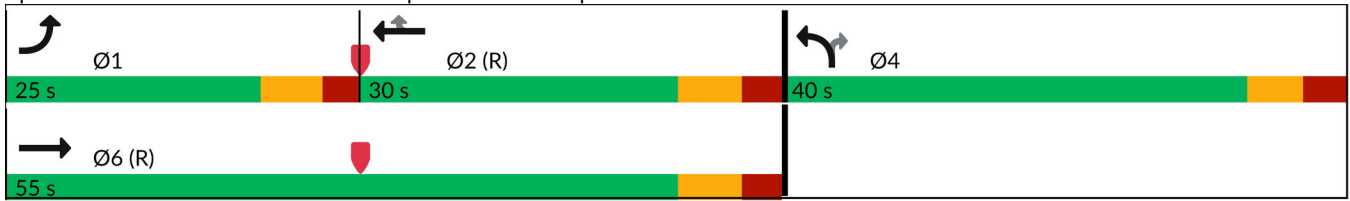
Intersection Summary

Cycle Length: 95	
Actuated Cycle Length: 95	
Offset: 5 (5%), Referenced to phase 2:WBT and 6:EBT, Start of Green	
Natural Cycle: 75	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.76	
Intersection Signal Delay (s/veh): 19.0	Intersection LOS: B
Intersection Capacity Utilization 69.6%	ICU Level of Service C
Analysis Period (min) 15	

Timings
11: I-75 NB Off-ramp/I-75 NB On-ramp & SR 44

2030 No-Build Conditions
Timing Plan: Weekend

Splits and Phases: 11: I-75 NB Off-ramp/I-75 NB On-ramp & SR 44



CR 484 Summary Tables

19: I-75 SB On-ramp/I-75 SB Off-ramp & CR 484

Approach	Movement	AM Peak Hour			PM Peak Hour			WKND Peak Hour		
		V/C	Delay (s) [LOS]	95% Queue (ft)	V/C	Delay (s) [LOS]	95% Queue (ft)	V/C	Delay (s) [LOS]	95% Queue (ft)
Westbound	Left	0.77	92.5 (F)	325	0.78	93.2 (F)	275	0.78	80.4 (F)	450
	Through	0.28	5.6 (A)	100	0.71	15.9 (B)	250	0.40	6.2 (A)	175
	Approach	0.40	26.1 (C)	-	0.72	22.6 (C)	-	0.49	23.5 (C)	-
Eastbound	TH/RT	0.69	27.4 (C)	575	0.47	24.9 (C)	300	0.58	28.4 (C)	400
	Approach	0.69	27.4 (C)	-	0.47	24.9 (C)	-	0.58	28.4 (C)	-
Southbound	Left	0.71	66.8 (E)	200	0.64	51.3 (D)	275	0.66	67.4 (E)	175
	Right	0.41	8.4 (A)	50	0.85	54.8 (D)	325	0.55	19.5 (B)	100
	Approach	0.58	42.2 (D)	-	0.76	53.2 (D)	-	0.60	42.5 (D)	-
Overall Intersection		0.59	29.2 (C)	-	0.66	31.2 (C)	-	0.54	28.5 (C)	-

20: I-75 NB Off-ramp/I-75 NB On-ramp & CR 484

Approach	Movement	AM Peak Hour			PM Peak Hour			WKND Peak Hour		
		V/C	Delay (s) [LOS]	95% Queue (ft)	V/C	Delay (s) [LOS]	95% Queue (ft)	V/C	Delay (s) [LOS]	95% Queue (ft)
Westbound	Through	0.41	30.8 (C)	250	0.68	36.7 (D)	425	0.56	34.2 (C)	350
	Right	0.55	4.7 (A)	75	0.44	8.4 (A)	125	0.52	5.5 (A)	100
	Approach	0.46	20.7 (C)	-	0.63	30.9 (C)	-	0.55	25.8 (C)	-
Northbound	Left	0.50	62.8 (E)	125	0.67	56.4 (E)	250	0.58	53.6 (D)	200
	Right	0.69	41.7 (D)	150	0.82	54.3 (D)	300	0.86	54.5 (D)	300
	Approach	0.59	52.5 (D)	-	0.73	55.5 (E)	-	0.71	54.0 (D)	-
Eastbound	Left	0.59	61.5 (E)	400	0.36	62.7 (E)	200	0.52	70.1 (E)	275
	Through	0.52	6.2 (A)	300	0.56	11.6 (B)	275	0.44	7.9 (A)	175
	Approach	0.54	23.8 (C)	-	0.52	20.8 (C)	-	0.46	25.9 (C)	-
Overall Intersection		0.52	25.4 (C)	-	0.61	31.3 (C)	-	0.54	30.9 (C)	-

CR 484 Synchro Reports

Timings
 19: I-75 SB On-ramp/I-75 SB Off-ramp & CR 484

2030 No-Build Conditions
 Timing Plan: AM

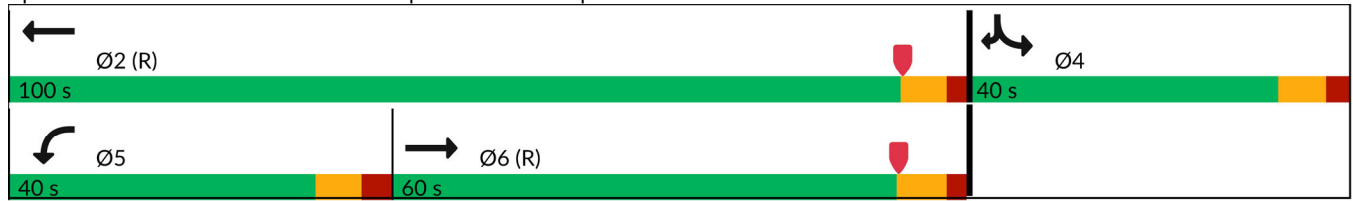


Lane Group	EBT	WBL	WBT	SBL	SBR
Lane Configurations	↑↑↑↑	↙	↑↑	↘↘	↘↘
Traffic Volume (vph)	1698	222	717	299	217
Future Volume (vph)	1698	222	717	299	217
Lane Group Flow (vph)	2190	231	747	311	226
Turn Type	NA	Prot	NA	Prot	Prot
Protected Phases	6	5	2	4	4
Permitted Phases					
Detector Phase	6	5	2	4	4
Switch Phase					
Minimum Initial (s)	18.0	7.0	18.0	7.0	7.0
Minimum Split (s)	25.3	15.0	34.8	45.4	45.4
Total Split (s)	60.0	40.0	100.0	40.0	40.0
Total Split (%)	42.9%	28.6%	71.4%	28.6%	28.6%
Yellow Time (s)	5.3	4.8	4.8	4.9	4.9
All-Red Time (s)	2.0	3.2	2.0	2.5	2.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.3	8.0	6.8	7.4	7.4
Lead/Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes			
Recall Mode	C-Max	None	C-Max	None	None
Act Effct Green (s)	72.9	25.5	106.9	18.9	18.9
Actuated g/C Ratio	0.52	0.18	0.76	0.14	0.14
v/c Ratio	0.69	0.77	0.28	0.71	0.41
Control Delay (s/veh)	27.4	92.5	5.5	66.8	8.4
Queue Delay	0.0	0.0	0.1	0.0	0.0
Total Delay (s/veh)	27.4	92.5	5.6	66.8	8.4
LOS	C	F	A	E	A
Approach Delay (s/veh)	27.4		26.1		
Approach LOS	C		C		
Queue Length 50th (ft)	413	224	70	141	0
Queue Length 95th (ft)	555	313	82	185	40
Internal Link Dist (ft)	1153		407		
Turn Bay Length (ft)				500	450
Base Capacity (vph)	3170	382	2649	754	786
Starvation Cap Reductn	0	0	565	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.69	0.60	0.36	0.41	0.29

Intersection Summary

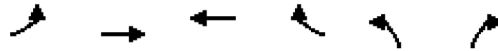
Cycle Length: 140	
Actuated Cycle Length: 140	
Offset: 67 (48%), Referenced to phase 2:WBT and 6:EBT, Start of Yellow	
Natural Cycle: 120	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.77	
Intersection Signal Delay (s/veh): 29.2	Intersection LOS: C
Intersection Capacity Utilization 71.8%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 19: I-75 SB On-ramp/I-75 SB Off-ramp & CR 484



Timings
 20: I-75 NB Off-ramp/I-75 NB On-ramp & CR 484

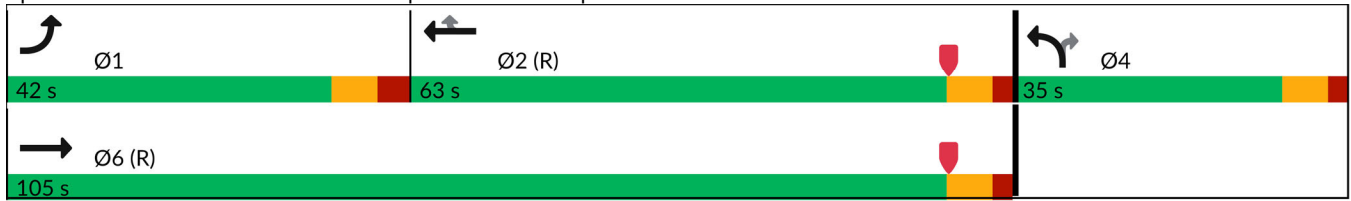
2030 No-Build Conditions
 Timing Plan: AM



Lane Group	EBL	EBT	WBT	WBR	NBL	NBR
Lane Configurations	↙↙	↑↑	↑↑↑	↘	↙↙	↘
Traffic Volume (vph)	634	1363	768	482	171	164
Future Volume (vph)	634	1363	768	482	171	164
Lane Group Flow (vph)	654	1405	792	497	176	169
Turn Type	Prot	NA	NA	Perm	Prot	Perm
Protected Phases	1	6	2		4	
Permitted Phases				2		4
Detector Phase	1	6	2	2	4	4
Switch Phase						
Minimum Initial (s)	7.0	20.0	20.0	20.0	7.0	7.0
Minimum Split (s)	15.0	26.8	34.8	34.8	44.8	44.8
Total Split (s)	42.0	105.0	63.0	63.0	35.0	35.0
Total Split (%)	30.0%	75.0%	45.0%	45.0%	25.0%	25.0%
Yellow Time (s)	4.8	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	3.2	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	8.0	6.8	6.8	6.8	6.8	6.8
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	Max	C-Max	C-Max	C-Max	None	None
Act Effct Green (s)	47.0	111.2	56.2	56.2	15.2	15.2
Actuated g/C Ratio	0.34	0.79	0.40	0.40	0.11	0.11
v/c Ratio	0.59	0.52	0.41	0.55	0.50	0.69
Control Delay (s/veh)	60.3	5.8	30.8	4.7	62.8	41.7
Queue Delay	1.3	0.3	0.0	0.0	0.0	0.0
Total Delay (s/veh)	61.5	6.2	30.8	4.7	62.8	41.7
LOS	E	A	C	A	E	D
Approach Delay (s/veh)		23.8	20.7			
Approach LOS		C	C			
Queue Length 50th (ft)	326	151	187	0	79	68
Queue Length 95th (ft)	390	297	226	72	112	141
Internal Link Dist (ft)		407	1283			
Turn Bay Length (ft)				200	350	350
Base Capacity (vph)	1109	2680	1946	909	659	377
Starvation Cap Reductn	250	608	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	0.76	0.68	0.41	0.55	0.27	0.45

Intersection Summary	
Cycle Length: 140	
Actuated Cycle Length: 140	
Offset: 58 (41%), Referenced to phase 2:WBT and 6:EBT, Start of Yellow	
Natural Cycle: 105	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.69	
Intersection Signal Delay (s/veh): 25.4	Intersection LOS: C
Intersection Capacity Utilization 71.8%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 20: I-75 NB Off-ramp/I-75 NB On-ramp & CR 484



Timings
 19: I-75 SB On-ramp/I-75 SB Off-ramp & CR 484

2030 No-Build Conditions
 Timing Plan: PM



Lane Group	EBT	WBL	WBT	SBL	SBR
Lane Configurations	↑↑↑↑	↙	↑↑	↘↘	↘↘
Traffic Volume (vph)	1095	146	1541	468	569
Future Volume (vph)	1095	146	1541	468	569
Lane Group Flow (vph)	1389	154	1622	493	599
Turn Type	NA	Prot	NA	Prot	Prot
Protected Phases	6	5	2	4	4
Permitted Phases					
Detector Phase	6	5	2	4	4
Switch Phase					
Minimum Initial (s)	18.0	7.0	18.0	7.0	7.0
Minimum Split (s)	25.3	15.0	34.8	45.4	45.4
Total Split (s)	70.0	24.0	94.0	46.0	46.0
Total Split (%)	50.0%	17.1%	67.1%	32.9%	32.9%
Yellow Time (s)	5.3	4.8	4.8	4.9	4.9
All-Red Time (s)	2.0	3.2	2.0	2.5	2.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.3	8.0	6.8	7.4	7.4
Lead/Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes			
Recall Mode	C-Max	None	C-Max	None	None
Act Effct Green (s)	67.2	16.7	92.4	33.4	33.4
Actuated g/C Ratio	0.48	0.12	0.66	0.24	0.24
v/c Ratio	0.47	0.78	0.71	0.64	0.85
Control Delay (s/veh)	24.9	93.2	15.7	51.3	54.8
Queue Delay	0.0	0.0	0.2	0.0	0.0
Total Delay (s/veh)	24.9	93.2	15.9	51.3	54.8
LOS	C	F	B	D	D
Approach Delay (s/veh)	24.9		22.6		
Approach LOS	C		C		
Queue Length 50th (ft)	249	150	226	207	252
Queue Length 95th (ft)	284	m#257	248	256	322
Internal Link Dist (ft)	1153		407		
Turn Bay Length (ft)				500	450
Base Capacity (vph)	2941	203	2290	893	795
Starvation Cap Reductn	0	0	131	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.47	0.76	0.75	0.55	0.75

Intersection Summary

Cycle Length: 140	
Actuated Cycle Length: 140	
Offset: 69 (49%), Referenced to phase 2:WBT and 6:EBT, Start of Yellow	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.85	
Intersection Signal Delay (s/veh): 31.2	Intersection LOS: C
Intersection Capacity Utilization 74.3%	ICU Level of Service D
Analysis Period (min) 15	

Timings
 19: I-75 SB On-ramp/I-75 SB Off-ramp & CR 484

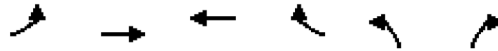
- # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.
- m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 19: I-75 SB On-ramp/I-75 SB Off-ramp & CR 484



Timings
 20: I-75 NB Off-ramp/I-75 NB On-ramp & CR 484

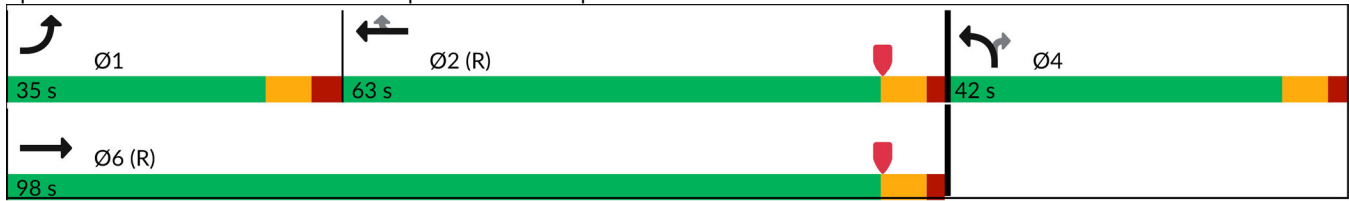
2030 No-Build Conditions
 Timing Plan: PM



Lane Group	EBL	EBT	WBT	WBR	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	279	1284	1272	328	415	293
Future Volume (vph)	279	1284	1272	328	415	293
Lane Group Flow (vph)	291	1338	1325	342	432	305
Turn Type	Prot	NA	NA	Perm	Prot	Perm
Protected Phases	1	6	2		4	
Permitted Phases				2		4
Detector Phase	1	6	2	2	4	4
Switch Phase						
Minimum Initial (s)	7.0	20.0	20.0	20.0	7.0	7.0
Minimum Split (s)	15.0	26.8	34.8	34.8	44.8	44.8
Total Split (s)	35.0	98.0	63.0	63.0	42.0	42.0
Total Split (%)	25.0%	70.0%	45.0%	45.0%	30.0%	30.0%
Yellow Time (s)	4.8	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	3.2	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	8.0	6.8	6.8	6.8	6.8	6.8
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	Max	C-Max	C-Max	C-Max	None	None
Act Effct Green (s)	34.4	98.6	56.2	56.2	27.8	27.8
Actuated g/C Ratio	0.25	0.70	0.40	0.40	0.20	0.20
v/c Ratio	0.36	0.56	0.68	0.44	0.67	0.82
Control Delay (s/veh)	62.7	11.5	36.7	8.4	56.4	54.3
Queue Delay	0.0	0.1	0.0	0.0	0.0	0.0
Total Delay (s/veh)	62.7	11.6	36.7	8.4	56.4	54.3
LOS	E	B	D	A	E	D
Approach Delay (s/veh)		20.8	30.9			
Approach LOS		C	C			
Queue Length 50th (ft)	143	249	361	39	189	192
Queue Length 95th (ft)	194	275	416	116	231	290
Internal Link Dist (ft)		407	1283			
Turn Bay Length (ft)				200	350	350
Base Capacity (vph)	812	2376	1946	775	822	448
Starvation Cap Reductn	0	250	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	0.63	0.68	0.44	0.53	0.68

Intersection Summary	
Cycle Length:	140
Actuated Cycle Length:	140
Offset:	66 (47%), Referenced to phase 2:WBT and 6:EBT, Start of Yellow
Natural Cycle:	95
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.82
Intersection Signal Delay (s/veh):	31.3
Intersection LOS:	C
Intersection Capacity Utilization:	74.3%
ICU Level of Service:	D
Analysis Period (min):	15

Splits and Phases: 20: I-75 NB Off-ramp/I-75 NB On-ramp & CR 484



Timings
 19: I-75 SB On-ramp/I-75 SB Off-ramp & CR 484

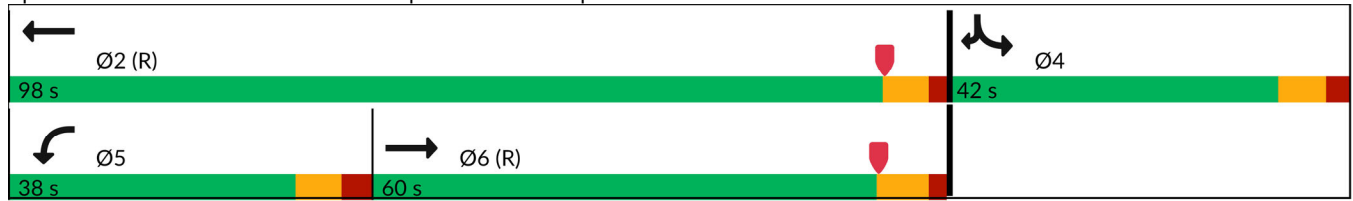
2030 No-Build Conditions
 Timing Plan: Weekend



Lane Group	EBT	WBL	WBT	SBL	SBR
Lane Configurations	↑↑↑↑	↙	↑↑	↘↘	↘↘
Traffic Volume (vph)	1239	331	1086	243	263
Future Volume (vph)	1239	331	1086	243	263
Lane Group Flow (vph)	1652	338	1108	248	268
Turn Type	NA	Prot	NA	Prot	Prot
Protected Phases	6	5	2	4	4
Permitted Phases					
Detector Phase	6	5	2	4	4
Switch Phase					
Minimum Initial (s)	18.0	7.0	18.0	7.0	7.0
Minimum Split (s)	25.3	15.0	34.8	45.4	45.4
Total Split (s)	60.0	38.0	98.0	42.0	42.0
Total Split (%)	42.9%	27.1%	70.0%	30.0%	30.0%
Yellow Time (s)	5.3	4.8	4.8	4.9	4.9
All-Red Time (s)	2.0	3.2	2.0	2.5	2.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.3	8.0	6.8	7.4	7.4
Lead/Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes			
Recall Mode	C-Max	None	C-Max	None	None
Act Effct Green (s)	65.1	36.0	109.6	16.2	16.2
Actuated g/C Ratio	0.47	0.26	0.78	0.12	0.12
v/c Ratio	0.58	0.78	0.40	0.66	0.55
Control Delay (s/veh)	28.4	80.4	6.1	67.4	19.5
Queue Delay	0.0	0.0	0.1	0.0	0.0
Total Delay (s/veh)	28.4	80.4	6.2	67.4	19.5
LOS	C	F	A	E	B
Approach Delay (s/veh)	28.4		23.5		
Approach LOS	C		C		
Queue Length 50th (ft)	304	329	139	113	31
Queue Length 95th (ft)	398	430	157	153	78
Internal Link Dist (ft)	1153		407		
Turn Bay Length (ft)				500	450
Base Capacity (vph)	2856	438	2744	808	809
Starvation Cap Reductn	0	0	520	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.58	0.77	0.50	0.31	0.33

Intersection Summary	
Cycle Length:	140
Actuated Cycle Length:	140
Offset:	62 (44%), Referenced to phase 2:WBT and 6:EBT, Start of Yellow
Natural Cycle:	110
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.78
Intersection Signal Delay (s/veh):	28.5
Intersection LOS:	C
Intersection Capacity Utilization:	68.5%
ICU Level of Service:	C
Analysis Period (min):	15

Splits and Phases: 19: I-75 SB On-ramp/I-75 SB Off-ramp & CR 484



Timings
 20: I-75 NB Off-ramp/I-75 NB On-ramp & CR 484

2030 No-Build Conditions
 Timing Plan: Weekend



Lane Group	EBL	EBT	WBT	WBR	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	428	1054	1071	447	346	320
Future Volume (vph)	428	1054	1071	447	346	320
Lane Group Flow (vph)	437	1076	1093	456	353	327
Turn Type	Prot	NA	NA	Perm	Prot	Perm
Protected Phases	1	6	2		4	
Permitted Phases				2		4
Detector Phase	1	6	2	2	4	4
Switch Phase						
Minimum Initial (s)	7.0	20.0	20.0	20.0	7.0	7.0
Minimum Split (s)	15.0	26.8	34.8	34.8	44.8	44.8
Total Split (s)	36.0	98.0	62.0	62.0	42.0	42.0
Total Split (%)	25.7%	70.0%	44.3%	44.3%	30.0%	30.0%
Yellow Time (s)	4.8	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	3.2	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	8.0	6.8	6.8	6.8	6.8	6.8
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	Max	C-Max	C-Max	C-Max	None	None
Act Effct Green (s)	35.1	98.3	55.2	55.2	28.1	28.1
Actuated g/C Ratio	0.25	0.70	0.39	0.39	0.20	0.20
v/c Ratio	0.52	0.44	0.56	0.52	0.58	0.86
Control Delay (s/veh)	70.1	7.8	34.2	5.5	53.6	54.5
Queue Delay	0.0	0.1	0.0	0.0	0.0	0.0
Total Delay (s/veh)	70.1	7.9	34.2	5.5	53.6	54.5
LOS	E	A	C	A	D	D
Approach Delay (s/veh)		25.9	25.8			
Approach LOS		C	C			
Queue Length 50th (ft)	218	144	280	11	150	187
Queue Length 95th (ft)	274	167	328	88	191	296
Internal Link Dist (ft)		407	1283			
Turn Bay Length (ft)				200	350	350
Base Capacity (vph)	845	2438	1966	876	765	445
Starvation Cap Reductn	0	448	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	0.52	0.54	0.56	0.52	0.46	0.73

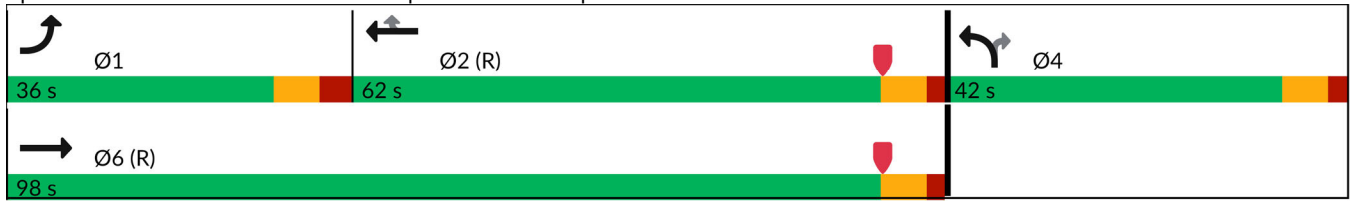
Intersection Summary

Cycle Length: 140	
Actuated Cycle Length: 140	
Offset: 55 (39%), Referenced to phase 2:WBT and 6:EBT, Start of Yellow	
Natural Cycle: 95	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.86	
Intersection Signal Delay (s/veh): 30.9	Intersection LOS: C
Intersection Capacity Utilization 68.5%	ICU Level of Service C
Analysis Period (min) 15	

Timings
 20: I-75 NB Off-ramp/I-75 NB On-ramp & CR 484

2030 No-Build Conditions
 Timing Plan: Weekend

Splits and Phases: 20: I-75 NB Off-ramp/I-75 NB On-ramp & CR 484



SR 200 Summary Tables

28: I-75 SB On-Ramp/I-75 SB Off-Ramp & SR 200

Approach	Movement	AM Peak Hour			PM Peak Hour			WKND Peak Hour		
		V/C	Delay (s) [LOS]	95% Queue (ft)	V/C	Delay (s) [LOS]	95% Queue (ft)	V/C	Delay (s) [LOS]	95% Queue (ft)
Westbound	Left	0.68	71.3 (E)	225	0.79	56.3 (E)	225	0.70	80.4 (F)	150
	Through	0.26	6.9 (A)	150	0.59	20.1 (C)	125	0.53	9.8 (A)	750
	Approach	0.36	21.5 (C)	-	0.63	27.2 (C)	-	0.55	19.5 (B)	-
Eastbound	Through	0.53	23.0 (C)	400	0.55	35.0 (C)	400	0.52	24.7 (C)	450
	Right	0.29	2.7 (A)	50	0.45	4.0 (A)	75	0.36	3.1 (A)	75
	Approach	0.50	20.7 (C)	-	0.53	29.2 (C)	-	0.50	21.5 (C)	-
Southbound	Left	0.66	68.2 (E)	250	0.40	59.5 (E)	225	0.37	59.5 (E)	150
	Right	0.82	79.8 (E)	300	0.97	94.3 (F)	575	0.76	73.2 (E)	275
	Approach	0.74	74.0 (E)	-	0.78	82.5 (F)	-	0.61	68.0 (E)	-
Overall Intersection		0.50	29.8 (C)	-	0.61	36.8 (D)	-	0.53	25.7 (C)	-

29: I-75 NB Off-ramp/I-75 NB On-ramp & SR 200

Approach	Movement	AM Peak Hour			PM Peak Hour			WKND Peak Hour		
		V/C	Delay (s) [LOS]	95% Queue (ft)	V/C	Delay (s) [LOS]	95% Queue (ft)	V/C	Delay (s) [LOS]	95% Queue (ft)
Westbound	Through	0.33	35.6 (D)	250	0.62	34.4 (C)	575	0.57	31.6 (C)	425
	Right	0.32	5.5 (A)	75	0.37	3.9 (A)	75	0.42	3.7 (A)	75
	Approach	0.33	29.4 (C)	-	0.59	30.3 (C)	-	0.54	26.9 (C)	-
Northbound	Left	0.33	49.8 (D)	175	0.43	61.2 (E)	200	0.36	52.8 (D)	175
	Right	0.82	67.2 (E)	375	0.79	75.7 (E)	325	0.83	71.1 (E)	375
	Approach	0.66	61.4 (E)	-	0.65	69.8 (E)	-	0.67	64.8 (E)	-
Eastbound	Left	0.76	67.0 (E)	200	0.75	51.1 (D)	325	0.83	60.8 (E)	300
	Through	0.61	9.9 (A)	675	0.47	9.4 (A)	175	0.57	10.4 (B)	175
	Approach	0.64	22.1 (C)	-	0.53	18.3 (B)	-	0.62	19.4 (B)	-
Overall Intersection		0.56	31.1 (C)	-	0.57	30.8 (C)	-	0.59	29.2 (C)	-

SR 200 Synchro Reports

Timings
28: I-75 SB On-Ramp/I-75 SB Off-Ramp & SR 200

2030 No-Build Conditions
Timing Plan: AM

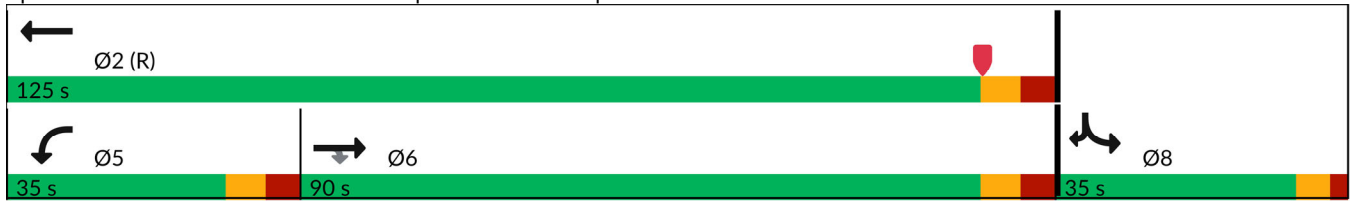


Lane Group	EBT	EBR	WBL	WBT	SBL	SBR
Lane Configurations	↑↑↑↑	↗	↖↖	↑↑↑	↖↖	↗↗
Traffic Volume (vph)	2053	269	261	892	345	351
Future Volume (vph)	2053	269	261	892	345	351
Lane Group Flow (vph)	2161	283	275	939	363	369
Turn Type	NA	Perm	Prot	NA	Prot	Prot
Protected Phases	6		5	2	8	8
Permitted Phases		6				
Detector Phase	6	6	5	2	8	8
Switch Phase						
Minimum Initial (s)	20.0	20.0	12.0	20.0	7.0	7.0
Minimum Split (s)	29.0	29.0	21.0	45.0	14.0	14.0
Total Split (s)	90.0	90.0	35.0	125.0	35.0	35.0
Total Split (%)	56.3%	56.3%	21.9%	78.1%	21.9%	21.9%
Yellow Time (s)	4.9	4.9	4.9	4.9	4.1	4.1
All-Red Time (s)	4.0	4.0	4.0	4.0	2.2	2.2
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	8.9	8.9	8.9	8.9	6.3	6.3
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	Min	Min	None	C-Min	None	None
Act Effct Green (s)	89.8	89.8	19.5	118.2	26.6	26.6
Actuated g/C Ratio	0.56	0.56	0.12	0.74	0.17	0.17
v/c Ratio	0.53	0.29	0.68	0.26	0.66	0.82
Control Delay (s/veh)	23.0	2.7	71.3	6.9	68.2	79.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	23.0	2.7	71.3	6.9	68.2	79.8
LOS	C	A	E	A	E	E
Approach Delay (s/veh)	20.7			21.5		
Approach LOS	C			C		
Queue Length 50th (ft)	347	0	156	95	182	211
Queue Length 95th (ft)	400	47	204	127	239	278
Internal Link Dist (ft)	1476			454		
Turn Bay Length (ft)		475			350	325
Base Capacity (vph)	4114	979	538	3649	598	485
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	82	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.54	0.29	0.51	0.26	0.61	0.76

Intersection Summary

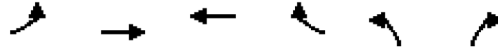
Cycle Length: 160	
Actuated Cycle Length: 160	
Offset: 99 (62%), Referenced to phase 2:WBT, Start of Yellow	
Natural Cycle: 70	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.82	
Intersection Signal Delay (s/veh): 29.8	Intersection LOS: C
Intersection Capacity Utilization 67.3%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 28: I-75 SB On-Ramp/I-75 SB Off-Ramp & SR 200



Timings
 29: I-75 NB Off-ramp/I-75 NB On-ramp & SR 200

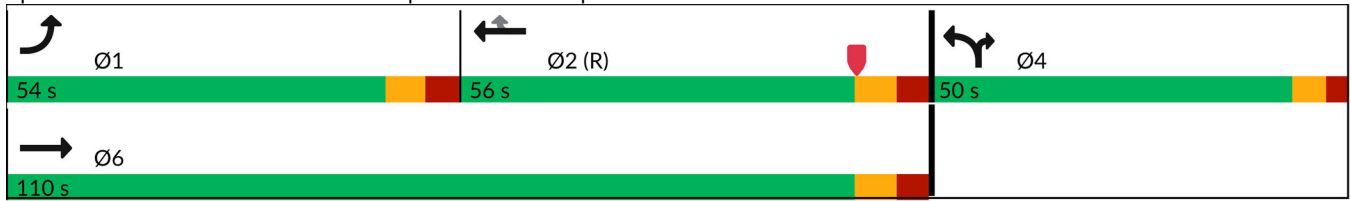
2030 No-Build Conditions
 Timing Plan: AM



Lane Group	EBL	EBT	WBT	WBR	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	516	1882	897	236	256	514
Future Volume (vph)	516	1882	897	236	256	514
Lane Group Flow (vph)	543	1981	944	248	269	541
Turn Type	Prot	NA	NA	Perm	Prot	Prot
Protected Phases	1	6	2		4	4
Permitted Phases				2		
Detector Phase	1	6	2	2	4	4
Switch Phase						
Minimum Initial (s)	7.0	20.0	20.0	20.0	7.0	7.0
Minimum Split (s)	16.0	40.8	29.0	29.0	14.0	14.0
Total Split (s)	54.0	110.0	56.0	56.0	50.0	50.0
Total Split (%)	33.8%	68.8%	35.0%	35.0%	31.3%	31.3%
Yellow Time (s)	4.9	4.9	4.9	4.9	4.1	4.1
All-Red Time (s)	3.9	3.9	3.9	3.9	2.6	2.6
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	8.8	8.8	8.8	8.8	6.7	6.7
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	Min	C-Min	C-Min	None	None
Act Effct Green (s)	33.4	105.3	63.1	63.1	39.2	39.2
Actuated g/C Ratio	0.21	0.66	0.39	0.39	0.25	0.25
v/c Ratio	0.76	0.61	0.33	0.32	0.33	0.82
Control Delay (s/veh)	67.0	9.8	35.6	5.5	49.8	67.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	67.0	9.9	35.6	5.5	49.8	67.2
LOS	E	A	D	A	D	E
Approach Delay (s/veh)		22.1	29.4			
Approach LOS		C	C			
Queue Length 50th (ft)	258	146	169	0	120	305
Queue Length 95th (ft)	186	660	227	68	152	359
Internal Link Dist (ft)		454	1413			
Turn Bay Length (ft)				420	385	385
Base Capacity (vph)	960	3277	2890	768	920	746
Starvation Cap Reductn	0	85	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	0.62	0.33	0.32	0.29	0.73

Intersection Summary	
Cycle Length:	160
Actuated Cycle Length:	160
Offset:	121 (76%), Referenced to phase 2:WBT, Start of Yellow
Natural Cycle:	75
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.82
Intersection Signal Delay (s/veh):	31.1
Intersection LOS:	C
Intersection Capacity Utilization:	67.3%
ICU Level of Service:	C
Analysis Period (min):	15

Splits and Phases: 29: I-75 NB Off-ramp/I-75 NB On-ramp & SR 200



Timings
28: I-75 SB On-Ramp/I-75 SB Off-Ramp & SR 200

2030 No-Build Conditions
Timing Plan: PM



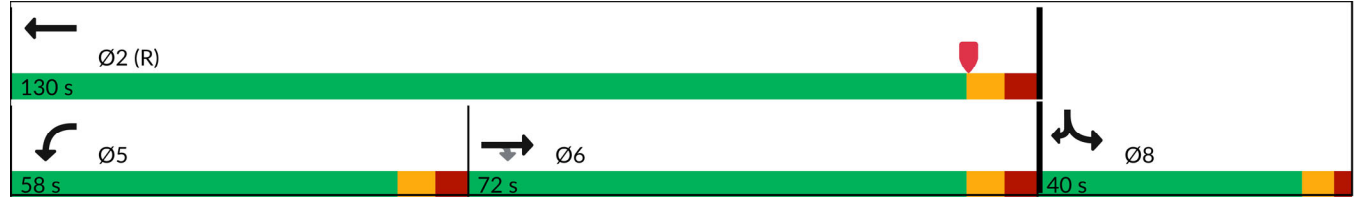
Lane Group	EBT	EBR	WBL	WBT	SBL	SBR
Lane Configurations	↑↑↑↑	↗	↖↖	↑↑↑	↖↖	↗↗
Traffic Volume (vph)	1705	388	464	1899	285	559
Future Volume (vph)	1705	388	464	1899	285	559
Lane Group Flow (vph)	1795	408	488	1999	300	588
Turn Type	NA	Perm	Prot	NA	Prot	Prot
Protected Phases	6		5	2	8	8
Permitted Phases		6				
Detector Phase	6	6	5	2	8	8
Switch Phase						
Minimum Initial (s)	20.0	20.0	12.0	20.0	7.0	7.0
Minimum Split (s)	29.0	29.0	21.0	45.0	14.0	14.0
Total Split (s)	72.0	72.0	58.0	130.0	40.0	40.0
Total Split (%)	42.4%	42.4%	34.1%	76.5%	23.5%	23.5%
Yellow Time (s)	4.9	4.9	4.9	4.9	4.1	4.1
All-Red Time (s)	4.0	4.0	4.0	4.0	2.2	2.2
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	8.9	8.9	8.9	8.9	6.3	6.3
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	Min	Min	None	C-Min	None	None
Act Effct Green (s)	76.3	76.3	31.6	116.9	37.9	37.9
Actuated g/C Ratio	0.45	0.45	0.19	0.69	0.22	0.22
v/c Ratio	0.55	0.45	0.79	0.59	0.40	0.97
Control Delay (s/veh)	35.0	4.0	56.3	18.4	59.5	94.3
Queue Delay	0.0	0.0	0.0	1.7	0.0	0.0
Total Delay (s/veh)	35.0	4.0	56.3	20.1	59.5	94.3
LOS	C	A	E	C	E	F
Approach Delay (s/veh)	29.2			27.2		
Approach LOS	C			C		
Queue Length 50th (ft)	339	0	186	764	153	~418
Queue Length 95th (ft)	400	66	208	103	204	#559
Internal Link Dist (ft)	1476			454		
Turn Bay Length (ft)		475			350	325
Base Capacity (vph)	3290	909	953	3519	744	604
Starvation Cap Reductn	0	0	0	1276	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	0.45	0.51	0.89	0.40	0.97

Intersection Summary	
Cycle Length:	170
Actuated Cycle Length:	170
Offset:	48 (28%), Referenced to phase 2:WBT, Start of Yellow
Natural Cycle:	75
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.97
Intersection Signal Delay (s/veh):	36.8
Intersection LOS:	D
Intersection Capacity Utilization:	68.9%
ICU Level of Service:	C
Analysis Period (min):	15

~ Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 28: I-75 SB On-Ramp/I-75 SB Off-Ramp & SR 200



Timings
 29: I-75 NB Off-ramp/I-75 NB On-ramp & SR 200

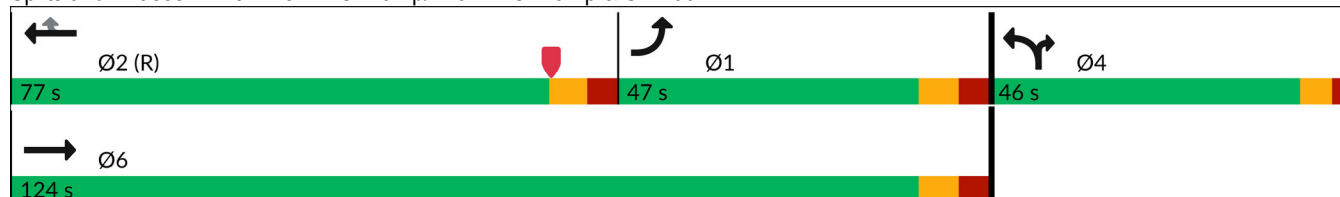
2030 No-Build Conditions
 Timing Plan: PM



Lane Group	EBL	EBT	WBT	WBR	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	421	1569	2094	328	269	399
Future Volume (vph)	421	1569	2094	328	269	399
Lane Group Flow (vph)	443	1652	2204	345	283	420
Turn Type	Prot	NA	NA	Perm	Prot	Prot
Protected Phases	1	6	2		4	4
Permitted Phases				2		
Detector Phase	1	6	2	2	4	4
Switch Phase						
Minimum Initial (s)	7.0	20.0	20.0	20.0	7.0	7.0
Minimum Split (s)	16.0	40.8	29.0	29.0	14.0	14.0
Total Split (s)	47.0	124.0	77.0	77.0	46.0	46.0
Total Split (%)	27.6%	72.9%	45.3%	45.3%	27.1%	27.1%
Yellow Time (s)	4.9	4.9	4.9	4.9	4.1	4.1
All-Red Time (s)	3.9	3.9	3.9	3.9	2.6	2.6
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	8.8	8.8	8.8	8.8	6.7	6.7
Lead/Lag	Lag		Lead	Lead		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	Min	C-Min	C-Min	None	None
Act Effct Green (s)	29.5	121.1	82.8	82.8	33.4	33.4
Actuated g/C Ratio	0.17	0.71	0.49	0.49	0.20	0.20
v/c Ratio	0.75	0.47	0.62	0.37	0.43	0.79
Control Delay (s/veh)	51.1	9.3	34.3	3.9	61.2	75.7
Queue Delay	0.0	0.1	0.1	0.0	0.0	0.0
Total Delay (s/veh)	51.1	9.4	34.4	3.9	61.2	75.7
LOS	D	A	C	A	E	E
Approach Delay (s/veh)		18.3	30.3			
Approach LOS		B	C			
Queue Length 50th (ft)	250	177	436	0	144	256
Queue Length 95th (ft)	301	168	551	65	181	309
Internal Link Dist (ft)		454	1413			
Turn Bay Length (ft)				420	385	385
Base Capacity (vph)	764	3531	3569	940	779	632
Starvation Cap Reductn	0	601	0	0	0	0
Spillback Cap Reductn	0	0	325	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.58	0.56	0.68	0.37	0.36	0.66

Intersection Summary	
Cycle Length:	170
Actuated Cycle Length:	170
Offset:	166 (98%), Referenced to phase 2:WBT, Start of Yellow
Natural Cycle:	65
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.79
Intersection Signal Delay (s/veh):	30.8
Intersection LOS:	C
Intersection Capacity Utilization:	68.9%
ICU Level of Service:	C
Analysis Period (min):	15

Splits and Phases: 29: I-75 NB Off-ramp/I-75 NB On-ramp & SR 200



Timings
28: I-75 SB On-Ramp/I-75 SB Off-Ramp & SR 200

2030 No-Build Conditions
Timing Plan: Weekend

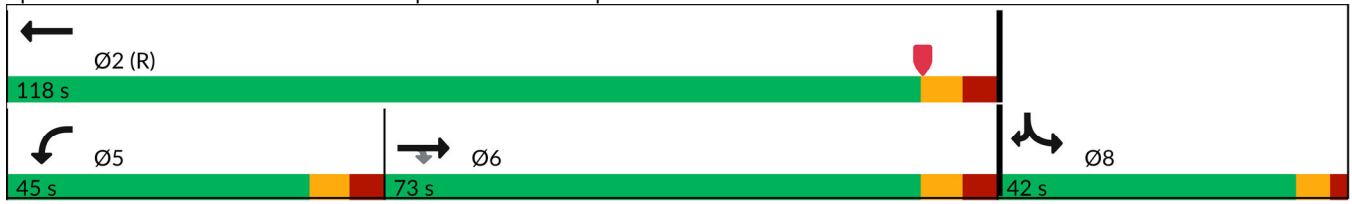


Lane Group	EBT	EBR	WBL	WBT	SBL	SBR
Lane Configurations	↑↑↑↑	↗	↘	↑↑↑	↘	↗
Traffic Volume (vph)	2005	345	295	1854	206	338
Future Volume (vph)	2005	345	295	1854	206	338
Lane Group Flow (vph)	2111	363	311	1952	217	356
Turn Type	NA	Perm	Prot	NA	Prot	Prot
Protected Phases	6		5	2	8	8
Permitted Phases		6				
Detector Phase	6	6	5	2	8	8
Switch Phase						
Minimum Initial (s)	20.0	20.0	12.0	20.0	7.0	7.0
Minimum Split (s)	29.0	29.0	21.0	45.0	14.0	14.0
Total Split (s)	73.0	73.0	45.0	118.0	42.0	42.0
Total Split (%)	45.6%	45.6%	28.1%	73.8%	26.3%	26.3%
Yellow Time (s)	4.9	4.9	4.9	4.9	4.1	4.1
All-Red Time (s)	4.0	4.0	4.0	4.0	2.2	2.2
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	8.9	8.9	8.9	8.9	6.3	6.3
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	Min	Min	None	C-Min	None	None
Act Effct Green (s)	87.3	87.3	21.0	117.2	27.6	27.6
Actuated g/C Ratio	0.55	0.55	0.13	0.73	0.17	0.17
v/c Ratio	0.52	0.36	0.70	0.53	0.37	0.76
Control Delay (s/veh)	24.7	3.1	80.4	9.4	59.5	73.2
Queue Delay	0.0	0.0	0.0	0.5	0.0	0.0
Total Delay (s/veh)	24.7	3.1	80.4	9.8	59.5	73.2
LOS	C	A	F	A	E	E
Approach Delay (s/veh)	21.5			19.5		
Approach LOS	C			B		
Queue Length 50th (ft)	339	0	135	131	104	203
Queue Length 95th (ft)	431	58	150	728	139	255
Internal Link Dist (ft)	1476			454		
Turn Bay Length (ft)		475			350	325
Base Capacity (vph)	4036	1012	759	3653	751	609
Starvation Cap Reductn	0	0	0	1056	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.52	0.36	0.41	0.75	0.29	0.58

Intersection Summary

Cycle Length: 160	
Actuated Cycle Length: 160	
Offset: 74 (46%), Referenced to phase 2:WBT, Start of Yellow	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.76	
Intersection Signal Delay (s/veh): 25.7	Intersection LOS: C
Intersection Capacity Utilization 65.3%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 28: I-75 SB On-Ramp/I-75 SB Off-Ramp & SR 200



Timings
29: I-75 NB Off-ramp/I-75 NB On-ramp & SR 200

2030 No-Build Conditions
Timing Plan: Weekend

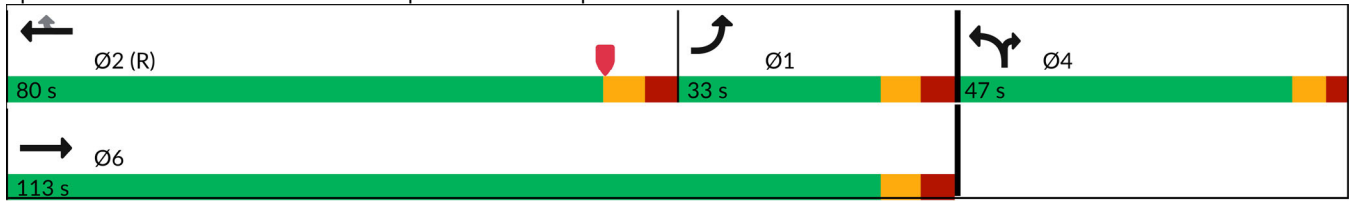


Lane Group	EBL	EBT	WBT	WBR	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	396	1815	1887	387	262	496
Future Volume (vph)	396	1815	1887	387	262	496
Lane Group Flow (vph)	417	1911	1986	407	276	522
Turn Type	Prot	NA	NA	Perm	Prot	Prot
Protected Phases	1	6	2		4	4
Permitted Phases				2		
Detector Phase	1	6	2	2	4	4
Switch Phase						
Minimum Initial (s)	7.0	20.0	20.0	20.0	7.0	7.0
Minimum Split (s)	16.0	40.8	29.0	29.0	14.0	14.0
Total Split (s)	33.0	113.0	80.0	80.0	47.0	47.0
Total Split (%)	20.6%	70.6%	50.0%	50.0%	29.4%	29.4%
Yellow Time (s)	4.9	4.9	4.9	4.9	4.1	4.1
All-Red Time (s)	3.9	3.9	3.9	3.9	2.6	2.6
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	8.8	8.8	8.8	8.8	6.7	6.7
Lead/Lag	Lag		Lead	Lead		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	Min	C-Min	C-Min	None	None
Act Effct Green (s)	23.6	108.2	75.8	75.8	36.3	36.3
Actuated g/C Ratio	0.15	0.68	0.47	0.47	0.23	0.23
v/c Ratio	0.83	0.57	0.57	0.42	0.36	0.83
Control Delay (s/veh)	60.8	10.4	31.6	3.7	52.8	71.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	60.8	10.4	31.6	3.7	52.8	71.1
LOS	E	B	C	A	D	E
Approach Delay (s/veh)		19.4	26.9			
Approach LOS		B	C			
Queue Length 50th (ft)	222	148	373	0	125	295
Queue Length 95th (ft)	285	157	416	62	166	366
Internal Link Dist (ft)		454	1413			
Turn Bay Length (ft)				420	385	385
Base Capacity (vph)	519	3373	3507	964	856	695
Starvation Cap Reductn	0	77	0	0	0	0
Spillback Cap Reductn	0	0	98	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.80	0.58	0.58	0.42	0.32	0.75

Intersection Summary

Cycle Length: 160	
Actuated Cycle Length: 160	
Offset: 32 (20%), Referenced to phase 2:WBT, Start of Yellow	
Natural Cycle: 70	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.83	
Intersection Signal Delay (s/veh): 29.2	Intersection LOS: C
Intersection Capacity Utilization 65.3%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 29: I-75 NB Off-ramp/I-75 NB On-ramp & SR 200



**APPENDIX U – 2040 NO-BUILD SYNCHRO OUTPUT
REPORTS**

SR 44 Summary Tables

10: I-75 SB On-ramp/I-75 SB Off-ramp & SR 44

Approach	Movement	AM Peak Hour			PM Peak Hour			WKND Peak Hour		
		V/C	Delay (s) [LOS]	95% Queue (ft)	V/C	Delay (s) [LOS]	95% Queue (ft)	V/C	Delay (s) [LOS]	95% Queue (ft)
Westbound	Left	0.76	61.4 (E)	275	0.78	48.8 (D)	250	0.76	46.5 (D)	250
	Through	0.18	9.9 (A)	100	0.38	7.6 (A)	150	0.26	5.6 (A)	100
	Approach	0.46	34.8 (C)	-	0.54	24.5 (C)	-	0.49	24.6 (C)	-
Eastbound	Through	0.20	24.1 (C)	150	0.17	24.7 (C)	75	0.18	20.5 (C)	75
	Right	0.65	5.7 (A)	125	0.59	6.6 (A)	100	0.63	5.8 (A)	100
	Approach	0.44	14.4 (B)	-	0.41	14.3 (B)	-	0.44	12.0 (B)	-
Southbound	Left	0.78	64.2 (E)	300	0.49	35.4 (D)	125	0.56	39.3 (D)	150
	Right	0.43	8.5 (A)	75	0.78	29.4 (C)	200	0.61	9.2 (A)	75
	Approach	0.68	48.8 (D)	-	0.64	32.2 (C)	-	0.58	24.3 (C)	-
Overall Intersection		0.51	29.3 (C)	-	0.53	23.5 (C)	-	0.49	20.0 (B)	-

11: I-75 NB Off-ramp/I-75 NB On-ramp & SR 44

Approach	Movement	AM Peak Hour			PM Peak Hour			WKND Peak Hour		
		V/C	Delay (s) [LOS]	95% Queue (ft)	V/C	Delay (s) [LOS]	95% Queue (ft)	V/C	Delay (s) [LOS]	95% Queue (ft)
Westbound	Through	0.32	46.4 (D)	175	0.34	19.1 (B)	175	0.33	23.3 (C)	150
	Right	0.58	8.4 (A)	100	0.63	5.2 (A)	100	0.49	5.3 (A)	75
	Approach	0.43	30.0 (C)	-	0.46	13.6 (B)	-	0.38	17.2 (B)	-
Northbound	Left	0.20	22.6 (C)	125	0.65	35.8 (D)	200	0.42	28.7 (C)	125
	Right	0.86	40.3 (D)	625	0.79	22.5 (C)	225	0.86	30.3 (C)	275
	Approach	0.66	34.8 (C)	-	0.72	29.5 (C)	-	0.67	29.6 (C)	-
Eastbound	Left	0.72	70.7 (E)	200	0.29	45.2 (D)	75	0.47	55.1 (E)	125
	Through	0.58	43.1 (D)	500	0.29	13.9 (B)	150	0.29	14.3 (B)	150
	Approach	0.61	49.9 (D)	-	0.29	18.5 (B)	-	0.34	24.6 (C)	-
Overall Intersection		0.57	39.0 (D)	-	0.50	19.4 (B)	-	0.46	23.1 (C)	-

SR 44 Synchro Reports

Timings
10: I-75 SB On-ramp/I-75 SB Off-ramp & SR 44

2040 No-Build Conditions

Timing Plan: AM

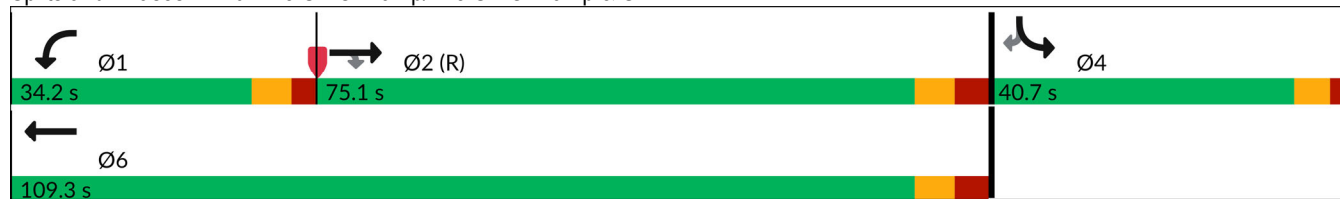


Lane Group	EBT	EBR	WBL	WBT	SBL	SBR
Lane Configurations	↑↑↑↑	↗	↘↗	↑↑	↘↗	↗
Traffic Volume (vph)	547	616	364	390	492	187
Future Volume (vph)	547	616	364	390	492	187
Lane Group Flow (vph)	576	648	383	411	518	197
Turn Type	NA	Perm	Prot	NA	Prot	Perm
Protected Phases	2		1	6	4	
Permitted Phases		2				4
Detector Phase	2	2	1	6	4	4
Switch Phase						
Minimum Initial (s)	20.0	20.0	10.0	20.0	15.0	15.0
Minimum Split (s)	28.1	28.1	17.2	28.1	21.5	21.5
Total Split (s)	75.1	75.1	34.2	109.3	40.7	40.7
Total Split (%)	50.1%	50.1%	22.8%	72.9%	27.1%	27.1%
Yellow Time (s)	4.4	4.4	4.4	4.4	4.0	4.0
All-Red Time (s)	3.7	3.7	2.8	3.7	2.5	2.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	8.1	8.1	7.2	8.1	6.5	6.5
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	C-Min	C-Min	None	Min	None	None
Act Effct Green (s)	71.8	71.8	24.8	103.8	31.6	31.6
Actuated g/C Ratio	0.48	0.48	0.17	0.69	0.21	0.21
v/c Ratio	0.20	0.65	0.76	0.18	0.78	0.43
Control Delay (s/veh)	24.1	5.7	61.4	9.9	64.2	8.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	24.1	5.7	61.4	9.9	64.2	8.5
LOS	C	A	E	A	E	A
Approach Delay (s/veh)	14.4			34.8		
Approach LOS	B			C		
Queue Length 50th (ft)	92	5	199	75	249	0
Queue Length 95th (ft)	134	112	253	89	296	64
Internal Link Dist (ft)	1477			382		
Turn Bay Length (ft)		275				500
Base Capacity (vph)	2970	1014	563	2337	742	492
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	168	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.21	0.64	0.68	0.18	0.70	0.40

Intersection Summary

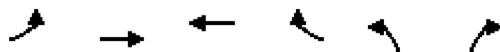
Cycle Length: 150	
Actuated Cycle Length: 150	
Offset: 141 (94%), Referenced to phase 2:EBT, Start of Green	
Natural Cycle: 70	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.78	
Intersection Signal Delay (s/veh): 29.3	Intersection LOS: C
Intersection Capacity Utilization 80.7%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 10: I-75 SB On-ramp/I-75 SB Off-ramp & SR 44



Timings
 11: I-75 NB Off-ramp/I-75 NB On-ramp & SR 44

2040 No-Build Conditions
 Timing Plan: AM



Lane Group	EBL	EBT	WBT	WBR	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	255	784	472	360	282	630
Future Volume (vph)	255	784	472	360	282	630
Lane Group Flow (vph)	268	825	497	379	297	663
Turn Type	Prot	NA	NA	Perm	Prot	Perm
Protected Phases	1	6	2		4	
Permitted Phases				2		4
Detector Phase	1	6	2	2	4	4
Switch Phase						
Minimum Initial (s)	10.0	20.0	20.0	20.0	15.0	15.0
Minimum Split (s)	24.5	27.3	27.3	27.3	22.1	22.1
Total Split (s)	25.2	84.2	59.0	59.0	65.8	65.8
Total Split (%)	16.8%	56.1%	39.3%	39.3%	43.9%	43.9%
Yellow Time (s)	4.4	4.4	4.4	4.4	4.0	4.0
All-Red Time (s)	2.5	2.9	2.9	2.9	3.1	3.1
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.9	7.3	7.3	7.3	7.1	7.1
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	C-Min	C-Min	C-Min	None	None
Act Effct Green (s)	18.0	64.1	39.2	39.2	71.5	71.5
Actuated g/C Ratio	0.12	0.43	0.26	0.26	0.48	0.48
v/c Ratio	0.72	0.58	0.32	0.58	0.20	0.86
Control Delay (s/veh)	70.7	42.8	46.4	8.4	22.6	40.3
Queue Delay	0.0	0.3	0.0	0.0	0.0	0.0
Total Delay (s/veh)	70.7	43.1	46.4	8.4	22.6	40.3
LOS	E	D	D	A	C	D
Approach Delay (s/veh)		49.9	30.0			
Approach LOS		D	C			
Queue Length 50th (ft)	137	340	112	0	89	502
Queue Length 95th (ft)	178	481	155	99	102	610
Internal Link Dist (ft)		382	1690			
Turn Bay Length (ft)				350		450
Base Capacity (vph)	394	1697	2066	740	1517	767
Starvation Cap Reductn	0	337	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	0.68	0.61	0.24	0.51	0.20	0.86

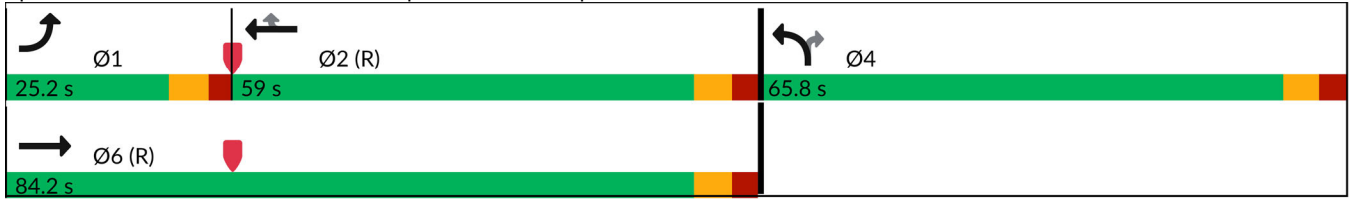
Intersection Summary

Cycle Length: 150	
Actuated Cycle Length: 150	
Offset: 16 (11%), Referenced to phase 2:WBT and 6:EBT, Start of Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.86	
Intersection Signal Delay (s/veh): 39.0	Intersection LOS: D
Intersection Capacity Utilization 80.7%	ICU Level of Service D
Analysis Period (min) 15	

Timings
 11: I-75 NB Off-ramp/I-75 NB On-ramp & SR 44

2040 No-Build Conditions
 Timing Plan: AM

Splits and Phases: 11: I-75 NB Off-ramp/I-75 NB On-ramp & SR 44



Timings
10: I-75 SB On-ramp/I-75 SB Off-ramp & SR 44

2040 No-Build Conditions
Timing Plan: PM

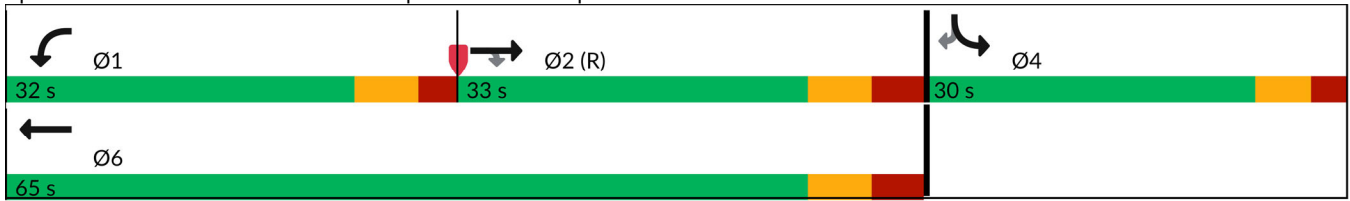


Lane Group	EBT	EBR	WBL	WBT	SBL	SBR
Lane Configurations	↑↑↑↑	↗	↖↗	↑↑	↖↗	↗
Traffic Volume (vph)	331	442	567	814	308	340
Future Volume (vph)	331	442	567	814	308	340
Lane Group Flow (vph)	334	446	573	822	311	343
Turn Type	NA	Perm	Prot	NA	Prot	Perm
Protected Phases	2		1	6	4	
Permitted Phases		2				4
Detector Phase	2	2	1	6	4	4
Switch Phase						
Minimum Initial (s)	20.0	20.0	10.0	20.0	15.0	15.0
Minimum Split (s)	28.1	28.1	17.2	28.1	21.5	21.5
Total Split (s)	33.0	33.0	32.0	65.0	30.0	30.0
Total Split (%)	34.7%	34.7%	33.7%	68.4%	31.6%	31.6%
Yellow Time (s)	4.4	4.4	4.4	4.4	4.0	4.0
All-Red Time (s)	3.7	3.7	2.8	3.7	2.5	2.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	8.1	8.1	7.2	8.1	6.5	6.5
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	C-Min	C-Min	None	Min	None	None
Act Effct Green (s)	31.0	31.0	22.9	61.1	19.3	19.3
Actuated g/C Ratio	0.33	0.33	0.24	0.64	0.20	0.20
v/c Ratio	0.17	0.59	0.78	0.38	0.49	0.78
Control Delay (s/veh)	24.7	6.6	48.8	7.6	35.4	29.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	24.7	6.6	48.8	7.6	35.4	29.4
LOS	C	A	D	A	D	C
Approach Delay (s/veh)	14.3			24.5		
Approach LOS	B			C		
Queue Length 50th (ft)	41	0	194	121	86	94
Queue Length 95th (ft)	65	83	249	144	120	191
Internal Link Dist (ft)	1477			382		
Turn Bay Length (ft)		275				500
Base Capacity (vph)	2003	763	805	2153	783	496
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	0.17	0.58	0.71	0.38	0.40	0.69

Intersection Summary

Cycle Length: 95	
Actuated Cycle Length: 95	
Offset: 13 (14%), Referenced to phase 2:EBT, Start of Green	
Natural Cycle: 75	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.78	
Intersection Signal Delay (s/veh): 23.5	Intersection LOS: C
Intersection Capacity Utilization 76.5%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 10: I-75 SB On-ramp/I-75 SB Off-ramp & SR 44



Timings
 11: I-75 NB Off-ramp/I-75 NB On-ramp & SR 44

2040 No-Build Conditions
 Timing Plan: PM



Lane Group	EBL	EBT	WBT	WBR	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	93	546	892	589	489	432
Future Volume (vph)	93	546	892	589	489	432
Lane Group Flow (vph)	98	575	939	620	515	455
Turn Type	Prot	NA	NA	Perm	Prot	Perm
Protected Phases	1	6	2		4	
Permitted Phases				2		4
Detector Phase	1	6	2	2	4	4
Switch Phase						
Minimum Initial (s)	10.0	20.0	20.0	20.0	15.0	15.0
Minimum Split (s)	24.5	27.3	27.3	27.3	22.1	22.1
Total Split (s)	25.0	60.0	35.0	35.0	35.0	35.0
Total Split (%)	26.3%	63.2%	36.8%	36.8%	36.8%	36.8%
Yellow Time (s)	4.4	4.4	4.4	4.4	4.0	4.0
All-Red Time (s)	2.5	2.9	2.9	2.9	3.1	3.1
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.9	7.3	7.3	7.3	7.1	7.1
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	C-Min	C-Min	C-Min	None	None
Act Effct Green (s)	10.4	57.1	43.2	43.2	23.5	23.5
Actuated g/C Ratio	0.11	0.60	0.45	0.45	0.25	0.25
v/c Ratio	0.29	0.29	0.34	0.63	0.65	0.79
Control Delay (s/veh)	45.2	13.9	19.1	5.2	35.8	22.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	45.2	13.9	19.1	5.2	35.8	22.5
LOS	D	B	B	A	D	C
Approach Delay (s/veh)		18.5	13.6			
Approach LOS		B	B			
Queue Length 50th (ft)	32	96	110	0	143	96
Queue Length 95th (ft)	59	131	152	82	186	211
Internal Link Dist (ft)		382	1690			
Turn Bay Length (ft)				350		450
Base Capacity (vph)	590	1989	2724	987	934	631
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	0.17	0.29	0.34	0.63	0.55	0.72

Intersection Summary

Cycle Length: 95	
Actuated Cycle Length: 95	
Offset: 12 (13%), Referenced to phase 2:WBT and 6:EBT, Start of Green	
Natural Cycle: 75	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.79	
Intersection Signal Delay (s/veh): 19.4	Intersection LOS: B
Intersection Capacity Utilization 76.5%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 11: I-75 NB Off-ramp/I-75 NB On-ramp & SR 44



Timings
 10: I-75 SB On-ramp/I-75 SB Off-ramp & SR 44

2040 No-Build Conditions
 Timing Plan: Weekend



Lane Group	EBT	EBR	WBL	WBT	SBL	SBR
Lane Configurations	↑↑↑↑	↗	↖↗	↑↑	↖↗	↗
Traffic Volume (vph)	412	557	507	587	319	317
Future Volume (vph)	412	557	507	587	319	317
Lane Group Flow (vph)	420	568	517	599	326	323
Turn Type	NA	Perm	Prot	NA	Prot	Perm
Protected Phases	2		1	6	4	
Permitted Phases		2				4
Detector Phase	2	2	1	6	4	4
Switch Phase						
Minimum Initial (s)	20.0	20.0	10.0	20.0	15.0	15.0
Minimum Split (s)	28.1	28.1	17.2	28.1	21.5	21.5
Total Split (s)	44.0	44.0	26.0	70.0	25.0	25.0
Total Split (%)	46.3%	46.3%	27.4%	73.7%	26.3%	26.3%
Yellow Time (s)	4.4	4.4	4.4	4.4	4.0	4.0
All-Red Time (s)	3.7	3.7	2.8	3.7	2.5	2.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	8.1	8.1	7.2	8.1	6.5	6.5
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	C-Min	C-Min	None	Min	None	None
Act Effct Green (s)	36.1	36.1	20.1	63.4	17.0	17.0
Actuated g/C Ratio	0.38	0.38	0.21	0.67	0.18	0.18
v/c Ratio	0.18	0.63	0.76	0.26	0.56	0.61
Control Delay (s/veh)	20.5	5.8	46.5	5.6	39.3	9.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	20.5	5.8	46.5	5.6	39.3	9.2
LOS	C	A	D	A	D	A
Approach Delay (s/veh)	12.0			24.6		
Approach LOS	B			C		
Queue Length 50th (ft)	48	4	168	55	93	0
Queue Length 95th (ft)	68	81	#240	85	132	72
Internal Link Dist (ft)	1477			382		
Turn Bay Length (ft)		275				500
Base Capacity (vph)	2465	923	694	2305	642	555
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	0.17	0.62	0.74	0.26	0.51	0.58

Intersection Summary

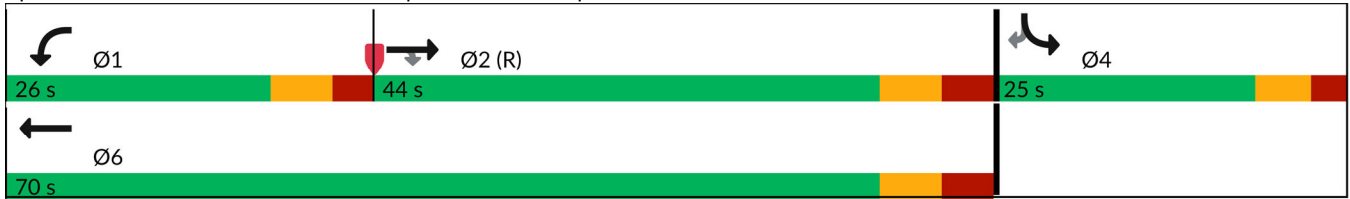
Cycle Length: 95	
Actuated Cycle Length: 95	
Offset: 93 (98%), Referenced to phase 2:EBT, Start of Green	
Natural Cycle: 70	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.76	
Intersection Signal Delay (s/veh): 20.0	Intersection LOS: C
Intersection Capacity Utilization 79.6%	ICU Level of Service D
Analysis Period (min) 15	

Timings
 10: I-75 SB On-ramp/I-75 SB Off-ramp & SR 44

2040 No-Build Conditions
 Timing Plan: Weekend

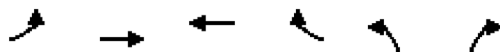
95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 10: I-75 SB On-ramp/I-75 SB Off-ramp & SR 44



Timings
 11: I-75 NB Off-ramp/I-75 NB On-ramp & SR 44

2040 No-Build Conditions
 Timing Plan: Weekend



Lane Group	EBL	EBT	WBT	WBR	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	184	547	731	376	363	490
Future Volume (vph)	184	547	731	376	363	490
Lane Group Flow (vph)	192	570	761	392	378	510
Turn Type	Prot	NA	NA	Perm	Prot	Perm
Protected Phases	1	6	2		4	
Permitted Phases				2		4
Detector Phase	1	6	2	2	4	4
Switch Phase						
Minimum Initial (s)	10.0	20.0	20.0	20.0	15.0	15.0
Minimum Split (s)	24.5	27.3	27.3	27.3	22.1	22.1
Total Split (s)	25.0	55.0	30.0	30.0	40.0	40.0
Total Split (%)	26.3%	57.9%	31.6%	31.6%	42.1%	42.1%
Yellow Time (s)	4.4	4.4	4.4	4.4	4.0	4.0
All-Red Time (s)	2.5	2.9	2.9	2.9	3.1	3.1
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.9	7.3	7.3	7.3	7.1	7.1
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	C-Min	C-Min	C-Min	None	None
Act Effct Green (s)	12.1	54.7	35.7	35.7	25.9	25.9
Actuated g/C Ratio	0.13	0.58	0.38	0.38	0.27	0.27
v/c Ratio	0.47	0.29	0.33	0.49	0.42	0.86
Control Delay (s/veh)	55.1	14.3	23.3	5.3	28.7	30.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	55.1	14.3	23.3	5.3	28.7	30.3
LOS	E	B	C	A	C	C
Approach Delay (s/veh)		24.6	17.2			
Approach LOS		C	B			
Queue Length 50th (ft)	64	86	95	0	94	153
Queue Length 95th (ft)	101	130	140	71	123	269
Internal Link Dist (ft)		382	1690			
Turn Bay Length (ft)				350		450
Base Capacity (vph)	612	1979	2336	801	1143	690
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	0.29	0.33	0.49	0.33	0.74

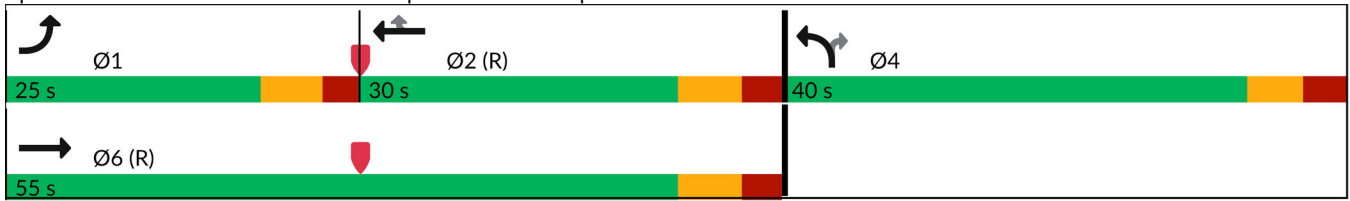
Intersection Summary

Cycle Length: 95	
Actuated Cycle Length: 95	
Offset: 5 (5%), Referenced to phase 2:WBT and 6:EBT, Start of Green	
Natural Cycle: 75	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.86	
Intersection Signal Delay (s/veh): 23.1	Intersection LOS: C
Intersection Capacity Utilization 79.6%	ICU Level of Service D
Analysis Period (min) 15	

Timings
11: I-75 NB Off-ramp/I-75 NB On-ramp & SR 44

2040 No-Build Conditions
Timing Plan: Weekend

Splits and Phases: 11: I-75 NB Off-ramp/I-75 NB On-ramp & SR 44



CR 484 Summary Tables

19: I-75 SB On-ramp/I-75 SB Off-ramp & CR 484

Approach	Movement	AM Peak Hour			PM Peak Hour			WKND Peak Hour		
		V/C	Delay (s) [LOS]	95% Queue (ft)	V/C	Delay (s) [LOS]	95% Queue (ft)	V/C	Delay (s) [LOS]	95% Queue (ft)
Westbound	Left	0.83	97.1 (F)	425	0.91	104.8 (F)	350	0.74	79.8 (E)	500
	Through	0.31	6.4 (A)	125	0.79	18.6 (B)	325	0.42	6.9 (A)	175
	Approach	0.46	32.5 (C)	-	0.80	27.2 (C)	-	0.50	25.5 (C)	-
Eastbound	TH/RT	0.89	40.7 (D)	775	0.56	28.4 (C)	325	0.76	38.0 (D)	475
	Approach	0.89	40.7 (D)	-	0.56	28.4 (C)	-	0.76	38.0 (D)	-
Southbound	Left	0.74	65.9 (E)	225	0.68	51.0 (D)	325	0.70	66.3 (E)	200
	Right	0.44	7.4 (A)	50	0.91	59.5 (E)	425	0.64	28.6 (C)	125
	Approach	0.61	40.5 (D)	-	0.80	55.6 (E)	-	0.67	46.6 (D)	-
Overall Intersection		0.71	38.5 (D)	-	0.73	35.2 (D)	-	0.63	34.6 (C)	-

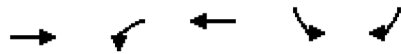
20: I-75 NB Off-ramp/I-75 NB On-ramp & CR 484

Approach	Movement	AM Peak Hour			PM Peak Hour			WKND Peak Hour		
		V/C	Delay (s) [LOS]	95% Queue (ft)	V/C	Delay (s) [LOS]	95% Queue (ft)	V/C	Delay (s) [LOS]	95% Queue (ft)
Westbound	Through	0.45	31.6 (C)	275	0.72	37.8 (D)	450	0.57	34.5 (C)	350
	Right	0.63	7.7 (A)	150	0.50	9.8 (A)	150	0.61	6.4 (A)	125
	Approach	0.52	22.2 (C)	-	0.67	31.6 (C)	-	0.58	25.0 (C)	-
Northbound	Left	0.52	59.0 (E)	150	0.69	54.3 (D)	300	0.57	51.0 (D)	225
	Right	0.77	50.3 (D)	200	0.89	62.5 (E)	425	0.92	65.5 (E)	425
	Approach	0.64	54.8 (D)	-	0.77	57.7 (E)	-	0.74	57.9 (E)	-
Eastbound	Left	0.76	63.4 (E)	475	0.47	65.7 (E)	225	0.73	70.7 (E)	350
	Through	0.58	12.7 (B)	400	0.66	13.9 (B)	325	0.50	11.1 (B)	250
	Approach	0.64	29.9 (C)	-	0.63	23.4 (C)	-	0.57	30.2 (C)	-
Overall Intersection		0.60	29.9 (C)	-	0.67	33.4 (C)	-	0.61	33.2 (C)	-

CR 484 Synchro Reports

Timings
 19: I-75 SB On-ramp/I-75 SB Off-ramp & CR 484

2040 No-Build Conditions
 Timing Plan: AM



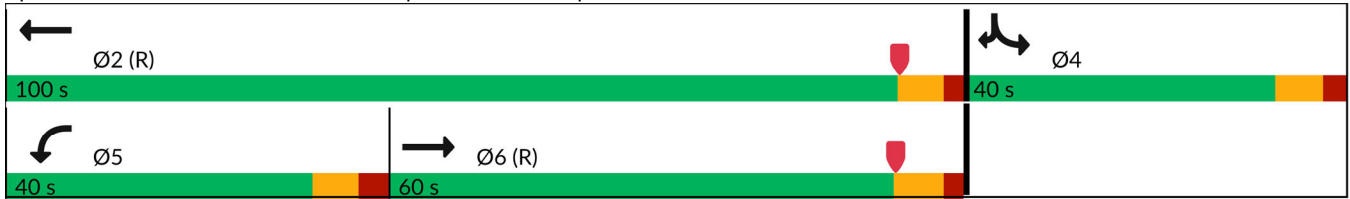
Lane Group	EBT	WBL	WBT	SBL	SBR
Lane Configurations	↑↑↑↑	↙	↑↑	↘↘	↘↘
Traffic Volume (vph)	1843	311	769	354	271
Future Volume (vph)	1843	311	769	354	271
Lane Group Flow (vph)	2433	324	801	369	282
Turn Type	NA	Prot	NA	Prot	Prot
Protected Phases	6	5	2	4	4
Permitted Phases					
Detector Phase	6	5	2	4	4
Switch Phase					
Minimum Initial (s)	18.0	7.0	18.0	7.0	7.0
Minimum Split (s)	25.3	15.0	34.8	45.4	45.4
Total Split (s)	60.0	40.0	100.0	40.0	40.0
Total Split (%)	42.9%	28.6%	71.4%	28.6%	28.6%
Yellow Time (s)	5.3	4.8	4.8	4.9	4.9
All-Red Time (s)	2.0	3.2	2.0	2.5	2.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.3	8.0	6.8	7.4	7.4
Lead/Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes			
Recall Mode	C-Max	None	C-Max	None	None
Act Effct Green (s)	62.6	33.1	104.2	21.6	21.6
Actuated g/C Ratio	0.45	0.24	0.74	0.15	0.15
v/c Ratio	0.89	0.83	0.31	0.74	0.44
Control Delay (s/veh)	40.7	97.1	6.4	65.5	7.4
Queue Delay	0.0	0.0	0.1	0.4	0.0
Total Delay (s/veh)	40.7	97.1	6.4	65.9	7.4
LOS	D	F	A	E	A
Approach Delay (s/veh)	40.7		32.5		
Approach LOS	D		C		
Queue Length 50th (ft)	582	314	86	168	0
Queue Length 95th (ft)	#766	416	101	212	42
Internal Link Dist (ft)	1153		407		
Turn Bay Length (ft)				500	450
Base Capacity (vph)	2723	410	2583	754	829
Starvation Cap Reductn	0	0	460	0	0
Spillback Cap Reductn	3	0	0	108	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.89	0.79	0.38	0.57	0.34

Intersection Summary

Cycle Length: 140	
Actuated Cycle Length: 140	
Offset: 67 (48%), Referenced to phase 2:WBT and 6:EBT, Start of Yellow	
Natural Cycle: 150	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.89	
Intersection Signal Delay (s/veh): 38.5	Intersection LOS: D
Intersection Capacity Utilization 81.2%	ICU Level of Service D
Analysis Period (min) 15	

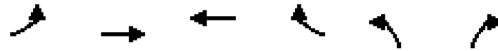
95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 19: I-75 SB On-ramp/I-75 SB Off-ramp & CR 484



Timings
 20: I-75 NB Off-ramp/I-75 NB On-ramp & CR 484

2040 No-Build Conditions
 Timing Plan: AM



Lane Group	EBL	EBT	WBT	WBR	NBL	NBR
Lane Configurations	↶↶	↶↶	↶↶↶	↷	↶↶	↷
Traffic Volume (vph)	747	1450	852	553	228	214
Future Volume (vph)	747	1450	852	553	228	214
Lane Group Flow (vph)	770	1495	878	570	235	221
Turn Type	Prot	NA	NA	Perm	Prot	Perm
Protected Phases	1	6	2		4	
Permitted Phases				2		4
Detector Phase	1	6	2	2	4	4
Switch Phase						
Minimum Initial (s)	7.0	20.0	20.0	20.0	7.0	7.0
Minimum Split (s)	15.0	26.8	34.8	34.8	44.8	44.8
Total Split (s)	42.0	105.0	63.0	63.0	35.0	35.0
Total Split (%)	30.0%	75.0%	45.0%	45.0%	25.0%	25.0%
Yellow Time (s)	4.8	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	3.2	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	8.0	6.8	6.8	6.8	6.8	6.8
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	Max	C-Max	C-Max	C-Max	None	None
Act Effct Green (s)	42.8	107.0	56.2	56.2	19.4	19.4
Actuated g/C Ratio	0.31	0.76	0.40	0.40	0.14	0.14
v/c Ratio	0.76	0.58	0.45	0.63	0.52	0.77
Control Delay (s/veh)	60.9	11.6	31.6	7.7	59.0	50.3
Queue Delay	2.4	1.1	0.0	0.0	0.0	0.0
Total Delay (s/veh)	63.4	12.7	31.6	7.7	59.0	50.3
LOS	E	B	C	A	E	D
Approach Delay (s/veh)		29.9	22.2			
Approach LOS		C	C			
Queue Length 50th (ft)	385	257	212	38	104	116
Queue Length 95th (ft)	m#467	396	253	150	137	198
Internal Link Dist (ft)		407	1283			
Turn Bay Length (ft)				200	350	350
Base Capacity (vph)	1009	2578	1946	912	659	377
Starvation Cap Reductn	132	763	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	0.82	0.45	0.63	0.36	0.59

Intersection Summary	
Cycle Length: 140	
Actuated Cycle Length: 140	
Offset: 58 (41%), Referenced to phase 2:WBT and 6:EBT, Start of Yellow	
Natural Cycle: 105	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.77	
Intersection Signal Delay (s/veh): 29.9	Intersection LOS: C
Intersection Capacity Utilization 81.2%	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.

