

4:

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	285	410	584	580	293	158
Future Volume (vph)	285	410	584	580	293	158
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	230	0	455			545
Storage Lanes	1	2	2			1
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	0.88	0.97	0.95	0.95	1.00
Frt		0.850				0.850
Flt Protected	0.950		0.950			
Satd. Flow (prot)	1770	2787	3433	3539	3539	1583
Flt Permitted	0.950		0.950			
Satd. Flow (perm)	1770	2787	3433	3539	3539	1583
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		532				38
Link Speed (mph)	30			45	45	
Link Distance (ft)	503			1312	1197	
Travel Time (s)	11.4			19.9	18.1	
Peak Hour Factor	0.92	0.77	0.92	0.92	0.89	0.89
Adj. Flow (vph)	310	532	635	630	329	178
Shared Lane Traffic (%)						
Lane Group Flow (vph)	310	532	635	630	329	178
Turn Type	Prot	pm+ov	Prot	NA	NA	pm+ov
Protected Phases	4	5	5	2	6	4
Permitted Phases		4				6
Total Split (s)	34.6	38.2	38.2	60.8	60.8	34.6
Total Lost Time (s)	4.6	4.2	4.2	5.8	5.8	4.6
Act Effect Green (s)	20.9	46.0	20.3	41.8	17.2	44.2
Actuated g/C Ratio	0.28	0.62	0.28	0.57	0.23	0.60
v/c Ratio	0.62	0.27	0.67	0.31	0.40	0.18
Control Delay (s/veh)	30.3	1.0	29.1	9.3	27.2	6.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	30.3	1.0	29.1	9.3	27.2	6.1
LOS	C	A	C	A	C	A
Approach Delay (s/veh)	11.8			19.2	19.8	
Approach LOS	B			B	B	
Queue Length 50th (ft)	120	0	131	72	66	25
Queue Length 95th (ft)	247	6	234	128	127	61
Internal Link Dist (ft)	423			1232	1117	
Turn Bay Length (ft)	230		455			545
Base Capacity (vph)	757	1944	1664	3510	2719	1256
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.41	0.27	0.38	0.18	0.12	0.14
Intersection Summary						
Area Type:	Other					
Cycle Length:	133.6					

Actuated Cycle Length: 73.7

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.67

Intersection Signal Delay (s/veh): 16.9

Intersection LOS: B

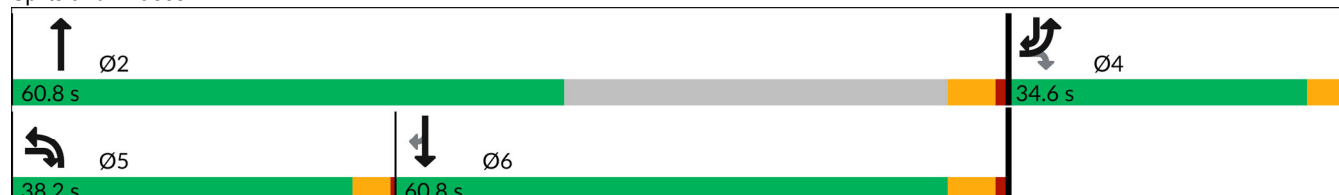
Intersection Capacity Utilization 52.9%

ICU Level of Service A

Analysis Period (min) 15

Description: 273 @ Buenaventura

Splits and Phases: 4:



Lanes, Volumes, Timings

AM Exist Cond. 273 @ Breslauer

7:

07/24/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	105	21	10	16	17	174	29	894	54	179	452	45
Future Volume (vph)	105	21	10	16	17	174	29	894	54	179	452	45
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		60	0		60	410		235	630		430
Storage Lanes	0		1	0		1	1		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt			0.850			0.850			0.850			0.850
Flt Protected		0.964			0.977		0.950			0.950		
Satd. Flow (prot)	0	1796	1583	0	1820	1583	1770	3539	1583	1770	3539	1583
Flt Permitted		0.964			0.977		0.950			0.950		
Satd. Flow (perm)	0	1796	1583	0	1820	1583	1770	3539	1583	1770	3539	1583
Right Turn on Red			Yes			Yes			Yes			No
Satd. Flow (RTOR)			75			252			67			
Link Speed (mph)		30			30			50			50	
Link Distance (ft)		176			420			2260			1312	
Travel Time (s)		4.0			9.5			30.8			17.9	
Peak Hour Factor	0.89	0.50	0.75	0.62	0.57	0.69	0.69	0.92	0.44	0.75	0.80	0.68
Adj. Flow (vph)	118	42	13	26	30	252	42	972	123	239	565	66
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	160	13	0	56	252	42	972	123	239	565	66
Turn Type	Split	NA	Perm	Split	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	8	8		7	7		1	6		5	2	
Permitted Phases			8			7			6			2
Total Split (s)	45.2	45.2	45.2	49.2	49.2	49.2	24.7	64.8	64.8	64.2	65.8	65.8
Total Lost Time (s)		4.2	4.2		4.2	4.2	4.2	5.8	5.8	4.2	5.8	5.8
Act Effct Green (s)		23.9	23.9		12.7	12.7	10.9	60.5	60.5	24.7	77.9	77.9
Actuated g/C Ratio		0.17	0.17		0.09	0.09	0.08	0.43	0.43	0.18	0.55	0.55
v/c Ratio		0.53	0.04		0.34	0.68	0.31	0.64	0.17	0.77	0.29	0.08
Control Delay (s/veh)		59.6	0.2		71.6	17.4	74.9	37.8	16.2	73.9	20.1	20.1
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)		59.6	0.2		71.6	17.4	74.9	37.8	16.2	73.9	20.1	20.1
LOS		E	A		E	B	E	D	B	E	C	C
Approach Delay (s/veh)		55.1			27.3			36.8			34.9	
Approach LOS		E			C			D			C	
Queue Length 50th (ft)		130	0		45	0	34	320	26	193	127	25
Queue Length 95th (ft)		120	0		69	4	70	616	18	284	220	53
Internal Link Dist (ft)		96			340			2180			1232	
Turn Bay Length (ft)			60			60	410		235	630		430
Base Capacity (vph)		537	525		597	688	264	1522	718	774	2542	1136
Starvation Cap Reductn		0	0		0	0	0	0	0	0	0	0
Spillback Cap Reductn		0	0		0	0	0	0	0	0	0	0
Storage Cap Reductn		0	0		0	0	0	0	0	0	0	0
Reduced v/c Ratio		0.30	0.02		0.09	0.37	0.16	0.64	0.17	0.31	0.22	0.06

Intersection Summary

Area Type: Other

Cycle Length: 223.4

7:

Actuated Cycle Length: 140.7

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.77

Intersection Signal Delay (s/veh): 36.2

Intersection LOS: D

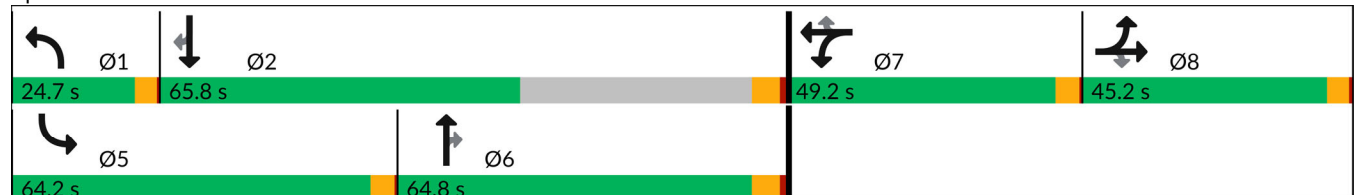
Intersection Capacity Utilization 60.0%

ICU Level of Service B

Analysis Period (min) 15

Description: 273 @ Breslauer

Splits and Phases: 7:



9:

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	50	50	12	950	365	100
Future Volume (vph)	50	50	12	950	365	100
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0	190			220
Storage Lanes	1	0	1			1
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	1.00
Frt	0.932					0.850
Flt Protected	0.976		0.950			
Satd. Flow (prot)	1694	0	1770	3539	3539	1583
Flt Permitted	0.976		0.950			
Satd. Flow (perm)	1694	0	1770	3539	3539	1583
Link Speed (mph)	30			50	50	
Link Distance (ft)	137			561	2260	
Travel Time (s)	3.1			7.7	30.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	54	54	13	1033	397	109
Shared Lane Traffic (%)						
Lane Group Flow (vph)	108	0	13	1033	397	109
Sign Control	Stop			Free	Free	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	38.8%			ICU Level of Service A		
Analysis Period (min)	15					

Lanes, Volumes, Timings

AM Exist Cond. Railroad @ Breslauer

3:

07/24/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	40	410	24	43	550	150	50	22	50	235	20	17
Future Volume (vph)	40	410	24	43	550	150	50	22	50	235	20	17
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		355	100		210	90		90	245		280
Storage Lanes	1		0	1		1	1		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	1.00	1.00	1.00	1.00	0.95	0.95	1.00
Frt		0.992				0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950	0.960	
Satd. Flow (prot)	1770	3511	0	1770	3539	1583	1770	1863	1583	1681	1699	1583
Flt Permitted	0.950			0.950			0.950			0.950	0.960	
Satd. Flow (perm)	1770	3511	0	1770	3539	1583	1770	1863	1583	1681	1699	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		4				163			69			69
Link Speed (mph)		45			45			30			30	
Link Distance (ft)		971			503			1543			598	
Travel Time (s)		14.7			7.6			35.1			13.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	43	446	26	47	598	163	54	24	54	255	22	18
Shared Lane Traffic (%)										46%		
Lane Group Flow (vph)	43	472	0	47	598	163	54	24	54	138	139	18
Turn Type	Prot	NA		Prot	NA	pm+ov	Split	NA	Perm	Split	NA	Perm
Protected Phases	5	2		1	6	4	3	3		4	4	
Permitted Phases						6			3			4
Total Split (s)	27.5	44.3		27.5	44.3	37.5	37.5	37.5	37.5	37.5	37.5	37.5
Total Lost Time (s)	3.5	5.3		3.5	5.3	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Act Effect Green (s)	6.7	23.2		6.9	23.3	39.3	7.0	7.0	7.0	10.6	10.6	10.6
Actuated g/C Ratio	0.12	0.40		0.12	0.41	0.69	0.12	0.12	0.12	0.18	0.18	0.18
v/c Ratio	0.21	0.33		0.22	0.42	0.14	0.25	0.10	0.21	0.44	0.44	0.05
Control Delay (s/veh)	32.1	15.1		31.9	15.8	1.0	31.9	30.4	8.9	30.1	30.0	0.3
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	32.1	15.1		31.9	15.8	1.0	31.9	30.4	8.9	30.1	30.0	0.3
LOS	C	B		C	B	A	C	C	A	C	C	A
Approach Delay (s/veh)		16.5			13.7			22.2			28.2	
Approach LOS		B			B			C			C	
Queue Length 50th (ft)	14	65		16	87	0	18	8	0	47	47	0
Queue Length 95th (ft)	51	126		54	162	9	60	33	25	123	124	0
Internal Link Dist (ft)		891			423			1463			518	
Turn Bay Length (ft)	150			100		210	90		90	245		280
Base Capacity (vph)	825	2523		825	2542	1349	1154	1214	1055	1095	1107	1055
Starvation Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.05	0.19		0.06	0.24	0.12	0.05	0.02	0.05	0.13	0.13	0.02

Intersection Summary

Area Type: Other

Cycle Length: 146.8

3:

Actuated Cycle Length: 57.3

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.44

Intersection Signal Delay (s/veh): 17.6

Intersection LOS: B

Intersection Capacity Utilization 43.3%

ICU Level of Service A

Analysis Period (min) 15

Description: Buenaventura @ Railroad

Splits and Phases: 3:

 Ø1 27.5 s	 Ø2 44.3 s	 Ø3 37.5 s	 Ø4 37.5 s
 Ø5 27.5 s	 Ø6 44.3 s		

Lanes, Volumes, Timings

AM Exist Cond. Westside @ Breslauer

5:

07/24/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	11	19	5	98	32	2	0	71	101	13	62	4
Future Volume (vph)	11	19	5	98	32	2	0	71	101	13	62	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	0		135	0		0
Storage Lanes	0		0	0		0	0		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.958			0.994				0.850		0.992	
Flt Protected		0.985			0.968						0.989	
Satd. Flow (prot)	0	1758	0	0	1792	0	0	1863	1583	0	1828	0
Flt Permitted		0.985			0.968						0.989	
Satd. Flow (perm)	0	1758	0	0	1792	0	0	1863	1583	0	1828	0
Link Speed (mph)		30			30				30		30	
Link Distance (ft)		134			176				2271		1543	
Travel Time (s)		3.0			4.0				51.6		35.1	
Peak Hour Factor	0.58	0.75	0.25	0.84	0.62	0.25	0.92	0.88	0.88	0.58	0.90	0.71
Adj. Flow (vph)	19	25	20	117	52	8	0	81	115	22	69	6
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	64	0	0	177	0	0	81	115	0	97	0
Sign Control		Stop			Free			Stop			Stop	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 31.5%

ICU Level of Service A

Analysis Period (min) 15

Description: Westside @ Breslauer

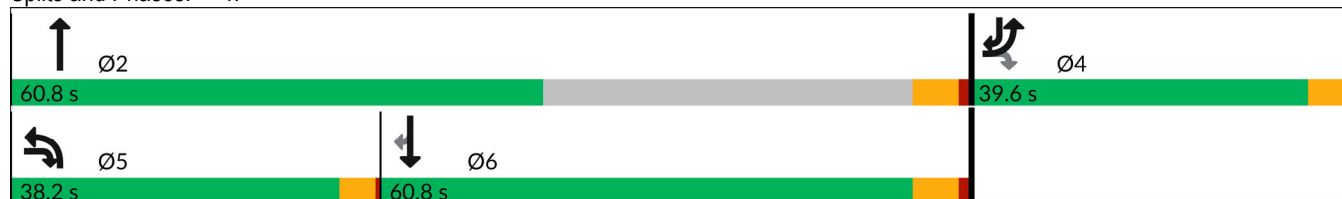
4:

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	 		 	 	 	
Traffic Volume (vph)	327	484	642	638	322	173
Future Volume (vph)	327	484	642	638	322	173
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	230	0	455			545
Storage Lanes	1	1	2			1
Taper Length (ft)	25		25			
Lane Util. Factor	0.97	1.00	0.97	0.95	0.95	1.00
Frt		0.850				0.850
Flt Protected	0.950		0.950			
Satd. Flow (prot)	3433	1583	3433	3539	3539	1583
Flt Permitted	0.950		0.950			
Satd. Flow (perm)	3433	1583	3433	3539	3539	1583
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		335				23
Link Speed (mph)	30			45	45	
Link Distance (ft)	540			1415	679	
Travel Time (s)	12.3			21.4	10.3	
Peak Hour Factor	0.92	0.77	0.92	0.92	0.89	0.89
Adj. Flow (vph)	355	629	698	693	362	194
Shared Lane Traffic (%)						
Lane Group Flow (vph)	355	629	698	693	362	194
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	24			24	24	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Number of Detectors	1	1	1	2	2	0
Detector Template						
Leading Detector (ft)	102	52	102	291	291	0
Trailing Detector (ft)	2	2	2	285	285	0
Detector 1 Position(ft)	2	2	2	2	2	2
Detector 1 Size(ft)	100	50	100	75	75	60
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Extend	Extend	Call
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	25.5	25.5	0.0
Detector 1 Delay (s)	0.0	15.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)				285	285	
Detector 2 Size(ft)				6	6	
Detector 2 Type				Cl+Ex	Cl+Ex	
Detector 2 Channel						
Detector 2 Extend (s)				0.0	0.0	
Turn Type	Prot	pm+ov	Prot	NA	NA	pm+ov
Protected Phases	4	5	5	2	6	4
Permitted Phases		4				6