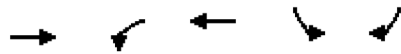
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 20: I-75 NB Off-ramp/I-75 NB On-ramp & CR 484



Timings
 19: I-75 SB On-ramp/I-75 SB Off-ramp & CR 484

2040 No-Build Conditions
 Timing Plan: PM



Lane Group	EBT	WBL	WBT	SBL	SBR
Lane Configurations	↑↑↑↑	↙	↑↑	↘↘	↘↘
Traffic Volume (vph)	1202	183	1654	548	652
Future Volume (vph)	1202	183	1654	548	652
Lane Group Flow (vph)	1545	193	1741	577	686
Turn Type	NA	Prot	NA	Prot	Prot
Protected Phases	6	5	2	4	4
Permitted Phases					
Detector Phase	6	5	2	4	4
Switch Phase					
Minimum Initial (s)	18.0	7.0	18.0	7.0	7.0
Minimum Split (s)	25.3	15.0	34.8	45.4	45.4
Total Split (s)	70.0	24.0	94.0	46.0	46.0
Total Split (%)	50.0%	17.1%	67.1%	32.9%	32.9%
Yellow Time (s)	5.3	4.8	4.8	4.9	4.9
All-Red Time (s)	2.0	3.2	2.0	2.5	2.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.3	8.0	6.8	7.4	7.4
Lead/Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes			
Recall Mode	C-Max	None	C-Max	None	None
Act Effct Green (s)	62.8	18.0	89.4	36.4	36.4
Actuated g/C Ratio	0.45	0.13	0.64	0.26	0.26
v/c Ratio	0.56	0.91	0.79	0.68	0.91
Control Delay (s/veh)	28.4	104.8	18.5	51.0	59.5
Queue Delay	0.0	0.0	0.2	0.0	0.0
Total Delay (s/veh)	28.4	104.8	18.6	51.0	59.5
LOS	C	F	B	D	E
Approach Delay (s/veh)	28.4		27.2		
Approach LOS	C		C		
Queue Length 50th (ft)	287	~191	265	239	297
Queue Length 95th (ft)	325	m#345	308	304	#409
Internal Link Dist (ft)	1153		407		
Turn Bay Length (ft)				500	450
Base Capacity (vph)	2748	213	2215	893	795
Starvation Cap Reductn	0	0	64	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.56	0.91	0.81	0.65	0.86

Intersection Summary

Cycle Length: 140	
Actuated Cycle Length: 140	
Offset: 69 (49%), Referenced to phase 2:WBT and 6:EBT, Start of Yellow	
Natural Cycle: 100	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.91	
Intersection Signal Delay (s/veh): 35.2	Intersection LOS: D
Intersection Capacity Utilization 80.4%	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.

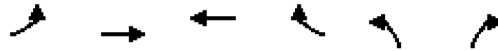
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 19: I-75 SB On-ramp/I-75 SB Off-ramp & CR 484



Timings
 20: I-75 NB Off-ramp/I-75 NB On-ramp & CR 484

2040 No-Build Conditions
 Timing Plan: PM

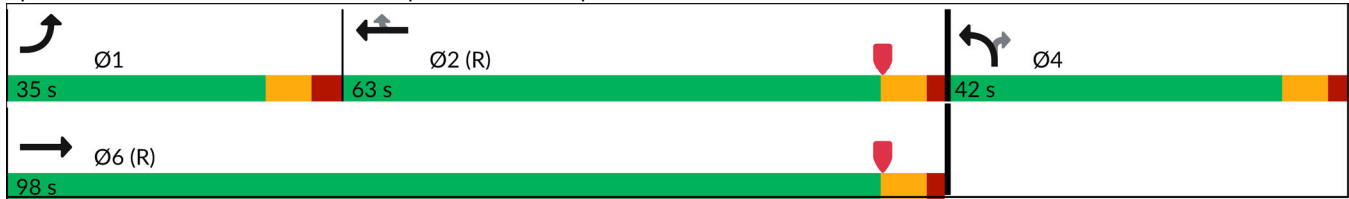


Lane Group	EBL	EBT	WBT	WBR	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	319	1431	1339	382	498	356
Future Volume (vph)	319	1431	1339	382	498	356
Lane Group Flow (vph)	332	1491	1395	398	519	371
Turn Type	Prot	NA	NA	Perm	Prot	Perm
Protected Phases	1	6	2		4	
Permitted Phases				2		4
Detector Phase	1	6	2	2	4	4
Switch Phase						
Minimum Initial (s)	7.0	20.0	20.0	20.0	7.0	7.0
Minimum Split (s)	15.0	26.8	34.8	34.8	44.8	44.8
Total Split (s)	35.0	98.0	63.0	63.0	42.0	42.0
Total Split (%)	25.0%	70.0%	45.0%	45.0%	30.0%	30.0%
Yellow Time (s)	4.8	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	3.2	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	8.0	6.8	6.8	6.8	6.8	6.8
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	Max	C-Max	C-Max	C-Max	None	None
Act Effct Green (s)	30.1	94.3	56.2	56.2	32.1	32.1
Actuated g/C Ratio	0.22	0.67	0.40	0.40	0.23	0.23
v/c Ratio	0.47	0.66	0.72	0.50	0.69	0.89
Control Delay (s/veh)	65.7	13.8	37.8	9.8	54.3	62.5
Queue Delay	0.0	0.1	0.0	0.0	0.0	0.0
Total Delay (s/veh)	65.7	13.9	37.8	9.8	54.3	62.5
LOS	E	B	D	A	D	E
Approach Delay (s/veh)		23.4	31.6			
Approach LOS		C	C			
Queue Length 50th (ft)	165	288	387	56	218	249
Queue Length 95th (ft)	218	314	444	149	280	#415
Internal Link Dist (ft)		407	1283			
Turn Bay Length (ft)				200	350	350
Base Capacity (vph)	710	2272	1946	791	822	448
Starvation Cap Reductn	0	136	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	0.70	0.72	0.50	0.63	0.83

Intersection Summary	
Cycle Length:	140
Actuated Cycle Length:	140
Offset:	66 (47%), Referenced to phase 2:WBT and 6:EBT, Start of Yellow
Natural Cycle:	95
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.89
Intersection Signal Delay (s/veh):	33.4
Intersection LOS:	C
Intersection Capacity Utilization:	80.4%
ICU Level of Service:	D
Analysis Period (min):	15

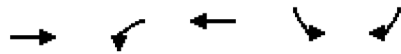
95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 20: I-75 NB Off-ramp/I-75 NB On-ramp & CR 484



Timings
 19: I-75 SB On-ramp/I-75 SB Off-ramp & CR 484

2040 No-Build Conditions
 Timing Plan: Weekend



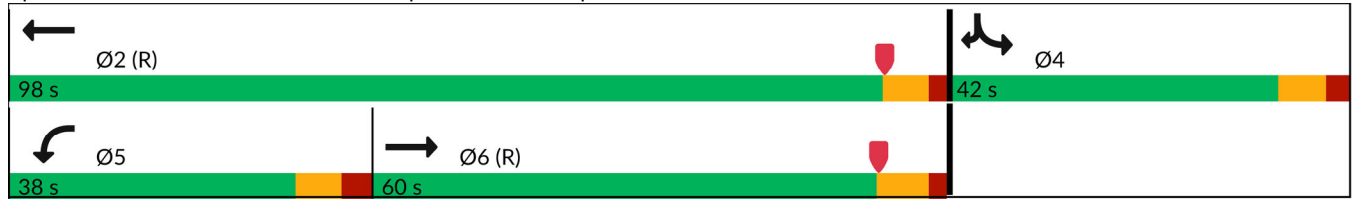
Lane Group	EBT	WBL	WBT	SBL	SBR
Lane Configurations	↑↑↑↑	↙	↑↑	↘↘	↘↘
Traffic Volume (vph)	1376	379	1104	300	327
Future Volume (vph)	1376	379	1104	300	327
Lane Group Flow (vph)	1851	387	1127	306	334
Turn Type	NA	Prot	NA	Prot	Prot
Protected Phases	6	5	2	4	4
Permitted Phases					
Detector Phase	6	5	2	4	4
Switch Phase					
Minimum Initial (s)	18.0	7.0	18.0	7.0	7.0
Minimum Split (s)	25.3	15.0	34.8	45.4	45.4
Total Split (s)	60.0	38.0	98.0	42.0	42.0
Total Split (%)	42.9%	27.1%	70.0%	30.0%	30.0%
Yellow Time (s)	5.3	4.8	4.8	4.9	4.9
All-Red Time (s)	2.0	3.2	2.0	2.5	2.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.3	8.0	6.8	7.4	7.4
Lead/Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes			
Recall Mode	C-Max	None	C-Max	None	None
Act Effct Green (s)	55.3	43.2	107.0	18.8	18.8
Actuated g/C Ratio	0.40	0.31	0.76	0.13	0.13
v/c Ratio	0.76	0.74	0.42	0.70	0.64
Control Delay (s/veh)	38.0	79.8	6.8	66.3	28.6
Queue Delay	0.0	0.0	0.1	0.0	0.0
Total Delay (s/veh)	38.0	79.8	6.9	66.3	28.6
LOS	D	E	A	E	C
Approach Delay (s/veh)	38.0		25.5		
Approach LOS	D		C		
Queue Length 50th (ft)	403	376	149	139	67
Queue Length 95th (ft)	468	#488	173	182	119
Internal Link Dist (ft)	1153		407		
Turn Bay Length (ft)				500	450
Base Capacity (vph)	2435	520	2679	808	803
Starvation Cap Reductn	0	0	455	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.76	0.74	0.51	0.38	0.42

Intersection Summary

Cycle Length: 140
 Actuated Cycle Length: 140
 Offset: 62 (44%), Referenced to phase 2:WBT and 6:EBT, Start of Yellow
 Natural Cycle: 130
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.76
 Intersection Signal Delay (s/veh): 34.6
 Intersection Capacity Utilization 79.2%
 Analysis Period (min) 15
 Intersection LOS: C
 ICU Level of Service D

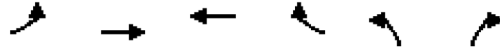
95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 19: I-75 SB On-ramp/I-75 SB Off-ramp & CR 484



Timings
 20: I-75 NB Off-ramp/I-75 NB On-ramp & CR 484

2040 No-Build Conditions
 Timing Plan: Weekend

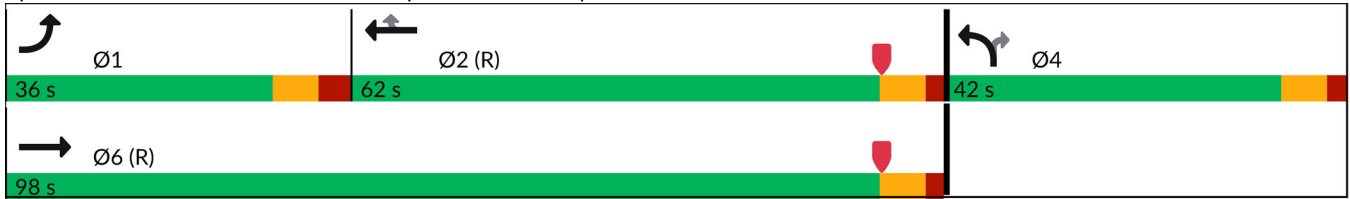


Lane Group	EBL	EBT	WBT	WBR	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	539	1137	1093	560	390	359
Future Volume (vph)	539	1137	1093	560	390	359
Lane Group Flow (vph)	550	1160	1115	571	398	366
Turn Type	Prot	NA	NA	Perm	Prot	Perm
Protected Phases	1	6	2		4	
Permitted Phases				2		4
Detector Phase	1	6	2	2	4	4
Switch Phase						
Minimum Initial (s)	7.0	20.0	20.0	20.0	7.0	7.0
Minimum Split (s)	15.0	26.8	34.8	34.8	44.8	44.8
Total Split (s)	36.0	98.0	62.0	62.0	42.0	42.0
Total Split (%)	25.7%	70.0%	44.3%	44.3%	30.0%	30.0%
Yellow Time (s)	4.8	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	3.2	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	8.0	6.8	6.8	6.8	6.8	6.8
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	Max	C-Max	C-Max	C-Max	None	None
Act Effct Green (s)	31.3	94.5	55.2	55.2	31.9	31.9
Actuated g/C Ratio	0.22	0.68	0.39	0.39	0.23	0.23
v/c Ratio	0.73	0.50	0.57	0.61	0.57	0.92
Control Delay (s/veh)	70.7	10.7	34.5	6.4	51.0	65.5
Queue Delay	0.0	0.3	0.0	0.0	0.0	0.0
Total Delay (s/veh)	70.7	11.1	34.5	6.4	51.0	65.5
LOS	E	B	C	A	D	E
Approach Delay (s/veh)		30.2	25.0			
Approach LOS		C	C			
Queue Length 50th (ft)	275	164	287	20	161	238
Queue Length 95th (ft)	336	245	336	116	215	#414
Internal Link Dist (ft)		407	1283			
Turn Bay Length (ft)				200	350	350
Base Capacity (vph)	751	2342	1966	936	765	430
Starvation Cap Reductn	0	541	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	0.64	0.57	0.61	0.52	0.85

Intersection Summary	
Cycle Length:	140
Actuated Cycle Length:	140
Offset:	55 (39%), Referenced to phase 2:WBT and 6:EBT, Start of Yellow
Natural Cycle:	95
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.92
Intersection Signal Delay (s/veh):	33.2
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.

Splits and Phases: 20: I-75 NB Off-ramp/I-75 NB On-ramp & CR 484



SR 200 Summary Tables

28: I-75 SB On-Ramp/I-75 SB Off-Ramp & SR 200

Approach	Movement	AM Peak Hour			PM Peak Hour			WKND Peak Hour		
		V/C	Delay (s) [LOS]	95% Queue (ft)	V/C	Delay (s) [LOS]	95% Queue (ft)	V/C	Delay (s) [LOS]	95% Queue (ft)
Westbound	Left	0.80	65.4 (E)	300	0.82	44.1 (D)	250	0.73	78.3 (E)	175
	Through	0.29	9.4 (A)	225	0.65	60.0 (E)	950	0.57	11.9 (B)	775
	Approach	0.43	24.5 (C)	-	0.69	56.5 (E)	-	0.59	22.0 (C)	-
Eastbound	Through	0.60	27.6 (C)	475	0.67	45.5 (D)	500	0.59	29.7 (C)	500
	Right	0.34	3.0 (A)	75	0.56	5.6 (A)	100	0.44	3.6 (A)	75
	Approach	0.57	24.5 (C)	-	0.65	37.2 (D)	-	0.57	25.4 (C)	-
Southbound	Left	0.82	76.1 (E)	325	0.40	53.9 (D)	225	0.38	56.5 (E)	175
	Right	0.86	82.5 (F)	325	0.98	91.2 (F)	600	0.83	74.5 (E)	325
	Approach	0.84	79.1 (E)	-	0.79	78.8 (E)	-	0.67	68.0 (E)	-
Overall Intersection		0.57	34.2 (C)	-	0.69	52.7 (D)	-	0.59	29.2 (C)	-

29: I-75 NB Off-ramp/I-75 NB On-ramp & SR 200

Approach	Movement	AM Peak Hour			PM Peak Hour			WKND Peak Hour		
		V/C	Delay (s) [LOS]	95% Queue (ft)	V/C	Delay (s) [LOS]	95% Queue (ft)	V/C	Delay (s) [LOS]	95% Queue (ft)
Westbound	Through	0.46	44.4 (D)	275	0.71	41.0 (D)	600	0.62	35.4 (D)	450
	Right	0.47	6.0 (A)	100	0.43	4.2 (A)	75	0.49	4.0 (A)	75
	Approach	0.46	35.1 (D)	-	0.67	35.7 (D)	-	0.60	29.5 (C)	-
Northbound	Left	0.36	46.3 (D)	225	0.47	60.1 (E)	225	0.41	52.3 (D)	225
	Right	0.90	69.3 (E)	600	0.84	77.7 (E)	375	0.90	75.6 (E)	450
	Approach	0.72	61.6 (E)	-	0.69	70.5 (E)	-	0.72	67.2 (E)	-
Eastbound	Left	0.79	51.9 (D)	250	0.79	42.4 (D)	200	0.96	72.4 (E)	450
	Through	0.72	15.7 (B)	750	0.50	12.6 (B)	225	0.59	10.9 (B)	175
	Approach	0.74	23.7 (C)	-	0.57	19.5 (B)	-	0.67	24.4 (C)	-
Overall Intersection		0.66	34.5 (C)	-	0.63	34.5 (C)	-	0.65	33.3 (C)	-

SR 200 Synchro Reports

Timings
28: I-75 SB On-Ramp/I-75 SB Off-Ramp & SR 200

2040 No-Build Conditions
Timing Plan: AM



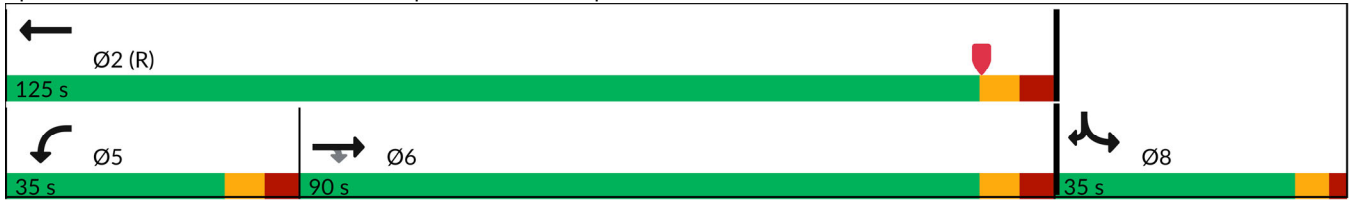
Lane Group	EBT	EBR	WBL	WBT	SBL	SBR
Lane Configurations	↑↑↑↑	↗	↘	↑↑↑	↘	↗
Traffic Volume (vph)	2203	309	374	1011	452	386
Future Volume (vph)	2203	309	374	1011	452	386
Lane Group Flow (vph)	2319	325	394	1064	476	406
Turn Type	NA	Perm	Prot	NA	Prot	Prot
Protected Phases	6		5	2	8	8
Permitted Phases		6				
Detector Phase	6	6	5	2	8	8
Switch Phase						
Minimum Initial (s)	20.0	20.0	12.0	20.0	7.0	7.0
Minimum Split (s)	29.0	29.0	21.0	45.0	14.0	14.0
Total Split (s)	90.0	90.0	35.0	125.0	35.0	35.0
Total Split (%)	56.3%	56.3%	21.9%	78.1%	21.9%	21.9%
Yellow Time (s)	4.9	4.9	4.9	4.9	4.1	4.1
All-Red Time (s)	4.0	4.0	4.0	4.0	2.2	2.2
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	8.9	8.9	8.9	8.9	6.3	6.3
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	Min	Min	None	C-Min	None	None
Act Effct Green (s)	84.2	84.2	23.9	117.0	27.8	27.8
Actuated g/C Ratio	0.53	0.53	0.15	0.73	0.17	0.17
v/c Ratio	0.60	0.34	0.80	0.29	0.82	0.86
Control Delay (s/veh)	27.5	3.0	65.4	9.1	76.1	82.5
Queue Delay	0.1	0.0	0.0	0.3	0.0	0.0
Total Delay (s/veh)	27.6	3.0	65.4	9.4	76.1	82.5
LOS	C	A	E	A	E	F
Approach Delay (s/veh)	24.5			24.5		
Approach LOS	C			C		
Queue Length 50th (ft)	418	0	221	130	248	235
Queue Length 95th (ft)	453	51	279	224	315	#325
Internal Link Dist (ft)	1476			454		
Turn Bay Length (ft)		475			350	325
Base Capacity (vph)	3854	955	538	3611	598	485
Starvation Cap Reductn	0	0	0	1656	0	0
Spillback Cap Reductn	273	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.65	0.34	0.73	0.54	0.80	0.84

Intersection Summary

Cycle Length: 160	
Actuated Cycle Length: 160	
Offset: 99 (62%), Referenced to phase 2:WBT, Start of Yellow	
Natural Cycle: 70	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.86	
Intersection Signal Delay (s/veh): 34.2	Intersection LOS: C
Intersection Capacity Utilization 76.8%	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: 28: I-75 SB On-Ramp/I-75 SB Off-Ramp & SR 200



Timings
 29: I-75 NB Off-ramp/I-75 NB On-ramp & SR 200

2040 No-Build Conditions
 Timing Plan: AM

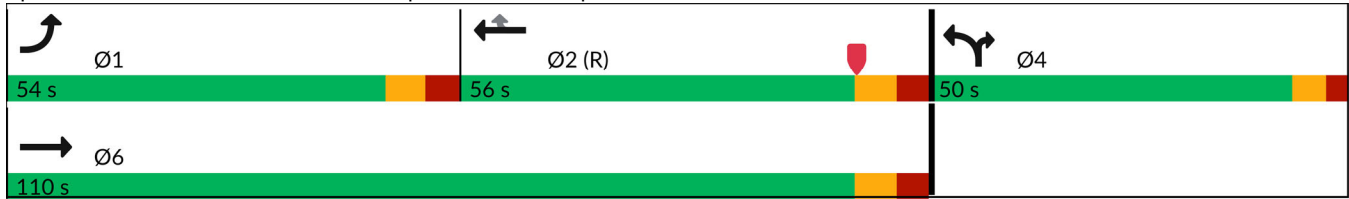


Lane Group	EBL	EBT	WBT	WBR	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	586	2069	1045	335	340	683
Future Volume (vph)	586	2069	1045	335	340	683
Lane Group Flow (vph)	617	2178	1100	353	358	719
Turn Type	Prot	NA	NA	Perm	Prot	Prot
Protected Phases	1	6	2		4	4
Permitted Phases				2		
Detector Phase	1	6	2	2	4	4
Switch Phase						
Minimum Initial (s)	7.0	20.0	20.0	20.0	7.0	7.0
Minimum Split (s)	16.0	40.8	29.0	29.0	14.0	14.0
Total Split (s)	54.0	110.0	56.0	56.0	50.0	50.0
Total Split (%)	33.8%	68.8%	35.0%	35.0%	31.3%	31.3%
Yellow Time (s)	4.9	4.9	4.9	4.9	4.1	4.1
All-Red Time (s)	3.9	3.9	3.9	3.9	2.6	2.6
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	8.8	8.8	8.8	8.8	6.7	6.7
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	Min	C-Min	C-Min	None	None
Act Effct Green (s)	36.9	97.3	51.7	51.7	47.2	47.2
Actuated g/C Ratio	0.23	0.61	0.32	0.32	0.30	0.30
v/c Ratio	0.79	0.72	0.46	0.47	0.36	0.90
Control Delay (s/veh)	51.8	15.5	44.4	6.0	46.3	69.3
Queue Delay	0.1	0.2	0.0	0.0	0.0	0.0
Total Delay (s/veh)	51.9	15.7	44.4	6.0	46.3	69.3
LOS	D	B	D	A	D	E
Approach Delay (s/veh)		23.7	35.1			
Approach LOS		C	D			
Queue Length 50th (ft)	201	722	235	0	148	398
Queue Length 95th (ft)	226	736	265	79	208	#577
Internal Link Dist (ft)		454	1413			
Turn Bay Length (ft)				420	385	385
Base Capacity (vph)	960	3124	2367	745	983	797
Starvation Cap Reductn	20	251	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	0.66	0.76	0.46	0.47	0.36	0.90

Intersection Summary	
Cycle Length:	160
Actuated Cycle Length:	160
Offset:	121 (76%), Referenced to phase 2:WBT, Start of Yellow
Natural Cycle:	80
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.90
Intersection Signal Delay (s/veh):	34.5
Intersection LOS:	C
Intersection Capacity Utilization:	76.8%
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: 29: I-75 NB Off-ramp/I-75 NB On-ramp & SR 200



Timings
28: I-75 SB On-Ramp/I-75 SB Off-Ramp & SR 200

2040 No-Build Conditions
Timing Plan: PM

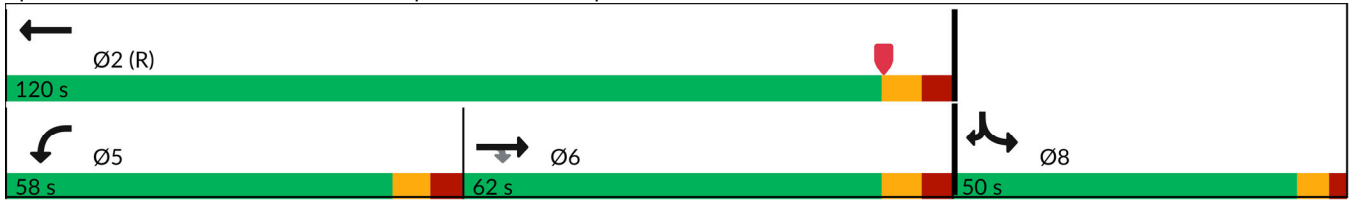


Lane Group	EBT	EBR	WBL	WBT	SBL	SBR
Lane Configurations	↑↑↑↑	↑	↙↘	↑↑↑	↙↘	↙↘
Traffic Volume (vph)	1794	472	557	1990	322	647
Future Volume (vph)	1794	472	557	1990	322	647
Lane Group Flow (vph)	1888	497	586	2095	339	681
Turn Type	NA	Perm	Prot	NA	Prot	Prot
Protected Phases	6		5	2	8	8
Permitted Phases		6				
Detector Phase	6	6	5	2	8	8
Switch Phase						
Minimum Initial (s)	20.0	20.0	12.0	20.0	7.0	7.0
Minimum Split (s)	29.0	29.0	21.0	45.0	14.0	14.0
Total Split (s)	62.0	62.0	58.0	120.0	50.0	50.0
Total Split (%)	36.5%	36.5%	34.1%	70.6%	29.4%	29.4%
Yellow Time (s)	4.9	4.9	4.9	4.9	4.1	4.1
All-Red Time (s)	4.0	4.0	4.0	4.0	2.2	2.2
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	8.9	8.9	8.9	8.9	6.3	6.3
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	Min	Min	None	C-Min	None	None
Act Effct Green (s)	65.3	65.3	36.9	111.1	43.7	43.7
Actuated g/C Ratio	0.38	0.38	0.22	0.65	0.26	0.26
v/c Ratio	0.67	0.56	0.82	0.65	0.40	0.98
Control Delay (s/veh)	45.5	5.6	44.1	23.7	53.9	91.2
Queue Delay	0.0	0.0	0.1	36.3	0.0	0.0
Total Delay (s/veh)	45.5	5.6	44.1	60.0	53.9	91.2
LOS	D	A	D	E	D	F
Approach Delay (s/veh)	37.2			56.5		
Approach LOS	D			E		
Queue Length 50th (ft)	432	0	210	898	162	431
Queue Length 95th (ft)	499	90	240	950	212	#580
Internal Link Dist (ft)	1476			454		
Turn Bay Length (ft)		475			350	325
Base Capacity (vph)	2814	891	953	3228	857	695
Starvation Cap Reductn	0	0	15	1276	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	0.56	0.62	1.07	0.40	0.98

Intersection Summary	
Cycle Length:	170
Actuated Cycle Length:	170
Offset:	48 (28%), Referenced to phase 2:WBT, Start of Yellow
Natural Cycle:	90
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.98
Intersection Signal Delay (s/veh):	52.7
Intersection LOS:	D
Intersection Capacity Utilization:	74.4%
ICU Level of Service:	D
Analysis Period (min):	15

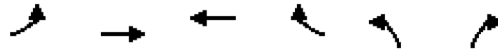
95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 28: I-75 SB On-Ramp/I-75 SB Off-Ramp & SR 200



Timings
 29: I-75 NB Off-ramp/I-75 NB On-ramp & SR 200

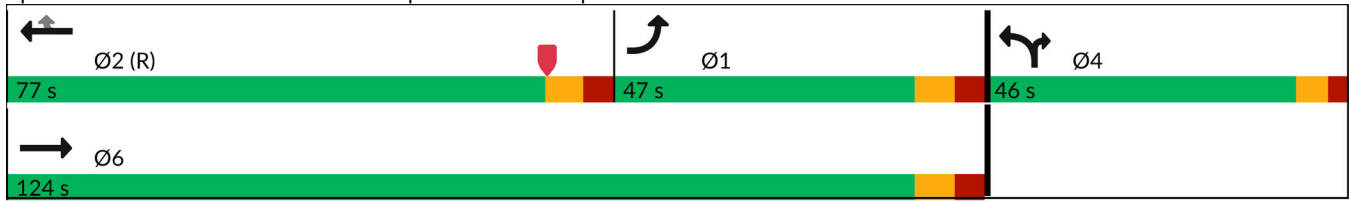
2040 No-Build Conditions
 Timing Plan: PM



Lane Group	EBL	EBT	WBT	WBR	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	489	1627	2225	375	322	466
Future Volume (vph)	489	1627	2225	375	322	466
Lane Group Flow (vph)	515	1713	2342	395	339	491
Turn Type	Prot	NA	NA	Perm	Prot	Prot
Protected Phases	1	6	2		4	4
Permitted Phases				2		
Detector Phase	1	6	2	2	4	4
Switch Phase						
Minimum Initial (s)	7.0	20.0	20.0	20.0	7.0	7.0
Minimum Split (s)	16.0	40.8	29.0	29.0	14.0	14.0
Total Split (s)	47.0	124.0	77.0	77.0	46.0	46.0
Total Split (%)	27.6%	72.9%	45.3%	45.3%	27.1%	27.1%
Yellow Time (s)	4.9	4.9	4.9	4.9	4.1	4.1
All-Red Time (s)	3.9	3.9	3.9	3.9	2.6	2.6
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	8.8	8.8	8.8	8.8	6.7	6.7
Lead/Lag	Lag		Lead	Lead		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	Min	C-Min	C-Min	None	None
Act Effct Green (s)	32.8	117.9	76.3	76.3	36.6	36.6
Actuated g/C Ratio	0.19	0.69	0.45	0.45	0.22	0.22
v/c Ratio	0.79	0.50	0.71	0.43	0.47	0.84
Control Delay (s/veh)	42.4	12.4	40.5	4.2	60.1	77.7
Queue Delay	0.0	0.3	0.5	0.0	0.0	0.0
Total Delay (s/veh)	42.4	12.6	41.0	4.2	60.1	77.7
LOS	D	B	D	A	E	E
Approach Delay (s/veh)		19.5	35.7			
Approach LOS		B	D			
Queue Length 50th (ft)	243	172	531	0	169	297
Queue Length 95th (ft)	195	225	600	69	220	373
Internal Link Dist (ft)		454	1413			
Turn Bay Length (ft)				420	385	385
Base Capacity (vph)	764	3438	3291	921	779	632
Starvation Cap Reductn	0	875	0	0	0	0
Spillback Cap Reductn	0	0	477	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.67	0.67	0.83	0.43	0.44	0.78

Intersection Summary	
Cycle Length:	170
Actuated Cycle Length:	170
Offset:	166 (98%), Referenced to phase 2:WBT, Start of Yellow
Natural Cycle:	80
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.84
Intersection Signal Delay (s/veh):	34.5
Intersection LOS:	C
Intersection Capacity Utilization:	74.4%
ICU Level of Service:	D
Analysis Period (min):	15

Splits and Phases: 29: I-75 NB Off-ramp/I-75 NB On-ramp & SR 200



Timings
28: I-75 SB On-Ramp/I-75 SB Off-Ramp & SR 200

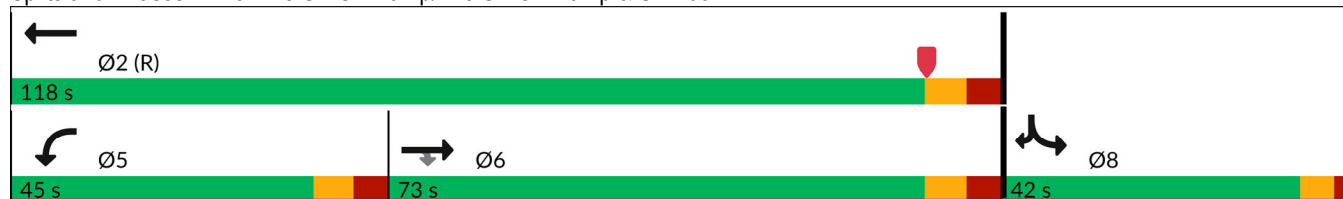
2040 No-Build Conditions
Timing Plan: Weekend



Lane Group	EBT	EBR	WBL	WBT	SBL	SBR
Lane Configurations	↑↑↑↑	↗	↘↘	↑↑↑	↘↘	↗↗
Traffic Volume (vph)	2105	414	340	1907	241	427
Future Volume (vph)	2105	414	340	1907	241	427
Lane Group Flow (vph)	2216	436	358	2007	254	449
Turn Type	NA	Perm	Prot	NA	Prot	Prot
Protected Phases	6		5	2	8	8
Permitted Phases		6				
Detector Phase	6	6	5	2	8	8
Switch Phase						
Minimum Initial (s)	20.0	20.0	12.0	20.0	7.0	7.0
Minimum Split (s)	29.0	29.0	21.0	45.0	14.0	14.0
Total Split (s)	73.0	73.0	45.0	118.0	42.0	42.0
Total Split (%)	45.6%	45.6%	28.1%	73.8%	26.3%	26.3%
Yellow Time (s)	4.9	4.9	4.9	4.9	4.1	4.1
All-Red Time (s)	4.0	4.0	4.0	4.0	2.2	2.2
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	8.9	8.9	8.9	8.9	6.3	6.3
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	Min	Min	None	C-Min	None	None
Act Effct Green (s)	80.8	80.8	23.2	112.9	31.9	31.9
Actuated g/C Ratio	0.51	0.51	0.15	0.71	0.20	0.20
v/c Ratio	0.59	0.44	0.73	0.57	0.38	0.83
Control Delay (s/veh)	29.7	3.6	78.3	11.2	56.5	74.5
Queue Delay	0.0	0.0	0.0	0.8	0.0	0.0
Total Delay (s/veh)	29.7	3.6	78.3	11.9	56.5	74.5
LOS	C	A	E	B	E	E
Approach Delay (s/veh)	25.4			22.0		
Approach LOS	C			C		
Queue Length 50th (ft)	403	0	138	686	119	256
Queue Length 95th (ft)	479	63	168	768	160	323
Internal Link Dist (ft)	1476			454		
Turn Bay Length (ft)		475			350	325
Base Capacity (vph)	3737	1000	759	3520	751	609
Starvation Cap Reductn	0	0	0	1057	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.59	0.44	0.47	0.81	0.34	0.74

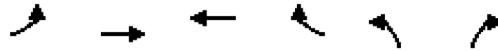
Intersection Summary	
Cycle Length: 160	
Actuated Cycle Length: 160	
Offset: 74 (46%), Referenced to phase 2:WBT, Start of Yellow	
Natural Cycle: 75	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.83	
Intersection Signal Delay (s/veh): 29.2	Intersection LOS: C
Intersection Capacity Utilization 71.9%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 28: I-75 SB On-Ramp/I-75 SB Off-Ramp & SR 200



Timings
 29: I-75 NB Off-ramp/I-75 NB On-ramp & SR 200

2040 No-Build Conditions
 Timing Plan: Weekend



Lane Group	EBL	EBT	WBT	WBR	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	513	1833	1927	451	320	571
Future Volume (vph)	513	1833	1927	451	320	571
Lane Group Flow (vph)	540	1929	2028	475	337	601
Turn Type	Prot	NA	NA	Perm	Prot	Prot
Protected Phases	1	6	2		4	4
Permitted Phases				2		
Detector Phase	1	6	2	2	4	4
Switch Phase						
Minimum Initial (s)	7.0	20.0	20.0	20.0	7.0	7.0
Minimum Split (s)	16.0	40.8	29.0	29.0	14.0	14.0
Total Split (s)	33.0	113.0	80.0	80.0	47.0	47.0
Total Split (%)	20.6%	70.6%	50.0%	50.0%	29.4%	29.4%
Yellow Time (s)	4.9	4.9	4.9	4.9	4.1	4.1
All-Red Time (s)	3.9	3.9	3.9	3.9	2.6	2.6
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	8.8	8.8	8.8	8.8	6.7	6.7
Lead/Lag	Lag		Lead	Lead		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	Min	C-Min	C-Min	None	None
Act Effct Green (s)	26.2	105.7	70.7	70.7	38.8	38.8
Actuated g/C Ratio	0.16	0.66	0.44	0.44	0.24	0.24
v/c Ratio	0.96	0.59	0.62	0.49	0.41	0.90
Control Delay (s/veh)	72.4	10.9	35.3	4.0	52.3	75.6
Queue Delay	0.0	0.0	0.1	0.0	0.0	0.0
Total Delay (s/veh)	72.4	10.9	35.4	4.0	52.3	75.6
LOS	E	B	D	A	D	E
Approach Delay (s/veh)		24.4	29.5			
Approach LOS		C	C			
Queue Length 50th (ft)	~314	156	397	0	152	344
Queue Length 95th (ft)	#438	165	427	65	201	#450
Internal Link Dist (ft)		454	1413			
Turn Bay Length (ft)				420	385	385
Base Capacity (vph)	562	3293	3300	969	856	695
Starvation Cap Reductn	0	165	0	0	0	0
Spillback Cap Reductn	0	0	272	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.96	0.62	0.67	0.49	0.39	0.86

Intersection Summary

Cycle Length: 160	
Actuated Cycle Length: 160	
Offset: 32 (20%), Referenced to phase 2:WBT, Start of Yellow	
Natural Cycle: 80	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.96	
Intersection Signal Delay (s/veh): 33.3	Intersection LOS: C
Intersection Capacity Utilization 71.9%	ICU Level of Service C
Analysis Period (min) 15	

~ Volume exceeds capacity, queue is theoretically infinite.

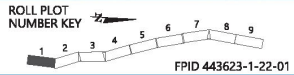
Queue shown is maximum after two cycles.

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

Queue shown is maximum after two cycles.

Splits and Phases: 29: I-75 NB Off-ramp/I-75 NB On-ramp & SR 200





LEGEND
ROADWAY MILLING & RESURFACING
ROADWAY WIDENING
SHOULDER PAVEMENT
EXISTING BRIDGE TO REMAIN

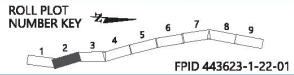
BRIDGE WIDENING/NEW
EXISTING LA R/W LINE
EXISTING R/W LINE
EXISTING PROPERTY LINE

SIDEWALK
BARRIER WALL
DIR. ARROW



CONCEPT PLAN - AUX LANE & TPK
I-75 PD&E FROM SR 91 TO SR 200

ROLL PLOT
NUMBER
1



LEGEND
 ROADWAY MILLING & RESURFACING
 ROADWAY WIDENING
 SHOULDER PAVEMENT
 EXISTING BRIDGE TO REMAIN

BRIDGE WIDENING/NEW
 EXISTING LA R/W LINE
 EXISTING R/W LINE
 EXISTING PROPERTY LINE

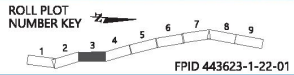
SIDEWALK
 BARRIER WALL
 DIR. ARROW



CONCEPT PLAN - AUX LANE & TPK

I-75 PD&E FROM SR 91 TO SR 200

ROLL PLOT NUMBER
2



LEGEND
 ROADWAY MILLING & RESURFACING
 ROADWAY WIDENING
 SHOULDER PAVEMENT
 EXISTING BRIDGE TO REMAIN



BRIDGE WIDENING/NEW
 EXISTING LA R/W LINE
 EXISTING R/W LINE
 EXISTING PROPERTY LINE

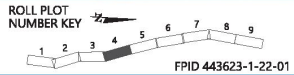


SIDEWALK
 BARRIER WALL
 DIR. ARROW



CONCEPT PLAN - AUX LANE & TPK
 I-75 PD&E FROM SR 91 TO SR 200

ROLL PLOT NUMBER
 3

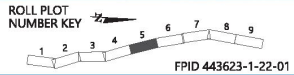


LEGEND	
ROADWAY MILLING & RESURFACING	
ROADWAY WIDENING	
SHOULDER PAVEMENT	
EXISTING BRIDGE TO REMAIN	
BRIDGE WIDENING/NEW	
EXISTING LA R/W LINE	
EXISTING R/W LINE	
EXISTING PROPERTY LINE	
SIDEWALK	
BARRIER WALL	
DIR. ARROW	

CONCEPT PLAN - AUX LANE & TPK

I-75 PD&E FROM SR 91 TO SR 200

ROLL PLOT NUMBER
4



LEGEND
 ROADWAY MILLING & RESURFACING
 ROADWAY WIDENING
 SHOULDER PAVEMENT
 EXISTING BRIDGE TO REMAIN

BRIDGE WIDENING/NEW
 EXISTING LA R/W LINE
 EXISTING R/W LINE
 EXISTING PROPERTY LINE

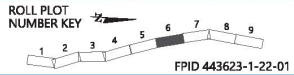
SIDEWALK
 BARRIER WALL
 DIR. ARROW



CONCEPT PLAN - AUX LANE & TPK

I-75 PD&E FROM SR 91 TO SR 200

ROLL PLOT NUMBER
5



LEGEND
 ROADWAY MILLING & RESURFACING
 ROADWAY WIDENING
 SHOULDER PAVEMENT
 EXISTING BRIDGE TO REMAIN



BRIDGE WIDENING/NEW
 EXISTING LA R/W LINE
 EXISTING R/W LINE
 EXISTING PROPERTY LINE



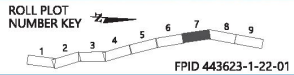
SIDEWALK
 BARRIER WALL
 DIR. ARROW



CONCEPT PLAN - AUX LANE & TPK

I-75 PD&E FROM SR 91 TO SR 200

ROLL PLOT NUMBER
6



LEGEND
 ROADWAY MILLING & RESURFACING
 ROADWAY WIDENING
 SHOULDER PAVEMENT
 EXISTING BRIDGE TO REMAIN

BRIDGE WIDENING/NEW
 EXISTING LA R/W LINE
 EXISTING R/W LINE
 EXISTING PROPERTY LINE

SIDEWALK
 BARRIER WALL
 DIR. ARROW



CONCEPT PLAN - AUX LANE & TPK
 I-75 PD&E FROM SR 91 TO SR 200

ROLL PLOT NUMBER
7



ROLL PLOT
NUMBER KEY

FPID 443623-1-22-01

LEGEND
 ROADWAY MILLING & RESURFACING
 ROADWAY WIDENING
 SHOULDER PAVEMENT
 EXISTING BRIDGE TO REMAIN

BRIDGE WIDENING/NEW
 EXISTING LA R/W LINE
 EXISTING R/W LINE
 EXISTING PROPERTY LINE

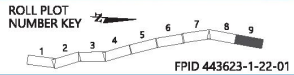
SIDEWALK
 BARRIER WALL
 DIR. ARROW



CONCEPT PLAN - AUX LANE & TPK

I-75 PD&E FROM SR 91 TO SR 200

ROLL PLOT
NUMBER
8



LEGEND	
ROADWAY MILLING & RESURFACING	BRIDGE WIDENING/NEW
ROADWAY WIDENING	EXISTING LA R/W LINE
SHOULDER PAVEMENT	EXISTING R/W LINE
EXISTING BRIDGE TO REMAIN	EXISTING PROPERTY LINE
	SIDEWALK
	BARRIER WALL
	DIR. ARROW

CONCEPT PLAN - AUX LANE & TPK

I-75 PD&E FROM SR 91 TO SR 200

ROLL PLOT NUMBER
9



LEGEND
ROADWAY MILLING & RESURFACING
ROADWAY WIDENING
SHOULDER PAVEMENT
EXISTING BRIDGE TO REMAIN



BRIDGE WIDENING
EXISTING LA R/W LINE
EXISTING R/W LINE
EXISTING PROPERTY LINE



ROLL PLOT
NUMBER KEY

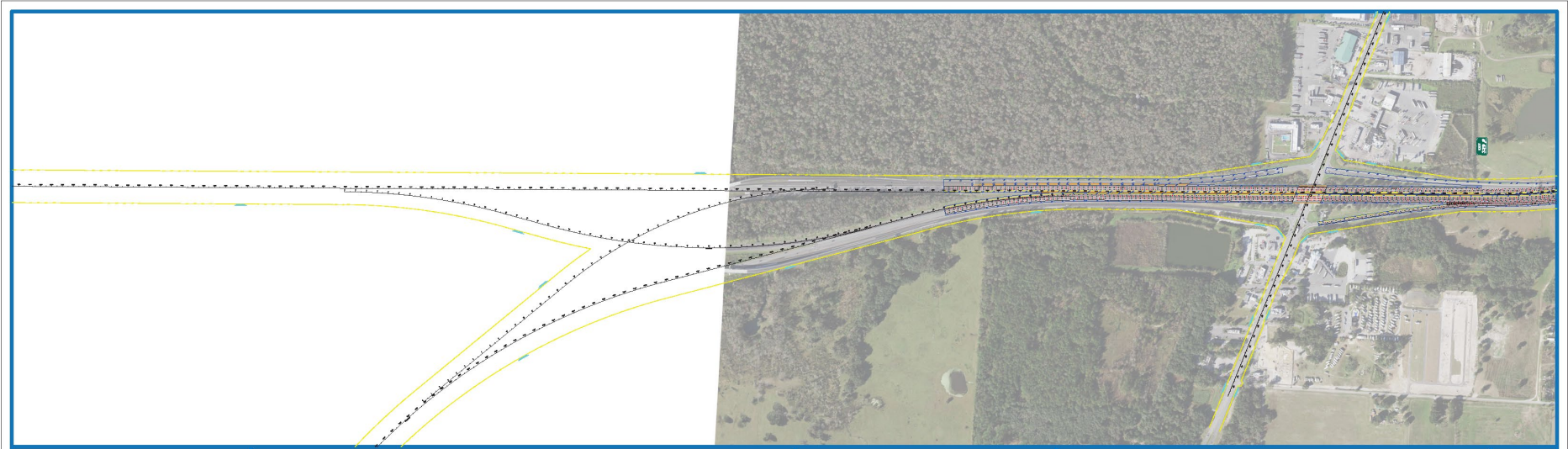


CONCEPT PLAN - OPTION 1

I-75 PD&E FROM SR 91 TO SR 200

ROLL PLOT
NUMBER

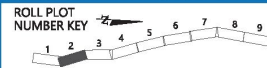
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LEGEND
 ROADWAY MILLING & RESURFACING
 ROADWAY WIDENING
 SHOULDER PAVEMENT
 EXISTING BRIDGE TO REMAIN

	BRIDGE WIDENING
	EXISTING LA R/W LINE
	EXISTING R/W LINE
	EXISTING PROPERTY LINE



CONCEPT PLAN - OPTION 1

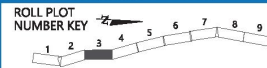
I-75 PD&E FROM SR 91 TO SR 200

ROLL PLOT
 NUMBER
2



LEGEND
 ROADWAY MILLING & RESURFACING
 ROADWAY WIDENING
 SHOULDER PAVEMENT
 EXISTING BRIDGE TO REMAIN

	BRIDGE WIDENING
	EXISTING LA R/W LINE
	EXISTING R/W LINE
	EXISTING PROPERTY LINE



CONCEPT PLAN - OPTION 1

I-75 PD&E FROM SR 91 TO SR 200

ROLL PLOT
 NUMBER
3

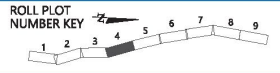


FPID 452074-2-22-01

LEGEND
 ROADWAY MILLING & RESURFACING
 ROADWAY WIDENING
 SHOULDER PAVEMENT
 EXISTING BRIDGE TO REMAIN

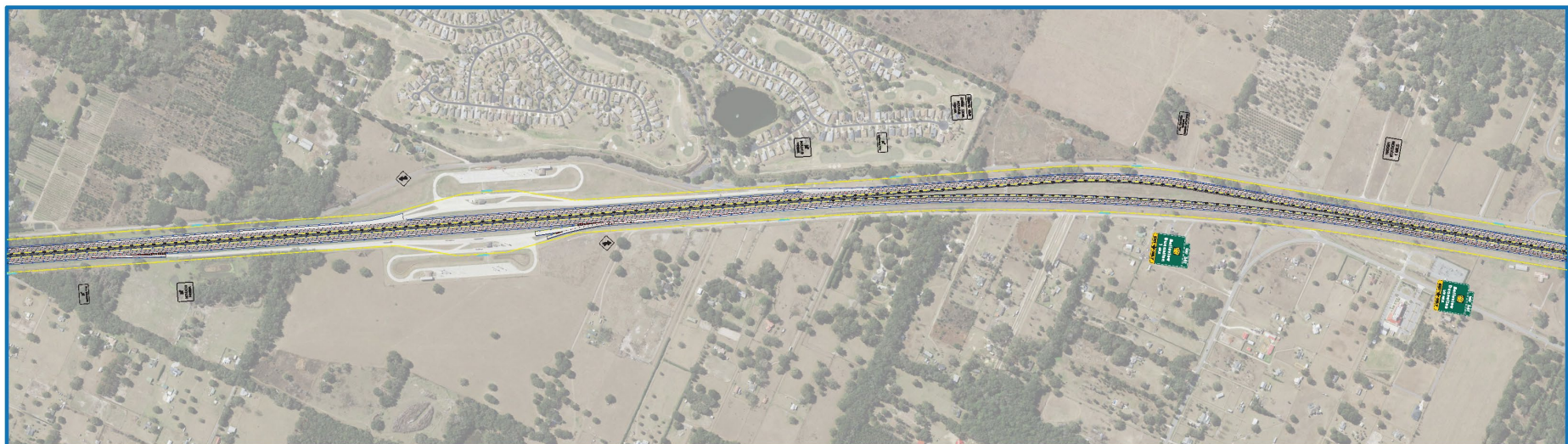


BRIDGE WIDENING
 EXISTING LA R/W LINE
 EXISTING R/W LINE
 EXISTING PROPERTY LINE



CONCEPT PLAN - OPTION 1
 I-75 PD&E FROM SR 91 TO SR 200

ROLL PLOT NUMBER
4



FPID 452074-2-22-01

LEGEND
 ROADWAY MILLING & RESURFACING
 ROADWAY WIDENING
 SHOULDER PAVEMENT
 EXISTING BRIDGE TO REMAIN



BRIDGE WIDENING
 EXISTING LA R/W LINE
 EXISTING R/W LINE
 EXISTING PROPERTY LINE



ROLL PLOT
 NUMBER KEY



CONCEPT PLAN - OPTION 1

I-75 PD&E FROM SR 91 TO SR 200

ROLL PLOT
 NUMBER

5



LEGEND
 ROADWAY MILLING & RESURFACING
 ROADWAY WIDENING
 SHOULDER PAVEMENT
 EXISTING BRIDGE TO REMAIN



BRIDGE WIDENING
 EXISTING LA R/W LINE
 EXISTING R/W LINE
 EXISTING PROPERTY LINE



ROLL PLOT NUMBER KEY

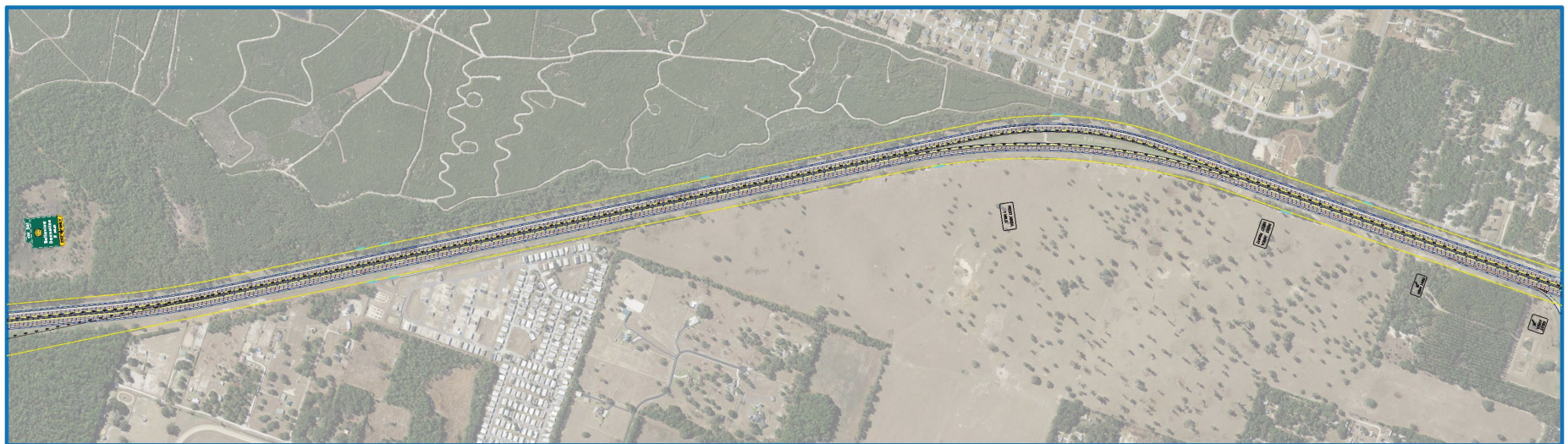


CONCEPT PLAN - OPTION 1

I-75 PD&E FROM SR 91 TO SR 200

ROLL PLOT NUMBER

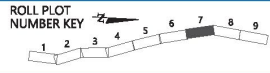
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LEGEND
 ROADWAY MILLING & RESURFACING
 ROADWAY WIDENING
 SHOULDER PAVEMENT
 EXISTING BRIDGE TO REMAIN



BRIDGE WIDENING
 EXISTING LA R/W LINE
 EXISTING R/W LINE
 EXISTING PROPERTY LINE



CONCEPT PLAN - OPTION 1

I-75 PD&E FROM SR 91 TO SR 200

ROLL PLOT NUMBER
7



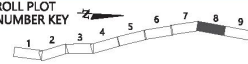
LEGEND
 ROADWAY MILLING & RESURFACING
 ROADWAY WIDENING
 SHOULDER PAVEMENT
 EXISTING BRIDGE TO REMAIN



BRIDGE WIDENING
 EXISTING LA R/W LINE
 EXISTING R/W LINE
 EXISTING PROPERTY LINE



ROLL PLOT
NUMBER KEY

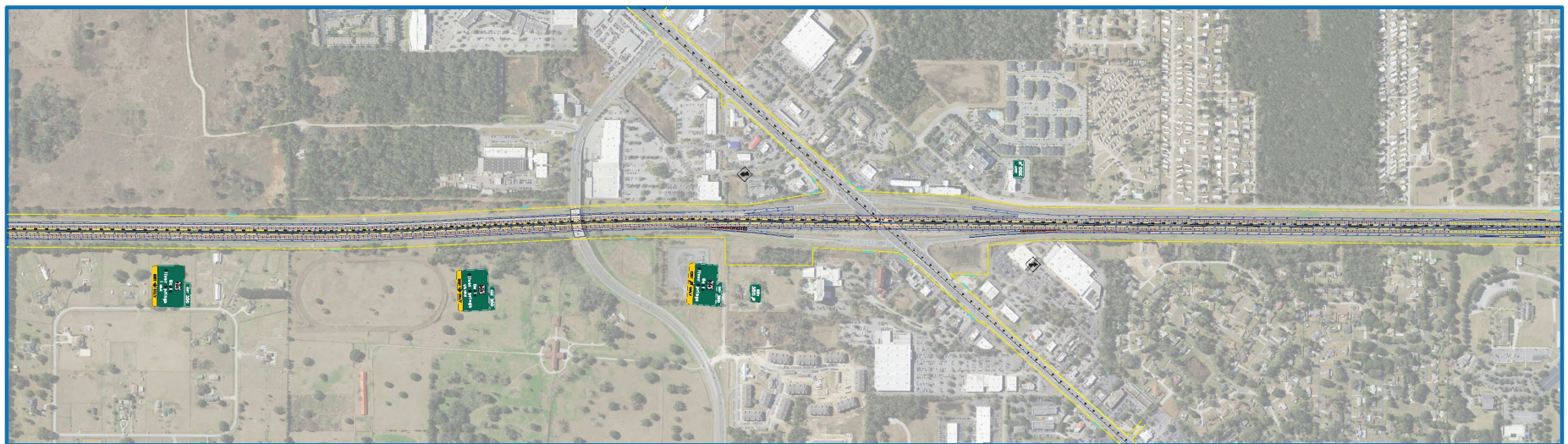


CONCEPT PLAN - OPTION 1

I-75 PD&E FROM SR 91 TO SR 200

ROLL PLOT
NUMBER

8



FPID 452074-2-22-01

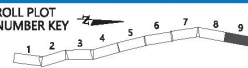
LEGEND
 ROADWAY MILLING & RESURFACING
 ROADWAY WIDENING
 SHOULDER PAVEMENT
 EXISTING BRIDGE TO REMAIN



BRIDGE WIDENING
 EXISTING LA R/W LINE
 EXISTING R/W LINE
 EXISTING PROPERTY LINE



ROLL PLOT
 NUMBER KEY



CONCEPT PLAN - OPTION 1

I-75 PD&E FROM SR 91 TO SR 200

ROLL PLOT
 NUMBER

9

APPENDIX W – 2030 BUILD HCS OUTPUT REPORTS

I-75 South Section - Northbound

HCS Freeway Facilities Report

Project Information

Analyst	Kittelson & Associate	Date	11/27/2023
Agency	Florida Department of Transportation	Analysis Year	2030 Build Conditions
Jurisdiction	District Five	Time Analyzed	AM Weekday Peak Period
Facility Name	I-75 (Northbound)	Units	U.S. Customary
Project Description	I-75 PD&E South Auxiliary Lanes		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	24
Total Analysis Periods	12	Analysis Period Duration, min	15
Facility Length, mi	22.97		

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	I-75 NB	1500	3
2	Diverge	Diverge	I-75 NB SR 44 Off Ramp	1500	3
3	Basic	Basic	I-75 NB	2400	3
4	Merge	Merge	I-75 NB Turnpike On Ramp	1500	5
5	Basic	Basic	I-75 NB	1945	5
6	Basic	Basic	I-75 NB	2346	5
7	Merge	Merge	I-75 NB SR 44 On Ramp	1500	5
8	Basic	Basic	I-75 NB	1500	5
9	Basic	Basic	I-75 NB	4430	5
10	Basic	Basic	I-75 NB	44795	4
11	Basic	Basic	I-75 NB	1500	4
12	Basic	Basic	I-75 NB	1500	4
13	Diverge	Basic	I-75 NB CR 484 Off Ramp	1500	4
14	Basic	Basic	I-75 NB	2936	3
15	Merge	Basic	I-75 NB CR 484 On Ramp	1500	4
16	Basic	Basic	I-75 NB	1500	4
17	Basic	Basic	I-75 NB	1500	4
18	Basic	Basic	I-75 NB	35183	4
19	Basic	Basic	I-75 B	1500	4
20	Basic	Basic	I-75 NB	1500	4
21	Diverge	Basic	I-75 NB SR 200 Off Ramp	1500	4
22	Basic	Basic	I-75 NB	3265	3
23	Merge	Basic	I-75 NB SR 200 On Ramp	1500	4
24	Basic	Basic	I-75 NB	1490	4

Facility Segment Data															
Segment 1: Basic															
AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	1.00		0.907		1475		6761		0.22		71.2		6.9		A
2	1.00		0.907		1658		6761		0.25		71.2		7.8		A
3	1.00		0.907		1960		6761		0.29		71.2		9.2		A
4	1.00		0.907		2239		6761		0.33		71.2		10.5		A
5	1.00		0.907		2110		6761		0.31		71.2		9.9		A
6	1.00		0.907		2137		6761		0.32		71.2		10.0		A
7	1.00		0.907		2436		6761		0.36		71.2		11.4		B
8	1.00		0.907		2359		6761		0.35		71.2		11.0		A
9	1.00		0.907		2333		6761		0.35		71.2		10.9		A
10	1.00		0.907		2302		6761		0.34		71.2		10.8		A
11	1.00		0.907		2246		6761		0.33		71.2		10.5		A
12	1.00		0.907		2140		6761		0.32		71.2		10.0		A
Segment 2: Diverge															
AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.907	0.912	1475	316	5918	1972	0.25	0.16	64.0	60.8	7.7	7.7	A
2	1.00	1.00	0.907	0.912	1658	354	5918	1972	0.28	0.18	64.0	60.7	8.6	8.9	A
3	1.00	1.00	0.907	0.912	1960	419	5918	1972	0.33	0.21	64.1	60.6	10.2	10.7	B
4	1.00	1.00	0.907	0.912	2239	479	5918	1972	0.38	0.24	64.0	60.4	11.7	12.4	B
5	1.00	1.00	0.907	0.912	2110	452	5918	1972	0.36	0.23	64.1	60.5	11.0	11.6	B
6	1.00	1.00	0.907	0.912	2137	457	5918	1972	0.36	0.23	64.1	60.5	11.1	11.8	B
7	1.00	1.00	0.907	0.912	2436	521	5918	1972	0.41	0.26	64.0	60.3	12.7	13.6	B
8	1.00	1.00	0.907	0.912	2359	504	5918	1972	0.40	0.26	64.0	60.3	12.3	13.1	B
9	1.00	1.00	0.907	0.912	2333	499	5918	1972	0.39	0.25	64.0	60.3	12.2	13.0	B
10	1.00	1.00	0.907	0.912	2302	492	5918	1972	0.39	0.25	64.1	60.4	12.0	12.8	B
11	1.00	1.00	0.907	0.912	2246	480	5918	1972	0.38	0.24	64.0	60.4	11.7	12.4	B
12	1.00	1.00	0.907	0.912	2140	457	5918	1972	0.36	0.23	64.1	60.5	11.1	11.8	B
Segment 3: Basic															
AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	1.00		0.905		1160		6761		0.17		70.9		5.4		A
2	1.00		0.905		1305		6761		0.19		70.9		6.1		A
3	1.00		0.905		1543		6761		0.23		70.9		7.2		A
4	1.00		0.905		1761		6761		0.26		70.9		8.2		A
5	1.00		0.905		1660		6761		0.25		70.9		7.8		A
6	1.00		0.905		1681		6761		0.25		70.9		7.9		A
7	1.00		0.905		1916		6761		0.28		70.9		9.0		A

8	1.00	0.905	1856	6761	0.27	70.9	8.7	A
9	1.00	0.905	1835	6761	0.27	70.9	8.6	A
10	1.00	0.905	1811	6761	0.27	70.9	8.5	A
11	1.00	0.905	1767	6761	0.26	70.9	8.3	A
12	1.00	0.905	1684	6761	0.25	70.9	7.9	A

Segment 4: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.912	0.918	2580	1429	9384	3944	0.27	0.36	66.3	64.9	7.0	9.4	A
2	1.00	1.00	0.912	0.918	2901	1606	9384	3944	0.31	0.41	66.1	64.7	7.9	11.1	B
3	1.00	1.00	0.912	0.918	3430	1899	9384	3944	0.37	0.48	65.8	64.3	9.4	13.8	B
4	1.00	1.00	0.912	0.918	3918	2170	9384	3944	0.42	0.55	65.4	63.8	10.8	16.3	B
5	1.00	1.00	0.912	0.918	3691	2044	9384	3944	0.39	0.52	65.6	64.1	10.1	15.2	B
6	1.00	1.00	0.912	0.918	3738	2070	9384	3944	0.40	0.52	65.5	64.0	10.3	15.4	B
7	1.00	1.00	0.912	0.918	4260	2359	9384	3944	0.45	0.60	65.1	63.4	11.8	18.1	B
8	1.00	1.00	0.912	0.918	4127	2285	9384	3944	0.44	0.58	65.2	63.6	11.4	17.4	B
9	1.00	1.00	0.912	0.918	4080	2259	9384	3944	0.43	0.57	65.3	63.7	11.3	17.2	B
10	1.00	1.00	0.912	0.918	4028	2231	9384	3944	0.43	0.57	65.3	63.7	11.1	16.9	B
11	1.00	1.00	0.912	0.918	3928	2175	9384	3944	0.42	0.55	65.4	63.8	10.8	16.4	B
12	1.00	1.00	0.912	0.918	3744	2073	9384	3944	0.40	0.53	65.5	64.0	10.3	15.4	B

Segment 5: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.912	2590	11268	0.23	70.9	7.3	A
2	1.00	0.912	2911	11268	0.26	70.9	8.2	A
3	1.00	0.912	3442	11268	0.31	70.9	9.7	A
4	1.00	0.912	3932	11268	0.35	70.8	11.0	A
5	1.00	0.912	3704	11268	0.33	70.9	10.4	A
6	1.00	0.912	3751	11268	0.33	70.9	10.5	A
7	1.00	0.912	4276	11268	0.38	70.8	12.0	B
8	1.00	0.912	4143	11268	0.37	70.8	11.6	B
9	1.00	0.912	4095	11268	0.36	70.8	11.5	B
10	1.00	0.912	4043	11268	0.36	70.8	11.4	B
11	1.00	0.912	3943	11268	0.35	70.8	11.1	B
12	1.00	0.912	3758	11268	0.33	70.9	10.6	A

Segment 6: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.912	2590	11268	0.23	71.2	7.3	A
2	1.00	0.912	2911	11268	0.26	71.2	8.2	A
3	1.00	0.912	3442	11268	0.31	71.2	9.7	A

4	1.00	0.912	3932	11268	0.35	71.2	11.0	A
5	1.00	0.912	3704	11268	0.33	71.2	10.4	A
6	1.00	0.912	3751	11268	0.33	71.2	10.5	A
7	1.00	0.912	4276	11268	0.38	71.2	12.0	B
8	1.00	0.912	4143	11268	0.37	71.2	11.6	B
9	1.00	0.912	4095	11268	0.36	71.2	11.5	B
10	1.00	0.912	4043	11268	0.36	71.2	11.4	B
11	1.00	0.912	3943	11268	0.35	71.2	11.1	B
12	1.00	0.912	3758	11268	0.33	71.2	10.6	A

Segment 7: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.909	0.884	2954	356	9384	3944	0.31	0.09	67.9	65.2	7.0	5.1	A
2	1.00	1.00	0.909	0.884	3321	400	9384	3944	0.35	0.10	67.8	65.2	7.9	6.2	A
3	1.00	1.00	0.909	0.884	3926	473	9384	3944	0.42	0.12	67.5	65.0	9.4	8.0	A
4	1.00	1.00	0.909	0.884	4486	541	9384	3944	0.48	0.14	67.3	64.9	10.8	9.7	A
5	1.00	1.00	0.909	0.884	4225	509	9384	3944	0.45	0.13	67.4	65.0	10.1	8.9	A
6	1.00	1.00	0.909	0.884	4279	516	9384	3944	0.46	0.13	67.4	65.0	10.2	9.1	A
7	1.00	1.00	0.909	0.884	4877	587	9384	3944	0.52	0.15	67.1	64.8	11.7	10.9	B
8	1.00	1.00	0.909	0.884	4725	569	9384	3944	0.50	0.14	67.1	64.8	11.4	10.4	B
9	1.00	1.00	0.909	0.884	4671	562	9384	3944	0.50	0.14	67.2	64.9	11.2	10.3	B
10	1.00	1.00	0.909	0.884	4611	555	9384	3944	0.49	0.14	67.2	64.9	11.1	10.1	B
11	1.00	1.00	0.909	0.884	4498	542	9384	3944	0.48	0.14	67.3	64.9	10.8	9.7	A
12	1.00	1.00	0.909	0.884	4286	516	9384	3944	0.46	0.13	67.4	65.0	10.3	9.1	A

Segment 8: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.909	2945	11268	0.26	70.9	8.3	A
2	1.00	0.909	3310	11268	0.29	70.9	9.3	A
3	1.00	0.909	3913	11268	0.35	70.9	11.0	A
4	1.00	0.909	4471	11268	0.40	70.9	12.6	B
5	1.00	0.909	4211	11268	0.37	70.9	11.8	B
6	1.00	0.909	4265	11268	0.38	70.9	12.0	B
7	1.00	0.909	4861	11268	0.43	70.8	13.7	B
8	1.00	0.909	4710	11268	0.42	70.8	13.2	B
9	1.00	0.909	4656	11268	0.41	70.8	13.1	B
10	1.00	0.909	4596	11268	0.41	70.8	12.9	B
11	1.00	0.909	4483	11268	0.40	70.9	12.6	B
12	1.00	0.909	4272	11268	0.38	70.9	12.0	B

Segment 9: Basic

AP	PHF	fHV	Flow Rate	Capacity	d/c	Speed	Density	LOS
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			(pc/h)	(pc/h)	Ratio	(mi/h)	(pc/mi/ln)	
1	1.00	0.909	2945	11268	0.26	71.2	8.3	A
2	1.00	0.909	3310	11268	0.29	71.2	9.3	A
3	1.00	0.909	3913	11268	0.35	71.2	11.0	A
4	1.00	0.909	4471	11268	0.40	71.2	12.6	B
5	1.00	0.909	4211	11268	0.37	71.2	11.8	B
6	1.00	0.909	4265	11268	0.38	71.2	12.0	B
7	1.00	0.909	4861	11268	0.43	71.2	13.7	B
8	1.00	0.909	4710	11268	0.42	71.2	13.2	B
9	1.00	0.909	4656	11268	0.41	71.2	13.1	B
10	1.00	0.909	4596	11268	0.41	71.2	12.9	B
11	1.00	0.909	4483	11268	0.40	71.2	12.6	B
12	1.00	0.909	4272	11268	0.38	71.2	12.0	B

Segment 10: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.909	2945	9014	0.33	71.2	10.3	A
2	1.00	0.909	3310	9014	0.37	71.2	11.6	B
3	1.00	0.909	3913	9014	0.43	71.2	13.7	B
4	1.00	0.909	4471	9014	0.50	71.1	15.7	B
5	1.00	0.909	4211	9014	0.47	71.2	14.8	B
6	1.00	0.909	4265	9014	0.47	71.2	15.0	B
7	1.00	0.909	4861	9014	0.54	70.7	17.2	B
8	1.00	0.909	4710	9014	0.52	70.8	16.6	B
9	1.00	0.909	4656	9014	0.52	70.9	16.4	B
10	1.00	0.909	4596	9014	0.51	71.0	16.2	B
11	1.00	0.909	4483	9014	0.50	71.0	15.8	B
12	1.00	0.909	4272	9014	0.47	71.2	15.0	B

Segment 11: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.909	2945	9014	0.33	71.2	10.3	A
2	1.00	0.909	3310	9014	0.37	71.2	11.6	B
3	1.00	0.909	3913	9014	0.43	71.2	13.7	B
4	1.00	0.909	4471	9014	0.50	71.1	15.7	B
5	1.00	0.909	4211	9014	0.47	71.2	14.8	B
6	1.00	0.909	4265	9014	0.47	71.2	15.0	B
7	1.00	0.909	4861	9014	0.54	70.7	17.2	B
8	1.00	0.909	4710	9014	0.52	70.8	16.6	B
9	1.00	0.909	4656	9014	0.52	70.9	16.4	B
10	1.00	0.909	4596	9014	0.51	71.0	16.2	B
11	1.00	0.909	4483	9014	0.50	71.0	15.8	B

12	1.00	0.909	4272	9014	0.47	71.2	15.0	B							
Segment 12: Basic															
AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	1.00	0.909	2945	9014	0.33	71.2	10.3	A							
2	1.00	0.909	3310	9014	0.37	71.2	11.6	B							
3	1.00	0.909	3913	9014	0.43	71.2	13.7	B							
4	1.00	0.909	4471	9014	0.50	71.1	15.7	B							
5	1.00	0.909	4211	9014	0.47	71.2	14.8	B							
6	1.00	0.909	4265	9014	0.47	71.2	15.0	B							
7	1.00	0.909	4861	9014	0.54	70.7	17.2	B							
8	1.00	0.909	4710	9014	0.52	70.8	16.6	B							
9	1.00	0.909	4656	9014	0.52	70.9	16.4	B							
10	1.00	0.909	4596	9014	0.51	71.0	16.2	B							
11	1.00	0.909	4483	9014	0.50	71.0	15.8	B							
12	1.00	0.909	4272	9014	0.47	71.2	15.0	B							
Segment 13: Diverge															
AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.909	0.932	2945	235	7507	1972	0.39	0.12	71.2	71.2	10.3	10.3	A
2	1.00	1.00	0.909	0.932	3310	264	7507	1972	0.44	0.13	70.9	70.9	11.7	11.7	B
3	1.00	1.00	0.909	0.932	3913	312	7507	1972	0.52	0.16	69.6	69.6	14.1	14.1	B
4	1.00	1.00	0.909	0.932	4471	356	7507	1972	0.60	0.18	67.5	67.5	16.6	16.6	B
5	1.00	1.00	0.909	0.932	4211	336	7507	1972	0.56	0.17	68.6	68.6	15.3	15.3	B
6	1.00	1.00	0.909	0.932	4265	340	7507	1972	0.57	0.17	68.4	68.4	15.6	15.6	B
7	1.00	1.00	0.909	0.932	4861	387	7507	1972	0.65	0.20	65.6	65.6	18.5	18.5	C
8	1.00	1.00	0.909	0.932	4710	376	7507	1972	0.63	0.19	66.4	66.4	17.7	17.7	B
9	1.00	1.00	0.909	0.932	4656	371	7507	1972	0.62	0.19	66.7	66.7	17.5	17.5	B
10	1.00	1.00	0.909	0.932	4596	366	7507	1972	0.61	0.19	67.0	67.0	17.1	17.1	B
11	1.00	1.00	0.909	0.932	4483	357	7507	1972	0.60	0.18	67.5	67.5	16.6	16.6	B
12	1.00	1.00	0.909	0.932	4272	340	7507	1972	0.57	0.17	68.4	68.4	15.6	15.6	B
Segment 14: Basic															
AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	1.00	0.907	2710	6761	0.40	71.2	12.7	B							
2	1.00	0.907	3046	6761	0.45	71.2	14.3	B							
3	1.00	0.907	3601	6761	0.53	70.7	17.0	B							
4	1.00	0.907	4115	6761	0.61	69.5	19.7	C							
5	1.00	0.907	3875	6761	0.57	70.1	18.4	C							
6	1.00	0.907	3925	6761	0.58	70.0	18.7	C							
7	1.00	0.907	4474	6761	0.66	68.1	21.9	C							

8	1.00	0.907	4334	6761	0.64	68.7	21.0	C
9	1.00	0.907	4284	6761	0.63	68.9	20.7	C
10	1.00	0.907	4230	6761	0.63	69.1	20.4	C
11	1.00	0.907	4126	6761	0.61	69.4	19.8	C
12	1.00	0.907	3932	6761	0.58	70.0	18.7	C

Segment 15: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.914	0.940	3463	774	7507	1972	0.46	0.39	70.6	70.6	12.3	12.3	B
2	1.00	1.00	0.914	0.940	3894	871	7507	1972	0.52	0.44	69.6	69.6	14.0	14.0	B
3	1.00	1.00	0.914	0.940	4603	1030	7507	1972	0.61	0.52	66.9	66.9	17.2	17.2	B
4	1.00	1.00	0.914	0.940	5260	1177	7507	1972	0.70	0.60	63.2	63.2	20.8	20.8	C
5	1.00	1.00	0.914	0.940	4955	1109	7507	1972	0.66	0.56	65.1	65.1	19.0	19.0	C
6	1.00	1.00	0.914	0.940	5017	1122	7507	1972	0.67	0.57	64.7	64.7	19.4	19.4	C
7	1.00	1.00	0.914	0.940	5720	1280	7507	1972	0.76	0.65	59.9	59.9	23.9	23.9	C
8	1.00	1.00	0.914	0.940	5540	1239	7507	1972	0.74	0.63	61.3	61.3	22.6	22.6	C
9	1.00	1.00	0.914	0.940	5478	1226	7507	1972	0.73	0.62	61.7	61.7	22.2	22.2	C
10	1.00	1.00	0.914	0.940	5408	1210	7507	1972	0.72	0.61	62.2	62.2	21.7	21.7	C
11	1.00	1.00	0.914	0.940	5274	1180	7507	1972	0.70	0.60	63.1	63.1	20.9	20.9	C
12	1.00	1.00	0.914	0.940	5026	1124	7507	1972	0.67	0.57	64.7	64.7	19.4	19.4	C

Segment 16: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.914	3486	9014	0.39	71.1	12.2	B
2	1.00	0.914	3919	9014	0.43	71.1	13.8	B
3	1.00	0.914	4632	9014	0.51	70.8	16.3	B
4	1.00	0.914	5293	9014	0.59	69.9	18.9	C
5	1.00	0.914	4986	9014	0.55	70.5	17.7	B
6	1.00	0.914	5049	9014	0.56	70.4	17.9	B
7	1.00	0.914	5756	9014	0.64	68.7	20.9	C
8	1.00	0.914	5575	9014	0.62	69.2	20.1	C
9	1.00	0.914	5512	9014	0.61	69.4	19.9	C
10	1.00	0.914	5442	9014	0.60	69.6	19.5	C
11	1.00	0.914	5307	9014	0.59	69.9	19.0	C
12	1.00	0.914	5058	9014	0.56	70.4	18.0	B

Segment 17: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.914	3486	9014	0.39	71.2	12.2	B
2	1.00	0.914	3919	9014	0.43	71.2	13.8	B
3	1.00	0.914	4632	9014	0.51	70.9	16.3	B

4	1.00	0.914	5293	9014	0.59	69.9	18.9	C
5	1.00	0.914	4986	9014	0.55	70.5	17.7	B
6	1.00	0.914	5049	9014	0.56	70.4	17.9	B
7	1.00	0.914	5756	9014	0.64	68.7	20.9	C
8	1.00	0.914	5575	9014	0.62	69.2	20.1	C
9	1.00	0.914	5512	9014	0.61	69.4	19.9	C
10	1.00	0.914	5442	9014	0.60	69.6	19.5	C
11	1.00	0.914	5307	9014	0.59	69.9	19.0	C
12	1.00	0.914	5058	9014	0.56	70.4	18.0	B

Segment 18: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.914	3486	9014	0.39	71.2	12.2	B
2	1.00	0.914	3919	9014	0.43	71.2	13.8	B
3	1.00	0.914	4632	9014	0.51	70.9	16.3	B
4	1.00	0.914	5293	9014	0.59	69.9	18.9	C
5	1.00	0.914	4986	9014	0.55	70.5	17.7	B
6	1.00	0.914	5049	9014	0.56	70.4	17.9	B
7	1.00	0.914	5756	9014	0.64	68.7	20.9	C
8	1.00	0.914	5575	9014	0.62	69.2	20.1	C
9	1.00	0.914	5512	9014	0.61	69.4	19.9	C
10	1.00	0.914	5442	9014	0.60	69.6	19.5	C
11	1.00	0.914	5307	9014	0.59	69.9	19.0	C
12	1.00	0.914	5058	9014	0.56	70.4	18.0	B

Segment 19: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.914	3486	9014	0.39	71.2	12.2	B
2	1.00	0.914	3919	9014	0.43	71.2	13.8	B
3	1.00	0.914	4632	9014	0.51	70.9	16.3	B
4	1.00	0.914	5293	9014	0.59	69.9	18.9	C
5	1.00	0.914	4986	9014	0.55	70.5	17.7	B
6	1.00	0.914	5049	9014	0.56	70.4	17.9	B
7	1.00	0.914	5756	9014	0.64	68.7	20.9	C
8	1.00	0.914	5575	9014	0.62	69.2	20.1	C
9	1.00	0.914	5512	9014	0.61	69.4	19.9	C
10	1.00	0.914	5442	9014	0.60	69.6	19.5	C
11	1.00	0.914	5307	9014	0.59	69.9	19.0	C
12	1.00	0.914	5058	9014	0.56	70.4	18.0	B

Segment 20: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
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1	1.00	0.914	3486	9014	0.39	71.2	12.2	B
2	1.00	0.914	3919	9014	0.43	71.2	13.8	B
3	1.00	0.914	4632	9014	0.51	70.9	16.3	B
4	1.00	0.914	5293	9014	0.59	69.9	18.9	C
5	1.00	0.914	4986	9014	0.55	70.5	17.7	B
6	1.00	0.914	5049	9014	0.56	70.4	17.9	B
7	1.00	0.914	5756	9014	0.64	68.7	20.9	C
8	1.00	0.914	5575	9014	0.62	69.2	20.1	C
9	1.00	0.914	5512	9014	0.61	69.4	19.9	C
10	1.00	0.914	5442	9014	0.60	69.6	19.5	C
11	1.00	0.914	5307	9014	0.59	69.9	19.0	C
12	1.00	0.914	5058	9014	0.56	70.4	18.0	B

Segment 21: Diverge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.914	0.951	3486	529	7507	1972	0.46	0.27	70.6	70.6	12.4	12.4	B
2	1.00	1.00	0.914	0.951	3919	594	7507	1972	0.52	0.30	69.6	69.6	14.1	14.1	B
3	1.00	1.00	0.914	0.951	4632	702	7507	1972	0.62	0.36	66.8	66.8	17.3	17.3	B
4	1.00	1.00	0.914	0.951	5293	802	7507	1972	0.71	0.41	63.0	63.0	21.0	21.0	C
5	1.00	1.00	0.914	0.951	4986	756	7507	1972	0.66	0.38	64.9	64.9	19.2	19.2	C
6	1.00	1.00	0.914	0.951	5049	766	7507	1972	0.67	0.39	64.5	64.5	19.6	19.6	C
7	1.00	1.00	0.914	0.951	5756	873	7507	1972	0.77	0.44	59.6	59.6	24.1	24.1	C
8	1.00	1.00	0.914	0.951	5575	845	7507	1972	0.74	0.43	61.0	61.0	22.9	22.9	C
9	1.00	1.00	0.914	0.951	5512	836	7507	1972	0.73	0.42	61.5	61.5	22.4	22.4	C
10	1.00	1.00	0.914	0.951	5442	824	7507	1972	0.72	0.42	62.0	62.0	21.9	21.9	C
11	1.00	1.00	0.914	0.951	5307	804	7507	1972	0.71	0.41	62.9	62.9	21.1	21.1	C
12	1.00	1.00	0.914	0.951	5058	767	7507	1972	0.67	0.39	64.5	64.5	19.6	19.6	C

Segment 22: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.908	2955	6761	0.44	71.2	13.8	B
2	1.00	0.908	3323	6761	0.49	71.1	15.6	B
3	1.00	0.908	3927	6761	0.58	70.0	18.7	C
4	1.00	0.908	4488	6761	0.66	68.0	22.0	C
5	1.00	0.908	4227	6761	0.63	69.1	20.4	C
6	1.00	0.908	4281	6761	0.63	68.9	20.7	C
7	1.00	0.908	4880	6761	0.72	66.1	24.6	C
8	1.00	0.908	4727	6761	0.70	66.9	23.6	C
9	1.00	0.908	4673	6761	0.69	67.1	23.2	C
10	1.00	0.908	4615	6761	0.68	67.4	22.8	C
11	1.00	0.908	4500	6761	0.67	68.0	22.1	C

12	1.00	0.908	4289	6761	0.63	68.8	20.8	C
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Segment 23: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.917	0.967	3434	508	7507	1972	0.46	0.26	70.7	70.7	12.1	12.1	B
2	1.00	1.00	0.917	0.967	3861	571	7507	1972	0.51	0.29	69.7	69.7	13.8	13.8	B
3	1.00	1.00	0.917	0.967	4563	674	7507	1972	0.61	0.34	67.1	67.1	17.0	17.0	B
4	1.00	1.00	0.917	0.967	5214	770	7507	1972	0.69	0.39	63.5	63.5	20.5	20.5	C
5	1.00	1.00	0.917	0.967	4911	726	7507	1972	0.65	0.37	65.3	65.3	18.8	18.8	C
6	1.00	1.00	0.917	0.967	4974	735	7507	1972	0.66	0.37	65.0	65.0	19.1	19.1	C
7	1.00	1.00	0.917	0.967	5670	838	7507	1972	0.76	0.42	60.3	60.3	23.5	23.5	C
8	1.00	1.00	0.917	0.967	5492	812	7507	1972	0.73	0.41	61.6	61.6	22.3	22.3	C
9	1.00	1.00	0.917	0.967	5429	802	7507	1972	0.72	0.41	62.0	62.0	21.9	21.9	C
10	1.00	1.00	0.917	0.967	5361	792	7507	1972	0.71	0.40	62.5	62.5	21.4	21.4	C
11	1.00	1.00	0.917	0.967	5228	772	7507	1972	0.70	0.39	63.4	63.4	20.6	20.6	C
12	1.00	1.00	0.917	0.967	4982	736	7507	1972	0.66	0.37	64.9	64.9	19.2	19.2	C

Segment 24: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.917	3461	9014	0.38	71.2	12.1	B
2	1.00	0.917	3892	9014	0.43	71.1	13.7	B
3	1.00	0.917	4600	9014	0.51	70.8	16.2	B
4	1.00	0.917	5256	9014	0.58	70.0	18.8	C
5	1.00	0.917	4951	9014	0.55	70.5	17.6	B
6	1.00	0.917	5014	9014	0.56	70.4	17.8	B
7	1.00	0.917	5715	9014	0.63	68.8	20.8	C
8	1.00	0.917	5537	9014	0.61	69.3	20.0	C
9	1.00	0.917	5473	9014	0.61	69.5	19.7	C
10	1.00	0.917	5405	9014	0.60	69.7	19.4	C
11	1.00	0.917	5270	9014	0.58	69.9	18.9	C
12	1.00	0.917	5023	9014	0.56	70.4	17.8	B

Facility Analysis Results

AP	VMT veh-mi/AP	VMT-Demand veh-mi/AP	VHD veh-h/AP	Total Delay Cost \$/AP	Speed mi/h	Density pc/mi/ln	Density veh/mi/ln	TT min	LOS
1	16015	15816	0.57	14.18	71.0	10.7	9.8	19.40	A
2	18003	17780	0.84	20.92	71.0	12.0	11.0	19.40	B
3	21281	21017	2.27	56.82	70.7	14.3	13.0	19.50	B
4	24316	24014	6.19	154.83	69.9	16.5	15.0	19.70	B
5	22904	22619	3.82	95.62	70.4	15.5	14.1	19.60	B
6	23196	22908	4.20	104.99	70.3	15.7	14.3	19.60	B
7	26441	26112	11.78	294.58	69.0	18.2	16.5	20.00	C

8	25613	25295	9.48	237.09	69.4	17.5	16.0	19.90	B
9	25321	25007	8.55	213.81	69.5	17.3	15.8	19.80	B
10	24999	24688	7.61	190.34	69.7	17.0	15.5	19.80	B
11	24381	24079	6.44	160.90	69.9	16.6	15.1	19.70	B
12	23234	22946	4.23	105.67	70.3	15.7	14.3	19.60	B

Facility Overall Results

Space Mean Speed, mi/h	70.0	Average Density, veh/mi/ln	14.2
Average Travel Time, min	19.70	Average Density, pc/mi/ln	15.6
Total VMT, veh-mi	275703	Total VHD, veh-h	65.99
Vehicle Value of Time (VOT), \$/h	25.00	Total Delay Cost, \$	1649.75

HCS Freeway Facilities Report

Project Information

Analyst	Kittelson & Associate	Date	11/27/2023
Agency	Florida Department of Transportation	Analysis Year	2030 Build Conditions
Jurisdiction	District Five	Time Analyzed	PM Weekday Peak Period
Facility Name	I-75 (Northbound)	Units	U.S. Customary
Project Description	I-75 PD&E South Auxiliary Lanes		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	24
Total Analysis Periods	12	Analysis Period Duration, min	15
Facility Length, mi	22.97		

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	I-75 NB	1500	3
2	Diverge	Diverge	I-75 NB SR 44 Off Ramp	1500	3
3	Basic	Basic	I-75 NB	2400	3
4	Merge	Merge	I-75 NB Turnpike On Ramp	1500	5
5	Basic	Basic	I-75 NB	1945	5
6	Basic	Basic	I-75 NB	2346	5
7	Merge	Merge	I-75 NB SR 44 On Ramp	1500	5
8	Basic	Basic	I-75 NB	1500	5
9	Basic	Basic	I-75 NB	4430	5
10	Basic	Basic	I-75 NB	44795	4
11	Basic	Basic	I-75 NB	1500	4
12	Basic	Basic	I-75 NB	1500	4
13	Diverge	Basic	I-75 NB CR 484 Off Ramp	1500	4
14	Basic	Basic	I-75 NB	2936	3
15	Merge	Basic	I-75 NB CR 484 On Ramp	1500	4
16	Basic	Basic	I-75 NB	1500	4
17	Basic	Basic	I-75 NB	1500	4
18	Basic	Basic	I-75 NB	35183	4
19	Basic	Basic	I-75 B	1500	4
20	Basic	Basic	I-75 NB	1500	4
21	Diverge	Basic	I-75 NB SR 200 Off Ramp	1500	4
22	Basic	Basic	I-75 NB	3265	3
23	Merge	Basic	I-75 NB SR 200 On Ramp	1500	4
24	Basic	Basic	I-75 NB	1490	4

Facility Segment Data															
Segment 1: Basic															
AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	1.00		0.907		2307		6761		0.34		71.2		10.8		A
2	1.00		0.907		2176		6761		0.32		71.2		10.2		A
3	1.00		0.907		2240		6761		0.33		71.2		10.5		A
4	1.00		0.907		2110		6761		0.31		71.2		9.9		A
5	1.00		0.907		1809		6761		0.27		71.2		8.5		A
6	1.00		0.907		2019		6761		0.30		71.2		9.5		A
7	1.00		0.907		2078		6761		0.31		71.2		9.7		A
8	1.00		0.907		2142		6761		0.32		71.2		10.0		A
9	1.00		0.907		2066		6761		0.31		71.2		9.7		A
10	1.00		0.907		1955		6761		0.29		71.2		9.2		A
11	1.00		0.907		1901		6761		0.28		71.2		8.9		A
12	1.00		0.907		1787		6761		0.26		71.2		8.4		A
Segment 2: Diverge															
AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.907	0.912	2307	578	5918	1972	0.39	0.29	63.7	60.1	12.1	13.0	B
2	1.00	1.00	0.907	0.912	2176	546	5918	1972	0.37	0.28	63.7	60.2	11.4	12.2	B
3	1.00	1.00	0.907	0.912	2240	561	5918	1972	0.38	0.28	63.7	60.2	11.7	12.6	B
4	1.00	1.00	0.907	0.912	2110	529	5918	1972	0.36	0.27	63.7	60.3	11.0	11.8	B
5	1.00	1.00	0.907	0.912	1809	454	5918	1972	0.31	0.23	63.8	60.5	9.5	9.9	A
6	1.00	1.00	0.907	0.912	2019	505	5918	1972	0.34	0.26	63.7	60.3	10.6	11.2	B
7	1.00	1.00	0.907	0.912	2078	521	5918	1972	0.35	0.26	63.7	60.3	10.9	11.6	B
8	1.00	1.00	0.907	0.912	2142	537	5918	1972	0.36	0.27	63.7	60.2	11.2	12.0	B
9	1.00	1.00	0.907	0.912	2066	518	5918	1972	0.35	0.26	63.7	60.3	10.8	11.5	B
10	1.00	1.00	0.907	0.912	1955	490	5918	1972	0.33	0.25	63.8	60.4	10.2	10.8	B
11	1.00	1.00	0.907	0.912	1901	477	5918	1972	0.32	0.24	63.7	60.4	9.9	10.5	B
12	1.00	1.00	0.907	0.912	1787	448	5918	1972	0.30	0.23	63.8	60.5	9.3	9.8	A
Segment 3: Basic															
AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	1.00		0.905		1729		6761		0.26		70.9		8.1		A
2	1.00		0.905		1631		6761		0.24		70.9		7.6		A
3	1.00		0.905		1680		6761		0.25		70.9		7.9		A
4	1.00		0.905		1582		6761		0.23		70.9		7.4		A
5	1.00		0.905		1356		6761		0.20		70.9		6.3		A
6	1.00		0.905		1514		6761		0.22		70.9		7.1		A
7	1.00		0.905		1558		6761		0.23		70.9		7.3		A

8	1.00	0.905	1606	6761	0.24	70.9	7.5	A
9	1.00	0.905	1549	6761	0.23	70.9	7.2	A
10	1.00	0.905	1465	6761	0.22	70.9	6.9	A
11	1.00	0.905	1424	6761	0.21	70.9	6.7	A
12	1.00	0.905	1339	6761	0.20	70.9	6.3	A

Segment 4: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.913	0.918	4078	2364	9384	3944	0.43	0.60	65.0	63.5	11.4	17.7	B
2	1.00	1.00	0.913	0.918	3848	2231	9384	3944	0.41	0.57	65.3	63.8	10.7	16.5	B
3	1.00	1.00	0.913	0.918	3961	2296	9384	3944	0.42	0.58	65.2	63.7	11.0	17.0	B
4	1.00	1.00	0.913	0.918	3730	2162	9384	3944	0.40	0.55	65.4	64.0	10.4	15.8	B
5	1.00	1.00	0.913	0.918	3198	1854	9384	3944	0.34	0.47	65.8	64.5	8.8	13.0	B
6	1.00	1.00	0.913	0.918	3570	2069	9384	3944	0.38	0.52	65.5	64.1	9.9	15.0	B
7	1.00	1.00	0.913	0.918	3675	2131	9384	3944	0.39	0.54	65.4	64.0	10.2	15.5	B
8	1.00	1.00	0.913	0.918	3786	2195	9384	3944	0.40	0.56	65.4	63.9	10.5	16.1	B
9	1.00	1.00	0.913	0.918	3654	2118	9384	3944	0.39	0.54	65.4	64.0	10.1	15.4	B
10	1.00	1.00	0.913	0.918	3455	2003	9384	3944	0.37	0.51	65.7	64.3	9.5	14.4	B
11	1.00	1.00	0.913	0.918	3361	1949	9384	3944	0.36	0.49	65.7	64.3	9.3	13.9	B
12	1.00	1.00	0.913	0.918	3158	1831	9384	3944	0.34	0.46	65.8	64.5	8.7	12.8	B

Segment 5: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.913	4091	11268	0.36	70.8	11.5	B
2	1.00	0.913	3860	11268	0.34	70.8	10.8	A
3	1.00	0.913	3974	11268	0.35	70.8	11.2	B
4	1.00	0.913	3743	11268	0.33	70.8	10.5	A
5	1.00	0.913	3208	11268	0.28	70.9	9.0	A
6	1.00	0.913	3581	11268	0.32	70.9	10.1	A
7	1.00	0.913	3687	11268	0.33	70.8	10.4	A
8	1.00	0.913	3798	11268	0.34	70.8	10.7	A
9	1.00	0.913	3665	11268	0.33	70.8	10.3	A
10	1.00	0.913	3467	11268	0.31	70.9	9.7	A
11	1.00	0.913	3371	11268	0.30	70.9	9.5	A
12	1.00	0.913	3169	11268	0.28	70.9	8.9	A

Segment 6: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.913	4091	11268	0.36	71.2	11.5	B
2	1.00	0.913	3860	11268	0.34	71.2	10.8	A
3	1.00	0.913	3974	11268	0.35	71.2	11.2	B

4	1.00	0.913	3743	11268	0.33	71.2	10.5	A
5	1.00	0.913	3208	11268	0.28	71.2	9.0	A
6	1.00	0.913	3581	11268	0.32	71.2	10.1	A
7	1.00	0.913	3687	11268	0.33	71.2	10.4	A
8	1.00	0.913	3798	11268	0.34	71.2	10.7	A
9	1.00	0.913	3665	11268	0.33	71.2	10.3	A
10	1.00	0.913	3467	11268	0.31	71.2	9.7	A
11	1.00	0.913	3371	11268	0.30	71.2	9.5	A
12	1.00	0.913	3169	11268	0.28	71.2	8.9	A

Segment 7: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.908	0.884	4838	725	9384	3944	0.52	0.18	67.0	64.7	11.7	11.5	B
2	1.00	1.00	0.908	0.884	4565	684	9384	3944	0.49	0.17	67.1	64.8	11.1	10.6	B
3	1.00	1.00	0.908	0.884	4700	704	9384	3944	0.50	0.18	67.1	64.8	11.4	11.0	B
4	1.00	1.00	0.908	0.884	4426	663	9384	3944	0.47	0.17	67.2	64.9	10.7	10.2	B
5	1.00	1.00	0.908	0.884	3795	569	9384	3944	0.40	0.14	67.5	65.0	9.1	8.2	A
6	1.00	1.00	0.908	0.884	4235	635	9384	3944	0.45	0.16	67.3	64.9	10.2	9.6	A
7	1.00	1.00	0.908	0.884	4360	653	9384	3944	0.46	0.17	67.3	64.9	10.5	10.0	A
8	1.00	1.00	0.908	0.884	4492	673	9384	3944	0.48	0.17	67.2	64.8	10.9	10.4	B
9	1.00	1.00	0.908	0.884	4334	649	9384	3944	0.46	0.16	67.3	64.9	10.5	9.9	A
10	1.00	1.00	0.908	0.884	4100	614	9384	3944	0.44	0.16	67.4	65.0	9.9	9.1	A
11	1.00	1.00	0.908	0.884	3987	597	9384	3944	0.42	0.15	67.4	65.0	9.6	8.8	A
12	1.00	1.00	0.908	0.884	3747	561	9384	3944	0.40	0.14	67.5	65.0	9.0	8.0	A

Segment 8: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.908	4819	11268	0.43	70.8	13.5	B
2	1.00	0.908	4547	11268	0.40	70.8	12.8	B
3	1.00	0.908	4681	11268	0.42	70.8	13.1	B
4	1.00	0.908	4409	11268	0.39	70.8	12.4	B
5	1.00	0.908	3780	11268	0.34	70.9	10.6	A
6	1.00	0.908	4218	11268	0.37	70.9	11.9	B
7	1.00	0.908	4343	11268	0.39	70.9	12.2	B
8	1.00	0.908	4475	11268	0.40	70.8	12.6	B
9	1.00	0.908	4317	11268	0.38	70.9	12.1	B
10	1.00	0.908	4084	11268	0.36	70.9	11.5	B
11	1.00	0.908	3971	11268	0.35	70.9	11.2	B
12	1.00	0.908	3732	11268	0.33	70.9	10.5	A

Segment 9: Basic

AP	PHF	fHV	Flow Rate	Capacity	d/c	Speed	Density	LOS
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			(pc/h)	(pc/h)	Ratio	(mi/h)	(pc/mi/ln)	
1	1.00	0.908	4819	11268	0.43	71.2	13.5	B
2	1.00	0.908	4547	11268	0.40	71.2	12.8	B
3	1.00	0.908	4681	11268	0.42	71.2	13.1	B
4	1.00	0.908	4409	11268	0.39	71.2	12.4	B
5	1.00	0.908	3780	11268	0.34	71.2	10.6	A
6	1.00	0.908	4218	11268	0.37	71.2	11.9	B
7	1.00	0.908	4343	11268	0.39	71.2	12.2	B
8	1.00	0.908	4475	11268	0.40	71.2	12.6	B
9	1.00	0.908	4317	11268	0.38	71.2	12.1	B
10	1.00	0.908	4084	11268	0.36	71.2	11.5	B
11	1.00	0.908	3971	11268	0.35	71.2	11.2	B
12	1.00	0.908	3732	11268	0.33	71.2	10.5	A

Segment 10: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.908	4819	9014	0.53	70.7	17.0	B
2	1.00	0.908	4547	9014	0.50	71.0	16.0	B
3	1.00	0.908	4681	9014	0.52	70.9	16.5	B
4	1.00	0.908	4409	9014	0.49	71.1	15.5	B
5	1.00	0.908	3780	9014	0.42	71.2	13.3	B
6	1.00	0.908	4218	9014	0.47	71.2	14.8	B
7	1.00	0.908	4343	9014	0.48	71.1	15.3	B
8	1.00	0.908	4475	9014	0.50	71.1	15.7	B
9	1.00	0.908	4317	9014	0.48	71.1	15.2	B
10	1.00	0.908	4084	9014	0.45	71.2	14.3	B
11	1.00	0.908	3971	9014	0.44	71.2	13.9	B
12	1.00	0.908	3732	9014	0.41	71.2	13.1	B

Segment 11: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.908	4819	9014	0.53	70.7	17.0	B
2	1.00	0.908	4547	9014	0.50	71.0	16.0	B
3	1.00	0.908	4681	9014	0.52	70.9	16.5	B
4	1.00	0.908	4409	9014	0.49	71.1	15.5	B
5	1.00	0.908	3780	9014	0.42	71.2	13.3	B
6	1.00	0.908	4218	9014	0.47	71.2	14.8	B
7	1.00	0.908	4343	9014	0.48	71.1	15.3	B
8	1.00	0.908	4475	9014	0.50	71.1	15.7	B
9	1.00	0.908	4317	9014	0.48	71.1	15.2	B
10	1.00	0.908	4084	9014	0.45	71.2	14.3	B
11	1.00	0.908	3971	9014	0.44	71.2	13.9	B

12	1.00	0.908	3732		9014		0.41	71.2		13.1		B			
Segment 12: Basic															
AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	1.00	0.908	4819		9014		0.53	70.7		17.0		B			
2	1.00	0.908	4547		9014		0.50	71.0		16.0		B			
3	1.00	0.908	4681		9014		0.52	70.9		16.5		B			
4	1.00	0.908	4409		9014		0.49	71.1		15.5		B			
5	1.00	0.908	3780		9014		0.42	71.2		13.3		B			
6	1.00	0.908	4218		9014		0.47	71.2		14.8		B			
7	1.00	0.908	4343		9014		0.48	71.1		15.3		B			
8	1.00	0.908	4475		9014		0.50	71.1		15.7		B			
9	1.00	0.908	4317		9014		0.48	71.1		15.2		B			
10	1.00	0.908	4084		9014		0.45	71.2		14.3		B			
11	1.00	0.908	3971		9014		0.44	71.2		13.9		B			
12	1.00	0.908	3732		9014		0.41	71.2		13.1		B			
Segment 13: Diverge															
AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.908	0.932	4819	871	7507	1972	0.64	0.44	65.8	65.8	18.3	18.3	C
2	1.00	1.00	0.908	0.932	4547	822	7507	1972	0.61	0.42	67.2	67.2	16.9	16.9	B
3	1.00	1.00	0.908	0.932	4681	845	7507	1972	0.62	0.43	66.5	66.5	17.6	17.6	B
4	1.00	1.00	0.908	0.932	4409	797	7507	1972	0.59	0.40	67.8	67.8	16.3	16.3	B
5	1.00	1.00	0.908	0.932	3780	683	7507	1972	0.50	0.35	70.0	70.0	13.5	13.5	B
6	1.00	1.00	0.908	0.932	4218	762	7507	1972	0.56	0.39	68.6	68.6	15.4	15.4	B
7	1.00	1.00	0.908	0.932	4343	784	7507	1972	0.58	0.40	68.1	68.1	15.9	15.9	B
8	1.00	1.00	0.908	0.932	4475	809	7507	1972	0.60	0.41	67.5	67.5	16.6	16.6	B
9	1.00	1.00	0.908	0.932	4317	780	7507	1972	0.58	0.40	68.2	68.2	15.8	15.8	B
10	1.00	1.00	0.908	0.932	4084	738	7507	1972	0.54	0.37	69.0	69.0	14.8	14.8	B
11	1.00	1.00	0.908	0.932	3971	718	7507	1972	0.53	0.36	69.4	69.4	14.3	14.3	B
12	1.00	1.00	0.908	0.932	3732	675	7507	1972	0.50	0.34	70.1	70.1	13.3	13.3	B
Segment 14: Basic															
AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	1.00	0.903	3947		6761		0.58	70.0		18.8		C			
2	1.00	0.903	3724		6761		0.55	70.5		17.6		B			
3	1.00	0.903	3834		6761		0.57	70.3		18.2		C			
4	1.00	0.903	3610		6761		0.53	70.7		17.0		B			
5	1.00	0.903	3095		6761		0.46	71.2		14.5		B			
6	1.00	0.903	3455		6761		0.51	70.9		16.2		B			
7	1.00	0.903	3557		6761		0.53	70.8		16.8		B			

8	1.00	0.903	3664	6761	0.54	70.6	17.3	B
9	1.00	0.903	3536	6761	0.52	70.8	16.7	B
10	1.00	0.903	3344	6761	0.49	71.1	15.7	B
11	1.00	0.903	3252	6761	0.48	71.1	15.2	B
12	1.00	0.903	3056	6761	0.45	71.2	14.3	B

Segment 15: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.909	0.940	4661	740	7507	1972	0.62	0.38	66.6	66.6	17.5	17.5	B
2	1.00	1.00	0.909	0.940	4399	699	7507	1972	0.59	0.35	67.8	67.8	16.2	16.2	B
3	1.00	1.00	0.909	0.940	4528	719	7507	1972	0.60	0.36	67.3	67.3	16.8	16.8	B
4	1.00	1.00	0.909	0.940	4264	678	7507	1972	0.57	0.34	68.4	68.4	15.6	15.6	B
5	1.00	1.00	0.909	0.940	3656	581	7507	1972	0.49	0.29	70.3	70.3	13.0	13.0	B
6	1.00	1.00	0.909	0.940	4080	648	7507	1972	0.54	0.33	69.1	69.1	14.8	14.8	B
7	1.00	1.00	0.909	0.940	4201	667	7507	1972	0.56	0.34	68.6	68.6	15.3	15.3	B
8	1.00	1.00	0.909	0.940	4327	687	7507	1972	0.58	0.35	68.1	68.1	15.9	15.9	B
9	1.00	1.00	0.909	0.940	4176	663	7507	1972	0.56	0.34	68.7	68.7	15.2	15.2	B
10	1.00	1.00	0.909	0.940	3950	628	7507	1972	0.53	0.32	69.5	69.5	14.2	14.2	B
11	1.00	1.00	0.909	0.940	3842	611	7507	1972	0.51	0.31	69.8	69.8	13.8	13.8	B
12	1.00	1.00	0.909	0.940	3609	573	7507	1972	0.48	0.29	70.4	70.4	12.8	12.8	B

Segment 16: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.909	4686	9014	0.52	70.8	16.5	B
2	1.00	0.909	4422	9014	0.49	70.9	15.6	B
3	1.00	0.909	4552	9014	0.50	70.9	16.0	B
4	1.00	0.909	4287	9014	0.48	71.0	15.1	B
5	1.00	0.909	3675	9014	0.41	71.1	12.9	B
6	1.00	0.909	4102	9014	0.46	71.0	14.4	B
7	1.00	0.909	4223	9014	0.47	71.0	14.8	B
8	1.00	0.909	4351	9014	0.48	70.9	15.3	B
9	1.00	0.909	4198	9014	0.47	71.0	14.7	B
10	1.00	0.909	3971	9014	0.44	71.1	13.9	B
11	1.00	0.909	3862	9014	0.43	71.1	13.6	B
12	1.00	0.909	3629	9014	0.40	71.1	12.7	B

Segment 17: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.909	4686	9014	0.52	70.9	16.5	B
2	1.00	0.909	4422	9014	0.49	71.1	15.6	B
3	1.00	0.909	4552	9014	0.50	71.0	16.0	B

4	1.00	0.909	4287	9014	0.48	71.2	15.1	B
5	1.00	0.909	3675	9014	0.41	71.2	12.9	B
6	1.00	0.909	4102	9014	0.46	71.2	14.4	B
7	1.00	0.909	4223	9014	0.47	71.2	14.8	B
8	1.00	0.909	4351	9014	0.48	71.1	15.3	B
9	1.00	0.909	4198	9014	0.47	71.2	14.7	B
10	1.00	0.909	3971	9014	0.44	71.2	13.9	B
11	1.00	0.909	3862	9014	0.43	71.2	13.6	B
12	1.00	0.909	3629	9014	0.40	71.2	12.7	B

Segment 18: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.909	4686	9014	0.52	70.9	16.5	B
2	1.00	0.909	4422	9014	0.49	71.1	15.6	B
3	1.00	0.909	4552	9014	0.50	71.0	16.0	B
4	1.00	0.909	4287	9014	0.48	71.2	15.1	B
5	1.00	0.909	3675	9014	0.41	71.2	12.9	B
6	1.00	0.909	4102	9014	0.46	71.2	14.4	B
7	1.00	0.909	4223	9014	0.47	71.2	14.8	B
8	1.00	0.909	4351	9014	0.48	71.1	15.3	B
9	1.00	0.909	4198	9014	0.47	71.2	14.7	B
10	1.00	0.909	3971	9014	0.44	71.2	13.9	B
11	1.00	0.909	3862	9014	0.43	71.2	13.6	B
12	1.00	0.909	3629	9014	0.40	71.2	12.7	B

Segment 19: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.909	4686	9014	0.52	70.9	16.5	B
2	1.00	0.909	4422	9014	0.49	71.1	15.6	B
3	1.00	0.909	4552	9014	0.50	71.0	16.0	B
4	1.00	0.909	4287	9014	0.48	71.2	15.1	B
5	1.00	0.909	3675	9014	0.41	71.2	12.9	B
6	1.00	0.909	4102	9014	0.46	71.2	14.4	B
7	1.00	0.909	4223	9014	0.47	71.2	14.8	B
8	1.00	0.909	4351	9014	0.48	71.1	15.3	B
9	1.00	0.909	4198	9014	0.47	71.2	14.7	B
10	1.00	0.909	3971	9014	0.44	71.2	13.9	B
11	1.00	0.909	3862	9014	0.43	71.2	13.6	B
12	1.00	0.909	3629	9014	0.40	71.2	12.7	B

Segment 20: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
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1	1.00	0.909	4686	9014	0.52	70.9	16.5	B
2	1.00	0.909	4422	9014	0.49	71.1	15.6	B
3	1.00	0.909	4552	9014	0.50	71.0	16.0	B
4	1.00	0.909	4287	9014	0.48	71.2	15.1	B
5	1.00	0.909	3675	9014	0.41	71.2	12.9	B
6	1.00	0.909	4102	9014	0.46	71.2	14.4	B
7	1.00	0.909	4223	9014	0.47	71.2	14.8	B
8	1.00	0.909	4351	9014	0.48	71.1	15.3	B
9	1.00	0.909	4198	9014	0.47	71.2	14.7	B
10	1.00	0.909	3971	9014	0.44	71.2	13.9	B
11	1.00	0.909	3862	9014	0.43	71.2	13.6	B
12	1.00	0.909	3629	9014	0.40	71.2	12.7	B

Segment 21: Diverge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.909	0.951	4686	805	7507	1972	0.62	0.41	66.5	66.5	17.6	17.6	B
2	1.00	1.00	0.909	0.951	4422	760	7507	1972	0.59	0.39	67.7	67.7	16.3	16.3	B
3	1.00	1.00	0.909	0.951	4552	782	7507	1972	0.61	0.40	67.2	67.2	16.9	16.9	B
4	1.00	1.00	0.909	0.951	4287	737	7507	1972	0.57	0.37	68.3	68.3	15.7	15.7	B
5	1.00	1.00	0.909	0.951	3675	632	7507	1972	0.49	0.32	70.2	70.2	13.1	13.1	B
6	1.00	1.00	0.909	0.951	4102	705	7507	1972	0.55	0.36	69.0	69.0	14.9	14.9	B
7	1.00	1.00	0.909	0.951	4223	726	7507	1972	0.56	0.37	68.5	68.5	15.4	15.4	B
8	1.00	1.00	0.909	0.951	4351	748	7507	1972	0.58	0.38	68.0	68.0	16.0	16.0	B
9	1.00	1.00	0.909	0.951	4198	721	7507	1972	0.56	0.37	68.6	68.6	15.3	15.3	B
10	1.00	1.00	0.909	0.951	3971	682	7507	1972	0.53	0.35	69.4	69.4	14.3	14.3	B
11	1.00	1.00	0.909	0.951	3862	664	7507	1972	0.51	0.34	69.7	69.7	13.9	13.9	B
12	1.00	1.00	0.909	0.951	3629	624	7507	1972	0.48	0.32	70.3	70.3	12.9	12.9	B

Segment 22: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.900	3882	6761	0.57	70.1	18.5	C
2	1.00	0.900	3663	6761	0.54	70.6	17.3	B
3	1.00	0.900	3771	6761	0.56	70.4	17.9	B
4	1.00	0.900	3551	6761	0.53	70.8	16.7	B
5	1.00	0.900	3044	6761	0.45	71.2	14.3	B
6	1.00	0.900	3399	6761	0.50	71.0	16.0	B
7	1.00	0.900	3499	6761	0.52	70.9	16.4	B
8	1.00	0.900	3604	6761	0.53	70.7	17.0	B
9	1.00	0.900	3478	6761	0.51	70.9	16.3	B
10	1.00	0.900	3290	6761	0.49	71.1	15.4	B
11	1.00	0.900	3200	6761	0.47	71.2	15.0	B

12	1.00	0.900	3007	6761	0.44	71.2	14.1	B							
Segment 23: Merge															
AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.913	0.967	4715	888	7507	1972	0.63	0.45	66.4	66.4	17.8	17.8	B
2	1.00	1.00	0.913	0.967	4449	838	7507	1972	0.59	0.42	67.6	67.6	16.5	16.5	B
3	1.00	1.00	0.913	0.967	4579	862	7507	1972	0.61	0.44	67.0	67.0	17.1	17.1	B
4	1.00	1.00	0.913	0.967	4314	813	7507	1972	0.57	0.41	68.2	68.2	15.8	15.8	B
5	1.00	1.00	0.913	0.967	3698	697	7507	1972	0.49	0.35	70.2	70.2	13.2	13.2	B
6	1.00	1.00	0.913	0.967	4127	777	7507	1972	0.55	0.39	68.9	68.9	15.0	15.0	B
7	1.00	1.00	0.913	0.967	4249	800	7507	1972	0.57	0.41	68.4	68.4	15.5	15.5	B
8	1.00	1.00	0.913	0.967	4377	824	7507	1972	0.58	0.42	67.9	67.9	16.1	16.1	B
9	1.00	1.00	0.913	0.967	4223	795	7507	1972	0.56	0.40	68.5	68.5	15.4	15.4	B
10	1.00	1.00	0.913	0.967	3996	753	7507	1972	0.53	0.38	69.3	69.3	14.4	14.4	B
11	1.00	1.00	0.913	0.967	3886	732	7507	1972	0.52	0.37	69.7	69.7	13.9	13.9	B
12	1.00	1.00	0.913	0.967	3652	688	7507	1972	0.49	0.35	70.3	70.3	13.0	13.0	B

Segment 24: Basic															
AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00		0.913		4768		9014		0.53		70.8		16.8		B
2	1.00		0.913		4498		9014		0.50		70.9		15.8		B
3	1.00		0.913		4631		9014		0.51		70.8		16.3		B
4	1.00		0.913		4361		9014		0.48		70.9		15.3		B
5	1.00		0.913		3739		9014		0.41		71.1		13.1		B
6	1.00		0.913		4173		9014		0.46		71.0		14.6		B
7	1.00		0.913		4297		9014		0.48		71.0		15.1		B
8	1.00		0.913		4426		9014		0.49		70.9		15.6		B
9	1.00		0.913		4271		9014		0.47		71.0		15.0		B
10	1.00		0.913		4041		9014		0.45		71.0		14.2		B
11	1.00		0.913		3930		9014		0.44		71.1		13.8		B
12	1.00		0.913		3692		9014		0.41		71.1		13.0		B

Facility Analysis Results									
AP	VMT veh-mi/AP	VMT-Demand veh-mi/AP	VHD veh-h/AP	Total Delay Cost \$/AP	Speed mi/h	Density pc/mi/ln	Density veh/mi/ln	TT min	LOS
1	23811	23506	3.94	98.62	70.4	16.1	14.6	19.60	B
2	22468	22180	2.41	60.15	70.7	15.1	13.8	19.50	B
3	23128	22831	3.03	75.63	70.5	15.6	14.2	19.50	B
4	21782	21503	1.81	45.18	70.8	14.7	13.3	19.50	B
5	18675	18435	0.87	21.74	71.0	12.5	11.4	19.40	B
6	20842	20575	1.34	33.45	70.9	14.0	12.7	19.40	B
7	21457	21182	1.70	42.49	70.8	14.4	13.1	19.50	B

8	22108	21824	2.08	51.89	70.7	14.9	13.5	19.50	B
9	21330	21057	1.67	41.64	70.8	14.3	13.0	19.50	B
10	20177	19919	1.16	28.96	70.9	13.5	12.3	19.40	B
11	19623	19371	1.05	26.19	70.9	13.2	12.0	19.40	B
12	18441	18204	0.84	20.96	71.0	12.4	11.2	19.40	B

Facility Overall Results

Space Mean Speed, mi/h	70.8	Average Density, veh/mi/ln	12.9
Average Travel Time, min	19.50	Average Density, pc/mi/ln	14.2
Total VMT, veh-mi	253842	Total VHD, veh-h	21.88
Vehicle Value of Time (VOT), \$/h	25.00	Total Delay Cost, \$	546.90

HCS Freeway Facilities Report

Project Information

Analyst	Kittelson & Associate	Date	11/27/2023
Agency	Florida Department of Transportation	Analysis Year	2030 Build Conditions
Jurisdiction	District Five	Time Analyzed	WM Weekend Peak Period
Facility Name	I-75 (Northbound)	Units	U.S. Customary
Project Description	I-75 PD&E South Auxiliary Lanes		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	24
Total Analysis Periods	12	Analysis Period Duration, min	15
Facility Length, mi	22.97		

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	I-75 NB	1500	3
2	Diverge	Diverge	I-75 NB SR 44 Off Ramp	1500	3
3	Basic	Basic	I-75 NB	2400	3
4	Merge	Merge	I-75 NB Turnpike On Ramp	1500	5
5	Basic	Basic	I-75 NB	1945	5
6	Basic	Basic	I-75 NB	2346	5
7	Merge	Merge	I-75 NB SR 44 On Ramp	1500	5
8	Basic	Basic	I-75 NB	1500	5
9	Basic	Basic	I-75 NB	4430	5
10	Basic	Basic	I-75 NB	44795	4
11	Basic	Basic	I-75 NB	1500	4
12	Basic	Basic	I-75 NB	1500	4
13	Diverge	Basic	I-75 NB CR 484 Off Ramp	1500	4
14	Basic	Basic	I-75 NB	2936	3
15	Merge	Basic	I-75 NB CR 484 On Ramp	1500	4
16	Basic	Basic	I-75 NB	1500	4
17	Basic	Basic	I-75 NB	1500	4
18	Basic	Basic	I-75 NB	35183	4
19	Basic	Basic	I-75 B	1500	4
20	Basic	Basic	I-75 NB	1500	4
21	Diverge	Basic	I-75 NB SR 200 Off Ramp	1500	4
22	Basic	Basic	I-75 NB	3265	3
23	Merge	Basic	I-75 NB SR 200 On Ramp	1500	4
24	Basic	Basic	I-75 NB	1490	4

Facility Segment Data															
Segment 1: Basic															
AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	1.00		0.907		3405		6761		0.50		71.0		16.0		B
2	1.00		0.907		3405		6761		0.50		71.0		16.0		B
3	1.00		0.907		3405		6761		0.50		71.0		16.0		B
4	1.00		0.907		3405		6761		0.50		71.0		16.0		B
5	1.00		0.907		3114		6761		0.46		71.2		14.6		B
6	1.00		0.907		3114		6761		0.46		71.2		14.6		B
7	1.00		0.907		3114		6761		0.46		71.2		14.6		B
8	1.00		0.907		3114		6761		0.46		71.2		14.6		B
9	1.00		0.907		2783		6761		0.41		71.2		13.0		B
10	1.00		0.907		2783		6761		0.41		71.2		13.0		B
11	1.00		0.907		2783		6761		0.41		71.2		13.0		B
12	1.00		0.907		2783		6761		0.41		71.2		13.0		B
Segment 2: Diverge															
AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.907	0.947	3405	520	5918	1972	0.58	0.26	64.7	60.3	17.5	18.6	B
2	1.00	1.00	0.907	0.947	3405	520	5918	1972	0.58	0.26	64.7	60.3	17.5	18.6	B
3	1.00	1.00	0.907	0.947	3405	520	5918	1972	0.58	0.26	64.7	60.3	17.5	18.6	B
4	1.00	1.00	0.907	0.947	3405	520	5918	1972	0.58	0.26	64.7	60.3	17.5	18.6	B
5	1.00	1.00	0.907	0.947	3114	475	5918	1972	0.53	0.24	64.6	60.4	16.1	17.0	B
6	1.00	1.00	0.907	0.947	3114	475	5918	1972	0.53	0.24	64.6	60.4	16.1	17.0	B
7	1.00	1.00	0.907	0.947	3114	475	5918	1972	0.53	0.24	64.6	60.4	16.1	17.0	B
8	1.00	1.00	0.907	0.947	3114	475	5918	1972	0.53	0.24	64.6	60.4	16.1	17.0	B
9	1.00	1.00	0.907	0.947	2783	424	5918	1972	0.47	0.22	64.6	60.5	14.4	15.2	B
10	1.00	1.00	0.907	0.947	2783	424	5918	1972	0.47	0.22	64.6	60.5	14.4	15.2	B
11	1.00	1.00	0.907	0.947	2783	424	5918	1972	0.47	0.22	64.6	60.5	14.4	15.2	B
12	1.00	1.00	0.907	0.947	2783	424	5918	1972	0.47	0.22	64.6	60.5	14.4	15.2	B
Segment 3: Basic															
AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	1.00		0.899		2888		6761		0.43		70.9		13.5		B
2	1.00		0.899		2888		6761		0.43		70.9		13.5		B
3	1.00		0.899		2888		6761		0.43		70.9		13.5		B
4	1.00		0.899		2888		6761		0.43		70.9		13.5		B
5	1.00		0.899		2641		6761		0.39		70.9		12.4		B
6	1.00		0.899		2641		6761		0.39		70.9		12.4		B
7	1.00		0.899		2641		6761		0.39		70.9		12.4		B

8	1.00	0.899	2641	6761	0.39	70.9	12.4	B
9	1.00	0.899	2360	6761	0.35	70.9	11.1	B
10	1.00	0.899	2360	6761	0.35	70.9	11.1	B
11	1.00	0.899	2360	6761	0.35	70.9	11.1	B
12	1.00	0.899	2360	6761	0.35	70.9	11.1	B

Segment 4: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.908	0.918	5190	2331	9384	3944	0.55	0.59	64.8	62.7	14.1	20.2	C
2	1.00	1.00	0.908	0.918	5190	2331	9384	3944	0.55	0.59	64.8	62.7	14.1	20.2	C
3	1.00	1.00	0.908	0.918	5190	2331	9384	3944	0.55	0.59	64.8	62.7	14.1	20.2	C
4	1.00	1.00	0.908	0.918	5190	2331	9384	3944	0.55	0.59	64.8	62.7	14.1	20.2	C
5	1.00	1.00	0.908	0.918	4747	2132	9384	3944	0.51	0.54	65.4	63.4	12.8	18.2	B
6	1.00	1.00	0.908	0.918	4747	2132	9384	3944	0.51	0.54	65.4	63.4	12.8	18.2	B
7	1.00	1.00	0.908	0.918	4747	2132	9384	3944	0.51	0.54	65.4	63.4	12.8	18.2	B
8	1.00	1.00	0.908	0.918	4747	2132	9384	3944	0.51	0.54	65.4	63.4	12.8	18.2	B
9	1.00	1.00	0.908	0.918	4242	1905	9384	3944	0.45	0.48	65.9	64.0	11.3	15.8	B
10	1.00	1.00	0.908	0.918	4242	1905	9384	3944	0.45	0.48	65.9	64.0	11.3	15.8	B
11	1.00	1.00	0.908	0.918	4242	1905	9384	3944	0.45	0.48	65.9	64.0	11.3	15.8	B
12	1.00	1.00	0.908	0.918	4242	1905	9384	3944	0.45	0.48	65.9	64.0	11.3	15.8	B

Segment 5: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.908	5216	11268	0.46	70.8	14.6	B
2	1.00	0.908	5216	11268	0.46	70.8	14.6	B
3	1.00	0.908	5216	11268	0.46	70.8	14.6	B
4	1.00	0.908	5216	11268	0.46	70.8	14.6	B
5	1.00	0.908	4770	11268	0.42	70.8	13.4	B
6	1.00	0.908	4770	11268	0.42	70.8	13.4	B
7	1.00	0.908	4770	11268	0.42	70.8	13.4	B
8	1.00	0.908	4770	11268	0.42	70.8	13.4	B
9	1.00	0.908	4263	11268	0.38	70.9	12.0	B
10	1.00	0.908	4263	11268	0.38	70.9	12.0	B
11	1.00	0.908	4263	11268	0.38	70.9	12.0	B
12	1.00	0.908	4263	11268	0.38	70.9	12.0	B

Segment 6: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.908	5216	11268	0.46	71.2	14.6	B
2	1.00	0.908	5216	11268	0.46	71.2	14.6	B
3	1.00	0.908	5216	11268	0.46	71.2	14.6	B

4	1.00	0.908	5216	11268	0.46	71.2	14.6	B
5	1.00	0.908	4770	11268	0.42	71.2	13.4	B
6	1.00	0.908	4770	11268	0.42	71.2	13.4	B
7	1.00	0.908	4770	11268	0.42	71.2	13.4	B
8	1.00	0.908	4770	11268	0.42	71.2	13.4	B
9	1.00	0.908	4263	11268	0.38	71.2	12.0	B
10	1.00	0.908	4263	11268	0.38	71.2	12.0	B
11	1.00	0.908	4263	11268	0.38	71.2	12.0	B
12	1.00	0.908	4263	11268	0.38	71.2	12.0	B

Segment 7: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.909	0.921	5742	532	9384	3944	0.61	0.13	66.7	64.6	13.8	12.7	B
2	1.00	1.00	0.909	0.921	5742	532	9384	3944	0.61	0.13	66.7	64.6	13.8	12.7	B
3	1.00	1.00	0.909	0.921	5742	532	9384	3944	0.61	0.13	66.7	64.6	13.8	12.7	B
4	1.00	1.00	0.909	0.921	5742	532	9384	3944	0.61	0.13	66.7	64.6	13.8	12.7	B
5	1.00	1.00	0.909	0.921	5251	486	9384	3944	0.56	0.12	66.9	64.7	12.6	11.3	B
6	1.00	1.00	0.909	0.921	5251	486	9384	3944	0.56	0.12	66.9	64.7	12.6	11.3	B
7	1.00	1.00	0.909	0.921	5251	486	9384	3944	0.56	0.12	66.9	64.7	12.6	11.3	B
8	1.00	1.00	0.909	0.921	5251	486	9384	3944	0.56	0.12	66.9	64.7	12.6	11.3	B
9	1.00	1.00	0.909	0.921	4693	434	9384	3944	0.50	0.11	67.2	64.9	11.2	9.7	A
10	1.00	1.00	0.909	0.921	4693	434	9384	3944	0.50	0.11	67.2	64.9	11.2	9.7	A
11	1.00	1.00	0.909	0.921	4693	434	9384	3944	0.50	0.11	67.2	64.9	11.2	9.7	A
12	1.00	1.00	0.909	0.921	4693	434	9384	3944	0.50	0.11	67.2	64.9	11.2	9.7	A

Segment 8: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.909	5749	11268	0.51	70.8	16.2	B
2	1.00	0.909	5749	11268	0.51	70.8	16.2	B
3	1.00	0.909	5749	11268	0.51	70.8	16.2	B
4	1.00	0.909	5749	11268	0.51	70.8	16.2	B
5	1.00	0.909	5257	11268	0.47	70.8	14.8	B
6	1.00	0.909	5257	11268	0.47	70.8	14.8	B
7	1.00	0.909	5257	11268	0.47	70.8	14.8	B
8	1.00	0.909	5257	11268	0.47	70.8	14.8	B
9	1.00	0.909	4699	11268	0.42	70.8	13.2	B
10	1.00	0.909	4699	11268	0.42	70.8	13.2	B
11	1.00	0.909	4699	11268	0.42	70.8	13.2	B
12	1.00	0.909	4699	11268	0.42	70.8	13.2	B

Segment 9: Basic

AP	PHF	fHV	Flow Rate	Capacity	d/c	Speed	Density	LOS
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			(pc/h)	(pc/h)	Ratio	(mi/h)	(pc/mi/ln)	
1	1.00	0.909	5749	11268	0.51	71.0	16.2	B
2	1.00	0.909	5749	11268	0.51	71.0	16.2	B
3	1.00	0.909	5749	11268	0.51	71.0	16.2	B
4	1.00	0.909	5749	11268	0.51	71.0	16.2	B
5	1.00	0.909	5257	11268	0.47	71.2	14.8	B
6	1.00	0.909	5257	11268	0.47	71.2	14.8	B
7	1.00	0.909	5257	11268	0.47	71.2	14.8	B
8	1.00	0.909	5257	11268	0.47	71.2	14.8	B
9	1.00	0.909	4699	11268	0.42	71.2	13.2	B
10	1.00	0.909	4699	11268	0.42	71.2	13.2	B
11	1.00	0.909	4699	11268	0.42	71.2	13.2	B
12	1.00	0.909	4699	11268	0.42	71.2	13.2	B

Segment 10: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.909	5749	9014	0.64	68.8	20.9	C
2	1.00	0.909	5749	9014	0.64	68.8	20.9	C
3	1.00	0.909	5749	9014	0.64	68.8	20.9	C
4	1.00	0.909	5749	9014	0.64	68.8	20.9	C
5	1.00	0.909	5257	9014	0.58	70.0	18.8	C
6	1.00	0.909	5257	9014	0.58	70.0	18.8	C
7	1.00	0.909	5257	9014	0.58	70.0	18.8	C
8	1.00	0.909	5257	9014	0.58	70.0	18.8	C
9	1.00	0.909	4699	9014	0.52	70.9	16.6	B
10	1.00	0.909	4699	9014	0.52	70.9	16.6	B
11	1.00	0.909	4699	9014	0.52	70.9	16.6	B
12	1.00	0.909	4699	9014	0.52	70.9	16.6	B

Segment 11: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.909	5749	9014	0.64	68.8	20.9	C
2	1.00	0.909	5749	9014	0.64	68.8	20.9	C
3	1.00	0.909	5749	9014	0.64	68.8	20.9	C
4	1.00	0.909	5749	9014	0.64	68.8	20.9	C
5	1.00	0.909	5257	9014	0.58	70.0	18.8	C
6	1.00	0.909	5257	9014	0.58	70.0	18.8	C
7	1.00	0.909	5257	9014	0.58	70.0	18.8	C
8	1.00	0.909	5257	9014	0.58	70.0	18.8	C
9	1.00	0.909	4699	9014	0.52	70.9	16.6	B
10	1.00	0.909	4699	9014	0.52	70.9	16.6	B
11	1.00	0.909	4699	9014	0.52	70.9	16.6	B

12	1.00	0.909	4699	9014	0.52	70.9	16.6	B							
Segment 12: Basic															
AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	1.00	0.909	5749	9014	0.64	68.8	20.9	C							
2	1.00	0.909	5749	9014	0.64	68.8	20.9	C							
3	1.00	0.909	5749	9014	0.64	68.8	20.9	C							
4	1.00	0.909	5749	9014	0.64	68.8	20.9	C							
5	1.00	0.909	5257	9014	0.58	70.0	18.8	C							
6	1.00	0.909	5257	9014	0.58	70.0	18.8	C							
7	1.00	0.909	5257	9014	0.58	70.0	18.8	C							
8	1.00	0.909	5257	9014	0.58	70.0	18.8	C							
9	1.00	0.909	4699	9014	0.52	70.9	16.6	B							
10	1.00	0.909	4699	9014	0.52	70.9	16.6	B							
11	1.00	0.909	4699	9014	0.52	70.9	16.6	B							
12	1.00	0.909	4699	9014	0.52	70.9	16.6	B							
Segment 13: Diverge															
AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.909	0.872	5749	835	7507	1972	0.77	0.42	59.7	59.7	24.1	24.1	C
2	1.00	1.00	0.909	0.872	5749	835	7507	1972	0.77	0.42	59.7	59.7	24.1	24.1	C
3	1.00	1.00	0.909	0.872	5749	835	7507	1972	0.77	0.42	59.7	59.7	24.1	24.1	C
4	1.00	1.00	0.909	0.872	5749	835	7507	1972	0.77	0.42	59.7	59.7	24.1	24.1	C
5	1.00	1.00	0.909	0.872	5257	764	7507	1972	0.70	0.39	63.2	63.2	20.8	20.8	C
6	1.00	1.00	0.909	0.872	5257	764	7507	1972	0.70	0.39	63.2	63.2	20.8	20.8	C
7	1.00	1.00	0.909	0.872	5257	764	7507	1972	0.70	0.39	63.2	63.2	20.8	20.8	C
8	1.00	1.00	0.909	0.872	5257	764	7507	1972	0.70	0.39	63.2	63.2	20.8	20.8	C
9	1.00	1.00	0.909	0.872	4699	682	7507	1972	0.63	0.35	66.4	66.4	17.7	17.7	B
10	1.00	1.00	0.909	0.872	4699	682	7507	1972	0.63	0.35	66.4	66.4	17.7	17.7	B
11	1.00	1.00	0.909	0.872	4699	682	7507	1972	0.63	0.35	66.4	66.4	17.7	17.7	B
12	1.00	1.00	0.909	0.872	4699	682	7507	1972	0.63	0.35	66.4	66.4	17.7	17.7	B
Segment 14: Basic															
AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	1.00	0.915	4916	6761	0.73	65.8	24.9	C							
2	1.00	0.915	4916	6761	0.73	65.8	24.9	C							
3	1.00	0.915	4916	6761	0.73	65.8	24.9	C							
4	1.00	0.915	4916	6761	0.73	65.8	24.9	C							
5	1.00	0.915	4495	6761	0.66	68.0	22.0	C							
6	1.00	0.915	4495	6761	0.66	68.0	22.0	C							
7	1.00	0.915	4495	6761	0.66	68.0	22.0	C							

8	1.00	0.915	4495	6761	0.66	68.0	22.0	C
9	1.00	0.915	4017	6761	0.59	69.8	19.2	C
10	1.00	0.915	4017	6761	0.59	69.8	19.2	C
11	1.00	0.915	4017	6761	0.59	69.8	19.2	C
12	1.00	0.915	4017	6761	0.59	69.8	19.2	C

Segment 15: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.923	0.959	5871	998	7507	1972	0.78	0.51	58.7	58.7	25.0	25.0	C
2	1.00	1.00	0.923	0.959	5871	998	7507	1972	0.78	0.51	58.7	58.7	25.0	25.0	C
3	1.00	1.00	0.923	0.959	5871	998	7507	1972	0.78	0.51	58.7	58.7	25.0	25.0	C
4	1.00	1.00	0.923	0.959	5871	998	7507	1972	0.78	0.51	58.7	58.7	25.0	25.0	C
5	1.00	1.00	0.923	0.959	5368	912	7507	1972	0.72	0.46	62.5	62.5	21.5	21.5	C
6	1.00	1.00	0.923	0.959	5368	912	7507	1972	0.72	0.46	62.5	62.5	21.5	21.5	C
7	1.00	1.00	0.923	0.959	5368	912	7507	1972	0.72	0.46	62.5	62.5	21.5	21.5	C
8	1.00	1.00	0.923	0.959	5368	912	7507	1972	0.72	0.46	62.5	62.5	21.5	21.5	C
9	1.00	1.00	0.923	0.959	4798	815	7507	1972	0.64	0.41	65.9	65.9	18.2	18.2	C
10	1.00	1.00	0.923	0.959	4798	815	7507	1972	0.64	0.41	65.9	65.9	18.2	18.2	C
11	1.00	1.00	0.923	0.959	4798	815	7507	1972	0.64	0.41	65.9	65.9	18.2	18.2	C
12	1.00	1.00	0.923	0.959	4798	815	7507	1972	0.64	0.41	65.9	65.9	18.2	18.2	C

Segment 16: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.923	5910	9014	0.66	68.3	21.6	C
2	1.00	0.923	5910	9014	0.66	68.3	21.6	C
3	1.00	0.923	5910	9014	0.66	68.3	21.6	C
4	1.00	0.923	5910	9014	0.66	68.3	21.6	C
5	1.00	0.923	5404	9014	0.60	69.7	19.4	C
6	1.00	0.923	5404	9014	0.60	69.7	19.4	C
7	1.00	0.923	5404	9014	0.60	69.7	19.4	C
8	1.00	0.923	5404	9014	0.60	69.7	19.4	C
9	1.00	0.923	4830	9014	0.54	70.7	17.1	B
10	1.00	0.923	4830	9014	0.54	70.7	17.1	B
11	1.00	0.923	4830	9014	0.54	70.7	17.1	B
12	1.00	0.923	4830	9014	0.54	70.7	17.1	B

Segment 17: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.923	5910	9014	0.66	68.3	21.6	C
2	1.00	0.923	5910	9014	0.66	68.3	21.6	C
3	1.00	0.923	5910	9014	0.66	68.3	21.6	C

4	1.00	0.923	5910	9014	0.66	68.3	21.6	C
5	1.00	0.923	5404	9014	0.60	69.7	19.4	C
6	1.00	0.923	5404	9014	0.60	69.7	19.4	C
7	1.00	0.923	5404	9014	0.60	69.7	19.4	C
8	1.00	0.923	5404	9014	0.60	69.7	19.4	C
9	1.00	0.923	4830	9014	0.54	70.7	17.1	B
10	1.00	0.923	4830	9014	0.54	70.7	17.1	B
11	1.00	0.923	4830	9014	0.54	70.7	17.1	B
12	1.00	0.923	4830	9014	0.54	70.7	17.1	B

Segment 18: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.923	5910	9014	0.66	68.3	21.6	C
2	1.00	0.923	5910	9014	0.66	68.3	21.6	C
3	1.00	0.923	5910	9014	0.66	68.3	21.6	C
4	1.00	0.923	5910	9014	0.66	68.3	21.6	C
5	1.00	0.923	5404	9014	0.60	69.7	19.4	C
6	1.00	0.923	5404	9014	0.60	69.7	19.4	C
7	1.00	0.923	5404	9014	0.60	69.7	19.4	C
8	1.00	0.923	5404	9014	0.60	69.7	19.4	C
9	1.00	0.923	4830	9014	0.54	70.7	17.1	B
10	1.00	0.923	4830	9014	0.54	70.7	17.1	B
11	1.00	0.923	4830	9014	0.54	70.7	17.1	B
12	1.00	0.923	4830	9014	0.54	70.7	17.1	B

Segment 19: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.923	5910	9014	0.66	68.3	21.6	C
2	1.00	0.923	5910	9014	0.66	68.3	21.6	C
3	1.00	0.923	5910	9014	0.66	68.3	21.6	C
4	1.00	0.923	5910	9014	0.66	68.3	21.6	C
5	1.00	0.923	5404	9014	0.60	69.7	19.4	C
6	1.00	0.923	5404	9014	0.60	69.7	19.4	C
7	1.00	0.923	5404	9014	0.60	69.7	19.4	C
8	1.00	0.923	5404	9014	0.60	69.7	19.4	C
9	1.00	0.923	4830	9014	0.54	70.7	17.1	B
10	1.00	0.923	4830	9014	0.54	70.7	17.1	B
11	1.00	0.923	4830	9014	0.54	70.7	17.1	B
12	1.00	0.923	4830	9014	0.54	70.7	17.1	B

Segment 20: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
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1	1.00	0.923	5910	9014	0.66	68.3	21.6	C
2	1.00	0.923	5910	9014	0.66	68.3	21.6	C
3	1.00	0.923	5910	9014	0.66	68.3	21.6	C
4	1.00	0.923	5910	9014	0.66	68.3	21.6	C
5	1.00	0.923	5404	9014	0.60	69.7	19.4	C
6	1.00	0.923	5404	9014	0.60	69.7	19.4	C
7	1.00	0.923	5404	9014	0.60	69.7	19.4	C
8	1.00	0.923	5404	9014	0.60	69.7	19.4	C
9	1.00	0.923	4830	9014	0.54	70.7	17.1	B
10	1.00	0.923	4830	9014	0.54	70.7	17.1	B
11	1.00	0.923	4830	9014	0.54	70.7	17.1	B
12	1.00	0.923	4830	9014	0.54	70.7	17.1	B

Segment 21: Diverge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.923	0.971	5910	854	7507	1972	0.79	0.43	58.4	58.4	25.3	25.3	C
2	1.00	1.00	0.923	0.971	5910	854	7507	1972	0.79	0.43	58.4	58.4	25.3	25.3	C
3	1.00	1.00	0.923	0.971	5910	854	7507	1972	0.79	0.43	58.4	58.4	25.3	25.3	C
4	1.00	1.00	0.923	0.971	5910	854	7507	1972	0.79	0.43	58.4	58.4	25.3	25.3	C
5	1.00	1.00	0.923	0.971	5404	781	7507	1972	0.72	0.40	62.2	62.2	21.7	21.7	C
6	1.00	1.00	0.923	0.971	5404	781	7507	1972	0.72	0.40	62.2	62.2	21.7	21.7	C
7	1.00	1.00	0.923	0.971	5404	781	7507	1972	0.72	0.40	62.2	62.2	21.7	21.7	C
8	1.00	1.00	0.923	0.971	5404	781	7507	1972	0.72	0.40	62.2	62.2	21.7	21.7	C
9	1.00	1.00	0.923	0.971	4830	697	7507	1972	0.64	0.35	65.8	65.8	18.4	18.4	C
10	1.00	1.00	0.923	0.971	4830	697	7507	1972	0.64	0.35	65.8	65.8	18.4	18.4	C
11	1.00	1.00	0.923	0.971	4830	697	7507	1972	0.64	0.35	65.8	65.8	18.4	18.4	C
12	1.00	1.00	0.923	0.971	4830	697	7507	1972	0.64	0.35	65.8	65.8	18.4	18.4	C

Segment 22: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.914	5061	6761	0.75	65.0	26.0	C
2	1.00	0.914	5061	6761	0.75	65.0	26.0	C
3	1.00	0.914	5061	6761	0.75	65.0	26.0	C
4	1.00	0.914	5061	6761	0.75	65.0	26.0	C
5	1.00	0.914	4628	6761	0.68	67.4	22.9	C
6	1.00	0.914	4628	6761	0.68	67.4	22.9	C
7	1.00	0.914	4628	6761	0.68	67.4	22.9	C
8	1.00	0.914	4628	6761	0.68	67.4	22.9	C
9	1.00	0.914	4137	6761	0.61	69.4	19.9	C
10	1.00	0.914	4137	6761	0.61	69.4	19.9	C
11	1.00	0.914	4137	6761	0.61	69.4	19.9	C

12	1.00	0.914	4137	6761	0.61	69.4	19.9	C
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Segment 23: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.924	0.977	5882	876	7507	1972	0.78	0.44	58.6	58.6	25.1	25.1	C
2	1.00	1.00	0.924	0.977	5882	876	7507	1972	0.78	0.44	58.6	58.6	25.1	25.1	C
3	1.00	1.00	0.924	0.977	5882	876	7507	1972	0.78	0.44	58.6	58.6	25.1	25.1	C
4	1.00	1.00	0.924	0.977	5882	876	7507	1972	0.78	0.44	58.6	58.6	25.1	25.1	C
5	1.00	1.00	0.924	0.977	5379	801	7507	1972	0.72	0.41	62.4	62.4	21.6	21.6	C
6	1.00	1.00	0.924	0.977	5379	801	7507	1972	0.72	0.41	62.4	62.4	21.6	21.6	C
7	1.00	1.00	0.924	0.977	5379	801	7507	1972	0.72	0.41	62.4	62.4	21.6	21.6	C
8	1.00	1.00	0.924	0.977	5379	801	7507	1972	0.72	0.41	62.4	62.4	21.6	21.6	C
9	1.00	1.00	0.924	0.977	4808	716	7507	1972	0.64	0.36	65.9	65.9	18.2	18.2	C
10	1.00	1.00	0.924	0.977	4808	716	7507	1972	0.64	0.36	65.9	65.9	18.2	18.2	C
11	1.00	1.00	0.924	0.977	4808	716	7507	1972	0.64	0.36	65.9	65.9	18.2	18.2	C
12	1.00	1.00	0.924	0.977	4808	716	7507	1972	0.64	0.36	65.9	65.9	18.2	18.2	C

Segment 24: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.924	5933	9014	0.66	68.2	21.7	C
2	1.00	0.924	5933	9014	0.66	68.2	21.7	C
3	1.00	0.924	5933	9014	0.66	68.2	21.7	C
4	1.00	0.924	5933	9014	0.66	68.2	21.7	C
5	1.00	0.924	5425	9014	0.60	69.6	19.5	C
6	1.00	0.924	5425	9014	0.60	69.6	19.5	C
7	1.00	0.924	5425	9014	0.60	69.6	19.5	C
8	1.00	0.924	5425	9014	0.60	69.6	19.5	C
9	1.00	0.924	4850	9014	0.54	70.7	17.1	B
10	1.00	0.924	4850	9014	0.54	70.7	17.1	B
11	1.00	0.924	4850	9014	0.54	70.7	17.1	B
12	1.00	0.924	4850	9014	0.54	70.7	17.1	B

Facility Analysis Results

AP	VMT veh-mi/AP	VMT-Demand veh-mi/AP	VHD veh-h/AP	Total Delay Cost \$/AP	Speed mi/h	Density pc/mi/ln	Density veh/mi/ln	TT min	LOS
1	29589	29281	19.83	495.66	68.0	20.6	18.8	20.30	C
2	29589	29281	19.83	495.66	68.0	20.6	18.8	20.30	C
3	29589	29281	19.83	495.66	68.0	20.6	18.8	20.30	C
4	29589	29281	19.83	495.66	68.0	20.6	18.8	20.30	C
5	27057	26776	10.31	257.74	69.3	18.5	16.9	19.90	C
6	27057	26776	10.31	257.74	69.3	18.5	16.9	19.90	C
7	27057	26776	10.31	257.74	69.3	18.5	16.9	19.90	C

8	27057	26776	10.31	257.74	69.3	18.5	16.9	19.90	C
9	24182	23930	4.09	102.23	70.4	16.3	14.9	19.60	B
10	24182	23930	4.09	102.23	70.4	16.3	14.9	19.60	B
11	24182	23930	4.09	102.23	70.4	16.3	14.9	19.60	B
12	24182	23930	4.09	102.23	70.4	16.3	14.9	19.60	B

Facility Overall Results

Space Mean Speed, mi/h	69.1	Average Density, veh/mi/ln	16.9
Average Travel Time, min	19.90	Average Density, pc/mi/ln	18.4
Total VMT, veh-mi	323311	Total VHD, veh-h	136.90
Vehicle Value of Time (VOT), \$/h	25.00	Total Delay Cost, \$	3422.54

I-75 South Section - Southbound

HCS Freeway Facilities Report

Project Information

Analyst	Kittelson & Associates	Date	11/27/2023
Agency	Florida Department of Transportation	Analysis Year	2030 Build Conditions
Jurisdiction	District Five	Time Analyzed	AM Weekday Peak Period
Facility Name	I-75 (Southbound)	Units	U.S. Customary
Project Description	I-75 PD&E South Auxiliary Lanes		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	23
Total Analysis Periods	12	Analysis Period Duration, min	15
Facility Length, mi	22.79		

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	I-75 SB	1500	4
2	Diverge	Basic	I-75 SB SR 200 Off Ramp	1500	4
3	Basic	Basic	I-75 SB	3285	3
4	Merge	Basic	I-75 SB SR 200 On Ramp	1500	4
5	Basic	Basic	I-75 SB	1500	4
6	Basic	Basic	I-75 SB	1500	4
7	Basic	Basic	I-75 SB	36945	4
8	Basic	Basic	I-75 SB	1500	4
9	Diverge	Basic	I-75 SB CR 484 Off Ramp	1500	4
10	Basic	Basic	I-75 SB	2905	3
11	Merge	Basic	I-75 SB CR 484 On Ramp	1500	4
12	Basic	Basic	I-75 SB	1500	4
13	Basic	Basic	I-75 SB	1500	4
14	Basic	Basic	I-75 SB	47240	4
15	Basic	Basic	I-75 SB	1500	4
16	Basic	Basic	I-75 SB	1500	4
17	Diverge	Diverge	I-75 SB SR 44 Off Ramp	1500	4
18	Basic	Basic	I-75 SB	3547	4
19	Basic	Basic	I-75 SB	1610	4
20	Diverge	Diverge	I-75 SB Turnpike Off Ramp	1500	4
21	Basic	Basic	I-75 SB	775	3
22	Merge	Merge	I-75 SB SR 44 On Ramp	1500	3
23	Basic	Basic	I-75 SB	1538	3

Facility Segment Data

Segment 1: Basic															
AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	1.00		0.907		2642		9014		0.29		71.2		9.3		A
2	1.00		0.907		2834		9014		0.31		71.2		9.9		A
3	1.00		0.907		3142		9014		0.35		71.2		11.0		A
4	1.00		0.907		3444		9014		0.38		71.2		12.1		B
5	1.00		0.907		3621		9014		0.40		71.2		12.7		B
6	1.00		0.907		3945		9014		0.44		71.2		13.8		B
7	1.00		0.907		4203		9014		0.47		71.2		14.8		B
8	1.00		0.907		3923		9014		0.44		71.2		13.8		B
9	1.00		0.907		3768		9014		0.42		71.2		13.2		B
10	1.00		0.907		3923		9014		0.44		71.2		13.8		B
11	1.00		0.907		4305		9014		0.48		71.2		15.1		B
12	1.00		0.907		4099		9014		0.45		71.2		14.4		B

Segment 2: Diverge															
AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.907	0.951	2642	493	7507	1972	0.35	0.25	71.2	71.2	9.3	9.3	A
2	1.00	1.00	0.907	0.951	2834	529	7507	1972	0.38	0.27	71.2	71.2	9.9	9.9	A
3	1.00	1.00	0.907	0.951	3142	587	7507	1972	0.42	0.30	71.1	71.1	11.1	11.1	B
4	1.00	1.00	0.907	0.951	3444	642	7507	1972	0.46	0.33	70.7	70.7	12.2	12.2	B
5	1.00	1.00	0.907	0.951	3621	675	7507	1972	0.48	0.34	70.3	70.3	12.9	12.9	B
6	1.00	1.00	0.907	0.951	3945	736	7507	1972	0.53	0.37	69.5	69.5	14.2	14.2	B
7	1.00	1.00	0.907	0.951	4203	784	7507	1972	0.56	0.40	68.6	68.6	15.3	15.3	B
8	1.00	1.00	0.907	0.951	3923	732	7507	1972	0.52	0.37	69.6	69.6	14.1	14.1	B
9	1.00	1.00	0.907	0.951	3768	703	7507	1972	0.50	0.36	70.0	70.0	13.5	13.5	B
10	1.00	1.00	0.907	0.951	3923	732	7507	1972	0.52	0.37	69.6	69.6	14.1	14.1	B
11	1.00	1.00	0.907	0.951	4305	803	7507	1972	0.57	0.41	68.2	68.2	15.8	15.8	B
12	1.00	1.00	0.907	0.951	4099	764	7507	1972	0.55	0.39	69.0	69.0	14.9	14.9	B

Segment 3: Basic															
AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	1.00		0.896		2151		6761		0.32		71.2		10.1		A
2	1.00		0.896		2307		6761		0.34		71.2		10.8		A
3	1.00		0.896		2558		6761		0.38		71.2		12.0		B
4	1.00		0.896		2805		6761		0.41		71.2		13.1		B
5	1.00		0.896		2949		6761		0.44		71.2		13.8		B
6	1.00		0.896		3212		6761		0.48		71.2		15.0		B
7	1.00		0.896		3422		6761		0.51		71.0		16.1		B
8	1.00		0.896		3194		6761		0.47		71.2		15.0		B

9	1.00	0.896	3068	6761	0.45	71.2	14.4	B
10	1.00	0.896	3194	6761	0.47	71.2	15.0	B
11	1.00	0.896	3506	6761	0.52	70.9	16.5	B
12	1.00	0.896	3338	6761	0.49	71.1	15.7	B

Segment 4: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.903	0.942	2513	379	7507	1972	0.33	0.19	71.2	71.2	8.8	8.8	A
2	1.00	1.00	0.903	0.942	2696	407	7507	1972	0.36	0.21	71.2	71.2	9.5	9.5	A
3	1.00	1.00	0.903	0.942	2989	451	7507	1972	0.40	0.23	71.2	71.2	10.5	10.5	A
4	1.00	1.00	0.903	0.942	3277	494	7507	1972	0.44	0.25	70.9	70.9	11.6	11.6	B
5	1.00	1.00	0.903	0.942	3445	519	7507	1972	0.46	0.26	70.7	70.7	12.2	12.2	B
6	1.00	1.00	0.903	0.942	3753	566	7507	1972	0.50	0.29	70.0	70.0	13.4	13.4	B
7	1.00	1.00	0.903	0.942	3998	603	7507	1972	0.53	0.31	69.3	69.3	14.4	14.4	B
8	1.00	1.00	0.903	0.942	3732	563	7507	1972	0.50	0.29	70.1	70.1	13.3	13.3	B
9	1.00	1.00	0.903	0.942	3584	540	7507	1972	0.48	0.27	70.4	70.4	12.7	12.7	B
10	1.00	1.00	0.903	0.942	3732	563	7507	1972	0.50	0.29	70.1	70.1	13.3	13.3	B
11	1.00	1.00	0.903	0.942	4096	618	7507	1972	0.55	0.31	69.0	69.0	14.8	14.8	B
12	1.00	1.00	0.903	0.942	3900	588	7507	1972	0.52	0.30	69.6	69.6	14.0	14.0	B

Segment 5: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.903	2529	9014	0.28	71.2	8.9	A
2	1.00	0.903	2713	9014	0.30	71.2	9.5	A
3	1.00	0.903	3009	9014	0.33	71.2	10.6	A
4	1.00	0.903	3298	9014	0.37	71.2	11.6	B
5	1.00	0.903	3467	9014	0.38	71.2	12.2	B
6	1.00	0.903	3777	9014	0.42	71.1	13.3	B
7	1.00	0.903	4024	9014	0.45	71.0	14.1	B
8	1.00	0.903	3756	9014	0.42	71.1	13.2	B
9	1.00	0.903	3608	9014	0.40	71.1	12.7	B
10	1.00	0.903	3756	9014	0.42	71.1	13.2	B
11	1.00	0.903	4123	9014	0.46	71.0	14.5	B
12	1.00	0.903	3926	9014	0.44	71.1	13.8	B

Segment 6: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.903	2529	9014	0.28	71.2	8.9	A
2	1.00	0.903	2713	9014	0.30	71.2	9.5	A
3	1.00	0.903	3009	9014	0.33	71.2	10.6	A
4	1.00	0.903	3298	9014	0.37	71.2	11.6	B

1	1.00	1.00	0.903	0.923	2529	377	7507	1972	0.34	0.19	71.2	71.2	8.9	8.9	A
2	1.00	1.00	0.903	0.923	2713	404	7507	1972	0.36	0.20	71.2	71.2	9.5	9.5	A
3	1.00	1.00	0.903	0.923	3009	447	7507	1972	0.40	0.23	71.2	71.2	10.6	10.6	A
4	1.00	1.00	0.903	0.923	3298	491	7507	1972	0.44	0.25	70.9	70.9	11.6	11.6	B
5	1.00	1.00	0.903	0.923	3467	516	7507	1972	0.46	0.26	70.6	70.6	12.3	12.3	B
6	1.00	1.00	0.903	0.923	3777	562	7507	1972	0.50	0.29	70.0	70.0	13.5	13.5	B
7	1.00	1.00	0.903	0.923	4024	599	7507	1972	0.54	0.30	69.2	69.2	14.5	14.5	B
8	1.00	1.00	0.903	0.923	3756	559	7507	1972	0.50	0.28	70.0	70.0	13.4	13.4	B
9	1.00	1.00	0.903	0.923	3608	537	7507	1972	0.48	0.27	70.4	70.4	12.8	12.8	B
10	1.00	1.00	0.903	0.923	3756	559	7507	1972	0.50	0.28	70.0	70.0	13.4	13.4	B
11	1.00	1.00	0.903	0.923	4123	613	7507	1972	0.55	0.31	68.9	68.9	15.0	15.0	B
12	1.00	1.00	0.903	0.923	3926	584	7507	1972	0.52	0.30	69.5	69.5	14.1	14.1	B

Segment 10: Basic

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	1.00		0.900		2151		6761		0.32		71.2		10.1		A
2	1.00		0.900		2308		6761		0.34		71.2		10.8		A
3	1.00		0.900		2560		6761		0.38		71.2		12.0		B
4	1.00		0.900		2806		6761		0.42		71.2		13.1		B
5	1.00		0.900		2950		6761		0.44		71.2		13.8		B
6	1.00		0.900		3213		6761		0.48		71.2		15.0		B
7	1.00		0.900		3423		6761		0.51		71.0		16.1		B
8	1.00		0.900		3196		6761		0.47		71.2		15.0		B
9	1.00		0.900		3069		6761		0.45		71.2		14.4		B
10	1.00		0.900		3196		6761		0.47		71.2		15.0		B
11	1.00		0.900		3508		6761		0.52		70.9		16.5		B
12	1.00		0.900		3340		6761		0.49		71.1		15.7		B

Segment 11: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.902	0.916	2607	461	7507	1972	0.35	0.23	71.2	71.2	9.2	9.2	A
2	1.00	1.00	0.902	0.916	2796	493	7507	1972	0.37	0.25	71.2	71.2	9.8	9.8	A
3	1.00	1.00	0.902	0.916	3102	548	7507	1972	0.41	0.28	71.1	71.1	10.9	10.9	A
4	1.00	1.00	0.902	0.916	3399	600	7507	1972	0.45	0.30	70.7	70.7	12.0	12.0	B
5	1.00	1.00	0.902	0.916	3574	631	7507	1972	0.48	0.32	70.4	70.4	12.7	12.7	B
6	1.00	1.00	0.902	0.916	3894	688	7507	1972	0.52	0.35	69.6	69.6	14.0	14.0	B
7	1.00	1.00	0.902	0.916	4149	733	7507	1972	0.55	0.37	68.8	68.8	15.1	15.1	B
8	1.00	1.00	0.902	0.916	3871	683	7507	1972	0.52	0.35	69.7	69.7	13.9	13.9	B
9	1.00	1.00	0.902	0.916	3718	656	7507	1972	0.50	0.33	70.1	70.1	13.3	13.3	B
10	1.00	1.00	0.902	0.916	3871	683	7507	1972	0.52	0.35	69.7	69.7	13.9	13.9	B
11	1.00	1.00	0.902	0.916	4250	750	7507	1972	0.57	0.38	68.4	68.4	15.5	15.5	B