4:

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Detector Phase	4	4	5	2	6	6
Switch Phase						
Minimum Initial (s)	10.0	11.0	11.0	10.0	10.0	10.0
Minimum Split (s)	14.6	15.2	15.2	15.8	15.8	14.6
Total Split (s)	39.6	38.2	38.2	60.8	60.8	39.6
Total Split (%)	28.6%	27.6%	27.6%	43.9%	43.9%	28.6%
Maximum Green (s)	35.0	34.0	34.0	55.0	55.0	35.0
Yellow Time (s)	4.1	3.7	3.7	4.8	4.8	4.1
All-Red Time (s)	0.5	0.5	0.5	1.0	1.0	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.2	4.2	5.8	5.8	4.6
Lead/Lag	Lead		Lead	Lag		
Lead-Lag Optimize?						
Vehicle Extension (s)	1.5	1.5	1.5	5.0	5.0	1.5
Minimum Gap (s)	1.5	1.5	1.5	3.0	3.0	1.5
Time Before Reduce (s)	0.0	0.0	0.0	1.5	1.5	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.1	0.1	0.0
Recall Mode	None	None	None	Min	Min	None
Act Efect Green (s)	13.8	35.5	17.0	33.1	11.7	31.5
Actuated g/C Ratio	0.24	0.62	0.30	0.57	0.20	0.55
v/c Ratio	0.43	0.57	0.69	0.34	0.50	0.22
Control Delay (s/veh)	21.1	4.9	22.5	7.3	24.7	7.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	21.1	4.9	22.5	7.3	24.7	7.2
LOS	C	A	C	A	C	A
Approach Delay (s/veh)	10.8			14.9	18.6	
Approach LOS	B			B	B	
Intersection Summary						
Area Type:	Other					
Cycle Length: 138.6						
Actuated Cycle Length: 57.6						
Natural Cycle: 50						
Control Type: Actuated-Uncoordinated						
Maximum v/c Ratio: 0.69						
Intersection Signal Delay (s/veh): 14.2				Intersection LOS: B		
Intersection Capacity Utilization 48.7%				ICU Level of Service A		
Analysis Period (min) 15						
Description: 273 @ Buenaventura						

Splits and Phases: 4:



7:

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	25	202	1015	59	196	497
Future Volume (vph)	25	202	1015	59	196	497
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	60		235	630	
Storage Lanes	1	0		1	1	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	0.95	1.00	1.00	0.95
Frt	0.881			0.850		
Flt Protected	0.994				0.950	
Satd. Flow (prot)	1631	0	3539	1583	1770	3539
Flt Permitted	0.994				0.950	
Satd. Flow (perm)	1631	0	3539	1583	1770	3539
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)	198			72		
Link Speed (mph)	30		50			50
Link Distance (ft)	420		2510			1415
Travel Time (s)	9.5		34.2			19.3
Peak Hour Factor	0.62	0.69	0.92	0.44	0.75	0.80
Adj. Flow (vph)	40	293	1103	134	261	621
Shared Lane Traffic (%)						
Lane Group Flow (vph)	333	0	1103	134	261	621
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		24			24
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Number of Detectors	1		3	0	1	2
Detector Template	Left					
Leading Detector (ft)	20		346	0	52	291
Trailing Detector (ft)	0		2	0	2	2
Detector 1 Position(ft)	0		2	4	2	2
Detector 1 Size(ft)	20		60	25	50	60
Detector 1 Type	Cl+Ex		Extend	Call	Cl+Ex	Extend
Detector 1 Channel						
Detector 1 Extend (s)	0.0		0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0		0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0		0.0	0.0	0.0	0.0
Detector 2 Position(ft)			195			285
Detector 2 Size(ft)			6			6
Detector 2 Type			Cl+Ex			Cl+Ex
Detector 2 Channel						
Detector 2 Extend (s)			0.0			0.0
Detector 3 Position(ft)			340			
Detector 3 Size(ft)			6			
Detector 3 Type			Cl+Ex			

7:

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Detector 3 Channel						
Detector 3 Extend (s)			0.0			
Turn Type	Prot		NA	Perm	Prot	NA
Protected Phases	7		6		5	2
Permitted Phases				6		
Detector Phase	7		6	6	5	2
Switch Phase						
Minimum Initial (s)	10.0		9.0	9.0	10.0	10.0
Minimum Split (s)	14.2		14.8	14.8	14.2	15.8
Total Split (s)	49.2		64.8	64.8	64.2	65.8
Total Split (%)	27.6%		36.4%	36.4%	36.0%	36.9%
Maximum Green (s)	45.0		59.0	59.0	60.0	60.0
Yellow Time (s)	3.7		4.8	4.8	3.7	4.8
All-Red Time (s)	0.5		1.0	1.0	0.5	1.0
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2		5.8	5.8	4.2	5.8
Lead/Lag			Lag	Lag	Lead	
Lead-Lag Optimize?						
Vehicle Extension (s)	5.0		3.0	3.0	3.0	5.0
Minimum Gap (s)	5.0		3.0	3.0	3.0	3.0
Time Before Reduce (s)	0.0		0.0	0.0	0.0	1.5
Time To Reduce (s)	0.0		0.0	0.0	0.0	0.1
Recall Mode	None		Min	Min	None	Min
Act Effect Green (s)	18.3		52.1	52.1	22.7	79.2
Actuated g/C Ratio	0.17		0.48	0.48	0.21	0.73
v/c Ratio	0.76		0.65	0.17	0.70	0.24
Control Delay (s/veh)	30.3		24.6	10.0	53.0	5.3
Queue Delay	0.0		0.0	0.0	0.0	0.0
Total Delay (s/veh)	30.3		24.6	10.0	53.0	5.3
LOS	C		C	B	D	A
Approach Delay (s/veh)	30.3		23.1			19.4
Approach LOS	C		C			B

Intersection Summary

Area Type: Other

Cycle Length: 178.2

Actuated Cycle Length: 108

Natural Cycle: 60

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.76

Intersection Signal Delay (s/veh): 22.7

Intersection LOS: C

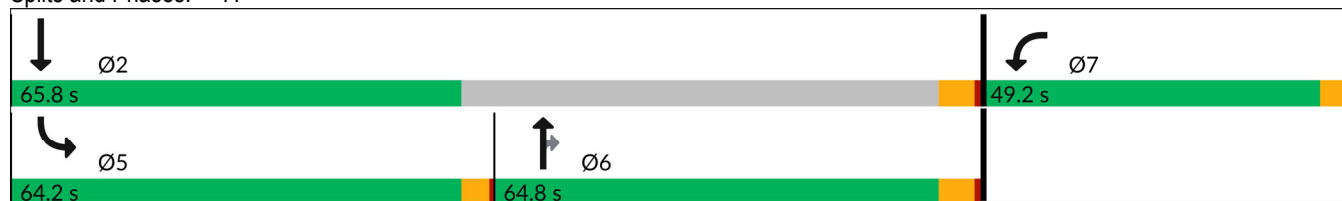
Intersection Capacity Utilization 64.6%

ICU Level of Service C

Analysis Period (min) 15

Description: 273 @ Breslauer

Splits and Phases: 7:



9:

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	55	75	13	1045	401	110
Future Volume (vph)	55	75	13	1045	401	110
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0	190			220
Storage Lanes	1	0	1			1
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	1.00
Frt	0.922					0.850
Flt Protected	0.979		0.950			
Satd. Flow (prot)	1681	0	1770	3539	3539	1583
Flt Permitted	0.979		0.950			
Satd. Flow (perm)	1681	0	1770	3539	3539	1583
Link Speed (mph)	30			50	50	
Link Distance (ft)	175			1218	2510	
Travel Time (s)	3.1			7.7	30.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	60	82	14	1136	436	120
Shared Lane Traffic (%)						
Lane Group Flow (vph)	142	0	14	1136	436	120
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	43.2%			ICU Level of Service A		
Analysis Period (min)	15					

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	44	479	28	92	605	165	55	24	170	258	28	19
Future Volume (vph)	44	479	28	92	605	165	55	24	170	258	28	19
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		355	165		210	90		90	245		280
Storage Lanes	1		0	1		1	1		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	1.00	1.00	1.00	1.00	0.95	0.95	1.00
Frt		0.992				0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950	0.961	
Satd. Flow (prot)	1770	3511	0	1770	3539	1583	1770	1863	1583	1681	1701	1583
Flt Permitted	0.950			0.950			0.950			0.950	0.961	
Satd. Flow (perm)	1770	3511	0	1770	3539	1583	1770	1863	1583	1681	1701	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		3				179			185			88
Link Speed (mph)		45			45			30			30	
Link Distance (ft)		978			540			1696			758	
Travel Time (s)		14.8			8.2			38.5			17.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	48	521	30	100	658	179	60	26	185	280	30	21
Shared Lane Traffic (%)										45%		
Lane Group Flow (vph)	48	551	0	100	658	179	60	26	185	154	156	21
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	3		1	3	0	1	1	1	1	1	1
Detector Template												
Leading Detector (ft)	102	291		77	291	0	77	102	77	102	102	52
Trailing Detector (ft)	2	155		2	155	0	2	2	2	2	2	2
Detector 1 Position(ft)	2	2		2	2	4	2	2	2	2	2	2
Detector 1 Size(ft)	100	75		75	75	20	75	100	75	100	100	50
Detector 1 Type	Cl+Ex	Extend		Cl+Ex	Extend	Call	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	25.5		0.0	25.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	15.0	0.0	0.0	15.0
Detector 2 Position(ft)		155			155							
Detector 2 Size(ft)		6			6							
Detector 2 Type		Cl+Ex			Cl+Ex							
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0							
Detector 3 Position(ft)		285			285							
Detector 3 Size(ft)		6			6							
Detector 3 Type		Cl+Ex			Cl+Ex							

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 3 Channel												
Detector 3 Extend (s)		0.0			0.0							
Turn Type	Prot	NA		Prot	NA	pm+ov	Split	NA	Perm	Split	NA	Perm
Protected Phases	5	2		1	6	4	3	3		4	4	
Permitted Phases						6			3			4
Detector Phase	5	2		1	6	6	3	3	3	4	4	4
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	7.5	30.3		7.5	28.3	29.0	28.5	28.5	28.5	29.0	29.0	29.0
Total Split (s)	27.5	44.3		38.5	44.3	37.5	37.5	37.5	37.5	37.5	37.5	37.5
Total Split (%)	17.4%	28.1%		24.4%	28.1%	23.8%	23.8%	23.8%	23.8%	23.8%	23.8%	23.8%
Maximum Green (s)	24.0	39.0		35.0	39.0	34.0	34.0	34.0	34.0	34.0	34.0	34.0
Yellow Time (s)	3.0	4.3		3.0	4.3	3.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	0.5	1.0		0.5	1.0	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	3.5	5.3		3.5	5.3	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Lead/Lag	Lead	Lag		Lead	Lag	Lead	Lag	Lag	Lag	Lead	Lead	Lead
Lead-Lag Optimize?	Yes				Yes							
Vehicle Extension (s)	1.5	2.0		1.5	2.0	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Recall Mode	None	Min		None	Min	None	None	None	None	None	None	None
Walk Time (s)		4.0			4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Flash Dont Walk (s)		21.0			19.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0
Pedestrian Calls (#/hr)		0			0	0	0	0	0	0	0	0
Act Effct Green (s)	6.4	13.7		8.4	17.4	34.2	6.9	6.9	6.9	11.0	11.0	11.0
Actuated g/C Ratio	0.12	0.25		0.15	0.32	0.63	0.13	0.13	0.13	0.20	0.20	0.20
v/c Ratio	0.23	0.62		0.36	0.58	0.17	0.27	0.11	0.51	0.45	0.45	0.05
Control Delay (s/veh)	29.8	22.9		28.7	19.2	1.5	29.5	27.5	11.0	27.2	27.1	0.3
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	29.8	22.9		28.7	19.2	1.5	29.5	27.5	11.0	27.2	27.1	0.3
LOS	C	C		C	B	A	C	C	B	C	C	A
Approach Delay (s/veh)		23.4			16.9			16.7			25.5	
Approach LOS		C			B			B			C	

Intersection Summary

Area Type: Other

Cycle Length: 157.8

Actuated Cycle Length: 54.3

Natural Cycle: 100

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.62

Intersection Signal Delay (s/veh): 20.0

Intersection LOS: C

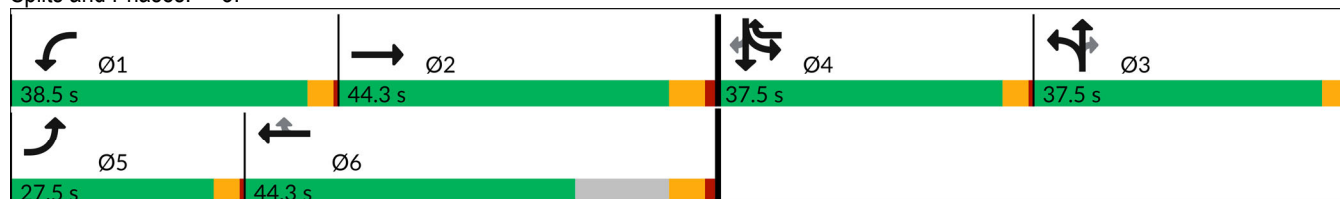
Intersection Capacity Utilization 45.7%

ICU Level of Service A

Analysis Period (min) 15

Description: Buenaventura @ Railroad

Splits and Phases: 3:



5:

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	12	27	1	189	75	4
Future Volume (vph)	12	27	1	189	75	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0	0			0
Storage Lanes	1	0	0			0
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.887				0.991	
Flt Protected	0.992					
Satd. Flow (prot)	1639	0	0	1863	1846	0
Flt Permitted	0.992					
Satd. Flow (perm)	1639	0	0	1863	1846	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	135			2505	1696	
Travel Time (s)	3.0			51.6	35.1	
Peak Hour Factor	0.58	0.25	0.92	0.88	0.90	0.71
Adj. Flow (vph)	21	108	1	215	83	6
Shared Lane Traffic (%)						
Lane Group Flow (vph)	129	0	0	216	89	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Stop	Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	20.7%			ICU Level of Service A		
Analysis Period (min)	15					

4:

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	195	625	364	365	547	247
Future Volume (vph)	195	625	364	365	547	247
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	230	0	455			545
Storage Lanes	1	2	2			1
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	0.88	0.97	0.95	0.95	1.00
Frt		0.850				0.850
Flt Protected	0.950		0.950			
Satd. Flow (prot)	1770	2787	3433	3539	3539	1583
Flt Permitted	0.950		0.950			
Satd. Flow (perm)	1770	2787	3433	3539	3539	1583
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		269				140
Link Speed (mph)	30			45	45	
Link Distance (ft)	503			1312	1197	
Travel Time (s)	11.4			19.9	18.1	
Peak Hour Factor	0.92	0.77	0.92	0.92	0.89	0.89
Adj. Flow (vph)	212	812	396	397	615	278
Shared Lane Traffic (%)						
Lane Group Flow (vph)	212	812	396	397	615	278
Turn Type	Prot	pm+ov	Prot	NA	NA	pm+ov
Protected Phases	4	5	5	2	6	4
Permitted Phases		4				6
Total Split (s)	34.6	38.2	38.2	60.8	60.8	34.6
Total Lost Time (s)	4.6	4.2	4.2	5.8	5.8	4.6
Act Effct Green (s)	19.0	39.6	15.7	48.8	28.6	53.7
Actuated g/C Ratio	0.24	0.50	0.20	0.62	0.36	0.68
v/c Ratio	0.50	0.53	0.58	0.18	0.48	0.25
Control Delay (s/veh)	32.4	10.4	34.8	7.0	21.4	2.9
Queue Delay	0.0	0.1	0.0	0.0	0.0	0.0
Total Delay (s/veh)	32.4	10.4	34.8	7.0	21.4	2.9
LOS	C	B	C	A	C	A
Approach Delay (s/veh)	15.0			20.9	15.7	
Approach LOS	B			C	B	
Queue Length 50th (ft)	86	87	88	37	114	19
Queue Length 95th (ft)	198	141	182	77	214	51
Internal Link Dist (ft)	423			1232	1117	
Turn Bay Length (ft)	230		455			545
Base Capacity (vph)	717	1571	1576	3428	2608	1300
Starvation Cap Reductn	0	83	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.30	0.55	0.25	0.12	0.24	0.21
Intersection Summary						
Area Type:	Other					
Cycle Length:	133.6					

Actuated Cycle Length: 78.8

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.58

Intersection Signal Delay (s/veh): 16.9

Intersection LOS: B

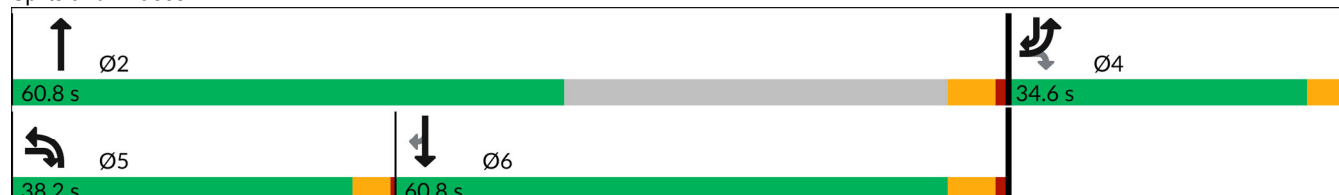
Intersection Capacity Utilization 48.5%

ICU Level of Service A

Analysis Period (min) 15

Description: 273 @ Buenaventura

Splits and Phases: 4:



Lanes, Volumes, Timings

PM Exist Cond. 273 @ Breslauer

07/24/2024

7:

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	71	12	23	30	25	150	25	524	7	126	819	123
Future Volume (vph)	71	12	23	30	25	150	25	524	7	126	819	123
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		60	0		60	410		235	630		430
Storage Lanes	0		1	0		1	1		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt			0.850			0.850			0.850			0.850
Flt Protected		0.963			0.975		0.950			0.950		
Satd. Flow (prot)	0	1794	1583	0	1816	1583	1770	3539	1583	1770	3539	1583
Flt Permitted		0.963			0.975		0.950			0.950		
Satd. Flow (perm)	0	1794	1583	0	1816	1583	1770	3539	1583	1770	3539	1583
Right Turn on Red			Yes			Yes			Yes			No
Satd. Flow (RTOR)			75			162			67			
Link Speed (mph)		30			30			50			50	
Link Distance (ft)		176			420			2260			1312	
Travel Time (s)		4.0			9.5			30.8			17.9	
Peak Hour Factor	0.89	0.50	0.75	0.62	0.57	0.69	0.69	0.92	0.44	0.75	0.80	0.68
Adj. Flow (vph)	80	24	31	48	44	217	36	570	16	168	1024	181
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	104	31	0	92	217	36	570	16	168	1024	181
Turn Type	Split	NA	Perm	Split	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	8	8		7	7		1	6		5	2	
Permitted Phases			8			7			6			2
Total Split (s)	45.2	45.2	45.2	49.2	49.2	49.2	24.7	64.8	64.8	64.2	65.8	65.8
Total Lost Time (s)		4.2	4.2		4.2	4.2	4.2	5.8	5.8	4.2	5.8	5.8
Act Effect Green (s)		16.1	16.1		14.7	14.7	11.1	37.4	37.4	17.5	48.5	48.5
Actuated g/C Ratio		0.15	0.15		0.14	0.14	0.11	0.35	0.35	0.17	0.46	0.46
v/c Ratio		0.38	0.10		0.36	0.60	0.19	0.46	0.03	0.57	0.63	0.25
Control Delay (s/veh)		48.4	0.7		53.1	23.1	57.3	29.6	0.1	54.0	26.3	22.1
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)		48.4	0.7		53.1	23.1	57.3	29.6	0.1	54.0	26.3	22.1
LOS		D	A		D	C	E	C	A	D	C	C
Approach Delay (s/veh)		37.4			32.0			30.5			29.1	
Approach LOS		D			C			C			C	
Queue Length 50th (ft)		64	0		55	33	22	133	0	102	251	68
Queue Length 95th (ft)		72	0		88	63	56	316	0	192	458	135
Internal Link Dist (ft)		96			340			2180			1232	
Turn Bay Length (ft)			60			60	410		235	630		430
Base Capacity (vph)		756	710		840	819	373	2147	986	1091	3147	1407
Starvation Cap Reductn		0	0		0	0	0	0	0	0	0	0
Spillback Cap Reductn		0	0		0	0	0	0	0	0	0	0
Storage Cap Reductn		0	0		0	0	0	0	0	0	0	0
Reduced v/c Ratio		0.14	0.04		0.11	0.26	0.10	0.27	0.02	0.15	0.33	0.13

Intersection Summary

Area Type: Other

Cycle Length: 223.4

7:

Actuated Cycle Length: 105.7

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.63

Intersection Signal Delay (s/veh): 30.3

Intersection LOS: C

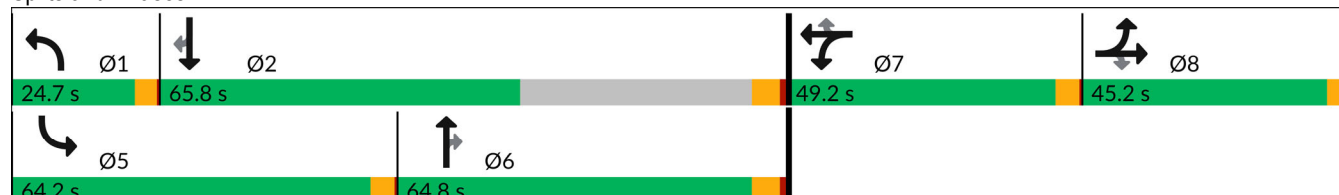
Intersection Capacity Utilization 54.0%

ICU Level of Service A

Analysis Period (min) 15

Description: 273 @ Breslauer

Splits and Phases: 7:



9:

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	50	50	12	544	773	100
Future Volume (vph)	50	50	12	544	773	100
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0	190			220
Storage Lanes	1	0	1			1
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	1.00
Frt	0.932					0.850
Flt Protected	0.976		0.950			
Satd. Flow (prot)	1694	0	1770	3539	3539	1583
Flt Permitted	0.976		0.950			
Satd. Flow (perm)	1694	0	1770	3539	3539	1583
Link Speed (mph)	30			50	50	
Link Distance (ft)	137			561	2260	
Travel Time (s)	3.1			7.7	30.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	54	54	13	591	840	109
Shared Lane Traffic (%)						
Lane Group Flow (vph)	108	0	13	591	840	109
Sign Control	Stop			Free	Free	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	33.9%			ICU Level of Service A		
Analysis Period (min)	15					

Lanes, Volumes, Timings

PM Exist Cond. Railroad @ Buenaventura

3:

07/24/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	20	310	24	110	400	100	56	22	56	200	24	200
Future Volume (vph)	20	310	24	110	400	100	56	22	56	200	24	200
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		355	100		210	90		90	245		280
Storage Lanes	1		0	1		1	1		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	1.00	1.00	1.00	1.00	0.95	0.95	1.00
Frt		0.989				0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950	0.962	
Satd. Flow (prot)	1770	3500	0	1770	3539	1583	1770	1863	1583	1681	1702	1583
Flt Permitted	0.950			0.950			0.950			0.950	0.962	
Satd. Flow (perm)	1770	3500	0	1770	3539	1583	1770	1863	1583	1681	1702	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		5				109			69			217
Link Speed (mph)		45			45			30			30	
Link Distance (ft)		971			503			1543			598	
Travel Time (s)		14.7			7.6			35.1			13.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	22	337	26	120	435	109	61	24	61	217	26	217
Shared Lane Traffic (%)										44%		
Lane Group Flow (vph)	22	363	0	120	435	109	61	24	61	122	121	217
Turn Type	Prot	NA		Prot	NA	pm+ov	Split	NA	Perm	Split	NA	Perm
Protected Phases	5	2		1	6	4	3	3		4	4	
Permitted Phases						6			3			4
Total Split (s)	27.5	44.3		27.5	44.3	37.5	37.5	37.5	37.5	37.5	37.5	37.5
Total Lost Time (s)	3.5	5.3		3.5	5.3	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Act Effect Green (s)	6.0	13.7		9.5	21.7	38.7	7.2	7.2	7.2	9.8	9.8	9.8
Actuated g/C Ratio	0.12	0.27		0.19	0.43	0.76	0.14	0.14	0.14	0.19	0.19	0.19
v/c Ratio	0.11	0.39		0.36	0.29	0.09	0.24	0.09	0.22	0.38	0.37	0.45
Control Delay (s/veh)	28.2	19.4		26.2	11.9	0.9	27.3	25.7	9.1	25.9	25.7	7.5
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	28.2	19.4		26.2	11.9	0.9	27.3	25.7	9.1	25.9	25.7	7.5
LOS	C	B		C	B	A	C	C	A	C	C	A
Approach Delay (s/veh)		19.9			12.7			19.5			17.2	
Approach LOS		B			B			B			B	
Queue Length 50th (ft)	6	50		34	40	0	18	7	0	36	35	0
Queue Length 95th (ft)	29	107		94	112	8	58	30	28	98	96	51
Internal Link Dist (ft)		891			423			1463			518	
Turn Bay Length (ft)	150			100		210	90		90	245		280
Base Capacity (vph)	958	2644		958	2672	1493	1210	1274	1104	1149	1163	1151
Starvation Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.02	0.14		0.13	0.16	0.07	0.05	0.02	0.06	0.11	0.10	0.19

Intersection Summary

Area Type: Other

Cycle Length: 146.8

Actuated Cycle Length: 51

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.45

Intersection Signal Delay (s/veh): 16.2

Intersection LOS: B

Intersection Capacity Utilization 39.3%

ICU Level of Service A

Analysis Period (min) 15

Description: Buenaventura @ Railroad

Splits and Phases: 3:

 Ø1	 Ø2	 Ø3	 Ø4
27.5 s	44.3 s	37.5 s	37.5 s
 Ø5	 Ø6		
27.5 s	44.3 s		

Lanes, Volumes, Timings

PM Exist Cond. Westside @ Breslauer

5:

07/24/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	7	15	2	131	20	1	1	92	127	17	79	14
Future Volume (vph)	7	15	2	131	20	1	1	92	127	17	79	14
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	0		135	0		0
Storage Lanes	0		0	0		0	0		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.973			0.997				0.850		0.980	
Flt Protected		0.985			0.961						0.990	
Satd. Flow (prot)	0	1785	0	0	1785	0	0	1863	1583	0	1807	0
Flt Permitted		0.985			0.961						0.990	
Satd. Flow (perm)	0	1785	0	0	1785	0	0	1863	1583	0	1807	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		134			176			2271			1543	
Travel Time (s)		3.0			4.0			51.6			35.1	
Peak Hour Factor	0.58	0.75	0.25	0.84	0.62	0.25	0.92	0.88	0.88	0.58	0.90	0.71
Adj. Flow (vph)	12	20	8	156	32	4	1	105	144	29	88	20
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	40	0	0	192	0	0	106	144	0	137	0
Sign Control		Stop			Free			Stop			Stop	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 34.3%

ICU Level of Service A

Analysis Period (min) 15

4:

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	 		 	 	 	
Traffic Volume (vph)	320	712	425	401	601	420
Future Volume (vph)	320	712	425	401	601	420
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	230	0	455			545
Storage Lanes	1	1	2			1
Taper Length (ft)	25		25			
Lane Util. Factor	0.97	1.00	0.97	0.95	0.95	1.00
Frt		0.850				0.850
Flt Protected	0.950		0.950			
Satd. Flow (prot)	3433	1583	3433	3539	3539	1583
Flt Permitted	0.950		0.950			
Satd. Flow (perm)	3433	1583	3433	3539	3539	1583
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		115				89
Link Speed (mph)	30			45	45	
Link Distance (ft)	540			1415	679	
Travel Time (s)	12.3			21.4	10.3	
Peak Hour Factor	0.92	0.77	0.92	0.92	0.89	0.89
Adj. Flow (vph)	348	925	462	436	675	472
Shared Lane Traffic (%)						
Lane Group Flow (vph)	348	925	462	436	675	472
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	24			24	24	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Number of Detectors	1	1	1	2	2	0
Detector Template						
Leading Detector (ft)	102	52	102	291	291	0
Trailing Detector (ft)	2	2	2	285	285	0
Detector 1 Position(ft)	2	2	2	2	2	2
Detector 1 Size(ft)	100	50	100	75	75	60
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Extend	Extend	Call
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	25.5	25.5	0.0
Detector 1 Delay (s)	0.0	15.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)				285	285	
Detector 2 Size(ft)				6	6	
Detector 2 Type				Cl+Ex	Cl+Ex	
Detector 2 Channel						
Detector 2 Extend (s)				0.0	0.0	
Turn Type	Prot	pm+ov	Prot	NA	NA	pm+ov
Protected Phases	4	5	5	2	6	4
Permitted Phases		4				6

4:

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Detector Phase	4	4	5	2	6	6
Switch Phase						
Minimum Initial (s)	10.0	11.0	11.0	10.0	10.0	10.0
Minimum Split (s)	14.6	15.2	15.2	15.8	15.8	14.6
Total Split (s)	39.6	38.2	38.2	60.8	60.8	39.6
Total Split (%)	28.6%	27.6%	27.6%	43.9%	43.9%	28.6%
Maximum Green (s)	35.0	34.0	34.0	55.0	55.0	35.0
Yellow Time (s)	4.1	3.7	3.7	4.8	4.8	4.1
All-Red Time (s)	0.5	0.5	0.5	1.0	1.0	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.2	4.2	5.8	5.8	4.6
Lead/Lag	Lead		Lead	Lag		
Lead-Lag Optimize?						
Vehicle Extension (s)	1.5	1.5	1.5	5.0	5.0	1.5
Minimum Gap (s)	1.5	1.5	1.5	3.0	3.0	1.5
Time Before Reduce (s)	0.0	0.0	0.0	1.5	1.5	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.1	0.1	0.0
Recall Mode	None	None	None	Min	Min	None
Act Effct Green (s)	35.4	56.1	16.1	42.5	22.2	63.4
Actuated g/C Ratio	0.40	0.63	0.18	0.48	0.25	0.72
v/c Ratio	0.25	0.88	0.74	0.26	0.76	0.41
Control Delay (s/veh)	20.1	24.9	42.5	13.5	37.0	5.4
Queue Delay	0.0	8.3	0.0	0.0	0.0	0.0
Total Delay (s/veh)	20.1	33.2	42.5	13.5	37.0	5.4
LOS	C	C	D	B	D	A
Approach Delay (s/veh)	29.6			28.4	24.0	
Approach LOS	C			C	C	

Intersection Summary

Area Type: Other

Cycle Length: 138.6

Actuated Cycle Length: 88.4

Natural Cycle: 55

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.88

Intersection Signal Delay (s/veh): 27.3

Intersection LOS: C

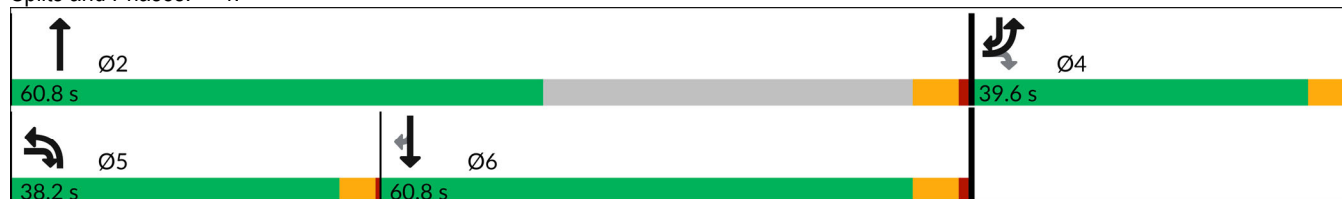
Intersection Capacity Utilization 69.0%

ICU Level of Service C

Analysis Period (min) 15

Description: 273 @ Buenaventura

Splits and Phases: 4:



7:

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	25	190	604	8	138	900
Future Volume (vph)	25	190	604	8	138	900
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	60		235	630	
Storage Lanes	1	0		1	1	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	0.95	1.00	1.00	0.95
Frt	0.882			0.850		
Flt Protected	0.994				0.950	
Satd. Flow (prot)	1633	0	3539	1583	1770	3539
Flt Permitted	0.994				0.950	
Satd. Flow (perm)	1633	0	3539	1583	1770	3539
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)	186			16		
Link Speed (mph)	30		50			50
Link Distance (ft)	420		2510			1415
Travel Time (s)	9.5		34.2			19.3
Peak Hour Factor	0.62	0.69	0.92	0.44	0.75	0.80
Adj. Flow (vph)	40	275	657	18	184	1125
Shared Lane Traffic (%)						
Lane Group Flow (vph)	315	0	657	18	184	1125
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		24			24
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Number of Detectors	1		3	0	1	2
Detector Template	Left					
Leading Detector (ft)	20		346	0	52	291
Trailing Detector (ft)	0		2	0	2	2
Detector 1 Position(ft)	0		2	4	2	2
Detector 1 Size(ft)	20		60	25	50	60
Detector 1 Type	Cl+Ex		Extend	Call	Cl+Ex	Extend
Detector 1 Channel						
Detector 1 Extend (s)	0.0		0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0		0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0		0.0	0.0	0.0	0.0
Detector 2 Position(ft)			195			285
Detector 2 Size(ft)			6			6
Detector 2 Type			Cl+Ex			Cl+Ex
Detector 2 Channel						
Detector 2 Extend (s)			0.0			0.0
Detector 3 Position(ft)			340			
Detector 3 Size(ft)			6			
Detector 3 Type			Cl+Ex			

7:



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Detector 3 Channel						
Detector 3 Extend (s)			0.0			
Turn Type	Prot		NA	Perm	Prot	NA
Protected Phases	7		6		5	2
Permitted Phases				6		
Detector Phase	7		6	6	5	2
Switch Phase						
Minimum Initial (s)	10.0		9.0	9.0	10.0	10.0
Minimum Split (s)	14.2		14.8	14.8	14.2	15.8
Total Split (s)	49.2		64.8	64.8	64.2	65.8
Total Split (%)	27.6%		36.4%	36.4%	36.0%	36.9%
Maximum Green (s)	45.0		59.0	59.0	60.0	60.0
Yellow Time (s)	3.7		4.8	4.8	3.7	4.8
All-Red Time (s)	0.5		1.0	1.0	0.5	1.0
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	0.0
Total Lost Time (s)	4.2		5.8	5.8	4.2	5.8
Lead/Lag			Lag	Lag	Lead	
Lead-Lag Optimize?						
Vehicle Extension (s)	5.0		3.0	3.0	3.0	5.0
Minimum Gap (s)	5.0		3.0	3.0	3.0	3.0
Time Before Reduce (s)	0.0		0.0	0.0	0.0	1.5
Time To Reduce (s)	0.0		0.0	0.0	0.0	0.1
Recall Mode	None		Min	Min	None	Min
Act Effect Green (s)	15.7		23.7	23.7	15.1	43.3
Actuated g/C Ratio	0.23		0.34	0.34	0.22	0.62
v/c Ratio	0.62		0.54	0.03	0.48	0.51
Control Delay (s/veh)	17.3		21.2	10.0	31.3	8.4
Queue Delay	0.0		0.0	0.0	0.0	0.0
Total Delay (s/veh)	17.3		21.2	10.0	31.3	8.4
LOS	B		C	A	C	A
Approach Delay (s/veh)	17.3		20.9			11.6
Approach LOS	B		C			B

Intersection Summary

Area Type: Other

Cycle Length: 178.2

Actuated Cycle Length: 69.6

Natural Cycle: 50

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.62

Intersection Signal Delay (s/veh): 15.1

Intersection LOS: B

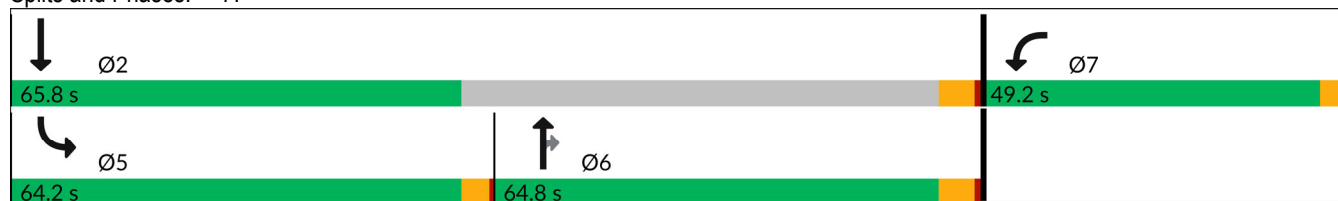
Intersection Capacity Utilization 50.0%

ICU Level of Service A

Analysis Period (min) 15

Description: 273 @ Breslauer

Splits and Phases: 7:



9:

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations				 	 	
Traffic Volume (vph)	55	78	38	598	850	110
Future Volume (vph)	55	78	38	598	850	110
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0	190			220
Storage Lanes	1	0	1			1
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	1.00
Frt	0.921					0.850
Flt Protected	0.980		0.950			
Satd. Flow (prot)	1681	0	1770	3539	3539	1583
Flt Permitted	0.980		0.950			
Satd. Flow (perm)	1681	0	1770	3539	3539	1583
Link Speed (mph)	30			50	50	
Link Distance (ft)	175			1218	2510	
Travel Time (s)	3.1			7.7	30.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	60	85	41	650	924	120
Shared Lane Traffic (%)						
Lane Group Flow (vph)	145	0	41	650	924	120
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	44.7%			ICU Level of Service A		
Analysis Period (min)	15					

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	22	345	58	244	440	110	60	30	184	220	30	220
Future Volume (vph)	22	345	58	244	440	110	60	30	184	220	30	220
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		355	165		210	90		90	245		280
Storage Lanes	1		0	1		1	1		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	1.00	1.00	1.00	1.00	0.95	0.95	1.00
Frt		0.978				0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950	0.964	
Satd. Flow (prot)	1770	3461	0	1770	3539	1583	1770	1863	1583	1681	1706	1583
Flt Permitted	0.950			0.950			0.950			0.950	0.964	
Satd. Flow (perm)	1770	3461	0	1770	3539	1583	1770	1863	1583	1681	1706	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		11				120			200			239
Link Speed (mph)		45			45			30			30	
Link Distance (ft)		978			540			1696			758	
Travel Time (s)		14.8			8.2			38.5			17.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	24	375	63	265	478	120	65	33	200	239	33	239
Shared Lane Traffic (%)										43%		
Lane Group Flow (vph)	24	438	0	265	478	120	65	33	200	136	136	239
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	3		1	3	0	1	1	1	1	1	1
Detector Template												
Leading Detector (ft)	102	291		77	291	0	77	102	77	102	102	52
Trailing Detector (ft)	2	155		2	155	0	2	2	2	2	2	2
Detector 1 Position(ft)	2	2		2	2	4	2	2	2	2	2	2
Detector 1 Size(ft)	100	75		75	75	20	75	100	75	100	100	50
Detector 1 Type	Cl+Ex	Extend		Cl+Ex	Extend	Call	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	25.5		0.0	25.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	15.0	0.0	0.0	15.0
Detector 2 Position(ft)		155			155							
Detector 2 Size(ft)		6			6							
Detector 2 Type		Cl+Ex			Cl+Ex							
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0							
Detector 3 Position(ft)		285			285							
Detector 3 Size(ft)		6			6							
Detector 3 Type		Cl+Ex			Cl+Ex							

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 3 Channel												
Detector 3 Extend (s)		0.0			0.0							
Turn Type	Prot	NA		Prot	NA	pm+ov	Split	NA	Perm	Split	NA	Perm
Protected Phases	5	2		1	6	4	3	3		4	4	
Permitted Phases						6			3			4
Detector Phase	5	2		1	6	6	3	3	3	4	4	4
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	7.5	30.3		7.5	28.3	29.0	28.5	28.5	28.5	29.0	29.0	29.0
Total Split (s)	27.5	44.3		38.5	44.3	37.5	37.5	37.5	37.5	37.5	37.5	37.5
Total Split (%)	17.4%	28.1%		24.4%	28.1%	23.8%	23.8%	23.8%	23.8%	23.8%	23.8%	23.8%
Maximum Green (s)	24.0	39.0		35.0	39.0	34.0	34.0	34.0	34.0	34.0	34.0	34.0
Yellow Time (s)	3.0	4.3		3.0	4.3	3.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	0.5	1.0		0.5	1.0	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	3.5	5.3		3.5	5.3	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Lead/Lag	Lead	Lag		Lead	Lag	Lead	Lag	Lag	Lag	Lead	Lead	Lead
Lead-Lag Optimize?	Yes				Yes							
Vehicle Extension (s)	1.5	2.0		1.5	2.0	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Recall Mode	None	Min		None	Min	None	None	None	None	None	None	None
Walk Time (s)		4.0			4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Flash Dont Walk (s)		21.0			19.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0
Pedestrian Calls (#/hr)		0			0	0	0	0	0	0	0	0
Act Effct Green (s)	5.4	12.3		15.1	27.9	44.3	7.2	7.2	7.2	10.7	10.7	10.7
Actuated g/C Ratio	0.09	0.20		0.24	0.45	0.71	0.12	0.12	0.12	0.17	0.17	0.17
v/c Ratio	0.16	0.63		0.62	0.30	0.10	0.32	0.15	0.56	0.47	0.46	0.51
Control Delay (s/veh)	35.3	28.5		29.6	13.3	1.3	34.2	31.6	12.2	32.1	31.8	8.6
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	35.3	28.5		29.6	13.3	1.3	34.2	31.6	12.2	32.1	31.8	8.6
LOS	D	C		C	B	A	C	C	B	C	C	A
Approach Delay (s/veh)		28.9			16.6			19.1			21.0	
Approach LOS		C			B			B			C	

Intersection Summary

Area Type: Other

Cycle Length: 157.8

Actuated Cycle Length: 62.2

Natural Cycle: 100

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.63

Intersection Signal Delay (s/veh): 20.7

Intersection LOS: C

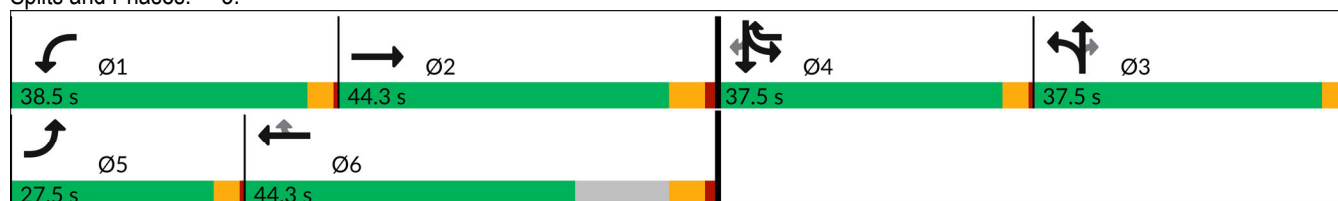
Intersection Capacity Utilization 49.5%

ICU Level of Service A

Analysis Period (min) 15

Description: Buenaventura @ Railroad

Splits and Phases: 3:



						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	24	2	1	250	225	15
Future Volume (vph)	24	2	1	250	225	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0	0			0
Storage Lanes	1	0	0			0
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.978				0.990	
Flt Protected	0.960					
Satd. Flow (prot)	1749	0	0	1863	1844	0
Flt Permitted	0.960					
Satd. Flow (perm)	1749	0	0	1863	1844	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	135			2505	1696	
Travel Time (s)	3.0			51.6	35.1	
Peak Hour Factor	0.58	0.25	0.92	0.88	0.90	0.71
Adj. Flow (vph)	41	8	1	284	250	21
Shared Lane Traffic (%)						
Lane Group Flow (vph)	49	0	0	285	271	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Stop	Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	24.0%			ICU Level of Service A		
Analysis Period (min)	15					