12	1.00	1.00	0.902	0.916	4047	714	7507	1972	0.54	0.36	69.2	69.2	14.6	14.6	B
Segment 12: Basic															
AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS							
1	1.00	0.902	2614	9014	0.29	71.2	9.2	A							
2	1.00	0.902	2804	9014	0.31	71.2	9.8	A							
3	1.00	0.902	3111	9014	0.35	71.2	10.9	A							
4	1.00	0.902	3409	9014	0.38	71.2	12.0	B							
5	1.00	0.902	3584	9014	0.40	71.1	12.6	B							
6	1.00	0.902	3905	9014	0.43	71.1	13.7	B							
7	1.00	0.902	4160	9014	0.46	71.0	14.6	B							
8	1.00	0.902	3882	9014	0.43	71.1	13.6	B							
9	1.00	0.902	3728	9014	0.41	71.1	13.1	B							
10	1.00	0.902	3882	9014	0.43	71.1	13.6	B							
11	1.00	0.902	4262	9014	0.47	71.0	15.0	B							
12	1.00	0.902	4058	9014	0.45	71.0	14.2	B							
Segment 13: Basic															
AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS							
1	1.00	0.902	2614	9014	0.29	71.2	9.2	A							
2	1.00	0.902	2804	9014	0.31	71.2	9.8	A							
3	1.00	0.902	3111	9014	0.35	71.2	10.9	A							
4	1.00	0.902	3409	9014	0.38	71.2	12.0	B							
5	1.00	0.902	3584	9014	0.40	71.2	12.6	B							
6	1.00	0.902	3905	9014	0.43	71.2	13.7	B							
7	1.00	0.902	4160	9014	0.46	71.2	14.6	B							
8	1.00	0.902	3882	9014	0.43	71.2	13.6	B							
9	1.00	0.902	3728	9014	0.41	71.2	13.1	B							
10	1.00	0.902	3882	9014	0.43	71.2	13.6	B							
11	1.00	0.902	4262	9014	0.47	71.2	15.0	B							
12	1.00	0.902	4058	9014	0.45	71.2	14.2	B							
Segment 14: Basic															
AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS							
1	1.00	0.902	2614	9014	0.29	71.2	9.2	A							
2	1.00	0.902	2804	9014	0.31	71.2	9.8	A							
3	1.00	0.902	3111	9014	0.35	71.2	10.9	A							
4	1.00	0.902	3409	9014	0.38	71.2	12.0	B							
5	1.00	0.902	3584	9014	0.40	71.2	12.6	B							
6	1.00	0.902	3905	9014	0.43	71.2	13.7	B							
7	1.00	0.902	4160	9014	0.46	71.2	14.6	B							
8	1.00	0.902	3882	9014	0.43	71.2	13.6	B							

9	1.00	0.902	3728	9014	0.41	71.2	13.1	B
10	1.00	0.902	3882	9014	0.43	71.2	13.6	B
11	1.00	0.902	4262	9014	0.47	71.2	15.0	B
12	1.00	0.902	4058	9014	0.45	71.2	14.2	B

Segment 15: Basic

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	0.902	2614	9014	0.29	71.2	9.2	A							
2	1.00	0.902	2804	9014	0.31	71.2	9.8	A							
3	1.00	0.902	3111	9014	0.35	71.2	10.9	A							
4	1.00	0.902	3409	9014	0.38	71.2	12.0	B							
5	1.00	0.902	3584	9014	0.40	71.2	12.6	B							
6	1.00	0.902	3905	9014	0.43	71.2	13.7	B							
7	1.00	0.902	4160	9014	0.46	71.2	14.6	B							
8	1.00	0.902	3882	9014	0.43	71.2	13.6	B							
9	1.00	0.902	3728	9014	0.41	71.2	13.1	B							
10	1.00	0.902	3882	9014	0.43	71.2	13.6	B							
11	1.00	0.902	4262	9014	0.47	71.2	15.0	B							
12	1.00	0.902	4058	9014	0.45	71.2	14.2	B							

Segment 16: Basic

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	0.902	2614	9014	0.29	71.2	9.2	A							
2	1.00	0.902	2804	9014	0.31	71.2	9.8	A							
3	1.00	0.902	3111	9014	0.35	71.2	10.9	A							
4	1.00	0.902	3409	9014	0.38	71.2	12.0	B							
5	1.00	0.902	3584	9014	0.40	71.2	12.6	B							
6	1.00	0.902	3905	9014	0.43	71.2	13.7	B							
7	1.00	0.902	4160	9014	0.46	71.2	14.6	B							
8	1.00	0.902	3882	9014	0.43	71.2	13.6	B							
9	1.00	0.902	3728	9014	0.41	71.2	13.1	B							
10	1.00	0.902	3882	9014	0.43	71.2	13.6	B							
11	1.00	0.902	4262	9014	0.47	71.2	15.0	B							
12	1.00	0.902	4058	9014	0.45	71.2	14.2	B							

Segment 17: Diverge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.902	0.899	2614	400	7507	3944	0.35	0.10	70.0	60.6	9.3	0.0	A
2	1.00	1.00	0.902	0.899	2804	429	7507	3944	0.37	0.11	70.0	60.5	10.0	0.4	A
3	1.00	1.00	0.902	0.899	3111	476	7507	3944	0.41	0.12	69.9	60.4	11.1	1.5	A
4	1.00	1.00	0.902	0.899	3409	522	7507	3944	0.45	0.13	69.8	60.3	12.2	2.5	A

5	1.00	1.00	0.902	0.899	3584	548	7507	3944	0.48	0.14	69.7	60.2	12.9	3.1	A
6	1.00	1.00	0.902	0.899	3905	597	7507	3944	0.52	0.15	69.4	60.1	14.1	4.2	A
7	1.00	1.00	0.902	0.899	4160	636	7507	3944	0.55	0.16	69.2	60.0	15.0	5.1	A
8	1.00	1.00	0.902	0.899	3882	594	7507	3944	0.52	0.15	69.5	60.1	14.0	4.1	A
9	1.00	1.00	0.902	0.899	3728	571	7507	3944	0.50	0.14	69.6	60.2	13.4	3.6	A
10	1.00	1.00	0.902	0.899	3882	594	7507	3944	0.52	0.15	69.5	60.1	14.0	4.1	A
11	1.00	1.00	0.902	0.899	4262	652	7507	3944	0.57	0.17	69.2	60.0	15.4	5.4	A
12	1.00	1.00	0.902	0.899	4058	621	7507	3944	0.54	0.16	69.3	60.0	14.6	4.7	A

Segment 18: Basic

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	1.00		0.903		2213		9014		0.25		71.2		7.8		A
2	1.00		0.903		2373		9014		0.26		71.2		8.3		A
3	1.00		0.903		2633		9014		0.29		71.2		9.2		A
4	1.00		0.903		2886		9014		0.32		71.2		10.1		A
5	1.00		0.903		3034		9014		0.34		71.2		10.6		A
6	1.00		0.903		3306		9014		0.37		71.2		11.6		B
7	1.00		0.903		3522		9014		0.39		71.2		12.4		B
8	1.00		0.903		3287		9014		0.36		71.2		11.5		B
9	1.00		0.903		3156		9014		0.35		71.2		11.1		B
10	1.00		0.903		3287		9014		0.36		71.2		11.5		B
11	1.00		0.903		3608		9014		0.40		71.2		12.7		B
12	1.00		0.903		3435		9014		0.38		71.2		12.1		B

Segment 19: Basic

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	1.00		0.903		2213		9014		0.25		71.2		7.8		A
2	1.00		0.903		2373		9014		0.26		71.2		8.3		A
3	1.00		0.903		2633		9014		0.29		71.2		9.2		A
4	1.00		0.903		2886		9014		0.32		71.2		10.1		A
5	1.00		0.903		3034		9014		0.34		71.2		10.6		A
6	1.00		0.903		3306		9014		0.37		71.2		11.6		B
7	1.00		0.903		3522		9014		0.39		71.2		12.4		B
8	1.00		0.903		3287		9014		0.36		71.2		11.5		B
9	1.00		0.903		3156		9014		0.35		71.2		11.1		B
10	1.00		0.903		3287		9014		0.36		71.2		11.5		B
11	1.00		0.903		3608		9014		0.40		71.2		12.7		B
12	1.00		0.903		3435		9014		0.38		71.2		12.1		B

Segment 20: Diverge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	

1	1.00	1.00	0.903	0.918	2213	1233	7507	3944	0.29	0.31	62.5	58.4	8.9	4.8	A
2	1.00	1.00	0.903	0.918	2373	1322	7507	3944	0.32	0.34	62.3	58.2	9.5	5.8	A
3	1.00	1.00	0.903	0.918	2633	1466	7507	3944	0.35	0.37	62.0	57.8	10.6	7.5	A
4	1.00	1.00	0.903	0.918	2886	1607	7507	3944	0.38	0.41	61.7	57.4	11.7	9.1	A
5	1.00	1.00	0.903	0.918	3034	1690	7507	3944	0.40	0.43	61.5	57.2	12.3	10.0	A
6	1.00	1.00	0.903	0.918	3306	1840	7507	3944	0.44	0.47	61.2	56.8	13.5	11.8	B
7	1.00	1.00	0.903	0.918	3522	1961	7507	3944	0.47	0.50	60.9	56.5	14.5	13.1	B
8	1.00	1.00	0.903	0.918	3287	1830	7507	3944	0.44	0.46	61.2	56.9	13.4	11.6	B
9	1.00	1.00	0.903	0.918	3156	1758	7507	3944	0.42	0.45	61.3	57.0	12.9	10.8	B
10	1.00	1.00	0.903	0.918	3287	1830	7507	3944	0.44	0.46	61.2	56.9	13.4	11.6	B
11	1.00	1.00	0.903	0.918	3608	2009	7507	3944	0.48	0.51	60.8	56.4	14.8	13.7	B
12	1.00	1.00	0.903	0.918	3435	1913	7507	3944	0.46	0.49	61.0	56.6	14.1	12.6	B

Segment 21: Basic

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	1.00		0.884		980		6761		0.14		69.8		4.6		A
2	1.00		0.884		1051		6761		0.16		69.8		4.9		A
3	1.00		0.884		1167		6761		0.17		69.7		5.5		A
4	1.00		0.884		1279		6761		0.19		69.7		6.0		A
5	1.00		0.884		1345		6761		0.20		69.7		6.3		A
6	1.00		0.884		1466		6761		0.22		69.6		6.9		A
7	1.00		0.884		1561		6761		0.23		69.6		7.3		A
8	1.00		0.884		1457		6761		0.22		69.6		6.8		A
9	1.00		0.884		1398		6761		0.21		69.6		6.5		A
10	1.00		0.884		1457		6761		0.22		69.6		6.8		A
11	1.00		0.884		1600		6761		0.24		69.6		7.5		A
12	1.00		0.884		1523		6761		0.23		69.6		7.1		A

Segment 22: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.880	0.870	1359	375	5918	1972	0.23	0.19	65.1	62.9	7.0	9.4	A
2	1.00	1.00	0.880	0.870	1458	402	5918	1972	0.25	0.20	65.1	62.9	7.5	9.9	A
3	1.00	1.00	0.880	0.870	1619	446	5918	1972	0.27	0.23	65.1	62.8	8.3	10.8	B
4	1.00	1.00	0.880	0.870	1774	489	5918	1972	0.30	0.25	65.0	62.8	9.1	11.6	B
5	1.00	1.00	0.880	0.870	1865	514	5918	1972	0.32	0.26	65.0	62.8	9.6	12.1	B
6	1.00	1.00	0.880	0.870	2033	560	5918	1972	0.34	0.28	64.9	62.7	10.4	13.0	B
7	1.00	1.00	0.880	0.870	2165	597	5918	1972	0.37	0.30	64.9	62.7	11.1	13.7	B
8	1.00	1.00	0.880	0.870	2020	556	5918	1972	0.34	0.28	64.9	62.7	10.4	13.0	B
9	1.00	1.00	0.880	0.870	1939	534	5918	1972	0.33	0.27	65.0	62.8	9.9	12.5	B
10	1.00	1.00	0.880	0.870	2020	556	5918	1972	0.34	0.28	64.9	62.7	10.4	13.0	B
11	1.00	1.00	0.880	0.870	2217	610	5918	1972	0.37	0.31	64.8	62.6	11.4	14.0	B

12	1.00	1.00	0.880	0.870	2112	582	5918	1972	0.36	0.29	64.9	62.7	10.8	13.4	B
Segment 23: Basic															
AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS							
1	1.00	0.880	1355	6761	0.20	70.7	6.3	A							
2	1.00	0.880	1453	6761	0.21	70.7	6.8	A							
3	1.00	0.880	1614	6761	0.24	70.7	7.6	A							
4	1.00	0.880	1768	6761	0.26	70.7	8.3	A							
5	1.00	0.880	1859	6761	0.27	70.7	8.7	A							
6	1.00	0.880	2026	6761	0.30	70.7	9.5	A							
7	1.00	0.880	2158	6761	0.32	70.7	10.1	A							
8	1.00	0.880	2014	6761	0.30	70.7	9.4	A							
9	1.00	0.880	1933	6761	0.29	70.7	9.0	A							
10	1.00	0.880	2014	6761	0.30	70.7	9.4	A							
11	1.00	0.880	2210	6761	0.33	70.7	10.4	A							
12	1.00	0.880	2105	6761	0.31	70.7	9.9	A							

Facility Analysis Results									
AP	VMT veh-mi/AP	VMT-Demand veh-mi/AP	VHD veh-h/AP	Total Delay Cost \$/AP	Speed mi/h	Density pc/mi/ln	Density veh/mi/ln	TT min	LOS
1	12824	12746	0.45	11.22	71.0	9.0	8.1	19.30	A
2	13755	13672	0.49	12.23	71.0	9.6	8.6	19.30	A
3	15258	15166	0.57	14.23	71.0	10.7	9.6	19.30	A
4	16722	16622	0.71	17.76	71.0	11.7	10.6	19.30	B
5	17581	17476	0.82	20.51	71.0	12.3	11.1	19.30	B
6	19154	19038	1.09	27.15	70.9	13.4	12.1	19.30	B
7	20405	20282	1.40	34.98	70.9	14.3	12.9	19.30	B
8	19045	18931	1.06	26.45	70.9	13.3	12.0	19.30	B
9	18291	18181	0.93	23.13	70.9	12.8	11.6	19.30	B
10	19045	18931	1.06	26.45	70.9	13.3	12.0	19.30	B
11	20905	20779	1.55	38.63	70.8	14.7	13.2	19.30	B
12	19905	19785	1.26	31.42	70.9	13.9	12.6	19.30	B

Facility Overall Results			
Space Mean Speed, mi/h	70.9	Average Density, veh/mi/ln	11.2
Average Travel Time, min	19.30	Average Density, pc/mi/ln	12.4
Total VMT, veh-mi	212890	Total VHD, veh-h	11.37
Vehicle Value of Time (VOT), \$/h	25.00	Total Delay Cost, \$	284.15

HCS Freeway Facilities Report

Project Information

Analyst	Kittelson & Associates	Date	11/27/2023
Agency	Florida Department of Transportation	Analysis Year	2030 Build Conditions
Jurisdiction	District Five	Time Analyzed	PM Weekday Peak Period
Facility Name	I-75 (Southbound)	Units	U.S. Customary
Project Description	I-75 PD&E South Auxiliary Lanes		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	23
Total Analysis Periods	12	Analysis Period Duration, min	15
Facility Length, mi	22.79		

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	I-75 SB	1500	4
2	Diverge	Basic	I-75 SB SR 200 Off Ramp	1500	4
3	Basic	Basic	I-75 SB	3285	3
4	Merge	Basic	I-75 SB SR 200 On Ramp	1500	4
5	Basic	Basic	I-75 SB	1500	4
6	Basic	Basic	I-75 SB	1500	4
7	Basic	Basic	I-75 SB	36945	4
8	Basic	Basic	I-75 SB	1500	4
9	Diverge	Basic	I-75 SB CR 484 Off Ramp	1500	4
10	Basic	Basic	I-75 SB	2905	3
11	Merge	Basic	I-75 SB CR 484 On Ramp	1500	4
12	Basic	Basic	I-75 SB	1500	4
13	Basic	Basic	I-75 SB	1500	4
14	Basic	Basic	I-75 SB	47240	4
15	Basic	Basic	I-75 SB	1500	4
16	Basic	Basic	I-75 SB	1500	4
17	Diverge	Diverge	I-75 SB SR 44 Off Ramp	1500	4
18	Basic	Basic	I-75 SB	3547	4
19	Basic	Basic	I-75 SB	1610	4
20	Diverge	Diverge	I-75 SB Turnpike Off Ramp	1500	4
21	Basic	Basic	I-75 SB	775	3
22	Merge	Merge	I-75 SB SR 44 On Ramp	1500	3
23	Basic	Basic	I-75 SB	1538	3

Facility Segment Data

Segment 1: Basic															
AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	1.00		0.907		5934		9014		0.66		68.2		21.8		C
2	1.00		0.907		5719		9014		0.63		68.8		20.8		C
3	1.00		0.907		6197		9014		0.69		67.3		23.0		C
4	1.00		0.907		5922		9014		0.66		68.2		21.7		C
5	1.00		0.907		6233		9014		0.69		67.1		23.2		C
6	1.00		0.907		5724		9014		0.64		68.8		20.8		C
7	1.00		0.907		5874		9014		0.65		68.4		21.5		C
8	1.00		0.907		5951		9014		0.66		68.1		21.9		C
9	1.00		0.907		5563		9014		0.62		69.3		20.1		C
10	1.00		0.907		5354		9014		0.59		69.8		19.2		C
11	1.00		0.907		5504		9014		0.61		69.4		19.8		C
12	1.00		0.907		5097		9014		0.57		70.3		18.1		C

Segment 2: Diverge															
AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.907	0.951	5934	885	7507	1972	0.79	0.45	58.2	58.2	25.5	25.5	C
2	1.00	1.00	0.907	0.951	5719	854	7507	1972	0.76	0.43	59.9	59.9	23.9	23.9	C
3	1.00	1.00	0.907	0.951	6197	925	7507	1972	0.83	0.47	55.9	55.9	27.7	27.7	D
4	1.00	1.00	0.907	0.951	5922	884	7507	1972	0.79	0.45	58.3	58.3	25.4	25.4	C
5	1.00	1.00	0.907	0.951	6233	931	7507	1972	0.83	0.47	55.6	55.6	28.0	28.0	D
6	1.00	1.00	0.907	0.951	5724	855	7507	1972	0.76	0.43	59.9	59.9	23.9	23.9	C
7	1.00	1.00	0.907	0.951	5874	877	7507	1972	0.78	0.44	58.7	58.7	25.0	25.0	C
8	1.00	1.00	0.907	0.951	5951	889	7507	1972	0.79	0.45	58.0	58.0	25.7	25.7	C
9	1.00	1.00	0.907	0.951	5563	831	7507	1972	0.74	0.42	61.1	61.1	22.8	22.8	C
10	1.00	1.00	0.907	0.951	5354	799	7507	1972	0.71	0.41	62.6	62.6	21.4	21.4	C
11	1.00	1.00	0.907	0.951	5504	821	7507	1972	0.73	0.42	61.5	61.5	22.4	22.4	C
12	1.00	1.00	0.907	0.951	5097	760	7507	1972	0.68	0.39	64.2	64.2	19.8	19.8	C

Segment 3: Basic															
AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	1.00		0.899		5050		6761		0.75		65.1		25.9		C
2	1.00		0.899		4867		6761		0.72		66.1		24.5		C
3	1.00		0.899		5274		6761		0.78		63.6		27.6		D
4	1.00		0.899		5039		6761		0.75		65.1		25.8		C
5	1.00		0.899		5304		6761		0.78		63.4		27.9		D
6	1.00		0.899		4871		6761		0.72		66.1		24.6		C
7	1.00		0.899		4999		6761		0.74		65.4		25.5		C
8	1.00		0.899		5065		6761		0.75		65.0		26.0		C

9	1.00	0.899	4734	6761	0.70	66.8	23.6	C
10	1.00	0.899	4556	6761	0.67	67.7	22.4	C
11	1.00	0.899	4684	6761	0.69	67.1	23.3	C
12	1.00	0.899	4338	6761	0.64	68.7	21.0	C

Segment 4: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.905	0.942	5919	902	7507	1972	0.79	0.46	58.3	58.3	25.4	25.4	C
2	1.00	1.00	0.905	0.942	5703	869	7507	1972	0.76	0.44	60.0	60.0	23.8	23.8	C
3	1.00	1.00	0.905	0.942	6182	943	7507	1972	0.82	0.48	56.0	56.0	27.6	27.6	D
4	1.00	1.00	0.905	0.942	5907	901	7507	1972	0.79	0.46	58.4	58.4	25.3	25.3	C
5	1.00	1.00	0.905	0.942	6217	948	7507	1972	0.83	0.48	55.7	55.7	27.9	27.9	D
6	1.00	1.00	0.905	0.942	5709	870	7507	1972	0.76	0.44	60.0	60.0	23.8	23.8	C
7	1.00	1.00	0.905	0.942	5860	894	7507	1972	0.78	0.45	58.8	58.8	24.9	24.9	C
8	1.00	1.00	0.905	0.942	5937	906	7507	1972	0.79	0.46	58.1	58.1	25.5	25.5	C
9	1.00	1.00	0.905	0.942	5549	846	7507	1972	0.74	0.43	61.2	61.2	22.7	22.7	C
10	1.00	1.00	0.905	0.942	5340	814	7507	1972	0.71	0.41	62.7	62.7	21.3	21.3	C
11	1.00	1.00	0.905	0.942	5491	838	7507	1972	0.73	0.42	61.6	61.6	22.3	22.3	C
12	1.00	1.00	0.905	0.942	5084	775	7507	1972	0.68	0.39	64.3	64.3	19.8	19.8	C

Segment 5: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.905	5956	9014	0.66	68.1	21.9	C
2	1.00	0.905	5739	9014	0.64	68.8	20.9	C
3	1.00	0.905	6220	9014	0.69	67.2	23.1	C
4	1.00	0.905	5944	9014	0.66	68.2	21.8	C
5	1.00	0.905	6255	9014	0.69	67.1	23.3	C
6	1.00	0.905	5745	9014	0.64	68.8	20.9	C
7	1.00	0.905	5896	9014	0.65	68.3	21.6	C
8	1.00	0.905	5973	9014	0.66	68.1	21.9	C
9	1.00	0.905	5583	9014	0.62	69.2	20.2	C
10	1.00	0.905	5373	9014	0.60	69.7	19.3	C
11	1.00	0.905	5525	9014	0.61	69.4	19.9	C
12	1.00	0.905	5116	9014	0.57	70.2	18.2	C

Segment 6: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.905	5956	9014	0.66	68.1	21.9	C
2	1.00	0.905	5739	9014	0.64	68.8	20.9	C
3	1.00	0.905	6220	9014	0.69	67.2	23.1	C
4	1.00	0.905	5944	9014	0.66	68.2	21.8	C

1	1.00	1.00	0.905	0.923	5956	1121	7507	1972	0.79	0.57	58.0	58.0	25.7	25.7	C
2	1.00	1.00	0.905	0.923	5739	1080	7507	1972	0.76	0.55	59.7	59.7	24.0	24.0	C
3	1.00	1.00	0.905	0.923	6220	1171	7507	1972	0.83	0.59	55.7	55.7	27.9	27.9	D
4	1.00	1.00	0.905	0.923	5944	1119	7507	1972	0.79	0.57	58.1	58.1	25.6	25.6	C
5	1.00	1.00	0.905	0.923	6255	1178	7507	1972	0.83	0.60	55.3	55.3	28.3	28.3	D
6	1.00	1.00	0.905	0.923	5745	1081	7507	1972	0.77	0.55	59.7	59.7	24.1	24.1	C
7	1.00	1.00	0.905	0.923	5896	1109	7507	1972	0.79	0.56	58.5	58.5	25.2	25.2	C
8	1.00	1.00	0.905	0.923	5973	1125	7507	1972	0.80	0.57	57.9	57.9	25.8	25.8	C
9	1.00	1.00	0.905	0.923	5583	1051	7507	1972	0.74	0.53	60.9	60.9	22.9	22.9	C
10	1.00	1.00	0.905	0.923	5373	1012	7507	1972	0.72	0.51	62.4	62.4	21.5	21.5	C
11	1.00	1.00	0.905	0.923	5525	1040	7507	1972	0.74	0.53	61.4	61.4	22.5	22.5	C
12	1.00	1.00	0.905	0.923	5116	963	7507	1972	0.68	0.49	64.1	64.1	20.0	20.0	C

Segment 10: Basic

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	1.00		0.901		4834		6761		0.71		66.3		24.3		C
2	1.00		0.901		4658		6761		0.69		67.2		23.1		C
3	1.00		0.901		5048		6761		0.75		65.1		25.9		C
4	1.00		0.901		4824		6761		0.71		66.4		24.2		C
5	1.00		0.901		5077		6761		0.75		64.9		26.1		D
6	1.00		0.901		4663		6761		0.69		67.2		23.1		C
7	1.00		0.901		4786		6761		0.71		66.6		23.9		C
8	1.00		0.901		4848		6761		0.72		66.2		24.4		C
9	1.00		0.901		4532		6761		0.67		67.8		22.3		C
10	1.00		0.901		4361		6761		0.65		68.6		21.2		C
11	1.00		0.901		4484		6761		0.66		68.0		22.0		C
12	1.00		0.901		4152		6761		0.61		69.3		20.0		C

Segment 11: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.902	0.916	5231	403	7507	1972	0.70	0.20	63.4	63.4	20.6	20.6	C
2	1.00	1.00	0.902	0.916	5042	389	7507	1972	0.67	0.20	64.6	64.6	19.5	19.5	C
3	1.00	1.00	0.902	0.916	5463	421	7507	1972	0.73	0.21	61.8	61.8	22.1	22.1	C
4	1.00	1.00	0.902	0.916	5221	403	7507	1972	0.70	0.20	63.4	63.4	20.6	20.6	C
5	1.00	1.00	0.902	0.916	5495	424	7507	1972	0.73	0.22	61.6	61.6	22.3	22.3	C
6	1.00	1.00	0.902	0.916	5046	389	7507	1972	0.67	0.20	64.5	64.5	19.6	19.6	C
7	1.00	1.00	0.902	0.916	5180	400	7507	1972	0.69	0.20	63.7	63.7	20.3	20.3	C
8	1.00	1.00	0.902	0.916	5247	404	7507	1972	0.70	0.20	63.3	63.3	20.7	20.7	C
9	1.00	1.00	0.902	0.916	4905	378	7507	1972	0.65	0.19	65.4	65.4	18.8	18.8	C
10	1.00	1.00	0.902	0.916	4720	364	7507	1972	0.63	0.18	66.3	66.3	17.8	17.8	B
11	1.00	1.00	0.902	0.916	4852	373	7507	1972	0.65	0.19	65.6	65.6	18.5	18.5	C

12	1.00	1.00	0.902	0.916	4493	346	7507	1972	0.60	0.18	67.4	67.4	16.7	16.7	B
Segment 12: Basic															
AP	PHF	fHV	Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio	Speed (mi/h)		Density (pc/mi/ln)		LOS			
1	1.00	0.902	5237		9014		0.58	70.0		18.7		C			
2	1.00	0.902	5048		9014		0.56	70.4		17.9		B			
3	1.00	0.902	5470		9014		0.61	69.5		19.7		C			
4	1.00	0.902	5227		9014		0.58	70.0		18.7		C			
5	1.00	0.902	5501		9014		0.61	69.4		19.8		C			
6	1.00	0.902	5052		9014		0.56	70.4		17.9		B			
7	1.00	0.902	5186		9014		0.58	70.1		18.5		C			
8	1.00	0.902	5253		9014		0.58	70.0		18.8		C			
9	1.00	0.902	4910		9014		0.54	70.6		17.4		B			
10	1.00	0.902	4725		9014		0.52	70.8		16.7		B			
11	1.00	0.902	4858		9014		0.54	70.7		17.2		B			
12	1.00	0.902	4499		9014		0.50	70.9		15.8		B			
Segment 13: Basic															
AP	PHF	fHV	Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio	Speed (mi/h)		Density (pc/mi/ln)		LOS			
1	1.00	0.902	5237		9014		0.58	70.0		18.7		C			
2	1.00	0.902	5048		9014		0.56	70.4		17.9		B			
3	1.00	0.902	5470		9014		0.61	69.5		19.7		C			
4	1.00	0.902	5227		9014		0.58	70.0		18.7		C			
5	1.00	0.902	5501		9014		0.61	69.4		19.8		C			
6	1.00	0.902	5052		9014		0.56	70.4		17.9		B			
7	1.00	0.902	5186		9014		0.58	70.1		18.5		C			
8	1.00	0.902	5253		9014		0.58	70.0		18.8		C			
9	1.00	0.902	4910		9014		0.54	70.6		17.4		B			
10	1.00	0.902	4725		9014		0.52	70.8		16.7		B			
11	1.00	0.902	4858		9014		0.54	70.7		17.2		B			
12	1.00	0.902	4499		9014		0.50	71.0		15.8		B			
Segment 14: Basic															
AP	PHF	fHV	Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio	Speed (mi/h)		Density (pc/mi/ln)		LOS			
1	1.00	0.902	5237		9014		0.58	70.0		18.7		C			
2	1.00	0.902	5048		9014		0.56	70.4		17.9		B			
3	1.00	0.902	5470		9014		0.61	69.5		19.7		C			
4	1.00	0.902	5227		9014		0.58	70.0		18.7		C			
5	1.00	0.902	5501		9014		0.61	69.4		19.8		C			
6	1.00	0.902	5052		9014		0.56	70.4		17.9		B			
7	1.00	0.902	5186		9014		0.58	70.1		18.5		C			
8	1.00	0.902	5253		9014		0.58	70.0		18.8		C			

9	1.00	0.902	4910	9014	0.54	70.6	17.4	B
10	1.00	0.902	4725	9014	0.52	70.8	16.7	B
11	1.00	0.902	4858	9014	0.54	70.7	17.2	B
12	1.00	0.902	4499	9014	0.50	71.0	15.8	B

Segment 15: Basic

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00		0.902		5237		9014		0.58		70.0		18.7		C
2	1.00		0.902		5048		9014		0.56		70.4		17.9		B
3	1.00		0.902		5470		9014		0.61		69.5		19.7		C
4	1.00		0.902		5227		9014		0.58		70.0		18.7		C
5	1.00		0.902		5501		9014		0.61		69.4		19.8		C
6	1.00		0.902		5052		9014		0.56		70.4		17.9		B
7	1.00		0.902		5186		9014		0.58		70.1		18.5		C
8	1.00		0.902		5253		9014		0.58		70.0		18.8		C
9	1.00		0.902		4910		9014		0.54		70.6		17.4		B
10	1.00		0.902		4725		9014		0.52		70.8		16.7		B
11	1.00		0.902		4858		9014		0.54		70.7		17.2		B
12	1.00		0.902		4499		9014		0.50		71.0		15.8		B

Segment 16: Basic

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00		0.902		5237		9014		0.58		70.0		18.7		C
2	1.00		0.902		5048		9014		0.56		70.4		17.9		B
3	1.00		0.902		5470		9014		0.61		69.5		19.7		C
4	1.00		0.902		5227		9014		0.58		70.0		18.7		C
5	1.00		0.902		5501		9014		0.61		69.4		19.8		C
6	1.00		0.902		5052		9014		0.56		70.4		17.9		B
7	1.00		0.902		5186		9014		0.58		70.1		18.5		C
8	1.00		0.902		5253		9014		0.58		70.0		18.8		C
9	1.00		0.902		4910		9014		0.54		70.6		17.4		B
10	1.00		0.902		4725		9014		0.52		70.8		16.7		B
11	1.00		0.902		4858		9014		0.54		70.7		17.2		B
12	1.00		0.902		4499		9014		0.50		71.0		15.8		B

Segment 17: Diverge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.902	0.899	5237	587	7507	3944	0.70	0.15	68.7	60.1	19.1	8.8	A
2	1.00	1.00	0.902	0.899	5048	566	7507	3944	0.67	0.14	68.8	60.2	18.3	8.1	A
3	1.00	1.00	0.902	0.899	5470	613	7507	3944	0.73	0.16	68.5	60.0	20.0	9.6	A
4	1.00	1.00	0.902	0.899	5227	586	7507	3944	0.70	0.15	68.7	60.1	19.0	8.7	A

1	1.00	1.00	0.903	0.918	4647	2524	7507	3944	0.62	0.64	59.8	55.0	19.4	19.9	B
2	1.00	1.00	0.903	0.918	4478	2432	7507	3944	0.60	0.62	60.1	55.3	18.6	18.8	B
3	1.00	1.00	0.903	0.918	4854	2636	7507	3944	0.65	0.67	59.6	54.7	20.4	21.1	C
4	1.00	1.00	0.903	0.918	4638	2520	7507	3944	0.62	0.64	59.9	55.1	19.4	19.8	B
5	1.00	1.00	0.903	0.918	4880	2651	7507	3944	0.65	0.67	59.5	54.7	20.5	21.3	C
6	1.00	1.00	0.903	0.918	4483	2436	7507	3944	0.60	0.62	60.1	55.3	18.6	18.8	B
7	1.00	1.00	0.903	0.918	4601	2499	7507	3944	0.61	0.63	59.9	55.1	19.2	19.6	B
8	1.00	1.00	0.903	0.918	4660	2532	7507	3944	0.62	0.64	59.8	55.0	19.5	19.9	B
9	1.00	1.00	0.903	0.918	4357	2366	7507	3944	0.58	0.60	60.2	55.4	18.1	18.0	B
10	1.00	1.00	0.903	0.918	4193	2278	7507	3944	0.56	0.58	60.4	55.7	17.4	17.0	B
11	1.00	1.00	0.903	0.918	4310	2341	7507	3944	0.57	0.59	60.2	55.5	17.9	17.7	B
12	1.00	1.00	0.903	0.918	3992	2168	7507	3944	0.53	0.55	60.7	56.0	16.4	15.7	B

Segment 21: Basic

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	1.00		0.884		2126		6761		0.31		69.4		10.0		A
2	1.00		0.884		2049		6761		0.30		69.4		9.6		A
3	1.00		0.884		2221		6761		0.33		69.4		10.4		A
4	1.00		0.884		2121		6761		0.31		69.4		9.9		A
5	1.00		0.884		2232		6761		0.33		69.3		10.4		A
6	1.00		0.884		2050		6761		0.30		69.4		9.6		A
7	1.00		0.884		2105		6761		0.31		69.4		9.9		A
8	1.00		0.884		2131		6761		0.32		69.4		10.0		A
9	1.00		0.884		1993		6761		0.29		69.5		9.3		A
10	1.00		0.884		1917		6761		0.28		69.5		9.0		A
11	1.00		0.884		1972		6761		0.29		69.5		9.2		A
12	1.00		0.884		1827		6761		0.27		69.5		8.6		A

Segment 22: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.881	0.870	2730	597	5918	1972	0.46	0.30	64.7	62.5	14.1	16.3	B
2	1.00	1.00	0.881	0.870	2631	575	5918	1972	0.44	0.29	64.7	62.5	13.6	15.8	B
3	1.00	1.00	0.881	0.870	2851	623	5918	1972	0.48	0.32	64.6	62.4	14.7	17.0	B
4	1.00	1.00	0.881	0.870	2723	595	5918	1972	0.46	0.30	64.7	62.5	14.0	16.3	B
5	1.00	1.00	0.881	0.870	2866	626	5918	1972	0.48	0.32	64.6	62.4	14.8	17.1	B
6	1.00	1.00	0.881	0.870	2633	576	5918	1972	0.44	0.29	64.7	62.5	13.6	15.8	B
7	1.00	1.00	0.881	0.870	2703	591	5918	1972	0.46	0.30	64.7	62.5	13.9	16.2	B
8	1.00	1.00	0.881	0.870	2737	599	5918	1972	0.46	0.30	64.7	62.5	14.1	16.4	B
9	1.00	1.00	0.881	0.870	2560	560	5918	1972	0.43	0.28	64.8	62.6	13.2	15.5	B
10	1.00	1.00	0.881	0.870	2462	538	5918	1972	0.42	0.27	64.8	62.6	12.7	14.9	B
11	1.00	1.00	0.881	0.870	2531	553	5918	1972	0.43	0.28	64.8	62.6	13.0	15.3	B

12	1.00	1.00	0.881	0.870	2346	513	5918	1972	0.40	0.26	64.9	62.6	12.0	14.3	B
Segment 23: Basic															
AP	PHF	fHV	Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio	Speed (mi/h)		Density (pc/mi/ln)		LOS			
1	1.00	0.881	2722		6761		0.40	70.6		12.7		B			
2	1.00	0.881	2623		6761		0.39	70.6		12.3		B			
3	1.00	0.881	2843		6761		0.42	70.6		13.3		B			
4	1.00	0.881	2716		6761		0.40	70.6		12.7		B			
5	1.00	0.881	2858		6761		0.42	70.6		13.4		B			
6	1.00	0.881	2625		6761		0.39	70.6		12.3		B			
7	1.00	0.881	2696		6761		0.40	70.6		12.6		B			
8	1.00	0.881	2730		6761		0.40	70.6		12.8		B			
9	1.00	0.881	2553		6761		0.38	70.7		12.0		B			
10	1.00	0.881	2455		6761		0.36	70.7		11.5		B			
11	1.00	0.881	2524		6761		0.37	70.7		11.8		B			
12	1.00	0.881	2339		6761		0.35	70.7		11.0		A			

Facility Analysis Results									
AP	VMT veh-mi/AP	VMT-Demand veh-mi/AP	VHD veh-h/AP	Total Delay Cost \$/AP	Speed mi/h	Density pc/mi/ln	Density veh/mi/ln	TT min	LOS
1	27726	27605	16.92	422.92	68.2	20.2	18.2	20.00	C
2	26720	26604	12.82	320.55	68.9	19.3	17.4	19.90	C
3	28957	28831	22.71	567.69	67.4	21.3	19.2	20.30	C
4	27671	27550	16.60	414.99	68.3	20.1	18.2	20.00	C
5	29121	28994	23.60	590.12	67.3	21.5	19.4	20.30	C
6	26745	26628	12.86	321.54	68.8	19.3	17.4	19.90	C
7	27452	27332	15.73	393.32	68.4	19.9	18.0	20.00	C
8	27808	27686	17.07	426.77	68.2	20.2	18.3	20.00	C
9	25994	25880	10.54	263.61	69.2	18.7	16.9	19.80	C
10	25015	24906	7.96	199.11	69.6	17.8	16.1	19.60	B
11	25719	25607	9.59	239.76	69.4	18.4	16.6	19.70	C
12	23817	23713	5.51	137.79	70.1	16.8	15.2	19.50	B

Facility Overall Results				
Space Mean Speed, mi/h	68.6		Average Density, veh/mi/ln	17.6
Average Travel Time, min	19.90		Average Density, pc/mi/ln	19.5
Total VMT, veh-mi	322746		Total VHD, veh-h	171.93
Vehicle Value of Time (VOT), \$/h	25.00		Total Delay Cost, \$	4298.16

HCS Freeway Facilities Report

Project Information

Analyst	Kittelson & Associates	Date	11/27/2023
Agency	Florida Department of Transportation	Analysis Year	2030 Build Conditions
Jurisdiction	District Five	Time Analyzed	WM Weekend Peak Period
Facility Name	I-75 (Southbound)	Units	U.S. Customary
Project Description	I-75 PD&E South Auxiliary Lanes		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	23
Total Analysis Periods	12	Analysis Period Duration, min	15
Facility Length, mi	22.79		

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	I-75 SB	1500	4
2	Diverge	Basic	I-75 SB SR 200 Off Ramp	1500	4
3	Basic	Basic	I-75 SB	3285	3
4	Merge	Basic	I-75 SB SR 200 On Ramp	1500	4
5	Basic	Basic	I-75 SB	1500	4
6	Basic	Basic	I-75 SB	1500	4
7	Basic	Basic	I-75 SB	36945	4
8	Basic	Basic	I-75 SB	1500	4
9	Diverge	Basic	I-75 SB CR 484 Off Ramp	1500	4
10	Basic	Basic	I-75 SB	2905	3
11	Merge	Basic	I-75 SB CR 484 On Ramp	1500	4
12	Basic	Basic	I-75 SB	1500	4
13	Basic	Basic	I-75 SB	1500	4
14	Basic	Basic	I-75 SB	47240	4
15	Basic	Basic	I-75 SB	1500	4
16	Basic	Basic	I-75 SB	1500	4
17	Diverge	Diverge	I-75 SB SR 44 Off Ramp	1500	4
18	Basic	Basic	I-75 SB	3547	4
19	Basic	Basic	I-75 SB	1610	4
20	Diverge	Diverge	I-75 SB Turnpike Off Ramp	1500	4
21	Basic	Basic	I-75 SB	775	3
22	Merge	Merge	I-75 SB SR 44 On Ramp	1500	3
23	Basic	Basic	I-75 SB	1538	3

Facility Segment Data

Segment 1: Basic															
AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	1.00		0.907		4965		9014		0.55		70.5		17.6		B
2	1.00		0.907		4965		9014		0.55		70.5		17.6		B
3	1.00		0.907		4965		9014		0.55		70.5		17.6		B
4	1.00		0.907		4965		9014		0.55		70.5		17.6		B
5	1.00		0.907		5234		9014		0.58		70.0		18.7		C
6	1.00		0.907		5234		9014		0.58		70.0		18.7		C
7	1.00		0.907		5234		9014		0.58		70.0		18.7		C
8	1.00		0.907		5234		9014		0.58		70.0		18.7		C
9	1.00		0.907		5338		9014		0.59		69.8		19.1		C
10	1.00		0.907		5338		9014		0.59		69.8		19.1		C
11	1.00		0.907		5338		9014		0.59		69.8		19.1		C
12	1.00		0.907		5338		9014		0.59		69.8		19.1		C

Segment 2: Diverge															
AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.907	0.962	4965	536	7507	1972	0.66	0.27	65.0	65.0	19.1	19.1	C
2	1.00	1.00	0.907	0.962	4965	536	7507	1972	0.66	0.27	65.0	65.0	19.1	19.1	C
3	1.00	1.00	0.907	0.962	4965	536	7507	1972	0.66	0.27	65.0	65.0	19.1	19.1	C
4	1.00	1.00	0.907	0.962	4965	536	7507	1972	0.66	0.27	65.0	65.0	19.1	19.1	C
5	1.00	1.00	0.907	0.962	5234	565	7507	1972	0.70	0.29	63.4	63.4	20.6	20.6	C
6	1.00	1.00	0.907	0.962	5234	565	7507	1972	0.70	0.29	63.4	63.4	20.6	20.6	C
7	1.00	1.00	0.907	0.962	5234	565	7507	1972	0.70	0.29	63.4	63.4	20.6	20.6	C
8	1.00	1.00	0.907	0.962	5234	565	7507	1972	0.70	0.29	63.4	63.4	20.6	20.6	C
9	1.00	1.00	0.907	0.962	5338	577	7507	1972	0.71	0.29	62.7	62.7	21.3	21.3	C
10	1.00	1.00	0.907	0.962	5338	577	7507	1972	0.71	0.29	62.7	62.7	21.3	21.3	C
11	1.00	1.00	0.907	0.962	5338	577	7507	1972	0.71	0.29	62.7	62.7	21.3	21.3	C
12	1.00	1.00	0.907	0.962	5338	577	7507	1972	0.71	0.29	62.7	62.7	21.3	21.3	C

Segment 3: Basic															
AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	1.00		0.900		4430		6761		0.66		68.3		21.6		C
2	1.00		0.900		4430		6761		0.66		68.3		21.6		C
3	1.00		0.900		4430		6761		0.66		68.3		21.6		C
4	1.00		0.900		4430		6761		0.66		68.3		21.6		C
5	1.00		0.900		4670		6761		0.69		67.2		23.2		C
6	1.00		0.900		4670		6761		0.69		67.2		23.2		C
7	1.00		0.900		4670		6761		0.69		67.2		23.2		C
8	1.00		0.900		4670		6761		0.69		67.2		23.2		C

9	1.00	0.900	4763	6761	0.70	66.7	23.8	C
10	1.00	0.900	4763	6761	0.70	66.7	23.8	C
11	1.00	0.900	4763	6761	0.70	66.7	23.8	C
12	1.00	0.900	4763	6761	0.70	66.7	23.8	C

Segment 4: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.907	0.959	5029	633	7507	1972	0.67	0.32	64.6	64.6	19.5	19.5	C
2	1.00	1.00	0.907	0.959	5029	633	7507	1972	0.67	0.32	64.6	64.6	19.5	19.5	C
3	1.00	1.00	0.907	0.959	5029	633	7507	1972	0.67	0.32	64.6	64.6	19.5	19.5	C
4	1.00	1.00	0.907	0.959	5029	633	7507	1972	0.67	0.32	64.6	64.6	19.5	19.5	C
5	1.00	1.00	0.907	0.959	5301	667	7507	1972	0.71	0.34	62.9	62.9	21.1	21.1	C
6	1.00	1.00	0.907	0.959	5301	667	7507	1972	0.71	0.34	62.9	62.9	21.1	21.1	C
7	1.00	1.00	0.907	0.959	5301	667	7507	1972	0.71	0.34	62.9	62.9	21.1	21.1	C
8	1.00	1.00	0.907	0.959	5301	667	7507	1972	0.71	0.34	62.9	62.9	21.1	21.1	C
9	1.00	1.00	0.907	0.959	5408	681	7507	1972	0.72	0.35	62.2	62.2	21.7	21.7	C
10	1.00	1.00	0.907	0.959	5408	681	7507	1972	0.72	0.35	62.2	62.2	21.7	21.7	C
11	1.00	1.00	0.907	0.959	5408	681	7507	1972	0.72	0.35	62.2	62.2	21.7	21.7	C
12	1.00	1.00	0.907	0.959	5408	681	7507	1972	0.72	0.35	62.2	62.2	21.7	21.7	C

Segment 5: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.907	5065	9014	0.56	70.3	18.0	B
2	1.00	0.907	5065	9014	0.56	70.3	18.0	B
3	1.00	0.907	5065	9014	0.56	70.3	18.0	B
4	1.00	0.907	5065	9014	0.56	70.3	18.0	B
5	1.00	0.907	5340	9014	0.59	69.8	19.1	C
6	1.00	0.907	5340	9014	0.59	69.8	19.1	C
7	1.00	0.907	5340	9014	0.59	69.8	19.1	C
8	1.00	0.907	5340	9014	0.59	69.8	19.1	C
9	1.00	0.907	5447	9014	0.60	69.5	19.6	C
10	1.00	0.907	5447	9014	0.60	69.5	19.6	C
11	1.00	0.907	5447	9014	0.60	69.5	19.6	C
12	1.00	0.907	5447	9014	0.60	69.5	19.6	C

Segment 6: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.907	5065	9014	0.56	70.3	18.0	B
2	1.00	0.907	5065	9014	0.56	70.3	18.0	B
3	1.00	0.907	5065	9014	0.56	70.3	18.0	B
4	1.00	0.907	5065	9014	0.56	70.3	18.0	B

1	1.00	1.00	0.907	0.931	5065	516	7507	1972	0.67	0.26	64.4	64.4	19.7	19.7	C
2	1.00	1.00	0.907	0.931	5065	516	7507	1972	0.67	0.26	64.4	64.4	19.7	19.7	C
3	1.00	1.00	0.907	0.931	5065	516	7507	1972	0.67	0.26	64.4	64.4	19.7	19.7	C
4	1.00	1.00	0.907	0.931	5065	516	7507	1972	0.67	0.26	64.4	64.4	19.7	19.7	C
5	1.00	1.00	0.907	0.931	5340	544	7507	1972	0.71	0.28	62.7	62.7	21.3	21.3	C
6	1.00	1.00	0.907	0.931	5340	544	7507	1972	0.71	0.28	62.7	62.7	21.3	21.3	C
7	1.00	1.00	0.907	0.931	5340	544	7507	1972	0.71	0.28	62.7	62.7	21.3	21.3	C
8	1.00	1.00	0.907	0.931	5340	544	7507	1972	0.71	0.28	62.7	62.7	21.3	21.3	C
9	1.00	1.00	0.907	0.931	5447	554	7507	1972	0.73	0.28	61.9	61.9	22.0	22.0	C
10	1.00	1.00	0.907	0.931	5447	554	7507	1972	0.73	0.28	61.9	61.9	22.0	22.0	C
11	1.00	1.00	0.907	0.931	5447	554	7507	1972	0.73	0.28	61.9	61.9	22.0	22.0	C
12	1.00	1.00	0.907	0.931	5447	554	7507	1972	0.73	0.28	61.9	61.9	22.0	22.0	C

Segment 10: Basic

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	1.00		0.904		4551		6761		0.67		67.7		22.4		C
2	1.00		0.904		4551		6761		0.67		67.7		22.4		C
3	1.00		0.904		4551		6761		0.67		67.7		22.4		C
4	1.00		0.904		4551		6761		0.67		67.7		22.4		C
5	1.00		0.904		4798		6761		0.71		66.5		24.0		C
6	1.00		0.904		4798		6761		0.71		66.5		24.0		C
7	1.00		0.904		4798		6761		0.71		66.5		24.0		C
8	1.00		0.904		4798		6761		0.71		66.5		24.0		C
9	1.00		0.904		4894		6761		0.72		66.0		24.7		C
10	1.00		0.904		4894		6761		0.72		66.0		24.7		C
11	1.00		0.904		4894		6761		0.72		66.0		24.7		C
12	1.00		0.904		4894		6761		0.72		66.0		24.7		C

Segment 11: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.908	0.932	5254	723	7507	1972	0.70	0.37	63.2	63.2	20.8	20.8	C
2	1.00	1.00	0.908	0.932	5254	723	7507	1972	0.70	0.37	63.2	63.2	20.8	20.8	C
3	1.00	1.00	0.908	0.932	5254	723	7507	1972	0.70	0.37	63.2	63.2	20.8	20.8	C
4	1.00	1.00	0.908	0.932	5254	723	7507	1972	0.70	0.37	63.2	63.2	20.8	20.8	C
5	1.00	1.00	0.908	0.932	5539	763	7507	1972	0.74	0.39	61.3	61.3	22.6	22.6	C
6	1.00	1.00	0.908	0.932	5539	763	7507	1972	0.74	0.39	61.3	61.3	22.6	22.6	C
7	1.00	1.00	0.908	0.932	5539	763	7507	1972	0.74	0.39	61.3	61.3	22.6	22.6	C
8	1.00	1.00	0.908	0.932	5539	763	7507	1972	0.74	0.39	61.3	61.3	22.6	22.6	C
9	1.00	1.00	0.908	0.932	5650	778	7507	1972	0.75	0.39	60.4	60.4	23.4	23.4	C
10	1.00	1.00	0.908	0.932	5650	778	7507	1972	0.75	0.39	60.4	60.4	23.4	23.4	C
11	1.00	1.00	0.908	0.932	5650	778	7507	1972	0.75	0.39	60.4	60.4	23.4	23.4	C

12	1.00	1.00	0.908	0.932	5650	778	7507	1972	0.75	0.39	60.4	60.4	23.4	23.4	C
Segment 12: Basic															
AP	PHF	fHV	Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio	Speed (mi/h)		Density (pc/mi/ln)		LOS			
1	1.00	0.908	5273		9014		0.58	69.9		18.9		C			
2	1.00	0.908	5273		9014		0.58	69.9		18.9		C			
3	1.00	0.908	5273		9014		0.58	69.9		18.9		C			
4	1.00	0.908	5273		9014		0.58	69.9		18.9		C			
5	1.00	0.908	5559		9014		0.62	69.3		20.1		C			
6	1.00	0.908	5559		9014		0.62	69.3		20.1		C			
7	1.00	0.908	5559		9014		0.62	69.3		20.1		C			
8	1.00	0.908	5559		9014		0.62	69.3		20.1		C			
9	1.00	0.908	5671		9014		0.63	69.0		20.6		C			
10	1.00	0.908	5671		9014		0.63	69.0		20.6		C			
11	1.00	0.908	5671		9014		0.63	69.0		20.6		C			
12	1.00	0.908	5671		9014		0.63	69.0		20.6		C			
Segment 13: Basic															
AP	PHF	fHV	Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio	Speed (mi/h)		Density (pc/mi/ln)		LOS			
1	1.00	0.908	5273		9014		0.58	69.9		18.9		C			
2	1.00	0.908	5273		9014		0.58	69.9		18.9		C			
3	1.00	0.908	5273		9014		0.58	69.9		18.9		C			
4	1.00	0.908	5273		9014		0.58	69.9		18.9		C			
5	1.00	0.908	5559		9014		0.62	69.3		20.1		C			
6	1.00	0.908	5559		9014		0.62	69.3		20.1		C			
7	1.00	0.908	5559		9014		0.62	69.3		20.1		C			
8	1.00	0.908	5559		9014		0.62	69.3		20.1		C			
9	1.00	0.908	5671		9014		0.63	69.0		20.6		C			
10	1.00	0.908	5671		9014		0.63	69.0		20.6		C			
11	1.00	0.908	5671		9014		0.63	69.0		20.6		C			
12	1.00	0.908	5671		9014		0.63	69.0		20.6		C			
Segment 14: Basic															
AP	PHF	fHV	Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio	Speed (mi/h)		Density (pc/mi/ln)		LOS			
1	1.00	0.908	5273		9014		0.58	69.9		18.9		C			
2	1.00	0.908	5273		9014		0.58	69.9		18.9		C			
3	1.00	0.908	5273		9014		0.58	69.9		18.9		C			
4	1.00	0.908	5273		9014		0.58	69.9		18.9		C			
5	1.00	0.908	5559		9014		0.62	69.3		20.1		C			
6	1.00	0.908	5559		9014		0.62	69.3		20.1		C			
7	1.00	0.908	5559		9014		0.62	69.3		20.1		C			
8	1.00	0.908	5559		9014		0.62	69.3		20.1		C			

9	1.00	0.908	5671	9014	0.63	69.0	20.6	C
10	1.00	0.908	5671	9014	0.63	69.0	20.6	C
11	1.00	0.908	5671	9014	0.63	69.0	20.6	C
12	1.00	0.908	5671	9014	0.63	69.0	20.6	C

Segment 15: Basic

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	0.908	5273	9014	0.58	69.9	18.9	C							
2	1.00	0.908	5273	9014	0.58	69.9	18.9	C							
3	1.00	0.908	5273	9014	0.58	69.9	18.9	C							
4	1.00	0.908	5273	9014	0.58	69.9	18.9	C							
5	1.00	0.908	5559	9014	0.62	69.3	20.1	C							
6	1.00	0.908	5559	9014	0.62	69.3	20.1	C							
7	1.00	0.908	5559	9014	0.62	69.3	20.1	C							
8	1.00	0.908	5559	9014	0.62	69.3	20.1	C							
9	1.00	0.908	5671	9014	0.63	69.0	20.6	C							
10	1.00	0.908	5671	9014	0.63	69.0	20.6	C							
11	1.00	0.908	5671	9014	0.63	69.0	20.6	C							
12	1.00	0.908	5671	9014	0.63	69.0	20.6	C							

Segment 16: Basic

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	0.908	5273	9014	0.58	69.9	18.9	C							
2	1.00	0.908	5273	9014	0.58	69.9	18.9	C							
3	1.00	0.908	5273	9014	0.58	69.9	18.9	C							
4	1.00	0.908	5273	9014	0.58	69.9	18.9	C							
5	1.00	0.908	5559	9014	0.62	69.3	20.1	C							
6	1.00	0.908	5559	9014	0.62	69.3	20.1	C							
7	1.00	0.908	5559	9014	0.62	69.3	20.1	C							
8	1.00	0.908	5559	9014	0.62	69.3	20.1	C							
9	1.00	0.908	5671	9014	0.63	69.0	20.6	C							
10	1.00	0.908	5671	9014	0.63	69.0	20.6	C							
11	1.00	0.908	5671	9014	0.63	69.0	20.6	C							
12	1.00	0.908	5671	9014	0.63	69.0	20.6	C							

Segment 17: Diverge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.908	0.923	5273	519	7507	3944	0.70	0.13	68.7	60.3	19.2	8.9	A
2	1.00	1.00	0.908	0.923	5273	519	7507	3944	0.70	0.13	68.7	60.3	19.2	8.9	A
3	1.00	1.00	0.908	0.923	5273	519	7507	3944	0.70	0.13	68.7	60.3	19.2	8.9	A
4	1.00	1.00	0.908	0.923	5273	519	7507	3944	0.70	0.13	68.7	60.3	19.2	8.9	A

5	1.00	1.00	0.908	0.923	5559	547	7507	3944	0.74	0.14	68.5	60.2	20.3	9.9	A
6	1.00	1.00	0.908	0.923	5559	547	7507	3944	0.74	0.14	68.5	60.2	20.3	9.9	A
7	1.00	1.00	0.908	0.923	5559	547	7507	3944	0.74	0.14	68.5	60.2	20.3	9.9	A
8	1.00	1.00	0.908	0.923	5559	547	7507	3944	0.74	0.14	68.5	60.2	20.3	9.9	A
9	1.00	1.00	0.908	0.923	5671	558	7507	3944	0.76	0.14	68.5	60.2	20.7	10.3	B
10	1.00	1.00	0.908	0.923	5671	558	7507	3944	0.76	0.14	68.5	60.2	20.7	10.3	B
11	1.00	1.00	0.908	0.923	5671	558	7507	3944	0.76	0.14	68.5	60.2	20.7	10.3	B
12	1.00	1.00	0.908	0.923	5671	558	7507	3944	0.76	0.14	68.5	60.2	20.7	10.3	B

Segment 18: Basic

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	1.00		0.907		4751		9014		0.53		70.8		16.8		B
2	1.00		0.907		4751		9014		0.53		70.8		16.8		B
3	1.00		0.907		4751		9014		0.53		70.8		16.8		B
4	1.00		0.907		4751		9014		0.53		70.8		16.8		B
5	1.00		0.907		5009		9014		0.56		70.4		17.8		B
6	1.00		0.907		5009		9014		0.56		70.4		17.8		B
7	1.00		0.907		5009		9014		0.56		70.4		17.8		B
8	1.00		0.907		5009		9014		0.56		70.4		17.8		B
9	1.00		0.907		5109		9014		0.57		70.3		18.2		C
10	1.00		0.907		5109		9014		0.57		70.3		18.2		C
11	1.00		0.907		5109		9014		0.57		70.3		18.2		C
12	1.00		0.907		5109		9014		0.57		70.3		18.2		C

Segment 19: Basic

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	1.00		0.907		4751		9014		0.53		70.8		16.8		B
2	1.00		0.907		4751		9014		0.53		70.8		16.8		B
3	1.00		0.907		4751		9014		0.53		70.8		16.8		B
4	1.00		0.907		4751		9014		0.53		70.8		16.8		B
5	1.00		0.907		5009		9014		0.56		70.4		17.8		B
6	1.00		0.907		5009		9014		0.56		70.4		17.8		B
7	1.00		0.907		5009		9014		0.56		70.4		17.8		B
8	1.00		0.907		5009		9014		0.56		70.4		17.8		B
9	1.00		0.907		5109		9014		0.57		70.3		18.2		C
10	1.00		0.907		5109		9014		0.57		70.3		18.2		C
11	1.00		0.907		5109		9014		0.57		70.3		18.2		C
12	1.00		0.907		5109		9014		0.57		70.3		18.2		C

Segment 20: Diverge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	

1	1.00	1.00	0.907	0.918	4751	2528	7507	3944	0.63	0.64	60.0	55.0	19.8	20.1	C
2	1.00	1.00	0.907	0.918	4751	2528	7507	3944	0.63	0.64	60.0	55.0	19.8	20.1	C
3	1.00	1.00	0.907	0.918	4751	2528	7507	3944	0.63	0.64	60.0	55.0	19.8	20.1	C
4	1.00	1.00	0.907	0.918	4751	2528	7507	3944	0.63	0.64	60.0	55.0	19.8	20.1	C
5	1.00	1.00	0.907	0.918	5009	2666	7507	3944	0.67	0.68	59.6	54.6	21.0	21.7	C
6	1.00	1.00	0.907	0.918	5009	2666	7507	3944	0.67	0.68	59.6	54.6	21.0	21.7	C
7	1.00	1.00	0.907	0.918	5009	2666	7507	3944	0.67	0.68	59.6	54.6	21.0	21.7	C
8	1.00	1.00	0.907	0.918	5009	2666	7507	3944	0.67	0.68	59.6	54.6	21.0	21.7	C
9	1.00	1.00	0.907	0.918	5109	2719	7507	3944	0.68	0.69	59.6	54.5	21.4	22.3	C
10	1.00	1.00	0.907	0.918	5109	2719	7507	3944	0.68	0.69	59.6	54.5	21.4	22.3	C
11	1.00	1.00	0.907	0.918	5109	2719	7507	3944	0.68	0.69	59.6	54.5	21.4	22.3	C
12	1.00	1.00	0.907	0.918	5109	2719	7507	3944	0.68	0.69	59.6	54.5	21.4	22.3	C

Segment 21: Basic

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	1.00		0.894		2224		6761		0.33		69.4		10.4		A
2	1.00		0.894		2224		6761		0.33		69.4		10.4		A
3	1.00		0.894		2224		6761		0.33		69.4		10.4		A
4	1.00		0.894		2224		6761		0.33		69.4		10.4		A
5	1.00		0.894		2345		6761		0.35		69.4		11.0		A
6	1.00		0.894		2345		6761		0.35		69.4		11.0		A
7	1.00		0.894		2345		6761		0.35		69.4		11.0		A
8	1.00		0.894		2345		6761		0.35		69.4		11.0		A
9	1.00		0.894		2391		6761		0.35		69.4		11.2		B
10	1.00		0.894		2391		6761		0.35		69.4		11.2		B
11	1.00		0.894		2391		6761		0.35		69.4		11.2		B
12	1.00		0.894		2391		6761		0.35		69.4		11.2		B

Segment 22: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.899	0.917	2801	590	5918	1972	0.47	0.30	64.6	62.4	14.5	16.7	B
2	1.00	1.00	0.899	0.917	2801	590	5918	1972	0.47	0.30	64.6	62.4	14.5	16.7	B
3	1.00	1.00	0.899	0.917	2801	590	5918	1972	0.47	0.30	64.6	62.4	14.5	16.7	B
4	1.00	1.00	0.899	0.917	2801	590	5918	1972	0.47	0.30	64.6	62.4	14.5	16.7	B
5	1.00	1.00	0.899	0.917	2953	622	5918	1972	0.50	0.32	64.5	62.4	15.3	17.4	B
6	1.00	1.00	0.899	0.917	2953	622	5918	1972	0.50	0.32	64.5	62.4	15.3	17.4	B
7	1.00	1.00	0.899	0.917	2953	622	5918	1972	0.50	0.32	64.5	62.4	15.3	17.4	B
8	1.00	1.00	0.899	0.917	2953	622	5918	1972	0.50	0.32	64.5	62.4	15.3	17.4	B
9	1.00	1.00	0.899	0.917	3012	634	5918	1972	0.51	0.32	64.4	62.3	15.6	17.8	B
10	1.00	1.00	0.899	0.917	3012	634	5918	1972	0.51	0.32	64.4	62.3	15.6	17.8	B
11	1.00	1.00	0.899	0.917	3012	634	5918	1972	0.51	0.32	64.4	62.3	15.6	17.8	B

12	1.00	1.00	0.899	0.917	3012	634	5918	1972	0.51	0.32	64.4	62.3	15.6	17.8	B
Segment 23: Basic															
AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS							
1	1.00	0.899	2813	6761	0.42	70.6	13.2	B							
2	1.00	0.899	2813	6761	0.42	70.6	13.2	B							
3	1.00	0.899	2813	6761	0.42	70.6	13.2	B							
4	1.00	0.899	2813	6761	0.42	70.6	13.2	B							
5	1.00	0.899	2966	6761	0.44	70.6	13.9	B							
6	1.00	0.899	2966	6761	0.44	70.6	13.9	B							
7	1.00	0.899	2966	6761	0.44	70.6	13.9	B							
8	1.00	0.899	2966	6761	0.44	70.6	13.9	B							
9	1.00	0.899	3024	6761	0.45	70.6	14.2	B							
10	1.00	0.899	3024	6761	0.45	70.6	14.2	B							
11	1.00	0.899	3024	6761	0.45	70.6	14.2	B							
12	1.00	0.899	3024	6761	0.45	70.6	14.2	B							

Facility Analysis Results									
AP	VMT veh-mi/AP	VMT-Demand veh-mi/AP	VHD veh-h/AP	Total Delay Cost \$/AP	Speed mi/h	Density pc/mi/ln	Density veh/mi/ln	TT min	LOS
1	26034	25909	8.94	223.54	69.5	18.5	16.8	19.70	C
2	26034	25909	8.94	223.54	69.5	18.5	16.8	19.70	C
3	26034	25909	8.94	223.54	69.5	18.5	16.8	19.70	C
4	26034	25909	8.94	223.54	69.5	18.5	16.8	19.70	C
5	27446	27314	13.06	326.53	68.9	19.7	17.9	19.90	C
6	27446	27314	13.06	326.53	68.9	19.7	17.9	19.90	C
7	27446	27314	13.06	326.53	68.9	19.7	17.9	19.90	C
8	27446	27314	13.06	326.53	68.9	19.7	17.9	19.90	C
9	27996	27861	15.21	380.15	68.6	20.2	18.3	19.90	C
10	27996	27861	15.21	380.15	68.6	20.2	18.3	19.90	C
11	27996	27861	15.21	380.15	68.6	20.2	18.3	19.90	C
12	27996	27861	15.21	380.15	68.6	20.2	18.3	19.90	C

Facility Overall Results			
Space Mean Speed, mi/h	69.0	Average Density, veh/mi/ln	17.7
Average Travel Time, min	19.80	Average Density, pc/mi/ln	19.5
Total VMT, veh-mi	325902	Total VHD, veh-h	148.83
Vehicle Value of Time (VOT), \$/h	25.00	Total Delay Cost, \$	3720.84

APPENDIX X – 2040 BUILD HCS OUTPUT REPORTS

I-75 South Section - Northbound

HCS Freeway Facilities Report

Project Information

Analyst	Kittelson & Associate	Date	11/27/2023
Agency	Florida Department of Transportation	Analysis Year	2040 Build Conditions
Jurisdiction	District Five	Time Analyzed	AM Weekday Peak Period
Facility Name	I-75 (Northbound)	Units	U.S. Customary
Project Description	I-75 PD&E South Auxiliary Lanes		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	24
Total Analysis Periods	12	Analysis Period Duration, min	15
Facility Length, mi	22.97		

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	I-75 NB	1500	3
2	Diverge	Diverge	I-75 NB SR 44 Off Ramp	1500	3
3	Basic	Basic	I-75 NB	2400	3
4	Merge	Merge	I-75 NB Turnpike On Ramp	1500	5
5	Basic	Basic	I-75 NB	1945	5
6	Basic	Basic	I-75 NB	2346	5
7	Merge	Merge	I-75 NB SR 44 On Ramp	1500	5
8	Basic	Basic	I-75 NB	1500	5
9	Basic	Basic	I-75 NB	4430	5
10	Basic	Basic	I-75 NB	44795	4
11	Basic	Basic	I-75 NB	1500	4
12	Basic	Basic	I-75 NB	1500	4
13	Diverge	Basic	I-75 NB CR 484 Off Ramp	1500	4
14	Basic	Basic	I-75 NB	2936	3
15	Merge	Basic	I-75 NB CR 484 On Ramp	1500	4
16	Basic	Basic	I-75 NB	1500	4
17	Basic	Basic	I-75 NB	1500	4
18	Basic	Basic	I-75 NB	35183	4
19	Basic	Basic	I-75 B	1500	4
20	Basic	Basic	I-75 NB	1500	4
21	Diverge	Basic	I-75 NB SR 200 Off Ramp	1500	4
22	Basic	Basic	I-75 NB	3265	3
23	Merge	Basic	I-75 NB SR 200 On Ramp	1500	4
24	Basic	Basic	I-75 NB	1490	4

Facility Segment Data															
Segment 1: Basic															
AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	1.00		0.907		2036		6761		0.30		71.2		9.5		A
2	1.00		0.907		2289		6761		0.34		71.2		10.7		A
3	1.00		0.907		2707		6761		0.40		71.2		12.7		B
4	1.00		0.907		3092		6761		0.46		71.2		14.5		B
5	1.00		0.907		2913		6761		0.43		71.2		13.6		B
6	1.00		0.907		2949		6761		0.44		71.2		13.8		B
7	1.00		0.907		3362		6761		0.50		71.0		15.8		B
8	1.00		0.907		3257		6761		0.48		71.1		15.3		B
9	1.00		0.907		3219		6761		0.48		71.2		15.1		B
10	1.00		0.907		3179		6761		0.47		71.2		14.9		B
11	1.00		0.907		3100		6761		0.46		71.2		14.5		B
12	1.00		0.907		2954		6761		0.44		71.2		13.8		B
Segment 2: Diverge															
AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.907	0.912	2036	428	5918	1972	0.34	0.22	64.0	60.5	10.6	11.2	B
2	1.00	1.00	0.907	0.912	2289	481	5918	1972	0.39	0.24	64.1	60.4	11.9	12.7	B
3	1.00	1.00	0.907	0.912	2707	569	5918	1972	0.46	0.29	64.1	60.2	14.1	15.1	B
4	1.00	1.00	0.907	0.912	3092	650	5918	1972	0.52	0.33	64.1	60.0	16.1	17.3	B
5	1.00	1.00	0.907	0.912	2913	612	5918	1972	0.49	0.31	64.0	60.0	15.2	16.3	B
6	1.00	1.00	0.907	0.912	2949	620	5918	1972	0.50	0.31	64.0	60.0	15.4	16.5	B
7	1.00	1.00	0.907	0.912	3362	706	5918	1972	0.57	0.36	64.0	59.8	17.5	18.7	B
8	1.00	1.00	0.907	0.912	3257	684	5918	1972	0.55	0.35	64.1	59.9	16.9	18.2	B
9	1.00	1.00	0.907	0.912	3219	677	5918	1972	0.54	0.34	64.0	59.9	16.8	17.9	B
10	1.00	1.00	0.907	0.912	3179	668	5918	1972	0.54	0.34	64.0	59.9	16.6	17.7	B
11	1.00	1.00	0.907	0.912	3100	651	5918	1972	0.52	0.33	64.1	60.0	16.1	17.3	B
12	1.00	1.00	0.907	0.912	2954	621	5918	1972	0.50	0.31	64.0	60.0	15.4	16.5	B
Segment 3: Basic															
AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	1.00		0.905		1610		6761		0.24		70.9		7.5		A
2	1.00		0.905		1809		6761		0.27		70.9		8.5		A
3	1.00		0.905		2139		6761		0.32		70.9		10.0		A
4	1.00		0.905		2443		6761		0.36		70.9		11.4		B
5	1.00		0.905		2303		6761		0.34		70.9		10.8		A
6	1.00		0.905		2331		6761		0.34		70.9		10.9		A
7	1.00		0.905		2656		6761		0.39		70.9		12.4		B

8	1.00	0.905	2573	6761	0.38	70.9	12.0	B
9	1.00	0.905	2543	6761	0.38	70.9	11.9	B
10	1.00	0.905	2510	6761	0.37	70.9	11.8	B
11	1.00	0.905	2449	6761	0.36	70.9	11.5	B
12	1.00	0.905	2334	6761	0.35	70.9	10.9	A

Segment 4: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.913	0.918	3793	2197	9384	3944	0.40	0.56	65.4	63.9	10.5	16.2	B
2	1.00	1.00	0.913	0.918	4262	2469	9384	3944	0.45	0.63	64.8	63.2	11.9	18.6	B
3	1.00	1.00	0.913	0.918	5039	2919	9384	3944	0.54	0.74	63.4	61.5	14.4	22.7	C
4	1.00	1.00	0.913	0.918	5758	3336	9384	3944	0.61	0.85	61.1	58.8	17.1	26.5	C
5	1.00	1.00	0.913	0.918	5425	3142	9384	3944	0.58	0.80	62.3	60.2	15.8	24.8	C
6	1.00	1.00	0.913	0.918	5493	3182	9384	3944	0.59	0.81	62.0	59.9	16.1	25.1	C
7	1.00	1.00	0.913	0.918	6283	3627	9384	3944	0.67	0.92	58.5	55.8	19.5	29.2	D
8	1.00	1.00	0.913	0.918	6086	3513	9384	3944	0.65	0.89	59.5	57.0	18.6	28.2	D
9	1.00	1.00	0.913	0.918	6017	3474	9384	3944	0.64	0.88	59.9	57.4	18.2	27.8	C
10	1.00	1.00	0.913	0.918	5939	3429	9384	3944	0.63	0.87	60.3	57.9	17.9	27.4	C
11	1.00	1.00	0.913	0.918	5794	3345	9384	3944	0.62	0.85	60.9	58.6	17.3	26.7	C
12	1.00	1.00	0.913	0.918	5520	3186	9384	3944	0.59	0.81	62.0	59.9	16.2	25.2	C

Segment 5: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.913	3805	11268	0.34	70.8	10.7	A
2	1.00	0.913	4276	11268	0.38	70.8	12.0	B
3	1.00	0.913	5056	11268	0.45	70.7	14.2	B
4	1.00	0.913	5775	11268	0.51	70.6	16.3	B
5	1.00	0.913	5441	11268	0.48	70.7	15.3	B
6	1.00	0.913	5510	11268	0.49	70.6	15.5	B
7	1.00	0.913	6283	11268	0.56	70.4	17.8	B
8	1.00	0.913	6086	11268	0.54	70.5	17.2	B
9	1.00	0.913	6017	11268	0.53	70.5	17.0	B
10	1.00	0.913	5939	11268	0.53	70.5	16.8	B
11	1.00	0.913	5794	11268	0.51	70.6	16.3	B
12	1.00	0.913	5520	11268	0.49	70.6	15.5	B

Segment 6: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.913	3805	11268	0.34	71.2	10.7	A
2	1.00	0.913	4276	11268	0.38	71.2	12.0	B
3	1.00	0.913	5056	11268	0.45	71.2	14.2	B

4	1.00	0.913	5775	11268	0.51	70.9	16.3	B
5	1.00	0.913	5441	11268	0.48	71.1	15.3	B
6	1.00	0.913	5510	11268	0.49	71.1	15.5	B
7	1.00	0.913	6283	11268	0.56	70.4	17.8	B
8	1.00	0.913	6086	11268	0.54	70.6	17.2	B
9	1.00	0.913	6017	11268	0.53	70.7	17.0	B
10	1.00	0.913	5939	11268	0.53	70.8	16.8	B
11	1.00	0.913	5794	11268	0.51	70.9	16.3	B
12	1.00	0.913	5520	11268	0.49	71.1	15.5	B

Segment 7: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.910	0.884	4272	454	9384	3944	0.46	0.12	67.4	65.0	10.2	8.8	A
2	1.00	1.00	0.910	0.884	4800	510	9384	3944	0.51	0.13	67.2	64.9	11.5	10.3	B
3	1.00	1.00	0.910	0.884	5676	603	9384	3944	0.60	0.15	66.7	64.6	13.7	12.9	B
4	1.00	1.00	0.910	0.884	6484	689	9384	3944	0.69	0.17	66.3	64.3	15.4	14.9	B
5	1.00	1.00	0.910	0.884	6108	649	9384	3944	0.65	0.16	66.4	64.4	14.8	14.2	B
6	1.00	1.00	0.910	0.884	6186	657	9384	3944	0.66	0.17	66.5	64.4	14.6	14.1	B
7	1.00	1.00	0.910	0.884	7033	750	9384	3944	0.75	0.19	65.9	64.0	16.8	16.5	B
8	1.00	1.00	0.910	0.884	6812	726	9384	3944	0.73	0.18	66.1	64.1	16.2	15.9	B
9	1.00	1.00	0.910	0.884	6735	718	9384	3944	0.72	0.18	66.1	64.1	16.0	15.7	B
10	1.00	1.00	0.910	0.884	6648	709	9384	3944	0.71	0.18	66.2	64.2	15.8	15.4	B
11	1.00	1.00	0.910	0.884	6485	691	9384	3944	0.69	0.18	66.3	64.3	15.4	15.0	B
12	1.00	1.00	0.910	0.884	6178	658	9384	3944	0.66	0.17	66.5	64.4	14.6	14.1	B

Segment 8: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.910	4258	11268	0.38	70.9	12.0	B
2	1.00	0.910	4786	11268	0.42	70.8	13.4	B
3	1.00	0.910	5658	11268	0.50	70.8	15.9	B
4	1.00	0.910	6464	11268	0.57	70.1	18.4	C
5	1.00	0.910	6090	11268	0.54	70.6	17.3	B
6	1.00	0.910	6167	11268	0.55	70.6	17.5	B
7	1.00	0.910	7033	11268	0.62	69.1	20.4	C
8	1.00	0.910	6812	11268	0.60	69.5	19.6	C
9	1.00	0.910	6735	11268	0.60	69.7	19.3	C
10	1.00	0.910	6648	11268	0.59	69.8	19.0	C
11	1.00	0.910	6485	11268	0.58	70.1	18.5	C
12	1.00	0.910	6178	11268	0.55	70.5	17.5	B

Segment 9: Basic

AP	PHF	fHV	Flow Rate	Capacity	d/c	Speed	Density	LOS
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			(pc/h)	(pc/h)	Ratio	(mi/h)	(pc/mi/ln)	
1	1.00	0.910	4258	11268	0.38	71.2	12.0	B
2	1.00	0.910	4786	11268	0.42	71.2	13.4	B
3	1.00	0.910	5658	11268	0.50	71.0	15.9	B
4	1.00	0.910	6464	11268	0.57	70.1	18.4	C
5	1.00	0.910	6090	11268	0.54	70.6	17.3	B
6	1.00	0.910	6167	11268	0.55	70.6	17.5	B
7	1.00	0.910	7033	11268	0.62	69.1	20.4	C
8	1.00	0.910	6812	11268	0.60	69.5	19.6	C
9	1.00	0.910	6735	11268	0.60	69.7	19.3	C
10	1.00	0.910	6648	11268	0.59	69.8	19.0	C
11	1.00	0.910	6485	11268	0.58	70.1	18.5	C
12	1.00	0.910	6178	11268	0.55	70.5	17.5	B

Segment 10: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.910	4258	9014	0.47	71.2	14.9	B
2	1.00	0.910	4786	9014	0.53	70.8	16.9	B
3	1.00	0.910	5658	9014	0.63	69.0	20.5	C
4	1.00	0.910	6464	9014	0.72	66.2	24.4	C
5	1.00	0.910	6090	9014	0.68	67.7	22.5	C
6	1.00	0.910	6167	9014	0.68	67.4	22.9	C
7	1.00	0.910	7033	9014	0.78	63.6	27.6	D
8	1.00	0.910	6812	9014	0.76	64.7	26.3	D
9	1.00	0.910	6735	9014	0.75	65.1	25.9	C
10	1.00	0.910	6613	9014	0.74	65.6	25.2	F
11	1.00	0.910	6520	9014	0.72	66.0	24.7	C
12	1.00	0.910	6178	9014	0.69	67.3	22.9	C

Segment 11: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.910	4258	9014	0.47	71.2	14.9	B
2	1.00	0.910	4786	9014	0.53	70.8	16.9	B
3	1.00	0.910	5658	9014	0.63	69.0	20.5	C
4	1.00	0.910	6464	9014	0.72	66.2	24.4	C
5	1.00	0.910	6090	9014	0.68	67.7	22.5	C
6	1.00	0.910	6167	9014	0.68	67.4	22.9	C
7	1.00	0.910	7033	9014	0.78	63.6	27.6	D
8	1.00	0.910	6691	9014	0.76	65.3	25.6	F
9	1.00	0.910	6600	9014	0.75	25.3	65.2	F
10	1.00	0.910	6602	9014	0.74	21.6	76.4	F
11	1.00	0.910	6613	9014	0.72	23.3	71.0	F

12	1.00	0.910	6351	9014	0.69	66.7	23.8	C							
Segment 12: Basic															
AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)		LOS			
1	1.00	0.910	4258	9014	0.47	71.2	14.9	B							
2	1.00	0.910	4786	9014	0.53	70.8	16.9	B							
3	1.00	0.910	5658	9014	0.63	69.0	20.5	C							
4	1.00	0.910	6464	9014	0.72	66.2	24.4	C							
5	1.00	0.910	6090	9014	0.68	67.7	22.5	C							
6	1.00	0.910	6167	9014	0.68	67.4	22.9	C							
7	1.00	0.910	6839	9014	0.78	64.6	26.5	F							
8	1.00	0.910	6623	9014	0.76	20.8	79.5	F							
9	1.00	0.910	6599	9014	0.75	20.2	81.5	F							
10	1.00	0.910	6599	9014	0.74	20.4	81.0	F							
11	1.00	0.910	6609	9014	0.72	20.4	81.0	F							
12	1.00	0.910	6622	9014	0.69	65.6	25.2	C							
Segment 13: Diverge															
AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.910	0.932	4258	309	7507	1972	0.57	0.16	68.4	68.4	15.6	15.6	B
2	1.00	1.00	0.910	0.932	4786	348	7507	1972	0.64	0.18	66.0	66.0	18.1	18.1	C
3	1.00	1.00	0.910	0.932	5658	411	7507	1972	0.75	0.21	60.4	60.4	23.4	23.4	C
4	1.00	1.00	0.910	0.932	6464	470	7507	1972	0.86	0.24	53.4	53.4	30.3	30.3	D
5	1.00	1.00	0.910	0.932	6090	443	7507	1972	0.81	0.22	56.9	56.9	26.7	26.7	D
6	1.00	1.00	0.910	0.932	6167	448	7507	1972	0.82	0.23	56.1	56.1	27.5	27.5	D
7	1.00	1.00	0.910	0.932	6722	511	7507	1972	0.94	0.26	32.3	32.3	52.1	52.1	F
8	1.00	1.00	0.910	0.932	6609	495	7507	1972	0.91	0.25	27.0	27.0	61.1	61.1	F
9	1.00	1.00	0.910	0.932	6594	489	7507	1972	0.90	0.25	26.5	26.5	62.2	62.2	F
10	1.00	1.00	0.910	0.932	6595	483	7507	1972	0.89	0.24	26.5	26.5	62.2	62.2	F
11	1.00	1.00	0.910	0.932	6601	471	7507	1972	0.86	0.24	26.9	26.9	61.4	61.4	F
12	1.00	1.00	0.910	0.932	6610	448	7507	1972	0.82	0.23	27.1	27.1	61.1	61.1	F
Segment 14: Basic															
AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)		LOS			
1	1.00	0.908	3950	6761	0.58	70.0	18.8	C							
2	1.00	0.908	4439	6761	0.66	68.2	21.7	C							
3	1.00	0.908	5249	6761	0.78	63.8	27.4	D							
4	1.00	0.908	5996	6761	0.89	57.9	34.5	D							
5	1.00	0.908	5649	6761	0.84	60.8	31.0	D							
6	1.00	0.908	5720	6761	0.85	60.3	31.6	D							
7	1.00	0.908	6107	6761	0.96	35.9	56.7	F							

8	1.00	0.908	6109	6761	0.93	34.6	58.9	F
9	1.00	0.908	6109	6761	0.92	34.5	59.0	F
10	1.00	0.908	6109	6761	0.91	34.5	59.0	F
11	1.00	0.908	6109	6761	0.89	34.6	58.9	F
12	1.00	0.908	6109	6761	0.85	34.6	58.9	F

Segment 15: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.914	0.940	4828	903	7507	1972	0.64	0.46	65.8	65.8	18.3	18.3	C
2	1.00	1.00	0.914	0.940	5425	1015	7507	1972	0.72	0.51	62.1	62.1	21.8	21.8	C
3	1.00	1.00	0.914	0.940	6414	1200	7507	1972	0.85	0.61	53.9	53.9	29.7	29.7	D
4	1.00	1.00	0.914	0.940	7326	1370	7507	1972	0.98	0.69	43.9	43.9	41.7	41.7	E
5	1.00	1.00	0.914	0.940	6903	1291	7507	1972	0.92	0.65	48.8	48.8	35.4	35.4	E
6	1.00	1.00	0.914	0.940	6990	1307	7507	1972	0.93	0.66	47.9	47.9	36.5	36.5	E
7	1.00	1.00	0.914	0.940	6990	1490	7507	1972	1.06	0.76	62.8	62.8	30.2	30.2	F
8	1.00	1.00	0.914	0.940	6982	1444	7507	1972	1.03	0.73	62.9	62.9	30.0	30.0	F
9	1.00	1.00	0.914	0.940	6982	1428	7507	1972	1.02	0.72	63.0	63.0	29.9	29.9	F
10	1.00	1.00	0.914	0.940	6982	1409	7507	1972	1.00	0.71	63.1	63.1	29.8	29.8	D
11	1.00	1.00	0.914	0.940	6982	1374	7507	1972	0.98	0.70	63.2	63.2	29.6	29.6	D
12	1.00	1.00	0.914	0.940	6982	1310	7507	1972	0.93	0.66	63.4	63.4	29.3	29.3	D

Segment 16: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.914	4853	9014	0.54	70.7	17.2	B
2	1.00	0.914	5454	9014	0.61	69.5	19.6	C
3	1.00	0.914	6449	9014	0.72	66.3	24.3	C
4	1.00	0.914	7365	9014	0.82	61.8	29.8	D
5	1.00	0.914	6940	9014	0.77	64.1	27.1	D
6	1.00	0.914	7027	9014	0.78	63.6	27.6	D
7	1.00	0.914	6990	9014	0.89	63.8	27.4	D
8	1.00	0.914	6982	9014	0.86	63.9	27.3	D
9	1.00	0.914	6982	9014	0.85	63.9	27.3	D
10	1.00	0.914	6982	9014	0.84	63.9	27.3	D
11	1.00	0.914	6982	9014	0.82	63.9	27.3	D
12	1.00	0.914	6982	9014	0.78	63.9	27.3	D

Segment 17: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.914	4853	9014	0.54	70.7	17.2	B
2	1.00	0.914	5454	9014	0.61	69.5	19.6	C
3	1.00	0.914	6449	9014	0.72	66.3	24.3	C

4	1.00	0.914	7365	9014	0.82	61.8	29.8	D
5	1.00	0.914	6940	9014	0.77	64.1	27.1	D
6	1.00	0.914	7027	9014	0.78	63.6	27.6	D
7	1.00	0.914	6990	9014	0.89	63.8	27.4	D
8	1.00	0.914	6982	9014	0.86	63.9	27.3	D
9	1.00	0.914	6982	9014	0.85	63.9	27.3	D
10	1.00	0.914	6982	9014	0.84	63.9	27.3	D
11	1.00	0.914	6982	9014	0.82	63.9	27.3	D
12	1.00	0.914	6982	9014	0.78	63.9	27.3	D

Segment 18: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.914	4853	9014	0.54	70.7	17.2	B
2	1.00	0.914	5454	9014	0.61	69.5	19.6	C
3	1.00	0.914	6449	9014	0.72	66.3	24.3	C
4	1.00	0.914	7365	9014	0.82	61.8	29.8	D
5	1.00	0.914	6940	9014	0.77	64.1	27.1	D
6	1.00	0.914	7027	9014	0.78	63.6	27.6	D
7	1.00	0.914	6990	9014	0.89	63.8	27.4	D
8	1.00	0.914	6982	9014	0.86	63.9	27.3	D
9	1.00	0.914	6982	9014	0.85	63.9	27.3	D
10	1.00	0.914	6982	9014	0.84	63.9	27.3	D
11	1.00	0.914	6982	9014	0.82	63.9	27.3	D
12	1.00	0.914	6982	9014	0.78	63.9	27.3	D

Segment 19: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.914	4853	9014	0.54	70.7	17.2	B
2	1.00	0.914	5454	9014	0.61	69.5	19.6	C
3	1.00	0.914	6449	9014	0.72	66.3	24.3	C
4	1.00	0.914	7365	9014	0.82	61.8	29.8	D
5	1.00	0.914	6940	9014	0.77	64.1	27.1	D
6	1.00	0.914	7027	9014	0.78	63.6	27.6	D
7	1.00	0.914	6990	9014	0.89	63.8	27.4	D
8	1.00	0.914	6982	9014	0.86	63.9	27.3	D
9	1.00	0.914	6982	9014	0.85	63.9	27.3	D
10	1.00	0.914	6982	9014	0.84	63.9	27.3	D
11	1.00	0.914	6982	9014	0.82	63.9	27.3	D
12	1.00	0.914	6982	9014	0.78	63.9	27.3	D

Segment 20: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
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1	1.00	0.914	4853	9014	0.54	70.7	17.2	B
2	1.00	0.914	5454	9014	0.61	69.5	19.6	C
3	1.00	0.914	6449	9014	0.72	66.3	24.3	C
4	1.00	0.914	7365	9014	0.82	61.8	29.8	D
5	1.00	0.914	6940	9014	0.77	64.1	27.1	D
6	1.00	0.914	7027	9014	0.78	63.6	27.6	D
7	1.00	0.914	6990	9014	0.89	63.8	27.4	D
8	1.00	0.914	6982	9014	0.86	63.9	27.3	D
9	1.00	0.914	6982	9014	0.85	63.9	27.3	D
10	1.00	0.914	6982	9014	0.84	63.9	27.3	D
11	1.00	0.914	6982	9014	0.82	63.9	27.3	D
12	1.00	0.914	6982	9014	0.78	63.9	27.3	D

Segment 21: Diverge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.914	0.951	4853	702	7507	1972	0.65	0.36	65.6	65.6	18.5	18.5	C
2	1.00	1.00	0.914	0.951	5454	789	7507	1972	0.73	0.40	61.9	61.9	22.0	22.0	C
3	1.00	1.00	0.914	0.951	6449	933	7507	1972	0.86	0.47	53.5	53.5	30.1	30.1	D
4	1.00	1.00	0.914	0.951	7365	1066	7507	1972	0.98	0.54	43.5	43.5	42.3	42.3	E
5	1.00	1.00	0.914	0.951	6940	1004	7507	1972	0.92	0.51	48.4	48.4	35.8	35.8	E
6	1.00	1.00	0.914	0.951	7027	1017	7507	1972	0.94	0.52	47.4	47.4	37.1	37.1	E
7	1.00	1.00	0.914	0.951	6990	1159	7507	1972	1.07	0.59	65.5	65.5	26.7	26.7	F
8	1.00	1.00	0.914	0.951	6982	1123	7507	1972	1.03	0.57	65.6	65.6	26.6	26.6	F
9	1.00	1.00	0.914	0.951	6982	1110	7507	1972	1.02	0.56	65.6	65.6	26.6	26.6	F
10	1.00	1.00	0.914	0.951	6982	1096	7507	1972	1.01	0.56	65.7	65.7	26.6	26.6	F
11	1.00	1.00	0.914	0.951	6982	1069	7507	1972	0.98	0.54	65.7	65.7	26.6	26.6	D
12	1.00	1.00	0.914	0.951	6982	1018	7507	1972	0.94	0.52	65.9	65.9	26.5	26.5	D

Segment 22: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.908	4150	6761	0.61	69.3	20.0	C
2	1.00	0.908	4664	6761	0.69	67.2	23.1	C
3	1.00	0.908	5514	6761	0.82	61.9	29.7	D
4	1.00	0.908	6297	6761	0.93	55.0	38.2	E
5	1.00	0.908	5934	6761	0.88	58.4	33.9	D
6	1.00	0.908	6009	6761	0.89	57.8	34.7	D
7	1.00	0.908	5979	6761	1.01	58.0	34.4	F
8	1.00	0.908	5972	6761	0.98	58.1	34.3	D
9	1.00	0.908	5971	6761	0.97	58.1	34.3	D
10	1.00	0.908	5972	6761	0.96	58.1	34.3	D
11	1.00	0.908	5971	6761	0.93	58.1	34.3	D

12	1.00	0.908	5971	6761	0.89	58.1	34.3	D
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Segment 23: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.915	0.967	4740	622	7507	1972	0.63	0.32	66.2	66.2	17.9	17.9	B
2	1.00	1.00	0.915	0.967	5327	699	7507	1972	0.71	0.35	62.8	62.8	21.2	21.2	C
3	1.00	1.00	0.915	0.967	6298	826	7507	1972	0.84	0.42	55.0	55.0	28.6	28.6	D
4	1.00	1.00	0.915	0.967	7193	944	7507	1972	0.96	0.48	45.5	45.5	39.5	39.5	E
5	1.00	1.00	0.915	0.967	6778	889	7507	1972	0.90	0.45	50.2	50.2	33.8	33.8	D
6	1.00	1.00	0.915	0.967	6864	901	7507	1972	0.91	0.46	49.2	49.2	34.9	34.9	D
7	1.00	1.00	0.915	0.967	7005	1026	7507	1972	1.04	0.52	64.3	64.3	27.2	27.2	F
8	1.00	1.00	0.915	0.967	6966	994	7507	1972	1.01	0.50	64.4	64.4	27.0	27.0	F
9	1.00	1.00	0.915	0.967	6953	982	7507	1972	1.00	0.50	64.4	64.4	27.0	27.0	D
10	1.00	1.00	0.915	0.967	6942	970	7507	1972	0.99	0.49	64.4	64.4	26.9	26.9	D
11	1.00	1.00	0.915	0.967	6917	946	7507	1972	0.96	0.48	64.5	64.5	26.8	26.8	D
12	1.00	1.00	0.915	0.967	6873	902	7507	1972	0.92	0.46	64.6	64.6	26.6	26.6	D

Segment 24: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.915	4775	9014	0.53	70.8	16.9	B
2	1.00	0.915	5367	9014	0.60	69.7	19.3	C
3	1.00	0.915	6345	9014	0.70	66.7	23.8	C
4	1.00	0.915	7247	9014	0.80	62.5	29.0	D
5	1.00	0.915	6828	9014	0.76	64.6	26.4	D
6	1.00	0.915	6915	9014	0.77	64.2	26.9	D
7	1.00	0.915	7005	9014	0.87	63.7	27.5	D
8	1.00	0.915	6966	9014	0.85	63.9	27.3	D
9	1.00	0.915	6953	9014	0.84	64.0	27.2	D
10	1.00	0.915	6942	9014	0.83	64.1	27.1	D
11	1.00	0.915	6917	9014	0.81	64.2	26.9	D
12	1.00	0.915	6873	9014	0.77	64.4	26.7	D

Facility Analysis Results

AP	VMT veh-mi/AP	VMT-Demand veh-mi/AP	VHD veh-h/AP	Total Delay Cost \$/AP	Speed mi/h	Density pc/mi/ln	Density veh/mi/ln	TT min	LOS
1	22764	22493	3.24	80.98	70.5	15.3	14.0	19.60	B
2	25583	25278	8.52	212.96	69.6	17.4	15.9	19.80	B
3	30247	29888	27.99	699.81	66.8	21.5	19.6	20.60	C
4	34550	34139	65.36	1633.90	62.8	26.1	23.8	22.00	D
5	32554	32166	44.77	1119.20	64.9	23.8	21.7	21.30	C
6	32965	32572	48.67	1216.76	64.4	24.3	22.1	21.40	C
7	35320	37135	71.07	1776.83	62.3	26.9	24.5	22.10	F

8	34687	35969	82.97	2074.19	60.8	27.1	24.7	22.70	F
9	34478	35562	92.53	2313.18	59.8	27.4	25.0	23.10	F
10	34185	35108	93.29	2332.20	59.6	27.2	24.8	23.10	F
11	33899	34245	90.01	2250.17	59.9	26.9	24.5	23.00	D
12	33020	32621	58.81	1470.34	63.2	24.8	22.6	21.80	C

Facility Overall Results

Space Mean Speed, mi/h	63.2	Average Density, veh/mi/ln	21.9
Average Travel Time, min	21.80	Average Density, pc/mi/ln	24.1
Total VMT, veh-mi	384252	Total VHD, veh-h	687.22
Vehicle Value of Time (VOT), \$/h	25.00	Total Delay Cost, \$	17180.52

HCS Freeway Facilities Report

Project Information

Analyst	Kittelson & Associate	Date	11/27/2023
Agency	Florida Department of Transportation	Analysis Year	2040 Build Conditions
Jurisdiction	District Five	Time Analyzed	PM Weekday Peak Period
Facility Name	I-75 (Northbound)	Units	U.S. Customary
Project Description	I-75 PD&E South Auxiliary Lanes		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	24
Total Analysis Periods	12	Analysis Period Duration, min	15
Facility Length, mi	22.97		

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	I-75 NB	1500	3
2	Diverge	Diverge	I-75 NB SR 44 Off Ramp	1500	3
3	Basic	Basic	I-75 NB	2400	3
4	Merge	Merge	I-75 NB Turnpike On Ramp	1500	5
5	Basic	Basic	I-75 NB	1945	5
6	Basic	Basic	I-75 NB	2346	5
7	Merge	Merge	I-75 NB SR 44 On Ramp	1500	5
8	Basic	Basic	I-75 NB	1500	5
9	Basic	Basic	I-75 NB	4430	5
10	Basic	Basic	I-75 NB	44795	4
11	Basic	Basic	I-75 NB	1500	4
12	Basic	Basic	I-75 NB	1500	4
13	Diverge	Basic	I-75 NB CR 484 Off Ramp	1500	4
14	Basic	Basic	I-75 NB	2936	3
15	Merge	Basic	I-75 NB CR 484 On Ramp	1500	4
16	Basic	Basic	I-75 NB	1500	4
17	Basic	Basic	I-75 NB	1500	4
18	Basic	Basic	I-75 NB	35183	4
19	Basic	Basic	I-75 B	1500	4
20	Basic	Basic	I-75 NB	1500	4
21	Diverge	Basic	I-75 NB SR 200 Off Ramp	1500	4
22	Basic	Basic	I-75 NB	3265	3
23	Merge	Basic	I-75 NB SR 200 On Ramp	1500	4
24	Basic	Basic	I-75 NB	1490	4

Facility Segment Data															
Segment 1: Basic															
AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	1.00		0.907		2881		6761		0.43		71.2		13.5		B
2	1.00		0.907		2719		6761		0.40		71.2		12.7		B
3	1.00		0.907		2797		6761		0.41		71.2		13.1		B
4	1.00		0.907		2635		6761		0.39		71.2		12.3		B
5	1.00		0.907		2259		6761		0.33		71.2		10.6		A
6	1.00		0.907		2520		6761		0.37		71.2		11.8		B
7	1.00		0.907		2595		6761		0.38		71.2		12.1		B
8	1.00		0.907		2675		6761		0.40		71.2		12.5		B
9	1.00		0.907		2580		6761		0.38		71.2		12.1		B
10	1.00		0.907		2441		6761		0.36		71.2		11.4		B
11	1.00		0.907		2374		6761		0.35		71.2		11.1		B
12	1.00		0.907		2232		6761		0.33		71.2		10.4		A
Segment 2: Diverge															
AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.907	0.912	2881	759	5918	1972	0.49	0.38	63.5	59.7	15.1	16.4	B
2	1.00	1.00	0.907	0.912	2719	716	5918	1972	0.46	0.36	63.5	59.8	14.3	15.5	B
3	1.00	1.00	0.907	0.912	2797	737	5918	1972	0.47	0.37	63.5	59.7	14.7	15.9	B
4	1.00	1.00	0.907	0.912	2635	694	5918	1972	0.45	0.35	63.5	59.8	13.8	15.0	B
5	1.00	1.00	0.907	0.912	2259	595	5918	1972	0.38	0.30	63.6	60.1	11.8	12.7	B
6	1.00	1.00	0.907	0.912	2520	664	5918	1972	0.43	0.34	63.5	59.9	13.2	14.3	B
7	1.00	1.00	0.907	0.912	2595	684	5918	1972	0.44	0.35	63.6	59.9	13.6	14.7	B
8	1.00	1.00	0.907	0.912	2675	705	5918	1972	0.45	0.36	63.5	59.8	14.0	15.2	B
9	1.00	1.00	0.907	0.912	2580	680	5918	1972	0.44	0.34	63.6	59.9	13.5	14.7	B
10	1.00	1.00	0.907	0.912	2441	644	5918	1972	0.41	0.33	63.6	60.0	12.8	13.8	B
11	1.00	1.00	0.907	0.912	2374	626	5918	1972	0.40	0.32	63.6	60.0	12.4	13.4	B
12	1.00	1.00	0.907	0.912	2232	588	5918	1972	0.38	0.30	63.6	60.1	11.7	12.6	B
Segment 3: Basic															
AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	1.00		0.905		2123		6761		0.31		70.9		9.9		A
2	1.00		0.905		2003		6761		0.30		70.9		9.4		A
3	1.00		0.905		2061		6761		0.30		70.9		9.6		A
4	1.00		0.905		1941		6761		0.29		70.9		9.1		A
5	1.00		0.905		1664		6761		0.25		70.9		7.8		A
6	1.00		0.905		1856		6761		0.27		70.9		8.7		A
7	1.00		0.905		1912		6761		0.28		70.9		8.9		A

8	1.00	0.905	1970	6761	0.29	70.9	9.2	A
9	1.00	0.905	1901	6761	0.28	70.9	8.9	A
10	1.00	0.905	1798	6761	0.27	70.9	8.4	A
11	1.00	0.905	1748	6761	0.26	70.9	8.2	A
12	1.00	0.905	1644	6761	0.24	70.9	7.7	A

Segment 4: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.913	0.918	5470	3366	9384	3944	0.58	0.85	61.2	59.2	16.4	26.0	C
2	1.00	1.00	0.913	0.918	5162	3176	9384	3944	0.55	0.81	62.3	60.5	15.2	24.3	C
3	1.00	1.00	0.913	0.918	5312	3269	9384	3944	0.57	0.83	61.8	59.9	15.7	25.1	C
4	1.00	1.00	0.913	0.918	5004	3080	9384	3944	0.53	0.78	62.9	61.1	14.6	23.4	C
5	1.00	1.00	0.913	0.918	4289	2639	9384	3944	0.46	0.67	64.4	62.9	12.2	19.5	B
6	1.00	1.00	0.913	0.918	4784	2944	9384	3944	0.51	0.75	63.4	61.7	13.8	22.2	C
7	1.00	1.00	0.913	0.918	4928	3033	9384	3944	0.53	0.77	63.0	61.3	14.3	23.0	C
8	1.00	1.00	0.913	0.918	5078	3125	9384	3944	0.54	0.79	62.6	60.8	14.9	23.8	C
9	1.00	1.00	0.913	0.918	4898	3014	9384	3944	0.52	0.76	63.1	61.4	14.2	22.9	C
10	1.00	1.00	0.913	0.918	4635	2853	9384	3944	0.49	0.72	63.7	62.1	13.3	21.4	C
11	1.00	1.00	0.913	0.918	4506	2773	9384	3944	0.48	0.70	64.0	62.4	12.9	20.7	C
12	1.00	1.00	0.913	0.918	4238	2608	9384	3944	0.45	0.66	64.5	63.0	12.0	19.3	B

Segment 5: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.913	5488	11268	0.49	70.6	15.4	B
2	1.00	0.913	5180	11268	0.46	70.7	14.6	B
3	1.00	0.913	5330	11268	0.47	70.6	15.0	B
4	1.00	0.913	5021	11268	0.45	70.7	14.1	B
5	1.00	0.913	4303	11268	0.38	70.8	12.1	B
6	1.00	0.913	4801	11268	0.43	70.7	13.5	B
7	1.00	0.913	4944	11268	0.44	70.7	13.9	B
8	1.00	0.913	5095	11268	0.45	70.7	14.3	B
9	1.00	0.913	4915	11268	0.44	70.7	13.8	B
10	1.00	0.913	4651	11268	0.41	70.7	13.1	B
11	1.00	0.913	4521	11268	0.40	70.8	12.7	B
12	1.00	0.913	4252	11268	0.38	70.8	11.9	B

Segment 6: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.913	5488	11268	0.49	71.1	15.4	B
2	1.00	0.913	5180	11268	0.46	71.2	14.6	B
3	1.00	0.913	5330	11268	0.47	71.2	15.0	B

4	1.00	0.913	5021	11268	0.45	71.2	14.1	B
5	1.00	0.913	4303	11268	0.38	71.2	12.1	B
6	1.00	0.913	4801	11268	0.43	71.2	13.5	B
7	1.00	0.913	4944	11268	0.44	71.2	13.9	B
8	1.00	0.913	5095	11268	0.45	71.2	14.3	B
9	1.00	0.913	4915	11268	0.44	71.2	13.8	B
10	1.00	0.913	4651	11268	0.41	71.2	13.1	B
11	1.00	0.913	4521	11268	0.40	71.2	12.7	B
12	1.00	0.913	4252	11268	0.38	71.2	11.9	B

Segment 7: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.909	0.884	6398	885	9384	3944	0.68	0.22	66.2	64.1	15.3	15.7	B
2	1.00	1.00	0.909	0.884	6037	835	9384	3944	0.64	0.21	66.4	64.3	14.7	14.9	B
3	1.00	1.00	0.909	0.884	6212	859	9384	3944	0.66	0.22	66.2	64.1	15.2	15.5	B
4	1.00	1.00	0.909	0.884	5852	809	9384	3944	0.62	0.21	66.5	64.3	14.3	14.3	B
5	1.00	1.00	0.909	0.884	5015	693	9384	3944	0.53	0.18	67.0	64.7	12.1	11.7	B
6	1.00	1.00	0.909	0.884	5596	774	9384	3944	0.60	0.20	66.6	64.5	13.6	13.6	B
7	1.00	1.00	0.909	0.884	5764	798	9384	3944	0.61	0.20	66.5	64.4	14.0	14.1	B
8	1.00	1.00	0.909	0.884	5939	821	9384	3944	0.63	0.21	66.4	64.3	14.5	14.6	B
9	1.00	1.00	0.909	0.884	5728	792	9384	3944	0.61	0.20	66.5	64.4	14.0	14.0	B
10	1.00	1.00	0.909	0.884	5421	750	9384	3944	0.58	0.19	66.7	64.5	13.2	13.0	B
11	1.00	1.00	0.909	0.884	5270	729	9384	3944	0.56	0.18	66.8	64.6	12.8	12.5	B
12	1.00	1.00	0.909	0.884	4957	686	9384	3944	0.53	0.17	67.0	64.7	12.0	11.6	B

Segment 8: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.909	6373	11268	0.57	70.3	18.1	C
2	1.00	0.909	6014	11268	0.53	70.7	17.0	B
3	1.00	0.909	6188	11268	0.55	70.5	17.6	B
4	1.00	0.909	5829	11268	0.52	70.8	16.4	B
5	1.00	0.909	4997	11268	0.44	70.8	14.0	B
6	1.00	0.909	5574	11268	0.49	70.8	15.7	B
7	1.00	0.909	5741	11268	0.51	70.8	16.2	B
8	1.00	0.909	5916	11268	0.53	70.8	16.7	B
9	1.00	0.909	5706	11268	0.51	70.8	16.1	B
10	1.00	0.909	5400	11268	0.48	70.8	15.2	B
11	1.00	0.909	5250	11268	0.47	70.8	14.7	B
12	1.00	0.909	4937	11268	0.44	70.8	13.9	B

Segment 9: Basic

AP	PHF	fHV	Flow Rate	Capacity	d/c	Speed	Density	LOS
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			(pc/h)	(pc/h)	Ratio	(mi/h)	(pc/mi/ln)	
1	1.00	0.909	6373	11268	0.57	70.3	18.1	C
2	1.00	0.909	6014	11268	0.53	70.7	17.0	B
3	1.00	0.909	6188	11268	0.55	70.5	17.6	B
4	1.00	0.909	5829	11268	0.52	70.9	16.4	B
5	1.00	0.909	4997	11268	0.44	71.2	14.0	B
6	1.00	0.909	5574	11268	0.49	71.1	15.7	B
7	1.00	0.909	5741	11268	0.51	71.0	16.2	B
8	1.00	0.909	5916	11268	0.53	70.8	16.7	B
9	1.00	0.909	5706	11268	0.51	71.0	16.1	B
10	1.00	0.909	5400	11268	0.48	71.1	15.2	B
11	1.00	0.909	5250	11268	0.47	71.2	14.7	B
12	1.00	0.909	4937	11268	0.44	71.2	13.9	B

Segment 10: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.909	6373	9014	0.71	66.6	23.9	C
2	1.00	0.909	6014	9014	0.67	67.9	22.2	C
3	1.00	0.909	6188	9014	0.69	67.3	23.0	C
4	1.00	0.909	5829	9014	0.65	68.5	21.3	C
5	1.00	0.909	4997	9014	0.55	70.5	17.7	B
6	1.00	0.909	5574	9014	0.62	69.2	20.1	C
7	1.00	0.909	5741	9014	0.64	68.8	20.9	C
8	1.00	0.909	5916	9014	0.66	68.2	21.7	C
9	1.00	0.909	5706	9014	0.63	68.9	20.7	C
10	1.00	0.909	5400	9014	0.60	69.7	19.4	C
11	1.00	0.909	5250	9014	0.58	70.0	18.7	C
12	1.00	0.909	4937	9014	0.55	70.5	17.5	B

Segment 11: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.909	6373	9014	0.71	66.6	23.9	C
2	1.00	0.909	6014	9014	0.67	67.9	22.2	C
3	1.00	0.909	6188	9014	0.69	67.3	23.0	C
4	1.00	0.909	5829	9014	0.65	68.5	21.3	C
5	1.00	0.909	4997	9014	0.55	70.5	17.7	B
6	1.00	0.909	5574	9014	0.62	69.2	20.1	C
7	1.00	0.909	5741	9014	0.64	68.8	20.9	C
8	1.00	0.909	5916	9014	0.66	68.2	21.7	C
9	1.00	0.909	5706	9014	0.63	68.9	20.7	C
10	1.00	0.909	5400	9014	0.60	69.7	19.4	C
11	1.00	0.909	5250	9014	0.58	70.0	18.7	C

12	1.00	0.909	4937	9014	0.55	70.5	17.5	B							
Segment 12: Basic															
AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)		LOS			
1	1.00	0.909	6373	9014	0.71	66.6	23.9	C							
2	1.00	0.909	6014	9014	0.67	67.9	22.2	C							
3	1.00	0.909	6188	9014	0.69	67.3	23.0	C							
4	1.00	0.909	5829	9014	0.65	68.5	21.3	C							
5	1.00	0.909	4997	9014	0.55	70.5	17.7	B							
6	1.00	0.909	5574	9014	0.62	69.2	20.1	C							
7	1.00	0.909	5741	9014	0.64	68.8	20.9	C							
8	1.00	0.909	5916	9014	0.66	68.2	21.7	C							
9	1.00	0.909	5706	9014	0.63	68.9	20.7	C							
10	1.00	0.909	5400	9014	0.60	69.7	19.4	C							
11	1.00	0.909	5250	9014	0.58	70.0	18.7	C							
12	1.00	0.909	4937	9014	0.55	70.5	17.5	B							
Segment 13: Diverge															
AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.909	0.932	6373	1050	7507	1972	0.85	0.53	54.3	54.3	29.3	29.3	D
2	1.00	1.00	0.909	0.932	6014	991	7507	1972	0.80	0.50	57.5	57.5	26.2	26.2	D
3	1.00	1.00	0.909	0.932	6188	1020	7507	1972	0.82	0.52	56.0	56.0	27.6	27.6	D
4	1.00	1.00	0.909	0.932	5829	961	7507	1972	0.78	0.49	59.0	59.0	24.7	24.7	C
5	1.00	1.00	0.909	0.932	4997	824	7507	1972	0.67	0.42	64.8	64.8	19.3	19.3	C
6	1.00	1.00	0.909	0.932	5574	920	7507	1972	0.74	0.47	61.0	61.0	22.9	22.9	C
7	1.00	1.00	0.909	0.932	5741	946	7507	1972	0.76	0.48	59.7	59.7	24.0	24.0	C
8	1.00	1.00	0.909	0.932	5916	975	7507	1972	0.79	0.49	58.3	58.3	25.4	25.4	C
9	1.00	1.00	0.909	0.932	5706	941	7507	1972	0.76	0.48	60.0	60.0	23.8	23.8	C
10	1.00	1.00	0.909	0.932	5400	891	7507	1972	0.72	0.45	62.3	62.3	21.7	21.7	C
11	1.00	1.00	0.909	0.932	5250	866	7507	1972	0.70	0.44	63.3	63.3	20.7	20.7	C
12	1.00	1.00	0.909	0.932	4937	814	7507	1972	0.66	0.41	65.2	65.2	18.9	18.9	C
Segment 14: Basic															
AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)		LOS			
1	1.00	0.905	5319	6761	0.79	63.3	28.0	D							
2	1.00	0.905	5020	6761	0.74	65.2	25.7	C							
3	1.00	0.905	5165	6761	0.76	64.3	26.8	D							
4	1.00	0.905	4865	6761	0.72	66.1	24.5	C							
5	1.00	0.905	4170	6761	0.62	69.3	20.1	C							
6	1.00	0.905	4652	6761	0.69	67.3	23.0	C							
7	1.00	0.905	4792	6761	0.71	66.5	24.0	C							

8	1.00	0.905	4938	6761	0.73	65.7	25.1	C
9	1.00	0.905	4762	6761	0.70	66.7	23.8	C
10	1.00	0.905	4507	6761	0.67	67.9	22.1	C
11	1.00	0.905	4381	6761	0.65	68.5	21.3	C
12	1.00	0.905	4120	6761	0.61	69.4	19.8	C

Segment 15: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.909	0.940	6151	855	7507	1972	0.82	0.43	56.3	56.3	27.3	27.3	D
2	1.00	1.00	0.909	0.940	5804	806	7507	1972	0.77	0.41	59.2	59.2	24.5	24.5	C
3	1.00	1.00	0.909	0.940	5972	830	7507	1972	0.80	0.42	57.9	57.9	25.8	25.8	C
4	1.00	1.00	0.909	0.940	5626	782	7507	1972	0.75	0.40	60.6	60.6	23.2	23.2	C
5	1.00	1.00	0.909	0.940	4822	670	7507	1972	0.64	0.34	65.8	65.8	18.3	18.3	C
6	1.00	1.00	0.909	0.940	5379	748	7507	1972	0.72	0.38	62.4	62.4	21.6	21.6	C
7	1.00	1.00	0.909	0.940	5541	770	7507	1972	0.74	0.39	61.2	61.2	22.6	22.6	C
8	1.00	1.00	0.909	0.940	5710	794	7507	1972	0.76	0.40	60.0	60.0	23.8	23.8	C
9	1.00	1.00	0.909	0.940	5507	766	7507	1972	0.73	0.39	61.5	61.5	22.4	22.4	C
10	1.00	1.00	0.909	0.940	5211	724	7507	1972	0.69	0.37	63.5	63.5	20.5	20.5	C
11	1.00	1.00	0.909	0.940	5066	704	7507	1972	0.67	0.36	64.4	64.4	19.7	19.7	C
12	1.00	1.00	0.909	0.940	4765	663	7507	1972	0.63	0.34	66.1	66.1	18.0	18.0	B

Segment 16: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.909	6180	9014	0.69	67.3	23.0	C
2	1.00	0.909	5832	9014	0.65	68.5	21.3	C
3	1.00	0.909	6000	9014	0.67	68.0	22.1	C
4	1.00	0.909	5652	9014	0.63	69.0	20.5	C
5	1.00	0.909	4845	9014	0.54	70.7	17.1	B
6	1.00	0.909	5405	9014	0.60	69.7	19.4	C
7	1.00	0.909	5568	9014	0.62	69.3	20.1	C
8	1.00	0.909	5737	9014	0.64	68.8	20.8	C
9	1.00	0.909	5534	9014	0.61	69.3	20.0	C
10	1.00	0.909	5237	9014	0.58	70.0	18.7	C
11	1.00	0.909	5090	9014	0.56	70.3	18.1	C
12	1.00	0.909	4788	9014	0.53	70.7	16.9	B

Segment 17: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.909	6180	9014	0.69	67.3	23.0	C
2	1.00	0.909	5832	9014	0.65	68.5	21.3	C
3	1.00	0.909	6000	9014	0.67	68.0	22.1	C

4	1.00	0.909	5652	9014	0.63	69.0	20.5	C
5	1.00	0.909	4845	9014	0.54	70.7	17.1	B
6	1.00	0.909	5405	9014	0.60	69.7	19.4	C
7	1.00	0.909	5568	9014	0.62	69.3	20.1	C
8	1.00	0.909	5737	9014	0.64	68.8	20.8	C
9	1.00	0.909	5534	9014	0.61	69.3	20.0	C
10	1.00	0.909	5237	9014	0.58	70.0	18.7	C
11	1.00	0.909	5090	9014	0.56	70.3	18.1	C
12	1.00	0.909	4788	9014	0.53	70.7	16.9	B

Segment 18: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.909	6180	9014	0.69	67.3	23.0	C
2	1.00	0.909	5832	9014	0.65	68.5	21.3	C
3	1.00	0.909	6000	9014	0.67	68.0	22.1	C
4	1.00	0.909	5652	9014	0.63	69.0	20.5	C
5	1.00	0.909	4845	9014	0.54	70.7	17.1	B
6	1.00	0.909	5405	9014	0.60	69.7	19.4	C
7	1.00	0.909	5568	9014	0.62	69.3	20.1	C
8	1.00	0.909	5737	9014	0.64	68.8	20.8	C
9	1.00	0.909	5534	9014	0.61	69.3	20.0	C
10	1.00	0.909	5237	9014	0.58	70.0	18.7	C
11	1.00	0.909	5090	9014	0.56	70.3	18.1	C
12	1.00	0.909	4788	9014	0.53	70.7	16.9	B

Segment 19: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.909	6180	9014	0.69	67.3	23.0	C
2	1.00	0.909	5832	9014	0.65	68.5	21.3	C
3	1.00	0.909	6000	9014	0.67	68.0	22.1	C
4	1.00	0.909	5652	9014	0.63	69.0	20.5	C
5	1.00	0.909	4845	9014	0.54	70.7	17.1	B
6	1.00	0.909	5405	9014	0.60	69.7	19.4	C
7	1.00	0.909	5568	9014	0.62	69.3	20.1	C
8	1.00	0.909	5737	9014	0.64	68.8	20.8	C
9	1.00	0.909	5534	9014	0.61	69.3	20.0	C
10	1.00	0.909	5237	9014	0.58	70.0	18.7	C
11	1.00	0.909	5090	9014	0.56	70.3	18.1	C
12	1.00	0.909	4788	9014	0.53	70.7	16.9	B

Segment 20: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
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1	1.00	0.909	6180	9014	0.69	67.3	23.0	C
2	1.00	0.909	5832	9014	0.65	68.5	21.3	C
3	1.00	0.909	6000	9014	0.67	68.0	22.1	C
4	1.00	0.909	5652	9014	0.63	69.0	20.5	C
5	1.00	0.909	4845	9014	0.54	70.7	17.1	B
6	1.00	0.909	5405	9014	0.60	69.7	19.4	C
7	1.00	0.909	5568	9014	0.62	69.3	20.1	C
8	1.00	0.909	5737	9014	0.64	68.8	20.8	C
9	1.00	0.909	5534	9014	0.61	69.3	20.0	C
10	1.00	0.909	5237	9014	0.58	70.0	18.7	C
11	1.00	0.909	5090	9014	0.56	70.3	18.1	C
12	1.00	0.909	4788	9014	0.53	70.7	16.9	B

Segment 21: Diverge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.909	0.951	6180	950	7507	1972	0.82	0.48	56.0	56.0	27.6	27.6	D
2	1.00	1.00	0.909	0.951	5832	897	7507	1972	0.78	0.45	59.0	59.0	24.7	24.7	C
3	1.00	1.00	0.909	0.951	6000	922	7507	1972	0.80	0.47	57.6	57.6	26.0	26.0	C
4	1.00	1.00	0.909	0.951	5652	869	7507	1972	0.75	0.44	60.4	60.4	23.4	23.4	C
5	1.00	1.00	0.909	0.951	4845	746	7507	1972	0.65	0.38	65.7	65.7	18.4	18.4	C
6	1.00	1.00	0.909	0.951	5405	831	7507	1972	0.72	0.42	62.2	62.2	21.7	21.7	C
7	1.00	1.00	0.909	0.951	5568	856	7507	1972	0.74	0.43	61.1	61.1	22.8	22.8	C
8	1.00	1.00	0.909	0.951	5737	882	7507	1972	0.76	0.45	59.8	59.8	24.0	24.0	C
9	1.00	1.00	0.909	0.951	5534	851	7507	1972	0.74	0.43	61.3	61.3	22.6	22.6	C
10	1.00	1.00	0.909	0.951	5237	805	7507	1972	0.70	0.41	63.4	63.4	20.6	20.6	C
11	1.00	1.00	0.909	0.951	5090	783	7507	1972	0.68	0.40	64.3	64.3	19.8	19.8	C
12	1.00	1.00	0.909	0.951	4788	736	7507	1972	0.64	0.37	66.0	66.0	18.1	18.1	C

Segment 22: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.902	5227	6761	0.77	63.9	27.3	D
2	1.00	0.902	4931	6761	0.73	65.8	25.0	C
3	1.00	0.902	5074	6761	0.75	64.9	26.1	D
4	1.00	0.902	4780	6761	0.71	66.6	23.9	C
5	1.00	0.902	4096	6761	0.61	69.5	19.6	C
6	1.00	0.902	4571	6761	0.68	67.6	22.5	C
7	1.00	0.902	4708	6761	0.70	67.0	23.4	C
8	1.00	0.902	4851	6761	0.72	66.2	24.4	C
9	1.00	0.902	4680	6761	0.69	67.1	23.2	C
10	1.00	0.902	4428	6761	0.65	68.3	21.6	C
11	1.00	0.902	4304	6761	0.64	68.8	20.9	C

12	1.00	0.902	4049	6761	0.60	69.7	19.4	C							
Segment 23: Merge															
AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.913	0.967	6189	1025	7507	1972	0.82	0.52	56.0	56.0	27.6	27.6	D
2	1.00	1.00	0.913	0.967	5839	967	7507	1972	0.78	0.49	59.0	59.0	24.7	24.7	C
3	1.00	1.00	0.913	0.967	6008	995	7507	1972	0.80	0.50	57.5	57.5	26.1	26.1	D
4	1.00	1.00	0.913	0.967	5660	937	7507	1972	0.75	0.48	60.4	60.4	23.4	23.4	C
5	1.00	1.00	0.913	0.967	4851	804	7507	1972	0.65	0.41	65.7	65.7	18.5	18.5	C
6	1.00	1.00	0.913	0.967	5413	897	7507	1972	0.72	0.45	62.2	62.2	21.8	21.8	C
7	1.00	1.00	0.913	0.967	5575	923	7507	1972	0.74	0.47	61.0	61.0	22.8	22.8	C
8	1.00	1.00	0.913	0.967	5744	951	7507	1972	0.77	0.48	59.7	59.7	24.1	24.1	C
9	1.00	1.00	0.913	0.967	5540	917	7507	1972	0.74	0.47	61.3	61.3	22.6	22.6	C
10	1.00	1.00	0.913	0.967	5244	869	7507	1972	0.70	0.44	63.3	63.3	20.7	20.7	C
11	1.00	1.00	0.913	0.967	5096	844	7507	1972	0.68	0.43	64.2	64.2	19.8	19.8	C
12	1.00	1.00	0.913	0.967	4793	793	7507	1972	0.64	0.40	66.0	66.0	18.2	18.2	C

Segment 24: Basic															
AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.913	0.967	6250	1025	9014	1972	0.69	0.52	67.1	67.1	23.3	23.3	C
2	1.00	1.00	0.913	0.967	5896	967	9014	1972	0.65	0.49	68.3	68.3	21.6	21.6	C
3	1.00	1.00	0.913	0.967	6067	995	9014	1972	0.67	0.50	67.7	67.7	22.4	22.4	C
4	1.00	1.00	0.913	0.967	5715	937	9014	1972	0.63	0.48	68.8	68.8	20.8	20.8	C
5	1.00	1.00	0.913	0.967	4898	804	9014	1972	0.54	0.41	70.6	70.6	17.3	17.3	B
6	1.00	1.00	0.913	0.967	5465	897	9014	1972	0.61	0.45	69.5	69.5	19.7	19.7	C
7	1.00	1.00	0.913	0.967	5630	923	9014	1972	0.62	0.47	69.1	69.1	20.4	20.4	C
8	1.00	1.00	0.913	0.967	5801	951	9014	1972	0.64	0.48	68.6	68.6	21.1	21.1	C
9	1.00	1.00	0.913	0.967	5595	917	9014	1972	0.62	0.47	69.2	69.2	20.2	20.2	C
10	1.00	1.00	0.913	0.967	5295	869	9014	1972	0.59	0.44	69.9	69.9	18.9	18.9	C
11	1.00	1.00	0.913	0.967	5146	844	9014	1972	0.57	0.43	70.2	70.2	18.3	18.3	C
12	1.00	1.00	0.913	0.967	4840	793	9014	1972	0.54	0.40	70.7	70.7	17.1	17.1	B

Facility Analysis Results									
AP	VMT veh-mi/AP	VMT-Demand veh-mi/AP	VHD veh-h/AP	Total Delay Cost \$/AP	Speed mi/h	Density pc/mi/ln	Density veh/mi/ln	TT min	LOS
1	31476	31079	32.59	814.73	66.3	22.6	20.5	20.80	C
2	29702	29328	22.14	553.56	67.6	20.9	19.0	20.40	C
3	30560	30175	26.73	668.20	67.0	21.7	19.7	20.60	C
4	28790	28426	17.86	446.47	68.2	20.1	18.3	20.20	C
5	24676	24365	5.27	131.86	70.1	16.7	15.2	19.70	B
6	27529	27182	12.84	321.12	68.9	19.0	17.3	20.00	C
7	28356	27998	15.79	394.72	68.5	19.7	17.9	20.10	C

8	29219	28851	19.80	495.01	67.9	20.5	18.6	20.30	C
9	28182	27827	15.28	381.99	68.6	19.6	17.8	20.10	C
10	26671	26334	10.08	251.97	69.3	18.3	16.6	19.90	C
11	25926	25599	8.07	201.85	69.7	17.7	16.1	19.80	B
12	24384	24076	5.07	126.75	70.2	16.5	15.0	19.60	B

Facility Overall Results

Space Mean Speed, mi/h	68.4	Average Density, veh/mi/ln	17.7
Average Travel Time, min	20.10	Average Density, pc/mi/ln	19.4
Total VMT, veh-mi	335472	Total VHD, veh-h	191.53
Vehicle Value of Time (VOT), \$/h	25.00	Total Delay Cost, \$	4788.23

HCS Freeway Facilities Report

Project Information

Analyst	Kittelson & Associate	Date	11/27/2023
Agency	Florida Department of Transportation	Analysis Year	2040 Build Conditions
Jurisdiction	District Five	Time Analyzed	WM Weekend Peak Period
Facility Name	I-75 (Northbound)	Units	U.S. Customary
Project Description	I-75 PD&E South Auxiliary Lanes		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	24
Total Analysis Periods	12	Analysis Period Duration, min	15
Facility Length, mi	22.97		

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	I-75 NB	1500	3
2	Diverge	Diverge	I-75 NB SR 44 Off Ramp	1500	3
3	Basic	Basic	I-75 NB	2400	3
4	Merge	Merge	I-75 NB Turnpike On Ramp	1500	5
5	Basic	Basic	I-75 NB	1945	5
6	Basic	Basic	I-75 NB	2346	5
7	Merge	Merge	I-75 NB SR 44 On Ramp	1500	5
8	Basic	Basic	I-75 NB	1500	5
9	Basic	Basic	I-75 NB	4430	5
10	Basic	Basic	I-75 NB	44795	4
11	Basic	Basic	I-75 NB	1500	4
12	Basic	Basic	I-75 NB	1500	4
13	Diverge	Basic	I-75 NB CR 484 Off Ramp	1500	4
14	Basic	Basic	I-75 NB	2936	3
15	Merge	Basic	I-75 NB CR 484 On Ramp	1500	4
16	Basic	Basic	I-75 NB	1500	4
17	Basic	Basic	I-75 NB	1500	4
18	Basic	Basic	I-75 NB	35183	4
19	Basic	Basic	I-75 B	1500	4
20	Basic	Basic	I-75 NB	1500	4
21	Diverge	Basic	I-75 NB SR 200 Off Ramp	1500	4
22	Basic	Basic	I-75 NB	3265	3
23	Merge	Basic	I-75 NB SR 200 On Ramp	1500	4
24	Basic	Basic	I-75 NB	1490	4

Facility Segment Data															
Segment 1: Basic															
AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	1.00		0.907		3927		6761		0.58		70.0		18.7		C
2	1.00		0.907		3927		6761		0.58		70.0		18.7		C
3	1.00		0.907		3927		6761		0.58		70.0		18.7		C
4	1.00		0.907		3927		6761		0.58		70.0		18.7		C
5	1.00		0.907		3591		6761		0.53		70.7		16.9		B
6	1.00		0.907		3591		6761		0.53		70.7		16.9		B
7	1.00		0.907		3591		6761		0.53		70.7		16.9		B
8	1.00		0.907		3591		6761		0.53		70.7		16.9		B
9	1.00		0.907		3208		6761		0.47		71.2		15.0		B
10	1.00		0.907		3208		6761		0.47		71.2		15.0		B
11	1.00		0.907		3208		6761		0.47		71.2		15.0		B
12	1.00		0.907		3208		6761		0.47		71.2		15.0		B
Segment 2: Diverge															
AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.907	0.947	3927	645	5918	1972	0.66	0.33	64.4	60.0	20.3	21.3	C
2	1.00	1.00	0.907	0.947	3927	645	5918	1972	0.66	0.33	64.4	60.0	20.3	21.3	C
3	1.00	1.00	0.907	0.947	3927	645	5918	1972	0.66	0.33	64.4	60.0	20.3	21.3	C
4	1.00	1.00	0.907	0.947	3927	645	5918	1972	0.66	0.33	64.4	60.0	20.3	21.3	C
5	1.00	1.00	0.907	0.947	3591	590	5918	1972	0.61	0.30	64.5	60.1	18.6	19.6	B
6	1.00	1.00	0.907	0.947	3591	590	5918	1972	0.61	0.30	64.5	60.1	18.6	19.6	B
7	1.00	1.00	0.907	0.947	3591	590	5918	1972	0.61	0.30	64.5	60.1	18.6	19.6	B
8	1.00	1.00	0.907	0.947	3591	590	5918	1972	0.61	0.30	64.5	60.1	18.6	19.6	B
9	1.00	1.00	0.907	0.947	3208	528	5918	1972	0.54	0.27	64.5	60.3	16.6	17.6	B
10	1.00	1.00	0.907	0.947	3208	528	5918	1972	0.54	0.27	64.5	60.3	16.6	17.6	B
11	1.00	1.00	0.907	0.947	3208	528	5918	1972	0.54	0.27	64.5	60.3	16.6	17.6	B
12	1.00	1.00	0.907	0.947	3208	528	5918	1972	0.54	0.27	64.5	60.3	16.6	17.6	B
Segment 3: Basic															
AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	1.00		0.899		3282		6761		0.49		70.9		15.4		B
2	1.00		0.899		3282		6761		0.49		70.9		15.4		B
3	1.00		0.899		3282		6761		0.49		70.9		15.4		B
4	1.00		0.899		3282		6761		0.49		70.9		15.4		B
5	1.00		0.899		3001		6761		0.44		70.9		14.0		B
6	1.00		0.899		3001		6761		0.44		70.9		14.0		B
7	1.00		0.899		3001		6761		0.44		70.9		14.0		B

8	1.00	0.899	3001	6761	0.44	70.9	14.0	B
9	1.00	0.899	2681	6761	0.40	70.9	12.6	B
10	1.00	0.899	2680	6761	0.40	70.9	12.5	B
11	1.00	0.899	2680	6761	0.40	70.9	12.5	B
12	1.00	0.899	2680	6761	0.40	70.9	12.5	B

Segment 4: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.909	0.918	6594	3312	9384	3944	0.70	0.84	59.9	56.9	19.6	28.4	D
2	1.00	1.00	0.909	0.918	6594	3312	9384	3944	0.70	0.84	59.9	56.9	19.6	28.4	D
3	1.00	1.00	0.909	0.918	6594	3312	9384	3944	0.70	0.84	59.9	56.9	19.6	28.4	D
4	1.00	1.00	0.909	0.918	6594	3312	9384	3944	0.70	0.84	59.9	56.9	19.6	28.4	D
5	1.00	1.00	0.909	0.918	6029	3028	9384	3944	0.64	0.77	62.1	59.6	17.3	25.7	C
6	1.00	1.00	0.909	0.918	6029	3028	9384	3944	0.64	0.77	62.1	59.6	17.3	25.7	C
7	1.00	1.00	0.909	0.918	6029	3028	9384	3944	0.64	0.77	62.1	59.6	17.3	25.7	C
8	1.00	1.00	0.909	0.918	6029	3028	9384	3944	0.64	0.77	62.1	59.6	17.3	25.7	C
9	1.00	1.00	0.909	0.918	5387	2706	9384	3944	0.57	0.69	63.8	61.7	15.0	22.5	C
10	1.00	1.00	0.909	0.918	5386	2706	9384	3944	0.57	0.69	63.8	61.7	15.0	22.5	C
11	1.00	1.00	0.909	0.918	5386	2706	9384	3944	0.57	0.69	63.8	61.7	15.0	22.5	C
12	1.00	1.00	0.909	0.918	5386	2706	9384	3944	0.57	0.69	63.8	61.7	15.0	22.5	C

Segment 5: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.909	6594	11268	0.58	69.9	18.9	C
2	1.00	0.909	6594	11268	0.58	69.9	18.9	C
3	1.00	0.909	6594	11268	0.58	69.9	18.9	C
4	1.00	0.909	6594	11268	0.58	69.9	18.9	C
5	1.00	0.909	6029	11268	0.53	70.6	17.1	B
6	1.00	0.909	6029	11268	0.53	70.6	17.1	B
7	1.00	0.909	6029	11268	0.53	70.6	17.1	B
8	1.00	0.909	6029	11268	0.53	70.6	17.1	B
9	1.00	0.909	5387	11268	0.48	70.7	15.2	B
10	1.00	0.909	5386	11268	0.48	70.7	15.2	B
11	1.00	0.909	5386	11268	0.48	70.7	15.2	B
12	1.00	0.909	5386	11268	0.48	70.7	15.2	B

Segment 6: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.909	6594	11268	0.58	69.9	18.9	C
2	1.00	0.909	6594	11268	0.58	69.9	18.9	C
3	1.00	0.909	6594	11268	0.58	69.9	18.9	C

4	1.00	0.909	6594	11268	0.58	69.9	18.9	C
5	1.00	0.909	6029	11268	0.53	70.7	17.1	B
6	1.00	0.909	6029	11268	0.53	70.7	17.1	B
7	1.00	0.909	6029	11268	0.53	70.7	17.1	B
8	1.00	0.909	6029	11268	0.53	70.7	17.1	B
9	1.00	0.909	5387	11268	0.48	71.1	15.2	B
10	1.00	0.909	5386	11268	0.48	71.1	15.2	B
11	1.00	0.909	5386	11268	0.48	71.1	15.2	B
12	1.00	0.909	5386	11268	0.48	71.1	15.2	B

Segment 7: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.910	0.921	7258	664	9384	3944	0.77	0.17	65.9	64.0	16.6	16.0	B
2	1.00	1.00	0.910	0.921	7258	664	9384	3944	0.77	0.17	65.9	64.0	16.6	16.0	B
3	1.00	1.00	0.910	0.921	7258	664	9384	3944	0.77	0.17	65.9	64.0	16.6	16.0	B
4	1.00	1.00	0.910	0.921	7258	664	9384	3944	0.77	0.17	65.9	64.0	16.6	16.0	B
5	1.00	1.00	0.910	0.921	6637	608	9384	3944	0.71	0.15	66.3	64.3	15.7	14.9	B
6	1.00	1.00	0.910	0.921	6637	608	9384	3944	0.71	0.15	66.3	64.3	15.7	14.9	B
7	1.00	1.00	0.910	0.921	6637	608	9384	3944	0.71	0.15	66.3	64.3	15.7	14.9	B
8	1.00	1.00	0.910	0.921	6637	608	9384	3944	0.71	0.15	66.3	64.3	15.7	14.9	B
9	1.00	1.00	0.910	0.921	5930	543	9384	3944	0.63	0.14	66.6	64.5	14.2	13.2	B
10	1.00	1.00	0.910	0.921	5929	543	9384	3944	0.63	0.14	66.6	64.5	14.2	13.2	B
11	1.00	1.00	0.910	0.921	5929	543	9384	3944	0.63	0.14	66.6	64.5	14.2	13.2	B
12	1.00	1.00	0.910	0.921	5929	543	9384	3944	0.63	0.14	66.6	64.5	14.2	13.2	B

Segment 8: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.910	7258	11268	0.64	68.6	21.2	C
2	1.00	0.910	7258	11268	0.64	68.6	21.2	C
3	1.00	0.910	7258	11268	0.64	68.6	21.2	C
4	1.00	0.910	7258	11268	0.64	68.6	21.2	C
5	1.00	0.910	6637	11268	0.59	69.9	19.0	C
6	1.00	0.910	6637	11268	0.59	69.9	19.0	C
7	1.00	0.910	6637	11268	0.59	69.9	19.0	C
8	1.00	0.910	6637	11268	0.59	69.9	19.0	C
9	1.00	0.910	5930	11268	0.53	70.8	16.8	B
10	1.00	0.910	5929	11268	0.53	70.8	16.7	B
11	1.00	0.910	5929	11268	0.53	70.8	16.7	B
12	1.00	0.910	5929	11268	0.53	70.8	16.7	B

Segment 9: Basic

AP	PHF	fHV	Flow Rate	Capacity	d/c	Speed	Density	LOS
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			(pc/h)	(pc/h)	Ratio	(mi/h)	(pc/mi/ln)	
1	1.00	0.910	7258	11268	0.64	68.6	21.2	C
2	1.00	0.910	7258	11268	0.64	68.6	21.2	C
3	1.00	0.910	7258	11268	0.64	68.6	21.2	C
4	1.00	0.910	7258	11268	0.64	68.6	21.2	C
5	1.00	0.910	6637	11268	0.59	69.9	19.0	C
6	1.00	0.910	6637	11268	0.59	69.9	19.0	C
7	1.00	0.910	6637	11268	0.59	69.9	19.0	C
8	1.00	0.910	6637	11268	0.59	69.9	19.0	C
9	1.00	0.910	5930	11268	0.53	70.8	16.8	B
10	1.00	0.910	5929	11268	0.53	70.8	16.7	B
11	1.00	0.910	5929	11268	0.53	70.8	16.7	B
12	1.00	0.910	5929	11268	0.53	70.8	16.7	B

Segment 10: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.910	7258	9014	0.80	62.4	29.1	D
2	1.00	0.910	7258	9014	0.80	62.4	29.1	D
3	1.00	0.910	7206	9014	0.80	62.7	28.7	F
4	1.00	0.910	7017	9014	0.80	63.7	27.5	F
5	1.00	0.910	6930	9014	0.74	64.1	27.0	D
6	1.00	0.910	6637	9014	0.74	65.5	25.3	C
7	1.00	0.910	6637	9014	0.74	65.5	25.3	C
8	1.00	0.910	6637	9014	0.74	65.5	25.3	C
9	1.00	0.910	5930	9014	0.66	68.2	21.7	C
10	1.00	0.910	5929	9014	0.66	68.2	21.7	C
11	1.00	0.910	5929	9014	0.66	68.2	21.7	C
12	1.00	0.910	5929	9014	0.66	68.2	21.7	C

Segment 11: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.910	7258	9014	0.80	62.4	29.1	D
2	1.00	0.910	7229	9014	0.80	62.6	28.9	F
3	1.00	0.910	7017	9014	0.80	28.7	61.2	F
4	1.00	0.910	7017	9014	0.80	22.7	77.1	F
5	1.00	0.910	7125	9014	0.74	30.7	58.0	F
6	1.00	0.910	6661	9014	0.74	65.4	25.5	C
7	1.00	0.910	6637	9014	0.74	65.5	25.3	C
8	1.00	0.910	6637	9014	0.74	65.5	25.3	C
9	1.00	0.910	5930	9014	0.66	68.2	21.7	C
10	1.00	0.910	5929	9014	0.66	68.2	21.7	C
11	1.00	0.910	5929	9014	0.66	68.2	21.7	C

12	1.00	0.910	5929	9014	0.66	68.2	21.7	C							
Segment 12: Basic															
AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	1.00	0.910	7248	9014	0.80	62.5	29.0	F							
2	1.00	0.910	7020	9014	0.80	30.7	57.1	F							
3	1.00	0.910	7017	9014	0.80	22.7	77.1	F							
4	1.00	0.910	7017	9014	0.80	22.7	77.1	F							
5	1.00	0.910	7108	9014	0.74	23.7	74.8	F							
6	1.00	0.910	6896	9014	0.74	64.3	26.8	D							
7	1.00	0.910	6637	9014	0.74	65.5	25.3	C							
8	1.00	0.910	6637	9014	0.74	65.5	25.3	C							
9	1.00	0.910	5930	9014	0.66	68.2	21.7	C							
10	1.00	0.910	5929	9014	0.66	68.2	21.7	C							
11	1.00	0.910	5929	9014	0.66	68.2	21.7	C							
12	1.00	0.910	5929	9014	0.66	68.2	21.7	C							
Segment 13: Diverge															
AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.910	0.872	7188	939	7507	1972	0.97	0.48	66.1	66.1	27.2	27.2	F
2	1.00	1.00	0.910	0.872	7017	939	7507	1972	0.97	0.48	32.2	32.2	54.4	54.4	F
3	1.00	1.00	0.910	0.872	7017	939	7507	1972	0.97	0.48	32.2	32.2	54.5	54.5	F
4	1.00	1.00	0.910	0.872	7017	939	7507	1972	0.97	0.48	32.2	32.2	54.5	54.5	F
5	1.00	1.00	0.910	0.872	7070	859	7507	1972	0.88	0.44	34.2	34.2	51.6	51.6	F
6	1.00	1.00	0.910	0.872	6998	859	7507	1972	0.88	0.44	66.3	66.3	26.4	26.4	D
7	1.00	1.00	0.910	0.872	6637	859	7507	1972	0.88	0.44	66.4	66.4	25.0	25.0	C
8	1.00	1.00	0.910	0.872	6637	859	7507	1972	0.88	0.44	66.4	66.4	25.0	25.0	C
9	1.00	1.00	0.910	0.872	5930	767	7507	1972	0.79	0.39	66.8	66.8	22.2	22.2	C
10	1.00	1.00	0.910	0.872	5929	767	7507	1972	0.79	0.39	66.8	66.8	22.2	22.2	C
11	1.00	1.00	0.910	0.872	5929	767	7507	1972	0.79	0.39	66.8	66.8	22.2	22.2	C
12	1.00	1.00	0.910	0.872	5929	767	7507	1972	0.79	0.39	66.8	66.8	22.2	22.2	C
Segment 14: Basic															
AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	1.00	0.915	6111	6761	0.93	39.0	52.2	F							
2	1.00	0.915	6109	6761	0.93	34.5	59.0	F							
3	1.00	0.915	6109	6761	0.93	34.5	59.0	F							
4	1.00	0.915	6109	6761	0.93	34.5	59.0	F							
5	1.00	0.915	6109	6761	0.85	34.7	58.6	F							
6	1.00	0.915	6109	6761	0.85	34.5	59.0	F							
7	1.00	0.915	5952	6761	0.85	58.3	34.0	D							

8	1.00	0.915	5778	6761	0.85	59.8	32.2	D
9	1.00	0.915	5162	6761	0.76	64.4	26.7	D
10	1.00	0.915	5162	6761	0.76	64.4	26.7	D
11	1.00	0.915	5162	6761	0.76	64.4	26.7	D
12	1.00	0.915	5162	6761	0.76	64.4	26.7	D

Segment 15: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.923	0.959	6990	1253	7507	1972	1.00	0.64	63.6	63.6	28.9	28.9	D
2	1.00	1.00	0.923	0.959	6982	1253	7507	1972	1.00	0.64	63.6	63.6	28.9	28.9	D
3	1.00	1.00	0.923	0.959	6982	1253	7507	1972	1.00	0.64	63.6	63.6	28.9	28.9	D
4	1.00	1.00	0.923	0.959	6982	1253	7507	1972	1.00	0.64	63.6	63.6	28.9	28.9	D
5	1.00	1.00	0.923	0.959	6982	1146	7507	1972	0.92	0.58	63.8	63.8	28.4	28.4	D
6	1.00	1.00	0.923	0.959	6982	1146	7507	1972	0.92	0.58	63.8	63.8	28.4	28.4	D
7	1.00	1.00	0.923	0.959	7227	1146	7507	1972	0.92	0.58	64.1	64.1	27.7	27.7	D
8	1.00	1.00	0.923	0.959	7507	1146	7507	1972	0.92	0.58	64.3	64.3	26.9	26.9	D
9	1.00	1.00	0.923	0.959	7134	1024	7507	1972	0.82	0.52	65.2	65.2	23.7	23.7	C
10	1.00	1.00	0.923	0.959	6588	1024	7507	1972	0.82	0.52	65.2	65.2	23.7	23.7	C
11	1.00	1.00	0.923	0.959	6186	1024	7507	1972	0.82	0.52	65.2	65.2	23.7	23.7	C
12	1.00	1.00	0.923	0.959	6186	1024	7507	1972	0.82	0.52	65.2	65.2	23.7	23.7	C

Segment 16: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.923	6990	9014	0.84	63.8	27.4	D
2	1.00	0.923	6982	9014	0.84	63.9	27.3	D
3	1.00	0.923	6982	9014	0.84	63.9	27.3	D
4	1.00	0.923	6982	9014	0.84	63.9	27.3	D
5	1.00	0.923	6982	9014	0.77	63.9	27.3	D
6	1.00	0.923	6982	9014	0.77	63.9	27.3	D
7	1.00	0.923	7227	9014	0.77	62.6	28.9	D
8	1.00	0.923	7507	9014	0.77	61.0	30.8	D
9	1.00	0.923	7134	9014	0.69	63.1	28.3	D
10	1.00	0.923	6588	9014	0.69	65.7	25.1	C
11	1.00	0.923	6186	9014	0.69	67.3	23.0	C
12	1.00	0.923	6186	9014	0.69	67.3	23.0	C

Segment 17: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.923	6990	9014	0.84	63.8	27.4	D
2	1.00	0.923	6982	9014	0.84	63.9	27.3	D
3	1.00	0.923	6982	9014	0.84	63.9	27.3	D

4	1.00	0.923	6982	9014	0.84	63.9	27.3	D
5	1.00	0.923	6982	9014	0.77	63.9	27.3	D
6	1.00	0.923	6982	9014	0.77	63.9	27.3	D
7	1.00	0.923	7227	9014	0.77	62.6	28.9	D
8	1.00	0.923	7507	9014	0.77	61.0	30.8	D
9	1.00	0.923	7134	9014	0.69	63.1	28.3	D
10	1.00	0.923	6588	9014	0.69	65.7	25.1	C
11	1.00	0.923	6186	9014	0.69	67.3	23.0	C
12	1.00	0.923	6186	9014	0.69	67.3	23.0	C

Segment 18: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.923	6990	9014	0.84	63.8	27.4	D
2	1.00	0.923	6982	9014	0.84	63.9	27.3	D
3	1.00	0.923	6982	9014	0.84	63.9	27.3	D
4	1.00	0.923	6982	9014	0.84	63.9	27.3	D
5	1.00	0.923	6982	9014	0.77	63.9	27.3	D
6	1.00	0.923	6982	9014	0.77	63.9	27.3	D
7	1.00	0.923	7227	9014	0.77	62.6	28.9	D
8	1.00	0.923	7507	9014	0.77	61.0	30.8	D
9	1.00	0.923	7134	9014	0.69	63.1	28.3	D
10	1.00	0.923	6588	9014	0.69	65.7	25.1	C
11	1.00	0.923	6186	9014	0.69	67.3	23.0	C
12	1.00	0.923	6186	9014	0.69	67.3	23.0	C

Segment 19: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.923	6990	9014	0.84	63.8	27.4	D
2	1.00	0.923	6982	9014	0.84	63.9	27.3	D
3	1.00	0.923	6982	9014	0.84	63.9	27.3	D
4	1.00	0.923	6982	9014	0.84	63.9	27.3	D
5	1.00	0.923	6982	9014	0.77	63.9	27.3	D
6	1.00	0.923	6982	9014	0.77	63.9	27.3	D
7	1.00	0.923	7227	9014	0.77	62.6	28.9	D
8	1.00	0.923	7507	9014	0.77	61.0	30.8	D
9	1.00	0.923	7134	9014	0.69	63.1	28.3	D
10	1.00	0.923	6588	9014	0.69	65.7	25.1	C
11	1.00	0.923	6186	9014	0.69	67.3	23.0	C
12	1.00	0.923	6186	9014	0.69	67.3	23.0	C

Segment 20: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
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1	1.00	0.923	6990	9014	0.84	63.8	27.4	D
2	1.00	0.923	6982	9014	0.84	63.9	27.3	D
3	1.00	0.923	6982	9014	0.84	63.9	27.3	D
4	1.00	0.923	6982	9014	0.84	63.9	27.3	D
5	1.00	0.923	6982	9014	0.77	63.9	27.3	D
6	1.00	0.923	6982	9014	0.77	63.9	27.3	D
7	1.00	0.923	7227	9014	0.77	62.6	28.9	D
8	1.00	0.923	7507	9014	0.77	61.0	30.8	D
9	1.00	0.923	7134	9014	0.69	63.1	28.3	D
10	1.00	0.923	6588	9014	0.69	65.7	25.1	C
11	1.00	0.923	6186	9014	0.69	67.3	23.0	C
12	1.00	0.923	6186	9014	0.69	67.3	23.0	C

Segment 21: Diverge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.923	0.971	6990	1003	7507	1972	1.01	0.51	65.9	65.9	26.5	26.5	F
2	1.00	1.00	0.923	0.971	6982	1003	7507	1972	1.01	0.51	65.9	65.9	26.5	26.5	F
3	1.00	1.00	0.923	0.971	6982	1003	7507	1972	1.01	0.51	65.9	65.9	26.5	26.5	F
4	1.00	1.00	0.923	0.971	6982	1003	7507	1972	1.01	0.51	65.9	65.9	26.5	26.5	F
5	1.00	1.00	0.923	0.971	6982	918	7507	1972	0.92	0.47	66.2	66.2	26.4	26.4	D
6	1.00	1.00	0.923	0.971	6982	918	7507	1972	0.92	0.47	66.2	66.2	26.4	26.4	D
7	1.00	1.00	0.923	0.971	7227	918	7507	1972	0.92	0.47	66.2	66.2	27.3	27.3	D
8	1.00	1.00	0.923	0.971	7507	918	7507	1972	0.92	0.47	66.1	66.1	28.4	28.4	D
9	1.00	1.00	0.923	0.971	7134	820	7507	1972	0.82	0.42	66.4	66.4	26.9	26.9	D
10	1.00	1.00	0.923	0.971	6588	820	7507	1972	0.82	0.42	66.5	66.5	24.8	24.8	C
11	1.00	1.00	0.923	0.971	6186	820	7507	1972	0.82	0.42	66.6	66.6	23.2	23.2	C
12	1.00	1.00	0.923	0.971	6186	820	7507	1972	0.82	0.42	66.6	66.6	23.2	23.2	C

Segment 22: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.915	5987	6761	0.97	58.0	34.4	D
2	1.00	0.915	6056	6761	0.97	57.3	35.2	E
3	1.00	0.915	6056	6761	0.97	57.3	35.2	E
4	1.00	0.915	6056	6761	0.97	57.3	35.2	E
5	1.00	0.915	6056	6761	0.89	57.3	35.2	E
6	1.00	0.915	6055	6761	0.89	57.3	35.2	E
7	1.00	0.915	6268	6761	0.89	55.3	37.8	E
8	1.00	0.915	6511	6761	0.89	52.8	41.1	E
9	1.00	0.915	6188	6761	0.79	56.1	36.8	E
10	1.00	0.915	5714	6761	0.79	60.3	31.6	D
11	1.00	0.915	5365	6761	0.79	63.0	28.4	D

12	1.00	0.915	5365	6761	0.79	63.0	28.4	D
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Segment 23: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.924	0.977	7066	1079	7507	1972	1.01	0.55	64.2	64.2	27.5	27.5	F
2	1.00	1.00	0.924	0.977	7135	1079	7507	1972	1.01	0.55	64.1	64.1	27.8	27.8	F
3	1.00	1.00	0.924	0.977	7135	1079	7507	1972	1.01	0.55	64.1	64.1	27.8	27.8	F
4	1.00	1.00	0.924	0.977	7135	1079	7507	1972	1.01	0.55	64.1	64.1	27.8	27.8	F
5	1.00	1.00	0.924	0.977	7043	987	7507	1972	0.92	0.50	64.3	64.3	27.4	27.4	D
6	1.00	1.00	0.924	0.977	7042	987	7507	1972	0.92	0.50	64.3	64.3	27.4	27.4	D
7	1.00	1.00	0.924	0.977	7255	987	7507	1972	0.92	0.50	64.0	64.0	28.3	28.3	D
8	1.00	1.00	0.924	0.977	7498	987	7507	1972	0.92	0.50	63.7	63.7	29.4	29.4	D
9	1.00	1.00	0.924	0.977	7069	881	7507	1972	0.83	0.45	64.3	64.3	27.5	27.5	D
10	1.00	1.00	0.924	0.977	6595	881	7507	1972	0.83	0.45	64.9	64.9	25.4	25.4	C
11	1.00	1.00	0.924	0.977	6246	881	7507	1972	0.83	0.45	65.2	65.2	23.9	23.9	C
12	1.00	1.00	0.924	0.977	6246	881	7507	1972	0.83	0.45	65.2	65.2	23.9	23.9	C

Segment 24: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.924	7066	9014	0.85	63.4	27.9	D
2	1.00	0.924	7135	9014	0.85	63.1	28.3	D
3	1.00	0.924	7135	9014	0.85	63.1	28.3	D
4	1.00	0.924	7135	9014	0.85	63.1	28.3	D
5	1.00	0.924	7043	9014	0.78	63.6	27.7	D
6	1.00	0.924	7042	9014	0.78	63.6	27.7	D
7	1.00	0.924	7255	9014	0.78	62.4	29.1	D
8	1.00	0.924	7498	9014	0.78	61.0	30.7	D
9	1.00	0.924	7069	9014	0.69	63.4	27.9	D
10	1.00	0.924	6595	9014	0.69	65.7	25.1	C
11	1.00	0.924	6246	9014	0.69	67.1	23.3	C
12	1.00	0.924	6246	9014	0.69	67.1	23.3	C

Facility Analysis Results

AP	VMT veh-mi/AP	VMT-Demand veh-mi/AP	VHD veh-h/AP	Total Delay Cost \$/AP	Speed mi/h	Density pc/mi/ln	Density veh/mi/ln	TT min	LOS
1	36265	37148	68.51	1712.69	62.8	27.3	25.0	22.00	F
2	36240	37148	85.68	2142.07	60.9	28.1	25.7	22.60	F
3	36126	37148	98.15	2453.85	59.7	28.6	26.2	23.10	F
4	35761	37148	98.19	2454.76	59.6	28.4	26.0	23.10	F
5	35186	33968	88.58	2214.54	60.4	27.5	25.2	22.80	D
6	34572	33968	56.89	1422.20	63.7	25.6	23.5	21.60	C
7	35041	33968	53.28	1332.10	64.2	25.7	23.6	21.50	C

8	35626	33968	60.77	1519.20	63.5	26.5	24.2	21.70	D
9	32756	30346	39.33	983.33	65.6	23.5	21.6	21.00	C
10	31570	30346	28.37	709.36	66.9	22.3	20.4	20.60	C
11	30698	30346	22.54	563.61	67.7	21.4	19.6	20.40	C
12	30698	30346	22.54	563.61	67.7	21.4	19.6	20.40	C

Facility Overall Results

Space Mean Speed, mi/h	63.3	Average Density, veh/mi/ln	23.4
Average Travel Time, min	21.80	Average Density, pc/mi/ln	25.5
Total VMT, veh-mi	410540	Total VHD, veh-h	722.85
Vehicle Value of Time (VOT), \$/h	25.00	Total Delay Cost, \$	18071.33

I-75 South Section - Southbound

HCS Freeway Facilities Report

Project Information

Analyst	Kittelson & Associates	Date	11/27/2023
Agency	Florida Department of Transportation	Analysis Year	2040 Build Conditions
Jurisdiction	District Five	Time Analyzed	AM Weekday Peak Period
Facility Name	I-75 (Southbound)	Units	U.S. Customary
Project Description	I-75 PD&E South Auxiliary Lanes		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	23
Total Analysis Periods	12	Analysis Period Duration, min	15
Facility Length, mi	22.79		

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	I-75 SB	1500	4
2	Diverge	Basic	I-75 SB SR 200 Off Ramp	1500	4
3	Basic	Basic	I-75 SB	3285	3
4	Merge	Basic	I-75 SB SR 200 On Ramp	1500	4
5	Basic	Basic	I-75 SB	1500	4
6	Basic	Basic	I-75 SB	1500	4
7	Basic	Basic	I-75 SB	36945	4
8	Basic	Basic	I-75 SB	1500	4
9	Diverge	Basic	I-75 SB CR 484 Off Ramp	1500	4
10	Basic	Basic	I-75 SB	2905	3
11	Merge	Basic	I-75 SB CR 484 On Ramp	1500	4
12	Basic	Basic	I-75 SB	1500	4
13	Basic	Basic	I-75 SB	1500	4
14	Basic	Basic	I-75 SB	47240	4
15	Basic	Basic	I-75 SB	1500	4
16	Basic	Basic	I-75 SB	1500	4
17	Diverge	Diverge	I-75 SB SR 44 Off Ramp	1500	4
18	Basic	Basic	I-75 SB	3547	4
19	Basic	Basic	I-75 SB	1610	4
20	Diverge	Diverge	I-75 SB Turnpike Off Ramp	1500	4
21	Basic	Basic	I-75 SB	775	3
22	Merge	Merge	I-75 SB SR 44 On Ramp	1500	3
23	Basic	Basic	I-75 SB	1538	3

Facility Segment Data

Segment 1: Basic															
AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	1.00		0.907		3622		9014		0.40		71.2		12.7		B
2	1.00		0.907		3884		9014		0.43		71.2		13.6		B
3	1.00		0.907		4308		9014		0.48		71.1		15.1		B
4	1.00		0.907		4721		9014		0.52		70.8		16.7		B
5	1.00		0.907		4964		9014		0.55		70.5		17.6		B
6	1.00		0.907		5407		9014		0.60		69.6		19.4		C
7	1.00		0.907		5761		9014		0.64		68.7		21.0		C
8	1.00		0.907		5377		9014		0.60		69.7		19.3		C
9	1.00		0.907		5165		9014		0.57		70.2		18.4		C
10	1.00		0.907		5377		9014		0.60		69.7		19.3		C
11	1.00		0.907		5902		9014		0.65		68.3		21.6		C
12	1.00		0.907		5620		9014		0.62		69.1		20.3		C

Segment 2: Diverge															
AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.907	0.951	3622	593	7507	1972	0.48	0.30	70.3	70.3	12.9	12.9	B
2	1.00	1.00	0.907	0.951	3884	636	7507	1972	0.52	0.32	69.7	69.7	13.9	13.9	B
3	1.00	1.00	0.907	0.951	4308	706	7507	1972	0.57	0.36	68.2	68.2	15.8	15.8	B
4	1.00	1.00	0.907	0.951	4721	774	7507	1972	0.63	0.39	66.3	66.3	17.8	17.8	B
5	1.00	1.00	0.907	0.951	4964	814	7507	1972	0.66	0.41	65.0	65.0	19.1	19.1	C
6	1.00	1.00	0.907	0.951	5407	886	7507	1972	0.72	0.45	62.2	62.2	21.7	21.7	C
7	1.00	1.00	0.907	0.951	5761	944	7507	1972	0.77	0.48	59.6	59.6	24.2	24.2	C
8	1.00	1.00	0.907	0.951	5377	881	7507	1972	0.72	0.45	62.4	62.4	21.5	21.5	C
9	1.00	1.00	0.907	0.951	5165	846	7507	1972	0.69	0.43	63.8	63.8	20.2	20.2	C
10	1.00	1.00	0.907	0.951	5377	881	7507	1972	0.72	0.45	62.4	62.4	21.5	21.5	C
11	1.00	1.00	0.907	0.951	5902	967	7507	1972	0.79	0.49	58.4	58.4	25.3	25.3	C
12	1.00	1.00	0.907	0.951	5620	921	7507	1972	0.75	0.47	60.7	60.7	23.1	23.1	C

Segment 3: Basic															
AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	1.00		0.898		3030		6761		0.45		71.2		14.2		B
2	1.00		0.898		3249		6761		0.48		71.1		15.2		B
3	1.00		0.898		3604		6761		0.53		70.7		17.0		B
4	1.00		0.898		3949		6761		0.58		70.0		18.8		C
5	1.00		0.898		4151		6761		0.61		69.3		20.0		C
6	1.00		0.898		4522		6761		0.67		67.9		22.2		C
7	1.00		0.898		4818		6761		0.71		66.4		24.2		C
8	1.00		0.898		4498		6761		0.67		68.0		22.0		C

9	1.00	0.898	4321	6761	0.64	68.7	21.0	C
10	1.00	0.898	4498	6761	0.67	68.0	22.0	C
11	1.00	0.898	4937	6761	0.73	65.7	25.1	C
12	1.00	0.898	4700	6761	0.70	67.0	23.4	C

Segment 4: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.904	0.942	3498	488	7507	1972	0.47	0.25	70.6	70.6	12.4	12.4	B
2	1.00	1.00	0.904	0.942	3751	523	7507	1972	0.50	0.27	70.0	70.0	13.4	13.4	B
3	1.00	1.00	0.904	0.942	4161	581	7507	1972	0.55	0.29	68.8	68.8	15.1	15.1	B
4	1.00	1.00	0.904	0.942	4560	637	7507	1972	0.61	0.32	67.1	67.1	17.0	17.0	B
5	1.00	1.00	0.904	0.942	4793	669	7507	1972	0.64	0.34	66.0	66.0	18.2	18.2	C
6	1.00	1.00	0.904	0.942	5221	729	7507	1972	0.70	0.37	63.4	63.4	20.6	20.6	C
7	1.00	1.00	0.904	0.942	5564	777	7507	1972	0.74	0.39	61.1	61.1	22.8	22.8	C
8	1.00	1.00	0.904	0.942	5193	725	7507	1972	0.69	0.37	63.6	63.6	20.4	20.4	C
9	1.00	1.00	0.904	0.942	4988	696	7507	1972	0.66	0.35	64.9	64.9	19.2	19.2	C
10	1.00	1.00	0.904	0.942	5193	725	7507	1972	0.69	0.37	63.6	63.6	20.4	20.4	C
11	1.00	1.00	0.904	0.942	5700	796	7507	1972	0.76	0.40	60.1	60.1	23.7	23.7	C
12	1.00	1.00	0.904	0.942	5427	758	7507	1972	0.72	0.38	62.1	62.1	21.8	21.8	C

Segment 5: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.904	3519	9014	0.39	71.1	12.4	B
2	1.00	0.904	3773	9014	0.42	71.1	13.2	B
3	1.00	0.904	4185	9014	0.46	71.0	14.7	B
4	1.00	0.904	4586	9014	0.51	70.8	16.1	B
5	1.00	0.904	4821	9014	0.53	70.7	17.0	B
6	1.00	0.904	5252	9014	0.58	70.0	18.8	C
7	1.00	0.904	5596	9014	0.62	69.2	20.2	C
8	1.00	0.904	5223	9014	0.58	70.0	18.7	C
9	1.00	0.904	5018	9014	0.56	70.4	17.8	B
10	1.00	0.904	5223	9014	0.58	70.0	18.7	C
11	1.00	0.904	5733	9014	0.64	68.8	20.8	C
12	1.00	0.904	5459	9014	0.61	69.5	19.6	C

Segment 6: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.904	3519	9014	0.39	71.2	12.4	B
2	1.00	0.904	3773	9014	0.42	71.2	13.2	B
3	1.00	0.904	4185	9014	0.46	71.2	14.7	B
4	1.00	0.904	4586	9014	0.51	71.0	16.1	B

1	1.00	1.00	0.904	0.923	3519	456	7507	1972	0.47	0.23	70.5	70.5	12.5	12.5	B
2	1.00	1.00	0.904	0.923	3773	489	7507	1972	0.50	0.25	70.0	70.0	13.5	13.5	B
3	1.00	1.00	0.904	0.923	4185	543	7507	1972	0.56	0.28	68.7	68.7	15.2	15.2	B
4	1.00	1.00	0.904	0.923	4586	595	7507	1972	0.61	0.30	67.0	67.0	17.1	17.1	B
5	1.00	1.00	0.904	0.923	4821	625	7507	1972	0.64	0.32	65.8	65.8	18.3	18.3	C
6	1.00	1.00	0.904	0.923	5252	681	7507	1972	0.70	0.35	63.2	63.2	20.8	20.8	C
7	1.00	1.00	0.904	0.923	5596	726	7507	1972	0.75	0.37	60.8	60.8	23.0	23.0	C
8	1.00	1.00	0.904	0.923	5223	677	7507	1972	0.70	0.34	63.4	63.4	20.6	20.6	C
9	1.00	1.00	0.904	0.923	5018	650	7507	1972	0.67	0.33	64.7	64.7	19.4	19.4	C
10	1.00	1.00	0.904	0.923	5223	677	7507	1972	0.70	0.34	63.4	63.4	20.6	20.6	C
11	1.00	1.00	0.904	0.923	5733	743	7507	1972	0.76	0.38	59.8	59.8	24.0	24.0	C
12	1.00	1.00	0.904	0.923	5459	707	7507	1972	0.73	0.36	61.8	61.8	22.1	22.1	C

Segment 10: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.901	3063	6761	0.45	71.2	14.3	B
2	1.00	0.901	3285	6761	0.49	71.1	15.4	B
3	1.00	0.901	3643	6761	0.54	70.7	17.2	B
4	1.00	0.901	3992	6761	0.59	69.8	19.1	C
5	1.00	0.901	4196	6761	0.62	69.2	20.2	C
6	1.00	0.901	4572	6761	0.68	67.6	22.5	C
7	1.00	0.901	4871	6761	0.72	66.1	24.6	C
8	1.00	0.901	4547	6761	0.67	67.8	22.4	C
9	1.00	0.901	4368	6761	0.65	68.5	21.3	C
10	1.00	0.901	4547	6761	0.67	67.8	22.4	C
11	1.00	0.901	4991	6761	0.74	65.4	25.4	C
12	1.00	0.901	4752	6761	0.70	66.8	23.7	C

Segment 11: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.903	0.916	3647	591	7507	1972	0.49	0.30	70.3	70.3	13.0	13.0	B
2	1.00	1.00	0.903	0.916	3911	633	7507	1972	0.52	0.32	69.6	69.6	14.0	14.0	B
3	1.00	1.00	0.903	0.916	4337	702	7507	1972	0.58	0.36	68.1	68.1	15.9	15.9	B
4	1.00	1.00	0.903	0.916	4753	770	7507	1972	0.63	0.39	66.2	66.2	17.9	17.9	B
5	1.00	1.00	0.903	0.916	4996	809	7507	1972	0.67	0.41	64.8	64.8	19.3	19.3	C
6	1.00	1.00	0.903	0.916	5443	882	7507	1972	0.73	0.45	62.0	62.0	21.9	21.9	C
7	1.00	1.00	0.903	0.916	5799	939	7507	1972	0.77	0.48	59.3	59.3	24.4	24.4	C
8	1.00	1.00	0.903	0.916	5414	877	7507	1972	0.72	0.44	62.2	62.2	21.8	21.8	C
9	1.00	1.00	0.903	0.916	5201	842	7507	1972	0.69	0.43	63.6	63.6	20.4	20.4	C
10	1.00	1.00	0.903	0.916	5414	877	7507	1972	0.72	0.44	62.2	62.2	21.8	21.8	C
11	1.00	1.00	0.903	0.916	5942	962	7507	1972	0.79	0.49	58.1	58.1	25.6	25.6	C

12	1.00	1.00	0.903	0.916	5658	916	7507	1972	0.75	0.46	60.4	60.4	23.4	23.4	C
Segment 12: Basic															
AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS							
1	1.00	0.903	3656	9014	0.41	71.1	12.8	B							
2	1.00	0.903	3920	9014	0.43	71.1	13.8	B							
3	1.00	0.903	4347	9014	0.48	70.9	15.3	B							
4	1.00	0.903	4764	9014	0.53	70.8	16.8	B							
5	1.00	0.903	5008	9014	0.56	70.4	17.8	B							
6	1.00	0.903	5456	9014	0.61	69.5	19.6	C							
7	1.00	0.903	5813	9014	0.64	68.6	21.2	C							
8	1.00	0.903	5426	9014	0.60	69.6	19.5	C							
9	1.00	0.903	5213	9014	0.58	70.1	18.6	C							
10	1.00	0.903	5426	9014	0.60	69.6	19.5	C							
11	1.00	0.903	5956	9014	0.66	68.1	21.9	C							
12	1.00	0.903	5671	9014	0.63	69.0	20.6	C							
Segment 13: Basic															
AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS							
1	1.00	0.903	3656	9014	0.41	71.2	12.8	B							
2	1.00	0.903	3920	9014	0.43	71.2	13.8	B							
3	1.00	0.903	4347	9014	0.48	71.1	15.3	B							
4	1.00	0.903	4764	9014	0.53	70.8	16.8	B							
5	1.00	0.903	5008	9014	0.56	70.4	17.8	B							
6	1.00	0.903	5456	9014	0.61	69.5	19.6	C							
7	1.00	0.903	5813	9014	0.64	68.6	21.2	C							
8	1.00	0.903	5426	9014	0.60	69.6	19.5	C							
9	1.00	0.903	5213	9014	0.58	70.1	18.6	C							
10	1.00	0.903	5426	9014	0.60	69.6	19.5	C							
11	1.00	0.903	5956	9014	0.66	68.1	21.9	C							
12	1.00	0.903	5671	9014	0.63	69.0	20.6	C							
Segment 14: Basic															
AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS							
1	1.00	0.903	3656	9014	0.41	71.2	12.8	B							
2	1.00	0.903	3920	9014	0.43	71.2	13.8	B							
3	1.00	0.903	4347	9014	0.48	71.1	15.3	B							
4	1.00	0.903	4764	9014	0.53	70.8	16.8	B							
5	1.00	0.903	5008	9014	0.56	70.4	17.8	B							
6	1.00	0.903	5456	9014	0.61	69.5	19.6	C							
7	1.00	0.903	5813	9014	0.64	68.6	21.2	C							
8	1.00	0.903	5426	9014	0.60	69.6	19.5	C							

9	1.00	0.903	5213	9014	0.58	70.1	18.6	C
10	1.00	0.903	5426	9014	0.60	69.6	19.5	C
11	1.00	0.903	5956	9014	0.66	68.1	21.9	C
12	1.00	0.903	5671	9014	0.63	69.0	20.6	C

Segment 15: Basic

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.903	0.899	3656	508	9014	3944	0.41	0.13	71.2	60.3	12.8	3.3	B
2	1.00	1.00	0.903	0.899	3920	545	9014	3944	0.43	0.14	71.2	60.2	13.8	4.2	B
3	1.00	1.00	0.903	0.899	4347	605	9014	3944	0.48	0.15	71.1	60.1	15.3	5.7	B
4	1.00	1.00	0.903	0.899	4764	663	9014	3944	0.53	0.17	70.8	59.9	16.8	7.1	B
5	1.00	1.00	0.903	0.899	5008	705	9014	3944	0.56	0.18	70.4	59.8	17.8	7.8	B
6	1.00	1.00	0.903	0.899	5456	753	9014	3944	0.61	0.20	69.5	59.6	19.6	8.6	C
7	1.00	1.00	0.903	0.899	5813	801	9014	3944	0.64	0.21	68.6	59.5	21.2	9.2	C
8	1.00	1.00	0.903	0.899	5426	753	9014	3944	0.60	0.20	69.6	59.6	19.5	8.6	C
9	1.00	1.00	0.903	0.899	5213	705	9014	3944	0.58	0.19	70.1	59.7	18.6	8.1	C
10	1.00	1.00	0.903	0.899	5426	753	9014	3944	0.60	0.20	69.6	59.6	19.5	8.6	C
11	1.00	1.00	0.903	0.899	5956	801	9014	3944	0.66	0.22	68.1	59.4	21.9	9.2	C
12	1.00	1.00	0.903	0.899	5671	753	9014	3944	0.63	0.21	69.0	59.5	20.6	8.6	C

Segment 16: Basic

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.903	0.899	3656	508	9014	3944	0.41	0.13	71.2	60.3	12.8	3.3	B
2	1.00	1.00	0.903	0.899	3920	545	9014	3944	0.43	0.14	71.2	60.2	13.8	4.2	B
3	1.00	1.00	0.903	0.899	4347	605	9014	3944	0.48	0.15	71.1	60.1	15.3	5.7	B
4	1.00	1.00	0.903	0.899	4764	663	9014	3944	0.53	0.17	70.8	59.9	16.8	7.1	B
5	1.00	1.00	0.903	0.899	5008	705	9014	3944	0.56	0.18	70.4	59.8	17.8	7.8	B
6	1.00	1.00	0.903	0.899	5456	753	9014	3944	0.61	0.20	69.5	59.6	19.6	8.6	C
7	1.00	1.00	0.903	0.899	5813	801	9014	3944	0.64	0.21	68.6	59.5	21.2	9.2	C
8	1.00	1.00	0.903	0.899	5426	753	9014	3944	0.60	0.20	69.6	59.6	19.5	8.6	C
9	1.00	1.00	0.903	0.899	5213	705	9014	3944	0.58	0.19	70.1	59.7	18.6	8.1	C
10	1.00	1.00	0.903	0.899	5426	753	9014	3944	0.60	0.20	69.6	59.6	19.5	8.6	C
11	1.00	1.00	0.903	0.899	5956	801	9014	3944	0.66	0.22	68.1	59.4	21.9	9.2	C
12	1.00	1.00	0.903	0.899	5671	753	9014	3944	0.63	0.21	69.0	59.5	20.6	8.6	C

Segment 17: Diverge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.903	0.899	3656	508	7507	3944	0.49	0.13	69.7	60.3	13.1	3.3	A
2	1.00	1.00	0.903	0.899	3920	545	7507	3944	0.52	0.14	69.5	60.2	14.1	4.2	A
3	1.00	1.00	0.903	0.899	4347	605	7507	3944	0.58	0.15	69.2	60.1	15.7	5.7	A
4	1.00	1.00	0.903	0.899	4764	663	7507	3944	0.63	0.17	68.8	59.9	17.3	7.1	A

5	1.00	1.00	0.903	0.899	5008	697	7507	3944	0.67	0.18	68.6	59.8	18.3	8.0	A
6	1.00	1.00	0.903	0.899	5456	760	7507	3944	0.73	0.19	68.3	59.7	20.0	9.5	A
7	1.00	1.00	0.903	0.899	5813	809	7507	3944	0.77	0.21	68.0	59.5	21.4	10.7	B
8	1.00	1.00	0.903	0.899	5426	755	7507	3944	0.72	0.19	68.4	59.7	19.8	9.4	A
9	1.00	1.00	0.903	0.899	5213	725	7507	3944	0.69	0.18	68.5	59.8	19.0	8.7	A
10	1.00	1.00	0.903	0.899	5426	755	7507	3944	0.72	0.19	68.4	59.7	19.8	9.4	A
11	1.00	1.00	0.903	0.899	5956	829	7507	3944	0.79	0.21	67.9	59.5	21.9	11.2	B
12	1.00	1.00	0.903	0.899	5671	790	7507	3944	0.76	0.20	68.2	59.6	20.8	10.3	B

Segment 18: Basic

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	1.00		0.904		3146		9014		0.35		71.2		11.0		A
2	1.00		0.904		3374		9014		0.37		71.2		11.9		B
3	1.00		0.904		3740		9014		0.41		71.2		13.1		B
4	1.00		0.904		4100		9014		0.45		71.2		14.4		B
5	1.00		0.904		4309		9014		0.48		71.1		15.1		B
6	1.00		0.904		4695		9014		0.52		70.9		16.6		B
7	1.00		0.904		5002		9014		0.55		70.4		17.8		B
8	1.00		0.904		4669		9014		0.52		70.9		16.5		B
9	1.00		0.904		4486		9014		0.50		71.0		15.8		B
10	1.00		0.904		4669		9014		0.52		70.9		16.5		B
11	1.00		0.904		5125		9014		0.57		70.2		18.2		C
12	1.00		0.904		4879		9014		0.54		70.6		17.3		B

Segment 19: Basic

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	1.00		0.904		3146		9014		0.35		71.2		11.0		A
2	1.00		0.904		3374		9014		0.37		71.2		11.9		B
3	1.00		0.904		3740		9014		0.41		71.2		13.1		B
4	1.00		0.904		4100		9014		0.45		71.2		14.4		B
5	1.00		0.904		4309		9014		0.48		71.1		15.1		B
6	1.00		0.904		4695		9014		0.52		70.9		16.6		B
7	1.00		0.904		5002		9014		0.55		70.4		17.8		B
8	1.00		0.904		4669		9014		0.52		70.9		16.5		B
9	1.00		0.904		4486		9014		0.50		71.0		15.8		B
10	1.00		0.904		4669		9014		0.52		70.9		16.5		B
11	1.00		0.904		5125		9014		0.57		70.2		18.2		C
12	1.00		0.904		4879		9014		0.54		70.6		17.3		B

Segment 20: Diverge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	

1	1.00	1.00	0.904	0.918	3146	1892	7507	3944	0.42	0.48	60.4	56.7	13.0	11.7	B
2	1.00	1.00	0.904	0.918	3374	2029	7507	3944	0.45	0.51	60.1	56.3	14.0	13.3	B
3	1.00	1.00	0.904	0.918	3740	2251	7507	3944	0.50	0.57	59.6	55.8	15.7	15.7	B
4	1.00	1.00	0.904	0.918	4100	2466	7507	3944	0.55	0.63	59.1	55.2	17.3	18.1	B
5	1.00	1.00	0.904	0.918	4309	2594	7507	3944	0.57	0.66	58.7	54.8	18.4	19.5	B
6	1.00	1.00	0.904	0.918	4695	2826	7507	3944	0.63	0.72	58.2	54.2	20.2	22.1	C
7	1.00	1.00	0.904	0.918	5002	3010	7507	3944	0.67	0.76	57.7	53.7	21.7	24.1	C
8	1.00	1.00	0.904	0.918	4669	2809	7507	3944	0.62	0.71	58.3	54.3	20.0	21.9	C
9	1.00	1.00	0.904	0.918	4486	2698	7507	3944	0.60	0.68	58.6	54.6	19.1	20.7	C
10	1.00	1.00	0.904	0.918	4669	2809	7507	3944	0.62	0.71	58.3	54.3	20.0	21.9	C
11	1.00	1.00	0.904	0.918	5125	3084	7507	3944	0.68	0.78	57.7	53.6	22.2	24.9	C
12	1.00	1.00	0.904	0.918	4879	2936	7507	3944	0.65	0.74	57.9	53.9	21.1	23.3	C

Segment 21: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.883	1254	6761	0.19	69.5	5.9	A
2	1.00	0.883	1344	6761	0.20	69.4	6.3	A
3	1.00	0.883	1489	6761	0.22	69.4	7.0	A
4	1.00	0.883	1633	6761	0.24	69.3	7.6	A
5	1.00	0.883	1715	6761	0.25	69.2	8.0	A
6	1.00	0.883	1869	6761	0.28	69.1	8.8	A
7	1.00	0.883	1992	6761	0.29	69.1	9.3	A
8	1.00	0.883	1860	6761	0.28	69.2	8.7	A
9	1.00	0.883	1787	6761	0.26	69.2	8.4	A
10	1.00	0.883	1860	6761	0.28	69.2	8.7	A
11	1.00	0.883	2041	6761	0.30	69.1	9.6	A
12	1.00	0.883	1943	6761	0.29	69.1	9.1	A

Segment 22: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.879	0.870	1766	507	5918	1972	0.30	0.26	65.0	62.8	9.1	11.6	B
2	1.00	1.00	0.879	0.870	1894	544	5918	1972	0.32	0.28	65.0	62.8	9.7	12.3	B
3	1.00	1.00	0.879	0.870	2099	603	5918	1972	0.35	0.31	64.9	62.7	10.8	13.4	B
4	1.00	1.00	0.879	0.870	2302	661	5918	1972	0.39	0.34	64.7	62.6	11.9	14.5	B
5	1.00	1.00	0.879	0.870	2417	695	5918	1972	0.41	0.35	64.7	62.6	12.5	15.2	B
6	1.00	1.00	0.879	0.870	2634	757	5918	1972	0.45	0.38	64.6	62.5	13.6	16.3	B
7	1.00	1.00	0.879	0.870	2808	807	5918	1972	0.47	0.41	64.5	62.4	14.5	17.3	B
8	1.00	1.00	0.879	0.870	2621	753	5918	1972	0.44	0.38	64.6	62.5	13.5	16.3	B
9	1.00	1.00	0.879	0.870	2518	723	5918	1972	0.43	0.37	64.6	62.5	13.0	15.7	B
10	1.00	1.00	0.879	0.870	2621	753	5918	1972	0.44	0.38	64.6	62.5	13.5	16.3	B
11	1.00	1.00	0.879	0.870	2876	826	5918	1972	0.49	0.42	64.4	62.3	14.9	17.6	B

12	1.00	1.00	0.879	0.870	2738	786	5918	1972	0.46	0.40	64.5	62.4	14.1	16.9	B
Segment 23: Basic															
AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS							
1	1.00	0.879	1761	6761	0.26	70.7	8.2	A							
2	1.00	0.879	1889	6761	0.28	70.7	8.8	A							
3	1.00	0.879	2093	6761	0.31	70.7	9.8	A							
4	1.00	0.879	2295	6761	0.34	70.6	10.7	A							
5	1.00	0.879	2411	6761	0.36	70.6	11.3	B							
6	1.00	0.879	2627	6761	0.39	70.6	12.3	B							
7	1.00	0.879	2800	6761	0.41	70.6	13.1	B							
8	1.00	0.879	2613	6761	0.39	70.6	12.2	B							
9	1.00	0.879	2511	6761	0.37	70.6	11.8	B							
10	1.00	0.879	2613	6761	0.39	70.6	12.2	B							
11	1.00	0.879	2868	6761	0.42	70.6	13.4	B							
12	1.00	0.879	2730	6761	0.40	70.6	12.8	B							

Facility Analysis Results									
AP	VMT veh-mi/AP	VMT-Demand veh-mi/AP	VHD veh-h/AP	Total Delay Cost \$/AP	Speed mi/h	Density pc/mi/ln	Density veh/mi/ln	TT min	LOS
1	17912	17811	0.91	22.65	70.9	12.5	11.3	19.30	B
2	19208	19100	1.14	28.52	70.9	13.4	12.1	19.30	B
3	21299	21179	1.92	47.98	70.8	14.9	13.5	19.30	B
4	23344	23213	3.79	94.78	70.4	16.4	14.9	19.40	B
5	24538	24400	5.99	149.68	70.0	17.4	15.7	19.50	B
6	26734	26584	11.59	289.69	69.1	19.2	17.4	19.80	C
7	28484	28323	18.14	453.45	68.1	20.8	18.7	20.10	C
8	26588	26439	11.14	278.46	69.1	19.1	17.2	19.80	C
9	25541	25398	8.06	201.61	69.6	18.2	16.4	19.60	C
10	26588	26439	11.14	278.46	69.1	19.1	17.2	19.80	C
11	29183	29019	21.66	541.38	67.6	21.4	19.4	20.20	C
12	27787	27631	15.30	382.55	68.5	20.1	18.2	20.00	C

Facility Overall Results			
Space Mean Speed, mi/h	69.4	Average Density, veh/mi/ln	16.0
Average Travel Time, min	19.70	Average Density, pc/mi/ln	17.7
Total VMT, veh-mi	297209	Total VHD, veh-h	110.77
Vehicle Value of Time (VOT), \$/h	25.00	Total Delay Cost, \$	2769.21

HCS Freeway Facilities Report

Project Information

Analyst	Kittelson & Associates	Date	11/27/2023
Agency	Florida Department of Transportation	Analysis Year	2040 Build Conditions
Jurisdiction	District Five	Time Analyzed	PM Weekday Peak Period
Facility Name	I-75 (Southbound)	Units	U.S. Customary
Project Description	I-75 PD&E South Auxiliary Lanes		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	23
Total Analysis Periods	12	Analysis Period Duration, min	15
Facility Length, mi	22.79		

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	I-75 SB	1500	4
2	Diverge	Basic	I-75 SB SR 200 Off Ramp	1500	4
3	Basic	Basic	I-75 SB	3285	3
4	Merge	Basic	I-75 SB SR 200 On Ramp	1500	4
5	Basic	Basic	I-75 SB	1500	4
6	Basic	Basic	I-75 SB	1500	4
7	Basic	Basic	I-75 SB	36945	4
8	Basic	Basic	I-75 SB	1500	4
9	Diverge	Basic	I-75 SB CR 484 Off Ramp	1500	4
10	Basic	Basic	I-75 SB	2905	3
11	Merge	Basic	I-75 SB CR 484 On Ramp	1500	4
12	Basic	Basic	I-75 SB	1500	4
13	Basic	Basic	I-75 SB	1500	4
14	Basic	Basic	I-75 SB	47240	4
15	Basic	Basic	I-75 SB	1500	4
16	Basic	Basic	I-75 SB	1500	4
17	Diverge	Diverge	I-75 SB SR 44 Off Ramp	1500	4
18	Basic	Basic	I-75 SB	3547	4
19	Basic	Basic	I-75 SB	1610	4
20	Diverge	Diverge	I-75 SB Turnpike Off Ramp	1500	4
21	Basic	Basic	I-75 SB	775	3
22	Merge	Merge	I-75 SB SR 44 On Ramp	1500	3
23	Basic	Basic	I-75 SB	1538	3

Facility Segment Data

Segment 1: Basic															
AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	1.00		0.907		6990		9014		0.85		22.5		77.6		F
2	1.00		0.907		6982		9014		0.82		22.5		77.7		F
3	1.00		0.907		6982		9014		0.89		22.5		77.7		F
4	1.00		0.907		6982		9014		0.85		22.5		77.7		F
5	1.00		0.907		6982		9014		0.89		22.5		77.7		F
6	1.00		0.907		6982		9014		0.82		22.5		77.7		F
7	1.00		0.907		6982		9014		0.84		22.5		77.7		F
8	1.00		0.907		6982		9014		0.85		22.5		77.7		F
9	1.00		0.907		6982		9014		0.80		22.5		77.7		F
10	1.00		0.907		6982		9014		0.77		22.5		77.7		F
11	1.00		0.907		6982		9014		0.79		22.5		77.7		F
12	1.00		0.907		6982		9014		0.73		22.5		77.7		F

Segment 2: Diverge															
AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.907	0.951	6990	1017	7507	1972	1.02	0.52	65.9	65.9	26.5	26.5	F
2	1.00	1.00	0.907	0.951	6982	980	7507	1972	0.99	0.50	66.0	66.0	26.4	26.4	D
3	1.00	1.00	0.907	0.951	6982	1062	7507	1972	1.07	0.54	65.8	65.8	26.5	26.5	F
4	1.00	1.00	0.907	0.951	6982	1015	7507	1972	1.02	0.51	65.9	65.9	26.5	26.5	F
5	1.00	1.00	0.907	0.951	6982	1068	7507	1972	1.07	0.54	65.7	65.7	26.6	26.6	F
6	1.00	1.00	0.907	0.951	6982	981	7507	1972	0.99	0.50	66.0	66.0	26.4	26.4	D
7	1.00	1.00	0.907	0.951	6982	1006	7507	1972	1.01	0.51	65.9	65.9	26.5	26.5	F
8	1.00	1.00	0.907	0.951	6982	1020	7507	1972	1.03	0.52	65.9	65.9	26.5	26.5	F
9	1.00	1.00	0.907	0.951	6982	954	7507	1972	0.96	0.48	66.1	66.1	26.4	26.4	D
10	1.00	1.00	0.907	0.951	6982	917	7507	1972	0.92	0.46	66.2	66.2	26.4	26.4	D
11	1.00	1.00	0.907	0.951	6982	943	7507	1972	0.95	0.48	66.1	66.1	26.4	26.4	D
12	1.00	1.00	0.907	0.951	6982	874	7507	1972	0.88	0.44	66.3	66.3	26.3	26.3	D

Segment 3: Basic															
AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	1.00		0.900		5973		6761		0.99		58.1		34.3		D
2	1.00		0.900		6057		6761		0.95		57.3		35.2		E
3	1.00		0.900		6057		6761		1.03		57.3		35.2		F
4	1.00		0.900		6057		6761		0.98		57.3		35.2		E
5	1.00		0.900		6057		6761		1.04		57.3		35.2		F
6	1.00		0.900		6057		6761		0.95		57.3		35.2		E
7	1.00		0.900		6057		6761		0.98		57.3		35.2		E
8	1.00		0.900		6058		6761		0.99		57.3		35.2		E

9	1.00	0.900	6057	6761	0.92	57.3	35.2	E
10	1.00	0.900	6057	6761	0.89	57.3	35.2	E
11	1.00	0.900	6058	6761	0.91	57.3	35.2	E
12	1.00	0.900	6057	6761	0.85	57.3	35.2	E

Segment 4: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.906	0.942	7063	1090	7507	1972	1.03	0.55	64.2	64.2	27.5	27.5	F
2	1.00	1.00	0.906	0.942	7108	1051	7507	1972	0.99	0.53	64.2	64.2	27.7	27.7	D
3	1.00	1.00	0.906	0.942	7195	1138	7507	1972	1.07	0.58	64.0	64.0	28.1	28.1	F
4	1.00	1.00	0.906	0.942	7145	1088	7507	1972	1.03	0.55	64.1	64.1	27.9	27.9	F
5	1.00	1.00	0.906	0.942	7202	1145	7507	1972	1.08	0.58	63.9	63.9	28.2	28.2	F
6	1.00	1.00	0.906	0.942	7109	1052	7507	1972	0.99	0.53	64.2	64.2	27.7	27.7	D
7	1.00	1.00	0.906	0.942	7137	1080	7507	1972	1.02	0.55	64.1	64.1	27.8	27.8	F
8	1.00	1.00	0.906	0.942	7151	1093	7507	1972	1.03	0.55	64.1	64.1	27.9	27.9	F
9	1.00	1.00	0.906	0.942	7079	1022	7507	1972	0.96	0.52	64.2	64.2	27.6	27.6	D
10	1.00	1.00	0.906	0.942	7041	984	7507	1972	0.93	0.50	64.3	64.3	27.4	27.4	D
11	1.00	1.00	0.906	0.942	7069	1011	7507	1972	0.95	0.51	64.2	64.2	27.5	27.5	D
12	1.00	1.00	0.906	0.942	6993	936	7507	1972	0.88	0.47	64.4	64.4	27.1	27.1	D

Segment 5: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.906	7063	9014	0.86	63.4	27.9	D
2	1.00	0.906	7108	9014	0.83	63.2	28.1	D
3	1.00	0.906	7195	9014	0.90	62.8	28.6	D
4	1.00	0.906	7145	9014	0.86	63.0	28.4	D
5	1.00	0.906	7202	9014	0.90	62.7	28.7	D
6	1.00	0.906	7109	9014	0.83	63.2	28.1	D
7	1.00	0.906	7137	9014	0.85	63.1	28.3	D
8	1.00	0.906	7151	9014	0.86	63.0	28.4	D
9	1.00	0.906	7079	9014	0.81	63.4	27.9	D
10	1.00	0.906	7041	9014	0.78	63.6	27.7	D
11	1.00	0.906	7069	9014	0.80	63.4	27.9	D
12	1.00	0.906	6993	9014	0.74	63.8	27.4	D

Segment 6: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.906	7063	9014	0.86	63.4	27.9	D
2	1.00	0.906	7108	9014	0.83	63.2	28.1	D
3	1.00	0.906	7195	9014	0.90	62.8	28.6	D
4	1.00	0.906	7145	9014	0.86	63.0	28.4	D

1	1.00	1.00	0.906	0.923	7063	1298	7507	1972	1.03	0.66	65.2	65.2	27.1	27.1	F
2	1.00	1.00	0.906	0.923	7108	1250	7507	1972	1.00	0.63	65.3	65.3	27.2	27.2	D
3	1.00	1.00	0.906	0.923	7195	1355	7507	1972	1.08	0.69	65.0	65.0	27.7	27.7	F
4	1.00	1.00	0.906	0.923	7145	1295	7507	1972	1.03	0.66	65.2	65.2	27.4	27.4	F
5	1.00	1.00	0.906	0.923	7202	1363	7507	1972	1.09	0.69	65.0	65.0	27.7	27.7	F
6	1.00	1.00	0.906	0.923	7109	1251	7507	1972	1.00	0.63	65.3	65.3	27.2	27.2	D
7	1.00	1.00	0.906	0.923	7137	1285	7507	1972	1.02	0.65	65.2	65.2	27.4	27.4	F
8	1.00	1.00	0.906	0.923	7151	1301	7507	1972	1.04	0.66	65.1	65.1	27.5	27.5	F
9	1.00	1.00	0.906	0.923	7079	1217	7507	1972	0.97	0.62	65.4	65.4	27.1	27.1	D
10	1.00	1.00	0.906	0.923	7041	1170	7507	1972	0.93	0.59	65.5	65.5	26.9	26.9	D
11	1.00	1.00	0.906	0.923	7069	1204	7507	1972	0.96	0.61	65.4	65.4	27.0	27.0	D
12	1.00	1.00	0.906	0.923	6993	1115	7507	1972	0.89	0.57	65.6	65.6	26.7	26.7	D

Segment 10: Basic

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	1.00		0.902		5765		6761		0.96		59.9		32.1		D
2	1.00		0.902		5918		6761		0.92		58.6		33.7		D
3	1.00		0.902		5992		6761		1.00		57.9		34.5		D
4	1.00		0.902		5950		6761		0.95		58.3		34.0		D
5	1.00		0.902		5997		6761		1.00		57.9		34.5		F
6	1.00		0.902		5920		6761		0.92		58.6		33.7		D
7	1.00		0.902		5944		6761		0.95		58.4		33.9		D
8	1.00		0.902		5954		6761		0.96		58.3		34.0		D
9	1.00		0.902		5895		6761		0.90		58.8		33.4		D
10	1.00		0.902		5862		6761		0.86		59.1		33.1		D
11	1.00		0.902		5887		6761		0.89		58.9		33.3		D
12	1.00		0.902		5822		6761		0.82		59.4		32.7		D

Segment 11: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.903	0.916	6254	489	7507	1972	0.92	0.25	65.4	65.4	23.9	23.9	C
2	1.00	1.00	0.903	0.916	6390	472	7507	1972	0.89	0.24	65.2	65.2	24.5	24.5	C
3	1.00	1.00	0.903	0.916	6503	511	7507	1972	0.97	0.26	65.1	65.1	25.0	25.0	C
4	1.00	1.00	0.903	0.916	6438	488	7507	1972	0.92	0.25	65.2	65.2	24.7	24.7	C
5	1.00	1.00	0.903	0.916	6511	514	7507	1972	0.97	0.26	65.1	65.1	25.0	25.0	C
6	1.00	1.00	0.903	0.916	6392	472	7507	1972	0.89	0.24	65.2	65.2	24.5	24.5	C
7	1.00	1.00	0.903	0.916	6429	485	7507	1972	0.92	0.25	65.2	65.2	24.7	24.7	C
8	1.00	1.00	0.903	0.916	6444	490	7507	1972	0.93	0.25	65.2	65.2	24.7	24.7	C
9	1.00	1.00	0.903	0.916	6354	459	7507	1972	0.87	0.23	65.3	65.3	24.3	24.3	C
10	1.00	1.00	0.903	0.916	6303	441	7507	1972	0.83	0.22	65.3	65.3	24.1	24.1	C
11	1.00	1.00	0.903	0.916	6341	454	7507	1972	0.86	0.23	65.3	65.3	24.3	24.3	C

12	1.00	1.00	0.903	0.916	6242	420	7507	1972	0.79	0.21	65.4	65.4	23.9	23.9	C
Segment 12: Basic															
AP	PHF	fHV	Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio	Speed (mi/h)		Density (pc/mi/ln)		LOS			
1	1.00	0.903	6254		9014		0.77	67.1		23.3		C			
2	1.00	0.903	6390		9014		0.74	66.5		24.0		C			
3	1.00	0.903	6503		9014		0.81	66.1		24.6		C			
4	1.00	0.903	6438		9014		0.77	66.3		24.3		C			
5	1.00	0.903	6511		9014		0.81	66.0		24.7		C			
6	1.00	0.903	6392		9014		0.74	66.5		24.0		C			
7	1.00	0.903	6429		9014		0.76	66.4		24.2		C			
8	1.00	0.903	6444		9014		0.77	66.3		24.3		C			
9	1.00	0.903	6354		9014		0.72	66.7		23.8		C			
10	1.00	0.903	6303		9014		0.70	66.9		23.6		C			
11	1.00	0.903	6341		9014		0.71	66.7		23.8		C			
12	1.00	0.903	6242		9014		0.66	67.1		23.3		C			
Segment 13: Basic															
AP	PHF	fHV	Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio	Speed (mi/h)		Density (pc/mi/ln)		LOS			
1	1.00	0.903	6254		9014		0.77	67.1		23.3		C			
2	1.00	0.903	6390		9014		0.74	66.5		24.0		C			
3	1.00	0.903	6503		9014		0.81	66.1		24.6		C			
4	1.00	0.903	6438		9014		0.77	66.3		24.3		C			
5	1.00	0.903	6511		9014		0.81	66.0		24.7		C			
6	1.00	0.903	6392		9014		0.74	66.5		24.0		C			
7	1.00	0.903	6429		9014		0.76	66.4		24.2		C			
8	1.00	0.903	6444		9014		0.77	66.3		24.3		C			
9	1.00	0.903	6354		9014		0.72	66.7		23.8		C			
10	1.00	0.903	6303		9014		0.70	66.9		23.6		C			
11	1.00	0.903	6341		9014		0.71	66.7		23.8		C			
12	1.00	0.903	6242		9014		0.66	67.1		23.3		C			
Segment 14: Basic															
AP	PHF	fHV	Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio	Speed (mi/h)		Density (pc/mi/ln)		LOS			
1	1.00	0.903	6254		9014		0.77	67.1		23.3		C			
2	1.00	0.903	6390		9014		0.74	66.5		24.0		C			
3	1.00	0.903	6503		9014		0.81	66.1		24.6		C			
4	1.00	0.903	6438		9014		0.77	66.3		24.3		C			
5	1.00	0.903	6511		9014		0.81	66.0		24.7		C			
6	1.00	0.903	6392		9014		0.74	66.5		24.0		C			
7	1.00	0.903	6429		9014		0.76	66.4		24.2		C			
8	1.00	0.903	6444		9014		0.77	66.3		24.3		C			

9	1.00	0.903	6354	9014	0.72	66.7	23.8	C
10	1.00	0.903	6303	9014	0.70	66.9	23.6	C
11	1.00	0.903	6341	9014	0.71	66.7	23.8	C
12	1.00	0.903	6242	9014	0.66	67.1	23.3	C

Segment 15: Basic

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.903	0.899	6254	720	9014	3944	0.77	0.18	67.1	59.8	23.3	12.3	C
2	1.00	1.00	0.903	0.899	6390	693	9014	3944	0.74	0.18	66.5	59.8	24.0	12.7	C
3	1.00	1.00	0.903	0.899	6503	751	9014	3944	0.81	0.19	66.1	59.7	24.6	13.1	C
4	1.00	1.00	0.903	0.899	6438	717	9014	3944	0.77	0.18	66.3	59.8	24.3	12.9	C
5	1.00	1.00	0.903	0.899	6511	751	9014	3944	0.81	0.19	66.0	59.7	24.7	13.1	C
6	1.00	1.00	0.903	0.899	6392	693	9014	3944	0.74	0.18	66.5	59.8	24.0	12.7	C
7	1.00	1.00	0.903	0.899	6429	717	9014	3944	0.76	0.18	66.4	59.8	24.2	12.9	C
8	1.00	1.00	0.903	0.899	6444	717	9014	3944	0.77	0.18	66.3	59.8	24.3	12.9	C
9	1.00	1.00	0.903	0.899	6354	720	9014	3944	0.72	0.18	66.7	59.8	23.8	12.3	C
10	1.00	1.00	0.903	0.899	6303	720	9014	3944	0.70	0.18	66.9	59.8	23.6	12.3	C
11	1.00	1.00	0.903	0.899	6341	720	9014	3944	0.71	0.18	66.7	59.8	23.8	12.3	C
12	1.00	1.00	0.903	0.899	6242	720	9014	3944	0.66	0.18	67.1	59.8	23.3	12.3	C

Segment 16: Basic

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.903	0.899	6254	720	9014	3944	0.77	0.18	67.1	59.8	23.3	12.3	C
2	1.00	1.00	0.903	0.899	6390	693	9014	3944	0.74	0.18	66.5	59.8	24.0	12.7	C
3	1.00	1.00	0.903	0.899	6503	751	9014	3944	0.81	0.19	66.1	59.7	24.6	13.1	C
4	1.00	1.00	0.903	0.899	6438	717	9014	3944	0.77	0.18	66.3	59.8	24.3	12.9	C
5	1.00	1.00	0.903	0.899	6511	751	9014	3944	0.81	0.19	66.0	59.7	24.7	13.1	C
6	1.00	1.00	0.903	0.899	6392	693	9014	3944	0.74	0.18	66.5	59.8	24.0	12.7	C
7	1.00	1.00	0.903	0.899	6429	717	9014	3944	0.76	0.18	66.4	59.8	24.2	12.9	C
8	1.00	1.00	0.903	0.899	6444	717	9014	3944	0.77	0.18	66.3	59.8	24.3	12.9	C
9	1.00	1.00	0.903	0.899	6354	720	9014	3944	0.72	0.18	66.7	59.8	23.8	12.3	C
10	1.00	1.00	0.903	0.899	6303	720	9014	3944	0.70	0.18	66.9	59.8	23.6	12.3	C
11	1.00	1.00	0.903	0.899	6341	720	9014	3944	0.71	0.18	66.7	59.8	23.8	12.3	C
12	1.00	1.00	0.903	0.899	6242	720	9014	3944	0.66	0.18	67.1	59.8	23.3	12.3	C

Segment 17: Diverge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.903	0.899	6254	720	7507	3944	0.93	0.18	67.9	59.8	23.0	12.3	B
2	1.00	1.00	0.903	0.899	6390	693	7507	3944	0.89	0.18	67.8	59.8	23.6	12.7	B
3	1.00	1.00	0.903	0.899	6503	751	7507	3944	0.97	0.19	67.7	59.7	24.0	13.1	B
4	1.00	1.00	0.903	0.899	6438	717	7507	3944	0.92	0.18	67.8	59.8	23.7	12.9	B

5	1.00	1.00	0.903	0.899	6511	755	7507	3944	0.97	0.19	67.7	59.7	24.0	13.1	B
6	1.00	1.00	0.903	0.899	6392	694	7507	3944	0.89	0.18	67.8	59.8	23.6	12.7	B
7	1.00	1.00	0.903	0.899	6429	712	7507	3944	0.92	0.18	67.8	59.8	23.7	12.9	B
8	1.00	1.00	0.903	0.899	6444	722	7507	3944	0.93	0.18	67.8	59.8	23.8	12.9	B
9	1.00	1.00	0.903	0.899	6354	674	7507	3944	0.87	0.17	67.9	59.9	23.4	12.6	B
10	1.00	1.00	0.903	0.899	6303	648	7507	3944	0.84	0.16	68.0	60.0	23.2	12.4	B
11	1.00	1.00	0.903	0.899	6341	667	7507	3944	0.86	0.17	67.9	59.9	23.3	12.6	B
12	1.00	1.00	0.903	0.899	6242	617	7507	3944	0.80	0.16	68.0	60.0	22.9	12.2	B

Segment 18: Basic

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	1.00		0.904		5534		9014		0.69		69.3		20.0		C
2	1.00		0.904		5728		9014		0.67		68.8		20.8		C
3	1.00		0.904		5830		9014		0.72		68.5		21.3		C
4	1.00		0.904		5771		9014		0.69		68.7		21.0		C
5	1.00		0.904		5838		9014		0.73		68.5		21.3		C
6	1.00		0.904		5731		9014		0.67		68.8		20.8		C
7	1.00		0.904		5763		9014		0.68		68.7		21.0		C
8	1.00		0.904		5777		9014		0.69		68.7		21.0		C
9	1.00		0.904		5696		9014		0.65		68.9		20.7		C
10	1.00		0.904		5651		9014		0.62		69.0		20.5		C
11	1.00		0.904		5686		9014		0.64		68.9		20.6		C
12	1.00		0.904		5596		9014		0.59		69.2		20.2		C

Segment 19: Basic

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	1.00		0.904		5534		9014		0.69		69.3		20.0		C
2	1.00		0.904		5728		9014		0.67		68.8		20.8		C
3	1.00		0.904		5830		9014		0.72		68.5		21.3		C
4	1.00		0.904		5771		9014		0.69		68.7		21.0		C
5	1.00		0.904		5838		9014		0.73		68.5		21.3		C
6	1.00		0.904		5731		9014		0.67		68.8		20.8		C
7	1.00		0.904		5763		9014		0.68		68.7		21.0		C
8	1.00		0.904		5777		9014		0.69		68.7		21.0		C
9	1.00		0.904		5696		9014		0.65		68.9		20.7		C
10	1.00		0.904		5651		9014		0.62		69.0		20.5		C
11	1.00		0.904		5686		9014		0.64		68.9		20.6		C
12	1.00		0.904		5596		9014		0.59		69.2		20.2		C

Segment 20: Diverge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	

1	1.00	1.00	0.904	0.918	5534	3520	7507	3944	0.83	0.89	56.0	52.4	24.7	29.0	D
2	1.00	1.00	0.904	0.918	5728	3392	7507	3944	0.80	0.86	57.0	52.7	25.1	28.6	D
3	1.00	1.00	0.904	0.918	5830	3676	7507	3944	0.87	0.93	55.7	52.0	26.2	30.8	D
4	1.00	1.00	0.904	0.918	5771	3513	7507	3944	0.83	0.89	56.5	52.4	25.5	29.5	D
5	1.00	1.00	0.904	0.918	5838	3697	7507	3944	0.87	0.94	55.7	52.0	26.2	31.0	D
6	1.00	1.00	0.904	0.918	5731	3395	7507	3944	0.80	0.86	57.0	52.7	25.1	28.6	D
7	1.00	1.00	0.904	0.918	5763	3485	7507	3944	0.82	0.88	56.6	52.5	25.5	29.3	D
8	1.00	1.00	0.904	0.918	5777	3531	7507	3944	0.83	0.90	56.4	52.4	25.6	29.7	D
9	1.00	1.00	0.904	0.918	5696	3301	7507	3944	0.78	0.84	57.5	53.0	24.8	27.9	C
10	1.00	1.00	0.904	0.918	5651	3176	7507	3944	0.75	0.81	58.0	53.3	24.4	26.9	C
11	1.00	1.00	0.904	0.918	5686	3265	7507	3944	0.77	0.83	57.7	53.1	24.6	27.6	C
12	1.00	1.00	0.904	0.918	5596	3023	7507	3944	0.71	0.77	58.7	53.7	23.8	25.7	C

Segment 21: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.884	2014	6761	0.40	68.8	9.4	A
2	1.00	0.884	2490	6761	0.39	69.0	11.7	B
3	1.00	0.884	2535	6761	0.42	68.7	11.9	B
4	1.00	0.884	2509	6761	0.40	68.9	11.7	B
5	1.00	0.884	2539	6761	0.42	68.7	11.9	B
6	1.00	0.884	2492	6761	0.39	69.0	11.7	B
7	1.00	0.884	2507	6761	0.40	68.9	11.7	B
8	1.00	0.884	2512	6761	0.40	68.9	11.8	B
9	1.00	0.884	2476	6761	0.38	69.0	11.6	B
10	1.00	0.884	2456	6761	0.36	69.1	11.5	B
11	1.00	0.884	2473	6761	0.37	69.1	11.6	B
12	1.00	0.884	2432	6761	0.34	69.2	11.4	B

Segment 22: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.881	0.870	2789	775	5918	1972	0.59	0.39	64.5	62.4	14.4	17.1	B
2	1.00	1.00	0.881	0.870	3236	746	5918	1972	0.57	0.38	64.2	62.1	16.8	19.1	B
3	1.00	1.00	0.881	0.870	3344	809	5918	1972	0.62	0.41	64.2	62.1	17.4	19.8	B
4	1.00	1.00	0.881	0.870	3281	772	5918	1972	0.59	0.39	64.2	62.1	17.0	19.4	B
5	1.00	1.00	0.881	0.870	3353	814	5918	1972	0.62	0.41	64.1	62.0	17.4	19.8	B
6	1.00	1.00	0.881	0.870	3239	747	5918	1972	0.57	0.38	64.2	62.1	16.8	19.1	B
7	1.00	1.00	0.881	0.870	3274	767	5918	1972	0.59	0.39	64.2	62.1	17.0	19.3	B
8	1.00	1.00	0.881	0.870	3289	777	5918	1972	0.59	0.39	64.2	62.1	17.1	19.4	B
9	1.00	1.00	0.881	0.870	3202	726	5918	1972	0.55	0.37	64.3	62.2	16.6	18.9	B
10	1.00	1.00	0.881	0.870	3155	699	5918	1972	0.53	0.35	64.3	62.2	16.4	18.6	B
11	1.00	1.00	0.881	0.870	3191	718	5918	1972	0.55	0.36	64.3	62.2	16.5	18.8	B

12	1.00	1.00	0.881	0.870	3098	666	5918	1972	0.51	0.34	64.4	62.3	16.0	18.2	B
Segment 23: Basic															
AP	PHF	fHV	Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio	Speed (mi/h)		Density (pc/mi/ln)		LOS			
1	1.00	0.881	2789		6761		0.52	70.6		13.1		B			
2	1.00	0.881	3236		6761		0.50	70.6		15.2		B			
3	1.00	0.881	3344		6761		0.54	70.6		15.7		B			
4	1.00	0.881	3281		6761		0.51	70.6		15.4		B			
5	1.00	0.881	3353		6761		0.54	70.6		15.7		B			
6	1.00	0.881	3239		6761		0.50	70.6		15.2		B			
7	1.00	0.881	3274		6761		0.51	70.6		15.3		B			
8	1.00	0.881	3289		6761		0.52	70.6		15.4		B			
9	1.00	0.881	3202		6761		0.48	70.6		15.0		B			
10	1.00	0.881	3155		6761		0.47	70.6		14.8		B			
11	1.00	0.881	3191		6761		0.48	70.6		14.9		B			
12	1.00	0.881	3098		6761		0.44	70.6		14.5		B			

Facility Analysis Results									
AP	VMT veh-mi/AP	VMT-Demand veh-mi/AP	VHD veh-h/AP	Total Delay Cost \$/AP	Speed mi/h	Density pc/mi/ln	Density veh/mi/ln	TT min	LOS
1	32953	36373	56.82	1420.44	63.4	25.8	23.3	21.60	F
2	33523	35056	60.59	1514.74	63.1	26.3	23.8	21.70	D
3	34014	37984	64.35	1608.67	62.8	26.9	24.3	21.80	F
4	33732	36303	62.34	1558.62	62.9	26.6	24.0	21.70	F
5	34051	38209	65.09	1627.26	62.7	26.9	24.3	21.80	F
6	33531	35091	60.60	1514.99	63.1	26.3	23.8	21.70	D
7	33691	36013	61.60	1540.10	63.0	26.5	24.0	21.70	F
8	33761	36483	62.41	1560.20	62.9	26.6	24.0	21.70	F
9	33364	34101	58.93	1473.31	63.3	26.1	23.6	21.60	D
10	33146	32825	57.21	1430.29	63.4	25.9	23.4	21.60	C
11	33309	33729	58.82	1470.50	63.3	26.1	23.6	21.60	D
12	32879	31239	55.41	1385.22	63.6	25.6	23.2	21.50	C

Facility Overall Results				
Space Mean Speed, mi/h	63.1		Average Density, veh/mi/ln	23.8
Average Travel Time, min	21.70		Average Density, pc/mi/ln	26.3
Total VMT, veh-mi	401954		Total VHD, veh-h	724.17
Vehicle Value of Time (VOT), \$/h	25.00		Total Delay Cost, \$	18104.34

HCS Freeway Facilities Report

Project Information

Analyst	Kittelson & Associates	Date	11/27/2023
Agency	Florida Department of Transportation	Analysis Year	2040 Build Conditions
Jurisdiction	District Five	Time Analyzed	WM Weekend Peak Period
Facility Name	I-75 (Southbound)	Units	U.S. Customary
Project Description	I-75 PD&E South Auxiliary Lanes		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	23
Total Analysis Periods	12	Analysis Period Duration, min	15
Facility Length, mi	22.79		

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	I-75 SB	1500	4
2	Diverge	Basic	I-75 SB SR 200 Off Ramp	1500	4
3	Basic	Basic	I-75 SB	3285	3
4	Merge	Basic	I-75 SB SR 200 On Ramp	1500	4
5	Basic	Basic	I-75 SB	1500	4
6	Basic	Basic	I-75 SB	1500	4
7	Basic	Basic	I-75 SB	36945	4
8	Basic	Basic	I-75 SB	1500	4
9	Diverge	Basic	I-75 SB CR 484 Off Ramp	1500	4
10	Basic	Basic	I-75 SB	2905	3
11	Merge	Basic	I-75 SB CR 484 On Ramp	1500	4
12	Basic	Basic	I-75 SB	1500	4
13	Basic	Basic	I-75 SB	1500	4
14	Basic	Basic	I-75 SB	47240	4
15	Basic	Basic	I-75 SB	1500	4
16	Basic	Basic	I-75 SB	1500	4
17	Diverge	Diverge	I-75 SB SR 44 Off Ramp	1500	4
18	Basic	Basic	I-75 SB	3547	4
19	Basic	Basic	I-75 SB	1610	4
20	Diverge	Diverge	I-75 SB Turnpike Off Ramp	1500	4
21	Basic	Basic	I-75 SB	775	3
22	Merge	Merge	I-75 SB SR 44 On Ramp	1500	3
23	Basic	Basic	I-75 SB	1538	3

Facility Segment Data

Segment 1: Basic															
AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	1.00		0.907		6323		9014		0.70		66.8		23.7		C
2	1.00		0.907		6323		9014		0.70		66.8		23.7		C
3	1.00		0.907		6323		9014		0.70		66.8		23.7		C
4	1.00		0.907		6323		9014		0.70		66.8		23.7		C
5	1.00		0.907		6666		9014		0.74		65.4		25.5		C
6	1.00		0.907		6666		9014		0.74		65.4		25.5		C
7	1.00		0.907		6666		9014		0.74		65.4		25.5		C
8	1.00		0.907		6666		9014		0.74		65.4		25.5		C
9	1.00		0.907		6799		9014		0.75		64.7		26.3		D
10	1.00		0.907		6799		9014		0.75		64.7		26.3		D
11	1.00		0.907		6799		9014		0.75		64.7		26.3		D
12	1.00		0.907		6799		9014		0.75		64.7		26.3		D

Segment 2: Diverge															
AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.907	0.962	6323	659	7507	1972	0.84	0.33	54.7	54.7	28.9	28.9	D
2	1.00	1.00	0.907	0.962	6323	659	7507	1972	0.84	0.33	54.7	54.7	28.9	28.9	D
3	1.00	1.00	0.907	0.962	6323	659	7507	1972	0.84	0.33	54.7	54.7	28.9	28.9	D
4	1.00	1.00	0.907	0.962	6323	659	7507	1972	0.84	0.33	54.7	54.7	28.9	28.9	D
5	1.00	1.00	0.907	0.962	6666	694	7507	1972	0.89	0.35	51.4	51.4	32.4	32.4	D
6	1.00	1.00	0.907	0.962	6666	694	7507	1972	0.89	0.35	51.4	51.4	32.4	32.4	D
7	1.00	1.00	0.907	0.962	6666	694	7507	1972	0.89	0.35	51.4	51.4	32.4	32.4	D
8	1.00	1.00	0.907	0.962	6666	694	7507	1972	0.89	0.35	51.4	51.4	32.4	32.4	D
9	1.00	1.00	0.907	0.962	6799	708	7507	1972	0.91	0.36	49.9	49.9	34.1	34.1	D
10	1.00	1.00	0.907	0.962	6799	708	7507	1972	0.91	0.36	49.9	49.9	34.1	34.1	D
11	1.00	1.00	0.907	0.962	6799	708	7507	1972	0.91	0.36	49.9	49.9	34.1	34.1	D
12	1.00	1.00	0.907	0.962	6799	708	7507	1972	0.91	0.36	49.9	49.9	34.1	34.1	D

Segment 3: Basic															
AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	1.00		0.900		5668		6761		0.84		60.7		31.1		D
2	1.00		0.900		5668		6761		0.84		60.7		31.1		D
3	1.00		0.900		5668		6761		0.84		60.7		31.1		D
4	1.00		0.900		5668		6761		0.84		60.7		31.1		D
5	1.00		0.900		5976		6761		0.88		58.1		34.3		D
6	1.00		0.900		5976		6761		0.88		58.1		34.3		D
7	1.00		0.900		5976		6761		0.88		58.1		34.3		D
8	1.00		0.900		5976		6761		0.88		58.1		34.3		D

9	1.00	0.900	6096	6761	0.90	57.0	35.6	E
10	1.00	0.900	6096	6761	0.90	57.0	35.6	E
11	1.00	0.900	6096	6761	0.90	57.0	35.6	E
12	1.00	0.900	6096	6761	0.90	57.0	35.6	E

Segment 4: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.907	0.959	6370	746	7507	1972	0.85	0.38	54.3	54.3	29.3	29.3	D
2	1.00	1.00	0.907	0.959	6370	746	7507	1972	0.85	0.38	54.3	54.3	29.3	29.3	D
3	1.00	1.00	0.907	0.959	6370	746	7507	1972	0.85	0.38	54.3	54.3	29.3	29.3	D
4	1.00	1.00	0.907	0.959	6370	746	7507	1972	0.85	0.38	54.3	54.3	29.3	29.3	D
5	1.00	1.00	0.907	0.959	6715	786	7507	1972	0.89	0.40	50.8	50.8	33.0	33.0	D
6	1.00	1.00	0.907	0.959	6715	786	7507	1972	0.89	0.40	50.8	50.8	33.0	33.0	D
7	1.00	1.00	0.907	0.959	6715	786	7507	1972	0.89	0.40	50.8	50.8	33.0	33.0	D
8	1.00	1.00	0.907	0.959	6715	786	7507	1972	0.89	0.40	50.8	50.8	33.0	33.0	D
9	1.00	1.00	0.907	0.959	6851	802	7507	1972	0.91	0.41	49.4	49.4	34.7	34.7	D
10	1.00	1.00	0.907	0.959	6851	802	7507	1972	0.91	0.41	49.4	49.4	34.7	34.7	D
11	1.00	1.00	0.907	0.959	6851	802	7507	1972	0.91	0.41	49.4	49.4	34.7	34.7	D
12	1.00	1.00	0.907	0.959	6851	802	7507	1972	0.91	0.41	49.4	49.4	34.7	34.7	D

Segment 5: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.907	6412	9014	0.71	66.4	24.1	C
2	1.00	0.907	6412	9014	0.71	66.4	24.1	C
3	1.00	0.907	6412	9014	0.71	66.4	24.1	C
4	1.00	0.907	6412	9014	0.71	66.4	24.1	C
5	1.00	0.907	6761	9014	0.75	64.9	26.0	C
6	1.00	0.907	6761	9014	0.75	64.9	26.0	C
7	1.00	0.907	6761	9014	0.75	64.9	26.0	C
8	1.00	0.907	6761	9014	0.75	64.9	26.0	C
9	1.00	0.907	6896	9014	0.77	64.3	26.8	D
10	1.00	0.907	6896	9014	0.77	64.3	26.8	D
11	1.00	0.907	6896	9014	0.77	64.3	26.8	D
12	1.00	0.907	6896	9014	0.77	64.3	26.8	D

Segment 6: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.907	6412	9014	0.71	66.4	24.1	C
2	1.00	0.907	6412	9014	0.71	66.4	24.1	C
3	1.00	0.907	6412	9014	0.71	66.4	24.1	C
4	1.00	0.907	6412	9014	0.71	66.4	24.1	C

1	1.00	1.00	0.907	0.931	6412	639	7507	1972	0.85	0.32	53.9	53.9	29.7	29.7	D
2	1.00	1.00	0.907	0.931	6412	639	7507	1972	0.85	0.32	53.9	53.9	29.7	29.7	D
3	1.00	1.00	0.907	0.931	6412	639	7507	1972	0.85	0.32	53.9	53.9	29.7	29.7	D
4	1.00	1.00	0.907	0.931	6412	639	7507	1972	0.85	0.32	53.9	53.9	29.7	29.7	D
5	1.00	1.00	0.907	0.931	6761	673	7507	1972	0.90	0.34	50.4	50.4	33.5	33.5	D
6	1.00	1.00	0.907	0.931	6761	673	7507	1972	0.90	0.34	50.4	50.4	33.5	33.5	D
7	1.00	1.00	0.907	0.931	6761	673	7507	1972	0.90	0.34	50.4	50.4	33.5	33.5	D
8	1.00	1.00	0.907	0.931	6761	673	7507	1972	0.90	0.34	50.4	50.4	33.5	33.5	D
9	1.00	1.00	0.907	0.931	6896	687	7507	1972	0.92	0.35	48.9	48.9	35.3	35.3	E
10	1.00	1.00	0.907	0.931	6896	687	7507	1972	0.92	0.35	48.9	48.9	35.3	35.3	E
11	1.00	1.00	0.907	0.931	6896	687	7507	1972	0.92	0.35	48.9	48.9	35.3	35.3	E
12	1.00	1.00	0.907	0.931	6896	687	7507	1972	0.92	0.35	48.9	48.9	35.3	35.3	E

Segment 10: Basic

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	1.00		0.904		5775		6761		0.85		59.8		32.2		D
2	1.00		0.904		5775		6761		0.85		59.8		32.2		D
3	1.00		0.904		5775		6761		0.85		59.8		32.2		D
4	1.00		0.904		5775		6761		0.85		59.8		32.2		D
5	1.00		0.904		6090		6761		0.90		57.0		35.6		E
6	1.00		0.904		6090		6761		0.90		57.0		35.6		E
7	1.00		0.904		6090		6761		0.90		57.0		35.6		E
8	1.00		0.904		6090		6761		0.90		57.0		35.6		E
9	1.00		0.904		6211		6761		0.92		55.9		37.0		E
10	1.00		0.904		6211		6761		0.92		55.9		37.0		E
11	1.00		0.904		6211		6761		0.92		55.9		37.0		E
12	1.00		0.904		6211		6761		0.92		55.9		37.0		E

Segment 11: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.908	0.932	6582	832	7507	1972	0.88	0.42	52.2	52.2	31.5	31.5	D
2	1.00	1.00	0.908	0.932	6582	832	7507	1972	0.88	0.42	52.2	52.2	31.5	31.5	D
3	1.00	1.00	0.908	0.932	6582	832	7507	1972	0.88	0.42	52.2	52.2	31.5	31.5	D
4	1.00	1.00	0.908	0.932	6582	832	7507	1972	0.88	0.42	52.2	52.2	31.5	31.5	D
5	1.00	1.00	0.908	0.932	6940	877	7507	1972	0.92	0.44	48.4	48.4	35.8	35.8	E
6	1.00	1.00	0.908	0.932	6940	877	7507	1972	0.92	0.44	48.4	48.4	35.8	35.8	E
7	1.00	1.00	0.908	0.932	6940	877	7507	1972	0.92	0.44	48.4	48.4	35.8	35.8	E
8	1.00	1.00	0.908	0.932	6940	877	7507	1972	0.92	0.44	48.4	48.4	35.8	35.8	E
9	1.00	1.00	0.908	0.932	7078	894	7507	1972	0.94	0.45	46.9	46.9	37.7	37.7	E
10	1.00	1.00	0.908	0.932	7078	894	7507	1972	0.94	0.45	46.9	46.9	37.7	37.7	E
11	1.00	1.00	0.908	0.932	7078	894	7507	1972	0.94	0.45	46.9	46.9	37.7	37.7	E

12	1.00	1.00	0.908	0.932	7078	894	7507	1972	0.94	0.45	46.9	46.9	37.7	37.7	E
Segment 12: Basic															
AP	PHF	fHV	Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio	Speed (mi/h)		Density (pc/mi/ln)		LOS			
1	1.00	0.908	6604		9014		0.73	65.6		25.2		C			
2	1.00	0.908	6604		9014		0.73	65.6		25.2		C			
3	1.00	0.908	6604		9014		0.73	65.6		25.2		C			
4	1.00	0.908	6604		9014		0.73	65.6		25.2		C			
5	1.00	0.908	6963		9014		0.77	64.0		27.2		D			
6	1.00	0.908	6963		9014		0.77	64.0		27.2		D			
7	1.00	0.908	6963		9014		0.77	64.0		27.2		D			
8	1.00	0.908	6963		9014		0.77	64.0		27.2		D			
9	1.00	0.908	7101		9014		0.79	63.3		28.0		D			
10	1.00	0.908	7101		9014		0.79	63.3		28.0		D			
11	1.00	0.908	7101		9014		0.79	63.3		28.0		D			
12	1.00	0.908	7101		9014		0.79	63.3		28.0		D			
Segment 13: Basic															
AP	PHF	fHV	Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio	Speed (mi/h)		Density (pc/mi/ln)		LOS			
1	1.00	0.908	6604		9014		0.73	65.6		25.2		C			
2	1.00	0.908	6604		9014		0.73	65.6		25.2		C			
3	1.00	0.908	6604		9014		0.73	65.6		25.2		C			
4	1.00	0.908	6604		9014		0.73	65.6		25.2		C			
5	1.00	0.908	6963		9014		0.77	64.0		27.2		D			
6	1.00	0.908	6963		9014		0.77	64.0		27.2		D			
7	1.00	0.908	6963		9014		0.77	64.0		27.2		D			
8	1.00	0.908	6963		9014		0.77	64.0		27.2		D			
9	1.00	0.908	7101		9014		0.79	63.3		28.0		D			
10	1.00	0.908	7101		9014		0.79	63.3		28.0		D			
11	1.00	0.908	7101		9014		0.79	63.3		28.0		D			
12	1.00	0.908	7101		9014		0.79	63.3		28.0		D			
Segment 14: Basic															
AP	PHF	fHV	Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio	Speed (mi/h)		Density (pc/mi/ln)		LOS			
1	1.00	0.908	6604		9014		0.73	65.6		25.2		C			
2	1.00	0.908	6604		9014		0.73	65.6		25.2		C			
3	1.00	0.908	6604		9014		0.73	65.6		25.2		C			
4	1.00	0.908	6604		9014		0.73	65.6		25.2		C			
5	1.00	0.908	6963		9014		0.77	64.0		27.2		D			
6	1.00	0.908	6963		9014		0.77	64.0		27.2		D			
7	1.00	0.908	6963		9014		0.77	64.0		27.2		D			
8	1.00	0.908	6963		9014		0.77	64.0		27.2		D			

9	1.00	0.908	7101	9014	0.79	63.3	28.0	D
10	1.00	0.908	7101	9014	0.79	63.3	28.0	D
11	1.00	0.908	7101	9014	0.79	63.3	28.0	D
12	1.00	0.908	7101	9014	0.79	63.3	28.0	D

Segment 15: Basic

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00		0.908		6604		9014		0.73		65.6		25.2		C
2	1.00		0.908		6604		9014		0.73		65.6		25.2		C
3	1.00		0.908		6604		9014		0.73		65.6		25.2		C
4	1.00		0.908		6604		9014		0.73		65.6		25.2		C
5	1.00		0.908		6963		9014		0.77		64.0		27.2		D
6	1.00		0.908		6963		9014		0.77		64.0		27.2		D
7	1.00		0.908		6963		9014		0.77		64.0		27.2		D
8	1.00		0.908		6963		9014		0.77		64.0		27.2		D
9	1.00		0.908		7101		9014		0.79		63.3		28.0		D
10	1.00		0.908		7101		9014		0.79		63.3		28.0		D
11	1.00		0.908		7101		9014		0.79		63.3		28.0		D
12	1.00		0.908		7101		9014		0.79		63.3		28.0		D

Segment 16: Basic

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00		0.908		6604		9014		0.73		65.6		25.2		C
2	1.00		0.908		6604		9014		0.73		65.6		25.2		C
3	1.00		0.908		6604		9014		0.73		65.6		25.2		C
4	1.00		0.908		6604		9014		0.73		65.6		25.2		C
5	1.00		0.908		6963		9014		0.77		64.0		27.2		D
6	1.00		0.908		6963		9014		0.77		64.0		27.2		D
7	1.00		0.908		6963		9014		0.77		64.0		27.2		D
8	1.00		0.908		6963		9014		0.77		64.0		27.2		D
9	1.00		0.908		7101		9014		0.79		63.3		28.0		D
10	1.00		0.908		7101		9014		0.79		63.3		28.0		D
11	1.00		0.908		7101		9014		0.79		63.3		28.0		D
12	1.00		0.908		7101		9014		0.79		63.3		28.0		D

Segment 17: Diverge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.908	0.923	6604	653	7507	3944	0.88	0.17	67.8	60.0	24.4	13.5	B
2	1.00	1.00	0.908	0.923	6604	653	7507	3944	0.88	0.17	67.8	60.0	24.4	13.5	B
3	1.00	1.00	0.908	0.923	6604	653	7507	3944	0.88	0.17	67.8	60.0	24.4	13.5	B
4	1.00	1.00	0.908	0.923	6604	653	7507	3944	0.88	0.17	67.8	60.0	24.4	13.5	B

5	1.00	1.00	0.908	0.923	6963	689	7507	3944	0.93	0.17	67.5	59.8	25.8	14.7	B
6	1.00	1.00	0.908	0.923	6963	689	7507	3944	0.93	0.17	67.5	59.8	25.8	14.7	B
7	1.00	1.00	0.908	0.923	6963	689	7507	3944	0.93	0.17	67.5	59.8	25.8	14.7	B
8	1.00	1.00	0.908	0.923	6963	689	7507	3944	0.93	0.17	67.5	59.8	25.8	14.7	B
9	1.00	1.00	0.908	0.923	7101	703	7507	3944	0.95	0.18	67.4	59.8	26.3	15.2	B
10	1.00	1.00	0.908	0.923	7101	703	7507	3944	0.95	0.18	67.4	59.8	26.3	15.2	B
11	1.00	1.00	0.908	0.923	7101	703	7507	3944	0.95	0.18	67.4	59.8	26.3	15.2	B
12	1.00	1.00	0.908	0.923	7101	703	7507	3944	0.95	0.18	67.4	59.8	26.3	15.2	B

Segment 18: Basic

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	1.00		0.906		5953		9014		0.66		68.1		21.9		C
2	1.00		0.906		5953		9014		0.66		68.1		21.9		C
3	1.00		0.906		5953		9014		0.66		68.1		21.9		C
4	1.00		0.906		5953		9014		0.66		68.1		21.9		C
5	1.00		0.906		6276		9014		0.70		67.0		23.4		C
6	1.00		0.906		6276		9014		0.70		67.0		23.4		C
7	1.00		0.906		6276		9014		0.70		67.0		23.4		C
8	1.00		0.906		6276		9014		0.70		67.0		23.4		C
9	1.00		0.906		6401		9014		0.71		66.5		24.1		C
10	1.00		0.906		6401		9014		0.71		66.5		24.1		C
11	1.00		0.906		6401		9014		0.71		66.5		24.1		C
12	1.00		0.906		6401		9014		0.71		66.5		24.1		C

Segment 19: Basic

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	1.00		0.906		5953		9014		0.66		68.1		21.9		C
2	1.00		0.906		5953		9014		0.66		68.1		21.9		C
3	1.00		0.906		5953		9014		0.66		68.1		21.9		C
4	1.00		0.906		5953		9014		0.66		68.1		21.9		C
5	1.00		0.906		6276		9014		0.70		67.0		23.4		C
6	1.00		0.906		6276		9014		0.70		67.0		23.4		C
7	1.00		0.906		6276		9014		0.70		67.0		23.4		C
8	1.00		0.906		6276		9014		0.70		67.0		23.4		C
9	1.00		0.906		6401		9014		0.71		66.5		24.1		C
10	1.00		0.906		6401		9014		0.71		66.5		24.1		C
11	1.00		0.906		6401		9014		0.71		66.5		24.1		C
12	1.00		0.906		6401		9014		0.71		66.5		24.1		C

Segment 20: Diverge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	

1	1.00	1.00	0.906	0.918	5953	3443	7507	3944	0.79	0.87	57.1	52.6	26.1	29.5	D
2	1.00	1.00	0.906	0.918	5953	3443	7507	3944	0.79	0.87	57.1	52.6	26.1	29.5	D
3	1.00	1.00	0.906	0.918	5953	3443	7507	3944	0.79	0.87	57.1	52.6	26.1	29.5	D
4	1.00	1.00	0.906	0.918	5953	3443	7507	3944	0.79	0.87	57.1	52.6	26.1	29.5	D
5	1.00	1.00	0.906	0.918	6276	3631	7507	3944	0.84	0.92	56.7	52.1	27.7	31.6	D
6	1.00	1.00	0.906	0.918	6276	3631	7507	3944	0.84	0.92	56.7	52.1	27.7	31.6	D
7	1.00	1.00	0.906	0.918	6276	3631	7507	3944	0.84	0.92	56.7	52.1	27.7	31.6	D
8	1.00	1.00	0.906	0.918	6276	3631	7507	3944	0.84	0.92	56.7	52.1	27.7	31.6	D
9	1.00	1.00	0.906	0.918	6401	3704	7507	3944	0.85	0.94	56.5	51.9	28.3	32.4	D
10	1.00	1.00	0.906	0.918	6401	3704	7507	3944	0.85	0.94	56.5	51.9	28.3	32.4	D
11	1.00	1.00	0.906	0.918	6401	3704	7507	3944	0.85	0.94	56.5	51.9	28.3	32.4	D
12	1.00	1.00	0.906	0.918	6401	3704	7507	3944	0.85	0.94	56.5	51.9	28.3	32.4	D

Segment 21: Basic

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	1.00		0.890		2508		6761		0.37		69.0		11.7		B
2	1.00		0.890		2508		6761		0.37		69.0		11.7		B
3	1.00		0.890		2508		6761		0.37		69.0		11.7		B
4	1.00		0.890		2508		6761		0.37		69.0		11.7		B
5	1.00		0.890		2644		6761		0.39		68.9		12.4		B
6	1.00		0.890		2644		6761		0.39		68.9		12.4		B
7	1.00		0.890		2644		6761		0.39		68.9		12.4		B
8	1.00		0.890		2644		6761		0.39		68.9		12.4		B
9	1.00		0.890		2696		6761		0.40		68.9		12.6		B
10	1.00		0.890		2696		6761		0.40		68.9		12.6		B
11	1.00		0.890		2696		6761		0.40		68.9		12.6		B
12	1.00		0.890		2696		6761		0.40		68.9		12.6		B

Segment 22: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.896	0.917	3226	735	5918	1972	0.55	0.37	64.2	62.1	16.7	19.0	B
2	1.00	1.00	0.896	0.917	3226	735	5918	1972	0.55	0.37	64.2	62.1	16.7	19.0	B
3	1.00	1.00	0.896	0.917	3226	735	5918	1972	0.55	0.37	64.2	62.1	16.7	19.0	B
4	1.00	1.00	0.896	0.917	3226	735	5918	1972	0.55	0.37	64.2	62.1	16.7	19.0	B
5	1.00	1.00	0.896	0.917	3401	775	5918	1972	0.57	0.39	64.1	62.0	17.7	19.9	B
6	1.00	1.00	0.896	0.917	3401	775	5918	1972	0.57	0.39	64.1	62.0	17.7	19.9	B
7	1.00	1.00	0.896	0.917	3401	775	5918	1972	0.57	0.39	64.1	62.0	17.7	19.9	B
8	1.00	1.00	0.896	0.917	3401	775	5918	1972	0.57	0.39	64.1	62.0	17.7	19.9	B
9	1.00	1.00	0.896	0.917	3468	791	5918	1972	0.59	0.40	64.1	62.0	18.0	20.3	C
10	1.00	1.00	0.896	0.917	3468	791	5918	1972	0.59	0.40	64.1	62.0	18.0	20.3	C
11	1.00	1.00	0.896	0.917	3468	791	5918	1972	0.59	0.40	64.1	62.0	18.0	20.3	C

12	1.00	1.00	0.896	0.917	3468	791	5918	1972	0.59	0.40	64.1	62.0	18.0	20.3	C
Segment 23: Basic															
AP	PHF	fHV	Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio	Speed (mi/h)		Density (pc/mi/ln)		LOS			
1	1.00	0.896	3243		6761		0.48	70.6		15.2		B			
2	1.00	0.896	3243		6761		0.48	70.6		15.2		B			
3	1.00	0.896	3243		6761		0.48	70.6		15.2		B			
4	1.00	0.896	3243		6761		0.48	70.6		15.2		B			
5	1.00	0.896	3420		6761		0.51	70.6		16.1		B			
6	1.00	0.896	3420		6761		0.51	70.6		16.1		B			
7	1.00	0.896	3420		6761		0.51	70.6		16.1		B			
8	1.00	0.896	3420		6761		0.51	70.6		16.1		B			
9	1.00	0.896	3487		6761		0.52	70.6		16.4		B			
10	1.00	0.896	3487		6761		0.52	70.6		16.4		B			
11	1.00	0.896	3487		6761		0.52	70.6		16.4		B			
12	1.00	0.896	3487		6761		0.52	70.6		16.4		B			

Facility Analysis Results									
AP	VMT veh-mi/AP	VMT-Demand veh-mi/AP	VHD veh-h/AP	Total Delay Cost \$/AP	Speed mi/h	Density pc/mi/ln	Density veh/mi/ln	TT min	LOS
1	32727	32578	44.34	1108.38	64.9	24.9	22.6	21.10	C
2	32727	32578	44.34	1108.38	64.9	24.9	22.6	21.10	C
3	32727	32578	44.34	1108.38	64.9	24.9	22.6	21.10	C
4	32727	32578	44.34	1108.38	64.9	24.9	22.6	21.10	C
5	34505	34349	61.09	1527.28	63.2	26.9	24.4	21.60	D
6	34505	34349	61.09	1527.28	63.2	26.9	24.4	21.60	D
7	34505	34349	61.09	1527.28	63.2	26.9	24.4	21.60	D
8	34505	34349	61.09	1527.28	63.2	26.9	24.4	21.60	D
9	35195	35035	68.78	1719.44	62.5	27.8	25.2	21.90	D
10	35195	35035	68.78	1719.44	62.5	27.8	25.2	21.90	D
11	35195	35035	68.78	1719.44	62.5	27.8	25.2	21.90	D
12	35195	35035	68.78	1719.44	62.5	27.8	25.2	21.90	D

Facility Overall Results				
Space Mean Speed, mi/h	63.5		Average Density, veh/mi/ln	24.1
Average Travel Time, min	21.50		Average Density, pc/mi/ln	26.5
Total VMT, veh-mi	409705		Total VHD, veh-h	696.82
Vehicle Value of Time (VOT), \$/h	25.00		Total Delay Cost, \$	17420.40

**APPENDIX Y – 2030 BUILD SYNCHRO OUTPUT
REPORTS**

SR 44 Summary Tables

10: I-75 SB On-ramp/I-75 SB Off-ramp & SR 44

Approach	Movement	AM Peak Hour			PM Peak Hour			WKND Peak Hour		
		V/C	Delay (s) [LOS]	95% Queue (ft)	V/C	Delay (s) [LOS]	95% Queue (ft)	V/C	Delay (s) [LOS]	95% Queue (ft)
Westbound	Left	0.71	62.9 (E)	225	0.69	48.1 (D)	200	0.67	45.8 (D)	200
	Through	0.14	5.2 (A)	100	0.32	6.4 (A)	125	0.23	5.3 (A)	100
	Approach	0.41	32.2 (C)	-	0.46	22.0 (C)	-	0.43	23.3 (C)	-
Eastbound	Through	0.17	19.0 (B)	125	0.13	20.2 (C)	75	0.16	19.1 (B)	75
	Right	0.47	3.7 (A)	75	0.46	5.1 (A)	75	0.52	4.7 (A)	75
	Approach	0.31	12.1 (B)	-	0.31	12.1 (B)	-	0.35	11.4 (B)	-
Southbound	Left	0.75	66.8 (E)	250	0.49	38.4 (D)	125	0.48	38.6 (D)	125
	Right	0.38	10.1 (B)	75	0.61	14.1 (B)	100	0.55	9.4 (A)	75
	Approach	0.65	52.2 (D)	-	0.55	26.3 (C)	-	0.51	24.1 (C)	-
Overall Intersection		0.42	28.1 (C)	-	0.44	20.2 (C)	-	0.42	19.1 (B)	-

11: I-75 NB Off-ramp/I-75 NB On-ramp & SR 44

Approach	Movement	AM Peak Hour			PM Peak Hour			WKND Peak Hour		
		V/C	Delay (s) [LOS]	95% Queue (ft)	V/C	Delay (s) [LOS]	95% Queue (ft)	V/C	Delay (s) [LOS]	95% Queue (ft)
Westbound	Through	0.17	28.2 (C)	125	0.28	15.4 (B)	150	0.24	17.9 (B)	125
	Right	0.39	5.1 (A)	75	0.52	3.9 (A)	75	0.38	4.2 (A)	75
	Approach	0.26	18.7 (B)	-	0.37	11.1 (B)	-	0.28	13.5 (B)	-
Northbound	Left	0.21	36.2 (D)	100	0.59	37.9 (D)	150	0.43	33.5 (C)	125
	Right	0.89	51.6 (D)	450	0.66	12.0 (B)	125	0.76	19.9 (B)	175
	Approach	0.69	47.1 (D)	-	0.62	25.1 (C)	-	0.62	25.7 (C)	-
Eastbound	Left	0.60	61.5 (E)	150	0.25	43.0 (D)	75	0.40	51.9 (D)	100
	Through	0.40	25.0 (C)	425	0.24	11.0 (B)	125	0.24	10.8 (B)	125
	Approach	0.44	32.3 (C)	-	0.24	15.4 (B)	-	0.28	20.0 (B)	-
Overall Intersection		0.46	32.4 (C)	-	0.41	15.9 (B)	-	0.38	19.0 (B)	-

SR 44 Synchro Reports

Timings
10: I-75 SB On-ramp/I-75 SB Off-ramp & SR 44

2030 Build Conditions
Timing Plan: AM



Lane Group	EBT	EBR	WBL	WBT	SBL	SBR
Lane Configurations	↑↑↑↑	↗	↖↖	↑↑	↖↖	↗
Traffic Volume (vph)	528	434	290	331	396	138
Future Volume (vph)	528	434	290	331	396	138
Lane Group Flow (vph)	556	457	305	348	417	145
Turn Type	NA	Perm	Prot	NA	Prot	Perm
Protected Phases	2		1	6	4	
Permitted Phases		2				4
Detector Phase	2	2	1	6	4	4
Switch Phase						
Minimum Initial (s)	20.0	20.0	10.0	20.0	15.0	15.0
Minimum Split (s)	28.1	28.1	17.2	28.1	21.5	21.5
Total Split (s)	75.1	75.1	34.2	109.3	40.7	40.7
Total Split (%)	50.1%	50.1%	22.8%	72.9%	27.1%	27.1%
Yellow Time (s)	4.4	4.4	4.4	4.4	4.0	4.0
All-Red Time (s)	3.7	3.7	2.8	3.7	2.5	2.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	8.1	8.1	7.2	8.1	6.5	6.5
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	C-Min	C-Min	None	Min	None	None
Act Effct Green (s)	80.5	80.5	21.2	108.8	26.6	26.6
Actuated g/C Ratio	0.54	0.54	0.14	0.73	0.18	0.18
v/c Ratio	0.17	0.47	0.71	0.14	0.75	0.38
Control Delay (s/veh)	19.0	3.7	62.9	5.2	66.8	10.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	19.0	3.7	62.9	5.2	66.8	10.1
LOS	B	A	E	A	E	B
Approach Delay (s/veh)	12.1			32.2		
Approach LOS	B			C		
Queue Length 50th (ft)	78	0	159	28	201	0
Queue Length 95th (ft)	115	64	209	83	248	59
Internal Link Dist (ft)	1477			382		
Turn Bay Length (ft)		275				500
Base Capacity (vph)	3246	964	548	2425	719	443
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	157	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.18	0.47	0.56	0.14	0.58	0.33

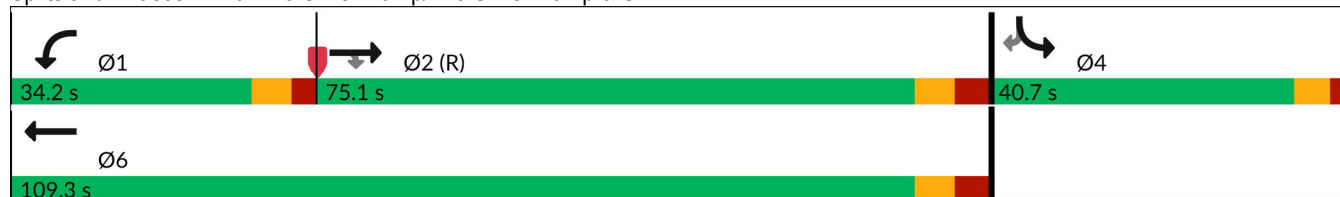
Intersection Summary

Cycle Length: 150	
Actuated Cycle Length: 150	
Offset: 141 (94%), Referenced to phase 2:EBT, Start of Green	
Natural Cycle: 70	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.75	
Intersection Signal Delay (s/veh): 28.1	Intersection LOS: C
Intersection Capacity Utilization 65.9%	ICU Level of Service C
Analysis Period (min) 15	

Timings
10: I-75 SB On-ramp/I-75 SB Off-ramp & SR 44

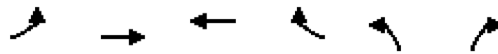
2030 Build Conditions
Timing Plan: AM

Splits and Phases: 10: I-75 SB On-ramp/I-75 SB Off-ramp & SR 44



Timings
 11: I-75 NB Off-ramp/I-75 NB On-ramp & SR 44

2030 Build Conditions
 Timing Plan: AM



Lane Group	EBL	EBT	WBT	WBR	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	185	739	425	297	196	477
Future Volume (vph)	185	739	425	297	196	477
Lane Group Flow (vph)	195	778	447	313	206	502
Turn Type	Prot	NA	NA	Perm	Prot	Perm
Protected Phases	1	6	2		4	
Permitted Phases				2		4
Detector Phase	1	6	2	2	4	4
Switch Phase						
Minimum Initial (s)	10.0	20.0	20.0	20.0	15.0	15.0
Minimum Split (s)	24.5	27.3	27.3	27.3	22.1	22.1
Total Split (s)	25.2	84.2	59.0	59.0	65.8	65.8
Total Split (%)	16.8%	56.1%	39.3%	39.3%	43.9%	43.9%
Yellow Time (s)	4.4	4.4	4.4	4.4	4.0	4.0
All-Red Time (s)	2.5	2.9	2.9	2.9	3.1	3.1
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.9	7.3	7.3	7.3	7.1	7.1
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	C-Min	C-Min	C-Min	None	None
Act Effct Green (s)	15.6	88.3	65.7	65.7	47.3	47.3
Actuated g/C Ratio	0.10	0.59	0.44	0.44	0.32	0.32
v/c Ratio	0.60	0.40	0.17	0.39	0.21	0.89
Control Delay (s/veh)	61.5	24.7	28.2	5.1	36.2	51.6
Queue Delay	0.0	0.3	0.0	0.0	0.0	0.0
Total Delay (s/veh)	61.5	25.0	28.2	5.1	36.2	51.6
LOS	E	C	C	A	D	D
Approach Delay (s/veh)		32.3	18.7			
Approach LOS		C	B			
Queue Length 50th (ft)	100	253	77	0	75	349
Queue Length 95th (ft)	141	409	119	73	94	450
Internal Link Dist (ft)		382	1690			
Turn Bay Length (ft)				350		450
Base Capacity (vph)	384	1961	2662	808	1257	669
Starvation Cap Reductn	0	591	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	0.57	0.17	0.39	0.16	0.75

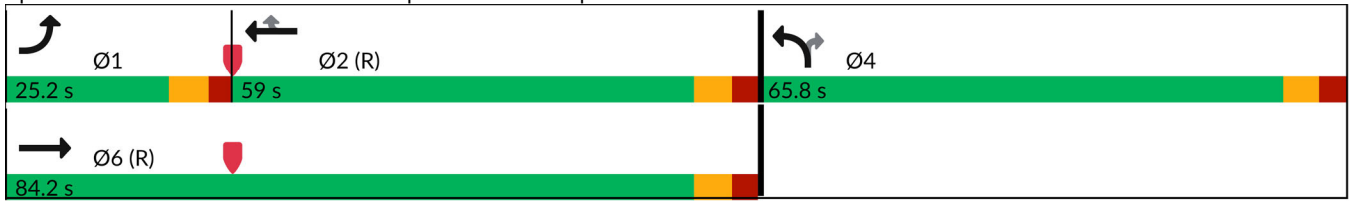
Intersection Summary

Cycle Length: 150	
Actuated Cycle Length: 150	
Offset: 16 (11%), Referenced to phase 2:WBT and 6:EBT, Start of Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.89	
Intersection Signal Delay (s/veh): 32.4	Intersection LOS: C
Intersection Capacity Utilization 65.9%	ICU Level of Service C
Analysis Period (min) 15	

Timings
 11: I-75 NB Off-ramp/I-75 NB On-ramp & SR 44

2030 Build Conditions
 Timing Plan: AM

Splits and Phases: 11: I-75 NB Off-ramp/I-75 NB On-ramp & SR 44



Timings
10: I-75 SB On-ramp/I-75 SB Off-ramp & SR 44

2030 Build Conditions
Timing Plan: PM

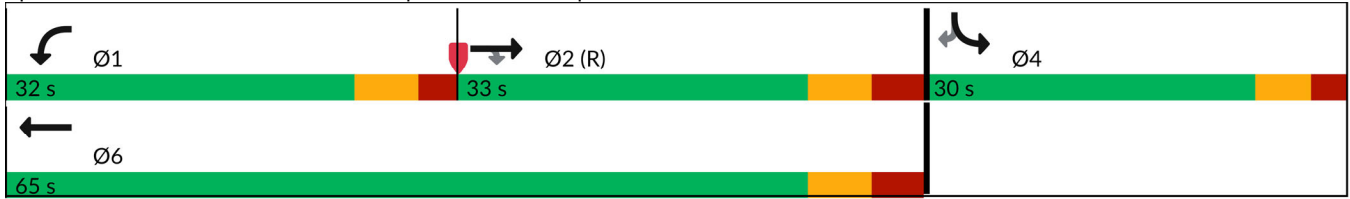


Lane Group	EBT	EBR	WBL	WBT	SBL	SBR
Lane Configurations	↑↑↑↑	↗	↖↗	↑↑	↖↗	↗
Traffic Volume (vph)	304	347	430	722	267	262
Future Volume (vph)	304	347	430	722	267	262
Lane Group Flow (vph)	307	351	434	729	270	265
Turn Type	NA	Perm	Prot	NA	Prot	Perm
Protected Phases	2		1	6	4	
Permitted Phases		2				4
Detector Phase	2	2	1	6	4	4
Switch Phase						
Minimum Initial (s)	20.0	20.0	10.0	20.0	15.0	15.0
Minimum Split (s)	28.1	28.1	17.2	28.1	21.5	21.5
Total Split (s)	33.0	33.0	32.0	65.0	30.0	30.0
Total Split (%)	34.7%	34.7%	33.7%	68.4%	31.6%	31.6%
Yellow Time (s)	4.4	4.4	4.4	4.4	4.0	4.0
All-Red Time (s)	3.7	3.7	2.8	3.7	2.5	2.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	8.1	8.1	7.2	8.1	6.5	6.5
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	C-Min	C-Min	None	Min	None	None
Act Effct Green (s)	37.0	37.0	19.7	63.9	16.5	16.5
Actuated g/C Ratio	0.39	0.39	0.21	0.67	0.17	0.17
v/c Ratio	0.13	0.46	0.69	0.32	0.49	0.61
Control Delay (s/veh)	20.2	5.1	48.1	6.4	38.4	14.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	20.2	5.1	48.1	6.4	38.4	14.1
LOS	C	A	D	A	D	B
Approach Delay (s/veh)	12.1			22.0		
Approach LOS	B			C		
Queue Length 50th (ft)	32	0	147	95	78	22
Queue Length 95th (ft)	58	67	197	118	109	93
Internal Link Dist (ft)	1477			382		
Turn Bay Length (ft)		275				500
Base Capacity (vph)	2355	760	796	2248	780	527
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	0.46	0.55	0.32	0.35	0.50

Intersection Summary

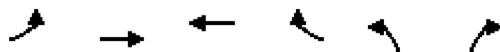
Cycle Length: 95	
Actuated Cycle Length: 95	
Offset: 13 (14%), Referenced to phase 2:EBT, Start of Green	
Natural Cycle: 70	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.69	
Intersection Signal Delay (s/veh): 20.2	Intersection LOS: C
Intersection Capacity Utilization 68.3%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 10: I-75 SB On-ramp/I-75 SB Off-ramp & SR 44



Timings
11: I-75 NB Off-ramp/I-75 NB On-ramp & SR 44

2030 Build Conditions
Timing Plan: PM



Lane Group	EBL	EBT	WBT	WBR	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	79	492	799	480	353	349
Future Volume (vph)	79	492	799	480	353	349
Lane Group Flow (vph)	83	518	841	505	372	367
Turn Type	Prot	NA	NA	Perm	Prot	Perm
Protected Phases	1	6	2		4	
Permitted Phases				2		4
Detector Phase	1	6	2	2	4	4
Switch Phase						
Minimum Initial (s)	10.0	20.0	20.0	20.0	15.0	15.0
Minimum Split (s)	24.5	27.3	27.3	27.3	22.1	22.1
Total Split (s)	25.0	60.0	35.0	35.0	35.0	35.0
Total Split (%)	26.3%	63.2%	36.8%	36.8%	36.8%	36.8%
Yellow Time (s)	4.4	4.4	4.4	4.4	4.0	4.0
All-Red Time (s)	2.5	2.9	2.9	2.9	3.1	3.1
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.9	7.3	7.3	7.3	7.1	7.1
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	C-Min	C-Min	C-Min	None	None
Act Effct Green (s)	10.2	61.6	47.9	47.9	19.0	19.0
Actuated g/C Ratio	0.11	0.65	0.50	0.50	0.20	0.20
v/c Ratio	0.25	0.24	0.28	0.52	0.59	0.66
Control Delay (s/veh)	43.0	11.0	15.4	3.9	37.9	12.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	43.0	11.0	15.4	3.9	37.9	12.0
LOS	D	B	B	A	D	B
Approach Delay (s/veh)		15.4	11.1			
Approach LOS		B	B			
Queue Length 50th (ft)	28	86	85	0	106	21
Queue Length 95th (ft)	53	114	126	63	140	102
Internal Link Dist (ft)		382	1690			
Turn Bay Length (ft)				350		450
Base Capacity (vph)	590	2148	3024	971	934	660
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	0.24	0.28	0.52	0.40	0.56

Intersection Summary

Cycle Length: 95	
Actuated Cycle Length: 95	
Offset: 12 (13%), Referenced to phase 2:WBT and 6:EBT, Start of Green	
Natural Cycle: 75	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.66	
Intersection Signal Delay (s/veh): 15.9	Intersection LOS: B
Intersection Capacity Utilization 68.3%	ICU Level of Service C
Analysis Period (min) 15	

Timings
 11: I-75 NB Off-ramp/I-75 NB On-ramp & SR 44

2030 Build Conditions
 Timing Plan: PM

Splits and Phases: 11: I-75 NB Off-ramp/I-75 NB On-ramp & SR 44



Timings
10: I-75 SB On-ramp/I-75 SB Off-ramp & SR 44

2030 Build Conditions
Timing Plan: Weekend



Lane Group	EBT	EBR	WBL	WBT	SBL	SBR
Lane Configurations	↑↑↑↑	↗	↖↖	↑↑	↖↖	↗
Traffic Volume (vph)	386	438	414	518	255	250
Future Volume (vph)	386	438	414	518	255	250
Lane Group Flow (vph)	394	447	422	529	260	255
Turn Type	NA	Perm	Prot	NA	Prot	Perm
Protected Phases	2		1	6	4	
Permitted Phases		2				4
Detector Phase	2	2	1	6	4	4
Switch Phase						
Minimum Initial (s)	20.0	20.0	10.0	20.0	15.0	15.0
Minimum Split (s)	28.1	28.1	17.2	28.1	21.5	21.5
Total Split (s)	44.0	44.0	26.0	70.0	25.0	25.0
Total Split (%)	46.3%	46.3%	27.4%	73.7%	26.3%	26.3%
Yellow Time (s)	4.4	4.4	4.4	4.4	4.0	4.0
All-Red Time (s)	3.7	3.7	2.8	3.7	2.5	2.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	8.1	8.1	7.2	8.1	6.5	6.5
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	C-Min	C-Min	None	Min	None	None
Act Effct Green (s)	38.6	38.6	18.5	64.4	16.0	16.0
Actuated g/C Ratio	0.41	0.41	0.19	0.68	0.17	0.17
v/c Ratio	0.16	0.52	0.67	0.23	0.48	0.55
Control Delay (s/veh)	19.1	4.7	45.8	5.3	38.6	9.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	19.1	4.7	45.8	5.3	38.6	9.4
LOS	B	A	D	A	D	A
Approach Delay (s/veh)	11.4			23.3		
Approach LOS	B			C		
Queue Length 50th (ft)	41	0	142	62	74	0
Queue Length 95th (ft)	69	69	190	81	108	64
Internal Link Dist (ft)	1477			382		
Turn Bay Length (ft)		275				500
Base Capacity (vph)	2601	879	677	2333	635	498
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	0.15	0.51	0.62	0.23	0.41	0.51

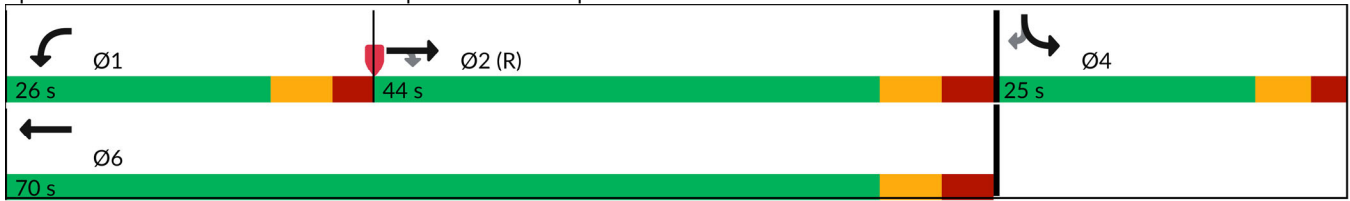
Intersection Summary

Cycle Length: 95	
Actuated Cycle Length: 95	
Offset: 93 (98%), Referenced to phase 2:EBT, Start of Green	
Natural Cycle: 70	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.67	
Intersection Signal Delay (s/veh): 19.1	Intersection LOS: B
Intersection Capacity Utilization 69.6%	ICU Level of Service C
Analysis Period (min) 15	

Timings
10: I-75 SB On-ramp/I-75 SB Off-ramp & SR 44

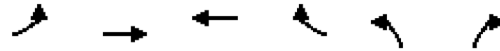
2030 Build Conditions
Timing Plan: Weekend

Splits and Phases: 10: I-75 SB On-ramp/I-75 SB Off-ramp & SR 44



Timings
 11: I-75 NB Off-ramp/I-75 NB On-ramp & SR 44

2030 Build Conditions
 Timing Plan: Weekend



Lane Group	EBL	EBT	WBT	WBR	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	144	497	642	304	290	397
Future Volume (vph)	144	497	642	304	290	397
Lane Group Flow (vph)	150	518	669	317	302	414
Turn Type	Prot	NA	NA	Perm	Prot	Perm
Protected Phases	1	6	2		4	
Permitted Phases				2		4
Detector Phase	1	6	2	2	4	4
Switch Phase						
Minimum Initial (s)	10.0	20.0	20.0	20.0	15.0	15.0
Minimum Split (s)	24.5	27.3	27.3	27.3	22.1	22.1
Total Split (s)	25.0	55.0	30.0	30.0	40.0	40.0
Total Split (%)	26.3%	57.9%	31.6%	31.6%	42.1%	42.1%
Yellow Time (s)	4.4	4.4	4.4	4.4	4.0	4.0
All-Red Time (s)	2.5	2.9	2.9	2.9	3.1	3.1
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.9	7.3	7.3	7.3	7.1	7.1
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	C-Min	C-Min	C-Min	None	None
Act Effct Green (s)	11.2	60.6	42.5	42.5	20.0	20.0
Actuated g/C Ratio	0.12	0.64	0.45	0.45	0.21	0.21
v/c Ratio	0.40	0.24	0.24	0.38	0.43	0.76
Control Delay (s/veh)	51.9	10.8	17.9	4.2	33.5	19.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	51.9	10.8	17.9	4.2	33.5	19.9
LOS	D	B	B	A	C	B
Approach Delay (s/veh)		20.0	13.5			
Approach LOS		B	B			
Queue Length 50th (ft)	51	72	65	0	85	72
Queue Length 95th (ft)	84	102	115	58	103	157
Internal Link Dist (ft)		382	1690			
Turn Bay Length (ft)				350		450
Base Capacity (vph)	612	2192	2782	837	1143	714
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	0.25	0.24	0.24	0.38	0.26	0.58

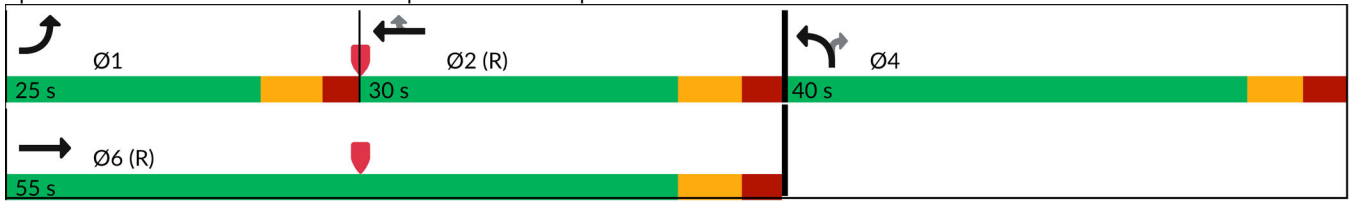
Intersection Summary

Cycle Length: 95	
Actuated Cycle Length: 95	
Offset: 5 (5%), Referenced to phase 2:WBT and 6:EBT, Start of Green	
Natural Cycle: 75	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.76	
Intersection Signal Delay (s/veh): 19.0	Intersection LOS: B
Intersection Capacity Utilization 69.6%	ICU Level of Service C
Analysis Period (min) 15	

Timings
11: I-75 NB Off-ramp/I-75 NB On-ramp & SR 44

2030 Build Conditions
Timing Plan: Weekend

Splits and Phases: 11: I-75 NB Off-ramp/I-75 NB On-ramp & SR 44



CR 484 Summary Tables

19: I-75 SB On-ramp/I-75 SB Off-ramp & CR 484

Approach	Movement	AM Peak Hour			PM Peak Hour			WKND Peak Hour		
		V/C	Delay (s) [LOS]	95% Queue (ft)	V/C	Delay (s) [LOS]	95% Queue (ft)	V/C	Delay (s) [LOS]	95% Queue (ft)
Westbound	Left	0.77	92.5 (F)	325	0.78	93.2 (F)	275	0.78	80.4 (F)	450
	Through	0.28	5.6 (A)	100	0.71	15.9 (B)	250	0.40	6.2 (A)	175
	Approach	0.40	26.1 (C)	-	0.72	22.6 (C)	-	0.49	23.5 (C)	-
Eastbound	TH/RT	0.69	27.4 (C)	575	0.47	24.9 (C)	300	0.58	28.4 (C)	400
	Approach	0.69	27.4 (C)	-	0.47	24.9 (C)	-	0.58	28.4 (C)	-
Southbound	Left	0.71	66.8 (E)	200	0.64	51.3 (D)	275	0.66	67.4 (E)	175
	Right	0.41	8.4 (A)	50	0.85	54.8 (D)	325	0.55	19.5 (B)	100
	Approach	0.58	42.2 (D)	-	0.76	53.2 (D)	-	0.60	42.5 (D)	-
Overall Intersection		0.59	29.2 (C)	-	0.66	31.2 (C)	-	0.54	28.5 (C)	-

20: I-75 NB Off-ramp/I-75 NB On-ramp & CR 484

Approach	Movement	AM Peak Hour			PM Peak Hour			WKND Peak Hour		
		V/C	Delay (s) [LOS]	95% Queue (ft)	V/C	Delay (s) [LOS]	95% Queue (ft)	V/C	Delay (s) [LOS]	95% Queue (ft)
Westbound	Through	0.41	30.8 (C)	250	0.68	36.7 (D)	425	0.56	34.2 (C)	350
	Right	0.55	4.7 (A)	75	0.44	8.4 (A)	125	0.52	5.5 (A)	100
	Approach	0.46	20.7 (C)	-	0.63	30.9 (C)	-	0.55	25.8 (C)	-
Northbound	Left	0.50	62.8 (E)	125	0.67	56.4 (E)	250	0.58	53.6 (D)	200
	Right	0.69	41.7 (D)	150	0.82	54.3 (D)	300	0.86	54.5 (D)	300
	Approach	0.59	52.5 (D)	-	0.73	55.5 (E)	-	0.71	54.0 (D)	-
Eastbound	Left	0.59	61.5 (E)	400	0.36	62.7 (E)	200	0.52	70.1 (E)	275
	Through	0.52	6.2 (A)	300	0.56	11.6 (B)	275	0.44	7.9 (A)	175
	Approach	0.54	23.8 (C)	-	0.52	20.8 (C)	-	0.46	25.9 (C)	-
Overall Intersection		0.52	25.4 (C)	-	0.61	31.3 (C)	-	0.54	30.9 (C)	-

CR 484 Synchro Reports

Timings
 19: I-75 SB On-ramp/I-75 SB Off-ramp & CR 484

2030 Build Conditions
 Timing Plan: AM

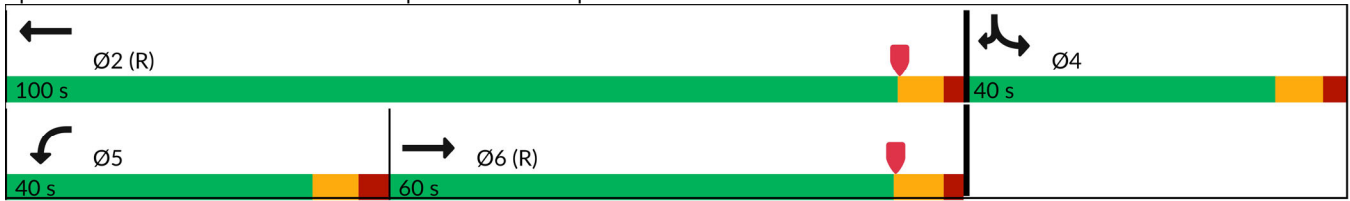


Lane Group	EBT	WBL	WBT	SBL	SBR
Lane Configurations	↑↑↑↑	↙	↑↑	↘↘	↘↘
Traffic Volume (vph)	1698	222	717	299	217
Future Volume (vph)	1698	222	717	299	217
Lane Group Flow (vph)	2190	231	747	311	226
Turn Type	NA	Prot	NA	Prot	Prot
Protected Phases	6	5	2	4	4
Permitted Phases					
Detector Phase	6	5	2	4	4
Switch Phase					
Minimum Initial (s)	18.0	7.0	18.0	7.0	7.0
Minimum Split (s)	25.3	15.0	34.8	45.4	45.4
Total Split (s)	60.0	40.0	100.0	40.0	40.0
Total Split (%)	42.9%	28.6%	71.4%	28.6%	28.6%
Yellow Time (s)	5.3	4.8	4.8	4.9	4.9
All-Red Time (s)	2.0	3.2	2.0	2.5	2.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.3	8.0	6.8	7.4	7.4
Lead/Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes			
Recall Mode	C-Max	None	C-Max	None	None
Act Effct Green (s)	72.9	25.5	106.9	18.9	18.9
Actuated g/C Ratio	0.52	0.18	0.76	0.14	0.14
v/c Ratio	0.69	0.77	0.28	0.71	0.41
Control Delay (s/veh)	27.4	92.5	5.5	66.8	8.4
Queue Delay	0.0	0.0	0.1	0.0	0.0
Total Delay (s/veh)	27.4	92.5	5.6	66.8	8.4
LOS	C	F	A	E	A
Approach Delay (s/veh)	27.4		26.1		
Approach LOS	C		C		
Queue Length 50th (ft)	413	224	70	141	0
Queue Length 95th (ft)	555	313	82	185	40
Internal Link Dist (ft)	1153		407		
Turn Bay Length (ft)				500	450
Base Capacity (vph)	3170	382	2649	754	786
Starvation Cap Reductn	0	0	565	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.69	0.60	0.36	0.41	0.29

Intersection Summary

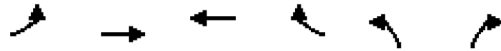
Cycle Length: 140	
Actuated Cycle Length: 140	
Offset: 67 (48%), Referenced to phase 2:WBT and 6:EBT, Start of Yellow	
Natural Cycle: 120	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.77	
Intersection Signal Delay (s/veh): 29.2	Intersection LOS: C
Intersection Capacity Utilization 71.8%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 19: I-75 SB On-ramp/I-75 SB Off-ramp & CR 484



Timings
 20: I-75 NB Off-ramp/I-75 NB On-ramp & CR 484

2030 Build Conditions
 Timing Plan: AM

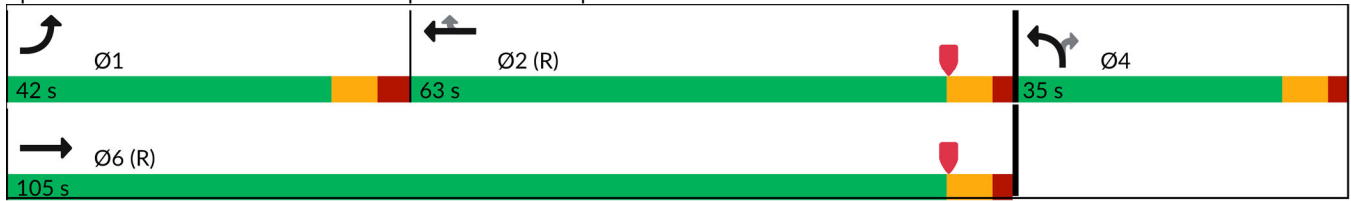


Lane Group	EBL	EBT	WBT	WBR	NBL	NBR
Lane Configurations	↶↶	↶↶	↶↶↶	↷	↶↶	↷
Traffic Volume (vph)	634	1363	768	482	171	164
Future Volume (vph)	634	1363	768	482	171	164
Lane Group Flow (vph)	654	1405	792	497	176	169
Turn Type	Prot	NA	NA	Perm	Prot	Perm
Protected Phases	1	6	2		4	
Permitted Phases				2		4
Detector Phase	1	6	2	2	4	4
Switch Phase						
Minimum Initial (s)	7.0	20.0	20.0	20.0	7.0	7.0
Minimum Split (s)	15.0	26.8	34.8	34.8	44.8	44.8
Total Split (s)	42.0	105.0	63.0	63.0	35.0	35.0
Total Split (%)	30.0%	75.0%	45.0%	45.0%	25.0%	25.0%
Yellow Time (s)	4.8	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	3.2	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	8.0	6.8	6.8	6.8	6.8	6.8
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	Max	C-Max	C-Max	C-Max	None	None
Act Effct Green (s)	47.0	111.2	56.2	56.2	15.2	15.2
Actuated g/C Ratio	0.34	0.79	0.40	0.40	0.11	0.11
v/c Ratio	0.59	0.52	0.41	0.55	0.50	0.69
Control Delay (s/veh)	60.3	5.8	30.8	4.7	62.8	41.7
Queue Delay	1.3	0.3	0.0	0.0	0.0	0.0
Total Delay (s/veh)	61.5	6.2	30.8	4.7	62.8	41.7
LOS	E	A	C	A	E	D
Approach Delay (s/veh)		23.8	20.7			
Approach LOS		C	C			
Queue Length 50th (ft)	326	151	187	0	79	68
Queue Length 95th (ft)	390	297	226	72	112	141
Internal Link Dist (ft)		407	1283			
Turn Bay Length (ft)				200	350	350
Base Capacity (vph)	1109	2680	1946	909	659	377
Starvation Cap Reductn	250	608	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	0.76	0.68	0.41	0.55	0.27	0.45

Intersection Summary

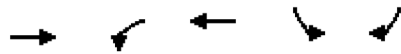
Cycle Length: 140	
Actuated Cycle Length: 140	
Offset: 58 (41%), Referenced to phase 2:WBT and 6:EBT, Start of Yellow	
Natural Cycle: 105	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.69	
Intersection Signal Delay (s/veh): 25.4	Intersection LOS: C
Intersection Capacity Utilization 71.8%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 20: I-75 NB Off-ramp/I-75 NB On-ramp & CR 484



Timings
 19: I-75 SB On-ramp/I-75 SB Off-ramp & CR 484

2030 Build Conditions
 Timing Plan: PM



Lane Group	EBT	WBL	WBT	SBL	SBR
Lane Configurations	↑↑↑↑	↙	↑↑	↘↘	↘↘
Traffic Volume (vph)	1095	146	1541	468	569
Future Volume (vph)	1095	146	1541	468	569
Lane Group Flow (vph)	1389	154	1622	493	599
Turn Type	NA	Prot	NA	Prot	Prot
Protected Phases	6	5	2	4	4
Permitted Phases					
Detector Phase	6	5	2	4	4
Switch Phase					
Minimum Initial (s)	18.0	7.0	18.0	7.0	7.0
Minimum Split (s)	25.3	15.0	34.8	45.4	45.4
Total Split (s)	70.0	24.0	94.0	46.0	46.0
Total Split (%)	50.0%	17.1%	67.1%	32.9%	32.9%
Yellow Time (s)	5.3	4.8	4.8	4.9	4.9
All-Red Time (s)	2.0	3.2	2.0	2.5	2.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.3	8.0	6.8	7.4	7.4
Lead/Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes			
Recall Mode	C-Max	None	C-Max	None	None
Act Effct Green (s)	67.2	16.7	92.4	33.4	33.4
Actuated g/C Ratio	0.48	0.12	0.66	0.24	0.24
v/c Ratio	0.47	0.78	0.71	0.64	0.85
Control Delay (s/veh)	24.9	93.2	15.7	51.3	54.8
Queue Delay	0.0	0.0	0.2	0.0	0.0
Total Delay (s/veh)	24.9	93.2	15.9	51.3	54.8
LOS	C	F	B	D	D
Approach Delay (s/veh)	24.9		22.6		
Approach LOS	C		C		
Queue Length 50th (ft)	249	150	226	207	252
Queue Length 95th (ft)	284	m#257	248	256	322
Internal Link Dist (ft)	1153		407		
Turn Bay Length (ft)				500	450
Base Capacity (vph)	2941	203	2290	893	795
Starvation Cap Reductn	0	0	131	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.47	0.76	0.75	0.55	0.75

Intersection Summary

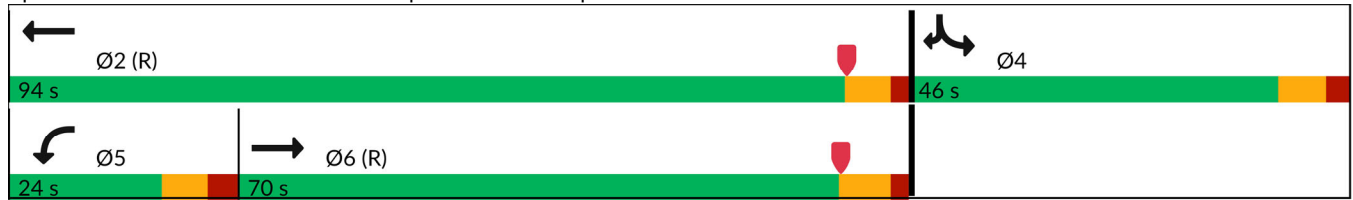
Cycle Length: 140	
Actuated Cycle Length: 140	
Offset: 69 (49%), Referenced to phase 2:WBT and 6:EBT, Start of Yellow	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.85	
Intersection Signal Delay (s/veh): 31.2	Intersection LOS: C
Intersection Capacity Utilization 74.3%	ICU Level of Service D
Analysis Period (min) 15	

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

Queue shown is maximum after two cycles.

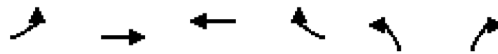
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 19: I-75 SB On-ramp/I-75 SB Off-ramp & CR 484



Timings
 20: I-75 NB Off-ramp/I-75 NB On-ramp & CR 484

2030 Build Conditions
 Timing Plan: PM

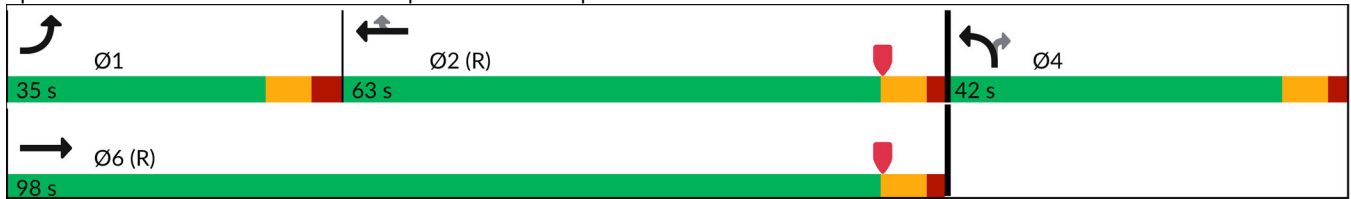


Lane Group	EBL	EBT	WBT	WBR	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	279	1284	1272	328	415	293
Future Volume (vph)	279	1284	1272	328	415	293
Lane Group Flow (vph)	291	1338	1325	342	432	305
Turn Type	Prot	NA	NA	Perm	Prot	Perm
Protected Phases	1	6	2		4	
Permitted Phases				2		4
Detector Phase	1	6	2	2	4	4
Switch Phase						
Minimum Initial (s)	7.0	20.0	20.0	20.0	7.0	7.0
Minimum Split (s)	15.0	26.8	34.8	34.8	44.8	44.8
Total Split (s)	35.0	98.0	63.0	63.0	42.0	42.0
Total Split (%)	25.0%	70.0%	45.0%	45.0%	30.0%	30.0%
Yellow Time (s)	4.8	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	3.2	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	8.0	6.8	6.8	6.8	6.8	6.8
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	Max	C-Max	C-Max	C-Max	None	None
Act Effct Green (s)	34.4	98.6	56.2	56.2	27.8	27.8
Actuated g/C Ratio	0.25	0.70	0.40	0.40	0.20	0.20
v/c Ratio	0.36	0.56	0.68	0.44	0.67	0.82
Control Delay (s/veh)	62.7	11.5	36.7	8.4	56.4	54.3
Queue Delay	0.0	0.1	0.0	0.0	0.0	0.0
Total Delay (s/veh)	62.7	11.6	36.7	8.4	56.4	54.3
LOS	E	B	D	A	E	D
Approach Delay (s/veh)		20.8	30.9			
Approach LOS		C	C			
Queue Length 50th (ft)	143	249	361	39	189	192
Queue Length 95th (ft)	194	275	416	116	231	290
Internal Link Dist (ft)		407	1283			
Turn Bay Length (ft)				200	350	350
Base Capacity (vph)	812	2376	1946	775	822	448
Starvation Cap Reductn	0	250	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	0.63	0.68	0.44	0.53	0.68

Intersection Summary

Cycle Length: 140	
Actuated Cycle Length: 140	
Offset: 66 (47%), Referenced to phase 2:WBT and 6:EBT, Start of Yellow	
Natural Cycle: 95	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.82	
Intersection Signal Delay (s/veh): 31.3	Intersection LOS: C
Intersection Capacity Utilization 74.3%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 20: I-75 NB Off-ramp/I-75 NB On-ramp & CR 484



Timings
19: I-75 SB On-ramp/I-75 SB Off-ramp & CR 484

2030 Build Conditions
Timing Plan: Weekend

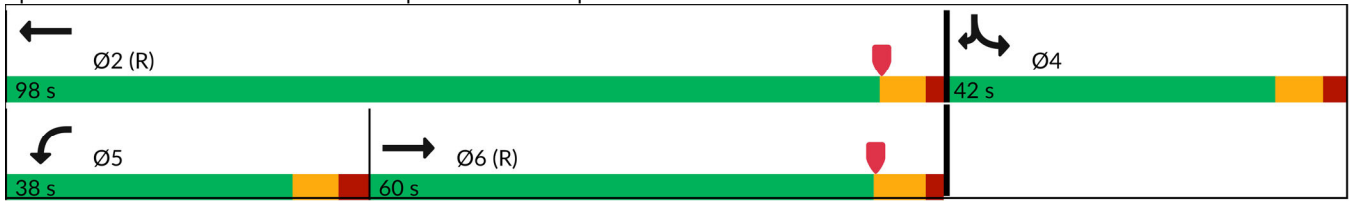


Lane Group	EBT	WBL	WBT	SBL	SBR
Lane Configurations	↑↑↑↑	↶	↑↑	↶↶	↶↶
Traffic Volume (vph)	1239	331	1086	243	263
Future Volume (vph)	1239	331	1086	243	263
Lane Group Flow (vph)	1652	338	1108	248	268
Turn Type	NA	Prot	NA	Prot	Prot
Protected Phases	6	5	2	4	4
Permitted Phases					
Detector Phase	6	5	2	4	4
Switch Phase					
Minimum Initial (s)	18.0	7.0	18.0	7.0	7.0
Minimum Split (s)	25.3	15.0	34.8	45.4	45.4
Total Split (s)	60.0	38.0	98.0	42.0	42.0
Total Split (%)	42.9%	27.1%	70.0%	30.0%	30.0%
Yellow Time (s)	5.3	4.8	4.8	4.9	4.9
All-Red Time (s)	2.0	3.2	2.0	2.5	2.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.3	8.0	6.8	7.4	7.4
Lead/Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes			
Recall Mode	C-Max	None	C-Max	None	None
Act Effct Green (s)	65.1	36.0	109.6	16.2	16.2
Actuated g/C Ratio	0.47	0.26	0.78	0.12	0.12
v/c Ratio	0.58	0.78	0.40	0.66	0.55
Control Delay (s/veh)	28.4	80.4	6.1	67.4	19.5
Queue Delay	0.0	0.0	0.1	0.0	0.0
Total Delay (s/veh)	28.4	80.4	6.2	67.4	19.5
LOS	C	F	A	E	B
Approach Delay (s/veh)	28.4		23.5		
Approach LOS	C		C		
Queue Length 50th (ft)	304	329	139	113	31
Queue Length 95th (ft)	398	430	157	153	78
Internal Link Dist (ft)	1153		407		
Turn Bay Length (ft)				500	450
Base Capacity (vph)	2856	438	2744	808	809
Starvation Cap Reductn	0	0	520	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.58	0.77	0.50	0.31	0.33

Intersection Summary

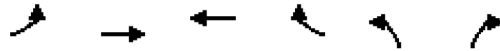
Cycle Length: 140	
Actuated Cycle Length: 140	
Offset: 62 (44%), Referenced to phase 2:WBT and 6:EBT, Start of Yellow	
Natural Cycle: 110	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.78	
Intersection Signal Delay (s/veh): 28.5	Intersection LOS: C
Intersection Capacity Utilization 68.5%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 19: I-75 SB On-ramp/I-75 SB Off-ramp & CR 484



Timings
 20: I-75 NB Off-ramp/I-75 NB On-ramp & CR 484

2030 Build Conditions
 Timing Plan: Weekend



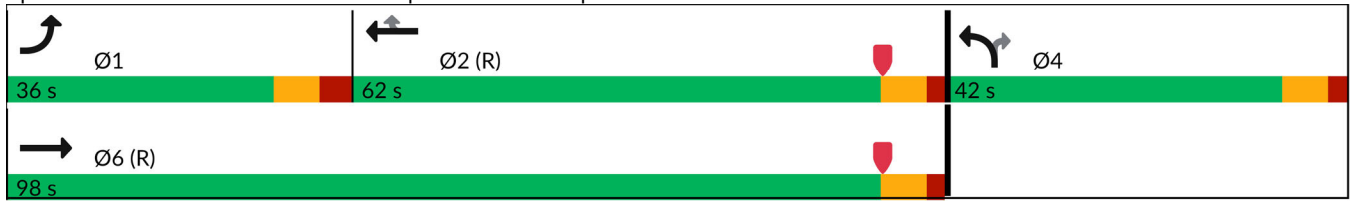
Lane Group	EBL	EBT	WBT	WBR	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	428	1054	1071	447	346	320
Future Volume (vph)	428	1054	1071	447	346	320
Lane Group Flow (vph)	437	1076	1093	456	353	327
Turn Type	Prot	NA	NA	Perm	Prot	Perm
Protected Phases	1	6	2		4	
Permitted Phases				2		4
Detector Phase	1	6	2	2	4	4
Switch Phase						
Minimum Initial (s)	7.0	20.0	20.0	20.0	7.0	7.0
Minimum Split (s)	15.0	26.8	34.8	34.8	44.8	44.8
Total Split (s)	36.0	98.0	62.0	62.0	42.0	42.0
Total Split (%)	25.7%	70.0%	44.3%	44.3%	30.0%	30.0%
Yellow Time (s)	4.8	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	3.2	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	8.0	6.8	6.8	6.8	6.8	6.8
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	Max	C-Max	C-Max	C-Max	None	None
Act Effct Green (s)	35.1	98.3	55.2	55.2	28.1	28.1
Actuated g/C Ratio	0.25	0.70	0.39	0.39	0.20	0.20
v/c Ratio	0.52	0.44	0.56	0.52	0.58	0.86
Control Delay (s/veh)	70.1	7.8	34.2	5.5	53.6	54.5
Queue Delay	0.0	0.1	0.0	0.0	0.0	0.0
Total Delay (s/veh)	70.1	7.9	34.2	5.5	53.6	54.5
LOS	E	A	C	A	D	D
Approach Delay (s/veh)		25.9	25.8			
Approach LOS		C	C			
Queue Length 50th (ft)	218	144	280	11	150	187
Queue Length 95th (ft)	274	167	328	88	191	296
Internal Link Dist (ft)		407	1283			
Turn Bay Length (ft)				200	350	350
Base Capacity (vph)	845	2438	1966	876	765	445
Starvation Cap Reductn	0	448	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	0.52	0.54	0.56	0.52	0.46	0.73

Intersection Summary	
Cycle Length:	140
Actuated Cycle Length:	140
Offset:	55 (39%), Referenced to phase 2:WBT and 6:EBT, Start of Yellow
Natural Cycle:	95
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.86
Intersection Signal Delay (s/veh):	30.9
Intersection LOS:	C
Intersection Capacity Utilization:	68.5%
ICU Level of Service:	C
Analysis Period (min):	15

Timings
 20: I-75 NB Off-ramp/I-75 NB On-ramp & CR 484

2030 Build Conditions
 Timing Plan: Weekend

Splits and Phases: 20: I-75 NB Off-ramp/I-75 NB On-ramp & CR 484



SR 200 Summary Tables

28: I-75 SB On-Ramp/I-75 SB Off-Ramp & SR 200

Approach	Movement	AM Peak Hour			PM Peak Hour			WKND Peak Hour		
		V/C	Delay (s) [LOS]	95% Queue (ft)	V/C	Delay (s) [LOS]	95% Queue (ft)	V/C	Delay (s) [LOS]	95% Queue (ft)
Westbound	Left	0.68	71.3 (E)	225	0.79	56.3 (E)	225	0.70	80.4 (F)	150
	Through	0.26	6.9 (A)	150	0.59	20.1 (C)	125	0.53	9.8 (A)	750
	Approach	0.36	21.5 (C)	-	0.63	27.2 (C)	-	0.55	19.5 (B)	-
Eastbound	Through	0.53	23.0 (C)	400	0.55	35.0 (C)	400	0.52	24.7 (C)	450
	Right	0.29	2.7 (A)	50	0.45	4.0 (A)	75	0.36	3.1 (A)	75
	Approach	0.50	20.7 (C)	-	0.53	29.2 (C)	-	0.50	21.5 (C)	-
Southbound	Left	0.66	68.2 (E)	250	0.40	59.5 (E)	225	0.37	59.5 (E)	150
	Right	0.82	79.8 (E)	300	0.97	94.3 (F)	575	0.76	73.2 (E)	275
	Approach	0.74	74.0 (E)	-	0.78	82.5 (F)	-	0.61	68.0 (E)	-
Overall Intersection		0.50	29.8 (C)	-	0.61	36.8 (D)	-	0.53	25.7 (C)	-

29: I-75 NB Off-ramp/I-75 NB On-ramp & SR 200

Approach	Movement	AM Peak Hour			PM Peak Hour			WKND Peak Hour		
		V/C	Delay (s) [LOS]	95% Queue (ft)	V/C	Delay (s) [LOS]	95% Queue (ft)	V/C	Delay (s) [LOS]	95% Queue (ft)
Westbound	Through	0.33	35.6 (D)	250	0.62	34.4 (C)	575	0.57	31.6 (C)	425
	Right	0.32	5.5 (A)	75	0.37	3.9 (A)	75	0.42	3.7 (A)	75
	Approach	0.33	29.4 (C)	-	0.59	30.3 (C)	-	0.54	26.9 (C)	-
Northbound	Left	0.33	49.8 (D)	175	0.43	61.2 (E)	200	0.36	52.8 (D)	175
	Right	0.82	67.2 (E)	375	0.79	75.7 (E)	325	0.83	71.1 (E)	375
	Approach	0.66	61.4 (E)	-	0.65	69.8 (E)	-	0.67	64.8 (E)	-
Eastbound	Left	0.76	67.0 (E)	200	0.75	51.1 (D)	325	0.83	60.8 (E)	300
	Through	0.61	9.9 (A)	675	0.47	9.4 (A)	175	0.57	10.4 (B)	175
	Approach	0.64	22.1 (C)	-	0.53	18.3 (B)	-	0.62	19.4 (B)	-
Overall Intersection		0.56	31.1 (C)	-	0.57	30.8 (C)	-	0.59	29.2 (C)	-

SR 200 Synchro Reports

Timings
28: I-75 SB On-Ramp/I-75 SB Off-Ramp & SR 200

2030 Build Conditions
Timing Plan: AM

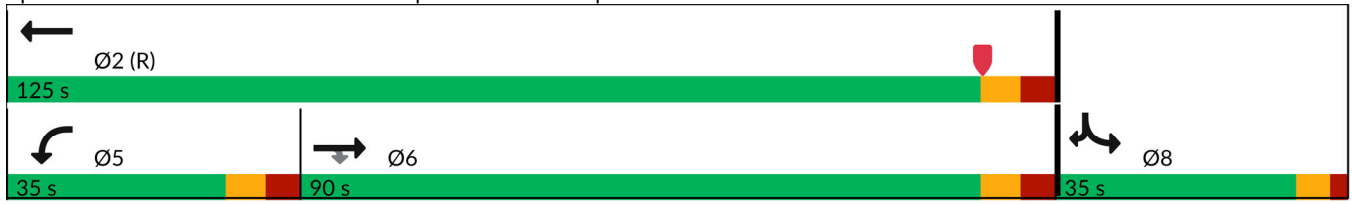


Lane Group	EBT	EBR	WBL	WBT	SBL	SBR
Lane Configurations	↑↑↑↑	↗	↘	↑↑↑	↘	↗
Traffic Volume (vph)	2053	269	261	892	345	351
Future Volume (vph)	2053	269	261	892	345	351
Lane Group Flow (vph)	2161	283	275	939	363	369
Turn Type	NA	Perm	Prot	NA	Prot	Prot
Protected Phases	6		5	2	8	8
Permitted Phases		6				
Detector Phase	6	6	5	2	8	8
Switch Phase						
Minimum Initial (s)	20.0	20.0	12.0	20.0	7.0	7.0
Minimum Split (s)	29.0	29.0	21.0	45.0	14.0	14.0
Total Split (s)	90.0	90.0	35.0	125.0	35.0	35.0
Total Split (%)	56.3%	56.3%	21.9%	78.1%	21.9%	21.9%
Yellow Time (s)	4.9	4.9	4.9	4.9	4.1	4.1
All-Red Time (s)	4.0	4.0	4.0	4.0	2.2	2.2
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	8.9	8.9	8.9	8.9	6.3	6.3
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	Min	Min	None	C-Min	None	None
Act Effct Green (s)	89.8	89.8	19.5	118.2	26.6	26.6
Actuated g/C Ratio	0.56	0.56	0.12	0.74	0.17	0.17
v/c Ratio	0.53	0.29	0.68	0.26	0.66	0.82
Control Delay (s/veh)	23.0	2.7	71.3	6.9	68.2	79.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	23.0	2.7	71.3	6.9	68.2	79.8
LOS	C	A	E	A	E	E
Approach Delay (s/veh)	20.7			21.5		
Approach LOS	C			C		
Queue Length 50th (ft)	347	0	156	95	182	211
Queue Length 95th (ft)	400	47	204	127	239	278
Internal Link Dist (ft)	1476			454		
Turn Bay Length (ft)		475			350	325
Base Capacity (vph)	4114	979	538	3649	598	485
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	82	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.54	0.29	0.51	0.26	0.61	0.76

Intersection Summary

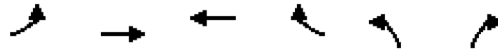
Cycle Length: 160	
Actuated Cycle Length: 160	
Offset: 99 (62%), Referenced to phase 2:WBT, Start of Yellow	
Natural Cycle: 70	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.82	
Intersection Signal Delay (s/veh): 29.8	Intersection LOS: C
Intersection Capacity Utilization 67.3%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 28: I-75 SB On-Ramp/I-75 SB Off-Ramp & SR 200



Timings
29: I-75 NB Off-ramp/I-75 NB On-ramp & SR 200

2030 Build Conditions
Timing Plan: AM

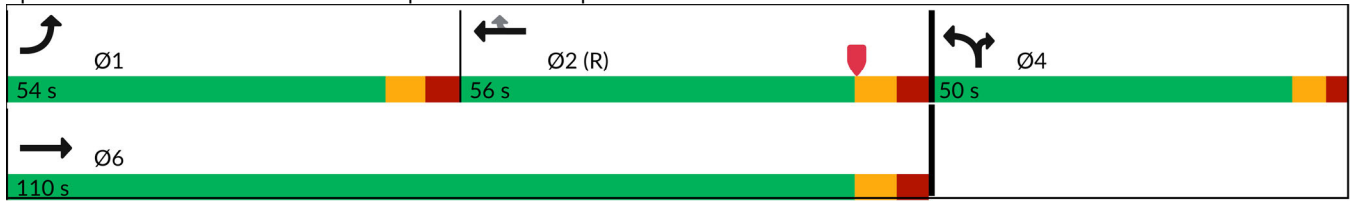


Lane Group	EBL	EBT	WBT	WBR	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	516	1882	897	236	256	514
Future Volume (vph)	516	1882	897	236	256	514
Lane Group Flow (vph)	543	1981	944	248	269	541
Turn Type	Prot	NA	NA	Perm	Prot	Prot
Protected Phases	1	6	2		4	4
Permitted Phases				2		
Detector Phase	1	6	2	2	4	4
Switch Phase						
Minimum Initial (s)	7.0	20.0	20.0	20.0	7.0	7.0
Minimum Split (s)	16.0	40.8	29.0	29.0	14.0	14.0
Total Split (s)	54.0	110.0	56.0	56.0	50.0	50.0
Total Split (%)	33.8%	68.8%	35.0%	35.0%	31.3%	31.3%
Yellow Time (s)	4.9	4.9	4.9	4.9	4.1	4.1
All-Red Time (s)	3.9	3.9	3.9	3.9	2.6	2.6
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	8.8	8.8	8.8	8.8	6.7	6.7
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	Min	C-Min	C-Min	None	None
Act Effct Green (s)	33.4	105.3	63.1	63.1	39.2	39.2
Actuated g/C Ratio	0.21	0.66	0.39	0.39	0.25	0.25
v/c Ratio	0.76	0.61	0.33	0.32	0.33	0.82
Control Delay (s/veh)	67.0	9.8	35.6	5.5	49.8	67.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	67.0	9.9	35.6	5.5	49.8	67.2
LOS	E	A	D	A	D	E
Approach Delay (s/veh)		22.1	29.4			
Approach LOS		C	C			
Queue Length 50th (ft)	258	146	169	0	120	305
Queue Length 95th (ft)	186	660	227	68	152	359
Internal Link Dist (ft)		454	1413			
Turn Bay Length (ft)				420	385	385
Base Capacity (vph)	960	3277	2890	768	920	746
Starvation Cap Reductn	0	85	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	0.62	0.33	0.32	0.29	0.73

Intersection Summary

Cycle Length: 160	
Actuated Cycle Length: 160	
Offset: 121 (76%), Referenced to phase 2:WBT, Start of Yellow	
Natural Cycle: 75	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.82	
Intersection Signal Delay (s/veh): 31.1	Intersection LOS: C
Intersection Capacity Utilization 67.3%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 29: I-75 NB Off-ramp/I-75 NB On-ramp & SR 200



Timings
28: I-75 SB On-Ramp/I-75 SB Off-Ramp & SR 200

2030 Build Conditions
Timing Plan: PM



Lane Group	EBT	EBR	WBL	WBT	SBL	SBR
Lane Configurations	↑↑↑↑	↗	↖↗	↑↑↑	↖↗	↗↖
Traffic Volume (vph)	1705	388	464	1899	285	559
Future Volume (vph)	1705	388	464	1899	285	559
Lane Group Flow (vph)	1795	408	488	1999	300	588
Turn Type	NA	Perm	Prot	NA	Prot	Prot
Protected Phases	6		5	2	8	8
Permitted Phases		6				
Detector Phase	6	6	5	2	8	8
Switch Phase						
Minimum Initial (s)	20.0	20.0	12.0	20.0	7.0	7.0
Minimum Split (s)	29.0	29.0	21.0	45.0	14.0	14.0
Total Split (s)	72.0	72.0	58.0	130.0	40.0	40.0
Total Split (%)	42.4%	42.4%	34.1%	76.5%	23.5%	23.5%
Yellow Time (s)	4.9	4.9	4.9	4.9	4.1	4.1
All-Red Time (s)	4.0	4.0	4.0	4.0	2.2	2.2
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	8.9	8.9	8.9	8.9	6.3	6.3
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	Min	Min	None	C-Min	None	None
Act Effct Green (s)	76.3	76.3	31.6	116.9	37.9	37.9
Actuated g/C Ratio	0.45	0.45	0.19	0.69	0.22	0.22
v/c Ratio	0.55	0.45	0.79	0.59	0.40	0.97
Control Delay (s/veh)	35.0	4.0	56.3	18.4	59.5	94.3
Queue Delay	0.0	0.0	0.0	1.7	0.0	0.0
Total Delay (s/veh)	35.0	4.0	56.3	20.1	59.5	94.3
LOS	C	A	E	C	E	F
Approach Delay (s/veh)	29.2			27.2		
Approach LOS	C			C		
Queue Length 50th (ft)	339	0	186	764	153	~418
Queue Length 95th (ft)	400	66	208	103	204	#559
Internal Link Dist (ft)	1476			454		
Turn Bay Length (ft)		475			350	325
Base Capacity (vph)	3290	909	953	3519	744	604
Starvation Cap Reductn	0	0	0	1276	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	0.45	0.51	0.89	0.40	0.97

Intersection Summary

Cycle Length: 170	
Actuated Cycle Length: 170	
Offset: 48 (28%), Referenced to phase 2:WBT, Start of Yellow	
Natural Cycle: 75	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.97	
Intersection Signal Delay (s/veh): 36.8	Intersection LOS: D
Intersection Capacity Utilization 68.9%	ICU Level of Service C
Analysis Period (min) 15	

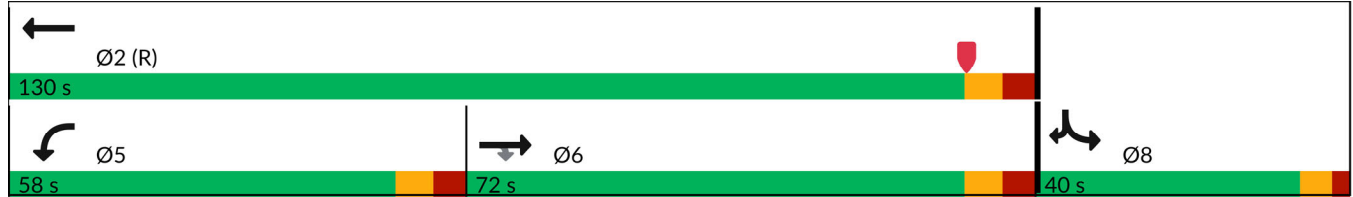
~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

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

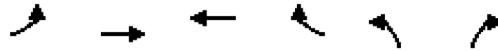
Queue shown is maximum after two cycles.

Splits and Phases: 28: I-75 SB On-Ramp/I-75 SB Off-Ramp & SR 200



Timings
29: I-75 NB Off-ramp/I-75 NB On-ramp & SR 200

2030 Build Conditions
Timing Plan: PM



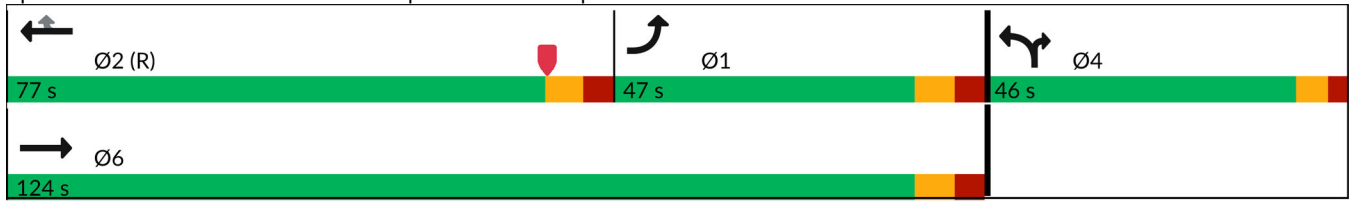
Lane Group	EBL	EBT	WBT	WBR	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	421	1569	2094	328	269	399
Future Volume (vph)	421	1569	2094	328	269	399
Lane Group Flow (vph)	443	1652	2204	345	283	420
Turn Type	Prot	NA	NA	Perm	Prot	Prot
Protected Phases	1	6	2		4	4
Permitted Phases				2		
Detector Phase	1	6	2	2	4	4
Switch Phase						
Minimum Initial (s)	7.0	20.0	20.0	20.0	7.0	7.0
Minimum Split (s)	16.0	40.8	29.0	29.0	14.0	14.0
Total Split (s)	47.0	124.0	77.0	77.0	46.0	46.0
Total Split (%)	27.6%	72.9%	45.3%	45.3%	27.1%	27.1%
Yellow Time (s)	4.9	4.9	4.9	4.9	4.1	4.1
All-Red Time (s)	3.9	3.9	3.9	3.9	2.6	2.6
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	8.8	8.8	8.8	8.8	6.7	6.7
Lead/Lag	Lag		Lead	Lead		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	Min	C-Min	C-Min	None	None
Act Effct Green (s)	29.5	121.1	82.8	82.8	33.4	33.4
Actuated g/C Ratio	0.17	0.71	0.49	0.49	0.20	0.20
v/c Ratio	0.75	0.47	0.62	0.37	0.43	0.79
Control Delay (s/veh)	51.1	9.3	34.3	3.9	61.2	75.7
Queue Delay	0.0	0.1	0.1	0.0	0.0	0.0
Total Delay (s/veh)	51.1	9.4	34.4	3.9	61.2	75.7
LOS	D	A	C	A	E	E
Approach Delay (s/veh)		18.3	30.3			
Approach LOS		B	C			
Queue Length 50th (ft)	250	177	436	0	144	256
Queue Length 95th (ft)	301	168	551	65	181	309
Internal Link Dist (ft)		454	1413			
Turn Bay Length (ft)				420	385	385
Base Capacity (vph)	764	3531	3569	940	779	632
Starvation Cap Reductn	0	601	0	0	0	0
Spillback Cap Reductn	0	0	325	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.58	0.56	0.68	0.37	0.36	0.66

Intersection Summary	
Cycle Length:	170
Actuated Cycle Length:	170
Offset:	166 (98%), Referenced to phase 2:WBT, Start of Yellow
Natural Cycle:	65
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.79
Intersection Signal Delay (s/veh):	30.8
Intersection LOS:	C
Intersection Capacity Utilization:	68.9%
ICU Level of Service:	C
Analysis Period (min):	15

Timings
 29: I-75 NB Off-ramp/I-75 NB On-ramp & SR 200

2030 Build Conditions
 Timing Plan: PM

Splits and Phases: 29: I-75 NB Off-ramp/I-75 NB On-ramp & SR 200



Timings
28: I-75 SB On-Ramp/I-75 SB Off-Ramp & SR 200

2030 Build Conditions
Timing Plan: Weekend

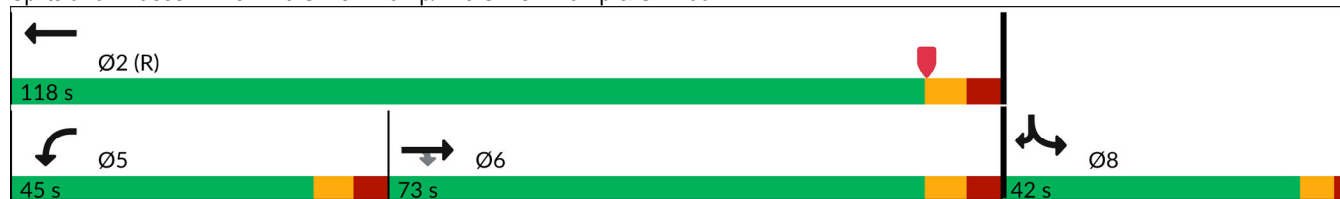


Lane Group	EBT	EBR	WBL	WBT	SBL	SBR
Lane Configurations	↑↑↑↑	↗	↘	↑↑↑	↘	↗
Traffic Volume (vph)	2005	345	295	1854	206	338
Future Volume (vph)	2005	345	295	1854	206	338
Lane Group Flow (vph)	2111	363	311	1952	217	356
Turn Type	NA	Perm	Prot	NA	Prot	Prot
Protected Phases	6		5	2	8	8
Permitted Phases		6				
Detector Phase	6	6	5	2	8	8
Switch Phase						
Minimum Initial (s)	20.0	20.0	12.0	20.0	7.0	7.0
Minimum Split (s)	29.0	29.0	21.0	45.0	14.0	14.0
Total Split (s)	73.0	73.0	45.0	118.0	42.0	42.0
Total Split (%)	45.6%	45.6%	28.1%	73.8%	26.3%	26.3%
Yellow Time (s)	4.9	4.9	4.9	4.9	4.1	4.1
All-Red Time (s)	4.0	4.0	4.0	4.0	2.2	2.2
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	8.9	8.9	8.9	8.9	6.3	6.3
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	Min	Min	None	C-Min	None	None
Act Effct Green (s)	87.3	87.3	21.0	117.2	27.6	27.6
Actuated g/C Ratio	0.55	0.55	0.13	0.73	0.17	0.17
v/c Ratio	0.52	0.36	0.70	0.53	0.37	0.76
Control Delay (s/veh)	24.7	3.1	80.4	9.4	59.5	73.2
Queue Delay	0.0	0.0	0.0	0.5	0.0	0.0
Total Delay (s/veh)	24.7	3.1	80.4	9.8	59.5	73.2
LOS	C	A	F	A	E	E
Approach Delay (s/veh)	21.5			19.5		
Approach LOS	C			B		
Queue Length 50th (ft)	339	0	135	131	104	203
Queue Length 95th (ft)	431	58	150	728	139	255
Internal Link Dist (ft)	1476			454		
Turn Bay Length (ft)		475			350	325
Base Capacity (vph)	4036	1012	759	3653	751	609
Starvation Cap Reductn	0	0	0	1056	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.52	0.36	0.41	0.75	0.29	0.58

Intersection Summary

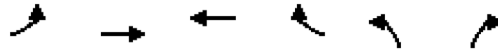
Cycle Length: 160	
Actuated Cycle Length: 160	
Offset: 74 (46%), Referenced to phase 2:WBT, Start of Yellow	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.76	
Intersection Signal Delay (s/veh): 25.7	Intersection LOS: C
Intersection Capacity Utilization 65.3%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 28: I-75 SB On-Ramp/I-75 SB Off-Ramp & SR 200



Timings
29: I-75 NB Off-ramp/I-75 NB On-ramp & SR 200

2030 Build Conditions
Timing Plan: Weekend

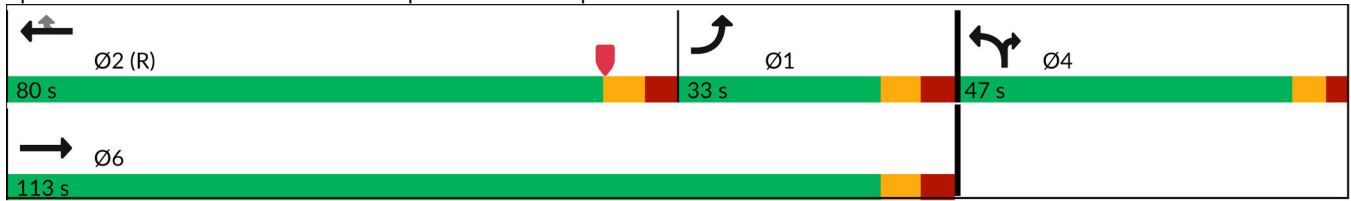


Lane Group	EBL	EBT	WBT	WBR	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	396	1815	1887	387	262	496
Future Volume (vph)	396	1815	1887	387	262	496
Lane Group Flow (vph)	417	1911	1986	407	276	522
Turn Type	Prot	NA	NA	Perm	Prot	Prot
Protected Phases	1	6	2		4	4
Permitted Phases				2		
Detector Phase	1	6	2	2	4	4
Switch Phase						
Minimum Initial (s)	7.0	20.0	20.0	20.0	7.0	7.0
Minimum Split (s)	16.0	40.8	29.0	29.0	14.0	14.0
Total Split (s)	33.0	113.0	80.0	80.0	47.0	47.0
Total Split (%)	20.6%	70.6%	50.0%	50.0%	29.4%	29.4%
Yellow Time (s)	4.9	4.9	4.9	4.9	4.1	4.1
All-Red Time (s)	3.9	3.9	3.9	3.9	2.6	2.6
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	8.8	8.8	8.8	8.8	6.7	6.7
Lead/Lag	Lag		Lead	Lead		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	Min	C-Min	C-Min	None	None
Act Effct Green (s)	23.6	108.2	75.8	75.8	36.3	36.3
Actuated g/C Ratio	0.15	0.68	0.47	0.47	0.23	0.23
v/c Ratio	0.83	0.57	0.57	0.42	0.36	0.83
Control Delay (s/veh)	60.8	10.4	31.6	3.7	52.8	71.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	60.8	10.4	31.6	3.7	52.8	71.1
LOS	E	B	C	A	D	E
Approach Delay (s/veh)		19.4	26.9			
Approach LOS		B	C			
Queue Length 50th (ft)	222	148	373	0	125	295
Queue Length 95th (ft)	285	157	416	62	166	366
Internal Link Dist (ft)		454	1413			
Turn Bay Length (ft)				420	385	385
Base Capacity (vph)	519	3373	3507	964	856	695
Starvation Cap Reductn	0	77	0	0	0	0
Spillback Cap Reductn	0	0	98	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.80	0.58	0.58	0.42	0.32	0.75

Intersection Summary

Cycle Length: 160	
Actuated Cycle Length: 160	
Offset: 32 (20%), Referenced to phase 2:WBT, Start of Yellow	
Natural Cycle: 70	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.83	
Intersection Signal Delay (s/veh): 29.2	Intersection LOS: C
Intersection Capacity Utilization 65.3%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 29: I-75 NB Off-ramp/I-75 NB On-ramp & SR 200



**APPENDIX Z – 2040 BUILD SYNCHRO OUTPUT
REPORTS**

SR 44 Summary Tables

10: I-75 SB On-ramp/I-75 SB Off-ramp & SR 44

Approach	Movement	AM Peak Hour			PM Peak Hour			WKND Peak Hour		
		V/C	Delay (s) [LOS]	95% Queue (ft)	V/C	Delay (s) [LOS]	95% Queue (ft)	V/C	Delay (s) [LOS]	95% Queue (ft)
Westbound	Left	0.76	61.4 (E)	275	0.78	48.8 (D)	250	0.76	46.5 (D)	250
	Through	0.18	9.9 (A)	100	0.38	7.6 (A)	150	0.26	5.6 (A)	100
	Approach	0.46	34.8 (C)	-	0.54	24.5 (C)	-	0.49	24.6 (C)	-
Eastbound	Through	0.20	24.1 (C)	150	0.17	24.7 (C)	75	0.18	20.5 (C)	75
	Right	0.65	5.7 (A)	125	0.59	6.6 (A)	100	0.63	5.8 (A)	100
	Approach	0.44	14.4 (B)	-	0.41	14.3 (B)	-	0.44	12.0 (B)	-
Southbound	Left	0.78	64.2 (E)	300	0.49	35.4 (D)	125	0.56	39.3 (D)	150
	Right	0.43	8.5 (A)	75	0.78	29.4 (C)	200	0.61	9.2 (A)	75
	Approach	0.68	48.8 (D)	-	0.64	32.2 (C)	-	0.58	24.3 (C)	-
Overall Intersection		0.51	29.3 (C)	-	0.53	23.5 (C)	-	0.49	20.0 (B)	-

11: I-75 NB Off-ramp/I-75 NB On-ramp & SR 44

Approach	Movement	AM Peak Hour			PM Peak Hour			WKND Peak Hour		
		V/C	Delay (s) [LOS]	95% Queue (ft)	V/C	Delay (s) [LOS]	95% Queue (ft)	V/C	Delay (s) [LOS]	95% Queue (ft)
Westbound	Through	0.32	46.4 (D)	175	0.34	19.1 (B)	175	0.33	23.3 (C)	150
	Right	0.58	8.4 (A)	100	0.63	5.2 (A)	100	0.49	5.3 (A)	75
	Approach	0.43	30.0 (C)	-	0.46	13.6 (B)	-	0.38	17.2 (B)	-
Northbound	Left	0.20	22.6 (C)	125	0.65	35.8 (D)	200	0.42	28.7 (C)	125
	Right	0.86	40.3 (D)	625	0.79	22.5 (C)	225	0.86	30.3 (C)	275
	Approach	0.66	34.8 (C)	-	0.72	29.5 (C)	-	0.67	29.6 (C)	-
Eastbound	Left	0.72	70.7 (E)	200	0.29	45.2 (D)	75	0.47	55.1 (E)	125
	Through	0.58	43.1 (D)	500	0.29	13.9 (B)	150	0.29	14.3 (B)	150
	Approach	0.61	49.9 (D)	-	0.29	18.5 (B)	-	0.34	24.6 (C)	-
Overall Intersection		0.57	39.0 (D)	-	0.50	19.4 (B)	-	0.46	23.1 (C)	-

SR 44 Synchro Reports

Timings
 10: I-75 SB On-ramp/I-75 SB Off-ramp & SR 44

2040 Build Conditions
 Timing Plan: AM



Lane Group	EBT	EBR	WBL	WBT	SBL	SBR
Lane Configurations	↑↑↑↑	↗	↘↘	↑↑	↘↘	↗
Traffic Volume (vph)	547	616	364	390	492	187
Future Volume (vph)	547	616	364	390	492	187
Lane Group Flow (vph)	576	648	383	411	518	197
Turn Type	NA	Perm	Prot	NA	Prot	Perm
Protected Phases	2		1	6	4	
Permitted Phases		2				4
Detector Phase	2	2	1	6	4	4
Switch Phase						
Minimum Initial (s)	20.0	20.0	10.0	20.0	15.0	15.0
Minimum Split (s)	28.1	28.1	17.2	28.1	21.5	21.5
Total Split (s)	75.1	75.1	34.2	109.3	40.7	40.7
Total Split (%)	50.1%	50.1%	22.8%	72.9%	27.1%	27.1%
Yellow Time (s)	4.4	4.4	4.4	4.4	4.0	4.0
All-Red Time (s)	3.7	3.7	2.8	3.7	2.5	2.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	8.1	8.1	7.2	8.1	6.5	6.5
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	C-Min	C-Min	None	Min	None	None
Act Effct Green (s)	71.8	71.8	24.8	103.8	31.6	31.6
Actuated g/C Ratio	0.48	0.48	0.17	0.69	0.21	0.21
v/c Ratio	0.20	0.65	0.76	0.18	0.78	0.43
Control Delay (s/veh)	24.1	5.7	61.4	9.9	64.2	8.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	24.1	5.7	61.4	9.9	64.2	8.5
LOS	C	A	E	A	E	A
Approach Delay (s/veh)	14.4			34.8		
Approach LOS	B			C		
Queue Length 50th (ft)	92	5	199	75	249	0
Queue Length 95th (ft)	134	112	253	89	296	64
Internal Link Dist (ft)	1477			382		
Turn Bay Length (ft)		275				500
Base Capacity (vph)	2970	1014	563	2337	742	492
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	168	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.21	0.64	0.68	0.18	0.70	0.40

Intersection Summary

Cycle Length: 150	
Actuated Cycle Length: 150	
Offset: 141 (94%), Referenced to phase 2:EBT, Start of Green	
Natural Cycle: 70	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.78	
Intersection Signal Delay (s/veh): 29.3	Intersection LOS: C
Intersection Capacity Utilization 80.7%	ICU Level of Service D
Analysis Period (min) 15	

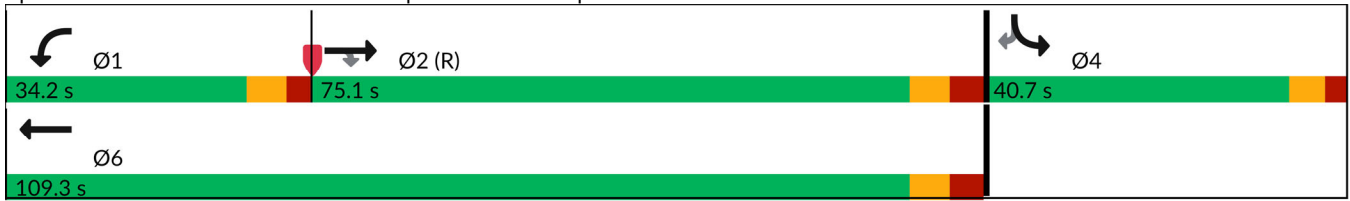
Timings

10: I-75 SB On-ramp/I-75 SB Off-ramp & SR 44

2040 Build Conditions

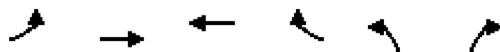
Timing Plan: AM

Splits and Phases: 10: I-75 SB On-ramp/I-75 SB Off-ramp & SR 44



Timings
11: I-75 NB Off-ramp/I-75 NB On-ramp & SR 44

2040 Build Conditions
Timing Plan: AM



Lane Group	EBL	EBT	WBT	WBR	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	255	784	472	360	282	630
Future Volume (vph)	255	784	472	360	282	630
Lane Group Flow (vph)	268	825	497	379	297	663
Turn Type	Prot	NA	NA	Perm	Prot	Perm
Protected Phases	1	6	2		4	
Permitted Phases				2		4
Detector Phase	1	6	2	2	4	4
Switch Phase						
Minimum Initial (s)	10.0	20.0	20.0	20.0	15.0	15.0
Minimum Split (s)	24.5	27.3	27.3	27.3	22.1	22.1
Total Split (s)	25.2	84.2	59.0	59.0	65.8	65.8
Total Split (%)	16.8%	56.1%	39.3%	39.3%	43.9%	43.9%
Yellow Time (s)	4.4	4.4	4.4	4.4	4.0	4.0
All-Red Time (s)	2.5	2.9	2.9	2.9	3.1	3.1
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.9	7.3	7.3	7.3	7.1	7.1
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	C-Min	C-Min	C-Min	None	None
Act Effct Green (s)	18.0	64.1	39.2	39.2	71.5	71.5
Actuated g/C Ratio	0.12	0.43	0.26	0.26	0.48	0.48
v/c Ratio	0.72	0.58	0.32	0.58	0.20	0.86
Control Delay (s/veh)	70.7	42.8	46.4	8.4	22.6	40.3
Queue Delay	0.0	0.3	0.0	0.0	0.0	0.0
Total Delay (s/veh)	70.7	43.1	46.4	8.4	22.6	40.3
LOS	E	D	D	A	C	D
Approach Delay (s/veh)		49.9	30.0			
Approach LOS		D	C			
Queue Length 50th (ft)	137	340	112	0	89	502
Queue Length 95th (ft)	178	481	155	99	102	610
Internal Link Dist (ft)		382	1690			
Turn Bay Length (ft)				350		450
Base Capacity (vph)	394	1697	2066	740	1517	767
Starvation Cap Reductn	0	337	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	0.68	0.61	0.24	0.51	0.20	0.86

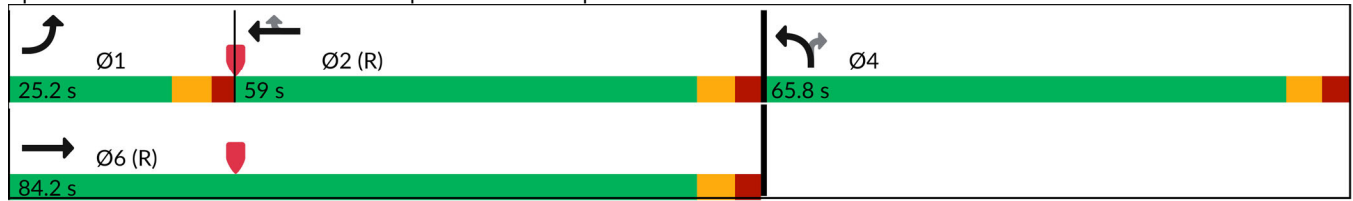
Intersection Summary

Cycle Length: 150
 Actuated Cycle Length: 150
 Offset: 16 (11%), Referenced to phase 2:WBT and 6:EBT, Start of Green
 Natural Cycle: 90
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.86
 Intersection Signal Delay (s/veh): 39.0
 Intersection Capacity Utilization 80.7%
 Analysis Period (min) 15
 Intersection LOS: D
 ICU Level of Service D

Timings
 11: I-75 NB Off-ramp/I-75 NB On-ramp & SR 44

2040 Build Conditions
 Timing Plan: AM

Splits and Phases: 11: I-75 NB Off-ramp/I-75 NB On-ramp & SR 44



Timings
10: I-75 SB On-ramp/I-75 SB Off-ramp & SR 44

2040 Build Conditions
Timing Plan: PM



Lane Group	EBT	EBR	WBL	WBT	SBL	SBR
Lane Configurations	↑↑↑↑	↗	↖↖	↑↑	↖↖	↗
Traffic Volume (vph)	331	442	567	814	308	340
Future Volume (vph)	331	442	567	814	308	340
Lane Group Flow (vph)	334	446	573	822	311	343
Turn Type	NA	Perm	Prot	NA	Prot	Perm
Protected Phases	2		1	6	4	
Permitted Phases		2				4
Detector Phase	2	2	1	6	4	4
Switch Phase						
Minimum Initial (s)	20.0	20.0	10.0	20.0	15.0	15.0
Minimum Split (s)	28.1	28.1	17.2	28.1	21.5	21.5
Total Split (s)	33.0	33.0	32.0	65.0	30.0	30.0
Total Split (%)	34.7%	34.7%	33.7%	68.4%	31.6%	31.6%
Yellow Time (s)	4.4	4.4	4.4	4.4	4.0	4.0
All-Red Time (s)	3.7	3.7	2.8	3.7	2.5	2.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	8.1	8.1	7.2	8.1	6.5	6.5
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	C-Min	C-Min	None	Min	None	None
Act Effct Green (s)	31.0	31.0	22.9	61.1	19.3	19.3
Actuated g/C Ratio	0.33	0.33	0.24	0.64	0.20	0.20
v/c Ratio	0.17	0.59	0.78	0.38	0.49	0.78
Control Delay (s/veh)	24.7	6.6	48.8	7.6	35.4	29.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	24.7	6.6	48.8	7.6	35.4	29.4
LOS	C	A	D	A	D	C
Approach Delay (s/veh)	14.3			24.5		
Approach LOS	B			C		
Queue Length 50th (ft)	41	0	194	121	86	94
Queue Length 95th (ft)	65	83	249	144	120	191
Internal Link Dist (ft)	1477			382		
Turn Bay Length (ft)		275				500
Base Capacity (vph)	2003	763	805	2153	783	496
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	0.17	0.58	0.71	0.38	0.40	0.69

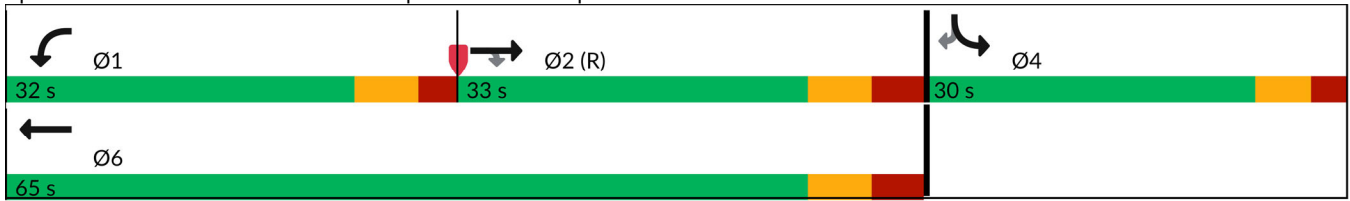
Intersection Summary

Cycle Length: 95	
Actuated Cycle Length: 95	
Offset: 13 (14%), Referenced to phase 2:EBT, Start of Green	
Natural Cycle: 75	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.78	
Intersection Signal Delay (s/veh): 23.5	Intersection LOS: C
Intersection Capacity Utilization 76.5%	ICU Level of Service D
Analysis Period (min) 15	

Timings
10: I-75 SB On-ramp/I-75 SB Off-ramp & SR 44

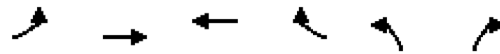
2040 Build Conditions
Timing Plan: PM

Splits and Phases: 10: I-75 SB On-ramp/I-75 SB Off-ramp & SR 44



Timings
 11: I-75 NB Off-ramp/I-75 NB On-ramp & SR 44

2040 Build Conditions
 Timing Plan: PM



Lane Group	EBL	EBT	WBT	WBR	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	93	546	892	589	489	432
Future Volume (vph)	93	546	892	589	489	432
Lane Group Flow (vph)	98	575	939	620	515	455
Turn Type	Prot	NA	NA	Perm	Prot	Perm
Protected Phases	1	6	2		4	
Permitted Phases				2		4
Detector Phase	1	6	2	2	4	4
Switch Phase						
Minimum Initial (s)	10.0	20.0	20.0	20.0	15.0	15.0
Minimum Split (s)	24.5	27.3	27.3	27.3	22.1	22.1
Total Split (s)	25.0	60.0	35.0	35.0	35.0	35.0
Total Split (%)	26.3%	63.2%	36.8%	36.8%	36.8%	36.8%
Yellow Time (s)	4.4	4.4	4.4	4.4	4.0	4.0
All-Red Time (s)	2.5	2.9	2.9	2.9	3.1	3.1
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.9	7.3	7.3	7.3	7.1	7.1
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	C-Min	C-Min	C-Min	None	None
Act Effct Green (s)	10.4	57.1	43.2	43.2	23.5	23.5
Actuated g/C Ratio	0.11	0.60	0.45	0.45	0.25	0.25
v/c Ratio	0.29	0.29	0.34	0.63	0.65	0.79
Control Delay (s/veh)	45.2	13.9	19.1	5.2	35.8	22.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	45.2	13.9	19.1	5.2	35.8	22.5
LOS	D	B	B	A	D	C
Approach Delay (s/veh)		18.5	13.6			
Approach LOS		B	B			
Queue Length 50th (ft)	32	96	110	0	143	96
Queue Length 95th (ft)	59	131	152	82	186	211
Internal Link Dist (ft)		382	1690			
Turn Bay Length (ft)				350		450
Base Capacity (vph)	590	1989	2724	987	934	631
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	0.17	0.29	0.34	0.63	0.55	0.72

Intersection Summary

Cycle Length: 95	
Actuated Cycle Length: 95	
Offset: 12 (13%), Referenced to phase 2:WBT and 6:EBT, Start of Green	
Natural Cycle: 75	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.79	
Intersection Signal Delay (s/veh): 19.4	Intersection LOS: B
Intersection Capacity Utilization 76.5%	ICU Level of Service D
Analysis Period (min) 15	

Timings
11: I-75 NB Off-ramp/I-75 NB On-ramp & SR 44

2040 Build Conditions
Timing Plan: PM

Splits and Phases: 11: I-75 NB Off-ramp/I-75 NB On-ramp & SR 44



Timings
10: I-75 SB On-ramp/I-75 SB Off-ramp & SR 44

2040 Build Conditions
Timing Plan: Weekend



Lane Group	EBT	EBR	WBL	WBT	SBL	SBR
Lane Configurations	↑↑↑↑	↗	↖↗	↑↑	↖↗	↗
Traffic Volume (vph)	412	557	507	587	319	317
Future Volume (vph)	412	557	507	587	319	317
Lane Group Flow (vph)	420	568	517	599	326	323
Turn Type	NA	Perm	Prot	NA	Prot	Perm
Protected Phases	2		1	6	4	
Permitted Phases		2				4
Detector Phase	2	2	1	6	4	4
Switch Phase						
Minimum Initial (s)	20.0	20.0	10.0	20.0	15.0	15.0
Minimum Split (s)	28.1	28.1	17.2	28.1	21.5	21.5
Total Split (s)	44.0	44.0	26.0	70.0	25.0	25.0
Total Split (%)	46.3%	46.3%	27.4%	73.7%	26.3%	26.3%
Yellow Time (s)	4.4	4.4	4.4	4.4	4.0	4.0
All-Red Time (s)	3.7	3.7	2.8	3.7	2.5	2.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	8.1	8.1	7.2	8.1	6.5	6.5
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	C-Min	C-Min	None	Min	None	None
Act Effct Green (s)	36.1	36.1	20.1	63.4	17.0	17.0
Actuated g/C Ratio	0.38	0.38	0.21	0.67	0.18	0.18
v/c Ratio	0.18	0.63	0.76	0.26	0.56	0.61
Control Delay (s/veh)	20.5	5.8	46.5	5.6	39.3	9.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	20.5	5.8	46.5	5.6	39.3	9.2
LOS	C	A	D	A	D	A
Approach Delay (s/veh)	12.0			24.6		
Approach LOS	B			C		
Queue Length 50th (ft)	48	4	168	55	93	0
Queue Length 95th (ft)	68	81	#240	85	132	72
Internal Link Dist (ft)	1477			382		
Turn Bay Length (ft)		275				500
Base Capacity (vph)	2465	923	694	2305	642	555
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	0.17	0.62	0.74	0.26	0.51	0.58

Intersection Summary

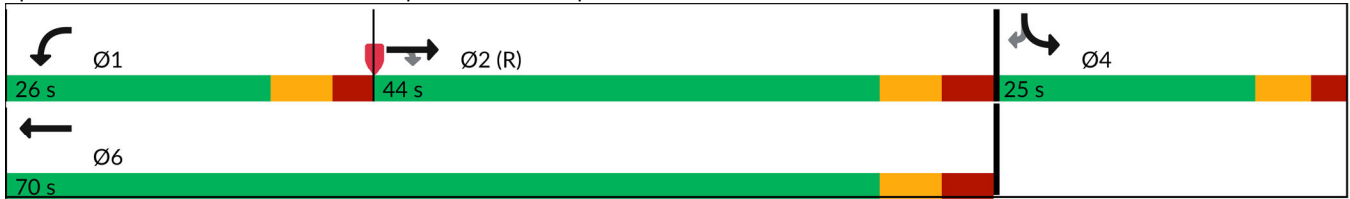
Cycle Length: 95
 Actuated Cycle Length: 95
 Offset: 93 (98%), Referenced to phase 2:EBT, Start of Green
 Natural Cycle: 70
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.76
 Intersection Signal Delay (s/veh): 20.0
 Intersection Capacity Utilization 79.6%
 Analysis Period (min) 15
 Intersection LOS: C
 ICU Level of Service D

Timings
10: I-75 SB On-ramp/I-75 SB Off-ramp & SR 44

2040 Build Conditions
Timing Plan: Weekend

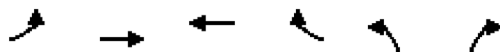
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 10: I-75 SB On-ramp/I-75 SB Off-ramp & SR 44



Timings
11: I-75 NB Off-ramp/I-75 NB On-ramp & SR 44

2040 Build Conditions
Timing Plan: Weekend



Lane Group	EBL	EBT	WBT	WBR	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	184	547	731	376	363	490
Future Volume (vph)	184	547	731	376	363	490
Lane Group Flow (vph)	192	570	761	392	378	510
Turn Type	Prot	NA	NA	Perm	Prot	Perm
Protected Phases	1	6	2		4	
Permitted Phases				2		4
Detector Phase	1	6	2	2	4	4
Switch Phase						
Minimum Initial (s)	10.0	20.0	20.0	20.0	15.0	15.0
Minimum Split (s)	24.5	27.3	27.3	27.3	22.1	22.1
Total Split (s)	25.0	55.0	30.0	30.0	40.0	40.0
Total Split (%)	26.3%	57.9%	31.6%	31.6%	42.1%	42.1%
Yellow Time (s)	4.4	4.4	4.4	4.4	4.0	4.0
All-Red Time (s)	2.5	2.9	2.9	2.9	3.1	3.1
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.9	7.3	7.3	7.3	7.1	7.1
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	C-Min	C-Min	C-Min	None	None
Act Effct Green (s)	12.1	54.7	35.7	35.7	25.9	25.9
Actuated g/C Ratio	0.13	0.58	0.38	0.38	0.27	0.27
v/c Ratio	0.47	0.29	0.33	0.49	0.42	0.86
Control Delay (s/veh)	55.1	14.3	23.3	5.3	28.7	30.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	55.1	14.3	23.3	5.3	28.7	30.3
LOS	E	B	C	A	C	C
Approach Delay (s/veh)		24.6	17.2			
Approach LOS		C	B			
Queue Length 50th (ft)	64	86	95	0	94	153
Queue Length 95th (ft)	101	130	140	71	123	269
Internal Link Dist (ft)		382	1690			
Turn Bay Length (ft)				350		450
Base Capacity (vph)	612	1979	2336	801	1143	690
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	0.29	0.33	0.49	0.33	0.74

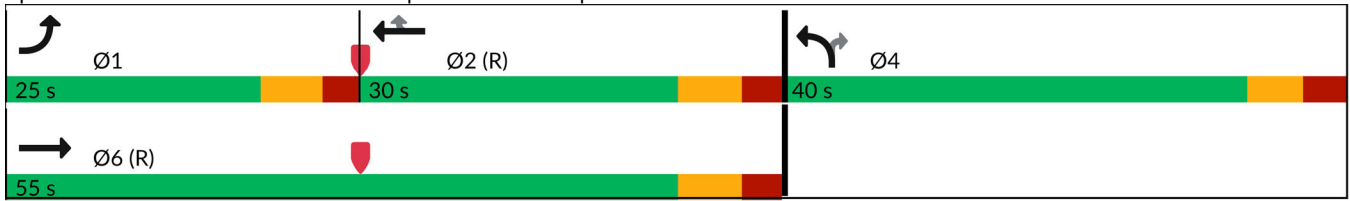
Intersection Summary

Cycle Length: 95	
Actuated Cycle Length: 95	
Offset: 5 (5%), Referenced to phase 2:WBT and 6:EBT, Start of Green	
Natural Cycle: 75	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.86	
Intersection Signal Delay (s/veh): 23.1	Intersection LOS: C
Intersection Capacity Utilization 79.6%	ICU Level of Service D
Analysis Period (min) 15	

Timings
11: I-75 NB Off-ramp/I-75 NB On-ramp & SR 44

2040 Build Conditions
Timing Plan: Weekend

Splits and Phases: 11: I-75 NB Off-ramp/I-75 NB On-ramp & SR 44



CR 484 Summary Tables

19: I-75 SB On-ramp/I-75 SB Off-ramp & CR 484

Approach	Movement	AM Peak Hour			PM Peak Hour			WKND Peak Hour		
		V/C	Delay (s) [LOS]	95% Queue (ft)	V/C	Delay (s) [LOS]	95% Queue (ft)	V/C	Delay (s) [LOS]	95% Queue (ft)
Westbound	Left	0.83	97.1 (F)	425	0.91	104.8 (F)	350	0.74	79.8 (E)	500
	Through	0.31	6.4 (A)	125	0.79	18.6 (B)	325	0.42	6.9 (A)	175
	Approach	0.46	32.5 (C)	-	0.80	27.2 (C)	-	0.50	25.5 (C)	-
Eastbound	TH/RT	0.89	40.7 (D)	775	0.56	28.4 (C)	325	0.76	38.0 (D)	475
	Approach	0.89	40.7 (D)	-	0.56	28.4 (C)	-	0.76	38.0 (D)	-
Southbound	Left	0.74	65.9 (E)	225	0.68	51.0 (D)	325	0.70	66.3 (E)	200
	Right	0.44	7.4 (A)	50	0.91	59.5 (E)	425	0.64	28.6 (C)	125
	Approach	0.61	40.5 (D)	-	0.80	55.6 (E)	-	0.67	46.6 (D)	-
Overall Intersection		0.71	38.5 (D)	-	0.73	35.2 (D)	-	0.63	34.6 (C)	-

20: I-75 NB Off-ramp/I-75 NB On-ramp & CR 484

Approach	Movement	AM Peak Hour			PM Peak Hour			WKND Peak Hour		
		V/C	Delay (s) [LOS]	95% Queue (ft)	V/C	Delay (s) [LOS]	95% Queue (ft)	V/C	Delay (s) [LOS]	95% Queue (ft)
Westbound	Through	0.45	31.6 (C)	275	0.72	37.8 (D)	450	0.57	34.5 (C)	350
	Right	0.63	7.7 (A)	150	0.50	9.8 (A)	150	0.61	6.4 (A)	125
	Approach	0.52	22.2 (C)	-	0.67	31.6 (C)	-	0.58	25.0 (C)	-
Northbound	Left	0.52	59.0 (E)	150	0.69	54.3 (D)	300	0.57	51.0 (D)	225
	Right	0.77	50.3 (D)	200	0.89	62.5 (E)	425	0.92	65.5 (E)	425
	Approach	0.64	54.8 (D)	-	0.77	57.7 (E)	-	0.74	57.9 (E)	-
Eastbound	Left	0.76	63.4 (E)	475	0.47	65.7 (E)	225	0.73	70.7 (E)	350
	Through	0.58	12.7 (B)	400	0.66	13.9 (B)	325	0.50	11.1 (B)	250
	Approach	0.64	29.9 (C)	-	0.63	23.4 (C)	-	0.57	30.2 (C)	-
Overall Intersection		0.60	29.9 (C)	-	0.67	33.4 (C)	-	0.61	33.2 (C)	-

CR 484 Synchro Reports

Timings
 19: I-75 SB On-ramp/I-75 SB Off-ramp & CR 484

2040 Build Conditions
 Timing Plan: AM



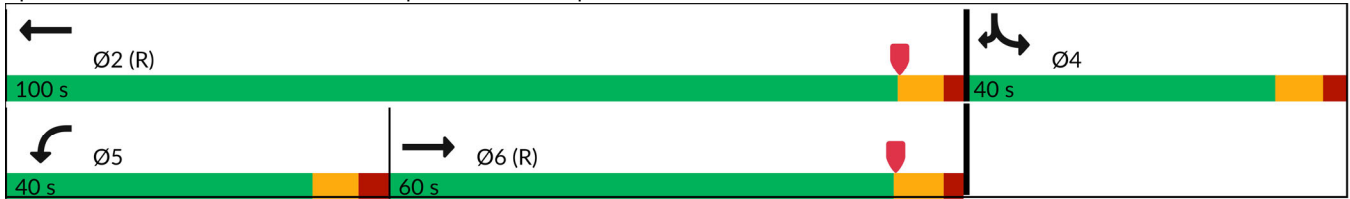
Lane Group	EBT	WBL	WBT	SBL	SBR
Lane Configurations	↑↑↑↑	↙	↑↑	↘↘	↘↘
Traffic Volume (vph)	1843	311	769	354	271
Future Volume (vph)	1843	311	769	354	271
Lane Group Flow (vph)	2433	324	801	369	282
Turn Type	NA	Prot	NA	Prot	Prot
Protected Phases	6	5	2	4	4
Permitted Phases					
Detector Phase	6	5	2	4	4
Switch Phase					
Minimum Initial (s)	18.0	7.0	18.0	7.0	7.0
Minimum Split (s)	25.3	15.0	34.8	45.4	45.4
Total Split (s)	60.0	40.0	100.0	40.0	40.0
Total Split (%)	42.9%	28.6%	71.4%	28.6%	28.6%
Yellow Time (s)	5.3	4.8	4.8	4.9	4.9
All-Red Time (s)	2.0	3.2	2.0	2.5	2.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.3	8.0	6.8	7.4	7.4
Lead/Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes			
Recall Mode	C-Max	None	C-Max	None	None
Act Effct Green (s)	62.6	33.1	104.2	21.6	21.6
Actuated g/C Ratio	0.45	0.24	0.74	0.15	0.15
v/c Ratio	0.89	0.83	0.31	0.74	0.44
Control Delay (s/veh)	40.7	97.1	6.4	65.5	7.4
Queue Delay	0.0	0.0	0.1	0.4	0.0
Total Delay (s/veh)	40.7	97.1	6.4	65.9	7.4
LOS	D	F	A	E	A
Approach Delay (s/veh)	40.7		32.5		
Approach LOS	D		C		
Queue Length 50th (ft)	582	314	86	168	0
Queue Length 95th (ft)	#766	416	101	212	42
Internal Link Dist (ft)	1153		407		
Turn Bay Length (ft)				500	450
Base Capacity (vph)	2723	410	2583	754	829
Starvation Cap Reductn	0	0	460	0	0
Spillback Cap Reductn	3	0	0	108	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.89	0.79	0.38	0.57	0.34

Intersection Summary

Cycle Length: 140	
Actuated Cycle Length: 140	
Offset: 67 (48%), Referenced to phase 2:WBT and 6:EBT, Start of Yellow	
Natural Cycle: 150	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.89	
Intersection Signal Delay (s/veh): 38.5	Intersection LOS: D
Intersection Capacity Utilization 81.2%	ICU Level of Service D
Analysis Period (min) 15	

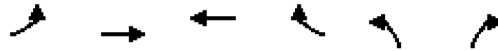
95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 19: I-75 SB On-ramp/I-75 SB Off-ramp & CR 484



Timings
 20: I-75 NB Off-ramp/I-75 NB On-ramp & CR 484

2040 Build Conditions
 Timing Plan: AM



Lane Group	EBL	EBT	WBT	WBR	NBL	NBR
Lane Configurations	↙↙	↑↑	↑↑↑	↘	↙↙	↘
Traffic Volume (vph)	747	1450	852	553	228	214
Future Volume (vph)	747	1450	852	553	228	214
Lane Group Flow (vph)	770	1495	878	570	235	221
Turn Type	Prot	NA	NA	Perm	Prot	Perm
Protected Phases	1	6	2		4	
Permitted Phases				2		4
Detector Phase	1	6	2	2	4	4
Switch Phase						
Minimum Initial (s)	7.0	20.0	20.0	20.0	7.0	7.0
Minimum Split (s)	15.0	26.8	34.8	34.8	44.8	44.8
Total Split (s)	42.0	105.0	63.0	63.0	35.0	35.0
Total Split (%)	30.0%	75.0%	45.0%	45.0%	25.0%	25.0%
Yellow Time (s)	4.8	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	3.2	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	8.0	6.8	6.8	6.8	6.8	6.8
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	Max	C-Max	C-Max	C-Max	None	None
Act Effct Green (s)	42.8	107.0	56.2	56.2	19.4	19.4
Actuated g/C Ratio	0.31	0.76	0.40	0.40	0.14	0.14
v/c Ratio	0.76	0.58	0.45	0.63	0.52	0.77
Control Delay (s/veh)	60.9	11.6	31.6	7.7	59.0	50.3
Queue Delay	2.4	1.1	0.0	0.0	0.0	0.0
Total Delay (s/veh)	63.4	12.7	31.6	7.7	59.0	50.3
LOS	E	B	C	A	E	D
Approach Delay (s/veh)		29.9	22.2			
Approach LOS		C	C			
Queue Length 50th (ft)	385	257	212	38	104	116
Queue Length 95th (ft)	m#467	396	253	150	137	198
Internal Link Dist (ft)		407	1283			
Turn Bay Length (ft)				200	350	350
Base Capacity (vph)	1009	2578	1946	912	659	377
Starvation Cap Reductn	132	763	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	0.82	0.45	0.63	0.36	0.59

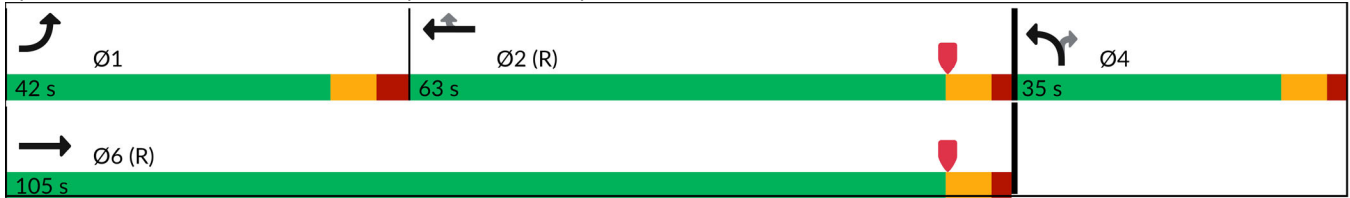
Intersection Summary	
Cycle Length:	140
Actuated Cycle Length:	140
Offset:	58 (41%), Referenced to phase 2:WBT and 6:EBT, Start of Yellow
Natural Cycle:	105
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.77
Intersection Signal Delay (s/veh):	29.9
Intersection LOS:	C
Intersection Capacity Utilization:	81.2%
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: 20: I-75 NB Off-ramp/I-75 NB On-ramp & CR 484



Timings
 19: I-75 SB On-ramp/I-75 SB Off-ramp & CR 484

2040 Build Conditions
 Timing Plan: PM



Lane Group	EBT	WBL	WBT	SBL	SBR
Lane Configurations	↑↑↑↑	↙	↑↑	↘↘	↘↘
Traffic Volume (vph)	1202	183	1654	548	652
Future Volume (vph)	1202	183	1654	548	652
Lane Group Flow (vph)	1545	193	1741	577	686
Turn Type	NA	Prot	NA	Prot	Prot
Protected Phases	6	5	2	4	4
Permitted Phases					
Detector Phase	6	5	2	4	4
Switch Phase					
Minimum Initial (s)	18.0	7.0	18.0	7.0	7.0
Minimum Split (s)	25.3	15.0	34.8	45.4	45.4
Total Split (s)	70.0	24.0	94.0	46.0	46.0
Total Split (%)	50.0%	17.1%	67.1%	32.9%	32.9%
Yellow Time (s)	5.3	4.8	4.8	4.9	4.9
All-Red Time (s)	2.0	3.2	2.0	2.5	2.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.3	8.0	6.8	7.4	7.4
Lead/Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes			
Recall Mode	C-Max	None	C-Max	None	None
Act Effct Green (s)	62.8	18.0	89.4	36.4	36.4
Actuated g/C Ratio	0.45	0.13	0.64	0.26	0.26
v/c Ratio	0.56	0.91	0.79	0.68	0.91
Control Delay (s/veh)	28.4	104.8	18.5	51.0	59.5
Queue Delay	0.0	0.0	0.2	0.0	0.0
Total Delay (s/veh)	28.4	104.8	18.6	51.0	59.5
LOS	C	F	B	D	E
Approach Delay (s/veh)	28.4		27.2		
Approach LOS	C		C		
Queue Length 50th (ft)	287	~191	265	239	297
Queue Length 95th (ft)	325	m#345	308	304	#409
Internal Link Dist (ft)	1153		407		
Turn Bay Length (ft)				500	450
Base Capacity (vph)	2748	213	2215	893	795
Starvation Cap Reductn	0	0	64	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.56	0.91	0.81	0.65	0.86

Intersection Summary	
Cycle Length:	140
Actuated Cycle Length:	140
Offset:	69 (49%), Referenced to phase 2:WBT and 6:EBT, Start of Yellow
Natural Cycle:	100
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.91
Intersection Signal Delay (s/veh):	35.2
Intersection LOS:	D
Intersection Capacity Utilization:	80.4%
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: 19: I-75 SB On-ramp/I-75 SB Off-ramp & CR 484



Timings
 20: I-75 NB Off-ramp/I-75 NB On-ramp & CR 484

2040 Build Conditions
 Timing Plan: PM

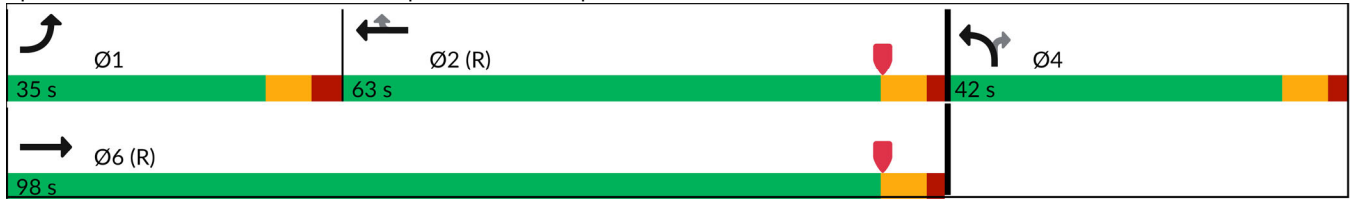


Lane Group	EBL	EBT	WBT	WBR	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	319	1431	1339	382	498	356
Future Volume (vph)	319	1431	1339	382	498	356
Lane Group Flow (vph)	332	1491	1395	398	519	371
Turn Type	Prot	NA	NA	Perm	Prot	Perm
Protected Phases	1	6	2		4	
Permitted Phases				2		4
Detector Phase	1	6	2	2	4	4
Switch Phase						
Minimum Initial (s)	7.0	20.0	20.0	20.0	7.0	7.0
Minimum Split (s)	15.0	26.8	34.8	34.8	44.8	44.8
Total Split (s)	35.0	98.0	63.0	63.0	42.0	42.0
Total Split (%)	25.0%	70.0%	45.0%	45.0%	30.0%	30.0%
Yellow Time (s)	4.8	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	3.2	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	8.0	6.8	6.8	6.8	6.8	6.8
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	Max	C-Max	C-Max	C-Max	None	None
Act Effct Green (s)	30.1	94.3	56.2	56.2	32.1	32.1
Actuated g/C Ratio	0.22	0.67	0.40	0.40	0.23	0.23
v/c Ratio	0.47	0.66	0.72	0.50	0.69	0.89
Control Delay (s/veh)	65.7	13.8	37.8	9.8	54.3	62.5
Queue Delay	0.0	0.1	0.0	0.0	0.0	0.0
Total Delay (s/veh)	65.7	13.9	37.8	9.8	54.3	62.5
LOS	E	B	D	A	D	E
Approach Delay (s/veh)		23.4	31.6			
Approach LOS		C	C			
Queue Length 50th (ft)	165	288	387	56	218	249
Queue Length 95th (ft)	218	314	444	149	280	#415
Internal Link Dist (ft)		407	1283			
Turn Bay Length (ft)				200	350	350
Base Capacity (vph)	710	2272	1946	791	822	448
Starvation Cap Reductn	0	136	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	0.70	0.72	0.50	0.63	0.83

Intersection Summary	
Cycle Length: 140	
Actuated Cycle Length: 140	
Offset: 66 (47%), Referenced to phase 2:WBT and 6:EBT, Start of Yellow	
Natural Cycle: 95	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.89	
Intersection Signal Delay (s/veh): 33.4	Intersection LOS: C
Intersection Capacity Utilization 80.4%	ICU Level of Service D
Analysis Period (min) 15	

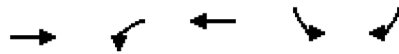
95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 20: I-75 NB Off-ramp/I-75 NB On-ramp & CR 484



Timings
 19: I-75 SB On-ramp/I-75 SB Off-ramp & CR 484

2040 Build Conditions
 Timing Plan: Weekend



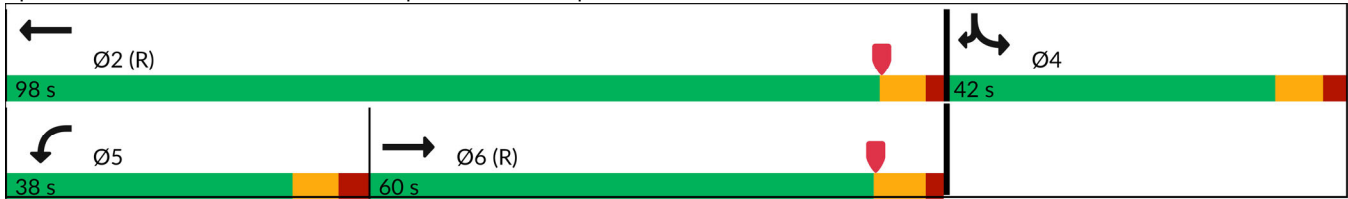
Lane Group	EBT	WBL	WBT	SBL	SBR
Lane Configurations	↑↑↑↑	↙	↑↑	↘↘	↘↘
Traffic Volume (vph)	1376	379	1104	300	327
Future Volume (vph)	1376	379	1104	300	327
Lane Group Flow (vph)	1851	387	1127	306	334
Turn Type	NA	Prot	NA	Prot	Prot
Protected Phases	6	5	2	4	4
Permitted Phases					
Detector Phase	6	5	2	4	4
Switch Phase					
Minimum Initial (s)	18.0	7.0	18.0	7.0	7.0
Minimum Split (s)	25.3	15.0	34.8	45.4	45.4
Total Split (s)	60.0	38.0	98.0	42.0	42.0
Total Split (%)	42.9%	27.1%	70.0%	30.0%	30.0%
Yellow Time (s)	5.3	4.8	4.8	4.9	4.9
All-Red Time (s)	2.0	3.2	2.0	2.5	2.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.3	8.0	6.8	7.4	7.4
Lead/Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes			
Recall Mode	C-Max	None	C-Max	None	None
Act Effct Green (s)	55.3	43.2	107.0	18.8	18.8
Actuated g/C Ratio	0.40	0.31	0.76	0.13	0.13
v/c Ratio	0.76	0.74	0.42	0.70	0.64
Control Delay (s/veh)	38.0	79.8	6.8	66.3	28.6
Queue Delay	0.0	0.0	0.1	0.0	0.0
Total Delay (s/veh)	38.0	79.8	6.9	66.3	28.6
LOS	D	E	A	E	C
Approach Delay (s/veh)	38.0		25.5		
Approach LOS	D		C		
Queue Length 50th (ft)	403	376	149	139	67
Queue Length 95th (ft)	468	#488	173	182	119
Internal Link Dist (ft)	1153		407		
Turn Bay Length (ft)				500	450
Base Capacity (vph)	2435	520	2679	808	803
Starvation Cap Reductn	0	0	455	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.76	0.74	0.51	0.38	0.42

Intersection Summary

Cycle Length: 140	
Actuated Cycle Length: 140	
Offset: 62 (44%), Referenced to phase 2:WBT and 6:EBT, Start of Yellow	
Natural Cycle: 130	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.76	
Intersection Signal Delay (s/veh): 34.6	Intersection LOS: C
Intersection Capacity Utilization 79.2%	ICU Level of Service D
Analysis Period (min) 15	

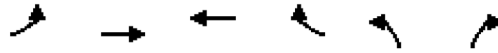
95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 19: I-75 SB On-ramp/I-75 SB Off-ramp & CR 484



Timings
20: I-75 NB Off-ramp/I-75 NB On-ramp & CR 484

2040 Build Conditions
Timing Plan: Weekend

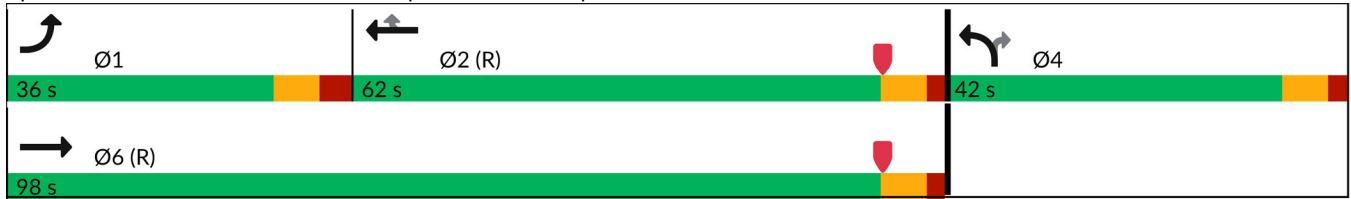


Lane Group	EBL	EBT	WBT	WBR	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	539	1137	1093	560	390	359
Future Volume (vph)	539	1137	1093	560	390	359
Lane Group Flow (vph)	550	1160	1115	571	398	366
Turn Type	Prot	NA	NA	Perm	Prot	Perm
Protected Phases	1	6	2		4	
Permitted Phases				2		4
Detector Phase	1	6	2	2	4	4
Switch Phase						
Minimum Initial (s)	7.0	20.0	20.0	20.0	7.0	7.0
Minimum Split (s)	15.0	26.8	34.8	34.8	44.8	44.8
Total Split (s)	36.0	98.0	62.0	62.0	42.0	42.0
Total Split (%)	25.7%	70.0%	44.3%	44.3%	30.0%	30.0%
Yellow Time (s)	4.8	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	3.2	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	8.0	6.8	6.8	6.8	6.8	6.8
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	Max	C-Max	C-Max	C-Max	None	None
Act Effct Green (s)	31.3	94.5	55.2	55.2	31.9	31.9
Actuated g/C Ratio	0.22	0.68	0.39	0.39	0.23	0.23
v/c Ratio	0.73	0.50	0.57	0.61	0.57	0.92
Control Delay (s/veh)	70.7	10.7	34.5	6.4	51.0	65.5
Queue Delay	0.0	0.3	0.0	0.0	0.0	0.0
Total Delay (s/veh)	70.7	11.1	34.5	6.4	51.0	65.5
LOS	E	B	C	A	D	E
Approach Delay (s/veh)		30.2	25.0			
Approach LOS		C	C			
Queue Length 50th (ft)	275	164	287	20	161	238
Queue Length 95th (ft)	336	245	336	116	215	#414
Internal Link Dist (ft)		407	1283			
Turn Bay Length (ft)				200	350	350
Base Capacity (vph)	751	2342	1966	936	765	430
Starvation Cap Reductn	0	541	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	0.64	0.57	0.61	0.52	0.85

Intersection Summary	
Cycle Length:	140
Actuated Cycle Length:	140
Offset:	55 (39%), Referenced to phase 2:WBT and 6:EBT, Start of Yellow
Natural Cycle:	95
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.92
Intersection Signal Delay (s/veh):	33.2
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.

Splits and Phases: 20: I-75 NB Off-ramp/I-75 NB On-ramp & CR 484



SR 200 Summary Tables

28: I-75 SB On-Ramp/I-75 SB Off-Ramp & SR 200

Approach	Movement	AM Peak Hour			PM Peak Hour			WKND Peak Hour		
		V/C	Delay (s) [LOS]	95% Queue (ft)	V/C	Delay (s) [LOS]	95% Queue (ft)	V/C	Delay (s) [LOS]	95% Queue (ft)
Westbound	Left	0.80	65.4 (E)	300	0.82	44.1 (D)	250	0.73	78.3 (E)	175
	Through	0.29	9.4 (A)	225	0.65	60.0 (E)	950	0.57	11.9 (B)	775
	Approach	0.43	24.5 (C)	-	0.69	56.5 (E)	-	0.59	22.0 (C)	-
Eastbound	Through	0.60	27.6 (C)	475	0.67	45.5 (D)	500	0.59	29.7 (C)	500
	Right	0.34	3.0 (A)	75	0.56	5.6 (A)	100	0.44	3.6 (A)	75
	Approach	0.57	24.5 (C)	-	0.65	37.2 (D)	-	0.57	25.4 (C)	-
Southbound	Left	0.82	76.1 (E)	325	0.40	53.9 (D)	225	0.38	56.5 (E)	175
	Right	0.86	82.5 (F)	325	0.98	91.2 (F)	600	0.83	74.5 (E)	325
	Approach	0.84	79.1 (E)	-	0.79	78.8 (E)	-	0.67	68.0 (E)	-
Overall Intersection		0.57	34.2 (C)	-	0.69	52.7 (D)	-	0.59	29.2 (C)	-

29: I-75 NB Off-ramp/I-75 NB On-ramp & SR 200

Approach	Movement	AM Peak Hour			PM Peak Hour			WKND Peak Hour		
		V/C	Delay (s) [LOS]	95% Queue (ft)	V/C	Delay (s) [LOS]	95% Queue (ft)	V/C	Delay (s) [LOS]	95% Queue (ft)
Westbound	Through	0.46	44.4 (D)	275	0.71	41.0 (D)	600	0.62	35.4 (D)	450
	Right	0.47	6.0 (A)	100	0.43	4.2 (A)	75	0.49	4.0 (A)	75
	Approach	0.46	35.1 (D)	-	0.67	35.7 (D)	-	0.60	29.5 (C)	-
Northbound	Left	0.36	46.3 (D)	225	0.47	60.1 (E)	225	0.41	52.3 (D)	225
	Right	0.90	69.3 (E)	600	0.84	77.7 (E)	375	0.90	75.6 (E)	450
	Approach	0.72	61.6 (E)	-	0.69	70.5 (E)	-	0.72	67.2 (E)	-
Eastbound	Left	0.79	51.9 (D)	250	0.79	42.4 (D)	200	0.96	72.4 (E)	450
	Through	0.72	15.7 (B)	750	0.50	12.6 (B)	225	0.59	10.9 (B)	175
	Approach	0.74	23.7 (C)	-	0.57	19.5 (B)	-	0.67	24.4 (C)	-
Overall Intersection		0.66	34.5 (C)	-	0.63	34.5 (C)	-	0.65	33.3 (C)	-

SR 200 Synchro Reports

Timings
28: I-75 SB On-Ramp/I-75 SB Off-Ramp & SR 200

2040 Build Conditions
Timing Plan: AM



Lane Group	EBT	EBR	WBL	WBT	SBL	SBR
Lane Configurations	↑↑↑↑	↗	↖	↑↑↑	↖	↗
Traffic Volume (vph)	2203	309	374	1011	452	386
Future Volume (vph)	2203	309	374	1011	452	386
Lane Group Flow (vph)	2319	325	394	1064	476	406
Turn Type	NA	Perm	Prot	NA	Prot	Prot
Protected Phases	6		5	2	8	8
Permitted Phases		6				
Detector Phase	6	6	5	2	8	8
Switch Phase						
Minimum Initial (s)	20.0	20.0	12.0	20.0	7.0	7.0
Minimum Split (s)	29.0	29.0	21.0	45.0	14.0	14.0
Total Split (s)	90.0	90.0	35.0	125.0	35.0	35.0
Total Split (%)	56.3%	56.3%	21.9%	78.1%	21.9%	21.9%
Yellow Time (s)	4.9	4.9	4.9	4.9	4.1	4.1
All-Red Time (s)	4.0	4.0	4.0	4.0	2.2	2.2
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	8.9	8.9	8.9	8.9	6.3	6.3
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	Min	Min	None	C-Min	None	None
Act Effct Green (s)	84.2	84.2	23.9	117.0	27.8	27.8
Actuated g/C Ratio	0.53	0.53	0.15	0.73	0.17	0.17
v/c Ratio	0.60	0.34	0.80	0.29	0.82	0.86
Control Delay (s/veh)	27.5	3.0	65.4	9.1	76.1	82.5
Queue Delay	0.1	0.0	0.0	0.3	0.0	0.0
Total Delay (s/veh)	27.6	3.0	65.4	9.4	76.1	82.5
LOS	C	A	E	A	E	F
Approach Delay (s/veh)	24.5			24.5		
Approach LOS	C			C		
Queue Length 50th (ft)	418	0	221	130	248	235
Queue Length 95th (ft)	453	51	279	224	315	#325
Internal Link Dist (ft)	1476			454		
Turn Bay Length (ft)		475			350	325
Base Capacity (vph)	3854	955	538	3611	598	485
Starvation Cap Reductn	0	0	0	1656	0	0
Spillback Cap Reductn	273	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.65	0.34	0.73	0.54	0.80	0.84

Intersection Summary

Cycle Length: 160	
Actuated Cycle Length: 160	
Offset: 99 (62%), Referenced to phase 2:WBT, Start of Yellow	
Natural Cycle: 70	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.86	
Intersection Signal Delay (s/veh): 34.2	Intersection LOS: C
Intersection Capacity Utilization 76.8%	ICU Level of Service D
Analysis Period (min) 15	

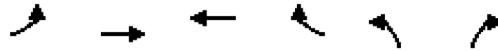
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 28: I-75 SB On-Ramp/I-75 SB Off-Ramp & SR 200



Timings
 29: I-75 NB Off-ramp/I-75 NB On-ramp & SR 200

2040 Build Conditions
 Timing Plan: AM



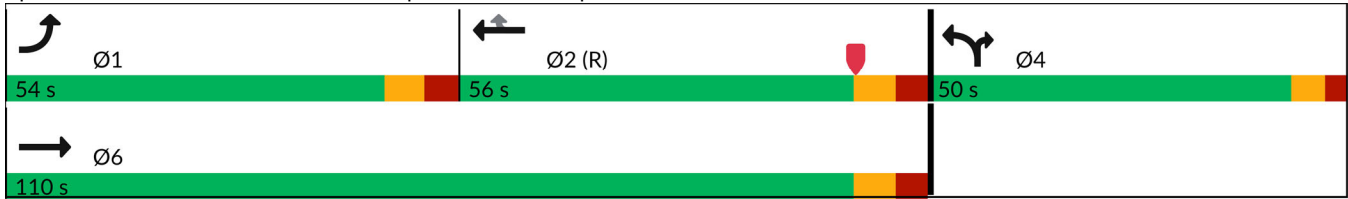
Lane Group	EBL	EBT	WBT	WBR	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	586	2069	1045	335	340	683
Future Volume (vph)	586	2069	1045	335	340	683
Lane Group Flow (vph)	617	2178	1100	353	358	719
Turn Type	Prot	NA	NA	Perm	Prot	Prot
Protected Phases	1	6	2		4	4
Permitted Phases				2		
Detector Phase	1	6	2	2	4	4
Switch Phase						
Minimum Initial (s)	7.0	20.0	20.0	20.0	7.0	7.0
Minimum Split (s)	16.0	40.8	29.0	29.0	14.0	14.0
Total Split (s)	54.0	110.0	56.0	56.0	50.0	50.0
Total Split (%)	33.8%	68.8%	35.0%	35.0%	31.3%	31.3%
Yellow Time (s)	4.9	4.9	4.9	4.9	4.1	4.1
All-Red Time (s)	3.9	3.9	3.9	3.9	2.6	2.6
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	8.8	8.8	8.8	8.8	6.7	6.7
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	Min	C-Min	C-Min	None	None
Act Effct Green (s)	36.9	97.3	51.7	51.7	47.2	47.2
Actuated g/C Ratio	0.23	0.61	0.32	0.32	0.30	0.30
v/c Ratio	0.79	0.72	0.46	0.47	0.36	0.90
Control Delay (s/veh)	51.8	15.5	44.4	6.0	46.3	69.3
Queue Delay	0.1	0.2	0.0	0.0	0.0	0.0
Total Delay (s/veh)	51.9	15.7	44.4	6.0	46.3	69.3
LOS	D	B	D	A	D	E
Approach Delay (s/veh)		23.7	35.1			
Approach LOS		C	D			
Queue Length 50th (ft)	201	722	235	0	148	398
Queue Length 95th (ft)	226	736	265	79	208	#577
Internal Link Dist (ft)		454	1413			
Turn Bay Length (ft)				420	385	385
Base Capacity (vph)	960	3124	2367	745	983	797
Starvation Cap Reductn	20	251	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	0.66	0.76	0.46	0.47	0.36	0.90

Intersection Summary

Cycle Length: 160	
Actuated Cycle Length: 160	
Offset: 121 (76%), Referenced to phase 2:WBT, Start of Yellow	
Natural Cycle: 80	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.90	
Intersection Signal Delay (s/veh): 34.5	Intersection LOS: C
Intersection Capacity Utilization 76.8%	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: 29: I-75 NB Off-ramp/I-75 NB On-ramp & SR 200



Timings
28: I-75 SB On-Ramp/I-75 SB Off-Ramp & SR 200

2040 Build Conditions
Timing Plan: PM



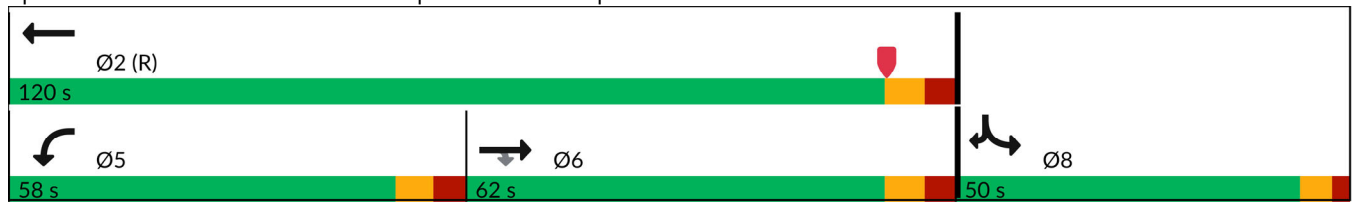
Lane Group	EBT	EBR	WBL	WBT	SBL	SBR
Lane Configurations	↑↑↑↑	↗	↖	↑↑↑	↖	↗
Traffic Volume (vph)	1794	472	557	1990	322	647
Future Volume (vph)	1794	472	557	1990	322	647
Lane Group Flow (vph)	1888	497	586	2095	339	681
Turn Type	NA	Perm	Prot	NA	Prot	Prot
Protected Phases	6		5	2	8	8
Permitted Phases		6				
Detector Phase	6	6	5	2	8	8
Switch Phase						
Minimum Initial (s)	20.0	20.0	12.0	20.0	7.0	7.0
Minimum Split (s)	29.0	29.0	21.0	45.0	14.0	14.0
Total Split (s)	62.0	62.0	58.0	120.0	50.0	50.0
Total Split (%)	36.5%	36.5%	34.1%	70.6%	29.4%	29.4%
Yellow Time (s)	4.9	4.9	4.9	4.9	4.1	4.1
All-Red Time (s)	4.0	4.0	4.0	4.0	2.2	2.2
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	8.9	8.9	8.9	8.9	6.3	6.3
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	Min	Min	None	C-Min	None	None
Act Effct Green (s)	65.3	65.3	36.9	111.1	43.7	43.7
Actuated g/C Ratio	0.38	0.38	0.22	0.65	0.26	0.26
v/c Ratio	0.67	0.56	0.82	0.65	0.40	0.98
Control Delay (s/veh)	45.5	5.6	44.1	23.7	53.9	91.2
Queue Delay	0.0	0.0	0.1	36.3	0.0	0.0
Total Delay (s/veh)	45.5	5.6	44.1	60.0	53.9	91.2
LOS	D	A	D	E	D	F
Approach Delay (s/veh)	37.2			56.5		
Approach LOS	D			E		
Queue Length 50th (ft)	432	0	210	898	162	431
Queue Length 95th (ft)	499	90	240	950	212	#580
Internal Link Dist (ft)	1476			454		
Turn Bay Length (ft)		475			350	325
Base Capacity (vph)	2814	891	953	3228	857	695
Starvation Cap Reductn	0	0	15	1276	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	0.56	0.62	1.07	0.40	0.98

Intersection Summary

Cycle Length: 170	
Actuated Cycle Length: 170	
Offset: 48 (28%), Referenced to phase 2:WBT, Start of Yellow	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.98	
Intersection Signal Delay (s/veh): 52.7	Intersection LOS: D
Intersection Capacity Utilization 74.4%	ICU Level of Service D
Analysis Period (min) 15	

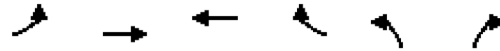
95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 28: I-75 SB On-Ramp/I-75 SB Off-Ramp & SR 200



Timings
 29: I-75 NB Off-ramp/I-75 NB On-ramp & SR 200

2040 Build Conditions
 Timing Plan: PM



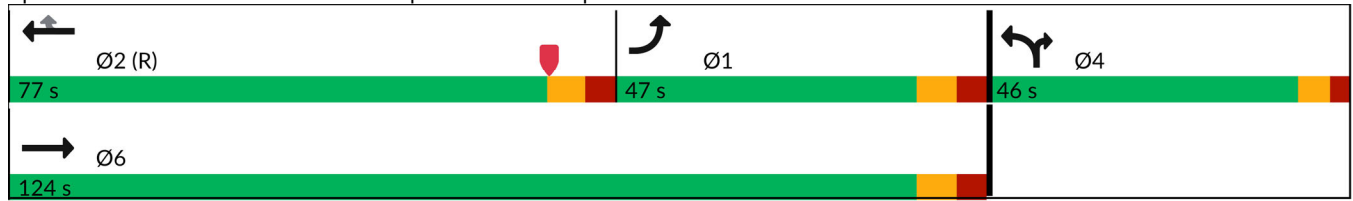
Lane Group	EBL	EBT	WBT	WBR	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	489	1627	2225	375	322	466
Future Volume (vph)	489	1627	2225	375	322	466
Lane Group Flow (vph)	515	1713	2342	395	339	491
Turn Type	Prot	NA	NA	Perm	Prot	Prot
Protected Phases	1	6	2		4	4
Permitted Phases				2		
Detector Phase	1	6	2	2	4	4
Switch Phase						
Minimum Initial (s)	7.0	20.0	20.0	20.0	7.0	7.0
Minimum Split (s)	16.0	40.8	29.0	29.0	14.0	14.0
Total Split (s)	47.0	124.0	77.0	77.0	46.0	46.0
Total Split (%)	27.6%	72.9%	45.3%	45.3%	27.1%	27.1%
Yellow Time (s)	4.9	4.9	4.9	4.9	4.1	4.1
All-Red Time (s)	3.9	3.9	3.9	3.9	2.6	2.6
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	8.8	8.8	8.8	8.8	6.7	6.7
Lead/Lag	Lag		Lead	Lead		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	Min	C-Min	C-Min	None	None
Act Effct Green (s)	32.8	117.9	76.3	76.3	36.6	36.6
Actuated g/C Ratio	0.19	0.69	0.45	0.45	0.22	0.22
v/c Ratio	0.79	0.50	0.71	0.43	0.47	0.84
Control Delay (s/veh)	42.4	12.4	40.5	4.2	60.1	77.7
Queue Delay	0.0	0.3	0.5	0.0	0.0	0.0
Total Delay (s/veh)	42.4	12.6	41.0	4.2	60.1	77.7
LOS	D	B	D	A	E	E
Approach Delay (s/veh)		19.5	35.7			
Approach LOS		B	D			
Queue Length 50th (ft)	243	172	531	0	169	297
Queue Length 95th (ft)	195	225	600	69	220	373
Internal Link Dist (ft)		454	1413			
Turn Bay Length (ft)				420	385	385
Base Capacity (vph)	764	3438	3291	921	779	632
Starvation Cap Reductn	0	875	0	0	0	0
Spillback Cap Reductn	0	0	477	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.67	0.67	0.83	0.43	0.44	0.78

Intersection Summary	
Cycle Length:	170
Actuated Cycle Length:	170
Offset:	166 (98%), Referenced to phase 2:WBT, Start of Yellow
Natural Cycle:	80
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.84
Intersection Signal Delay (s/veh):	34.5
Intersection LOS:	C
Intersection Capacity Utilization:	74.4%
ICU Level of Service:	D
Analysis Period (min):	15

Timings
 29: I-75 NB Off-ramp/I-75 NB On-ramp & SR 200

2040 Build Conditions
 Timing Plan: PM

Splits and Phases: 29: I-75 NB Off-ramp/I-75 NB On-ramp & SR 200



Timings
28: I-75 SB On-Ramp/I-75 SB Off-Ramp & SR 200

2040 Build Conditions
Timing Plan: Weekend

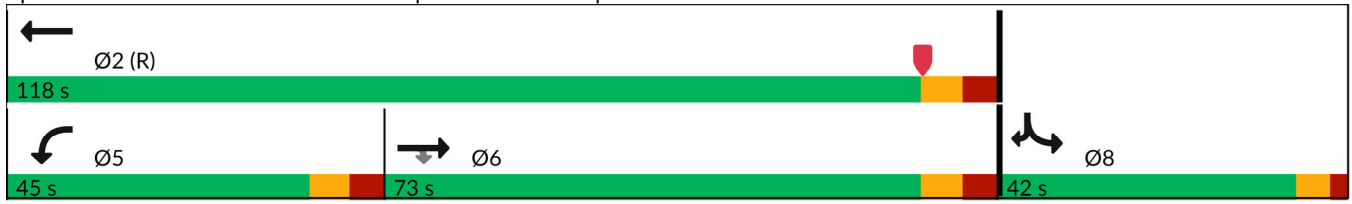


Lane Group	EBT	EBR	WBL	WBT	SBL	SBR
Lane Configurations	↑↑↑↑	↗	↖↖	↑↑↑	↖↖	↗↗
Traffic Volume (vph)	2105	414	340	1907	241	427
Future Volume (vph)	2105	414	340	1907	241	427
Lane Group Flow (vph)	2216	436	358	2007	254	449
Turn Type	NA	Perm	Prot	NA	Prot	Prot
Protected Phases	6		5	2	8	8
Permitted Phases		6				
Detector Phase	6	6	5	2	8	8
Switch Phase						
Minimum Initial (s)	20.0	20.0	12.0	20.0	7.0	7.0
Minimum Split (s)	29.0	29.0	21.0	45.0	14.0	14.0
Total Split (s)	73.0	73.0	45.0	118.0	42.0	42.0
Total Split (%)	45.6%	45.6%	28.1%	73.8%	26.3%	26.3%
Yellow Time (s)	4.9	4.9	4.9	4.9	4.1	4.1
All-Red Time (s)	4.0	4.0	4.0	4.0	2.2	2.2
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	8.9	8.9	8.9	8.9	6.3	6.3
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	Min	Min	None	C-Min	None	None
Act Effct Green (s)	80.8	80.8	23.2	112.9	31.9	31.9
Actuated g/C Ratio	0.51	0.51	0.15	0.71	0.20	0.20
v/c Ratio	0.59	0.44	0.73	0.57	0.38	0.83
Control Delay (s/veh)	29.7	3.6	78.3	11.2	56.5	74.5
Queue Delay	0.0	0.0	0.0	0.8	0.0	0.0
Total Delay (s/veh)	29.7	3.6	78.3	11.9	56.5	74.5
LOS	C	A	E	B	E	E
Approach Delay (s/veh)	25.4			22.0		
Approach LOS	C			C		
Queue Length 50th (ft)	403	0	138	686	119	256
Queue Length 95th (ft)	479	63	168	768	160	323
Internal Link Dist (ft)	1476			454		
Turn Bay Length (ft)		475			350	325
Base Capacity (vph)	3737	1000	759	3520	751	609
Starvation Cap Reductn	0	0	0	1057	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.59	0.44	0.47	0.81	0.34	0.74

Intersection Summary

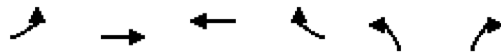
Cycle Length: 160	
Actuated Cycle Length: 160	
Offset: 74 (46%), Referenced to phase 2:WBT, Start of Yellow	
Natural Cycle: 75	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.83	
Intersection Signal Delay (s/veh): 29.2	Intersection LOS: C
Intersection Capacity Utilization 71.9%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 28: I-75 SB On-Ramp/I-75 SB Off-Ramp & SR 200



Timings
29: I-75 NB Off-ramp/I-75 NB On-ramp & SR 200

2040 Build Conditions
Timing Plan: Weekend



Lane Group	EBL	EBT	WBT	WBR	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	513	1833	1927	451	320	571
Future Volume (vph)	513	1833	1927	451	320	571
Lane Group Flow (vph)	540	1929	2028	475	337	601
Turn Type	Prot	NA	NA	Perm	Prot	Prot
Protected Phases	1	6	2		4	4
Permitted Phases				2		
Detector Phase	1	6	2	2	4	4
Switch Phase						
Minimum Initial (s)	7.0	20.0	20.0	20.0	7.0	7.0
Minimum Split (s)	16.0	40.8	29.0	29.0	14.0	14.0
Total Split (s)	33.0	113.0	80.0	80.0	47.0	47.0
Total Split (%)	20.6%	70.6%	50.0%	50.0%	29.4%	29.4%
Yellow Time (s)	4.9	4.9	4.9	4.9	4.1	4.1
All-Red Time (s)	3.9	3.9	3.9	3.9	2.6	2.6
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	8.8	8.8	8.8	8.8	6.7	6.7
Lead/Lag	Lag		Lead	Lead		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	Min	C-Min	C-Min	None	None
Act Effct Green (s)	26.2	105.7	70.7	70.7	38.8	38.8
Actuated g/C Ratio	0.16	0.66	0.44	0.44	0.24	0.24
v/c Ratio	0.96	0.59	0.62	0.49	0.41	0.90
Control Delay (s/veh)	72.4	10.9	35.3	4.0	52.3	75.6
Queue Delay	0.0	0.0	0.1	0.0	0.0	0.0
Total Delay (s/veh)	72.4	10.9	35.4	4.0	52.3	75.6
LOS	E	B	D	A	D	E
Approach Delay (s/veh)		24.4	29.5			
Approach LOS		C	C			
Queue Length 50th (ft)	~314	156	397	0	152	344
Queue Length 95th (ft)	#438	165	427	65	201	#450
Internal Link Dist (ft)		454	1413			
Turn Bay Length (ft)				420	385	385
Base Capacity (vph)	562	3293	3300	969	856	695
Starvation Cap Reductn	0	165	0	0	0	0
Spillback Cap Reductn	0	0	272	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.96	0.62	0.67	0.49	0.39	0.86

Intersection Summary

Cycle Length: 160	
Actuated Cycle Length: 160	
Offset: 32 (20%), Referenced to phase 2:WBT, Start of Yellow	
Natural Cycle: 80	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.96	
Intersection Signal Delay (s/veh): 33.3	Intersection LOS: C
Intersection Capacity Utilization 71.9%	ICU Level of Service C
Analysis Period (min) 15	

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

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

Queue shown is maximum after two cycles.

Splits and Phases: 29: I-75 NB Off-ramp/I-75 NB On-ramp & SR 200



**APPENDIX AA – FUTURE COMPARATIVE SAFETY
ANALYSIS**

ISATe No-Build Mainline Inputs

Input Worksheet for Freeway Segments

Clear		Echo Input Values		Check Input Values		Segment 1	Segment 2	Segment 3	Segment 4	Segment 5	Segment 6	Segment 7	Segment 8	Segment 9	Segment 10	Segment 11	Segment 12
(View results in Column AV)		(View results in Advisory Messages)		Study Period	Study Period	Study Period	Study Period	Study Period	Study Period	Study Period	Study Period	Study Period	Study Period	Study Period	Study Period	Study Period	Study Period
Basic Roadway Data																	
Number of through lanes (n):		7	8	7	6	6	6	6	6	6	6	6	6	6	6	6	6
Freeway segment description:		SR 44 and SR 91 Interchange	SR 44 to Marion County Weigh Station 1	SR 44 to Marion County Weigh Station 2	SR 44 to Marion County Weigh Station 3	SR 44 to Marion County Weigh Station 5	SR 44 to Marion County Weigh Station 6	SR 44 to Marion County Weigh Station 6	Marion County Weigh Station to CR 484 1	Marion County Weigh Station to CR 484 2	CR 484 to Marion County Rest Area 1	CR 484 to Marion County Rest Area 2	CR 484 to Marion County Rest Area 3	Rest Area to SR 200			
Segment length (L), mi:		1.179735	0.564015	0.37197	0.916288	0.898106	6.061932	0.835606	0.619697	3.457008	0.506818	0.708523	3.379545				
Alignment Data																	
Horizontal Curve Data ← See note																	
1	Horizontal curve in segment?:	One Dir.	Both Dir.	No	Both Dir.	Both Dir.	Both Dir.	Both Dir.	Both Dir.	Both Dir.	Both Dir.	Both Dir.	Both Dir.	Both Dir.	Both Dir.	No	
	Curve radius (R ₁), ft:	5670	5615		7304	7304	7304	7986	7986	7757	3942	3942					
	Length of curve (L _{c1}), mi:	0.257955	0.424621		1.025189	1.025189	1.025189	0.989583	0.989583	0.307765	0.547159	0.547159					
	Length of curve in segment (L _{c1,seg}), mi:	0.036932	0.221023		0.060606	0.898106	0.127083	0.835606	0.153977	0.307765	0.506818	0.017235					
2	Horizontal curve in segment?:	One Dir.	No		No	No	Both Dir.	No	No	Both Dir.	No	No					
	Curve radius (R ₂), ft:	6335					5727			9600							
	Length of curve (L _{c2}), mi:	0.292803					0.446212			0.180114							
	Length of curve in segment (L _{c2,seg}), mi:	0.292803					0.446212			0.180114							
3	Horizontal curve in segment?:	Both Dir.					Both Dir.			Both Dir.							
	Curve radius (R ₃), ft:	5615					7986			3942							
	Length of curve (L _{c3}), mi:	0.424621					0.989583			0.547159							
	Length of curve in segment (L _{c3,seg}), mi:	0.026515					0.107386			0.023106							
Cross Section Data																	
Lane width (W _l), ft:		12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
Outside shoulder width (W _s), ft:		10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
Inside shoulder width (W _{is}), ft:		10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
Median width (W _m), ft:		88	40	40	40	90	40	90	40	40	90	40	40	90	40	40	40
Rumble strips on outside shoulders?:		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	Length of rumble strips for travel in increasing milepost direction, mi:	1.089962	0	0	0.845455	0.898106	5.321591	0.774053	0.552652	2.860417	0.506818	0.610038	3.229356				
	Length of rumble strips for travel in decreasing milepost direction, mi:	1.130303	0.564015	0.37197	0.916288	0.898106	5.874432	0.785985	0.420833	3.337689	0.506818	0.42822	2.951515				
Rumble strips on inside shoulders?:		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes				
	Length of rumble strips for travel in increasing milepost direction, mi:	1.130303	0.564015	0.37197	0.916288	0.898106	6.061932	0.835606	0.619697	3.457008	0.506818	0.708523	2.863258				
	Length of rumble strips for travel in decreasing milepost direction, mi:	1.130303	0.564015	0.37197	0.916288	0.898106	6.061932	0.835606	0.619697	3.457008	0.506818	0.708523	2.863447				
Presence of barrier in median:		Offset	Offset	Offset	Offset	Offset	Offset	Offset	Offset	Offset	Offset	Offset	Offset				
1	Length of barrier (L _{ib,1}), mi:	1.179735	0.564015	0.37197	0.916288	0.267614	6.055303	0.215341	0.619697	3.457008	0.213068	0.290341	0.173485				
	Distance from edge of traveled way to barrier face (W _{off,in,1}), ft:	10	10	10	10	10	10	10	10	10	10	10	10				
2	Length of barrier (L _{ib,2}), mi:					0.230682		0.602462			0.282008	0.17822	2.867992				
	Distance from edge of traveled way to barrier face (W _{off,in,2}), ft:					10		10									
3	Length of barrier (L _{ib,3}), mi:																
	Distance from edge of traveled way to barrier face (W _{off,in,3}), ft:																
4	Length of barrier (L _{ib,4}), mi:																
	Distance from edge of traveled way to barrier face (W _{off,in,4}), ft:																
5	Length of barrier (L _{ib,5}), mi:																
	Distance from edge of traveled way to barrier face (W _{off,in,5}), ft:																
Median barrier width (W _{ib}), ft:		3	3	3	3	3	3	3	3	3	3	3	3				
Nearest distance from edge of traveled way to barrier face (W _{near}), ft:		10	10	10	10	10	10	10	10	10	10	10	10				
Roadside Data																	
Clear zone width (W _{hc}), ft:		30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
Presence of barrier on roadside:		Some	Some	Some	Some	None	Some	None	None	None	None	None	None	None	None	Some	
1	Length of barrier (L _{ob,1}), mi:	1.179735	0.458902	0.266667	0.811742		0.066288						0.126326				
	Distance from edge of traveled way to barrier face (W _{off,o,1}), ft:	10	10	10	10		10						10				
2	Length of barrier (L _{ob,2}), mi:																
	Distance from edge of traveled way to barrier face (W _{off,o,2}), ft:																
3	Length of barrier (L _{ob,3}), mi:																
	Distance from edge of traveled way to barrier face (W _{off,o,3}), ft:																
4	Length of barrier (L _{ob,4}), mi:																
	Distance from edge of traveled way to barrier face (W _{off,o,4}), ft:																
5	Length of barrier (L _{ob,5}), mi:																
	Distance from edge of traveled way to barrier face (W _{off,o,5}), ft:																
Distance from edge of traveled way to barrier face, increasing milepost (W _{off,inc}), ft:																	
Distance from edge of traveled way to barrier face, decreasing milepost (W _{off,dec}), ft:																	
Ramp Access Data																	
Travel in Increasing Milepost Direction																	
Entrance Ramp	Ramp entrance in segment? (If yes, indicate type.):	Lane Add	Lane Add	S-C Lane	S-C Lane	No	No	No	No	S-C Lane	No	No	No				
	Distance from begin milepost to upstream entrance ramp gore (X _{b,ent}), mi:					999	999	999	999		999	999	999				
	Length of ramp entrance (L _{en,inc}), mi:			0.225758	0.218939					0.172348							
	Length of ramp entrance in segment (L _{en,seg,inc}), mi:			0.030303	0.070076					0.172348							
	Entrance side?:			Right	Right					Right							
Exit Ramp	Ramp exit in segment? (If yes, indicate type.):	No	No	No	No	No	No	No	S-C Lane	No	No	No	S-C Lane				
	Distance from end milepost to downstream exit ramp gore (X _{b,exit}), mi:	999	999	999	999	999	999	999	999	999	999	999	999				
	Length of ramp exit (L _{ex,inc}), mi:								0.143939				0.056818				
	Length of ramp exit in segment (L _{ex,seg,inc}), mi:								0.125				0.056818				
	Exit side?:								Right				Right				
Weave	Type B weave in segment?:	No	No	No	No	No	No	No	No	No	No	No	No				
	Length of weaving section (L _{wev,inc}), mi:																
	Length of weaving section in segment (L _{wev,seg,inc}), mi:																
Travel in Decreasing Milepost Direction																	
Entrance Ramp	Ramp entrance in segment? (If yes, indicate type.):	No	No	No	No	No	No	No	S-C Lane	No	No	No	S-C Lane				
	Distance from end milepost to upstream entrance ramp gore (X _{b,ent}), mi:	999	999	999	999	999	999	999	999	999	999	999	999				
	Length of ramp entrance (L _{en,dec}), mi:								0.187879				0.236742				
	Length of ramp entrance in segment (L _{en,seg,dec}), mi:								0.187879				0.236742				
	Entrance side?:								Right				Right				
Exit Ramp	Ramp exit in segment? (If yes, indicate type.):	S-C Lane	S-C Lane	No	No	No	No	No	No	S-C Lane	No	No	No				
	Distance from begin milepost to downstream exit ramp gore (X _{b,exit}), mi:			999	999	999	999	999	999	999	999	999	999				
	Length of ramp exit (L _{ex,dec}), mi:	0.3	0.282008							0.132576							
	Length of ramp exit in segment (L _{ex,seg,dec}), mi:	0.3	0.282008							0.111742							
	Exit side?:	Left	Right							Right							
Weave	Type B weave in segment?:	No	No	No	No	No	No	No	No	No	No	No	No				
	Length of weaving section (L _{wev,dec}), mi:																
	Length of weaving section in segment (L _{wev,seg,dec}), mi:																
Traffic Data																	
Proportion of AADT during high-volume hours (P _{hv}):																	
Freeway Segment Data																	
Average daily traffic (AADT _{fs}) by year, veh/d:		2030	103000	116100	116100	116100	116100	116100	116100	116100	121000	121000	121000	121000			
(enter data only for those years for which it is available, leave other years blank)		2031															
		2032															
		2033															
		2034															
		2035															
		2036															
		2037															
		2038															
		2039															
		2040	121600	136800	136800	136800	136800	136800	136800	136800	143000	143000	143000	143000			
		2041															
		2042															
		2043															
		2044	</														

ISATe No-Build Mainline Outputs

Output Summary								
General Information								
Project description:	I-75 Mainline No Build							
Analyst:	FMK	Date:	12/5/2023	Area type:	Urban			
First year of analysis:	2030							
Last year of analysis:	2040							
Crash Data Description								
Freeway segments	Segment crash data available?	No	First year of crash data:					
	Project-level crash data available?	No	Last year of crash data:					
Ramp segments	Segment crash data available?	No	First year of crash data:					
	Project-level crash data available?	No	Last year of crash data:					
Ramp terminals	Segment crash data available?	No	First year of crash data:					
	Project-level crash data available?	No	Last year of crash data:					
Estimated Crash Statistics								
Crashes for Entire Facility		Total	K	A	B	C	PDO	
Estimated number of crashes during Study Period, crashes:		8533.5	40.5	110.3	586.8	1681.2	6114.7	
Estimated average crash freq. during Study Period, crashes/yr:		775.8	3.7	10.0	53.3	152.8	555.9	
Crashes by Facility Component		Nbr. Sites	Total	K	A	B	C	PDO
Freeway segments, crashes:		12	8533.5	40.5	110.3	586.8	1681.2	6114.7
Ramp segments, crashes:		0	0.0	0.0	0.0	0.0	0.0	0.0
Crossroad ramp terminals, crashes:		0	0.0	0.0	0.0	0.0	0.0	0.0
Crashes for Entire Facility by Year		Year	Total	K	A	B	C	PDO
Estimated number of crashes during the Study Period, crashes:	2030	678.2	3.3	9.0	47.8	136.8	481.3	
	2031	697.1	3.4	9.2	48.9	140.0	495.7	
	2032	716.1	3.5	9.4	50.0	143.1	510.2	
	2033	735.4	3.5	9.6	51.1	146.3	524.9	
	2034	754.9	3.6	9.8	52.2	149.5	539.8	
	Total Present Value: \$462,485,313	2035	774.6	3.7	10.0	53.3	152.7	554.9
		2036	794.6	3.8	10.2	54.4	156.0	570.2
		2037	814.8	3.8	10.4	55.6	159.2	585.7
		2038	835.2	3.9	10.7	56.7	162.5	601.4
		2039	855.9	4.0	10.9	57.9	165.8	617.3
		2040	876.7	4.1	11.1	59.0	169.1	633.4
		2041						
		2042						
		2043						
		2044						
	2045							
	2046							
2047								
2048								
2049								
2050								
2051								
2052								
2053								
Distribution of Crashes for Entire Facility								
Crash Type	Crash Type Category	Estimated Number of Crashes During the Study Period						
		Total	K	A	B	C	PDO	
Multiple vehicle	Head-on crashes:	24.0	0.2	0.7	3.5	10.1	9.4	
	Right-angle crashes:	140.8	0.9	2.6	13.6	39.1	84.5	
	Rear-end crashes:	4629.6	23.1	62.8	334.5	960.6	3248.6	
	Sideswipe crashes:	1577.9	5.6	15.2	80.7	231.6	1244.8	
	Other multiple-vehicle crashes:	168.4	0.9	2.6	13.7	39.2	112.0	
	Total multiple-vehicle crashes:	6540.6	30.8	83.8	446.0	1280.7	4699.4	
Single vehicle	Crashes with animal:	33.3	0.0	0.1	0.5	1.5	31.1	
	Crashes with fixed object:	1432.3	7.0	19.1	101.6	289.0	1015.5	
	Crashes with other object:	226.6	0.5	1.4	7.3	20.7	196.7	
	Crashes with parked vehicle:	30.4	0.1	0.4	2.1	5.9	22.0	
	Other single-vehicle crashes:	270.4	2.0	5.5	29.3	83.4	150.1	
	Total single-vehicle crashes:	1992.9	9.7	26.5	140.8	400.5	1415.4	
Total crashes:		8533.5	40.5	110.3	586.8	1681.2	6114.7	

ISATe Build Mainline Inputs

ISATe Build Mainline Outputs

Output Summary

General Information						
Project description:	I-75 Mainline No Build					
Analyst:	FMK	Date:	12/5/2023	Area type:	Urban	
First year of analysis:	2030					
Last year of analysis:	2040					

Crash Data Description						
Freeway segments	Segment crash data available?	No	First year of crash data:			
	Project-level crash data available?	No	Last year of crash data:			
Ramp segments	Segment crash data available?	No	First year of crash data:			
	Project-level crash data available?	No	Last year of crash data:			
Ramp terminals	Segment crash data available?	No	First year of crash data:			
	Project-level crash data available?	No	Last year of crash data:			

Estimated Crash Statistics

Crashes for Entire Facility	Total	K	A	B	C	PDO
Estimated number of crashes during Study Period, crashes:	7360.7	43.9	117.0	626.0	1402.8	5170.9
Estimated average crash freq. during Study Period, crashes/yr:	669.2	4.0	10.6	56.9	127.5	470.1

Crashes by Facility Component	Nbr. Sites	Total	K	A	B	C	PDO
Freeway segments, crashes:	12	7360.7	43.9	117.0	626.0	1402.8	5170.9
Ramp segments, crashes:	0	0.0	0.0	0.0	0.0	0.0	0.0
Crossroad ramp terminals, crashes:	0	0.0	0.0	0.0	0.0	0.0	0.0

Crashes for Entire Facility by Year	Year	Total	K	A	B	C	PDO	
Estimated number of crashes during the Study Period, crashes:	2030	588.1	3.6	9.6	51.1	114.5	409.3	
	2031	603.8	3.7	9.8	52.2	117.1	421.0	
	2032	619.6	3.7	10.0	53.4	119.6	432.9	
	2033	635.7	3.8	10.2	54.5	122.2	444.9	
	2034	651.9	3.9	10.4	55.7	124.8	457.0	
	Total Present Value: \$469,794,046	2035	668.3	4.0	10.6	56.9	127.5	469.3
		2036	684.8	4.1	10.9	58.0	130.1	481.8
		2037	701.6	4.2	11.1	59.2	132.7	494.4
		2038	718.5	4.2	11.3	60.4	135.4	507.2
		2039	735.6	4.3	11.5	61.6	138.1	520.1
		2040	752.9	4.4	11.7	62.8	140.8	533.1
		2041						
		2042						
		2043						
		2044						
		2045						
		2046						
		2047						
		2048						
2049								
2050								
2051								
2052								
2053								

Distribution of Crashes for Entire Facility

Crash Type	Crash Type Category	Estimated Number of Crashes During the Study Period					
		Total	K	A	B	C	PDO
Multiple vehicle	Head-on crashes:	19.7	0.3	0.7	3.6	8.0	7.1
	Right-angle crashes:	112.5	1.0	2.6	13.8	31.1	64.1
	Rear-end crashes:	3635.9	23.5	62.7	335.4	754.3	2460.0
	Sideswipe crashes:	1228.7	5.6	15.1	80.6	181.2	946.1
	Other multiple-vehicle crashes:	133.9	1.0	2.6	13.8	31.1	85.4
	Total multiple-vehicle crashes:	5130.7	31.3	83.6	447.2	1005.8	3562.8
Single vehicle	Crashes with animal:	37.9	0.0	0.1	0.7	1.6	35.4
	Crashes with fixed object:	1601.0	9.1	24.2	129.1	286.7	1151.9
	Crashes with other object:	255.2	0.6	1.7	9.1	20.3	223.4
	Crashes with parked vehicle:	34.9	0.2	0.5	2.7	5.9	25.6
	Other single-vehicle crashes:	301.2	2.6	7.0	37.2	82.6	171.8
	Total single-vehicle crashes:	2230.0	12.6	33.5	178.8	397.1	1608.1
Total crashes:		7360.7	43.9	117.0	626.0	1402.8	5170.9



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